

### Frontage Holdings Corporation 方達控股公司\*

(Incorporated in the Cayman Islands with limited liability) Stock Code: 1521

# **GLOBAL OFFERING**

Joint Sponsors, Joint Global Coordinators and Joint Bookrunners



Joint Global Coordinators and Joint Bookrunners



A CITIC Securities Company



#### **IMPORTANT**

If you are in any doubt about any of the contents of this prospectus, you should obtain independent professional advice.



YOUR DRUG DEVELOPMENT PARTNER

#### FRONTAGE HOLDINGS CORPORATION

方達控股公司\*

(Incorporated in the Cayman Islands with limited liability)

#### **GLOBAL OFFERING**

Number of Offer Shares under the Global Offering		
Number of Hong Kong Offer Shares	:	50,192,000 Shares (subject to reallocation)
Number of International Offer Shares	:	451,718,000 Shares (subject to reallocation and the Over-allotment Option)
Maximum Offer Price	:	HK\$3.20 per Offer Share plus brokerage of 1.0%, SFC transaction levy of 0.0027% and Stock Exchange trading fee of 0.005% (payable in full on application in Hong Kong dollars and subject to refund)
Nominal value	:	US\$0.00001 per Share
Stock Code	:	1521

Joint Sponsors, Joint Global Coordinators and Joint Bookrunners





Joint Global Coordinators and Joint Bookrunners





Hong Kong Exchanges and Clearing Limited, The Stock Exchange of Hong Kong Limited and Hong Kong Securities Clearing Company Limited take no responsibility for the contents of this prospectus, make no representation as to its accuracy or completeness and expressly disclaim any liability whatsoever for any loss howsoever arising from or in reliance upon the whole or any part of the contents of this prospectus.

A copy of this prospectus, having attached thereto the documents specified in "Appendix VI — Documents Delivered to the Registrar of Companies and Available for Inspection", has been registered by the Registrar of Companies in Hong Kong as required by Section 342C of the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Chapter 32 of the Laws of Hong Kong). The Securities and Futures Commission and the Registrar of Companies in Hong Kong take no responsibility as to the contents of this prospectus or any other documents referred to above.

The Offer Price is expected to be determined by agreement between the Joint Global Coordinators (on behalf of the Underwriters) and the Company on the Price Determination Date, which is expected to be on or about Thursday, May 23, 2019 and, in any event, not later than Wednesday, May 29, 2019. The Offer Price will not be more than HK\$3.20 per Offer Share and is expected to be not less than HK\$2.55 per Offer Share, unless otherwise announced.

The Offer Shares have not been and will not be registered under the U.S. Securities Act or any state securities law in the United States and may not be offered, sold, pledged or transferred within the United States, except that Offer Shares may be offered, sold or delivered (a) in the United States solely to QIBs in reliance on Rule 144A or another exemption from, or in a transaction not subject to, the registration requirements of the U.S. Securities Act or (b) outside the United States in offshore transactions in reliance on Regulation S.

Prior to making an investment decision, prospective investors should consider carefully all of the information set out in this prospectus, including the risk factors set out in *"Risk Factors"*. The obligations of the Hong Kong Underwriters under the Hong Kong Underwriting Agreement are subject to termination by the Joint Global Coordinators (on behalf of the Underwriters) if certain grounds arise prior to 8:00 a.m. on the Listing Date. Such grounds are set out in *"Underwriting"*.

<sup>\*</sup> For identification purpose only

The Company will be relying on Section 9A of the Companies (Exemption of Companies and Prospectuses from Compliance with Provisions) Notice (Chapter 32L of the Laws of Hong Kong) and will be issuing the **WHITE** and **YELLOW** Application Forms without them being accompanied by a printed prospectus. The contents of the printed prospectus are identical to the electronic version of the prospectus which can be accessed and downloaded from the websites of the Company at **www.frontagelab.com** and the Stock Exchange at **www.hkexnews.hk** under the "*HKExnews > Listed Company Information > Latest Listed Company Information*" section, respectively.

Members of the public may obtain a copy of the printed prospectus, free of charge, upon request during normal business hours from 9:00 a.m. on Friday, May 17, 2019 until 12:00 noon on Wednesday, May 22, 2019 at the following locations:

1. any of the following branches of the receiving bank for the Hong Kong Public Offering:

	Branch Name	Address
Hong Kong Island	Shek Tong Tsui Branch	534 Queen's Road West,
		Shek Tong Tsui, Hong Kong
	Gilman Street Branch	136 Des Voeux Road Central,
		Hong Kong
Kowloon	194 Cheung Sha Wan Road	194-196 Cheung Sha Wan
	Branch	Road, Sham Shui Po,
		Kowloon
	Olympian City Branch	Shop 133, 1/F, Olympian
		City 2, 18 Hoi Ting Road,
		Kowloon
New Territories	Shatin Branch	Shop 20, Level 1, Lucky
		Plaza, 1-15 Wang Pok Street,
		Sha Tin, New Territories
	Kwai Cheong Road Branch	40 Kwai Cheong Road, Kwai
		Chung, New Territories

#### (a) Bank of China (Hong Kong) Limited

- 2. any of the following offices of the Joint Sponsors:
  - (a) Merrill Lynch Far East Limited at 55/F, Cheung Kong Center, 2 Queen's Road Central, Hong Kong; and
  - (b) Goldman Sachs (Asia) L.L.C. at 59/F, Cheung Kong Center, 2 Queen's Road Central, Hong Kong; and
- 3. the Depository Counter of HKSCC at 1/F, One & Two Exchange Square, 8 Connaught Place, Central, Hong Kong.

## Details of where printed prospectuses may be obtained will be displayed prominently at every branch of Bank of China (Hong Kong) Limited where WHITE Application Forms are distributed.

During normal business hours from 9:00 a.m. on Friday, May 17, 2019 until 12:00 noon on Wednesday, May 22, 2019, at least three copies of the printed prospectus will be available for inspection at every location where the **WHITE** and **YELLOW** Application Forms are distributed as set out in "*How to Apply for Hong Kong Offer Shares*".

#### EXPECTED TIMETABLE<sup>(1)</sup>

Hong Kong Public Offering commences and WHITE and YELLOW Application Forms available from 9:00 a.m. on Friday, May 17, 2019
Latest time for completing electronic applications under the <b>HK eIPO White Form</b> service through the designated website at <b>www.hkeipo.hk</b> <sup>(2)</sup> 11:30 a.m. on Wednesday, May 22, 2019
Application lists open <sup>(3)</sup> 11:45 a.m. on Wednesday, May 22, 2019
Latest time for (a) lodging WHITE and YELLOW Application Forms, (b) completing payment for HK eIPO White Form applications by effecting internet banking transfer(s) or PPS payment transfer(s) and (c) giving electronic application instructions to HKSCC 12:00 noon on Wednesday, May 22, 2019
Application lists close <sup>(3)</sup> 12:00 noon on Wednesday, May 22, 2019
Expected Price Determination Date Thursday, May 23, 2019
<ul> <li>(1) Announcement of the final Offer Price, the level of indications of interest in the International Offering, the level of applications in the Hong Kong Public Offering and the basis of allocations of the Hong Kong Offer Shares to be published in the South China Morning Post (in English) and the Hong Kong Economic Times (in Chinese) on or before</li></ul>
<ul> <li>(2) Results of allocations in the Hong Kong Public Offering to be available through a variety of channels as described in "How to Apply for Hong Kong Offer Shares — Publication of Results" from Wednesday, May 29, 2019</li> </ul>
<ul> <li>(3) Announcement containing (1) and (2) above to be published on the websites of the Company and the Stock Exchange at www.frontagelab.com and www.hkexnews.hk from</li></ul>
Despatch/collection of Share certificates and e-Auto Refund payment instructions/refund cheques on or before <sup>(4)</sup> Wednesday, May 29, 2019
Dealings in the Shares on the Stock Exchange expected to commence on

(1) All dates and times refer to Hong Kong dates and times.

- (2) You will not be permitted to submit your application under the HK eIPO White Form service through the designated website at www.hkeipo.hk after 11:30 a.m. on the last day for submitting applications. If you have already submitted your application and obtained a payment reference number from the designated website prior to 11:30 a.m., you will be permitted to continue the application process (by completing payment of the application monies) until 12:00 noon on the last day for submitting applications, when the application lists close.
- (3) If there is a "black" rainstorm warning signal or a tropical cyclone warning signal number 8 or above in force in Hong Kong at any time between 9:00 a.m. and 12:00 noon on Wednesday, May 22, 2019, the application lists will not open and close on that day. See "*How to Apply for Hong Kong Offer Shares*".
- (4) The Share certificates will only become valid at 8:00 a.m. on the Listing Date, which is expected to be Thursday, May 30, 2019, provided that the Global Offering has become unconditional in all respects at or before that time. Investors who trade Shares on the basis of publicly available allocation details or prior to the receipt of the Share certificates or prior to the Share certificates becoming valid do so entirely at their own risk.

For details of the structure of the Global Offering, including its conditions, and the procedures for applications for Hong Kong Offer Shares, see "Structure of the Global Offering" and "How to Apply for Hong Kong Offer Shares", respectively.

If the Global Offering does not become unconditional or is terminated in accordance with its terms, the Global Offering will not proceed. In such a case, the Company will make an announcement as soon as practicable thereafter.

Notes:

#### **IMPORTANT NOTICE TO INVESTORS**

You should rely only on the information contained in this prospectus and the Application Forms to make your investment decision. The Hong Kong Public Offering is made solely on the basis of the information contained and the representations made in this prospectus. Neither the Company nor any of the Relevant Persons has authorised anyone to provide you with any information or to make any representation that is different from what is contained in this prospectus. Any information or representation not made in this prospectus must not be relied on by you as having been authorised by the Company or any of the Relevant Persons.

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This summary is intended to provide you with an overview of the information contained in this prospectus. As it is a summary, it does not contain all the information that may be important to you. You should read the whole prospectus before you decide whether to invest in the Offer Shares. Some of the particular risks of investing in the Offer Shares are set out in "Risk Factors" and you should read that section carefully before you decide to invest in the Offer Shares.

#### **OVERVIEW**

We are a fast-growing contract research organisation ("**CRO**") providing integrated, scientifically-driven research, analytical and development services throughout the drug discovery and development process to enable pharmaceutical companies to achieve their drug development goals. We benefit greatly from having operations in both the United States and China — the two largest markets for CRO services in the world — and are well placed to capture growth opportunities in both markets. See "Industry Overview".

The services we provide in the United States include drug metabolism and pharmacokinetics, safety and toxicology, and chemistry, manufacturing and controls, in each case, throughout the drug discovery and development process. Our bioanalytical services, which are the largest source of our revenue (contributing 48.23%, 50.57% and 53.18% of our revenue for the years ended December 31, 2016, 2017 and 2018, respectively), are offered throughout the drug discovery and development process both in the United States and in China. We also provide bioequivalence and related services in China. Certain of our services are also offered to agrochemical companies.

In the United States, we are recognised as a leader (in terms of quality of service) in the CRO industry, according to Frost & Sullivan. For example, in 2018, we were awarded the CRO leadership award by "*Life Science Leader*" (a United States business journal targeted at life science executives) based on research conducted by "*Nice Insight*" (a leading United States market intelligence institution specialising in life sciences).

In China, we have successfully capitalised on the recent growth of outsourcing opportunities for CROs, having increased our revenue significantly in China from US\$7.18 million in 2016 to US\$28.45 million in 2018. This growth of outsourcing opportunities in China has been primarily driven by significant regulatory changes in China, starting in 2015. In particular, our business in China has benefitted from the introduction of the Consistency Evaluation Opinion and other regulatory changes which required pharmaceutical companies to conduct bioequivalence studies for generic drugs within a limited timeframe which, in turn, significantly increased the demand for high quality bioanalytical and bioequivalence services in the short term. See "Industry Overview - The Global Pharmaceutical Outsourcing Industry — The Pharmaceutical CRO Market in China". There can be no assurance that the regulatory changes in the China that benefitted our business during the Track Record Period will continue to benefit our business going forward or that the size of the CRO services market in China or the size of the bioanalytical and bioequivalence markets in China will increase at the rate anticipated. See also "Risk Factors - Risks Relating to Our Business and Industry - Changes in government regulations or in practices relating to the pharmaceutical or agrochemical industries could decrease the demand for the services we provide, and compliance with new laws or regulations may result in additional costs".

We believe that our "Two Countries, One System" approach differentiates us from our competitors, as it assures our customers the same quality standards in both China and the United States, while also providing our customers with a detailed and highly experienced understanding of the regulations and requirements for drug discovery and development in both countries. Given that the drugs approval requirements are technically different under the United States regulatory regime and the China regulatory regime, the precise nature of the services offered and processes employed may vary depending on our customers' specific requirements. However, our approach and commitment to delivering high quality services remains the same and we believe this is recognised as a strength by our customers. This approach enables us to be a partner of choice for companies that need support for parallel submissions with the US FDA and NMPA. For example, we have successfully supported abbreviated new drug applications (ANDA) regulatory submissions for generic drugs to the US FDA using bioanalytical and bioequivalence data generated in China. These US FDA approved ANDAs for generics are generally eligible for consistency evaluation waivers from NMPA which significantly reduces the costs of the overall drug development process, while also simultaneously accelerating the timeframe of the approval process across both countries.

We position ourselves as a value-add partner with a focus on solving our customers' most significant and complex drug discovery and development challenges. Our scientific knowledge base, technical expertise and reputation for high quality services have been integral to our ability to enter into strong long-term strategic relationships and partnerships with our key customers. Our customers include Janssen Research & Development LLC ("Janssen"), BeiGene Ltd. ("BeiGene"), Fresenius Kabi ("Fresenius Kabi"), Celgene Corporation ("Celgene"), Blueprint Medicines Corporation ("Blueprint"), Rhodes Pharmaceutical ("Rhodes") and Duke Clinical Research Institute ("Duke") in the United States and Yangzijiang Pharmaceutical Group ("Yangzijiang Pharma"), Hisun Pharmaceutical ("Hisun Pharma"), Luye Pharma Group ("Luye Pharma"), Simcere Pharmaceutical Group ("Simcere Pharma") and Chia Tai Tianqing Pharmaceutical ("Chia Tai Tianqing") in China.

Our Company's controlling shareholder, Hong Kong Tigermed Co., Limited ("Hong Kong Tigermed") is a wholly owned subsidiary of Hangzhou Tigermed Consulting Co. Ltd., ("Tigermed"). Therefore, Hong Kong Tigermed and Tigermed, as a group, are our controlling shareholders. The Listing will constitute a spin-off of the assets and businesses held by the Group from Tigermed, a company listed on the ChiNext market of the Shenzhen Stock Exchange with stock code 300347.

Tigermed and its subsidiaries (other than the Company) (the "**Tigermed Group**") is a global CRO headquartered in Hangzhou, China and is principally engaged in the provision of clinical trial services to meet the needs of pharmaceutical companies. The Tigermed Group has a leading reputation in late phase (Phases II-IV) clinical trials in China and other countries in the Asia Pacific region. Through more than 30 subsidiaries (including our Group), Tigermed and its subsidiaries have in excess of 3,000 employees globally.

There is a clear delineation between the Tigermed Group's business and our Group's business. In general, our Group's business is to provide laboratory and related services to pharmaceutical and agrochemical companies as well as bioequivalence services. The Tigermed Group's business is to provide (a) clinical trial services involving studies on humans (conducted in hospitals or clinical centres), (b) registration services for drugs or medical instruments or medical devices that have successfully completed clinical trials, (c) clinical trial support services, including site management services and (d) biometrics services.

Moreover, in the United States, the Tigermed Group has no presence other than through its interest in our Company and its majority ownership of Tigermed-BDM Inc. (which is a joint venture between us and the Tigermed Group). In China, our Group's business is to provide bioanalytical services and bioequivalence services. The Tigermed Group does not offer these bioanalytical and bioequivalence services in China.

Given this clear delineation of business and the synergies that exist between the Tigermed Group and our Group, we have a collaborative relationship with the Tigermed Group. Our strengths are complementary to the strengths of the Tigermed Group. Specifically, our relationship with the Tigermed Group allows us to offer our customers in China a comprehensive solution for clinical trial support, from Phases I through IV. In turn, Tigermed Group's customers have access to our services, particularly in relation to bioanalytical services. Our Group also has investments in two companies, Tigermed-BDM Inc. and Tigermed-Xinze (together, the "**BDM JVs**"), both of which are jointly owned by us and members of the Tigermed Group. Tigermed-BDM Inc. and Tigermed-Xinze are engaged in the business of providing biostatistics, data management and statistical programming services to our customers as well as customers of the Tigermed Group. See "*Business — Our Strategic Partnerships and Associates*" for more information.

#### **Our Services**

We offer our services primarily through our wholly owned subsidiary in the United States, Frontage Laboratories, Inc. ("**Frontage Labs**"), and our wholly owned subsidiary in China, Frontage Laboratories (Shanghai) Co., Ltd. ("**Frontage Shanghai**").

A significant majority of our revenue was contributed by pharmaceutical companies. For the years ended December 31, 2016 and 2017, our services to agrochemical customers contributed less than 2.00% of our revenue. For the year ended December 31, 2018 our services to agrochemical customers contributed less than 4.00% of our revenue.

The graphic below provides a high-level overview of the services we offer in support of the drug discovery and development process.

Discovery	Pre-clinical development	Clinical trials (phases I-III) Post approval (phase IV)
OMPK		
P PK screening and characterisation P PK/PD studies	<ul> <li>In vitro and in vivo ADME</li> <li>Metabolite ID / Profiling in difference species</li> </ul>	<ul> <li>Mass balance studies</li> <li>Metabolites in safety testing</li> <li>Drug-drug interaction studies</li> </ul>
Safety and Toxicology		
<ul> <li>Immunosafety testing</li> <li>Pharmacology assessment</li> </ul>	Regulatory / general toxicity studies     Pathology, ophthalmology and Cardiovascular safety     First-in-human IND application support     Non-GLP and GLP toxicology studies	<ul> <li>Chronic toxicity studies</li> <li>Investigative toxicology</li> <li>Carcinogenicity studies</li> <li>Toxicology support for additional indications</li> </ul>
CMC		
<ul> <li>Lead compound qualification</li> <li>Analytical testing</li> </ul>	<ul> <li>Formulation development Analytical testing</li> <li>In vitro release and product testing</li> <li>Stability testing and storage</li> <li>GLP toxicology batch manufacturing</li> </ul>	<ul> <li>CTM/GMP manufacturing</li> <li>Stability testing and storage</li> <li>Extractability studies</li> <li>Impurity identification</li> </ul>
Bioanalytical		
		Bioequivalence
		<ul> <li>Bioequivalence studies</li> <li>Related medical writing and regulatory support</li> </ul>

#### Our services in each stage of the drug discovery and development process



Services provided in China

#### **OUR FEE MODEL AND REVENUE RECOGNITION**

We generate fee income primarily on a fee-for-service (or FFS) basis for the services we provide. Under the FFS approach, we receive recurring payments in accordance with a payment schedule specified in the relevant contract or work order. Our service contracts and work orders typically include a detailed schedule that sets forth specifications of the services to be provided, the anticipated delivery time and the payment dates. A number of our work orders are for very short periods of time and may be completed in a few days or weeks.

We also generate a small proportion of our income in the United States on a full-time-equivalent (or FTE) basis. Under the FTE approach, we designate employees for the customer's projects at a fixed rate per FTE per period of time.

Revenue is recognised when, or as, obligations under the terms of a contract are satisfied, which occurs when control of the promised services is delivered to our customers. Revenue is measured as the amount of consideration we expect to receive in exchange for delivered services to a customer. See *"Financial Information — Critical Accounting Policies — Revenue Recognition"*.

#### **CUSTOMERS**

We have a diversified customer base. As at December 31, 2018, we had 466 customers to whom we were providing services from our facilities. Almost all of our customers are biotechnology and pharmaceutical companies, including leading pharmaceutical companies, such as Janssen, BeiGene, Blueprint, Fresenius Kabi, Celgene, Rhodes and Duke in the United States and the Yangzijiang Pharma, Hisun Pharma, Luye Pharma, Simcere Pharma and Chia Tai Tianqing in China. We provide services to companies of varying sizes, academic institutions and research centres. For the years ended December 31, 2016, 2017 and 2018, our top five customers accounted for 25.64%, 21.27% and 29.21% of our revenue, respectively. In terms of revenue generated in the year ended December 31, 2018, Suzhou Frontage Biotech Co., Ltd and Shanghai Frontage Biotech Co., Ltd. (the "Relevant **Companies**") (which are currently under common ownership by an independent third party but were until April 2018 wholly owned subsidiaries of Frontage Shanghai) were, together, our single largest customer as we received orders from the Relevant Companies, after their disposal, to help the Relevant Companies perform and complete existing and new customer contracts. We have a collaborative relationship with the Relevant Companies. See "Business - Customers" and "History, Reorganisation and Corporate Structure — Acquisitions, Investments and Disposals — Suzhou Frontage Biotech Co., Ltd and Shanghai Frontage Biotech Co., Ltd." However, there can be no assurance that the Relevant Companies will, together, continue to be our largest customer or if they will continue to significantly contribute to our revenue going forward. See also "Risk Factors - Risks Relating to our Business and Industry — The potential loss of multiple contracts, key customers or any of our large contracts could adversely affect our business, financial condition and results of operations."

#### **SUPPLIERS**

Given our broad range of services, we procure a wide variety of consumables and equipment, such as mass spectrometers and test tubes. We have stable relationships with many of our key suppliers, which include, as subcontractors, the 17 hospitals in China with whom we have entered into collaboration agreements so as to provide bioequivalence services in China. See "Business — Suppliers" and "Business — Subcontractors". For the years ended December 31, 2016, 2017 and 2018, our top five suppliers accounted for 22.27%, 12.63% and 12.88% of our cost of services, respectively.

#### MARKETING AND BUSINESS DEVELOPMENT

We procure business from new customers through the business development efforts of our scientists, word-of-mouth referrals by customers, and the role played by our marketing, business development and sales teams. We engage pharmaceutical and agrochemical companies through a variety of channels including direct marketing and face-to-face initiatives primarily in the United States and China. The overarching role of the marketing and business development departments is to increase our brand awareness, drive new business opportunities, help win new business and expand existing customer relationships. See "Business — Marketing and Business Development".

We also have a record of proven success in growing our customer base and increasing customer retention. See "Business — Our Strengths — Proven success in growing our customer base and increasing customer retention".

#### **OUR FACILITIES**

As of the Latest Practicable Date, we had three facilities in the United States, consisting of two facilities in Exton, Pennsylvania and one facility in Concord, Ohio as well as three facilities in China, consisting of one in Shanghai, one in Zhengzhou, Henan and one in Suzhou, Jiangsu. See "Business — Our Facilities". Each of our facilities is equipped with state-of-the-art equipment which enables us to deliver results that meet our customers' needs.

#### **Our Strengths**

Our core strengths are set out below:

- Integrated CRO operating in a large and growing market and well positioned to capitalise on strong industry growth drivers, especially in China.
- Proven ability to deliver value-add technical expertise because of our deep pool of talented scientists and world-class facilities and equipment.
- Effective quality management systems and strong track record of regulatory inspections.

- Proven success in growing our customer base and increasing customer retention.
- Strong track record of efficient and integrated delivery differentiated by flexibility.
- Highly experienced and professional management team.

#### **Our Strategies**

We intend to focus on the following strategies:

- Continue to expand capacities to meet increased demand for our services.
- Strategically extend the range of our services to offer our customers more integrated solutions through organic growth and potential acquisitions.
- Continue to capitalise on China's growing outsourcing market.
- Maintain and deepen our strong relationships with existing customers to secure new projects.
- Attract new customers and expand our customer base by leveraging our existing market position and reputation.

#### SUMMARY OF MATERIAL RISK FACTORS

There are a number of risk factors involved in our business operations, including:

- We depend on the demand for CRO services in the pharmaceutical industry, and to a lesser extent, in the agrochemical industry and the continued growth of those industries; outsourcing trends in these industries may change or fail to grow as we expect.
- The potential loss of multiple contracts, key customers or any of our large contracts could adversely affect our business, financial condition and results of operations.
- We might not realize all of the anticipated future revenue associated with our contracted future revenue.
- Our proposed expansion and enhancement of our existing facilities may not be successful.
- If we fail to effectively manage our anticipated growth or execute on our growth strategies, our business, financial condition and results of operations could suffer.
- Our success depends on our ability to attract, train, motivate and retain highly skilled scientists and other technical personnel.

- We face increasing competition and our inability to compete effectively may result in downward pricing pressure or reduced demand for our services.
- Any failure to comply with existing regulations and industry standards or any adverse actions by any regulatory authorities against us could negatively impact our business, financial condition, and results of operations.

#### **COMPETITIVE LANDSCAPE**

The global pharmaceutical CRO market is highly competitive and we expect this high level of competition to continue to increase. The 11 largest CROs by revenue accounted for 47.1% of the market share of the pharmaceutical global CRO market by revenue in 2018. We have a market share of less than 0.2% of the global pharmaceutical CRO market by revenue in 2018. We face competition from a substantial number of large, established, multinational CROs that are able to provide a range of services to meet the demands of a large number of complex and challenging projects simultaneously. We also face competition from a substantial number of smaller to medium sized CROs, both multinational and locally based, that compete for market share.

#### SUMMARY OF OUR FINANCIAL INFORMATION

#### Information on our consolidated statements of profit and loss

The following table sets forth our consolidated statements of profit or loss and other comprehensive income for the periods indicated and should be read in conjunction with the section *"Financial Information"* and the Accountants' Report set out at Appendix I to this prospectus:

	Year ended December 31,				
	2016	2017	2018 <sup>(2)</sup> (excluding Concord)	2018 <sup>(2)</sup> (including Concord)	
		(US\$ millions)			
Revenue	48.64	70.25	75.22	83.11	
Cost of services	(29.35)	(39.16)	(41.06)	(49.22)	
Gross profit	19.29	31.08	34.17	33.90	
Profit before tax	10.37	16.12	14.76	14.09	
Income tax expense	(3.13)	(5.96)	(3.18)	(2.85)	
Profit from continuing operations	7.24	10.16	11.58	11.24	
Adjusted profit from continuing operations $^{(1)}$	7.78	12.71	17.76	16.63	

Notes:

<sup>(1)</sup> See "— Summary of Financial Information — Profit from continuing operations and adjusted profit from continuing operations" and "Financial Information — Non-IFRS Measure — Adjusted profit from continuing operations".

<sup>(2)</sup> The Concord Acquisition (which we completed on April 1, 2018) had a significant impact on our results of operations for 2018.

#### Increase in revenue during the Track Record Period

The table below sets forth a breakdown of our revenue (including Concord) by type of service and geographical location of our facilities for the periods indicated.

	For the financial year ended December 31,					
	2016		2017		20	18
	US\$ millions	% of revenue	US\$ millions	% of revenue	US\$ millions	% of revenue
United States						
DMPK <sup>(1)</sup>	7.43	15.28	8.39	11.94	9.95	11.97
Safety and toxicology <sup>(1)</sup>	_	_	_	_	5.61	6.75
Bioanalytical	19.45	39.98	23.48	33.43	25.24	30.37
СМС	14.58	29.98	16.74	23.83	13.86	16.68
Sub-total <sup>(2)</sup>	41.47	85.24	48.60	69.20	54.66	65.77
China						
Bioanalytical	4.01	8.24	12.05	17.15	18.96	22.81
Bioequivalence	3.17	6.52	9.59	13.65	9.49	11.42
Sub-total	7.18	14.75	21.64	30.80	28.45	34.23
Total	48.64	100.00	70.25	100.00	83.11	100.00

Notes:

(1) With effect from April 1, 2018 (i.e. the closing date of the Concord Acquisition), we have started recording a substantial portion of the revenue from Concord under a new business segment — safety and toxicology. The remainder of Concord's revenue amounting to US\$2.94 million was included in our DMPK revenue in 2018.

(2) Excluding Concord, our revenue from our facilities in the United States was US\$46.77 million in 2018.

As a result of our focus on technical excellence and delivery of high quality services to our customers, our revenue increased by 70.87% from US\$48.64 million in 2016 to US\$83.11 million in 2018.

Our revenue grew significantly from our operations in China increasing from US\$7.18 million in 2016 to US\$28.45 million in 2018 as we successfully capitalised on the growth of outsourcing opportunities in China during this period and our enhanced visibility, growing reputation and recognition in the China market as a CRO with a reputation for high quality services. However, our revenue from bioequivalence services in China decreased slightly from US\$9.59 million in 2017 to US\$9.49 million in 2018 due in part to the transfer of our interest in in our subsidiaries, Suzhou Frontage Biotech Co., Ltd. and Shanghai Frontage Biotech Co., Ltd. in April 2018, which offset the growth in our bioequivalence revenue in China in 2018 from existing and new customers. See also "History, Reorganisation and Corporate Structure — Acquisitions, Investments and Disposals".

Our revenue from our US operations increased from US\$41.47 million in 2016 to US\$54.66 million in 2018 due to consistent growth in our revenue from bioanalytical services as well as due to the contribution of Concord to the newly created safety and toxiology business segment and DMPK services in 2018. Excluding Concord, our revenue from the United States decreased slightly from US\$48.60 million in 2017 to US\$46.77 million in 2018 primarily due to a decrease in revenue from CMC services due to a decrease in demand for CMC services in 2018. This was primarily because of a decrease in the number of new contracts signed in respect of CMC services in 2017 compared to 2016. We are now focusing an increased management attention and time on CMC services and expect that the corrective steps we are taking in respect of business development activities associated with CMC services and expansion of our capabilities to provide additional CMC services, particularly in relation to biologics (for example, cell-line generation and development testing) will support revenue growth from CMC services from existing and new customers in 2019.

#### Gross profit and gross profit margin

The following table sets forth a breakdown of our gross profit and gross profit margin by geographical location of our facilities during the Track Record Period:

	For the financial year ended December 31,								
	203	2016		2017		2018 (including Concord)		2018 (excluding Concord)	
	US\$ millions	Gross profit margin %	US\$ millions	Gross profit margin %	US\$ millions	Gross profit margin %	US\$ millions	Gross profit margin %	
United States		40.37 35.52	20.54	42.28 48.67	17.01	31.12 59.35	17.28 16.89	36.94 59.35	
Total gross profit	19.29	39.66	31.08	44.25	33.90	40.78	34.17	45.42	

Concord has reduced our overall gross profit margin. We continue to integrate Concord with the rest of our business and our management is taking steps to improve the gross profit margin of Concord.

#### Profit from continuing operations and adjusted profit from continuing operations

The following table reconciles our adjusted profit from continuing operations to the most directly comparable financial measure calculated and presented in accordance with IFRS, which is profit from continuing operations for the periods indicated. We define adjusted profit as profit for the year from continuing operations added back with listing expenses, gain on disposal of an associate, gain on disposal of subsidiaries, impairment of investment in an associate, bargain purchase gain and share based compensation expense. See also "Financial Information — Non-IFRS Measure — Adjusted profit from continuing operations".

_	Year ended December 31,					
_	2016	2017	2018 (excluding Concord)	2018 (including Concord)		
		(US\$ m	illions)			
Profit for the year from continuing operations	7.24	10.16	11.58	11.24		
Add:						
Listing expenses	_	—	6.39	6.39		
Gain on disposal of an associate	_	_	(0.44)	(0.44)		
Gain on disposal of subsidiaries	_	_	(0.14)	(0.14)		
Impairment of investment in an associate	_	1.74	_	_		
Bargain purchase gain	_	_	_	(0.79)		
Share based compensation expense	0.54	0.81	0.37	0.37		
Adjusted profit for the year	7.78	12.71	17.76	16.63		

#### Information on our consolidated balance sheets

The table below sets forth our current assets, current liabilities and net current assets for the dates indicated:

	As of December 31,				
	2016	2017	2018		
		(US\$ millions)			
Current Assets	17.54	30.33	44.19		
Current Liabilities	15.76	19.60	29.74		
Net Current Assets	1.78	10.73	14.45		

#### Information on our consolidated cash flows

The table below sets forth our net cash and cash equivalents for the dates indicated:

	Year ended December 31,			
	2016	2017	2018	
	(US\$ millions)			
Net cash generated from operating activities <sup>(1)</sup>	9.34	6.76	22.66	
Net cash used in investing activities	(7.39)	(7.04)	(11.44)	
Net cash (used in) generated from financing activities	(2.11)	1.07	1.33	
Net (decrease) increase in cash and cash equivalents	(0.16)	0.79	12.55	
Cash and cash equivalents at beginning of year	3.50	3.25	4.34	
Effects of exchange rate changes	(0.09)	0.30	(0.58)	
Cash and cash equivalents at end of year	3.25	4.34	16.31	

Note:

Our operating cash flows before movements in working capital were US\$13.45 million, US\$23.84 million and US\$17.86 million in 2016, 2017 and 2018 respectively.

#### Accumulated losses and negative reserves

As of January 1, 2016 and December 31, 2016, we had negative reserves of US\$6.96 million and US\$0.02 million respectively, which was primarily due to our accumulated losses of US\$7.62 million and US\$0.98 million as of those dates, respectively. The reason for our accumulated losses as of January 1, 2016 and December 31, 2016 was a result of a redemption of preferred shares held by Baird Capital Partners Asia and certain other investors in Frontage Labs.

In 2008, Baird Financial Corp. ("Baird"), an entity affiliated with Baird Capital Partners Asia, the Greater China-focused investment Group of Baird Private Equity and certain other investors invested US\$10.24 million in Frontage Labs in exchange for 21,776,596 preferred shares in Frontage Labs. See "History, Reorganisation and Corporate Structure - Changes in Shareholding of Frontage Labs." In view of the conversion rights and redemption rights attaching to the preferred shares, Frontage Labs designated the preferred shares as financial liabilities measured at fair-value-through-profit-or-loss category (FVTPL) in accordance with IAS 32. In 2013 and 2014, the preferred shares attributable to this investment were fully redeemed at the contractually agreed return which resulted in a payment by Frontage Labs to Baird and the other investors of US\$20 million. Baird and the other investors fully exited and ceased to be shareholders of Frontage Labs after the redemption of the preferred shares. The difference between the actual redemption amount paid to Baird and the other investors (i.e. US\$20 million) and the initial investment amount (i.e. US\$10.24 million) was approximately US\$9.76 million. This US\$9.76 million amount represented the historical change in fair value of the preferred shares which was included in the accumulated net losses of the Group as at January 1, 2016 and December 31, 2016. Our accumulated losses decreased from US\$7.62 million as of January 1, 2016 to US\$0.98 million as of December 31, 2016 due to our net profits in 2016 which offset our accumulated net losses from prior years. See also "Risk Factors - Risks Relating to our Business and Industry — We had negative reserves and accumulated losses as at January 1 and December 31, 2016".

#### **KEY FINANCIAL RATIOS**

The following table sets forth certain of our key financial ratios as of the dates for the periods indicated:

	Year ended December 31,				
	2016	2017	2018 (excluding Concord)	2018 (including Concord)	
		(%)			
Profitability ratios					
Gross profit margin <sup>(1)</sup>	39.66%	44.25%	45.42%	40.78%	
Net profit margin <sup>(2)</sup>	14.88%	14.46%	15.39%	13.52%	
Return on equity <sup>(3)</sup>	43.44%	41.51%	33.46%	30.44%	
Liquidity ratio					
Current ratio <sup>(4)</sup>	111.29%	154.74%	169.36%	148.61%	
Leverage ratio					
Gearing ratio <sup>(5)</sup>	23.91%	20.95%	(19.67%)	(17.11%)	

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Notes:

- (1) Gross profit margin is calculated using gross profit divided by revenue and multiplied by 100.00%.
- (2) Net profit margin is calculated using profit for the period from continuing operations attributable to owners of the Company divided by revenue and multiplied by 100.00%.
- (3) Return on equity is calculated using profit for the period attributable to owners of the Company divided by the average of the opening and closing balances of total equity and multiplied by 100.00%.
- (4) Current ratio is calculated using total current assets divided by total current liabilities and multiplied by 100.00%.
- (5) Gearing ratio is calculated using interest-bearing borrowings less cash and cash equivalents divided by total equity and multiplied by 100.00%. Our gearing ratio was negative as of December 31, 2018, because our cash and cash equivalents exceeded our interest-bearing borrowings as of December 31, 2018.

#### **OUR SHAREHOLDERS**

Immediately following the completion of the Global Offering and the Capitalisation Issue (assuming the Over-allotment Option is not exercised, no outstanding awards granted under the Pre-IPO Share Incentive Plans are exercised and no awards are granted under the 2018 Share Incentive Plan), Hong Kong Tigermed, an investment holding company, will directly hold 51.45% of the issued share capital of the Company. Hong Kong Tigermed is a wholly-owned subsidiary of Hangzhou Tigermed. Hangzhou Tigermed does not have any shareholder who controls more than 50.00% of its voting rights. Accordingly, Hangzhou Tigermed and Hong Kong Tigermed, as a group, are the Controlling Shareholders of the Company.

We have shareholders whose holding in the Company resulted from investments made since March 2018 (the "**Pre-IPO Investors**"). In March 2018, HH RSV FTL Holdings Limited, Southern Creation Limited, Oriental Spring Holdings Limited, QM98 Limited and relevant existing shareholders of Frontage Labs separately entered into stock purchase agreements pursuant to which these four Pre-IPO Investors purchased 8,985,386 existing shares of common stock of Frontage Labs. As a result of the share exchange and merger which took effect on April 17, 2018, Frontage Labs became a wholly-owned subsidiary of the Company, and these four Pre-IPO Investors became shareholders of the Company. In April and May 2018, Teng Yue Partners RDLT, LP, Harmony Sky Capital Limited, OrbiMed Global Healthcare Master Fund, L.P. and relevant shareholders of the Company separately entered into stock purchase agreements pursuant to which these three Pre-IPO Investors purchased 4,503,775 existing shares of the Company. As all of the Pre-IPO Investors purchased existing shares in either Frontage Labs or the Company, the Group did not receive any proceeds from the Pre-IPO Investments. Any equity securities of the Company held by the Pre-IPO Investors as at the Listing Date will be subject to a lock-up period of six months from the Listing Date.

Other than their shareholding interest in the Company and as otherwise disclosed in "*History, Reorganisation and Corporate Structure*", the Pre-IPO Investors and their respective ultimate beneficial owners are independent from the Group and the connected persons of the Company.

#### THE REORGANISATION

In preparation for the Listing, the following reorganisation steps (the "**Reorganisation**") were implemented: (i) the Company was incorporated in the Cayman Islands on April 16, 2018 and (ii) the Company effected a share exchange and merger which took effect on April 17, 2018 pursuant to which Frontage Labs has become a wholly-owned subsidiary of the Company and Frontage Labs has assigned, and the Company has assumed, the rights and obligations of Frontage Labs under the 2015 Share Incentive Plan and the 2008 Share Incentive Plan. See "*History, Reorganisation and Corporate Structure — The Reorganisation*".

The Listing will constitute a spin-off of the assets and businesses held by the Group from Tigermed, a Controlling Shareholder and a company listed on the ChiNext market of the Shenzhen Stock Exchange with stock code 300347. See "History, Reorganisation and Corporate Structure — Spin-off and Separate Listing from Hangzhou Tigermed" and "Relationship with the Controlling Shareholders".

#### **RECENT DEVELOPMENTS**

Since the end of the Track Record Period and up to the date of this prospectus, we have experienced revenue growth and are beginning to see the results of the increased management attention and focus on business development activities, particularly in the United States.

As at the Latest Practicable Date, we had signed 569 new contracts since December 31, 2018 (as compared with 1,581 contracts in 2018). The average size of these contracts was approximately US\$79,000.

Of our contracted future revenue of US\$73.67 million as of December 31, 2018 (and on the assumption that we will realise all of our anticipated future revenue associated with our contracted future revenue), we expect to recognise US\$39.29 million in revenue in the first six months of 2019 and US\$34.38 million in subsequent periods.

Our Directors confirm that, having performed reasonable due diligence on the Group, since December 31, 2018 and up to the date of this prospectus, there have been no material adverse change in our financial or trading position.

#### **FUTURE PLANS**

We intend to (i) expand the scale of our operations by continuing to expand our capacities to pursue opportunities from the anticipated increase in the demand for our services, (ii) strategically extend the range of our capabilities organically, and (iii) expand both our capacities and capabilities through the potential acquisition, or making investments or entering into join ventures with companies and/or businesses providing similar or complementary services. See "Business — Our Strategies" for a detailed description of our future plans and strategies and "Future Plans and Use of Proceeds" for a discussion of our intended use of the net proceeds from the Global Offering in pursuit of our future plans.

We believe that our expansion plan will enable us to capture new business opportunities to meet the increased demand for our services in addition to industry drivers are specific to us because of our focus on quality and technical excellence, which enables us to solve complex scientific challenges and form strong, long-term partnerships with our customers. It is our emphasis on quality and technical excellence that, we believe, will enable us to capitalise on the strong growth drivers in the markets in which we operate. Historically, we believe that our business growth has been driven by our focus on quality and technical excellence. In our discussions with our existing and prospective customers, we emphasise this approach on quality and technical excellence and seek to position ourselves as a value-add partner with the ability to understand and solve complex scientific challenges (such as challenges in drug formulation, data interpretation and bioanalysis). We believe that this approach has distinguished us from some of our competitors who focus instead on offering a variable-cost alternative to their customers' internal product development functions and supporting their customers on their more routine work. See also "Business — Our Strengths" for further details.

#### **USE OF PROCEEDS**

The Company intends to use the net proceeds of HK\$1,361.23 million, assuming an Offer Price of HK\$2.88 (being the mid-point of the Offer Price Range), from the Global Offering (assuming the Over-allotment Option is not exercised) as follows:

- approximately HK\$272 million (or approximately 20% of the net proceeds) will be used to enhance and expand our existing capacities to meet the anticipated increased demand for our services. Specifically, we expect to use approximately HK\$81 million for the enhancement and expansion of our facilities located in the United States and approximately HK\$46 million on the renovation of a new facility located in China to deliver on expected demand. We also expect to use approximately HK\$39 million to enhance our systems, processes and applications for our Group's operations across the United States and China and approximately HK\$106 million to purchase new equipment and technologies for our facilities and on recruiting additional scientists in both the United States and China. See "Business – Our Strategies – Continue to expand capacities to meet increased demand for our services";
- approximately HK\$545 million (or approximately 40% of the net proceeds) will be used to expand and broaden our range of capabilities and services organically. We expect to use approximately HK\$176 million in the United States and approximately HK\$369 million in China. Specifically, we expect to expand our range of services for safety and toxicology studies, expand our bioanalytical service offering in both the United States and China and to expand our CMC service offering in the United States. See "Business Our Strategies Strategically extend the range of our services to offer our customers more integrated solutions through organic growth and potential acquisitions";

• approximately HK\$408 million (or approximately 30% of the net proceeds) will be used to expand our capacity and/or capabilities through potential acquisitions of companies and/or businesses providing relevant services that we identify as attractive based on our future expansion plan and analysis of the relevant market dynamics, strategic alliances as well as additional investments in our existing associates. Such acquisitions, alliances or investments will be to expand our capacity to meet the anticipated increased demand for our services, or to expand and broaden our range of capabilities or a combination of both;

See "Business — Our Strategies — Strategically extend the range of our services to offer our customers more integrated solutions through organic growth and potential acquisitions"; and

• approximately HK\$136 million (or approximately 10% of the net proceeds) will be used for working capital and general corporate purposes including, in particular, to enhance our systems, operations, and processes across our business.

See "- Future Plans and Use of Proceeds".

#### DIVIDENDS

Our Company currently does not have any dividend policy. Our Board may declare dividends in the future after taking into account our results of operations, financial condition, cash requirements and availability and other factors as it may deem relevant at such time. No dividend shall be declared or payable except out of our profits and reserves lawfully available for distribution. Our future declarations of dividends may or may not reflect our historical declarations of dividends and will be at the absolute discretion of our Board. We expect that any dividends will be paid in US dollars. See "- Certain US Federal Income and Estate Tax Considerations" below for a discussion of the US Federal tax implications with respect to payments of dividends on our Shares and the related withholding tax.

#### **REASONS FOR THE SPIN-OFF AND LISTING**

The spin-off and Listing will enable investors to appraise the business, prospects, and strategies of the Group independently from that of the Tigermed Group. Given the clear delineation between the Tigermed Group's business and our Group's business, the Directors have determined that our Group's risk and return profile and business strategies for growth are very different to that of the Tigermed Group. The spin-off and Listing will offer investors the opportunity to invest in a fast-growing CRO (providing laboratory and related services and bioequivalence services) with operations in both the United States and China — the two largest markets for CRO services in the world as compared to an investment in the Tigermed Group which is more focused on providing clinical trial services, registration services for drugs or medical instruments or medical devices that have successfully completed clinical trials and clinical trial support services principally in China, Korea, Japan, Malaysia, Singapore and India.

Our Directors believe that the Listing is strategically important to the long-term growth of our Group as it will help promote our reputation, strengthen our competitiveness, enable us to capture more business opportunities, access a more diversified and international shareholder base and provide us additional avenues to raise capital.

The Listing will enhance our reputation by providing us with a standalone listed group platform to directly engage with investors and customers. Reputation and credibility are major factors that customers consider when assessing our suitability for outsourcing work. Our Directors believe that the Listing will enhance our credibility, reputation and our bargaining power with our customers, suppliers and potential business partners. The Listing will also improve our ability to recruit, motivate and retain our pool of talented scientists and management personnel. The Listing will also facilitate the implementation of our growth strategy, including by enabling us to expand our capacity to meet the anticipated increased demand of our services from both existing and new customers and by enabling us to extend our range of services so that we can better serve both our existing and new customers.

Furthermore, we believe that the Listing will enable us to better position ourselves as a fast-growing CRO that intends to capitalise on China's growing outsourcing market, particularly given Hong Kong's proximity to our markets in China, which is key to our continued growth.

#### LISTING EXPENSES

Our listing expenses mainly include underwriting fees and commissions and professional fees paid to legal, accounting and other advisors for their services rendered in relation to the Listing and the Global Offering. Assuming full payment of the discretionary incentive fee, the estimated total listing expenses (based on the mid-point of the Offer Price Range and assuming that the Over-allotment Option is not exercised) for the Global Offering are approximately HK\$134.39 million. We incurred listing expenses of HK\$67.43 million in 2018, including HK\$50.12 million that has been expensed through the statement of profit or loss and HK\$17.31 million that has been deferred as issue costs on the statement of financial position as of December 31, 2018. We expect to incur additional listing expenses of HK\$66.96 million in connection with the Global Offering, of which an estimated amount of HK\$60.78 million is expected to be expensed through the statement of profit or loss and the remaining amount of HK\$60.20 million is expected to be recognised directly as a deduction from equity upon the Listing.

#### **GLOBAL OFFERING STATISTICS**

	Based on the Offer Price of HK\$2.55	Based on the Offer Price of HK\$2.88	Based on the Offer Price of HK\$3.20
Market capitalisation of our Shares at Listing (HK\$ million) <sup>(1)</sup>	HK\$5,119.48	HK\$5,782.01	HK\$6,424.45
Unaudited pro forma adjusted consolidated net tangible asset value per Share <sup>(2)</sup>	HK\$0.77	HK\$0.85	HK\$0.93

Notes:

(1) The calculation of the market capitalisation of our Shares is based on 2,007,640,910 Shares expected to be in issue immediately following the completion of the Global Offering and the Capitalisation Issue (assuming the Over-allotment Option is not exercised, no outstanding awards granted under the Pre-IPO Share Incentive Plans are exercised and no awards are granted under the 2018 Share Incentive Plan).

(2) Please refer to "Appendix II – Unaudited Pro Forma Financial Information".

#### CERTAIN US FEDERAL INCOME AND ESTATE TAX CONSIDERATIONS

The following summary applies to a "Non-US Holder" (as defined in "Appendix III — Certain US Federal Income and Estate Tax Considerations") of the Offer Shares. This summary is based on current US federal income and estate tax laws and is not intended to be, and should not be construed as, legal or tax advice to any prospective investor. A more detailed summary of certain US federal income and estate tax considerations relating to the ownership and disposition of Offer Shares by a Non-US Holder is set out in "Appendix III — Certain US Federal Income and Estate Tax Considerations".

#### Status of the Company as a US Tax Resident

As discussed more fully in "Appendix III — Certain US Federal Income and Estate Tax Consideration", the Company expects that, even though the Company is incorporated in the Cayman Islands, the Company will be considered an "inverted corporation" as a result of the Reorganisation and, therefore, will be treated as a domestic US corporation for US federal income tax purposes pursuant to Section 7874(b) of the US Internal Revenue Code of 1986, as amended (the "Code"). Accordingly, the Company should generally be subject to US federal corporate income tax as if it were a domestic US corporation organised under the laws of the United States or its political subdivisions.

As a further result of the Company being treated as a domestic US corporation, the gross amount of dividends on the Offer Shares will be treated as from US-source and dividends paid to a Non-US Holder will be subject to withholding of US federal income tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder's country of residence. A Non-US Holder that claims the benefit of an applicable income tax treaty

between the United States and such holder's country of residence generally will be required to certify its entitlement to benefits under such treaty, generally on a properly completed IRS Form W-8BEN or W-8BEN-E (as applicable). However, it should be noted that, at the present time, no mechanism is available through the trading, settlement, and security transferring facilities in Hong Kong for holders to provide to the Company or the applicable withholding agent the certifications required by applicable US Treasury regulations to receive the benefit of any lower applicable treaty withholding tax rate. Accordingly, the Company expects that US federal income tax withholding at a 30.00% rate will be made from all dividends. A Non-US Holder generally will not be subject to US federal income or withholding tax on any gain recognised on a disposition of Offer Shares unless certain conditions are met.

In addition, as a result of the Company being treated as a domestic US corporation, withholding tax at a 30% rate may be imposed in certain circumstances on payments of (i) dividends on the Offer Shares and (ii) on or after January 1, 2019, gross proceeds from the sale or other disposition of the Offer Shares. Such withholding tax generally will not apply if a Non-US Holder provides required information and withholding certificates and, in the case of a Non-US Holder that is a "foreign financial institution" (such as a bank, a broker, an investment fund or, in certain cases, a holding company), complies with certain information and reporting requirements. See "Appendix III — Foreign Account Tax Compliance Act" for a discussion of the information and reporting obligations that apply to Non-US Holders.

As a further result of the Company being treated as a domestic US corporation, Offer Shares that are owned or treated as owned by an individual Non-US Holder at the time of death will be included in the individual Non-US Holder's gross estate for US federal estate tax purposes, unless an applicable estate tax or other treaty provides otherwise and, therefore, may be subject to US federal estate tax. In this regard, individual Non-US Holders should be aware that the United States has not entered into an estate tax treaty or other treaty applicable to estate tax with Hong Kong and certain other countries.

#### **RESPONSIBILITY STATEMENT AND FORWARD LOOKING STATEMENTS**

#### DIRECTORS' RESPONSIBILITY FOR THE CONTENTS OF THIS PROSPECTUS

This prospectus, for which the Directors collectively and individually accept full responsibility, includes particulars given in compliance with the Companies (Winding Up and Miscellaneous Provisions) Ordinance, the Securities and Futures (Stock Market Listing) Rules (Chapter 571V of the Laws of Hong Kong) and the Listing Rules for the purpose of giving information to the public with regard to the Group.

The Directors, having made all reasonable enquiries, confirm that to the best of their knowledge and belief the information contained in this prospectus is accurate and complete in all material respects and not misleading or deceptive, and there are no other matters the omission of which would make any statement herein or this prospectus misleading.

#### FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements. All statements other than statements of historical fact contained in this prospectus, including, without limitation:

- (a) the discussions of our business strategies, objectives and expectations regarding our future operations, margins, profitability, liquidity and capital resources;
- (b) any statements concerning the future development of, and trends and conditions in, the pharmaceutical industry and the general economy of the countries in which we operate or plan to operate;
- (c) any statements concerning our ability to control costs;
- (d) any statements concerning the nature of, and potential for, the future development of our business; and
- (e) any statements preceded by, followed by or that include words and expressions such as "expect", "believe", "plan", "intend", "estimate", "forecast", "project", "anticipate", "seek", "may", "will", "ought to", "would", "should" and "could" or similar words or statements,

as they relate to the Group or our management, are forward-looking statements.

#### **RESPONSIBILITY STATEMENT AND FORWARD LOOKING STATEMENTS**

These statements are based on assumptions regarding our present and future business, our business strategies and the environment in which we will operate. These forward-looking statements reflect our current views as to future events and are not a guarantee of our future performance. Forward-looking statements are subject to certain known and unknown risks, uncertainties and assumptions, including the risk factors described in "*Risk Factors*". Important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by these forward-looking statements include, among other things, the following:

- our operations and business prospects;
- developments in our business strategies and business plans;
- future developments, demand and price trends and other conditions in the global pharmaceutical outsourcing market;
- prevailing economic conditions in the markets where our services are provided;
- our relationships with our customers and our ability to negotiate favourable agreement terms;
- effectiveness of our quality control systems;
- developments of our competitors and other competitive pressures within the industry in which we operate; and
- regulatory changes affecting, among other things, the pharmaceutical industry, accounting standards and taxes.

Subject to the requirements of applicable laws, rules and regulations, we do not have any obligation, and undertake no obligation, to update or otherwise revise the forward-looking statements in this prospectus, whether as a result of new information, future events or developments or otherwise. As a result of these and other risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this prospectus might not occur in the way we expect or at all. Accordingly, you should not place undue reliance on any forward-looking information. All forward-looking statements contained in this prospectus are qualified by reference to the cautionary statements set out in this section as well as the risks and uncertainties discussed in "*Risk Factors*".

In this prospectus, statements of or references to our intentions or that of any of the Directors are made as at the date of this prospectus. Any of these intentions may change in light of future developments.

#### INFORMATION ABOUT THIS PROSPECTUS AND THE GLOBAL OFFERING

#### THE HONG KONG PUBLIC OFFERING AND THIS PROSPECTUS

The Company has issued this prospectus solely in connection with the Hong Kong Public Offering and the Hong Kong Offer Shares. This prospectus does not constitute an offer to sell or a solicitation of an offer to buy any securities other than the Hong Kong Offer Shares offered by this prospectus pursuant to the Hong Kong Public Offering. This prospectus may not be used for the purpose of, and does not constitute, an offer or invitation in any other jurisdiction or in any other circumstances.

Each person acquiring the Hong Kong Offer Shares under the Hong Kong Public Offering will be required to, or be deemed by his acquisition of the Shares to, confirm that he is aware of the restrictions on offers and sales of the Shares described in this prospectus and the relevant Application Forms.

No action has been taken to permit a public offering of the Offer Shares in any jurisdiction other than Hong Kong and no action has been taken to permit the distribution of this prospectus in any jurisdiction other than Hong Kong. The distribution of this prospectus and the offering and sale of the Offer Shares in other jurisdictions are subject to restrictions and may not be made except as permitted under the applicable securities laws of such jurisdictions pursuant to registration with or authorisation by the relevant securities regulatory authorities or an exemption therefrom.

You should only rely on the information contained in this prospectus and the Application Forms to make your investment decision. Neither the Company nor any of the Relevant Persons has authorised anyone to provide you with any information or to make any representation that is different from what is contained in this prospectus. No representation is made that there has been no change or development reasonably likely to involve a change in the Group's affairs since the date of this prospectus or that the information contained in this prospectus is correct as at any date subsequent to its date.

#### APPLICATION FOR LISTING ON THE STOCK EXCHANGE

An application has been made to the Listing Committee of the Stock Exchange for the listing of, and permission to deal in, the Shares in issue and to be issued pursuant to the Global Offering (including the exercise of the Over-allotment Option) and the Capitalisation Issue and the Shares to be issued pursuant to the awards granted under the Pre-IPO Share Incentive Plans and the awards to be granted under the 2018 Share Incentive Plans on the Main Board of the Stock Exchange.

Dealings in the Shares on the Stock Exchange are expected to commence on May 30, 2019.

Save as disclosed in this prospectus, no part of our share or loan capital is listed on or dealt in on any other stock exchange and no such listing or permission to list is being or proposed to be sought on the Stock Exchange or any other stock exchange as of the date of this prospectus. All the Offer Shares will be registered on the Hong Kong share register of the Company in order to enable them to be traded on the Stock Exchange.

#### INFORMATION ABOUT THIS PROSPECTUS AND THE GLOBAL OFFERING

Under section 44B(1) of the Companies (Winding Up and Miscellaneous Provisions) Ordinance, any allotment made in respect of any application will be invalid if the listing of, and permission to deal in, the Shares on the Stock Exchange is refused before the expiration of three weeks from the date of the closing of the application lists, or such longer period (not exceeding six weeks) as may, within the said three weeks, be notified to the Company by or on behalf of the Stock Exchange.

All necessary arrangements have been made to enable the securities to be admitted into CCASS.

#### PROFESSIONAL TAX ADVICE RECOMMENDED

Potential investors in the Global Offering are recommended to consult their professional advisers as to the taxation implications of subscribing for, purchasing, holding or disposal of, and/or dealing in the Shares or exercising rights attached to them. Neither the Company nor any of the Relevant Persons accepts responsibility for any tax effects on, or liabilities of, any person resulting from the subscription, purchase, holding, disposition of, or dealing in, the Shares or exercising any rights attached to them.

#### LANGUAGE

If there is any inconsistency between this prospectus and the Chinese translation of this prospectus, this prospectus shall prevail. Names of any laws and regulations, governmental authorities, institutions, natural persons or other entities which have been translated into English and included in this prospectus and for which no official English translation exists are unofficial translations for your reference only.

An investment in the Shares involves a high degree of risk. Prospective investors should carefully consider the following risk factors, together with all other information contained in this prospectus, before deciding whether to invest in the Shares. If any of the following events occur or if these risks or any additional risks not currently known to management or which it now deems immaterial risks materialise, the business, financial condition, results of operations and/or the Company's ability to meet its financial obligations could be materially and adversely affected. The market price of the Shares could fall significantly due to any of these events or risks (or additional risks) and you may lose all or part of your investment. The order in which the following risks are presented does not necessarily reflect the likelihood of their occurrence or the relative magnitude of their potential material adverse effect on our business, financial condition and results of operation.

We believe that there are certain risks involved in our operations, many of which are beyond our control. We have categorized these risks and uncertainties into: (i) risks relating to our business and industry, (ii) risks relating to conducting business in China and (iii) risks relating to the Global Offering. Additional risks and uncertainties presently not known to us or not expressed or implied below or those we currently deem immaterial could also harm our business, financial condition and results of operations. You should consider our business and prospects in light of the risks we face, including the ones discussed in this section.

#### 1. RISKS RELATING TO OUR BUSINESS AND INDUSTRY

We depend on the demand for CRO services in the pharmaceutical industry, and to a lesser extent, in the agrochemical industry and the continued growth of those industries; outsourcing trends in these industries may change or fail to grow as we expect.

The success of our business depends primarily on the number and size of service contracts with our customers, which are primarily pharmaceutical companies. Certain of our customers are agrochemical companies. Over the past several years, we have benefitted from an increased demand for our services primarily as a result of the continued growth of the pharmaceutical industry, increasing research and development expenditure of our customers and a greater degree of outsourcing by our customers. See "Industry Overview".

Economic factors and industry trends that affect our customers affect our business. Although the global pharmaceutical and agrochemical industries are expected to continue to grow driven by ageing populations, high levels of disposable income and spending on healthcare, there can be no assurance that these industries will continue to grow at rates we expect or at all. See also "*Industry Overview*". At present, pharmaceutical and agrochemical companies seek to collaborate with CROs with scientific expertise and favourable pricing terms. Our customers' demand for our outsourcing services is subject to, among other things, their own financial performance, their decisions to acquire or develop in-house research and development capacity, their spending priorities, their budgetary policies and practices, the regulatory environment, and their desire to develop new products. In addition, changes in government policy may affect our customers' research and development spending, which in turn could have an impact on their demand for CRO services. Any reduction in research and development spending to projects which we are not competitive for, may adversely impact the demand for our services.

#### **RISK FACTORS**

We may also be negatively impacted by consolidation and other factors in the pharmaceutical industry, which may slow decision making by our customers or result in the reduction, delay or cancellation of services they outsource to CROs. If the pharmaceutical or agrochemical industries reduce the services they outsource to CROs or such outsourcing fails to grow at projected rates, our business, financial condition and results of operations could be materially and adversely affected.

## The potential loss of multiple contracts, key customers or any of our large contracts could adversely affect our business, financial condition and results of operations.

Most of our customers can terminate our contracts at any time or upon written notice of 60 days or less, under the terms of the relevant service agreements. Our customers may delay, terminate or reduce the scope of contracts for our services for a variety of reasons beyond our control, including but not limited to:

- decisions to forego or terminate a particular project;
- lack of available financing, budgetary limits or changing priorities;
- actions by regulatory authorities against us or our customers, or changes to regulatory requirements;
- failure of products to satisfy applicable safety requirements or efficacy criteria;
- adverse or unexpected data results for products;
- decisions to shift business to one of our competitors or carry out the work in house; and
- release of a drug by any competitor of our customer that is sufficiently similar to the drug compound under development by our customer, thereby diminishing the overall market share available for what would otherwise have been a first-to-market drug.

As a result, contract terminations and/or delays and alterations may occur in the future in the normal course of our business. If a customer terminates a work order or contract without cause, typically we are only entitled to service fees earned up to the date of termination and costs already incurred or irrevocably committed.

In addition, we derived a substantial portion of our revenue from a relatively small number of customers during the Track Record Period and expect to continue to do so in the future. For the years ended December 31, 2016, 2017 and 2018, our top five customers accounted for 25.64%, 21.27% and 29.21% of our revenue, respectively. As a result, the loss or delay of multiple contracts or a large contract or a significant reduction in spending for our services by our key customers could adversely affect our business, financial condition and results of operations. See "*Business — Customers*".

## We might not realize all of the anticipated future revenue associated with our contracted future revenue.

Our contracted future revenue of US\$73.67 million as of December 31, 2018, represents, at such particular point in time, future service revenues from work not yet completed or performed but which has been committed to under signed contracts (that may be terminated by a customer at any time) or a customer's work order. See "Business — Our Fee Model and Ongoing Projects — Contracted Future Revenue". Once we begin work on a project, revenue is recognised over the duration of the project. See "Financial Information — Critical Accounting Policies — Revenue Recognition". Projects may be terminated or delayed by the customer or delayed for reasons beyond our control. To the extent projects are delayed, the timing of our revenue and the final period within which it is recognised could be affected. In the event that a customer cancels a contract, we typically would be entitled to receive payment for all services performed and costs already incurred or irrevocably committed up to the cancellation date only. Typically, however, we have no contractual right to the full amount of the revenue reflected in our contracted future revenue in the event of a contract cancellation. Our contracted future revenue may not be indicative of our future results, and we may not realize all the anticipated future revenue, including:

- the size, complexity and duration of the projects;
- the cancellation or delay of projects (which might result from the quality of our work, our reputation or other factors); and
- change in the scope of work during the course of a project.

Fluctuations in our reported contracted future revenue levels also result from the fact that we may receive a small number of relatively large orders in any given reporting period that may be included in our contracted future revenue. Because of these large work orders, our contracted future revenue in that reporting period may reach levels that may not be sustained in subsequent reporting periods. Additionally, delayed projects will remain in contracted future revenue and will not generate revenue at the rate originally anticipated in the financial period expected. Thus, the relationship of contracted future revenue to realized revenues may vary. Any failure of contracted future revenue to convert may have an adverse effect on our business, financial condition and results of operations.

## A payment delay or failure by any of our large customers could significantly harm our cash flows and profitability.

We generally grant our customers credit terms of 30 to 90 days. As of December 31, 2016, 2017 and 2018, our trade receivables (net of loss allowance for trade receivables) were US\$6.83 million, US\$10.80 million and US\$14.60 million, respectively. If any of our large customers' business, financial condition or results of operations deteriorate, it may be unable, or it may otherwise be unwilling, to pay trade receivables owed to us promptly or at all. Moreover, we are also subject to

#### **RISK FACTORS**

credit risk arising from unbilled revenue or the risk that a Group's customer may not pay in accordance with the terms of the agreed payment schedule once the amount has been billed. Any substantial default or delay of a customer's payment obligations may materially and adversely affect our business, financial condition and results of operations.

## Any deterioration in the performance of our partnerships and collaborations could have an adverse impact on our business, financial condition and results of operations.

We currently have strategic partnerships with a number of third parties, including TigerMed. Our strategic partnerships are with Frontage Clinical Services, Inc. (in which we have a 11.91% equity interest), Frontage Laboratories (Suzhou) Co., Ltd. ("Frontage Suzhou") (in which we have a 49.04% equity interest), Tigermed-BDM, Inc. and Tiger-Xinze Medical Technology (Jiaxing) Co., Ltd. ("Tigermed-Xinze") (in each of which we have a 45.00% equity interest) and FJ Pharma LLC (in which we have a 49.00% equity interest). See "Business — Strategic Partnerships and Associates". We also have collaborations with 17 hospitals in China. See "Business — Our Services — Bioequivalence".

We believe that the success of our strategic partnerships depends on a number of factors, including the financial resources of the other shareholders and partners, their willingness and ability to honour their contractual commitments, the manner in which other shareholders in these companies exercise control or other governance rights and the extent to which they cooperate in operational and strategic decisions with respect to the relevant projects. Any deterioration in the performance of these partnerships in providing services (some of which are offered to our customers) could adversely affect their business, financial position and results of operations, which could have an adverse impact on our income from investments in these entities, and could have an adverse impact on our ability to attract customers for our own services in the future. Similarly, the success of our collaborations with hospital sites in China depends on a number of factors, including the resources of these hospitals and their willingness and ability to honour their contractual commitments and to continue with their collaboration with us. Deterioration in the performance of our partnerships and collaborations could have an adverse impact on our business, financial condition and results of operations.

## If the business of our associates were to significantly deteriorate or if any of our associates' facilities or services were to become subject to any adverse findings or critical observations by the relevant regulatory authorities or other regulatory or legal noncompliance, then there may be an adverse impact on our business, financial condition and results of operations.

Our associates perform a wide range of complex services that are, in some cases, subject to significant government regulation. The business of our associates are subject to various risks, including the possibility that their facilities or services may be subject to adverse findings or critical observations by regulatory authorities or other regulatory or legal non-compliance that could result in a severe disruption to their business. Such actions may include, but are not limited to, inspectional findings of non-compliance, required corrective actions, revocation of or limitations to approvals, registrations, licences, permits, assurances, accreditations, certificates, restrictions on operations,

#### **RISK FACTORS**

including the discontinuation of services or closing of facilities, confiscation of animals, clinical holds, discontinuation or suspension of studies, warning letters, untitled letters, cyber letters, regulatory authority issuance of adverse public statements or alerts, product recalls, fines, restitution, disgorgement of profits or revenue, product seizure or detention, debarment or suspension, disqualification of testing facilities, consent decrees or other settlement agreements, injunctions and civil and criminal penalties. Any reputational damage or adverse impact on the business of any of our associates may have an adverse impact on our own reputation. Any of these events might result in an adverse impact on our ability to provide a package of services to our customers through our collaborative approach with our associates. Any of these events could have an adverse impact on our business, financial condition and results of operations.

## In providing our services, we face potential claims from our customers for breach of our contractual obligations.

Customers may bring claims against us for breach of our contractual obligations. The services we provide are complex and often time-sensitive. We may make material mistakes, including in conducting a project, or in recording, preserving or processing or analysing the data, that could negatively impact or obviate the usefulness of results of the project or cause the results of the project to be reported improperly. In such an event, we could be subject to significant costs of re-performing the project and liability to customers for any failure to meet contractually agreed standards, which could have an adverse impact on our reputation in addition to the additional costs incurred.

## In providing our services, we face potential liabilities which may not be adequately covered by applicable indemnities or insurance.

While our contracts with our customers typically contain provisions such that the customer generally indemnifies us for any liability arising out of the project in the course of our contracted work, we may face potential claims or liabilities from third parties. Moreover, any attempt by us to enforce these indemnities may be unsuccessful and/or subject to challenge or delay. Any liability we incur that is not indemnified, particularly if it were to exceed the limits of any insurance coverage we may have, may adversely affect our financial condition and results of operations.

Furthermore, from time to time, one or more of our customers may be investigated by regulatory authorities or enforcement agencies with respect to their activities, including their regulatory and legal compliance. In these situations where we provided services to our customers with respect to the activities being investigated, we may be called upon to respond to requests for information by authorities and agencies with regard to the services that we have provided. There is a risk that our customers could claim that we performed our services improperly. If our customers make such claims against us, we could be subject to significant costs in defending our activities and potential damages, fines or penalties which, in turn, could have an adverse effect on our business, financial condition and results of operations.

## Our reputation and our brand is key to our business success. Negative publicity may adversely affect our reputation and thus our business, financial condition and results of operations.

Any negative publicity concerning us or our affiliates, even if untrue, could adversely affect our reputation and thus our business, financial condition and results of operations. In addition, we depend on the integrity and image of our brand "Frontage". We cannot assure you that negative publicity about us or any of our affiliates would not damage our brand image or have a material adverse effect on our business, financial condition and results of operations. In addition, in light of our specialized customer base, customer referrals and word-of-mouth marketing have significantly contributed to our ability to acquire new customers. Moreover, if our brand is used by other companies or if we are unsuccessful in promoting our brand image or fail to maintain our brand recognition, our brand may be damaged. As a result, any negative publicity about us or any of our affiliates or any damage to our brand could adversely affect our ability to retain our existing customers or attract new customers either of which could have an adverse effect on our business, financial condition and results of operations.

#### Our proposed expansion and enhancement of our existing facilities may not be successful.

We intend to expand and enhance our existing facilities (including proposed construction of new facilities and expansion of our laboratories located in Pennsylvania and Concord, Ohio in the United States and enhancing our facilities located at Zhangjiang Hi-Tech Park, Shanghai and Suzhou, Jiangsu in China to deliver on expected demand). See "Business - Our Strategies - Continue to expand capacities to meet increased demand for our services". In expanding or enhancing any of our facilities, we may experience unforeseen delays due to construction and/or related licensing and other issues. Further costs of construction could also exceed budget, divert resources from other productive uses and consume significant amounts of management time. Depending on the scope of services that will be provided by the expanded facilities, we may need to obtain additional approvals, licences, assurances, accreditations, registrations permits and certificates from relevant authorities, make notifications to the relevant authorities, or update our current approvals, licences, assurances, accreditations, permits, registration and certificates so that we may operate the expanded facilities. Moreover, should the expansion result in changes to the US FDA and NMPA regulated services that we provide to our customers, our customers may be required to seek US FDA and/or NMPA approvals or make notifications to the US FDA and/or NMPA concerning the changes. If the US FDA and/or NMPA do not approve or objects to the changes or if we are not able to obtain the necessary approvals, registrations, licences, permits, assurances, accreditations and certificates from the relevant authorities, we may not be able to provide services to our customers or may need to make significant investments to undertake any steps that may be required so that we may provide services to our customers using our expanded facilities.

Our plan to expand and enhance our existing facilities may also adversely affect our performance. In addition, we may not be able to fully utilize our expanded facilities immediately or at all. We may not be able to recruit the additional staff with the relevant experience required to operate our equipment or work at our facilities immediately or at all. Our expansion, enhancement and

use of such facilities will be dependent on receiving all required licences and approvals, which may be delayed or not received at all. Any increase in the costs associated with expanding and enhancing our facilities may outpace the increase in revenue resulting from the projects conducted on such facilities, driving down our gross profit margin. As a result, even if our proposed expansion or enhancement plans are successful, our business, financial condition and results of operations may be adversely affected.

#### Our success depends on our ability to identify and complete acquisitions.

Historically, we have grown our business in part through targeted acquisitions to expand our capacity and capabilities and anticipate that we will continue to grow through acquisitions. For example, in April 2018, we completed the acquisition of Concord. See "History, Reorganisation and Corporate Structure — Acquisitions, Investments and Disposals — Concord".

The success of our acquisition strategy depends upon, among other things, our ability to identify suitable acquisition targets, to assess the value, strengths, weaknesses, liabilities and potential profitability of such acquisition targets, the availability of sufficient financial or operational resources to fund such acquisitions and to negotiate acceptable purchase terms. Acquisition could involve other risks, including any disputes which might arise from the transaction, the assumption of additional liabilities and expenses, loss of key employees, transaction expenses, diversion of management's attention from other business concerns and, with respect to the acquisition of international companies, the inability to overcome differences in international regulations, business practices, language or customs.

Furthermore, we intend to use approximately 30% of the net proceeds from the Global Offering to expand our capacity and capabilities through potential acquisitions of companies and/or businesses providing similar or complementary services or additional investments in our existing associates. However, as at the Latest Practicable Date, we had not yet identified any such targets for acquisition or any existing associate for further investment, and there can be no assurance that we will be able to successfully identify favourable acquisition targets or successfully complete such acquisitions or investments for the reasons set out above.

## Our failure to successfully integrate recent and potential future acquisitions could have an adverse effect on our business, financial condition and results of operations.

We are devoting significant resources to the integration of our operations following the recent acquisition of Concord in order to achieve the anticipated synergies and benefits of this acquisition. The integration of the operations of Concord or any future acquisitions may expose us to certain risks, such as the incurrence of anticipated and unforeseen costs, expenses and liabilities (including latent or potential liabilities that relate to the time prior to our acquisition), difficulties in integrating the acquired business in a timely and cost-effective manner or maintaining standard control policies and procedures across our businesses, difficulties in establishing effective management information and financial control systems, and unforeseen legal, regulatory, contractual or other issues. If we fail to successfully integrate recent and potential future acquisitions, there may be an adverse effect on our business, financial condition and results of operations.

## If we fail to effectively manage our anticipated growth or execute on our growth strategies, our business, financial condition and results of operations could suffer.

Our growth strategies include expanding our capacities to meet increased demands for our services and strategically extending the range of our services. Such strategies include, in particular, expanding our bioanalytical service offering, our safety and toxicology services offering and our CMC capabilities and pursuing strategic acquisitions. Any increase in the costs associated with our growth strategies may outpace the increase in revenue resulting from an expansion of our capacities and capabilities, driving down our gross profit margin. Moreover, any of our new service offerings may not achieve anticipated levels of revenue. See also "— Our proposed expansion and enhancement of our existing facilities may not be successful."

We also intend to effectively evaluate potential acquisition opportunities to develop capacity in markets we have identified as attractive based on our analysis of the relevant market dynamics. See "Business — Our Strategies". Pursuing our growth strategies will continue to result in substantial demands on capital and other resources. In addition, executing our growth strategies and managing our growth will require, among other things, effective coordination and integration of our facilities and teams across different sites and countries, successful hiring and training of personnel, effective cost control, sufficient liquidity, effective and efficient legal and financial and management control, increased marketing and customer support activities and effective quality management. Any failure to execute our growth strategies or realize our anticipated growth could adversely affect our business, financial condition and results of operations.

## Our success depends on our ability to attract, train, motivate and retain highly skilled scientists and other technical personnel.

Our success depends on our team of scientists and other technical personnel and their ability to deliver high-quality and timely services to our customers and keep pace with industry and technical developments. We compete with pharmaceutical and agrochemical companies, other CROs and research and academic institutions for scientists and other technical personnel. We may not be able to hire and retain an adequate number of highly skilled scientists or other technical personnel at the current levels of compensation that we offer. To compete effectively, we may need to offer higher compensation and other benefits, which could materially and adversely affect our business, financial condition and results of operations. In addition, we may not be successful in training our scientists and other technical personnel to keep pace with changes in customer needs and technological and regulatory standards. Any inability to attract, motivate, train or retain highly skilled scientists or other technical personnel may have a material adverse effect on our business, financial condition and results of operations.

## The loss of services of our senior management and scientific personnel could severely disrupt our business and growth.

Our success significantly depends upon the continued service of the senior management of our Group, including Zhihe Li, PhD, the CEO of the Group, Yifeng Gao, the CFO of the Group, Hugh M. Davis, PhD, our Chief Business Officer, Zhongping Lin, PhD, the head of our bioanalytical services unit, Dongmei Wang, PhD, the head of our CMC business unit, Abdul Mutlib, PhD, the head of our DMPK business unit and Tianyi Zhang, PhD, the head of our China business. In addition, we also depend on Dr Song Li, PhD, our founder and Honourary Chairman. We may in the future experience changes in our key personnel for a variety of reasons. In addition, key personnel could leave us to join our competitors. Loss of the services of our key personnel may be disruptive and cause uncertainty.

Certain members of our senior management, scientists and technical personnel have entered into restrictive covenant agreements with us in consideration of the stock options granted to them. As a result, such employees are subject to non-compete and non-solicitation provisions, usually for a duration of six months upon leaving employment with us. However, there is no assurance that such provisions will be enforced as written or that they will be effective to prevent our employees from working for a competitor or soliciting our customers and/or employees. Inadequate succession planning or the unexpected departure of a member of senior management or our Honourary Chairman would require our remaining leadership team to divert immediate and substantial attention to fulfilling the duties of the departing executive and to seeking a replacement. Should any of our senior management personnel or our Honourary Chairman reduce or cease their involvement with us, we may not able to replace such person easily or at all. An inability to attract qualified senior management personnel in a timely manner could have a material and adverse effect on our business, financial condition and results of operations.

#### Increased employee costs could slow our growth and affect our profitability.

Our operations require a sufficient number of employees. In recent years, competition for qualified employees has become more intense. Our staff costs accounted for 45.21%, 37.46% and 42.38% of our revenue for the years ended December 31, 2016, 2017 and 2018, respectively. The labour market for trained scientists and other qualified staff with suitable experience is highly competitive and we may need to pay more in salaries, benefits in kind or retirement benefits in order to recruit and retain appropriate staff. We may also need to recruit additional personnel to enhance our internal control, financial reporting and compliance functions after the Listing. We cannot assure you that our employee costs will not continue to increase. If there is a significant increase, our business, financial condition and results of operations may be adversely affected.

### We face increasing competition and our inability to compete effectively may result in downward pricing pressure or reduced demand for our services.

The global CRO market is highly competitive and we expect this high level of competition to continue to increase. We face competition in several areas, including quality of services, breadth and flexibility of services, capacity, timeliness of delivery of services, compliance with regulatory standards (including good laboratory practice, or GLP, good clinical practice, or GCP, and good manufacturing practice, or GMP, among others), depth of customer relationships and price, among others.

We compete with a substantial number of large, established, multinational CROs that are able to provide a range of services to meet the demands of a large number of complex and challenging projects simultaneously, from the discovery to commercial release phases of development. There are also a substantial number of smaller to medium sized CROs, both multinational and locally based, that compete for market share. We also expect increased competition as additional companies enter our market. We compete with other CROs as well as the in-house development capabilities of our customers. See "Industry Overview". Other CROs may have greater financial, research and other resources, greater pricing flexibility, more extensive technical capabilities, greater sales and marketing efforts, longer track records and greater name recognition. In addition, other CROs may improve the performance of their services, introduce new services at lower prices or with improved performance characteristics or adapt more quickly to new or emerging technologies, market developments or changes in customer demand and requirements, any of which could reduce the demand for our services or reduce our revenues. Furthermore, increased competition could create pricing pressure on our services, which could reduce our revenue and profitability. There is no assurance that we will be able to compete effectively with existing competitors or new competitors or that the increased levels of competition will not adversely affect our business, financial condition and results of operations.

## We may not be able to continue to serve our customers if we fail to meet our customers' standards in audits and inspections.

Certain of our customers audit and inspect our facilities, processes and practices to ensure that our services meet their standards in the drug development processes. We cannot assure you that we will be able to pass such customer audits and inspections. Failure to pass any such audit or inspection could significantly harm our reputation and result in the termination of ongoing drug discovery or development projects by our customers, which could materially and adversely affect our business, financial condition and results of operations.

### Any failure to comply with existing regulations and industry standards or any adverse actions by any regulatory authorities against us could negatively impact our business, financial condition, and results of operations.

We contract with our customers to perform a wide range of services. Such services are complex and subject to government regulations and ethical considerations. In many countries or regions where a drug candidate is intended to be ultimately sold, the relevant government agencies and industry regulatory bodies impose strict rules, regulations and industry standards on how customers develop, test, study and manufacture drugs and biologics and how CROs and other third parties acting on customers' behalf perform such regulated services. For example, in the United States, our services are subject to significant US FDA regulation, as further described in "Appendix III — Taxation and Regulatory Overview". We must also comply with additional legal and regulatory requirements as further described in "Appendix III — Taxation and Regulatory Overview".

These regulatory authorities, including the US FDA or NMPA, may conduct scheduled or unscheduled periodic inspections of our facilities and services to monitor our compliance with applicable rules and regulations and industry standards. Any adverse findings or critical observations by such regulatory authorities, or other regulatory or legal noncompliance could precipitate immediate and severe action against us. Such actions may include, but are not limited to, inspectional findings of noncompliance, required corrective actions, revocation or limitations to approvals, registrations, licences, permits, assurances, accreditations, or certificates, restrictions on operations, including the discontinuation of services or closing of facilities, confiscation of animals, clinical holds, discontinuations or suspension of studies, warning letters, untitled letters, cyber letters, regulatory authority issuance of adverse public statements or alerts, product recalls, fines, restitution, disgorgement of profits or revenue, product seizure or detention, debarment or suspension, disqualification of testing facilities, consent decrees or other settlement agreements, injunctions and civil and criminal penalties. Any adverse findings, critical observations, or other regulatory or legal noncompliance could also have significant consequences for our customers, which may result in claims by our customers or which may have other commercial consequences for us. Should any of the foregoing occur, it would also cause serious damage to our reputation and have a material adverse impact on our business, financial condition and results of operations. In addition, any action against us for violation of the relevant regulations or industry standards, even if we successfully defend the action or remedy the violation, could cause us to incur significant expenses, divert management's attention from the operation of our business and adversely affect our reputation, business, financial condition and results of operations.

#### Failure to fully comply with PRC labour-related laws may expose us to potential penalties.

As the interpretation and implementation of labour-related laws and regulations are still evolving, we cannot assure you that our employment practice does not and will not violate labour-related laws and regulations in China, which may subject us to labour disputes or government investigations. If we are deemed to have violated relevant labour laws and regulations, we could be required to provide additional compensation to our employees and our business, financial condition and results of operations could be materially and adversely affected.

Pursuant to the Labour Contract Law and its amendments, dispatched labour is intended to be a supplementary form of employment and the fundamental form should be direct employment by enterprises and organisations that hire employees. Further, it is stated in the Interim Provisions on Labour Dispatch that became effective on March 1, 2014 that the number of dispatched workers an employer uses may not exceed 10.00% of its total labour force and the employer has a two-year transition period to comply with such requirement. The number of dispatched workers used by Frontage Shanghai had previously exceeded 10.00% of its total labour force. Such non-compliance has been rectified as at the date of this prospectus. Our PRC legal adviser is of the view that such previous non-compliance would not materially adversely affect our business, financial condition and results of operations.

### Certain issues relating to certain properties we lease may disrupt our occupancy and continuing use of those properties.

We have leased eight properties for our business operations in the PRC. For one of these leased properties, the landlord has not provided us with the copy of the building ownership certificate. See "Business — Properties — Leased Properties". We cannot assure you that the landlord has the right to lease the relevant property to us. As advised by our PRC legal adviser, we may not be able to continue to use such property if the ownership of the property we have leased and/or the validity of such lease is challenged by third parties. In such a scenario we will have to relocate to other premises, which could result in additional costs.

## Animal testing can result in liability and other issues, including potential disruption to our facilities as a result of protests against animal testing.

Some of our services utilize animals in the testing of the safety and efficacy of drugs and agrochemicals. Acts of vandalism and other acts by animal rights activists, who object to the use of animals for such purposes, including protests at or near our facilities or offices, could have an adverse effect on the Company's operations or reputation.

Animal research at our facilities must be conducted in compliance with applicable laws and regulations in the jurisdictions in which those activities are conducted. For example, our animal testing facilities at Concord hold certain assurances and certifications, as well as an accreditation, from governmental authorities and a third-party accrediting organisation for the conduct of certain animal studies. See "Business — Certificates, Permits and Licences". If an enforcement agency determines that our equipment, facilities, laboratories or processes do not comply with applicable standards, it may issue an inspection report documenting the deficiencies and setting deadlines for any required corrective actions. See "Business — Legal Matters — Regulatory Matters". For non-compliance, the agency may take action against us that may include fines or confiscation of research animals. Any such non-compliance with legal, regulatory or third-party accreditation requirements may also result in the limitation, termination, suspension or revocation of any licences, permits, authorisations, assurances, certificates or accreditations necessary for the conduct of our business. Any determination of non-compliance, report or other action by an enforcement agency could adversely affect our business, financial condition and results of operations.

### If we fail to comply with anti-bribery or anti-money laundering laws, our reputation may be harmed and we could be subject to significant penalties and expenses that could have a material adverse effect on our business, financial condition and results of operations.

We are subject to the anti-bribery and anti-money laundering laws of the jurisdictions in which we operate, particularly the US and China. In the US, the Foreign Corrupt Practices Act of 1977 generally prohibits a company from making improper payments, directly or indirectly, to foreign officials for the purpose of obtaining or retaining business. Further, in the United States, the Bank Secrecy Act, as amended by Title III of the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001 (USA Patriot Act), prohibits money laundering and any activities that could facilitate money laundering. In China, the Anti-Unfair Competition Law, and provisions of the Criminal Code, prohibit giving and receiving money or property (which includes cash, proprietary interests and items of value) to obtain an undue benefit. Further, in China, Anti-Money Laundering Law of the People's Republic of China (中華人民共和國反洗錢法), promulgated by the Standing Committee of the National People's Congress on October 31, 2006 and effective on January 1, 2007, prohibits money laundering. In addition, many of our customers require us to follow strict anti-bribery and anti-money laundering policies as part of doing business with us. Our procedures and controls to monitor anti-bribery and anti-money laundering compliance may fail to protect us from reckless or criminal acts committed by our employees or agents. If we fail to comply with applicable anti-bribery laws and anti-money laundering, our reputation could be harmed, customers could cancel or not renew contracts for our services and we could incur criminal or civil penalties, other sanctions and significant expenses, which could have a material adverse effect on our business, financial condition and results of operations.

# Changes in government regulations or in practices relating to the pharmaceutical or agrochemical industries could decrease demand for the services we provide, and compliance with new laws or regulations may result in additional costs.

The markets that our customers operate in are heavily regulated, including in the US and the PRC. Changes in government laws regulations or in practices relating to the pharmaceutical and agrochemical industries, such as a relaxation in regulatory requirements, or the introduction of simplified drug approval procedures that lower the entry barrier for potential competitors, or changes in regulatory requirements may make our services less competitive, could eliminate or substantially reduce the demand for our services. Since 2016, there has been a significant rise in outsourcing opportunities in China as a result of significant regulatory challenges. In particular, in March 2016, the State Council issued the 'Opinion on Carrying out the Quality and Efficacy Consistency Evaluation of Generic Drugs' (國務院辦公廳關於開展仿製藥質量和療效一致性評價的意見), (the "Consistency Evaluation Opinion"). The Consistency Evaluation Opinion, combined with other regulatory changes introduced at approximately the same time and subsequently have led to a significant increase in demand for high quality CRO services, particularly bioequivalence and bioanalytical services in China. See "Industry Overview — The Global Pharmaceutical Outsourcing Industry — The Pharmaceutical CRO Market in China". However, there can be no assurance that there will be no adverse regulatory changes in the PRC, that the regulatory changes in the PRC that have benefitted our business during the Track Record Period will continue to benefit our business going forward or that size of the CRO services market in the PRC, in particular, the size of the bioanalytical and bioequivalence markets will increase at the rate anticipated. Any of these events may have a material adverse effect on our business, financial condition and results of operations.

In addition, under current regulatory requirements of the PRC, to introduce a drug approved overseas into the PRC market, such drug must either be registered as an imported drug or the development process in the PRC must be repeated, either of which could take several years of work. By engaging us, pharmaceutical and agrochemical companies are able to conduct parallel development of drugs for both the PRC and overseas markets simultaneously. If the PRC ever streamlines, expedites or simplifies its regulatory procedures, certain of our customers' demand for our services may decrease, which would have a material adverse effect on our business, financial condition and results of operations.

# Our customers may be affected by ongoing healthcare reform and potential additional regulatory reforms that may adversely impact the pharmaceutical industry or otherwise reduce or negatively impact demand for our services or our profitability.

Numerous government bodies are considering or have adopted various healthcare reforms and may undertake, or are in the process of undertaking, efforts to control growing healthcare costs through legislation, regulation and voluntary agreements with healthcare providers and pharmaceutical companies, including many of our customers. By way of example, in March 2010, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, or collectively, the Affordable Care Act, was signed into law in the US. The Affordable Care Act introduced significant new requirements for healthcare and health insurance industries, imposed new taxes and fees on pharmaceutical companies and imposed additional health policy reforms. It has taken, and continues to take, a significant amount of time for the full effects of these policies to become clear. The policies of the present administration of the US government towards various aspects of these reforms represent significant uncertainty for the pharmaceutical industry. In China, while government policies toward the pharmaceutical industry are expected to remain stable and the government is expected to remain committed to increasing innovation as well as overall healthcare spending in line with the 'Healthy China 2030' goals set by the State Council, we cannot guarantee that this will continue to be the case. We are uncertain as to the full effects of ongoing reforms and any subsequent healthcare policies on the pharmaceutical industry and their consequences for our business and are unable to predict what legislative proposals, if any, will be adopted in the future. Any of these may impact on the demand for our services and adversely affect our business, financial condition and results of operations.

# Incidents, accidents or injuries at our facilities or in connection with our services may subject us to liability, and incidents, accidents or injuries could negatively impact our reputation, which could harm our business, financial condition and results of operations.

Incidents, accidents or injuries at our facilities or in connection with our services may subject us to damages, delays or liabilities, and incidents, accidents or injuries could negatively impact our reputation, which could harm our business, financial condition and results of operations. There are inherent risks of incidents, accidents or injuries at our facilities or in connection with our services. If incidents, accidents or injuries occur at any of our facilities, we may face damages or delays that

could impact the delivery of our services to our clients and we could be held liable for costs related to such incidents. We maintain insurance of the types and in the amounts that we believe are commercially reasonable and that are available to businesses in our industry, but there can be no assurance that we will be able to recover all or any of the losses we suffer. Our business, financial condition and results of operations could be harmed to the extent claims and associated expenses resulting from incidents, accidents or injuries exceed our insurance recoveries.

### We are subject to environmental protection and health and safety laws and regulations and may be exposed to potential liabilities, including consequences of incidents, accidental contamination, biological hazards or personal injury and claims by employees resulting from health and safety issues.

Our past and present business operations are subject to national and local laws in the jurisdictions in which we operate, including but not limited to the laws on the treatment and discharge of pollutants into the environment and on the use of highly toxic and hazardous chemicals in our processes. Because the requirements imposed by such laws and regulations may change and more stringent laws or regulations may be adopted, we may be unable to comply with, or to accurately predict the potentially substantial cost of complying with, these laws and regulations. If we fail to comply with environmental protection and health and safety laws and regulations, we may be subject to various consequences, including substantial fines, potentially significant monetary damages or suspensions of our business operations. As a result, any failure by us to control the use or discharge of hazardous substances could have a material and adverse impact on our business, financial condition and results of operations.

In addition, we cannot fully eliminate the risk of accidental contamination, biological hazards or personal injury at our facilities during our service processes. In the event of any accident, we could be held liable for damages and clean-up costs that, to the extent not covered by existing insurance or indemnification, could harm our business. Other adverse effects could result from such liability, including reputational damage resulting in the loss of business from customers. We may also be forced to close or suspend operations at certain of our affected facilities temporarily, or permanently. As a result, any accidental contamination or personal injury could have a material and adverse impact on our reputation, our business, financial condition and results of operations.

# We depend on an adequate supply of highly technical equipment and consumables from our suppliers, and price increases or interruptions of such supply could have an adverse impact on our business.

Our business operations require a substantial amount of highly technical equipment, and we also use substantial quantities of standard consumables, such as test tubes, in providing our services. For example, we operate over 80 mass spectrometers for our services, which must be maintained and upgraded from time to time. We cannot guarantee that there will not be any substantial price increases for the equipment we require, for example, as a result of an extreme market event, such as a global recall of standard equipment. Further, we cannot assure you that we will be able to raise the prices of our services sufficiently to cover any such increased costs while remaining competitive. As a result, any significant price increase for our equipment may have an adverse effect on our business, financial position and results of operations. We cannot assure you that we will be able to secure a stable supply of equipment and consumables going forward. Our suppliers may not be able to keep up with our growth or may reduce or cease their supply of equipment and consumables to us at any time. In addition, we cannot assure you that our suppliers have obtained or will be able to renew all licences, permits or approvals necessary for their operations or comply with all applicable laws and regulations, and failure to do so may lead to interruption in their business operations, which in turn may result in shortage of equipment and consumables supplied to us. If our supply of equipment and consumables is interrupted, our business, financial position and results of operations may be adversely affected.

#### Our facilities may be vulnerable to natural disasters or other unforeseen catastrophic events.

We conduct our activities in our facilities located in Exton, Pennsylvania, and Concord, Ohio, USA and in Zhengzhou, Henan, and Zhangjiang, Shanghai and Suzhou, Jiangsu, China. We depend on these facilities for continued business operations. Natural disasters or other unanticipated catastrophic events that affect any of our facilities, including power interruptions, water shortages, storms, tornadoes, fires, earthquakes, terrorist attacks or wars, could significantly impair our ability to operate our business. Our facilities and certain equipment located in these facilities would be difficult to immediately replace in any such event and could require substantial replacement lead time and cost. The occurrence of any such event could materially and adversely affect our business, financial condition and results of operations.

### We may need additional capital that we may be unable to obtain in a timely manner or on acceptable terms.

In order to expand our capacity, undertake desirable acquisitions, develop new services and remain competitive, we may require additional capital. We expect to satisfy such capital commitments using part of the net proceeds from the Global Offering, cash from operations and bank facilities available to us. Financing may be unavailable in amounts or on terms acceptable to us. Our ability to obtain additional capital is subject to a variety of uncertainties, including our future financial condition, results of operations and cash flows, general market conditions for capital-raising activities by CROs, and economic, political and other conditions in the US and China. The sale of additional equity or equity-linked securities could result in dilution to the Shares held by our shareholders. The incurrence of indebtedness would result in increased debt service obligations and could result in operating and financing covenants restricting our operations or our ability to make acquisitions or pay dividends. Any failure to acquire sufficient additional capital to meet our capital requirements may materially and adversely affect our business, financial condition and results of operations.

### We may not be successful in protecting our customers' and certain of our licensors' intellectual property.

Our success depends in part on the protection of our customers' intellectual property. Due to the nature of our services, we typically have access to intellectual property owned by our customers. Our customers typically retain ownership of all intellectual property associated with their projects, including both intellectual property provided to us and that arising from the services we provide, except for intellectual property created or developed in connection with the provision of our services

that is derivative of the intellectual property we have in our own methods and processes. We also depend on licences to use the intellectual property of third parties in our services. We have implemented policies and procedures for the protection of our customers' intellectual property and the intellectual rights of third party licensors. See "Business — Intellectual Property".

Despite the measures we take to protect our customers' intellectual property and the intellectual rights of third party licensors, our employees and unauthorized parties may attempt to obtain and use them. Failure to protect our customers' intellectual property may subject us to liability for breach of contract, as well as significantly damage our reputation, which is fundamental to our business. Such failure could materially harm our business, financial condition and results of operations.

In certain cases, we have agreed to indemnify our customers for intellectual property infringement claims arising out of our infringement of a third party's intellectual property. As a result, if any aspect of our service infringes a third party's intellectual property rights, we could be exposed to liability, which in turn, could have a material adverse impact on our business, financial condition and results of operations.

#### If we do not keep pace with technological changes that can be rapid, our services may become less competitive or obsolete.

The pharmaceutical industry generally, and drug and biologic development more specifically, is subject to the impact of rapid technological changes. Our current competitors or other businesses might develop technologies or services that are more effective or commercially attractive than, or ultimately render obsolete, our current or future technologies and services. If our competitors introduce superior technologies or services and if we cannot make enhancements to remain competitive, our competitive position would be harmed. Any purchases of new and superior technologies or enhancements of our existing technologies that are required may be expensive and represent a serious or prohibitive cost for our business. If we are unable to compete successfully, we may lose customers or be unable to attract new customers, which could have a material adverse impact on our business, financial condition and results of operations.

### We depend on the continued effectiveness and availability of our information systems and other infrastructure that may fail and may face security, including cyber security, risks.

We rely on a variety of information technology ("IT") and automated operating systems to manage and support our operations, including protecting our customers' intellectual property and clinical subject health information. The proper functioning of these systems is critical to the efficient operation and management of our business. In addition, these systems may require modifications or upgrades as a result of technological changes or growth in our business. These changes may be costly and disruptive to our operations and could impose substantial demands on management's time. Our systems and those of third-party providers may be vulnerable to damage or disruption caused by circumstances beyond our control, such as catastrophic events, power outages, natural disasters, computer system or network failures, viruses or malware, physical or electronic break-ins,

unauthorized access, cyber-attacks or thefts. We cannot assure you that the measures and steps we take to secure our systems and electronic information are adequate. Any significant disruption to our systems could result in unauthorized disclosure of confidential information, including personal health information, that may adversely affect our business, financial condition and results of operations.

Due to the global nature of our business and our reliance on information systems to provide our services, we intend to increase our use of web-enabled and other integrated information systems in delivering our services. We also provide access to similar information systems to certain of our customers in connection with the services we provide them. As the breadth and complexity of our information systems continue to grow, we will increasingly be exposed to the risks inherent in the development, integration and ongoing operation of evolving information systems, including:

- disruption, impairment or failure of data centres, telecommunications facilities or other key infrastructure platforms;
- security breaches of, cyber-attacks on and other failures or malfunctions in, our critical application systems or their associated hardware; and
- excessive costs, delays or other deficiencies in systems development and deployment.

If any of these risks materialise, they may impede the processing of data, the delivery of information and services and the day-to-day management of our business and could result in the corruption, loss or unauthorized disclosure of proprietary, personal, confidential or other data as well as lead to enforcement or other legal actions. Despite any precautions we take, damage from fire, floods, hurricanes, power loss, telecommunications failures, computer viruses, break-ins, cyber-attacks, thefts and similar events at our various computer facilities could result in interruptions in the flow of data to our servers and from our servers to our customers. While we have data safeguarding and disaster recovery plans in place, they might not adequately protect us in the event of a system failure of any one of the information systems on which we rely. Corruption or loss of data may result in the need to repeat activities at no cost to the customer, but at significant cost to us, or the termination of a contract or damage to our reputation, which, in turn, may materially and adversely affect our business, financial condition and results of operations.

## Upgrading the information systems that support our operating processes and evolving the technology platform for our services pose risks to our business.

Continued efficient operation of our business requires that we implement standardized global business processes and evolve our information systems to enable this implementation. We continue to undertake significant programs to optimize business processes with respect to our services. Our inability to effectively manage such implementation and adapt to new processes designed into these new or upgraded systems in a timely and cost-effective manner may result in disruption to our business and negatively affect our business, financial condition and results of operations.

We have entered into agreements with certain vendors to provide systems development and integration services that develop or licence to us IT platforms for programs to optimize our business processes. If such vendors fail to perform as required or if there are substantial delays in developing, implementing or updating such IT platforms, the delivery of our service to our customer may be negatively impaired, and we may have to make substantial further investments, internally or with third parties, to achieve our objectives.

Our operations are dependent on a number of factors that may not take place as we anticipate, including obtaining adequate technology-enabled services, creating IT-enabled services that our customers will find desirable and implementing our business model with respect to these services. Any IT related failure or increased IT expenditures may negatively impact our business, financial condition and results of operations.

#### We have limited insurance coverage, and any claims beyond our insurance coverage may result in substantial costs and a diversion of resources.

We maintain property insurance policies covering physical damage to, or loss of, our facilities and their improvements, equipment, office furniture and inventory. We hold employer's liability insurance generally covering death or work-related injury of our employees. We hold premises liability insurance covering certain incidents involving third parties that occur on or in our premises. We hold business liability insurance for certain liabilities that may arise in connection with providing services to our customers. We also maintain business interruption insurance. We do not maintain key-man life insurance on any of our senior management. We do however maintain key-man life insurance on our Honourary Chairman, Dr Song Li. Our insurance coverage may be insufficient to cover any claim, damage to our facilities or equipment or employee injuries. Any liability or damage to, or caused by, our facilities or our personnel beyond our insurance coverage may result in us incurring substantial costs, which could adversely affect our business, financial condition and results of operation.

### Any litigation, legal disputes, claims or administrative proceedings against us could be costly and time-consuming to defend.

We are currently engaged in one legal proceedings as further discussed in the section titled "Business — Legal Matters — Legal Proceedings". We may also become subject from time to time in the future to legal and administrative proceedings and claims that arise in the ordinary course of business or pursuant to governmental or regulatory enforcement activity.

While we do not presently believe that the resolution of the existing lawsuit against us will have a material adverse effect on our business, financial condition and results of operations, litigation to which we subsequently become a party might result in substantial costs and divert management's attention and resources. Furthermore, any litigation, legal disputes, claims or administrative proceedings that are initially not material may escalate and become material to us due to a variety of factors, such as the facts and circumstances of the cases, the likelihood of loss, the monetary amount at stake and the parties involved. Laws, regulations and legal action could also have significant regulatory consequences and result in regulatory enforcement actions.

Our insurance might not cover claims brought against us, might not provide sufficient payments to cover all of the costs to resolve one or more such claims and might not continue to be available on terms acceptable to us. In particular, any claim could result in unanticipated liability to us if such claim is outside the scope of the indemnification arrangement we have with our customers, our customers do not abide by the indemnification arrangement as required or the liability exceeds the amount of any applicable indemnification limits or available insurance coverage. A claim brought against us that is uninsured or underinsured could result in unanticipated costs and could have a material adverse effect on our business, financial condition and results of operations.

#### We are exposed to risks from exchange rate fluctuations.

We receive the majority of our revenues in US dollars and Renminbi. For the years ended December 31, 2016, 2017 and 2018, 87.50%, 72.08% and 67.39% of our revenue was denominated in US dollars and 12.50%, 27.92% and 32.61% of our revenue was denominated in RMB or EUR, respectively. During the Track Record Period, less than 0.5% of our revenue was denominated in EUR. For the years ended December 31, 2016, 2017 and 2018, 84.76%, 72.15% and 76.65% of our cost of services was denominated in US dollars and 15.24%, 27.85% and 23.35% of our cost of services was denominated in RMB, respectively. Our functional reporting currency is the US dollar. As a result, fluctuations in the exchange rate between the U.S. dollar and other currencies, including the RMB will affect our financial condition and results of operations in U.S. dollars. In addition, appreciation or depreciation in the value of other currencies, including the RMB relative to the U.S. dollar would affect our financial results reported in U.S. dollar terms and in the absence of underlying change in our business or results of operations. We do not currently hedge against changes in foreign exchange rates. As a result, there can be no assurance that we will be able to manage our foreign currency risks in order to minimise any negative effects caused by exchange rate fluctuations. In particular, we may be adversely affected by appreciation in the value of other currencies against the US dollar, or to prolonged periods of exchange rate volatility. These fluctuations may negatively impact our business, financial condition, and results of operations.

# Our failure to obtain or renew certain approvals, licences, assurances, accreditations, permits, registrations and certificates required for our business may materially and adversely affect our business, financial condition and results of operations.

We are required to obtain and maintain various approvals, licences, assurances, accreditations, permits, registrations and certificates from relevant authorities to operate our business. For example, in the United States, various licences, assurances, accreditations, permits, registrations, certificates, and approvals are required for, among other things, conducting animal testing. See "Business — Certificates, Permits and Licences". Any failure by us or any party with whom we collaborate to obtain any approvals, registrations, licences, assurances, accreditations, permits and certificates necessary for any of our operations or to comply with the terms, conditions, and requirements relating to the same, may result in enforcement actions thereunder, including, but not limited to, suspension or termination of licences, approvals, assurances, accreditations, permits, registrations, and certificates, and certificates, orders issued by the relevant regulatory authorities causing operations to cease, fines and

other penalties, and may include corrective measures requiring capital expenditure or remedial actions, which in the future could materially and adversely affect our business, financial condition and results of operations. In the event that such enforcement action is taken, our business operations could be materially and adversely disrupted.

In addition, some of these approvals, licences, assurances, accreditations, permits, registrations, and certificates are subject to periodic renewal by the relevant authorities, and the standards of such renewal may change from time to time. There can be no assurance that we will successfully procure such renewals. Any failure by us to obtain the necessary renewals and otherwise maintain all approvals, licences, registrations, assurances, accreditations, permits and certificates necessary to carry out our business at any time could severely disrupt our business and prevent us from continuing to carry out our business, which could have a material adverse effect on our business, financial condition and results of operations.

Regulatory authorities may also conduct scheduled or unscheduled periodic inspections of our facilities and services to monitor our compliance with certain of our licences, assurances, accreditations, permits, registrations, certificates and approvals. Any adverse findings or critical observations by such regulatory authorities, or other noncompliance with the terms of our licences, assurances, accreditations, permits, registrations, certificates and approvals could precipitate action against us.

Furthermore, if the interpretation or implementation of existing laws and regulations changes or new regulations come into effect requiring us to obtain any additional approvals, permits, licences registrations, assurances, accreditations or certificates that were previously not required to operate our existing businesses, facilities or any planned future business or facilities, we cannot assure you that we will successfully obtain such approvals, permits, licences, registrations, assurances, accreditations or certificates. Our failure to obtain the additional approvals, permits, licences or certificates may restrict our ability to conduct our business, which, in turn, could have a material adverse effect on our business, financial condition and results of operations.

### We rely principally on dividends and other distributions on equity paid by our subsidiaries and associates to fund cash and financing requirements.

We are a holding company, and we rely principally on dividends and other distributions on equity paid by our subsidiaries and associates for our cash and financing requirements, including the funds necessary to pay dividends and other cash distributions to our shareholders, to service any debt we may incur and to pay our operating expenses. Our subsidiaries and associates are separate and distinct legal entities from us and there can be no assurance that our subsidiaries' and/or associates' will declare and/or pay any dividends or make other distributions. In addition, our subsidiaries' and associates' ability to make any payments to us will also depend on their earnings, the terms of their indebtedness, business and tax considerations and other legal restrictions. See also " — Our subsidiary in China is subject to certain limitations under PRC laws and regulations on paying dividends." Moreover, the Group's investments in associate is shown in a single line on the main body of the consolidated statement of profit or loss. Any share of the Group's profits from an associate under

equity accounting will not have a positive cash flow impact until dividends are received from the relevant associate. Investment in associates are also not as liquid as certain other investment products. The inability to receive dividends or other distributions from our subsidiaries' or associates' could have a material adverse effect on our business, financial condition and results of operations.

#### We may not be able to utilise all of our deferred tax assets.

As of December 31, 2018, the Group had recognised a deferred tax asset of US\$0.07 million, which arose primarily from deferred tax assets relating to (i) doubtful debts amounting to US\$0.86 million; (ii) deferred rent amounting to US\$0.16 million; (iii) stock compensation amounting to US\$0.41 million; and (iv) others amounting to US\$0.28 million, which were offset by an accelerated tax depreciation of US\$1.85 million. Deferred tax assets are generally recognised for all deductible temporary differences to the extent that it is probable that taxable profits will be available against which those deductible temporary differences can be utilised. If we suffer significant losses in the future, we may not be able to utilise all of our deferred tax assets.

#### We had negative reserves and accumulated losses as of January 1 and December 31, 2016.

As of January 1, 2016 and December 31, 2016, we had negative reserves of US\$6.96 million and US\$0.02 million respectively, which was primarily due to our accumulated losses of US\$7.62 million and US\$0.98 million as of those dates, respectively. The reason for our accumulated losses as of January 1, 2016 and December 31, 2016 was a result of a redemption of preferred shares held by Baird Capital Partners Asia and certain other investors in Frontage Labs. See "*Financial Information* — *Negative Reserves and Accumulated Losses*". We did not pay or declare any dividends during the Track Record Period. We cannot provide any assurance that our results of operations will be sufficient to generate sufficient reserves to pay dividends to our shareholders. See also "— Risks Relating to the Global Offering — There can be no assurance if and when we will pay dividends in the future".

#### Our business is subject to seasonal fluctuations.

We have experienced, and expect to continue to experience, seasonal fluctuations in our results of operations. Historically, we have experienced some decreased demand for our services in certain quarters due to holiday periods in the United States and China. See "Financial Information — Significant Factors Affecting our Results of Operations and Financial Condition — Seasonal Fluctuations". As a result of these seasonal fluctuations, comparisons of revenue and our results of operations between different periods within a single financial year are not necessarily meaningful, nor can these comparisons be relied upon as indicators of our future performance. Should there be a significant reduction in demand for our services in any particular period of any year, our business, financial condition and results of operations may be adversely affected.

### Disruptions in the credit and capital markets and unfavourable general economic conditions could negatively affect our business, results of operations and financial condition.

Unfavourable economic conditions, including any increased volatility in the capital markets and diminished expectations for the global economy may harm our business. Disruption in the credit and capital markets that could have negative effects on our business may be difficult to predict or anticipate, including the ability of our customers, vendors, contractors and financing sources to meet their contractual obligations. For example, if our customers have difficulty obtaining necessary financing, they may reduce the size or number of projects that they outsource to us or be unable to make timely payments to us, which could have a negative impact on our business, financial condition and results of operations.

#### 2. RISKS RELATING TO CONDUCTING BUSINESS IN CHINA

### Changes in China's economic, political and social conditions could adversely affect our business, financial condition and results of operations.

We conduct a substantial portion of our business operations in China. In the year ended December 31, 2016, 2017 and 2018, 14.75%, 30.81% and 34.23% of our revenue, respectively, was derived from our operations in China. Accordingly, our business, financial condition and results of operations are affected to a significant degree by the economic, political and social conditions in China. The PRC economy differs from the economies of most developed countries in many respects, including the amount of government involvement, level of development, control of foreign exchange and allocation of resources, among other factors. The Chinese government has implemented various measures to encourage, but also to control, economic growth and to guide the allocation of resources. Some of these measures benefit the overall Chinese economy, but may also have a negative effect on us. For example, our business, financial condition and results of operations may be adversely affected by changes in pharmaceutical industry or tax regulations. These measures may cause decreased pharmaceutical activity and economic activity generally in China, which in turn could adversely affect our business, financial condition, results of operations.

### Fluctuations in exchange rates may result in foreign exchange losses and adversely impact our profitability.

We conduct a business based primarily in the US and China. Fluctuations in exchange rates between the Renminbi and the US dollar and other currencies may fluctuate and is affected by, among other things, changes in China's political and economic conditions. On August 11, 2015, the Chinese government announced a change in how the PBOC fixes the Renminbi's daily reference rate around which the Renminbi trades against the US dollar, which led to the devaluation of the Renminbi for three consecutive days. In December 2015, the People's Bank of China began publishing a trade-weighted exchange-rate index to encourage the market to assess the Renminbi's value against a basket of currencies, which was viewed by the market as an implicit agreement to gradually depreciate the Renminbi against the US dollar. However, it remains unclear how this flexibility might be implemented. Further, there remains significant international pressure on the Chinese government to adopt a substantial liberalisation of its currency policy, which could result in further and more significant appreciation in the value of Renminbi against the US dollar.

## The legal system of the PRC involves uncertainties that could limit the legal protections available to investors and the Company.

The legal system of the PRC is a civil law system based on written statutes. Unlike common law systems, it is a system in which legal cases have limited precedential value. In 1979, the Chinese government began to promulgate a comprehensive system of laws and regulations governing general economic matters. The overall effect of legislation over the past three decades has significantly increased the protections afforded to various forms of foreign investment in China. However, China has not developed a fully-integrated legal system, and recently enacted laws and regulations may not sufficiently cover all aspects of economic activity in China.

Our business and operations, a substantial portion of which are conducted in China, are governed by laws and rules of the PRC. Our Chinese subsidiaries are generally subject to laws, rules and regulations applicable to foreign investments in China. These laws and regulations change frequently, and their interpretation and enforcement involve uncertainties.

In addition, some regulatory requirements issued by certain Chinese governmental authorities may not be consistently applied, thus making strict compliance with all regulatory requirements impractical or, in some circumstances, impossible. For example, we may have to resort to administrative and court proceedings to enforce the legal protections that we benefit from either by law or contract. However, since PRC administrative and court authorities have significant discretion in interpreting and implementing statutory and contractual terms, it may be more difficult to evaluate the outcome of administrative and court proceedings and the level of legal protection we enjoy than in legal systems in more developed nations. Furthermore, the Chinese legal system is based in part on government policies and administrative rules that may have a retroactive effect. As a result, we may not be aware of our violations of these policies and rules until sometime after the violation. These uncertainties may also impede our ability to enforce the contracts into which we have entered. These uncertainties, together with any development or interpretation of the Chinese law that is adverse to us, could materially and adversely affect our business, financial condition and results of operations.

#### We are subject to PRC tax laws and regulations.

We are subject to periodic examinations on fulfilment of our tax obligation under the PRC tax laws and regulations by PRC tax authorities. We cannot assure you that future examinations by Chinese tax authorities will not result in fines, other penalties or actions that could adversely affect our business, financial condition and results of operations. Furthermore, the Chinese government from time to time adjusts or changes its tax laws and regulations. Such adjustments or changes, together with any uncertainty resulting therefrom, could have an adverse effect on our business, financial condition and results of operations.

#### It may be difficult to effect service of process upon our subsidiary in China or our management in China or to enforce against them in China any judgments obtained from foreign courts.

Frontage Shanghai is incorporated in China and from time to time some of our management resides in China. A material portion of our assets and some of the assets of our management are located in China. Therefore, it may not be possible for investors to effect service of process upon us or our management inside China. China has not entered into treaties or arrangements providing for the recognition or enforcement of judgments of the courts of most other jurisdictions.

On July 14, 2006, Hong Kong and China entered into the Arrangement on Reciprocal Recognition and Enforcement of Judgments in Civil and Commercial Matters by the Courts of the Mainland and of the Hong Kong Special Administrative Region Pursuant to Choice of Court Agreements Between Parties Concerned (關於內地與香港特別行政區法院相互認可和執行當事人協 議管轄的民商事案件判決的安排), or the Arrangement, pursuant to which a party with a final court judgment rendered by a Hong Kong court, requiring payment of money in a civil or commercial case, according to a choice of court agreement in writing may apply for recognition and enforcement of the judgment in China. Similarly, a party with a final judgment rendered by a Chinese court, requiring payment of money in a civil or commercial case, pursuant to a choice of court agreement in writing may apply for recognition and enforcement of such judgment in Hong Kong. A choice of court agreement in writing is defined as any agreement in writing entered into between parties after the effective date of the Arrangement in which a Hong Kong court or a Chinese court is expressly designated as the court having sole jurisdiction for the dispute. Therefore, it may be difficult or impossible to enforce a judgment rendered by a Hong Kong court in China if the parties to such dispute do not agree to enter into a choice of court agreement in writing. As a result, it may be difficult or impossible for investors to effect service of process against our assets or management in China in order to seek recognition and enforcement of foreign judgments in China.

Furthermore, China does not have treaties or agreements providing for the reciprocal recognition or enforcement of judgments awarded by courts of the United States, the United Kingdom or most other western countries or Japan. Hence, the recognition and enforcement in China of judgments of a court in any of these jurisdictions in relation to any matter not subject to a binding arbitration provision may be difficult or even impossible.

Any failure by the Shareholders or beneficial owners of our Shares who are Chinese residents to comply with certain Chinese foreign exchange regulations relating to offshore investment activities by such Chinese residents could restrict our ability to distribute profits, restrict our overseas and cross-border investment activities and subject us to liability under Chinese laws.

The State Administration of Foreign Exchange, or the SAFE, has promulgated several regulations requiring Chinese residents to register with the Chinese government authorities before engaging in direct or indirect offshore investment activities, including Circular of the State Administration of Foreign Exchange on the Administration of Foreign Exchange Involved in Overseas Investment, Financing and Roundtrip Investment through Special Purpose Vehicles Conducted by domestic

Residents in China via Special-Purpose Companies (關於境內居民通過特殊目的公司境外投融資及返 程投資外匯管理有關問題的通知), or SAFE Circular 37, issued and effective on July 4, 2014. SAFE Circular 37 requires Chinese residents to register with local branches of the SAFE in connection with their direct establishment or indirect control of an offshore entity, for the purpose of overseas investment and financing, with assets or equity interests of onshore companies or offshore assets or interests held by the Chinese residents, referred to in SAFE Circular 37 as a "special purpose vehicle". SAFE Circular 37 further requires amendment to the registration in the event of any significant changes with respect to the special purpose vehicle. If a shareholder who is a Chinese citizen or resident does not complete the registration with the local SAFE branches, the Chinese subsidiaries of the special purpose vehicle may be prohibited from distributing their profits and proceeds from any reduction in capital, share transfer or liquidation to the special purpose vehicle, and the special purpose vehicle may be restricted from contributing additional capital to its Chinese subsidiaries. Moreover, failure to comply with the various SAFE registration requirements described above may result in liabilities for the Chinese subsidiaries of the special purpose vehicle under Chinese laws for evasion of applicable foreign exchange restrictions, including (1) the requirement by the SAFE to return the foreign exchange remitted overseas within a period of time specified by the SAFE, with a fine of up to 30.00% of the total amount of foreign exchange remitted overseas and deemed to have been evasive and (2) in circumstances involving serious violations, a fine of no less than 30.00% of and up to the total amount of remitted foreign exchange deemed evasive.

On February 13, 2015, SAFE promulgated the Notice on Further Simplifying and Improving Policies for the Foreign Exchange Administration of Direct Investment (國家外匯管理局關於進一步 簡化和改進直接投資外匯管理政策的通知), or SAFE Circular 13, which came into effect on June 1, 2015, pursuant to which, local banks must review and handle foreign exchange registration for overseas direct investment, including the initial foreign exchange registration and amendment registration under SAFE Circular 37, while the application for remedial registrations shall still be submitted to, reviewed and handled by the relevant local branches of SAFE.

There remains uncertainty as to the interpretation and implementation of the latest SAFE rules at practice level. Due to a lack of detailed implementation rules pertaining to the registration requirements, as of the Latest Practicable Date, some individual shareholders of our Company who are Chinese citizens had not conducted their registration with the competent local branches of the SAFE. We are committed to complying with and to ensuring that our Shareholders, who are subject to the regulations, will comply with the relevant SAFE rules and regulations; however, due to the inherent uncertainty in the implementation of the regulatory requirements by PRC authorities, such registration might not be always practically available in all circumstances as prescribed in those regulations. In addition, we may not always be able to compel them to comply with Circular 37 or other related regulations. We cannot assure you that the SAFE or its local branches will not release explicit requirements or interpret the relevant Chinese laws and regulations otherwise. Failure to comply with Circular 37 or other related regulations could subject us to fines or legal sanctions, restrict our overseas or cross-border investment activities, limit our ability to contribute additional capital into our PRC subsidiaries, or limit our PRC subsidiaries' ability to pay dividends or make distributions or other payments to our Company or affect our ownership structure, which could adversely affect our business and prospects. Moreover, failure to comply with the SAFE registration requirements could result in liabilities under PRC laws for evasion of foreign exchange restrictions.

Furthermore, as the interpretation and implementation of these foreign exchange regulations has been constantly evolving and may be uncertain under certain circumstances, it is unclear how these regulations and any future regulations concerning offshore transactions, will be interpreted, amended and implemented by the relevant government authorities. For example, we may be subject to a more stringent review and approval process with respect to foreign exchange activities, such as remittance of dividends and foreign-currency-denominated borrowings, which may adversely affect our business, financial condition and results of operations. In addition, if the Company decides to acquire a PRC domestic company, we cannot assure you that the Company or the shareholders of the Company, as the case may be, will be able to obtain the necessary approvals of completing the necessary filings and registrations, which could adversely affect our business, financial condition and results of operations.

## We face uncertainty relating to the laws of the PRC and regulations relating to transfers by a non-resident enterprise of assets of a Chinese resident enterprise.

On February 3, 2015, the PRC State Administration of Taxation issued the Public Announcement on Several Issues Concerning Enterprise Income Tax for Indirect Transfer of Assets by Non-Resident Enterprises (關於非居民企業間接轉讓財產企業所得税若干問題的公告), or Circular 7, which supersedes certain provisions in the Notice on Strengthening the Administration of Enterprise Income Tax on non-Resident Enterprises (關於加強非居民企業股權轉讓企業所得税管理的通知), or Circular 698, which was previously issued by the State Administration of Taxation on December 10, 2009, as well as certain other rules providing clarification on Circular 698. Circular 7 provides comprehensive guidelines relating to, and heightened the PRC tax authorities' scrutiny over, indirect transfers by a non-resident enterprise of assets (including equity interests) of a Chinese resident enterprise, or PRC Taxable Assets.

For example, Circular 7 specifies that when a non-resident enterprise transfers PRC Taxable Assets indirectly by disposing of equity interests in an overseas holding company which directly or indirectly holds such PRC Taxable Assets, the Chinese tax authorities are entitled to reclassify the nature of an indirect transfer of PRC Taxable Assets by disregarding the existence of such overseas holding company and considering the transaction to be a direct transfer of PRC Taxable Assets, if such transfer is deemed to have been conducted for the purposes of avoiding PRC enterprise income taxes and without any other reasonable commercial purpose.

Except as provided in Circular 7, transfers of PRC Taxable Assets under the following circumstances shall be automatically deemed as having no reasonable commercial purpose, and are subject to PRC enterprise income tax: (i) more than 75.00% of the value of the equity interest of the overseas enterprise is directly or indirectly attributable to the PRC Taxable Assets; (ii) more than 90.00% of the total assets (cash excluded) of the overseas enterprise are directly or indirectly composed of investment in China at any time during the year prior to the indirect transfer of PRC Taxable Assets, or more than 90.00% of the income of the overseas enterprise is directly or indirectly from China during the year prior to the indirect transfer of PRC Taxable Assets; (iii) the overseas enterprise and its subsidiaries directly or indirectly hold PRC Taxable Assets and have registered with the relevant authorities in the host countries (regions) in order to meet the local legal requirements in

relation to organisation forms, yet prove to be inadequate in their ability to perform their intended functions and withstand risks as their alleged organisation forms suggest; and (iv) the income tax from the indirect transfer of PRC Taxable Assets payable abroad is lower than the income tax in China that may be imposed on the direct transfer of such PRC Taxable Assets.

Although Circular 7 contains certain exemptions (including, (i) where a non-resident enterprise derives income from the indirect transfer of PRC Taxable Assets by acquiring and selling shares of a listed overseas holding company which holds such PRC Taxable Assets on a public market; and (ii) where there is an indirect transfer of PRC Taxable Assets, but if the non-resident enterprise had directly held and disposed of such PRC Taxable Assets, the income from the transfer would have been exempted from enterprise income tax in the PRC under an applicable tax treaty or arrangement), it remains unclear whether any exemptions under Circular 7 will be applicable to the transfer of our Shares or to any future acquisition by us outside of the PRC involving PRC Taxable Assets, or whether the PRC tax authorities will reclassify such transaction by applying Circular 7. Therefore, the PRC tax authorities may deem any transfer of our Shares by our Shareholders that are non-resident enterprises, or any future acquisition by us outside of the PRC involving PRC Taxable Assets, to be subject to the foregoing regulations, which may subject our Shareholders or us to additional PRC tax reporting obligations or tax liabilities.

Provisions of Circular 7, which impose PRC tax liabilities and reporting obligations, do not apply to "non-resident enterprise acquiring and disposing of the equity interests of the same offshore listed company in a public market", or the Public Market Safe Harbour, which is determined by whether the parties, number and price of the shares acquired and disposed are not previously agreed upon, but determined in accordance with general trading rules in the public securities markets, according to one implementing rule for Circular 698. In general, transfers of the Shares by Shareholders on the Stock Exchange or other public market would not be subject to the PRC tax liabilities and reporting obligations imposed under the Circular 7 if the transfers fall under the Public Market Safe Harbour. Potential investors should consult their professional advisors if they are in any doubt as to the tax implications of subscribing for, purchasing, holding, disposing of and dealing in the Shares.

## Our subsidiary in China is subject to certain limitations under PRC laws and regulations on paying dividends.

We are a holding company, and we rely principally on dividends and other distributions on equity for our cash and financing requirements, including the funds necessary to pay dividends and other cash distributions to our shareholders, to service any debt we may incur and to pay our operating expenses. See "— Risks Relating to Our Business and Industry — We rely principally on dividends and other distributions on equity paid by our subsidiaries and associates to fund cash and financing requirements." If our subsidiary in China incurs debt on its own behalf in the future, the instruments governing the debt may restrict its ability to pay dividends or make other distributions to us. Furthermore, relevant laws of the PRC and regulations permit payments of dividends by the subsidiary only out of its retained earnings, if any, as determined in accordance with accounting standards and

regulations of the PRC. Under laws of the PRC and regulations, our subsidiary in China is required to set aside a portion of its net profit each year as statutory reserve. These reserves are not distributable as cash dividends. A wholly foreign-owned enterprise is required to set aside at least 10.00% of its after-tax profits of the preceding year as its reserve funds. It may stop contributing if the aggregate amount of the reserve funds has already accounted for more than 50.00% of its registered capital. Moreover, upon a board resolution, it may set aside certain amounts from its after-tax profits of the preceding year as bonus and welfare funds for staff and workers. A Sino-foreign equity joint-venture enterprise is required to set aside reserve funds, bonus and welfare funds for staff and workers and development funds, the percentage of which must be determined by the board of directors. As a result of these laws and regulations, our Chinese subsidiary is restricted in its ability to transfer its net profit to us in the form of dividends. Limitations on the ability of our subsidiary in China to pay dividends to us could materially and adversely limit our ability to pay dividends to our shareholders.

# Under China's Enterprise Income Tax Law, we may be classified as a "resident enterprise" of China. This classification could result in unfavourable tax consequences to us and our non-PRC shareholders.

Under China's Enterprise Income Tax Law, or the EIT Law, an enterprise established outside of China with "de facto management bodies" within China is considered a "resident enterprise", meaning that it can be treated in a manner similar to a Chinese enterprise for PRC enterprise income tax purposes. A tax circular issued by the PRC State Administration of Taxation on April 22, 2009, or Circular 82, regarding the standards used to classify resident enterprises clarified that dividends and other distributions paid by such resident enterprises will be considered to be PRC source income, subject to PRC withholding tax, currently at a rate of 10.00%, when received or recognized by non-PRC resident enterprise shareholders. This circular also subjects such resident enterprises to various reporting requirements with the PRC tax authorities. The implementing rules of the EIT Law define "de facto management bodies" as "management bodies that exercise substantial and overall management and control over the production and operations, personnel, accounting, and properties" of the enterprise. In addition, Circular 82 specifies that certain China-invested enterprises will be classified as resident enterprises if (a) they are controlled by Chinese enterprises or Chinese group enterprises and (b) the following are located or resident in China: (i) senior management personnel and departments that are responsible for daily production, operation and management; (ii) financial and personnel decision-making bodies; (iii) key properties, accounting books, company seal, and minutes of board meetings and shareholders' meetings; and (iv) half or more of senior management or directors having voting rights. On July 27, 2011, the PRC State Administration of Taxation issued Administrative Measures of Enterprise Income Tax of Chinese-Controlled Offshore Incorporated Resident Enterprises (Trial), or Bulletin 45, which became effective on September 1, 2011, to provide further guidance on the implementation of Circular 82. Bulletin 45 clarifies certain issues related to determining PRC resident enterprise status, including which competent tax authorities are responsible for determining offshore incorporated PRC resident enterprise status, as well as post-determination administration. Bulletin 45 specifies that when provided with a copy of a Chinese tax resident determination certificate issued by the competent tax authorities for an offshore incorporated PRC

resident enterprise, the payer should not withhold 10.00% income tax when paying Chinese-sourced dividends, interest and royalties to the PRC resident enterprise. In 2014, the State Administration of Taxation, or SAT, released the Announcement of the SAT on Issues Concerning the Recognition of Chinese-Controlled Enterprises Incorporated Overseas as Resident Enterprises on the Basis of Their Actual Management Bodies, or Bulletin 9 and supplemented some provisions on the administrative procedures for the recognition of resident enterprise, while the standards used to classify resident enterprises in Circular 82 remain unchanged.

We do not currently consider our Company or Frontage Labs to be a PRC resident enterprise on the basis of the rules and available interpretive guidance. While we do maintain senior management personnel, key properties and accounting books and financial and personnel decision making bodies in China, we do not currently have half or more of our senior management team located in China, and therefore do not satisfy this limb of the test for PRC residency.

Despite the foregoing, the SAT may take the view that the determining criteria set forth in Circular 82 and Bulletin 45 reflect the general position on how the "de facto management body" test should be applied in determining the tax resident status of all offshore enterprises. Additional implementing regulations or guidance may be issued determining that the Company or our other offshore companies are "resident enterprise" for PRC enterprise income tax purposes. If the PRC tax authorities determine that our Cayman Islands holding company is a resident enterprise for PRC enterprise income tax purposes, a number of unfavourable PRC tax consequences could follow. First, we may be subject to enterprise income tax at a rate of 25.00% on our worldwide taxable income, as well as to PRC enterprise income tax reporting obligations. Second, although under the EIT Law and its implementing rules and Bulletin 45 dividends paid by a PRC tax resident enterprise to an offshore incorporated PRC tax resident enterprise controlled by a PRC enterprise or enterprise group would qualify as tax-exempted income, we cannot assure that dividends paid by our PRC subsidiaries to us will not be subject to a 10.00% withholding tax, as the PRC foreign-exchange control authorities and tax authorities have not yet issued guidance with respect to the processing of outbound remittances to entities that are treated as resident enterprises for PRC enterprise income tax purposes but not controlled by a PRC enterprise or enterprise group like us. Finally, the EIT Law and its implementing rules issued by PRC tax authorities suggest that dividends paid by us to our non-PRC shareholders and, while less clear, capital gains recognised by them with respect to the sale of our stock may be subject to a withholding tax of 10% for non-PRC enterprise shareholders and potentially 20% for non-PRC individual shareholders. In addition, such non-PRC shareholders who are non-US Holders (as defined in "Appendix III - Certain US Federal Income and Estate Tax Considerations") also will be subject to US withholding tax on dividends paid by the Company at a rate of 30% (subject to reduction under an applicable income tax treaty) because the Company expects to be treated as an "inverted corporation" as a result of the Reorganisation and, therefore, will be considered a domestic US corporation for US federal income tax purposes. Similarly, these unfavourable consequences could apply to other offshore companies if they are classified as a PRC resident enterprise.

Government control of currency conversion of and regulations on loans to, and direct investment in, PRC entities by offshore holding companies may delay or prevent us from making loans or additional contributions to our PRC subsidiaries, which could restrict our ability to utilize the proceeds from the Global Offering effectively and affect our ability to fund and expand our business.

The Chinese government imposes controls on the convertibility of foreign currencies into Renminbi. Under China's existing foreign-exchange regulations, foreign-exchange transactions under capital accounts continue to be subject to significant foreign-exchange controls and require the registration with, and approval of, Chinese governmental authorities. In particular, if one subsidiary receives foreign-currency loans from us or other foreign lenders, these loans must be registered with SAFE or its local counterparts. If we finance such subsidiary by means of additional capital contributions, these capital contributions must be filed with or approved by certain government authorities, including the Ministry of Commerce or its local counterparts.

In August 2008, SAFE promulgated the Circular on the Relevant Operating Issues Concerning the Improvement of the Administration of the Payment and Settlement of Foreign Currency Capital of Foreign Invested Enterprises (國家外匯管理局綜合司關於完善外商投資企業外匯資本金支付結匯管 理有關業務操作問題的通知), or SAFE Circular No. 142, providing that the Renminbi capital converted from foreign-currency-registered capital of a foreign-invested enterprise may only be used for purposes within the business scope approved by the applicable government authority and may not be used for equity investments within the PRC.

On March 30, 2015, SAFE released the Notice on the Reform of the Management Method for the Settlement of Foreign Exchange Capital of Foreign-invested Enterprises (國家外匯管理局關於改革外 商投資企業外匯資本金結匯管理方式的通知), or SAFE Circular 19, which came into force and superseded SAFE Circular 142 from June 1, 2015. On June 9, 2016, SAFE further promulgated the Circular on the Reform and Standardisation of the Management Policy of the Settlement of Capital Projects (關於改革和規範資本項目結匯管理政策的通知), or SAFE Circular 16. SAFE Circular 19 has made certain adjustments to some regulatory requirements on the settlement of foreign-exchange capital of foreign-invested enterprises, and some foreign-exchange restrictions under SAFE Circular 142 are expected to be lifted. Under SAFE Circular 19 and SAFE Circular 16, the settlement of foreign-exchange by foreign invested enterprises shall be governed by the policy of foreign-exchange settlement on a discretionary basis. However, SAFE Circular 19 and SAFE Circular 16 also reiterate that the settlement of foreign-exchange shall only be used for its own operation purposes within the business scope of the foreign-invested enterprises and following the principles of authenticity. Considering that SAFE Circular 19 and SAFE Circular 16 are relatively new, it is unclear how they will be implemented, and there exists high uncertainties with respect to its interpretation and implementation by authorities. For example, under SAFE Circular 19 and SAFE Circular 16, we may still not be allowed to convert foreign-currency-registered capital of our PRC subsidiaries which are foreign-invested enterprises into RMB capital for securities investments or other finance and investment except for principal-guaranteed bank products. Further, SAFE Circular 19 and SAFE Circular 16 restrict a foreign-invested enterprise from using Renminbi converted from its registered capital to provide loans to its non-affiliated company.

Violations of SAFE Circular 19 and SAFE Circular 16 could result in severe monetary or other penalties. We cannot assure you that we will be able to complete the necessary government registrations or obtain the necessary government approvals on a timely basis, if at all, with respect to future loans or capital contributions by us to our PRC subsidiaries and conversion of such loans or capital contributions into Renminbi. If we fail to complete such registrations or obtain such approvals, our ability to capitalise or otherwise fund our PRC operations may be negatively affected, which could adversely affect our ability to fund and expand our business.

# Any future occurrence of force majeure events, natural disasters or health or public security hazards in China may severely disrupt our business and operations and may have a material adverse effect on our business, financial condition and results of operations.

Any future occurrence of force majeure events, natural disasters or outbreaks of epidemics and contagious diseases, including avian influenza, severe acute respiratory syndrome, swine influenza caused by the H1N1 virus, or H1N1 influenza or the Ebola virus, may materially and adversely affect our business, financial condition and results of operations. An outbreak of an epidemic or contagious disease could result in a widespread health crisis and restrict the business activities in affected areas, which may, in turn, materially and adversely affect our business. Moreover, the PRC has experienced natural disasters such as earthquakes, floods and droughts in the past few years. Any future occurrence of severe natural disasters in China may materially and adversely affect its economy and our business. We cannot assure you that any future occurrence of natural disasters or outbreaks of epidemics and contagious diseases or the measures taken by the Chinese government or other countries in response to such contagious diseases will not seriously disrupt our operations or those of our customers, which may materially and adversely affect our business, financial condition and results of operations.

## The political relationships between China and the United States may affect our business operations.

During the Track Record Period, we generated a substantial portion of our revenue from the United States and China. Our business is therefore subject to constantly changing international economic, regulatory, social and political conditions. As a result, China's political relationships with the United States may affect the demand for our services and our ability to serve our customers. There can be no assurance that such customers will not alter their perception of us or their preferences as a result of adverse changes to the state of political relationships between China and the United States. Any tensions and political concerns between China and the United States may cause a decline in the demand for our services and adversely affect our business, financial condition and results of operations.

### The discontinuation of any of the financial incentives currently available to us in China could adversely affect our financial position, results of operation, cash flows and prospects.

Since our inception, we have benefited from government grants and subsidies. We also enjoyed preferential tax treatment from the beginning of 2017. Our eligibility to receive these financial incentives requires that we continue to qualify for them. These incentives are subject to the discretion of the central government or relevant local government authorities, which could determine at any time to eliminate or reduce these financial incentives, generally with prospective effect. Since our receipt

of the financial incentives is subject to periodic time lags and inconsistent government practice, as long as we continue to receive these financial incentives, our net income in a particular period may be higher or lower relative to other periods depending on the potential changes in these financial incentives, in addition to any business or operational factors that we may otherwise experience. The discontinuation of financial incentives currently available to us could have a material adverse effect on our financial condition and results of operations.

# Changes to international trade agreements, tariffs and import/export regulations, particularly with respect to trade between the US and the PRC may have an adverse effect our business, financial condition and results of operations.

The administration of President Trump and members of the US Congress have made public statements indicating possible significant changes to US trade policy and have taken certain actions that may impact US and PRC trade, including imposing tariffs on certain goods imported into the United States. The actions taken to date include tariffs on steel and aluminium imports as well as tariffs on various Chinese imports. The PRC in retaliation has announced tariffs on US airplanes, automobiles and soybeans. It remains unclear what additional actions, if any, the governments of the US and the PRC will take in respect of their bilateral trade, and what the timing may be of any such actions. The actions taken to date, as well as any future tariffs, new regulations or other burdens on international trade, may cause escalating responses through the use of local regulations, tariffs or other requirements on exports and imports.

If any new legislation and/or regulations are implemented, or if existing trade agreements are renegotiated, or if the United States or the PRC impose additional burdens on international trade that negatively affect the ability of companies in the United States and the PRC to import and export goods, it may lead to a decline in demand for our services. In addition, new legislative or regulatory changes or additional burdens focused on the pharmaceutical industry may make it time-consuming and expensive, and ultimately impracticable, for us to alter our business operations to adapt to or comply with such changes, and such operational changes, if implemented, could have a material adverse effect on our business, financial condition and results of operations.

## We are subject to a variety of laws and other obligations regarding data protection and data transfer in China.

We are subject to laws in China relating to the collection, use, sharing, retention, security and transfer of confidential and private information, including personal information and scientific data. These laws apply not only to third-party transactions but also to transfers of information between our companies in China and our companies in the United States and other parties with whom we have commercial relations. These laws are continuing to develop, and the PRC government may adopt other rules and restrictions in the future. According to the Measures for the Management of Scientific Data (科學數據管理辦法) effective on March 17, 2018, certain non-PRC scientists and non-PRC invested institutions may need to seek government approval before data can be transferred outside of China. As a consequence, we may be restricted from sharing the results of certain tests that we conduct in

our facilities in China with our headquarters or facilities located in the United States or even regulators based in the United States, such as the US FDA. More generally, complying with emerging and changing requirements may cause us to incur substantial costs or require us to change our business practices. Non-compliance could result in penalties or significant legal liability, including fines and public announcements of misconduct by the relevant authorities which govern our markets in China. Any of these factors could have a material and adverse effect on our business, financial condition and results of operations.

#### 3. RISKS RELATING TO THE GLOBAL OFFERING

## The Company expects to be treated as a domestic US corporation for US federal income tax purposes and dividends on the Offer Shares will be subject to US withholding tax.

As discussed more fully under the section headed "Appendix III, Part A.3 – Certain US Federal Income and Estate Tax Considerations", the Company expects that, even though the Company is incorporated in the Cayman Islands, the Company will be considered an "inverted corporation" as a result of the Reorganisation and, therefore, will be treated as a domestic US corporation for US federal income tax purposes pursuant to Section 7874(b) of the US Internal Revenue Code of 1986, as amended (the "Code"). Accordingly, the Company should generally be subject to US federal corporate income tax as if it were a domestic US corporation organised under the laws of the United States or its political subdivisions. If the Company is also considered to be PRC tax resident, it is possible that certain tie-breaker rules under the income tax treaty between the United States and the PRC (the "US-PRC Treaty") would not be available to the Company with the result that the Company may not be able to claim US-PRC Treaty benefits with respect to PRC tax on any PRC source income or gain. Moreover, on December 22, 2017, the "Tax Cuts and Jobs Act of 2017" (the "TCJA") was enacted into law. The TCJA made significant changes to the US federal income tax rules applicable to both individuals and entities, including corporations. There is significant uncertainty as to the impact of the changes made by the TCJA on the Company and on any investment in the Offer Shares. Prospective investors should consult with their tax advisors with respect to the status of US federal income tax reform and its potential effect on their investment in the Offer Shares.

In addition, if the Company pays dividends to a Non-US Holder (as defined in "Appendix III — Certain US Federal Income and Estate Tax Considerations"), it will be required to withhold US income tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder's country of residence. A Non-US Holder that claims the benefit of an applicable income tax treaty between the United States and such holder's country of residence generally will be required to certify its entitlement to benefits under such treaty, generally on a properly completed IRS Form W-8BEN or W-8BEN-E (as applicable). However, it should be noted that, at the present time, the company believes that no mechanism is available through the trading, settlement, and security transferring facilities in Hong Kong for holders to provide to the Company or the applicable withholding agent the certifications required by applicable US Treasury regulations to receive the benefit of any lower applicable treaty withholding tax rate. Accordingly, the Company expects that US federal income tax withholding at a 30% rate will be made from all

dividends. In addition, the Company also expects that there may not be a mechanism available for Non-US Holders to obtain the documentation required to make a claim with the US Internal Revenue Service ("**IRS**") for a refund or credit of US federal income tax withheld from such dividends. Non-US Holders who are non-PRC shareholders also might be subject to PRC withholding tax on the dividends paid by the Company if the Company is deemed to be a "resident enterprise" under the EIT Law. See "— *Risks Relating to Conducting Business in China — Under China's Enterprise Income Tax Law, we may be classified as a "resident enterprise" of China. This classification could result in unfavourable tax consequences to us and our non-PRC shareholders".* 

#### An active trading market for the Shares may not develop.

Prior to the Global Offering, there has not been a public market for the Shares. An active or liquid market for the Shares may not develop or be sustained after the Global Offering. The Offer Price Range for the Shares was the result of, and the Offer Price will be the result of, negotiations between us and the Joint Global Coordinators (on behalf of the Underwriters) and may not be indicative of the prices of the Shares that will prevail in the trading market after the Global Offering. Listing and quotation of the Shares on the Stock Exchange does not guarantee that a trading market for the Shares will develop or, if a market does develop, that it will continue or the liquidity of that market.

#### The price and trading volume of the Shares may be volatile.

The trading price and trading volume of the Shares may fluctuate significantly and rapidly as a result of a variety of factors, many of which are beyond our control, including:

- actual and anticipated variations in our results of operations;
- changes in securities analysts' estimates or market perception of our financial performance;
- announcements by us of significant acquisitions, disposals, strategic alliances or joint ventures;
- recruitment or loss of key personnel by us or our competitors;
- market developments affecting us or the markets in which we operate;
- regulatory or legal developments, including legal proceedings or regulatory action;
- the operating and share price performance of companies that investors consider to be comparable to us;
- the depth and liquidity of the market for the Shares;

- the release or expiry of lock-up or other transfer restrictions on the Shares; and
- general economic, political and stock market conditions in the countries in which we operate and elsewhere in the world.

Moreover, in recent years, stock markets in general have experienced significant price and volume fluctuations, some of which have been unrelated or disproportionate to the operating performance of the listed companies. These broad market fluctuations may adversely affect the market price of the Shares.

## Purchasers of Shares will experience an immediate dilution in the pro forma net tangible asset value per Share and may experience further dilution if we issue additional Shares in the future.

Based on the Offer Price Range, the Offer Price is expected to be higher than the net tangible asset value per Share prior to the Global Offering. Therefore, purchasers of Shares in the Global Offering will experience an immediate dilution in the pro forma net tangible asset value per Share.

In addition, we may in the future issue additional Shares to raise additional funds, finance acquisitions or for other purposes. You and other purchasers of the Shares may experience further dilution in the net tangible asset value per Share if we issue additional Shares at a price lower than the net tangible asset value per Share at the time of their issue.

#### There can be no assurance if and when we will pay dividends in the future.

Policy on the distribution of dividends shall be formulated by our Board of Directors at their discretion and will be subject to Shareholders' approval. A decision to declare or to pay any dividends and the amount of any dividends will depend on, among other things, our results of operations, cash flows, financial condition, operating and capital requirements and applicable laws and regulations. As a result, there can be no assurance whether, when and in what form we will pay dividends in the future or that we will pay dividends in accordance with our dividend policy. See "Financial Information — Dividends". See also "— The Company expects to be treated as a domestic US corporation for US federal income tax purposes and dividends on the Offer Shares will be subject to US withholding tax".

## Sale, or perceived sale, of a substantial number of the Shares in the public market could adversely affect the prevailing market price of the Shares.

Future sales of a substantial number of the Shares by our Controlling Shareholders could negatively impact the market price of the Shares and our ability to raise equity capital in the future at a time and price that we deem appropriate. The Shares held by our Controlling Shareholders are subject to certain restrictions regarding their disposal for a period of 12 months from the Listing Date. See "Underwriting — Underwriting Arrangements and Expenses". There is no assurance that our Controlling Shareholders will not dispose of any Shares that they own now or may own in the future.

### Our Controlling Shareholders may exert substantial influence over our operations and may not act in the best interests of the independent Shareholders.

Immediately following the completion of the Global Offering and the Capitalisation Issue (assuming the Over-allotment Option is not exercised, no outstanding awards granted under the Pre-IPO Share Incentive Plans are exercised and no awards are granted under the 2018 Share Incentive Plan), Hong Kong Tigermed, who along with Tigermed as a group are the Controlling Shareholders of the Company, will hold a substantial majority of the Shares in issue. Therefore, our Controlling Shareholders will be able to exercise significant influence over all matters requiring Shareholders' approval, including the election of Directors and the approval of significant corporate transactions. Such concentration of ownership also may have the effect of delaying, preventing or deterring a change in control of the Group that would otherwise benefit the Shareholders. The interests of our Controlling Shareholders may not always coincide with our or your best interests. If the interests of our Controlling Shareholders conflict with our interests or those of the other Shareholders, or if our Controlling Shareholders choose to cause our business to pursue strategic objectives that conflict with our interests or those of the other Shareholders, including you, may be disadvantaged as a result.

## Tax laws of the Cayman Islands may differ from the tax laws of other jurisdictions, including Hong Kong.

We are a company incorporated in the Cayman Islands. Prospective investors should consult their tax advisers concerning the overall tax consequences of acquiring, owning or selling the Shares. Tax laws of the Cayman Islands may differ from the tax laws of other jurisdictions, including Hong Kong. See "Appendix III — Taxation and Regulatory Overview".

# Shareholders of the Company could face difficulties in protecting their interests because our Company was incorporated under the laws of the Cayman Islands and these laws could provide different protections to minority Shareholders than the laws of Hong Kong.

Our corporate affairs are governed by the Memorandum and the Articles and by the companies law and common law of the Cayman Islands. The laws of the Cayman Islands relating to the protection of the interests of minority shareholders could differ in some respects from those established under statutes or judicial precedent in existence in Hong Kong. Such differences could mean that the minority Shareholders of the Company could have different protections than they would have under the laws of Hong Kong.

## Certain investors may find it difficult to enforce foreign judgments obtained against us or the Directors.

We are a holding company incorporated as an exempted company with limited liability in the Cayman Islands with business operations conducted through various subsidiaries. All of the Directors

and our senior management members reside outside of Hong Kong. In addition, substantially all of our assets and the assets of the Directors and our senior management are located outside of Hong Kong. As a result:

- it may not be possible for certain investors to effect service of process within the relevant jurisdiction upon us or the Directors or our senior management members located outside the relevant jurisdiction, or to enforce, in foreign courts, judgments obtained against them in foreign courts, including judgments predicated upon the civil liability provisions of foreign securities laws; and
- it may not be possible for Hong Kong investors to effect service of process within Hong Kong upon us or the Directors or our senior management members located outside Hong Kong or to enforce, in the Hong Kong courts or outside Hong Kong, judgments obtained against them in the Hong Kong courts or in courts outside Hong Kong, including judgments predicated upon the civil liability provisions of Hong Kong securities laws.

## You are cautioned not to place any reliance on any information in press articles or other publications or media regarding us or the Global Offering.

There has been, prior to the publication of this prospectus, and there may be subsequent to the date of this prospectus but prior to the completion of the Global Offering, press, media, and/or research analyst coverage regarding us, our business, the industry in which we operate and the Global Offering. Neither we nor the Underwriters have authorised anyone to provide you with any information other than that contained in this prospectus, and we and the Relevant Persons do not accept any responsibility for the accuracy or completeness of the information contained in such press articles, other media and/or research analyst reports nor the fairness or the appropriateness of any forecasts, views or opinions expressed by the press, other media and/or research analyst regarding the Shares, the Global Offering, our business or the industry in which we operate. Prospective investors are cautioned to make their investment decisions on the basis of the information contained in this prospectus only and should not rely on any other information.

#### The industry statistics contained in this prospectus may not be accurate, reliable or fair.

Statistics and other information relating to industry in which we operate contained in "Industry Overview" have been compiled partly from various publicly available publications as well as the Frost & Sullivan Report we commissioned. We believe that the sources of such information are appropriate sources and have taken reasonable care in extracting and reproducing such information. We have no reason to believe that such information is false or misleading or that any fact has been omitted that would render such information false or misleading. However, we cannot guarantee the quality of such source materials. Moreover, statistics derived from multiple sources may not be prepared on a comparable basis. Neither we nor any of the Relevant Persons has independently verified such information, and makes no representation as to the accuracy of such facts and statistics, which may not be consistent with other information compiled from other sources. Such information may not be

complete or the latest available. As the way of collecting the information may contain faults or may not be effective, or there may exist variations and other problems between information published and market practices, the industry information and statistics contained in this prospectus may not be accurate and should not be unduly relied upon when making a decision on your investment in us or otherwise.

### DIRECTORS AND PARTIES INVOLVED IN THE GLOBAL OFFERING

The members of the Board are as follows:

Name	Address	Nationality
Executive Director		
Dr Zhihe Li	3904 Powell Rd Chester Springs, PA 19425 United States of America	Canadian
Non-executive Director		
Mr Jun Gao	Room 102/53 (Lane 99) Guang Zhong Road West Shanghai 200072 People's Republic of China	Australian
Independent Non-executive Dire	ctors	
Mr Yifan Li	Floor 8, Building No. 1760, Jiangling Road Hangzhou, Zhejiang Province People's Republic of China	American
Mr Erh Fei Liu	House 26, 56 Repulse Bay Road Hong Kong	Chinese
Dr Jingsong Wang	Suite 1103, No. 2, Lane 95 Banquan Road, Pudong New District Shanghai 200124 People's Republic of China	American
See "Directors and Senior M	anagement" for further details.	
Joint Sponsors	Merrill Lynch Far East Limited 55/F, Cheung Kong Center 2 Queen's Road Central Hong Kong Goldman Sachs (Asia) L.L.C. 59/F, Cheung Kong Center 2 Queen's Road Central Hong Kong	

### DIRECTORS AND PARTIES INVOLVED IN THE GLOBAL OFFERING

Joint Global Coordinators and Joint Bookrunners	Merrill Lynch (Asia Pacific) Limited 55/F, Cheung Kong Center 2 Queen's Road Central Hong Kong
	Goldman Sachs (Asia) L.L.C. 59/F, Cheung Kong Center 2 Queen's Road Central Hong Kong
	CLSA Limited 18/F, One Pacific Place 88 Queensway Hong Kong
	Haitong International Securities Company Limited 22/F, Li Po Chun Chambers 189 Des Voeux Road Central Hong Kong
Legal Advisers to the Company	As to Hong Kong and US laws: Freshfields Bruckhaus Deringer 55th Floor, One Island East Taikoo Place, Quarry Bay Hong Kong
	<i>As to Cayman Islands laws:</i> Conyers Dill & Pearman Cricket Square Hutchins Drive PO Box 2681 Grand Cayman KY1-1111 Cayman Islands
	As to PRC laws: AnJie Law Firm 19/F, Tower D1 Liangmaqiao Diplomatic Office Building No. 19 Dongfangdonglu Chaoyang District Beijing People's Republic of China
	As to Pennsylvania laws: Morgan, Lewis & Bockius LLP 1701 Market St. Philadelphia, PA 19103-2921 United States

### DIRECTORS AND PARTIES INVOLVED IN THE GLOBAL OFFERING

Legal Advisers to the Joint Sponsors and the Underwriters	As to Hong Kong and US laws: Shearman & Sterling 12/F, Gloucester Tower, The Landmark 15 Queen's Road Central Hong Kong
	As to PRC laws:
	Jia Yuan Law Offices
	Room 2703, Harbour Ring Plaza
	No.18, Xi Zang Rd.(M)
	Huangpu District
	Shanghai
	People's Republic of China
Auditor and Reporting	Deloitte Touche Tohmatsu
Accountants	Certified Public Accountants
	35/F One Pacific Place
	88 Queensway
	Hong Kong
Industry Consultant	Frost & Sullivan
	Room 1018, Tower B
	No. 500 Yunjin Road
	Xuhui District
	Shanghai
	People's Republic of China
Receiving Bank	Bank of China (Hong Kong) Limited 1 Garden Road Hong Kong

# **CORPORATE INFORMATION**

Registered Office	Conyers Trust Company (Cayman) Limited Cricket Square, Hutchins Drive P.O. Box 2681 Grand Cayman, KY11111 Cayman Islands
Head Office	700 Pennsylvania Drive Exton, PA 19341 United States of America
Place of Business in Hong Kong Registered under Part 16 of the Companies Ordinance	Level 54 Hopewell Centre 183 Queen's Road East Hong Kong
Company Secretary	Ms Karen Ying Lung Chang (張盈倫) ( <i>Hong Kong Solicitor</i> )
Authorised Representatives	Dr Zhihe Li 3904 Powell Rd Chester Springs, PA 19425 United States of America Ms Karen Ying Lung Chang 40/F, Jardine House, 1 Connaught Place, Central Hong Kong
Audit and Risk Management Committee	Mr Yifan Li ( <i>Chairman</i> ) Mr Erh Fei Liu Mr Jun Gao
Remuneration Committee	Dr Jingsong Wang ( <i>Chairman</i> ) Mr. Yifan Li Dr Zhihe Li
Nomination Committee	Dr Jingsong Wang ( <i>Chairman</i> ) Mr Erh Fei Liu Dr Zhihe Li
Compliance Adviser	Somerley Capital Limited 20th Floor, China Building 29 Queen's Road Central Central, Hong Kong

# **CORPORATE INFORMATION**

Principal Banker	Wells Fargo Bank, N.A. 420 Montgomery Street San Francisco, CA 94104 United States of America
Principal Share Registrar and Transfer Office	Conyers Trust Company (Cayman) Limited Cricket Square, Hutchins Drive P.O. Box 2681 Grand Cayman, KY1-1111 Cayman Islands
Hong Kong Share Registrar	Tricor Investor Services Limited Level 22 Hopewell Centre 183 Queen's Road East Hong Kong
Company's Website	www.frontagelab.com (A copy of this prospectus is available on the Company's website. Except for the information contained in this prospectus, none of the other information contained on the Company's website forms part of this prospectus)

#### HISTORY

Our origins date back to 2001 when our founder, Dr Song Li, set up a testing laboratory in Thorofare, New Jersey with an ambition to build a customer-focused organisation to help pharmaceutical companies overcome their complex drug development challenges through an outsourced solution. In 2004, Frontage Labs was incorporated in Pennsylvania and established laboratory facilities.

Since 2004, Dr Song Li led a period of rapid expansion in the scale and breadth of services offered by Frontage Labs. Frontage Labs' first China office opened in 2005, in Shanghai, becoming, we believe, one of the first laboratories in China to operate under global GXP standards. Dr Song Li was of the view that it was important to establish a presence in China and gain exposure to the evolving regulatory landscape in China as well as the growing number of Chinese pharmaceutical companies looking to outsource various elements of their drug development processes so as to provide Frontage Labs with a platform for future growth in China. In 2007, Frontage Labs was ranked as one of the top 20 fastest growing companies in the Greater Philadelphia area on the "Philadelphia 100" list published annually by the Philadelphia Business Journal.

In April 2008, Baird Financial Corp. ("**Baird**"), an entity affiliated with Baird Capital Partners Asia, the Greater China-focused investment group of Baird Private Equity (the global private equity group affiliated with Robert W. Baird & Co.), along with other investors, invested US\$10.24 million in Frontage Labs. Baird Capital Partners Asia specialised in providing growth equity capital to smaller, high-potential companies that have substantial operations and growth opportunities in Greater China. This investment assisted us in scaling our global platform before Hong Kong Tigermed, a wholly-owned subsidiary of Hangzhou Tigermed, acquired a 67.00% interest in Frontage Labs with a total investment of US\$50.25 million in May 2014. Since this investment by Hong Kong Tigermed in May 2014, we have had a collaborative relationship with Tigermed. For example, in March 2015, we acquired 45.00% of BDM Consulting Inc. (now named Tigermed-BDM, Inc.) for US\$5.26 million. Hangzhou Tigermed Consulting Co., Ltd. (which is the owner of Hong Kong Tigermed) had previously acquired a 55.00% equity interest in BDM Consulting Inc. BDM Consulting Inc. is an independent CRO specialising in biostatistics, data management and statistical programming.

We have also invested in, or disposed of our interest in certain companies during the Track Record Period. See "— Acquisitions, Investments and Disposals" below and "Business — Our Strategic Partnerships and Associates".

Recently, in April 2018, we acquired Croley Martell Holdings, Inc. ("**Concord**"), the holding company of Concord Biosciences, LLC and Concord Holdings, LLC, which, among other things, allowed us to offer safety and toxicology services for the first time. See "— Acquisitions, Investments and Disposals — Concord" below.

On April 16, 2018, the Company was incorporated in the Cayman Islands. A reorganisation of our group was completed on April 17, 2018 in preparation for the Listing such that Frontage Labs became a wholly-owned subsidiary of the Company. For information on our reorganisation and subsequent developments, see "— *The Reorganisation*" below.

#### **KEY MILESTONES**

The following table sets forth the key milestones of our business since 2001:

Year	Event
2001	Dr Song Li set up a testing laboratory in Thorofare, New Jersey
2004	Frontage Labs was incorporated and laboratory facilities opened in Pennsylvania
2005	First China office opened in Shanghai
2008	Baird and other investors invested US\$10.24 million in Frontage Labs
2012	Frontage Labs headquarters moved to its current site in Exton, Pennsylvania
2014	Hong Kong Tigermed acquired a majority interest in Frontage Labs
2015	Frontage Labs acquired a 45.00% equity interest in BDM Consulting Inc.
2018	Frontage Labs acquired 100.00% of Concord

#### ACQUISITIONS, INVESTMENTS AND DISPOSALS

We have made certain acquisitions, investments and disposals during the Track Record Period and up to the date of this prospectus.

#### Concord

We completed the acquisition of Concord, the holding company of Concord Biosciences, LLC and Concord Holdings, LLC on April 1, 2018 for a total consideration of US\$5.00 million, which was subject to a US\$0.68 million holdback that was deposited in an escrow account to secure and to serve as a source of funds to fund certain services to be performed by the sellers of Concord after completion pursuant to a transition work agreement (the "**Concord Holdback**"). The entire US\$0.68 million has been released to Frontage Labs. As a result, the actual consideration price paid for Concord was US\$4.32 million.

We believe that the strategic acquisition of Concord enhances our service offering by (i) increasing our capacity for DMPK and bioanalytical services generally, (ii) allowing us to offer safety and toxicology services to our customers for the first time, including the introduction of large animal testing and (iii) enhancing our capability to provide services to agrochemical clients. Concord's facility is located in Concord, Ohio and is spread over more than 20 acres, with a gross floor area of the built up properties in excess of 90,000 sq. ft. See also "Business — Our Services — Safety and Toxicology".

The cash consideration for the acquisition of Concord was determined based on arm's length negotiations. The cash consideration paid for Concord was raised pursuant to a US\$5.00 million promissory note entered into with Dr Song Li, as lender, on March 28, 2018. The liability under this promissory note has been fully discharged. See "Financial Information — Promissory Notes entered into with Dr Song Li in March 2018". The sellers of Concord were independent third parties. The acquisition, which was not subject to any regulatory approvals, became legally effective on April 1, 2018.

With effect from April 1, 2018, we began consolidating Concord's results and our results of operation for 2018 will reflect the consolidation of Concord's results from April 1, 2018 to December 31, 2018. We also started recording a substantial portion of the revenue from Concord under a new business unit — safety and toxicology.

#### Frontage Clinical Services, Inc.

Until August 29, 2016, Frontage Clinical Services, Inc. was a wholly owned subsidiary of Frontage Labs. Our entire interest in Frontage Clinical Services, Inc. was sold to Sunrex LLC (a Pennsylvania limited liability company which is an independent third party) for a price of US\$1.00 on August 31, 2016. In connection with this sale, we converted a receivable of US\$2.51 million from Frontage Clinical Services, Inc. to a long-term note owed to us with an initial fair value of US\$1.19 million and principal amount of US\$2.51 million due on August 29, 2019. The US\$2.51 million long-term note initially carried interest at 1% per annum which then changed to 3% per annum from September 2017. See note 21 to the Accountants' Report in Appendix I to this prospectus.

For certain non-material incidents of non-compliance that occurred in relation to Frontage Clinical Services, Inc. during the Track Record Period, please see "Business — Legal Matters — Legal Compliance."

Our initial decision to sell Frontage Clinical Services, Inc. back in 2016 was on account of its underperformance and continued losses over a two year period as well as the fact that the business of Frontage Clinical Services, Inc. was not substantial in comparison and outside of the Group's primary business of providing laboratory and related services. This disposal in 2016 was classified as a discontinued operation under IFRS. The results of operation for 2016 were recorded as a discontinued operation for 2016. See note 15 to the accountants' report in Appendix I to this prospectus. For certain non-material incidents of non-compliance that occurred in relation Frontage Clinical Services, Inc. during the Track Record Period, please see "Business — Legal Matters — Legal Compliance".

On June 1, 2017, Frontage Labs acquired 19.40% of the equity interest of Frontage Clinical Services, Inc. for cash consideration of US\$200,000.00. Our decision to re-invest in Frontage Clinical Services, Inc. was because we believed Sunrex LLC, the new owners of Frontage Clinical Services, Inc. had made significant changes, including changes to the management of Frontage Clinical Services, Inc., which resulted in us re-evaluating the growth potential of Frontage Clinical Services, Inc. in which we have retained an interest. Furthermore, unlike in the prior situation, we were now taking a minority position (with no management control) in this non-core business with Sunrex LLC focusing on the development of Frontage Clinical Services, Inc. thereby freeing our management from the distraction of having to manage the non-core business.

As at the Latest Practicable Date, Frontage Labs owns 11.91% of the equity interest of Frontage Clinical Services, Inc. Frontage Labs shareholding in Frontage Clinical Services, Inc. has been diluted from 19.40% to 11.91% as a result of additional investments in Frontage Clinical Services, Inc. in 2018. Since June 1, 2017, our investment in Frontage Clinical Services, Inc. has been accounted for as an investment in an associate.

Frontage Labs has a right of first refusal to buy all of the shares of Frontage Clinical Services, Inc., which it does not currently own in certain circumstances. If Sunrex LLC is interested in selling an equity interest in Frontage Clinical Services, Inc., we have a 60 day period to agree on a price (and other terms) for the sale of the shares of Frontage Clinical Services, Inc. If no agreement is reached between us an Sunrex LLC within the 60 day period, Sunrex LLC is free to engage with third parties. However, if an agreement is reached by Sunrex LLC with any third party for the sale of shares of Frontage Clinical Services, Inc., then Frontage Labs has a 45 day period to match the terms of the offer made by such third party.

#### **Frontage Suzhou**

Until January, 2015, Frontage Suzhou was a wholly-owned subsidiary of Frontage Shanghai, which in turn was wholly owned by Frontage Labs. Frontage Suzhou carries out CMC operations in the PRC. In February 2015, we entered into a sale agreement to dispose 49% of our equity interest in Frontage Suzhou to an independent third party, Zhu Jianguo. The sale agreement also contemplated an additional investment by the independent third party, Zhu Jianguo. As a result of the transfer of our 49% equity interest and the additional investment by the independent third party, our shareholding in Frontage Suzhou decreased to 49.04%. The sale consideration for our 49.00% equity interest in Frontage Suzhou was US\$980,000. The results of operation for 2015 of Frontage Suzhou are recorded as a discontinued operation in 2015. Since June 30, 2015, our investment in Frontage Suzhou has been accounted for as an investment in an associate. See notes 15 and 21 to the Accountants' Report in Appendix I to this prospectus.

In 2016, we invested an additional US\$0.52 million in Frontage Suzhou, which was our pro-rata portion of the total investment of US\$1.06 million made by the shareholders of Frontage Suzhou. Our shareholding percentage has remained at 49.04% since June 30, 2015.

We continue to retain a 49.04% equity interest in Frontage Suzhou and expect to continue to remain at this shareholding percentage as the day-to-day operations of Frontage Suzhou are managed by the other shareholders of Frontage Suzhou.

Frontage Shanghai has a right of first refusal to buy the remaining equity interest in Frontage Suzhou in the event that the other shareholders wish to sell their shares. See "Business — Our Strategic Partnerships and Associates — Other Associates — Frontage Suzhou".

#### Frontida

On May 26, 2016, Frontage Labs subscribed for a 2.5% equity interest in Frontida for a cash consideration of US\$0.20 million. From May 26, 2016, Frontage Labs had significant influence over the business by virtue of, amongst other things, Frontage Labs' presence on the board of Frontida. On December 27, 2016, Frontage Labs exchanged a loan of US\$2.00 million made to Frontida for an additional 13.6% equity interest in Frontida (resulting in Frontage Labs' equity interest in Frontida increasing to 16.0%). During September, October and November 2017, Frontage Labs subscribed to an additional 14.0% of the equity interest of Frontida, via five different purchases of tranches of shares. The combined cash consideration for these investments was US\$2.80 million. This resulted in Frontage Labs' shareholding in Frontida increasing to 30.0%. Our investment in Frontida (from June 8, 2016 to March 1, 2018) was accounted for as an investment in an associate.

On March 1, 2018, Frontage Labs sold its entire 30% equity interest in Frontida to Dr Song Li for a consideration of US\$5.37 million as the business of Frontida is outside of our primary business of laboratory and related services. The consideration was settled by way of a US\$5.37 million promissory note issued in favour of Frontage Labs by Dr Song Li. See "Financial Information — Indebtedness — Promissory Notes entered into with Dr Song Li in March 2018".

There is no overlap in the business of Frontida and the Group. Frontida is a contract manufacturing organization that supports pharmaceutical companies in the scale-up and commercial manufacture of immediate and controlled release oral solid dose products. Frontida also provides clinical trial materials (CTM) manufacturing, serialized packaging, warehousing, and stability services. Frontida was incorporated in 2015 and is headquartered in Philadelphia, Pennsylvania. In the year ended December 31, 2017, Frontida's revenues were approximately US\$29.60 million based on its financial statements. Although our portfolio of CMC services includes CTM manufacturing, our services in respect of CTM manufacturing are focused primarily on supporting clinical trials. Our Directors believe that there was no competition between our Group and Frontida during the Track Record Period up to the date of this prospectus and also do not anticipate any competition between our Group and Frontida in the future.

Our founder, Dr Song Li and his family are majority shareholders of Frontida. As at the Latest Practicable Date, Dr. Song Li and his family own 55.21% of the equity shares of Frontida. Dr. Song Li is also the Chairman on the board of Frontida. We believe that Dr Li is able to perform his role in the Group independently from that in Frontida for several reasons, including because he has specifically agreed with us that he will spend no more than twenty hours a month in respect of his role as Chairman on the board of Frontida. See also "Directors and Senior Management — Other Information about Senior Management of the Group".

The other shareholders of Frontida (all of whom are friends or contacts of Dr Song Li) are (a) individuals who are directors, senior management members or employees of the Group (who collectively hold a 11.40% equity interest), (b) individuals who were former employees of our Group (who collectively hold a 0.91% equity interest), (c) individuals who are directors, senior management members or employees of Frontida (who collectively hold a 14.66% equity interest) and (d) certain other shareholders (all of whom are independent third parties) who collectively hold a 17.70% equity interest.

The directors, senior management members and employees of the Group who collectively hold a 11.40% equity interest in Frontida are Dr. Zhihe Li (7.52% equity interest), Zhongping (John) Lin (1.50% equity interest), Dongmei Wang (0.75% equity interest), Kang Wang (0.60% equity interest), Harry Zhao (0.53% equity interest), Abdul Mutlib (0.38% equity interest) and Arthur Hartel (0.12% equity interest). None of these directors, senior management members and employees of the Group have any involvement in the management or operations of Frontida other than Arthur Hartel who is the General Counsel and Secretary of both Frontage Labs and Frontida as an independent consultant. Arthur Hartel is not an employee of either Frontage Labs or Frontida.

The directors, senior management members and employees of Frontida who collectively hold a 14.66% equity interest in Frontida are Allan Xu (4.92% equity interest), Ron Connolly (1.50% equity interest), Sam Liang (7.52% equity interest) and James Scheirer (0.72% equity interest).

Moreover, other than certain administrative services provided by the Group to Frontida on a cost basis in the ordinary and usual course of business of the Group (which are regarded as exempt continuing connection transactions under the Listing Rules), there will be no business dealings between the Group and Frontida going forward.

From time to time, our Group and Frontida refer business opportunities and/or prospective customers to each other. Although we do not track the exact value of such referrals since the contribution of such referrals to our business is very low, we believe that significantly less than 1% of our revenue and Frontida's revenue was derived through such referrals during the Track Record Period.

#### Hebei Frontage

Hebei Frontage is the only subsidiary or associate of our Company that has been established as part of setting up a clinical research centre in collaboration with a hospital and we decided to make an investment in it for synergistic reasons given our business in China of offering bioequivalence services. See "Business — Our Services — Bioequivalence — Our collaboration agreements in relation to the 17 clinical research centres".

Hebei Frontage was incorporated in the PRC on October 19, 2017. We hold a 20.00% equity interest in Hebei Frontage. The other shareholders of Hebei Frontage are Baoding Chenchang Pharmaceutical Technology Co., Ltd. (which holds a 55.00% equity interest) and an affiliated hospital of Hebei University (which holds a 25.00% equity interest). Hebei Frontage's results of operations are not combined with our results and our investment in Hebei Frontage is accounted for as an investment in an associate.

#### Tigermed-BDM, Inc.

On March 13, 2015, Frontage Labs acquired a 45.00% equity interest in BDM Consulting Inc. (now named Tigermed-BDM, Inc.) Hangzhou Tigermed Consulting Co., Ltd. (which is the owner of our Controlling Shareholder, Hong Kong Tigermed Co., Limited) had previously acquired a 55.00% equity interest in BDM Consulting Inc. (now named Tigermed-BDM, Inc.).

Tigermed-BDM, Inc. is an independent CRO specialising in biostatistics, data management and statistical programming.

We paid a total consideration for our 45.00% equity interest of US\$5.26 million, comprising US\$1.53 million in cash payable at closing, and secured notes payable in an aggregate amount of US\$3.73 million. In September 2015, the Group settled US\$1.86 million for the secured notes payable. See notes 21 and 30 to the Accountants' Report set out in Appendix I to this prospectus.

Our investment in Tigermed-BDM, Inc. is accounted for as an investment in an associate.

#### **Tigermed-Xinze**

In June 2015, we acquired a 45.00% equity interest in Tigermed-Xinze from Shanghai Tigermed Technology Co., Ltd., a wholly-owned subsidiary of Hangzhou Tigermed Consulting Co., Ltd., for a cash consideration of US\$0.15 million. Tigermed-Xinze is engaged in the business of biostatistics. Our investment in Tigermed-Xinze is accounted for as an investment in an associate.

#### FJ PHARMA LLC

FJ Pharma LLC was formed in June 2016. We hold a 49.00% equity interest with the remaining 51.00% equity interest held by Zhejiang Jiuzhou Pharmaceutical Co., Ltd, an independent third party which is a PRC incorporated company, listed on the Shanghai stock exchange. Frontage Labs acquired its 49.00% equity interest in FJ Pharma LLC for a cash consideration of US\$980,000.00.

FJ Pharma LLC is a contract development organisation, providing API development and support services for commercial manufacturing to its customers in the United States from its facility, which has two employees. Our investment in FJ Pharma LLC is accounted for as an investment in an associate.

# Suzhou Frontage Biotech Co., Ltd (蘇州方達生物技術有限公司) and Shanghai Frontage Biotech Co., Ltd (上海方達生物技術有限公司)

In order to streamline the Group's corporate structure in the PRC, on April 27, 2018 and April 28, 2018, Frontage Shanghai transferred its entire shareholding interest in its subsidiaries, Suzhou Frontage Biotech Co., Ltd. (蘇州方達生物技術有限公司) and Shanghai Frontage Biotech Co., Ltd. (上海方達生物技術有限公司) (the "**Relevant Companies**") to a Beijing-based CRO company, which is an independent third party (the "**Purchaser**"). In addition, certain assets were transferred from Suzhou Frontage Biotech Co., Ltd. to Frontage Shanghai, Suzhou Branch. The aggregate consideration to be paid to Frontage Shanghai was RMB 4.90 million. The consideration was determined based on arm's length negotiation between Frontage Shanghai and the Purchaser.

Prior to the disposal of the Relevant Companies and continuing after the disposal, the Relevant Companies entered into bundled service contracts, which typically contain laboratory components as well as clinical components, with pharmaceutical companies to provide various services in relation to the development of their generic drug candidates. In order to help the Relevant Companies perform and complete their existing or new bundled service customer contracts, Frontage Shanghai and Frontage Shanghai, Suzhou Branch entered into agreements, including collaboration agreements, with the Relevant Companies. Under these agreements, the Relevant Companies have subcontracted a portion of their bundled service contracts in relation to the laboratory components to us after their disposal, whilst retaining meaningful portions of the bundled service customer contracts in relation to the clinical components to service their customers independently. In particular, the services that the Relevant Companies have subcontracted to us are primarily bioanalytical services, as well as, to a lesser extent, bioequivalence services. The Relevant Companies use our services because we have the relevant expertise, track record with the Relevant Companies' customers and ability to provide these services in a manner that meets the standards of the customers of the Relevant Companies.

Save for these contracts, the Relevant Companies do not hold any assets or businesses related to the Group's business. After the disposal of the Relevant Companies, we have received fees from the Relevant Companies as we provided services in relation to both certain existing customer contracts (that were in force at the time of the disposal) as well as pursuant to new orders from existing and new customers of the Relevant Companies.

In terms of revenue generated in the year ended December 31, 2018, Shanghai Frontage Biotech Co., Ltd and Suzhou Frontage Biotech Co., Ltd. (which, as described above, are under common ownership by an independent third party) were, together, our single largest customer as a result of services we provided to them under the collaboration agreements. However, it is possible that the Relevant Companies may build their own capabilities or choose to subcontract services to other CRO companies over time. For that reason, there can be no assurance that Shanghai Frontage Biotech Co., Ltd and Suzhou Frontage Biotech Co., Ltd. will, together, continue to be our largest customer or if they will continue to significantly contribute to our revenue going forward. See also "Risk Factors — Risks Relating to our Business and Industry — The potential loss of multiple contracts, key customers or any of our large contracts could adversely affect our business, financial condition and results of operations." Of the US\$12.08 million revenue that we generated from the Relevant Companies in 2018 (which was approximately 14.53% of our total revenue in 2018), US\$8.01 million was attributable to existing customer contracts (that were in force at the time of the relevant disposal) and US\$4.07 million was attributable to new orders from existing and new customers of the Relevant Companies. Our average gross profit margin for services provided to the Relevant Companies is generally in line with the gross profit margin in relation to similar services provided to our other customers.

All necessary PRC regulatory approvals for the transfer of the shares in the Relevant Companies have been obtained and the above disposal of the Relevant Companies was properly and legally completed and all consideration duly settled. In addition, our PRC legal adviser is of the view that, during the Track Record Period and up to the date of entering into the transfer agreements in relation to the Relevant Companies, Suzhou Frontage Biotech Co., Ltd. and Shanghai Frontage Biotech Co., Ltd. had been in compliance with relevant laws and regulations and was not subject to any material regulatory sanctions.

#### CHANGES IN SHAREHOLDING OF FRONTAGE LABS

At its incorporation in 2004, Frontage Labs had a total of 520,083 issued shares, of which 342,685 were held by Dr Song Li and the remaining 177,398 were held by friends and contacts of Dr Song Li. In April 2008, Baird and certain other investors invested US\$10.24 million in return for the issue of 21,776,596 preferred shares in Frontage Labs. Subsequently, in May 2014, Hong Kong Tigermed invested US\$50.25 million (for a 67.00% interest in Frontage Labs, assuming full exercise of the then existing share options in Frontage Labs) of which US\$30.25 million was used to purchase ordinary shares held by the existing shareholders (all of whom were independent third parties) and US\$20.00 million was used to subscribe for ordinary shares of Frontage Labs, which in turn, Frontage Labs used mainly to redeem the preferred shares held by Baird and the other investors. Baird and the other investors ceased to be shareholders of Frontage Labs after the redemption of the preferred shares. Following the purchase of additional stock options in 2014, Hong Kong Tigermed's total interest in Frontage Labs rose to 70.65% (assuming other share options then existing in Frontage Labs are not exercised).

From July 2014 to 2018, certain share options in Frontage Labs were exercised such that immediately before the reorganisation, which became effective on April 17, 2018, Dr Song Li and related family trusts of which he is the founder and a trustee held approximately 13.79% of the then total number of issued shares of Frontage Labs; Hong Kong Tigermed held approximately 68.60% of the then total number of issued shares of Frontage Labs; Dr Zhihe Li, the executive Director of the Company, held approximately 3.98% of the then total number of issued shares in Frontage Labs were held by certain individual shareholders and certain Pre-IPO Investors, whose information is set out in "— *Corporate Structure*" of this section.

For the respective dates of incorporation of each of the subsidiaries of the Company, see "Appendix I - Accountant's Report".

#### THE REORGANISATION

In preparation for the Listing, the following reorganisation steps (the "**Reorganisation**") were implemented:

#### (a) Incorporation of the Company

On April 16, 2018, the Company was incorporated in the Cayman Islands and one share was issued to a representative of Conyers Trust Company (Cayman) Limited and transferred on the same day to Dr Zhihe Li, such that the Company was wholly-owned by Dr Zhihe Li. On the same date, the authorised share capital of the Company was subdivided and accordingly, the authorised share capital of the Company was Subdivided into 5,000,000,000 shares with a nominal value of US\$0.00001 each and the issued share capital of the Company was US\$0.01, comprising 1,000 shares with a nominal value of US\$0.00001 each.

## (b) Share Exchange and Merger with Frontage Laboratories, Inc.

The Company effected a share exchange and merger which took effect on April 17, 2018 and which resulted in Frontage Labs becoming a wholly-owned subsidiary of the Company. In the share exchange, Hong Kong Tigermed, Dr Song Li and the three trusts related to Dr Song Li (which together held slightly over 82.00% of Frontage Labs) transferred their shares in Frontage Labs to the Company in exchange for the issue of the equivalent number of shares in the Company. The Company then transferred all of its newly acquired shares in Frontage Labs to its subsidiary (the "Merger Sub") in exchange for the issue of an equivalent number of shares in the Merger Sub. As a result of this share exchange and transfer, Frontage Labs became a majority-owned subsidiary of the Merger Sub.

Immediately following the completion of this share exchange and transfer, the parties effected a short-form merger under the laws of the Commonwealth of Pennsylvania, which merged the Merger Sub with Frontage Labs and resulted in each share of Frontage Labs being automatically converted into an ordinary share of the Company. As a consequence, Frontage Labs became a wholly-owned subsidiary of the Company. Pursuant to the share exchange, the merger and by operation of law, all the original shareholders of Frontage Labs immediately prior to the share exchange and merger (including certain of the Pre-IPO Investors initially investing in shares of Frontage Labs) became shareholders of the Company.

Notices to former shareholders of Frontage Labs were sent on June 20, 2018 explaining the merger. None of our shareholders exercised their rights to dissent to these arrangements within the 30 day period they were given to do so under the laws of the Commonwealth of Pennsylvania.

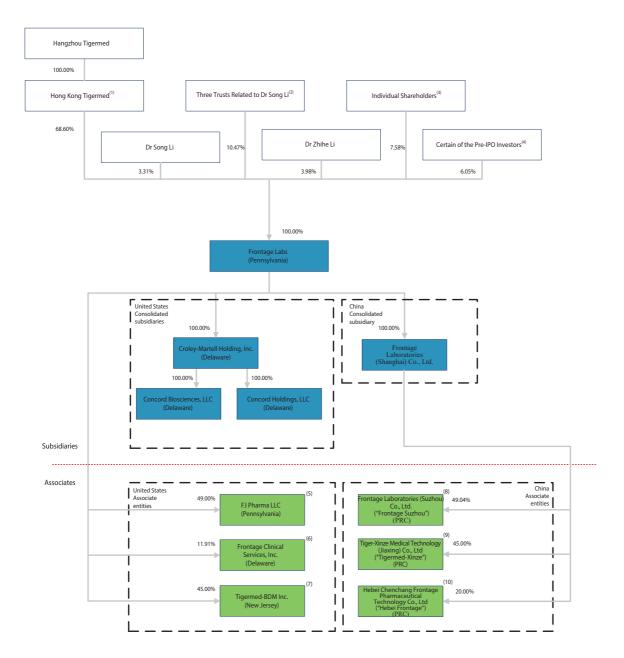
Pursuant to the above share exchange and merger, Frontage Labs has assigned, and the Company has assumed, the rights and obligations of Frontage Labs under the 2015 Share Incentive Plan and the 2008 Share Incentive Plan. See "Appendix V — Statutory and General Information — Pre-IPO Share Incentive Plans" for further details.

According to Morgan, Lewis & Bockius LLP, the legal adviser to Frontage Labs as to certain matters under the laws of the Commonwealth of Pennsylvania, any regulatory approvals under the laws of the Commonwealth of Pennsylvania required to be obtained by Frontage Labs in connection with the share exchange and merger described above have been obtained.

## **CORPORATE STRUCTURE**

## Corporate structure as at the date immediately prior to the Reorganisation

The simplified corporate structure of the Group as at the date immediately prior to the Reorganisation is as follows:



Notes:

- The controlling shareholder of Hong Kong Tigermed is Hangzhou Tigermed, a company listed on ChiNext market of the Shenzhen Stock Exchange, whose largest shareholders are Ye Xiaoping (24.82%) and Cao Xiaochun (8.75%).
- (2) The three trusts are The Linna Li GST Exempt Trust, The Wendy Li GST Exempt Trust and The Yue Monica Li GST Exempt Trust, all of which are disceretionary trusts. Dr Song Li is the founder and a trustee of the three trusts. The beneficiaries of the three trusts are Dr Song Li's daughters.
- (3) The individual shareholders comprise: (a) former and current employees of the Group; (b) a current consultant to the Group; (c) a trust related to a former employee (d) a philanthropic trust; and (e) natural persons who became shareholders of Frontage Labs from its incorporation in 2004 to 2006. These individual shareholders include the following persons and trusts, whose respective shareholding in the Company are set out in "— *Capitalisation of the Company*":

Dongmei Wang, Dr Zhongping Lin, Dr Harry Zhao and Kang Wang are current employees of the Group. All of them are independent third parties;

Amit Shah, Daniel Xiaodong Tang, Dr Jianyao Wang, Len Stigliano, Venkata Kota, Venkata Vadlapatla and Yangdong Sang are former employees of the Group. All of them are independent third parties;

Ronald and Irene Connolly Joint Revocable Living Trust is a trust in relation to a former employee of the Group, who was a shareholder of Frontage Labs as of December 31, 2004, and is an independent third party;

Michael Willett is a current consultant to Frontage Clinical Services, Inc, and is an independent third party;

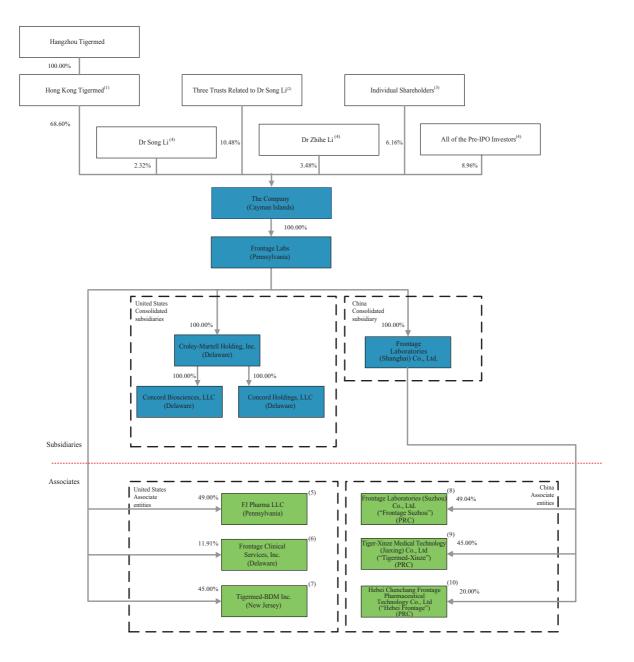
National Philanthropic Trust is a public charity under the Internal Revenue Code of 1986, as amended, under the laws of the Commonwealth of Pennsylvania, and is an independent third party. It ceased to be a shareholder of the Company after completion of the Pre-IPO Investments. See "— *Pre-IPO Investments*" for more details; and

Dr Dalin Zhang, Dr Guanjuan Liao, Dr Zhanqing Li, Dr Zhongping Sun, Feng Li, Mr David Zhang, Mr Jun Du, Ms Naidong Weng and Ms Yujing Li and Ms Yi Yang are natural persons who became shareholders of Frontage Labs from its incorporation in 2004 to 2006. All of them are independent third parties.

- (4) For details of the Pre-IPO Investors, please refer to "— Pre-IPO Investments". Except Teng Yue Partners RDLT, LP, Harmony Sky Capital Limited and OrbiMed Global Healthcare Master Fund, L.P., who initially invested in the Group by purchasing shares in the Company (and therefore, not being shareholders of Frontage Labs), all the other Pre-IPO Investors initially invested in the Group by purchasing shares in Frontage Labs.
- (5) The other 51.00% shareholder of FJ Pharma LLC is Zhejiang Jiuzhou Pharmaceutical Co., Ltd, which is an independent third party.
- (6) The other shareholders of Frontage Clinical Services, Inc. are Sunrex LLC (who is the majority owner), Neurology Care Center, Zhenlin Chen, Yao Huang, Jian Wu, Yu Meng, Min Tian, Zhongping Lin, Xiaohong Feng, Qiuyue Chen and Yao Huang which are independent third parties.
- (7) The other 55.00% shareholder of Tigermed-BDM Inc. is Hangzhou Tigermed, which is a Controlling Shareholder of the Company.
- (8) The other shareholders of Frontage Laboratories (Suzhou) Co., Ltd. are Mr Zhu Jianguo (25.96%) and Zhejiang Jiuzhou Pharmaceutical Co., Ltd (25.00%), both of whom are independent third parties.
- (9) The other 55.00% shareholder of Tigermed-Xinze is Hangzhou Tigermed, which is a Controlling Shareholder of the Company.
- (10) The other shareholders of Hebei Frontage are Baoding Chenchang Pharmaceutical Technology Co., Ltd (55.00%) and a subsidiary of Hebei University (25.00%), both of whom are independent third parties.

# Corporate structure following the Reorganisation and after completion of all the Pre-IPO Investments and as at the date of this prospectus

The simplified corporate structure of the Group following the Reorganisation and completion of all of the Pre-IPO Investments and as at the date of this prospectus is as follows:



Notes:

- The controlling shareholder of Hong Kong Tigermed is Hangzhou Tigermed, a company listed on ChiNext market of the Shenzhen Stock Exchange, whose largest shareholders are Ye Xiaoping (24.82%) and Cao Xiaochun (8.75%).
- (2) The three trusts are The Linna Li GST Exempt Trust, The Wendy Li GST Exempt Trust and The Yue Monica Li GST Exempt Trust, all of which are discretionary trusts. Dr Song Li is the founder and a trustee of the three trusts. The beneficiaries of the three trusts are Dr Song Li's daughters.
- (3) The individual shareholders comprise: (a) former and current employees of the Group; (b) a current consultant to the Group; (c) a trust related to a former employee and (d) natural persons who became shareholders of Frontage Labs from its incorporation in 2004 to 2006. These individual shareholders include the following persons and trust, whose respective shareholding in the Company are set out in "— *Capitalisation of the Company*":

Dongmei Wang, Dr Zhongping Lin, Dr Harry Zhao and Kang Wang are current employees of the Group. All of them are independent third parties;

Amit Shah, Daniel Xiaodong Tang, Dr Jianyao Wang, Len Stigliano, Venkata Kota, Venkata Vadlapatla and Yangdong S ang are former employees of the Group. All of them are independent third parties;

Ronald and Irene Connolly Joint Revocable Living Trust is a trust in relation to a former employee of the Group, who was a shareholder of Frontage Labs as of December 31, 2004, and is an independent third party;

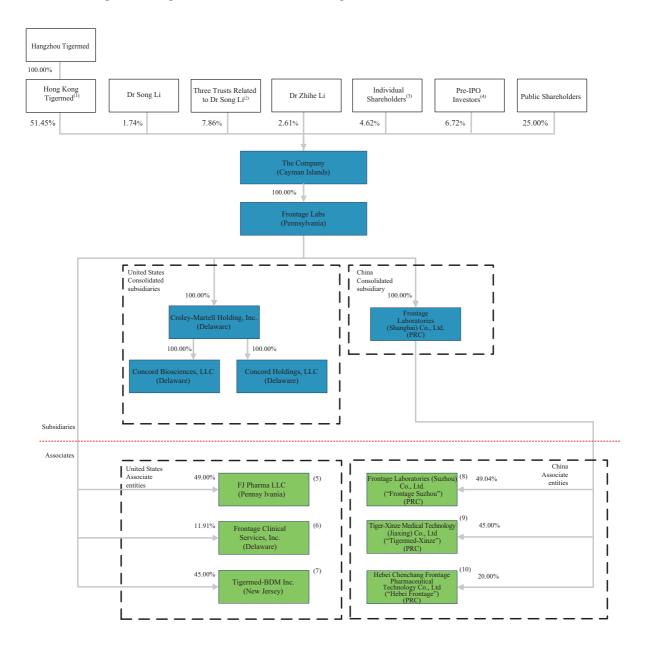
Michael Willett is a current consultant to Frontage Clinical Services, Inc, and is an independent third party; and

Dr Dalin Zhang, Dr Guanjuan Liao, Dr Zhanqing Li, Dr Zhongping Sun, Feng Li, David Zhang, Jun Du, Naidong Weng, Yujing Li, Yi Yang are natural persons who became shareholders of Frontage Labs from its incorporation in 2004 to 2006. All of them are independent third parties.

- (4) After April 17, 2018 being the effective date of the share exchange and merger in the Reorganisation, (a) Dr Song Li sold to Harmony Sky Capital Limited 1,500,000 existing shares of the Company and Dr Zhihe Li sold to Harmony Sky Capital Limited 750,000 existing shares of the Company, and (b) certain of the Pre-IPO Investors, namely, Teng Yue Partners RDLT, LP, Harmony Sky Capital Limited and OrbiMed Global Healthcare Fund, L.P., invested in Shares of the Company. For details of the Pre-IPO Investments and the Pre-IPO Investors, please refer to "— Pre-IPO Investments".
- (5) The other 51.00% shareholder of FJ Pharma LLC is Zhejiang Jiuzhou Pharmaceutical Co., Ltd, which is an independent third party.
- (6) The other shareholders of Frontage Clinical Services, Inc. are Sunrex LLC (who is the majority owner), Neurology Care Center, Zhenlin Chen, Yao Huang, Jian Wu, Yu Meng, Min Tian, Zhongping Lin, Xiaohong Feng, Qiuyue Chen and Yao Huang which are independent third parties.
- (7) The other 55.00% shareholder of Tigermed-BDM Inc. is Hangzhou Tigermed, which is a Controlling Shareholder of the Company.
- (8) The other shareholders of Frontage Laboratories (Suzhou) Co., Ltd. are Mr Zhu Jianguo (25.96%) and Zhejiang Jiuzhou Pharmaceutical Co., Ltd. (25.00%), both of whom are independent third parties.
- (9) The other 55.00% shareholder of Tigermed-Xinze is Hangzhou Tigermed, which is a Controlling Shareholder of the Company.
- (10) The other shareholders of Hebei Frontage are Baoding Chenchang Pharmaceutical Technology Co., Ltd. (55.00%) and a subsidiary of Hebei University (25.00%), both of whom are independent third parties.

## Corporate structure immediately following the completion of the Global Offering

Immediately following the completion of the Global Offering and the Capitalisation Issue (assuming the Over-allotment Option is not exercised, no outstanding awards granted under the Pre-IPO Share Incentive Plans are exercised and no awards are granted under the 2018 Share Incentive Plan), the simplified corporate structure of the Group will be as follows:



Notes:

- The controlling shareholder of Hong Kong Tigermed is Hangzhou Tigermed, a company listed on ChiNext market of the Shenzhen Stock Exchange, whose largest shareholders are Ye Xiaoping (24.82%) and Cao Xiaochun (8.75%).
- (2) The three trusts are The Linna Li GST Exempt Trust, The Wendy Li GST Exempt Trust and The Yue Monica Li GST Exempt Trust, all of which are disceretionary trusts. Dr Song Li is the founder and a trustee of the three trusts. The beneficiaries of the three trusts are Dr Song Li's daughters.
- (3) The individual shareholders comprise: (a) former and current employees of the Group; (b) a current consultant to the Group; (c) a trust related to a former employee and (d) natural persons who became shareholders of Frontage Labs from its incorporation in 2004 to 2006. These individual shareholders include the following persons and trust, whose respective shareholding in the Company are set out in "— *Capitalisation of the Company*":

Dongmei Wang, Dr Zhongping Lin, Dr Harry Zhao and Kang Wang are current employees of the Group. All of them are independent third parties;

Amit Shah, Daniel Xiaodong Tang, Dr Jianyao Wang, Len Stigliano, Venkata Kota, Venkata Vadlapatla and Yangdong Sang are former employees of the Group. All of them are independent third parties;

Ronald and Irene Connolly Joint Revocable Living Trust is a trust in relation to a former employee of the Group, who was a shareholder of Frontage Labs as of December 31, 2004, and is an independent third party;

Michael Willett is a current consultant to Frontage Clinical Services, Inc, and is an independent third party; and

Dr Dalin Zhang, Dr Guanjuan Liao, Dr Zhanqing Li, Dr Zhongping Sun, Feng Li, David Zhang, Jun Du, Naidong Weng, Yujing Li, Yi Yang are natural persons who became shareholders of Frontage Labs from its incorporation in 2004 to 2006. All of them are independent third parties.

- (4) For details of the Pre-IPO Investors, please refer to "- Pre-IPO Investments".
- (5) The other 51.00% shareholder of FJ Pharma LLC is Zhejiang Jiuzhou Pharmaceutical Co., Ltd, which is an independent third party.
- (6) The other shareholders of Frontage Clinical Services, Inc. are Sunrex LLC, (who is the majority owner), Neurology Care Center, Zhenlin Chen, Yao Huang, Jian Wu, Yu Meng, Min Tian, Zhongping Lin, Xiaohong Feng, Qiuyue Chen and Yao Huan which are independent third parties.
- (7) The other 55.00% shareholder of Tigermed-BDM Inc. is Hangzhou Tigermed, which is a Controlling Shareholder of the Company.
- (8) The other shareholders of Frontage Laboratories (Suzhou) Co., Ltd. are Mr Zhu Jianguo (25.96%) and Zhejiang Jiuzhou Pharmaceutical Co., Ltd. (25.00%), both of whom are independent third parties.
- (9) The other 55.00% shareholder of Tigermed-Xinze is Hangzhou Tigermed, which is a Controlling Shareholder of the Company.
- (10) The other shareholders of Hebei Frontage are Baoding Chenchang Pharmaceutical Technology Co., Ltd. (55.00%) and a subsidiary of Hebei University (25.00%), both of whom are independent third parties.

## **PRE-IPO INVESTMENTS**

## Overview

Around the time of the share exchange and merger which took effect on April 17, 2018 pursuant to which Frontage Labs became a wholly-owned subsidiary of the Company, the following Pre-IPO Investments have been completed:

- (a) On March 21, 2018, HH RSV FTL Holdings Limited and Dr Song Li entered into a stock purchase agreement pursuant to which HH RSV FTL Holdings Limited purchased from Dr Song Li 2,006,308 existing shares of common stock of Frontage Labs at a total consideration of US\$4,815,139.20 (US\$2.40 per share).
- (b) On March 21, 2018, Southern Creation Limited and Hong Kong Tigermed entered into a stock purchase agreement pursuant to which Southern Creation Limited purchased from Hong Kong Tigermed 3,009,462 existing shares of common stock of Frontage Labs at a total consideration of US\$7,222,708.80 (US\$2.40 per share).
- (c) On March 21, 2018, Oriental Spring Holdings Limited and Dr Song Li entered into a stock purchase agreement pursuant to which Oriental Spring Holdings Limited purchased from Dr Song Li 862,716 existing shares of common stock of Frontage Labs at a total consideration of US\$2,070,518.40 (US\$2.40 per share). On the same date, Oriental Spring Holdings Limited and Michael Willett entered into a stock purchase agreement pursuant to which Oriental Spring Holdings Limited purchased from Michael Willett 250,592 existing shares of common stock of Frontage Labs at a total consideration of US\$601,420.8 (US\$2.40 per share). On the same date, Oriental Spring Holdings Limited purchased 850,000 ordinary shares from the Ronald and Irene Connolly Joint Revocable Living Trust for a total consideration of US\$2,040,000.00 (US\$2.40 per share).
- (d) On March 21, 2018, QM98 Limited and Dr Song Li entered into a stock purchase agreement pursuant to which QM98 Limited purchased from Dr Song Li 2,006,308 existing shares of common stock of Frontage Labs at a total consideration of US\$4,815,139.2 (US\$2.40 per share).
- (e) On April 26, 2018, Teng Yue Partners RDLT, LP and National Philanthropic Trust entered into a stock purchase agreement pursuant to which Teng Yue Partners RDLT, LP purchased from National Philanthropic Trust 750,000 existing shares of the Company at a total consideration of US\$1,800,000.00 (US\$2.40 per share).

- (f) On April 30, 2018, Harmony Sky Capital Limited and Dr Song Li entered into a stock purchase agreement pursuant to which Harmony Sky Capital Limited purchased from Dr Song Li 1,500,000 existing shares of the Company at a total consideration of US\$3,600,000 (US\$2.40 per share). On May 1, 2018, Harmony Sky Capital Limited and Dr Zhihe Li entered into a stock purchase agreement pursuant to which Harmony Sky Capital Limited purchased from Dr Zhihe Li 750,000 existing shares of the Company at a total consideration of US\$1,800,000 (US\$2.40 per share).
- On May 3, 2018, OrbiMed Global Healthcare Fund, L.P., National Philanthropic Trust and (g) Frontage Labs entered into a purchase agreement pursuant to which OrbiMed Global Healthcare Fund, L.P. purchased from National Philanthropic Trust 1,503,775 existing shares of the Company at a total consideration of US\$3,609,060.00 (US\$2.40 per share). By an amendment agreement dated May 18, 2018, the name of the purchaser was agreed to be changed from OrbiMed Global Healthcare Fund, L.P. to OrbiMed Global Healthcare Master Fund, L.P. The signed purchase agreement contained certain clerical errors which suggested that contrary to the parties' intentions, shares of Frontage Labs instead of shares of the Company would be transferred under the purchase agreement. The parties have rectified the errors to clarify and confirm that the documentation reflects the intention of the parties that it is the shares of the Company that were transferred (and not those of Frontage Labs). The above clerical errors and rectification of clerical errors do not relate to the settlement of the total consideration and do not affect the relevant Pre-IPO Investment's compliance with the Interim Guidance on Pre-IPO Investments issued by the Stock Exchange on October 13, 2010, as updated in March 2017, the Guidance Letter HKEX-GL43-12 issued by the Stock Exchange in October 2012 and as updated in July 2013 and March 2017 and the Guidance Letter HKEX-GL44-12 issued by the Stock Exchange in October 2012 and as updated in March 2017. Upon completion of the transactions in (e) and (g), National Philanthropic Trust ceased to be a shareholder of Frontage Labs. National Philanthropic Trust is an independent third party.

The Company effected a share exchange and merger which took effect on April 17, 2018 and under which the shareholders of Frontage Labs agreed to transfer their shares in Frontage Labs to the Company in exchange for the issue of the equivalent number of shares in the Company to such shareholders. As a result, the above Pre-IPO Investors originally investing as shareholders of Frontage Labs in (a), (b), (c) and (d) above have become shareholders of the Company.

The consideration for each of the Pre-IPO Investments in (a) to (g) above was determined based on arm's length negotiations between the Company, the Pre-IPO Investors and the relevant selling shareholders after taking into consideration the timing of the investments, the then business operations of the Group and the illiquidity of the shares as a private company when the relevant Pre-IPO Investment was entered into.

#### Principal terms of the Pre-IPO Investments

The principal terms of the Pre-IPO Investments are set out below:

Name of Pre-IPO Investor	Date of investment agreement	Total consideration (US\$ )	Cost per share of Frontage Labs / the Company paid (US\$)	Date on which investment was fully settled	Discount to the Offer Price <sup>(1)</sup>	Valuation of Frontage Labs / the Company <sup>(2)</sup> (US\$)
HH RSV FTL Holdings Limited	March 21, 2018	4,815,139.20	2.40 per share of Frontage Labs	March 26, 2018	41.1%	361,375,418.40
Southern Creation Limited	March 21, 2018	7,222,708.80	2.40 per share of Frontage Labs	March 27, 2018	41.1%	361,375,418.40
Oriental Spring Holdings Limited	March 21, 2018	4,711,939.20	2.40 per share of Frontage Labs	March 27, 2018	41.1%	361,375,418.40
QM98 Limited	March 21, 2018	4,815,139.20	2.40 per share of Frontage Labs	March 27, 2018	41.1%	361,375,418.40
Teng Yue Partners RDLT, LP	April 26, 2018	1,800,000.00	2.40 per share of the Company	May 4, 2018	41.1%	361,375,418.40
Harmony Sky Capital Limited	April 30, 2018 and May 1, 2018	5,400,000.00	2.40 per share of the Company	May 5, 2018	41.1%	361,375,418.40
OrbiMed Global Healthcare Master Fund, L.P.	May 3, 2018	3,609,060.00	2.40 per share of the Company	May 8, 2018	41.1%	361,375,418.40

#### Notes:

#### **Proceeds from the Pre-IPO Investments**

As all of the Pre-IPO Investors purchased existing shares in either Frontage Labs or the Company, the Group did not receive any proceeds from the Pre-IPO Investments.

#### Lock-up

Any equity securities of the Company held by the Pre-IPO Investors as at the Listing Date will be subject to a lock-up period of six months from the Listing Date.

<sup>(1)</sup> Assuming the Offer Price is fixed at HK\$2.88, being the mid-point of the Offer Price Range, based on the expected issuance of 501,910,000 Shares immediately following the completion of the Global Offering and the Capitalisation Issue and assuming the Over-allotment Option is not exercised, no outstanding awards granted under the Pre-IPO Share Incentive Plans are exercised and no awards are granted under the 2018 Share Incentive Plan. An exchange rate of US\$1 to HK\$7.8485 is used in calculating the discount.

<sup>(2)</sup> Valuation is calculated using cost per share of Frontage Labs / the Company multiplied by the total number of shares in issue of Frontage Labs / the Company at the time of relevant Pre-IPO Investment.

#### Strategic benefits of the Pre-IPO Investors brought to the Company

The Directors were of the view that our Company would benefit from the endorsement by the Pre-IPO Investors of the Group's performance, strength and prospects.

#### Special rights of the Pre-IPO Investors

In connection with the Pre-IPO Investments, the Company has not granted to any of the Pre-IPO Investors any special rights as contemplated under Guidance Letter HKEX-GL43-12 issued by the Stock Exchange in October 2012 and as updated in July 2013 and March 2017.

#### **Public Float**

Upon the completion of the Global Offering and the Capitalisation Issue (assuming the Over-allotment Option is not exercised, no outstanding awards granted under the Pre-IPO Share Incentive Plans are exercised and no awards are granted under the 2018 Share Incentive Plan), none of the Pre-IPO Investors are core connected persons (as defined under the Listing Rules) of the Company. Therefore, the Shares held by all of the Pre-IPO Investors will be counted towards the public float of the Company.

#### Information on the Pre-IPO Investors

HH RSV FTL Holdings Limited is a company limited by shares incorporated under the laws of the Cayman Islands. Hillhouse Capital Management, Ltd. controls the shareholder of HH RSV FTL Holdings Limited and 100.00% of the voting rights of HH RSV FTL Holdings Limited. HH RSV FTL Holdings Limited is mainly engaged in investment holding. As of the date of this prospectus, HH RSV FTL Holdings Limited holds approximately 1.33% of the total issued and outstanding Shares. Save for its Pre-IPO Investment, HH RSV FTL Holdings Limited does not have any other relationship with our Group or any connected persons of the Company.

Southern Creation Limited is a special purpose vehicle registered in the British Virgin Islands, specialising in investments in healthcare companies in Greater China. Southern Creation Limited is managed and controlled by Shanghai Kuokun Asset Management Limited, an affiliate of Ally Bridge. As of the date of this prospectus, Southern Creation Limited holds approximately 2.00% of the total issued and outstanding Shares. Save for its Pre-IPO Investment, Southern Creation Limited does not have any other relationship with our Group or any connected persons of the Company.

Oriental Spring Holdings Limited is a company incorporated under the laws of the British Virgin Islands and is a wholly-owned subsidiary of Taitong Late Stage Fund L.P. The general partner of Taitong Late Stage Fund L.P. is TF Venture Capital Management Co., Ltd., which is ultimately wholly owned by Ms Ying Liu. The Tigermed Group is a limited partner of Taitong Late Stage Fund L.P. and holds approximately 33.33% equity interest in Taitong Late Stage Fund L.P. The Tigermed Group does not have control over the management, decision-making and day-to-day operation of Taitong Late

Stage Fund L.P. and has no control of voting rights of Taitong Late Stage Fund L.P. Oriental Spring Holdings Limited is mainly engaged in investment, investment management and providing advisory services. As of the date of this prospectus, Oriental Spring Holdings Limited holds approximately 1.30% of the total issued and outstanding Shares. Save for its Pre-IPO Investment and saved as disclosed in this paragraph, Oriental Spring Holdings Limited does not have any other relationship with our Group or any connected persons of the Company.

QM98 Limited is a company incorporated under the laws of Hong Kong, with Qiming Venture Partners VI, L.P. and Qiming Managing Directors Fund VI, L.P. being its shareholders. Qiming GP VI, L.P. is the general partner of Qiming Venture Partners VI, L.P. As the general partner of both Qiming GP VI, L.P. and Qiming Managing Directors Fund VI, L.P., Qiming Corporate GP VI, Ltd. is the ultimate controlling shareholder of QM98 Limited. QM98 Limited is mainly engaged in investment holding. As of the date of this prospectus, QM98 Limited holds 1.33% of the total issued and outstanding Shares. Save for its Pre-IPO Investment, QM98 Limited does not have any other relationship with our Group or any connected persons of the Company.

Teng Yue Partners RDLT, LP is an exempted limited partnership established under the laws of the Cayman Islands, and is mainly engaged in asset management. Teng Yue Partners RDLT GP, LLC is the ultimate controlling entity of Teng Yue Partners RDLT, LP and controls 100.00% of the voting rights of Teng Yue Partners RDLT, LP. Teng Yue Partners Holdings GP, LLC is the managing member of Teng Yue Partners RDLT GP, LLC and controls 100.00% of the voting rights of Teng Yue Partners RDLT GP, LLC and controls 100.00% of the voting rights of Teng Yue Partners RDLT GP, LLC. As of the date of this prospectus, Teng Yue Partners RDLT, LP holds 0.50% of the total issued and outstanding Shares. Save for its Pre-IPO Investment, Teng Yue Partners RDLT, LP does not have any other relationship with our Group or any connected persons of the Company.

Harmony Sky Capital Limited is a company incorporated under the laws of the British Virgin Islands and is a wholly-owned subsidiary of Absolute Fantastic Holdings Limited whose ultimate controller is Lien H. Chiangchen. Harmony Sky Capital Limited is mainly engaged in financial investments in the healthcare sector. As of the date of this prospectus, Harmony Sky Capital Limited holds 1.49% of the total issued and outstanding Shares. Save for its Pre-IPO Investment, Harmony Sky Capital Limited does not have any other relationship with our Group or any connected persons of the Company.

OrbiMed Global Healthcare Master Fund, L.P. is an exempted limited partnership incorporated under the laws of the Cayman Islands. It is a pooled-investment fund with OrbiMed Advisors LLC acting as the investment manager. Being the managing member of the general partner of OrbiMed Global Healthcare Master Fund, L.P., OrbiMed Advisors LLC is the ultimate controlling entity of OrbiMed Global Healthcare Master Fund, L.P. As of the date of this prospectus, OrbiMed Global Healthcare Master Fund, L.P. holds 1.00% of the total issued and outstanding Shares. Save for its Pre-IPO Investment, OrbiMed Global Healthcare Master Fund, L.P. does not have any other relationship with our Group or any connected persons of the Company.

Other than their shareholding interest in the Company and as otherwise disclosed in this section, the Pre-IPO Investors and their respective ultimate beneficial owners are independent from the Group and the connected persons of the Company.

### Capitalisation of the Company

The below table is a summary of the capitalisation of the Company as of the dates indicated:

Shareholder	Ordinary Shares as of the date of this prospectus	Ownership percentage as of the date of this prospectus	Ownership percentage immediately after the completion of the Global Offering and the Capitalisation Issue <sup>(1)(2)</sup>
Tigermed			
1. Hong Kong Tigermed	103,296,409	68.602%	51.452%
Dr Song Li			
2. Dr Song Li	3,488,305	2.317%	1.738%
Trusts Related to Dr Song Li			
3. The Linna Li GST Exempt Trust	5,258,809	3.493%	2.619%
4. The Wendy Li GST Exempt Trust	5,258,809	3.493%	2.619%
5. The Yue Monica Li GST Exempt Trust	5,258,809	3.493%	2.619%
Dr Zhihe Li			
6. Dr Zhihe Li	5,240,156	3.480%	2.610%
Pre-IPO Investors			
7. HH RSV FTL Holdings Limited	2,006,308	1.332%	0.999%
8. Southern Creation Limited	3,009,462	1.999%	1.499%
9. Oriental Springs Holdings Limited	1,963,308	1.304%	0.978%
10. QM98 Limited	2,006,308	1.332%	0.999%
11. Teng Yue Partners RDLT, LP	750,000	0.498%	0.374%
12. Harmony Sky Capital Limited	2,250,000	1.494%	1.121%
13. OrbiMed Global Healthcare Master Fund, L.P	1,503,775	0.999%	0.749%
Individual Shareholders			
14. Dr Zhanqing Li	3,814,865	2.534%	1.900%
15. Dr Zhongping Sun	1,093,167	0.726%	0.545%
16. Dr Guanjuan Liao	958,515	0.637%	0.477%
17. Dr Harry Zhao	668,246	0.444%	0.333%
18. Ronald and Irene Connolly Joint Revocable Living			
Trust	653,553	0.434%	0.326%
19. Dr Jianyao Wang	417,654	0.277%	0.208%

Shareholder	Ordinary Shares as of the date of this prospectus	Ownership percentage as of the date of this prospectus	Ownership percentage immediately after the completion of the Global Offering and the Capitalisation Issue <sup>(1)(2)</sup>
20. Jun Du	261,034	0.173%	0.130%
21. Michael Willett	250,592	0.166%	0.130%
22. Yujing Li	208,827	0.139%	0.104%
23. Dr Dongmei Wang	134,000	0.089%	0.067%
24. Dr Dalin Zhang	104,413	0.069%	0.052%
25. Dr Zhongping Lin	104,413	0.069%	0.052%
26. Len Stigliano	104,314	0.069%	0.052%
27. Feng Li	100,237	0.067%	0.050%
28. Yangdong Sang	100,000	0.066%	0.050%
29. David Zhang	52,207	0.035%	0.026%
30. Amit Shah	50,000	0.033%	0.025%
31. Kang Wang	50,000	0.033%	0.025%
32. Naidong Weng	42,183	0.028%	0.021%
33. Daniel Xiaodong Tang	41,765	0.028%	0.021%
34. Venkata Kota	41,765	0.028%	0.021%
35. Yi Yang	20,883	0.014%	0.010%
36. Venkata Vadlapatla	10,000	0.007%	0.005%
Other public Shareholders			25.000%
Total	150,573,091	100.000%	100.000%

#### Notes:

(1) Assuming the Over-allotment Option is not exercised, no outstanding awards granted under the Pre-IPO Share Incentive Plans are exercised and no awards have been granted under the 2018 Share Incentive Plan.

(2) The Shares held as at the Listing Date by the Shareholders listed in (1) to (16), (23) and (25) above are subject to a lock-up period of six months from the Listing Date. For further details of the lock-up undertaking given by Hong Kong Tigermed, see "Underwriting".

## Compliance with Interim Guidance and Guidance Letters

On the basis that (i) the consideration for the Pre-IPO Investments was settled more than 28 clear days before the date of the first submission of the listing application form to the Listing Division of the Stock Exchange in relation to the Listing and (ii) no special rights have been granted to the Pre-IPO Investors, the Joint Sponsors have confirmed that the Pre-IPO Investments are in compliance with the Interim Guidance on Pre-IPO Investments issued by the Stock Exchange on October 13, 2010, as updated in March 2017, the Guidance Letter HKEX-GL43-12 issued by the Stock Exchange in October 2012 and as updated in July 2013 and March 2017 and the Guidance Letter HKEX-GL44-12 issued by the Stock Exchange in October 2012 and as updated in March 2017.

## SPIN-OFF AND SEPARATE LISTING FROM HANGZHOU TIGERMED

The Listing would constitute a spin-off of certain assets and businesses held by the Group from Hangzhou Tigermed, a company listed on ChiNext market of the Shenzhen Stock Exchange with stock code 300347.

According to the PRC legal adviser to the Company, pursuant to Circular 67, the offshore listing of the subsidiaries controlled by the domestic listed companies shall comply with the specific conditions required therein and shall require the obtaining of no-objection confirmation from the CSRC. In the annual general meeting of Hangzhou Tigermed held on May 16, 2018, the shareholders of Hangzhou Tigermed duly approved the resolutions relating to the proposed Listing. On November 7, 2018, Hangzhou Tigermed obtained from the CSRC a confirmation of no objection in relation to the Listing.

According to the PRC legal advisers to the Company, pursuant to the Notice of Further Reinforcing the Administration of Overseas Stock Offering and Listing (Guo Fa [1997] 21) (關於進 一步加強在境外發行股票和上市管理的通知 (國發[1997] 21號)) issued by the State Council on June 20, 1997, the Listing shall require approval by the competent people's government at provincial level or the competent authority of the State-owned Assets Supervision and Administration. On September 17, 2018, our Company obtained a confirmation of no objection in relation to the Listing from the Zhejiang People's Government in relation to the Listing.

The PRC legal adviser to the Company has confirmed that as at the date of this prospectus, all the necessary approvals, consents authorisations or confirmations with respect to the Global Offering and the Listing from the relevant PRC authorities and shareholders of Hangzhou Tigermed have been obtained.

## SAFE REGISTRATION IN PRC

Pursuant to the Circular of the SAFE on Foreign Exchange Administration of Overseas Investment, Financing and Round-trip Investments Conducted by Domestic Residents through Special Purpose Vehicles (《關於境內居民通過特殊目的公司境外融資及返程投資外匯管理有關問題的通知》) (the "SAFE Circular 37"), promulgated by SAFE on July 4, 2014, and which replaced the Circular on Relevant Issues Concerning Foreign Exchange Control on Domestic Residents' Corporate Financing and Roundtrip Investment Through Offshore Special Purpose Vehicles (《關於境內居民通過境外匯管理有關問題的通知》) (the "SAFE Circular 75"):

(a) a PRC resident must register with the local SAFE branch before he or she contributes assets or equity interests in an overseas special purpose vehicle (the "Overseas SPV") that is directly established or indirectly controlled by the PRC resident for the purpose of conducting investment or financing; and

(b) following the initial registration, the PRC resident is also required to register with the local SAFE branch for any major change in respect of the Overseas SPV, including, among other things, a change of Overseas SPV's PRC resident shareholder(s), the name of the Overseas SPV, terms of operation, or any increase or reduction of the Overseas SPV's capital, share transfer or swap, and merger or division.

Pursuant to SAFE Circular 37, failure to comply with these registration procedures may result in penalties.

Pursuant to the Circular of the SAFE on Further Simplification and Improvement in Foreign Exchange Administration on Direct Investment (《關於進一步簡化和改進直接投資外匯管理政策的通知》) (the "SAFE Circular 13"), promulgated by SAFE and became effective on June 1, 2015, the power to accept SAFE registration was delegated from local SAFE to local banks where the assets or interest in the domestic entity was located.

There remains uncertainty as to the interpretation and implementation of the latest SAFE rules at practice level. Due to a lack of detailed implementation rules pertaining to the registration requirements, as of the Latest Practicable Date, some individual shareholders of our Company who are Chinese citizens had not conducted their registration with the competent local branches of the SAFE. See "Risk Factors — Risks Relating to Conducting Business in China — Any failure by the Shareholders or beneficial owners of our Shares who are Chinese residents to comply with certain Chinese foreign exchange regulations relating to offshore investment activities by such Chinese residents could restrict our ability to distribute profits, restrict our overseas and cross-border investment activities and subject us to liability under Chinese laws" for more details.

This section contains information relating to our industry and our markets. Certain facts, statistics and data presented in this section and elsewhere in this prospectus have been derived, in part, from various publicly available government and official sources, industry statistics and publications. We also commissioned an independent industry consultant, Frost & Sullivan, to prepare an industry research report (the "Frost & Sullivan Report") upon which this Industry Overview section is based. Unless otherwise indicated, all historical and forecast statistical information is from the Frost & Sullivan Report. See "— Sources of Information".

While we have taken all reasonable care to ensure that the relevant official facts and statistics are accurately reproduced from these sources, such facts and statistics have not been independently verified by us or the Relevant Persons (other than Frost & Sullivan). Although we have no reason to believe that such information is false or misleading in any material respect, or that any fact has been omitted that would render such information false or misleading in any material respect, we make no representation as to the accuracy or completeness of such information, which may not be consistent with other information available. Accordingly, you should not place undue reliance on such information or statistics.

#### SOURCE OF INFORMATION

In connection with the Global Offering, we have commissioned Frost & Sullivan, an independent third party, to conduct research and analysis of, and to produce a report on the pharmaceutical outsourcing market. The Frost & Sullivan Report has been prepared by Frost & Sullivan independent of our influence. We have agreed to pay Frost & Sullivan a fee of RMB 980,000 for the preparation of the report which we consider in line with market rates. Except as otherwise noted, all data and forecasts in this section are derived from the Frost & Sullivan Report. Our Directors confirm that, after taking reasonable care, there is no adverse change in the market information since the date of Frost & Sullivan Report which may qualify, contradict or have an impact on the information disclosed in this section. Frost & Sullivan's independent research was undertaken primarily through secondary research which primarily involved analysing data from various publicly available data. In compiling and preparing the Frost & Sullivan Report, Frost & Sullivan has made the following key assumptions: (i) the economies of the United States and China are likely to maintain a steady rate of growth in the next decade; (ii) the key growth drivers mentioned in this section are likely to drive the growth of the global pharmaceutical market and the pharmaceutical outsourcing industry market from 2018 to 2023; and (iii) there is no force majeure or industry regulation that affects any of such markets dramatically or fundamentally. In this section, Frost & Sullivan present historical market information for five years (i.e. from 2014 to 2018) which is a longer period compared to the three-year Track Record Period and is a more accurate reflection of the trends affecting the Group's markets.

### **OUR MARKETS**

We provide integrated, scientifically-driven research, analytical and development services throughout the drug discovery and development process that enable pharmaceutical companies to achieve their drug development goals.

The markets in which we operate are derivative of the markets in which our customers operate and the following chart illustrates the relationship between our business units and our markets:

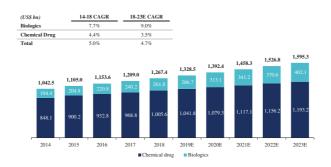
Markets in Which We Operate	Our Business Units
United States Pharmaceutical CRO Market	DMPK, Safety and Toxicology, Bioanalytical and CMC
China Pharmaceutical CRO Market	Bioanalytical and Bioequivalence Studies
United States Agrochemicals CRO Market	DMPK, Safety and Toxicology and Bioanalytical

#### THE GLOBAL PHARMACEUTICAL MARKET

#### Market size

The size of the global pharmaceutical market by revenue was US1,267.4 billion in 2018 and is expected to grow to US1,595.3 billion in 2023, representing a CAGR of 4.7% during this period. In general, the global pharmaceutical market can be characterized as being composed of two segments: (i) the chemical drug market, and (ii) the biologics market. The growth of biologics has outpaced the rate of growth of chemical drugs in the latest five years. The biologics market is expected to grow at a CAGR of 9.0% from 2018 to 2023, reaching US402.1 billion in 2023 and outpacing the overall pharmaceutical market (see *Graph 1*). The market for biologics is mainly driven by the fact that biologics address some conditions effectively for which no effective chemical drug treatments are available.

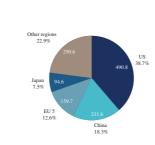
The United States and China are the two largest pharmaceutical markets in the world in terms of the market size in 2018, accounting for 38.7% and 18.3% of the global market respectively (see *Graph 2*). According to Frost & Sullivan, the top twenty pharmaceutical companies in the world (by revenue) in 2018 were Pfizer, Roche, Novartis, Johnson & Johnson, Merck, Sanofi, Abbvie, GSK, Amgen, Gilead, BMS, Eli Lilly, AstraZeneca, Bayer, Teva, Novo Nordisk, Allergan, Takeda, Celgene, Shire.



#### Graph 1: Global Pharmaceutical Market 2014-2023E

Source: Frost & Sullivan analysis

#### Graph 2: Global Pharmaceutical Market by Region, 2018



Source: Frost & Sullivan analysis Note: EU5 includes UK, France, Germany, Spain and Italy

(US\$ bn

#### The pharmaceutical market in the United States

The United States is the world's largest pharmaceutical market. In 2018, the size of the market was US\$490.8 billion, representing 38.7% of the entire global pharmaceutical market and a margin of more than 20% in terms of market share over China, the second largest pharmaceutical market globally. The size of the pharmaceutical market in the United States increased from US\$385.5 billion in 2014 to US\$490.8 billion in 2018 and is expected to grow to US\$634.2 billion in 2023, representing a CAGR of 5.3% during the period of 2018 to 2023. The growth of this market is primarily driven by increases in both public and private spending on healthcare as new and more effective treatments for diseases become available.

In line with the global market, one key trend in the United States is the expected faster rate of growth in the biologics market compared to the chemical drug market. The size of the market for biologics in the United States was US\$104.0 billion in 2018 and is projected to grow to US\$164.1 billion in 2023, which would represent a projected 9.6% CAGR from 2018 to 2023, compared to a projected 4.0% CAGR for chemical drugs over the same period (see *Graph 3*).

The pharmaceutical market in the United States is also expected to remain heavily focused on patented drugs. The size of the market for patented drugs in the United States was US\$379.7 billion in 2018 and is projected to grow to US\$502.5 billion in 2023 (see *Graph 4*), which would represent 79.2% of the total pharmaceutical market in the United States in 2023.





Source: Frost & Sullivan analysis

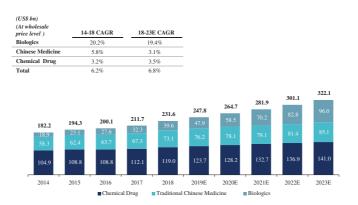


#### Graph 4: US Pharmaceutical Market by Patented Drug and Generic Drug segment 2014-2023E

Source: Frost & Sullivan analysis

#### The pharmaceutical market in China

China is the second largest pharmaceutical market in the world, after the United States. The size of China's pharmaceutical market increased from US\$182.2 billion in 2014 to US\$231.6 billion in 2018 and is expected to grow to US\$322.1 billion in 2023, representing a CAGR of 6.8% during this period. The growth is mainly driven by an ageing population and corresponding increase in the prevalence of chronic diseases, as well as favourable policies from the government of the PRC, aimed at developing the market for quality drugs and biologics in China and an increase in disposable income and improving insurance coverage (see *Graph 5*).





Source: Frost & Sullivan analysis



## Graph 6: China Pharmaceutical Market Size by Patented Drug and Generic Drug segment, 2014-2023E

Source: Frost & Sullivan analysis

Historically, generic drugs have formed a larger proportion of the pharmaceutical market in China than globally. In 2018, the market for generics in China was US\$103.0 billion representing 44.5% of the total pharmaceutical market in China, compared to 33.0% of the global pharmaceutical market. The market for generic drugs in China is projected to grow to US\$137.7 billion by 2023, representing a CAGR of 6.0% from 2018 to 2023. Policies in China are expected to continue to focus on encouraging the development of innovative patented drugs over the next five years from 2018 to 2023, which in turn is expected to lead to increased investment in patented drugs, whose market size is expected to grow at a CAGR of 7.5% during the same period to reach US\$184.4 billion in 2023 (see *Graph 6*).

#### The pharmaceutical market in EU5

EU5 (which comprises the United Kingdom, France, Germany, Spain and Italy) is the third largest pharmaceutical market in the world with a market size of US\$159.7 billion in 2018 (see *Graph* 2). The size of the EU5 pharmaceutical market is expected to increase to US\$186.5 billion by 2023 (representing a CAGR of 3.2%). The increase in the size of the EU5 pharmaceutical market is expected to increase research and development spending in the EU5 as well as the size of the pharmaceutical CRO market in EU5.

# RESEARCH & DEVELOPMENT SPENDING IN THE GLOBAL PHARMACEUTICAL INDUSTRY

Total research and development ("R&D") spending in the global pharmaceutical industry was US\$174.0 billion in 2018 and is expected to grow at a CAGR of 4.5% during the period from 2018 to 2023, reaching US\$216.8 billion in 2023. In 2018 R&D spending represented 13.7% of the total size of the global pharmaceutical market by revenue (see *Graph 8*).



#### Graph 7: Comparison of Pharmaceutical R&D Expenditure, 2014-2023E

Source: Frost & Sullivan analysis





Source: Frost & Sullivan analysis

#### The United States

R&D spending by pharmaceutical companies in the United States is the highest in the world. In 2018, total pharmaceutical R&D spending in the United States was US\$73.6 billion, representing more than 40% of global R&D spending. R&D spending also represented 15.0% of total sales revenues for pharmaceuticals in the United States in 2018, which was higher than the proportion of 13.7% globally. Pharmaceutical R&D spending in the United States is projected to grow to US\$89.6 billion by 2023, at a CAGR of 4.0% (see *Graph 7*). The increase in R&D spending in the United States is largely driven by the challenges involved in discovering new therapies, including the increasing complexity in the discovery of novel patented drugs.

#### China

R&D spending by pharmaceutical companies in China is expected to grow significantly in the next five years. In 2018, total R&D spending on pharmaceuticals in China was US\$17.4 billion and it is projected to grow to US\$49.3 billion by 2023, representing a CAGR of 23.1% from 2018 to 2023, which is equivalent to more than five times the expected global CAGR of 4.5% (see *Graph 7*). This trend is largely driven by the Chinese government's increasing policy focus on innovation, including policies encouraging drug innovation and enhancing existing regulatory requirements, as well as an improvement of R&D capacity and capital inflow in Chinese pharmaceutical companies.

R&D spending by Chinese pharmaceutical companies is not limited to China. An increasing number of Chinese headquartered pharmaceutical companies also spend a significant amount of their R&D budget to support applications in other jurisdictions, and in particular in the United States for IND and ANDA applications. In addition, China has seen an increase in the number of foreign companies, particularly from the United States, who are conducting R&D activities to introduce patented drugs to the Chinese market, following recent regulatory and policy changes incentivizing imported drugs.

## THE GLOBAL PHARMACEUTICAL OUTSOURCING INDUSTRY

#### Overview

In the pharmaceutical industry, a new drug undergoes extensive testing and regulatory review to examine and verify its safety and efficacy before it is allowed to be released to the market. The complete process of drug development is generally categorized into four stages: (i) discovery, (ii) preclinical testing and development, (iii) clinical development (e.g. phase I — III clinical studies) and (iv) post approval clinical studies (e.g. phase IV clinical studies). This process is time consuming and capital intensive, as it can take a pharmaceutical company more than 10 years and over US\$1.0 billion to advance a drug compound from the discovery stage through to commercial approval in the United States. The process is also risky, as the average success rate for a drug compound currently in the discovery stage to receive commercial approval is less than 0.01% in the United States.

Pharmaceutical outsourcing services provide certain advantages to pharmaceutical companies seeking to achieve efficiency in their drug development projects. Outsourcing service providers to the pharmaceutical industry combine specialised talent and expertise, advanced equipment and methods, customized development capability and production capacity as well as quality, cost and risk control systems. The services they offer may assist pharmaceutical companies by accelerating the project timeline, controlling risks, optimising resources, and reducing costs. According to Frost & Sullivan, the four major reasons pharmaceutical companies prefer to outsource part/all of their R&D spending rather than use their in-house capabilities are as follows:

- Cost savings: Outsourcing generally reduces the overall R&D costs associated · with drug development.
- Development expertise: Outsourcing provides pharmaceutical companies with access to capabilities not found internally within the R&D departments of a pharmaceutical company. Outsourcing also enables a pharmaceutical company to continue focusing on its core business.
- Customised development and efficiency in execution: Outsourcing of certain services enables efficiency in execution in the process of drug development and, where required, the provision of customised and scientifically-driven research, analytical and development services to pharmaceutical companies in their most significant drug development challenges.

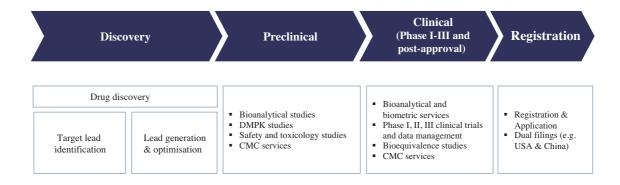
• Risk reduction: Outsourcing to reliable and reputed partners reduces the overall risks associated with the drug development process.

For these reasons, pharmaceutical companies have been increasingly outsourcing certain research, analytical and development services.

Providers of independent development services for pharmaceutical companies are usually called Contract Research Organisations or CROs.

#### CRO services in the drug development value chain

The type of, and objectives of, the research, analytical and development services offered by CROs through the drug development process depends on the phase of development. A simplified illustration of the main services commonly provided by CROs is set out in the table below:



#### Discovery Stage

At the drug discovery stage, research services focus on identifying potentially promising compounds (or 'leads') to progress for further testing as "candidates" for further research development.

#### Preclinical Stage

Throughout the preclinical stage, research, analytical and development services include studies on the interaction of these drug candidates within biological matrices, studies on how a drug candidate passes through and affects a living organism, studies on the physio-chemical properties of both the active pharmaceutical ingredient (API) of a drug and the end drug product, the design and formulation of a drug product to aid safe and effective transport through a living organism to optimise its effectiveness at performing its targeted activity, and safety and toxicological assessment. The purpose of research, analysis and development in the preclinical phase is to enhance the scientific understanding of the drug, its efficacy, potency and toxicity, with a view to optimizing the drug candidate for further testing in humans.

## Clinical Stage

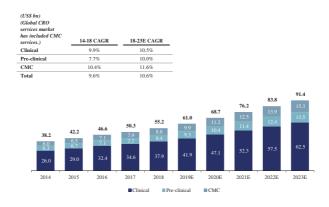
At the clinical stage, services include manufacturing services for clinical trial materials (for example, capsules or liquid versions of a drug to administer to human trial participants), specialised clinical testing on healthy volunteers and/or patients, statistical data generation and analysis and regulatory filing assistance (e.g. bioequivalence recognition for generics).

## Registration Stage

After successful clinical trials, a CRO can assist their clients in the process of drug registration by providing registration and application services in which necessary data and documents are prepared for submission to relevant regulatory authorities. Regulatory support for foreign sponsors, and dual filing services, can also be offered by CROs that have an established presence in multiple regions.

#### Market size and future trends

According to Frost & Sullivan, the Group provide services in the pre-clinical, clinical and CMC segments of the global pharmaceutical CRO market (*Graph 11*). The size of our addressable market in which we operate in the United States and China is set out in *Graph 13* and *Graph 15*, respectively. The size of the global pharmaceutical CRO market increased from US\$38.2 billion in 2014 to US\$55.2 billion in 2018 and is expected to grow to US\$91.4 billion in 2023, representing a projected CAGR of 10.6% over the period 2018 to 2023 (see *Graph 11*). The proportion of outsourcing services spending of the total spending on both outsourcing and in-house services, or 'rate of penetration', of the total global R&D expenditure by outsourcing services has continued to grow from 33.7% in 2014 to 37.7% in 2018 and is expected to grow to 49.3% in 2023 (see *Graph 12*).



## Graph 11: Global CRO Market by Pre-clinical, Clinical, and CMC segment, 2014 to 2023E

Source: Frost & Sullivan analysis

# Graph 12: Comparison of In-house and Outsourcing Services Expenditure in the Global Pharmaceutical Market, 2014-2023E



*Note:* CRO Outsourcing Potential = Total pharma and biotech R&D expenditure-Core activities kept in house Penetration= Current CRO Market/Outsourcing Potential *Source:* Frost & Sullivan analysis

Some CROs focus on providing services for specific stages in the drug development process, while some provide a full range of services from early discovery through to supporting research, analysis and development through commercial release of a drug to the market.

The degree to which pharmaceutical companies outsource these services also varies. In the traditional model of a pharmaceutical drug developer, all phases and related services for drug development were vertically integrated within the same organisation. There now exist a range of non-vertically integrated models for drug developers, including many pharmaceutical companies who rely on CROs for a substantial portion of their research, analytical and development services. Some pharmaceutical companies have even adopted a fully 'virtual' model of drug development in which all services from early discovery to commercial application of a drug are outsourced to CROs. While many pharmaceutical companies continue to engage CROs to provide support for discrete projects, there has been a trend towards pharmaceutical companies establishing long term relationships with CROs through long-term partnerships in recent years.

### The pharmaceutical CRO market in the United States

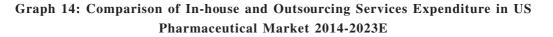
#### Market size

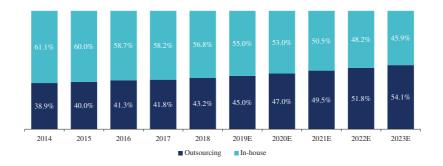
The size of the pharmaceutical CRO market in the United States increased from US\$18.7 billion in 2014 to US\$27.0 billion in 2018 and is expected to grow to US\$41.1 billion in 2023, representing a projected CAGR of 8.8% over the period 2018 to 2023 (see *Graph 13*). The rate of penetration of the total United States R&D expenditure by outsourcing services has continued to grow from 38.9% in 2014 to 43.2% in 2018 and is expected to grow to 54.1% in 2023, above the global penetration rate of 49.3% during the same period (see *Graph 14*).



#### Graph 13: U.S. CRO Market by Pre-clinical, Clinical, and CMC segment, 2014 to 2023E

Source: Frost & Sullivan analysis





*Note:* CRO Outsourcing Potential = Total pharma and biotech R&D expenditure-Core activities kept in house Penetration= Current CRO Market/Outsourcing Potential

Source: Frost & Sullivan analysis

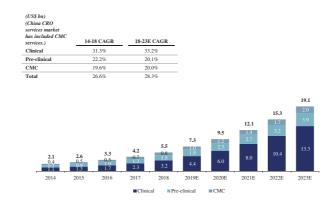
#### Key Drivers

The pharmaceutical CRO market in the United States is driven by the growth of the pharmaceutical market in the United States. This includes large multi-national pharmaceutical companies seeking to achieve cost efficiencies in a highly competitive and resource intensive industry and start-up and smaller pharmaceutical companies including 'virtual' companies requiring a full complement of discovery, preclinical and clinical services. In line with the increased R&D spending and focus on patented drugs, as well as the more recent growth in biologics, the CRO market in the United States is equally focused on providing high caliber scientists with appropriate technical expertise and quality facilities and equipment to support these types of projects. The presence of large pharmaceutical companies who are typically seeking to reduce their overall costs including through the use of CRO services and the need for comprehensive services by start-up and small pharmaceutical companies, mean that the use of CROs by pharmaceutical companies will continue to grow in the United States.

## The pharmaceutical CRO market in China

## Market size

The size of the pharmaceutical CRO market in China increased from US\$2.1 billion in 2014 to US\$5.5 billion in 2018 and is expected to grow to US\$19.1 billion in 2023, representing a projected CAGR of 28.3% over the period 2018 to 2023 (see *Graph 15*). The rate of penetration of the total China R&D expenditure by outsourcing services has continued to grow from 26.2% in 2014 to 32.3% in 2018 and is expected to grow to 46.7% in 2023, lower than the global penetration rate of 49.3% for the same period (see *Graph 16*).



# Graph 15: China CRO Market by Pre-clinical, Clinical, and CMC segment, 2014 to 2023E

Source: Frost & Sullivan analysis

Graph 16: Comparison of In-house and Outsourcing Services Expenditure in China Pharmaceutical Market, 2014-2023E



*Note:* CRO Outsourcing Potential = Total pharma and biotech R&D expenditure-Core activities kept in house Penetration= Current CRO Market/Outsourcing Potential *Source:* Frost & Sullivan analysis

### Key Drivers

As in the United States, the pharmaceutical CRO market in China is driven by the growth of the pharmaceutical market in China, and the need for pharmaceutical companies to achieve cost efficiencies in a highly competitive and resource intensive industry in order to remain successful. The development of the pharmaceutical market in China has had a significant impact on the types of CRO services which have been in demand. The pharmaceutical CRO market in China has witnessed significant growth over the last five years, with a high portion of the market focused on the development of generic drugs. With the recent introduction of further encouraging policies prioritizing innovation, the development of patented drugs is expected to take up more market share. This emphasis on the development of patented drugs is likely to be strengthened by the arrival in China of new foreign drug sponsors and multinational pharmaceutical companies.

In March 2016, the Consistency Evaluation Opinion which aims at elimination of generic drugs that fail the quality and efficacy consistency evaluation in order to enhance the overall quality and competitiveness of generic drugs in China. Under the Consistency Evaluation Opinion, all oral solid dosage drugs on the National Essential Drug List approved before 2007, were required to complete the consistency evaluation by the end of 2018. In the initial phase, 289 generic drugs were identified as requiring consistency evaluation. Failure to complete the consistency evaluation would have precluded a drug from reregistration. As a result, the Consistency Evaluation Opinion required pharmaceutical companies to conduct bioequivalence studies for generic drugs that are either already marketed or under development. This policy, combined with enhanced regulatory standards on supporting data for these studies which were introduced at approximately the same time and subsequently, has led to a significant increase in demand for high quality bioequivalence and bioanalytical CRO services due to the historical lack of existing bioequivalence data and capabilities of conducting bioequivalence studies in house.

Prior to the introduction of the Consistency Evaluation Opinion (國務院辦公廳關於開展仿製藥 質量和療效一致性評價的意見) in March 2016, there were a few significant announcements in 2015. These announcements include the policy titled Announcement on Self-inspection and Verification of Drug Clinical Trial Data for Registration Application (《關於開展藥物臨床試驗數據自查核查工作的 公告》) issued by the China FDA (currently known as NMPA) on July 22, 2015. As a result of this policy, a large number of applications were withdrawn or rejected. The policy introduced a more stringent regulatory environment, which resulted in drug sponsors placing more emphasis on ensuring the authenticity and accuracy of data. In 2015, the China FDA also issued the policy titled Opinion on Carrying out the Quality and Efficacy Consistency Evaluation of Generic Drugs (draft for comment) (國家食品藥品監督管理總局關於徵求《關於開展仿製藥質量和療效一致性評價的意見(徵 求意見稿)》意見的公告) which marked the beginning of the trends towards enhanced consistency evaluation of generic drugs. As a result of these announcements in 2015 and subsequent developments in 2016, there was an increased demand in China for high quality CRO services, particularly bioequivalence services. In general terms, the Consistency Evaluation Opinion has in the short term significantly increased the demand for high quality bioequivalence and bioanalytical services in China as well as the demand for CROs that have the capability to work on both pharmacological and clinical studies. The long-term impact of the Consistency Evaluation Opinion is (a) a potential decrease in the

number of pharmaceutical companies involved in the development of generic drugs operating in China as a result of the enhanced standards and (b) increasing levels of expenditure on research and development by pharmaceutical companies which may lead to a further increase in the levels of outsourcing by such companies going forward. There can be no assurance that the regulatory changes in the China that benefitted our business during the Track Record Period will continue to benefit our business going forward or that the size of the CRO services market in China or the size of the bioequivalence and bioanalytical markets in China will increase at the rate anticipated. See also "*Risk Factors — Changes in government regulations or in practices relating to the pharmaceutical or agrochemical industries could decrease the demand for the services we provide, and compliance with new laws or regulations may result in additional costs".* 

In addition to the Consistency Evaluation Opinion, governmental authorities in China have issued several policies to encourage drug innovation, which have resulted in an increase in demand for CRO services. For example, the Opinion on Strengthening Reform of the Drug and Medical Device Review and Approval (關於深化審評審批制度改革鼓勵藥品醫療器械創新的意見) proposed several measures, including reforming of clinical trial management and speeding up of the review and approval process to promote innovative drugs. Since China became the eighth member of the International Council for Harmonisation of Technical Requirements for Pharmaceuticals for Human Use and a "zero tolerance" approach has been taken to clinical trial fraud, reliable CROs are in demand to ensure the high quality of clinical trials.

Moreover, an additional growth driver has been direct support of the Chinese government for drug innovation that has resulted in an increased demand for CRO services. These policies include (a) China's Twelfth Five Year Plan for Pharmaceutical Industry (醫藥工業"十二五"發展規劃) and (b) the Notice on Construction of Pharmaceutical and Biological Contract Research Organization (CRO) Service and Contract Manufacturing Organization(CMO) Platform (關於組織實施生物醫藥合同研發和生產服務平臺建設專項的通知).

In addition, the expansion into other regional markets, particularly the United States, by Chinese pharmaceutical companies, as well as the recent encouraging policies on imported drugs to the Chinese market are expected to further increase the demand for high quality CROs with experience of PRC regulatory pathways and international standards.

### The agrochemical CRO market in the United States

#### Overview

The drug development process for agrochemical products (including fertilizers, pesticides, herbicides, fungicides and chemical growth agents) is similar to the process for pharmaceuticals. While the timeline from discovery to commercial release is generally much shorter and tests are primarily conducted on plant specimens to examine the effects of a candidate agrochemical (and 'clinical phase' studies are conducted in isolated greenhouse populations of plants rather than on humans in hospitals), much of the technical expertise, as well as many of the facilities, equipment, and

research methodologies used are directly transferable from the pharmaceutical industry to the agrochemical industry. It is therefore not unusual for CROs that focus primarily on the pharmaceutical markets to provide services to agrochemical companies.

### Market size

The size of the agrochemical CRO market in the United States increased from US\$3.7 billion in 2014 to US\$5.5 billion in 2018 and is expected to grow to US\$7.8 billion in 2023, representing a projected CAGR of 7.2% over the period 2018 to 2023.

#### Key Drivers

The agrochemical CRO market in the United States is driven by the growth of the global agrochemical market as the United States is the globally dominant exporter of agrochemical products, as well as the need for agrochemical companies to achieve cost efficiencies in a competitive industry in order to remain successful. The global agrochemical market is driven primarily by an increasing demand for food to feed the growing global population. In addition, a shift towards increased global consumption of meat has increased the demand for crops to feed an increasing population of livestock. In some countries, consumer preferences are also shifting as a result of increased environmental awareness, providing an incentive for agrochemical companies to innovate new products with reduced or modified environmental impact.

# HISTORICAL AND FORECASTED PRICE TRENDS OF THE GROUP'S MAJOR COST COMPONENTS

Our major costs included labour costs (e.g. salaries and benefits for scientists and technicians), consumables costs (e.g. test tubes) and the cost of equipment (e.g. mass spectrometers). According to Frost & Sullivan, the operating costs of CROs globally increased from US\$21.8 billion in 2014 to US\$28.0 billion in 2018 (at a CAGR of 6.4%) and is expected to increase to US\$39.8 billion by 2023 (at a CAGR of 7.2%).

Staff costs globally accounted for 55.0% of CROs total operating costs in 2018. Staff costs globally increased from US\$11.6 billion in 2014 to US\$15.4 billion in 2018 (at a CAGR of 7.3%) and are expected to increase to US\$23.7 billion by 2023 (at a CAGR of 9.1%). In the United States, staff costs increased from US\$5.6 billion in 2014 to US\$7.3 billion in 2018 at a CAGR of 7.0% and are projected to increase from US\$7.3 billion in 2018 to US\$9.8 billion by 2023 at a CAGR of 6.1%. In China, staff costs increased from US\$0.6 billion in 2014 to US\$1.4 billion in 2018 and are projected from increase from US\$1.4 billion in 2018 to US\$3.7 billion by 2023 at a CAGR of 22.0%.

The cost of consumables globally increased from US\$3.9 billion in 2014 to US\$5.4 billion in 2018 (at a CAGR of 7.9%) and is expected to increase to US\$8.7 billion by 2023 (at a CAGR of 10.1%). In the United States, the cost of consumables increased at a CAGR of 7.6% during the 2014 to 2018 period and are projected to increase at a CAGR of 5.4% during the 2018 to 2023 period. In China, the cost of consumables increased at a CAGR of 20.1% during the 2014 to 2018 period and is projected to increase at a CAGR of 20.1% during the 2014 to 2018 period and is projected to increase at a CAGR of 16.1% during the 2018 to 2023 period.

The cost of equipment increased from US\$2.3 billion in 2014 to US\$2.7 billion in 2018 (at a CAGR of 3.9%) and is expected to increase to US\$3.2 billion by 2023 (at a CAGR of 3.5%). In the United States, the cost of equipment increased at a CAGR of 4.4% during the 2014 to 2018 period and is projected to increase at a CAGR of 1.7% during the 2018 to 2023 period. In China, the cost of equipment increased at a CAGR of 24.5% during the 2014 to 2018 period and is projected to increase at a CAGR of 24.5% during the 2014 to 2018 period and is projected to increase at a CAGR of 24.5% during the 2014 to 2018 period and is projected to increase at a CAGR of 21.7% during the 2018 to 2023 period.

We believe that we will be able to pass on any increases in our major cost components to our customers and do not expect such increases to have any adverse impact on our results of operations going forward.

### THE COMPETITIVE LANDSCAPE IN OUR MARKETS

#### Highly competitive landscape

Each of the CRO markets outlined above, and particularly the pharmaceutical CRO markets, are highly competitive. There are a number of large, established, multinational CROs that are able to provide a range of services to meet the demands of a large number of projects simultaneously, from the discovery to commercial release phases of development. The 11 largest CROs by revenue accounted for 47.1% of the market share of the pharmaceutical CRO market by revenue in 2018. This category of large CRO includes companies such as IQVIA, LabCorp, Parexel, ICON, and Charles River. We have a market share of less than 0.2% of the global pharmaceutical CRO market by revenue in 2018, and we are not among the largest CROs. There are also a substantial number of smaller to medium sized CROs, both multinational and locally based, which compete for market share. These include China-focused firms such as Pharmaron, Boji and Fountain Medical Development, as well as US based firms, such as Medelis.

In the United States, the 11 largest CROs by revenue accounted for 50.2% of the US pharmaceutical CRO market by revenue in 2018. The three largest CROs by revenue in the United States were IQVIA, Syneos Health and Laboratory Corporation in 2018. Other large CROs by revenue in the United States include Parexel, Charles River, PPD, Medpace and ICON.

In China, the 9 largest CROs by revenue accounted for 48.6% of the China pharmaceutical CRO market by revenue in 2018. The three largest CROs by revenue in China were Wuxi AppTec, Pharmaron and Tigermed. Other large CROs by revenue in China include Parexel, Chempartner and Covance.

In the agrochemical CRO market in the United States, there are a range of CROs that compete by offering services to agrochemical companies in addition to their core pharmaceutical business. These include some of the large CROs, such as Charles River, as well as other multinational CROs such as Eurofins Agrosciences and Alliance Pharma.

#### Barriers to entry

Barriers to entry are high for the outsourcing markets outlined above. There are high upfront costs and significant time commitments that are required to develop teams with sufficient expertise (both scientific and management) to handle the requirements of research, analysis and development of a drug development project. There are stringent regulatory requirements, in both the United States and China, which must be followed strictly. Adherence to these requirements requires significant experience of dealing with the regulatory regime, as well as extensive resources dedicated to compliance and quality control. The pharmaceutical market's emphasis on cost efficiencies means that CROs must be flexible and able to respond and adapt to changing trends and customer preferences. CROs must also ensure that budgets are adhered to and that they keep to timelines agreed with the customer. This requires research and project management experience as well as flexible and well trained teams. Equipment and facilities necessary to conduct research are often expensive to purchase and maintain and must be upgraded when there is a business need to do so. Finally, within the pharmaceutical CRO market, there is a high degree of reliance on reputation to win new business, which also acts as a significant barrier to entry.

#### Distinguishing characteristics of CROs in our markets

Participants in the markets in which we operate are able to differentiate themselves from their competitors by strategically developing their services, and the ways in which these are delivered, to meet the demands of the customers they serve. They are also, crucially, able to differentiate themselves by demonstrating a track record of reliable project delivery and high quality technical expertise. Successful participants are therefore likely to have experienced management teams and a substantial number of highly qualified scientific research staff, as well as state-of-the-art facilities and equipment. The quality of data that is generated by these research teams, and the timescale for its delivery, are key drivers of the reputation of CROs in these markets. Data which is exceptional in its degree of accuracy and sophistication, as well as a regulatory track record of minimal compliance issues are significant considerations of any successful CRO's business, whether operating in one market or across multiple markets. CROs with experience of conducting research, and assisting filings, in the demanding regulatory environment of the United States, as well as CROs with the ability to exchange and transfer experience, methodologies and approaches across their global operations are likely to be in a strong position to deliver these results to the full range of pharmaceutical and agrochemical companies who seek CRO services with exceptional quality.

We have developed a strong competitive position based on the characteristics that differentiate CROs in our markets. We have a strong base of scientific and management expertise, which has earned a reputation for high quality service. According to Frost & Sullivan, our Group is a leader in terms of quality of services in the CRO industry. Our facilities and research equipment are capable of delivering results and data with the highest degree of accuracy and sophistication. We have an established reputation for reliable productivity, rapid turnaround and comprehensive customer support. We strictly adhere to internal quality and project management processes, and developed a project management methodology to ensure timely, consistent and accurate delivery of quality services. The processes, methodologies and knowledge management systems can reduce the overall

cost for customers and enhance the quality and speed of delivery. Our position in both of the two largest pharmaceutical markets enables us to be the partner of choice for companies that need support in relation to parallel submissions with the US FDA and NMPA. We have successfully supported ANDA regulatory submissions to the US FDA using bioanalytical and bioequivalence data generated in China. These US FDA-approved ANDAs are generally eligible for consistency evaluation waivers from the NMPA which significantly accelerate the process of obtaining approvals in China.

# Future opportunities and challenges in our markets

We expect the most significant future opportunities and challenges in our markets to be closely related to the trends outlined throughout this section. In particular, the growth of biologics as a segment of the pharmaceutical industry is expected to increasingly impact the landscape of R&D spending of global pharmaceutical companies. While creating opportunities for CROs that are able to provide quality services on biologics projects, this increasing focus on biologics may also present challenges for CROs wishing to remain competitive, including the need to recruit and train scientists with biologics specific expertise. The development of biologics can be complex compared to chemical drugs and CROs will need to demonstrate the capability for taking on biologics projects, or risk losing valued customer relationships to competitors. According to Frost & Sullivan, the major challenges faced by CROs that focus on biologics are as follows:

- More stringent regulations: The rules and regulations that govern the development of biologics are, in general terms, more stringent compared to the rules and regulations that govern the development of chemical drugs
- More complex and higher standards: Biologics are larger and more complex compared to other chemical drugs. As a result, the processes involved in the development of biologics are relatively more complex and subject to higher standards. Therefore, CROs that focus on biologics need to recruit scientists who have expertise in dealing with biologics and train scientists such that they can deal with the more complex and higher standards associated with biologics.
- Higher staff costs: The average staff costs in the global biologics market (both in pharmaceutical companies and CROs) has steadily increased in recent years as competition for qualified employees has become intense.
- Additional barriers to entry: There is a greater level of scrutiny by customers on CROs that focus on biologics, including in terms of quality of services, consistency, reputation and project turnaround time. As a result, there are additional barriers to entry for new players as pharmaceutical companies prefer to retain existing long-standing relationships with CROs with a proven track record.

Meanwhile, innovations in the model for drug developments or regulatory filings that could reduce the time to market will represent a substantial competitive advantage, particularly in the pharmaceutical market with increasing competition. There is therefore opportunities for CROs with efficient cross-border regulatory filing experiences and tailored filing support processes to gain additional market share.

In line with the highly competitive nature of the pharmaceutical industry, there might be the potential that larger pharmaceutical companies will consolidate in the future, thereby reducing the number of potential clients for CROs. The need to find cost efficiencies is also likely to exacerbate the emphasis on completing lengthy and cost-intensive trials on time and on budget. In recent years, the CRO market has been experiencing consolidation and this trend may continue to happen in the future, which might change the competitive landscape and create potential opportunities or challenges for other players in the industry.

There are also opportunities and challenges in our markets that arise out of the changes that continue to take place at the macro level of the global economy. Increasing connectivity, lower costs, and increasing regulatory and financial sophistication are leading to larger scale investments in the emerging markets. We expect that these markets will see a rise in the markets for CRO services. The same trend is also likely to create challenges for CROs operating in these markets, as it is likely that it will be harder to ensure service and product quality, and adherence to strict the timelines for project delivery in these markets as they are subject to higher levels of general uncertainty, lower levels of necessary infrastructure and development, lower levels of talent pool and technical expertise, and higher levels of political risk.

#### **OVERVIEW**

We are a fast-growing CRO providing integrated, scientifically-driven research, analytical and development services throughout the drug discovery and development process to enable pharmaceutical companies to achieve their drug development goals. We benefit greatly from having operations in both the United States and China - the two largest markets for CRO services in the world - and are well placed to capture growth opportunities in both markets. See "Industry Overview".

The services we provide in the United States include DMPK, safety and toxicology, and CMC, in each case, throughout the drug discovery and development process. Our bioanalytical services, which are the largest source of our revenue (contributing 48.23%, 50.57% and 53.18% of our revenue for the years ended December 31, 2016, 2017 and 2018, respectively), are offered throughout the drug discovery and development process in both the United States and in China. We also provide bioequivalence and related services in China. Certain of our services are also offered to agrochemical companies.

In the United States, we are recognised as a leader in the CRO industry. For example, in 2018, we were awarded the CRO leadership award by "*Life Science Leader*" (a United States business journal targeted at life science executives) based on research conducted by "*Nice Insight*" (a leading United States market intelligence institution specialising in life sciences).

In China, we have successfully capitalised on the recent growth of outsourcing opportunities for CROs, having increased our revenue in China from US\$7.18 million in 2016 to US\$28.45 million in 2018. This growth of outsourcing opportunities in China has been primarily driven by significant regulatory changes in China, starting in 2015. In particular, our business in China has benefitted from the introduction of the Consistency Evaluation Opinion and other regulatory changes which required pharmaceutical companies to conduct bioequivalence studies for generic drugs within a limited timeframe which, in turn, significantly increased the demand for high quality bioequivalence and bioanalytical services in the short term. See "Industry Overview - The Global Pharmaceutical Outsourcing Industry — The Pharmaceutical CRO Market in China". There can be no assurance that the regulatory changes in the China that benefitted our business during the Track Record Period will continue to benefit our business going forward or that the size of the CRO services market in China or the size of the bioanalytical and bioequivalence markets in China will increase at the rate anticipated. See also "Risk Factors - Risks Relating to our Business and Industry - Changes in government regulations or in practices relating to the pharmaceutical or agrochemical industries could decrease the demand for the services we provide, and compliance with new laws or regulations may result in additional costs".

We believe that our "Two Countries, One System" approach differentiates us from our competitors, as it assures our customers the same quality standards in both China and the United States, while also providing our customers with a detailed and highly experienced understanding of the regulations and requirements for drug discovery and development in both countries. Given that the drugs approval requirements are technically different under the United States regulatory regime and the China regulatory regime, the precise nature of the services offered and processes employed may vary depending on our customers' specific requirements. However, our approach and commitment to delivering high quality services remains the same and we believe this is recognised as a strength by

our customers. This approach enables us to be a partner of choice for companies that need support for parallel submissions with the US FDA and NMPA. For example, we have successfully supported abbreviated new drug applications (ANDA) regulatory submissions for generic drugs to the US FDA using bioanalytical and bioequivalence data generated in China. These US FDA approved ANDAs for generics are generally eligible for consistency evaluation waivers from NMPA which significantly reduces the costs of the overall drug development process, while also simultaneously accelerating the timeframe of the approval process across both countries.

We position ourselves as a value-add partner with a focus on solving our customers' most significant and complex drug discovery and development challenges. Our scientific knowledge base, technical expertise and reputation for high quality services have been integral to our ability to enter into strong long-term strategic relationships and partnerships with our key customers. Our customers include Janssen, BeiGene, Blueprint, Fresenius Kabi, Celgene, Rhodes and Duke in the United States and Yangzijiang Pharma, Hisun Pharma, Luye Pharma, Simcere Pharma and Chia Tai Tianqing in China.

Our Company's controlling shareholder, Hong Kong Tigermed Co, Limited is a wholly owned subsidiary of Hangzhou Tigermed. Therefore, Hong Kong Tigermed and Tigermed, as a group, are our controlling shareholders. The Listing will constitute a spin-off of the assets and businesses held by the Group from Tigermed, a company listed on the ChiNext market of the Shenzhen Stock Exchange with stock code 300347.

Tigermed Group is a global CRO headquartered in Hangzhou. China and is principally engaged in the provision of clinical trial services to meet the needs of pharmaceutical companies. The Tigermed Group has a leading reputation in late phase (Phases II-IV) clinical trials in China and other countries in the Asia Pacific region. Through more than 30 subsidiaries (including our Group), Tigermed and its subsidiaries have in excess of 3,000 employees globally.

There is a clear delineation between the Tigermed Group's business and our Group's business in terms of geography and services provided. In general, our Group's business is to provide laboratory and related services to pharmaceutical and agrochemical companies as well as bioequivalence services. The Tigermed Group's business is to provide (a) clinical trial services involving studies on humans (conducted in hospitals or clinical centres), (b) registration services for drugs or medical instruments or medical devices that have successfully completed clinical trials, (c) clinical trial support services, including site management services and (d) biometrics services.

Moreover, in the United States, the Tigermed Group has no presence other than through its interest in our Company and its majority ownership of Tigermed-BDM Inc. (which is a joint venture between us and the Tigermed Group). In China, our Group's business is to provide bioanalytical services and bioequivalence services. The Tigermed Group does not offer these bioanalytical and bioequivalence services in China.

Given this clear delineation of business and the synergies that exist between the Tigermed Group and our Group, we have a collaborative relationship with the Tigermed Group. Our strengths are complementary to the strengths of the Tigermed Group. Specifically, our relationship with the Tigermed Group allows us to offer our customers in China a comprehensive solution for clinical trial support, from Phases I through IV. In turn, Tigermed Group's customers have access to our services, particularly in relation to bioanalytical services. Our Group also has investments in two companies, Tigermed-BDM Inc. and Tigermed-Xinze, both of which are jointly owned by us and members of the Tigermed Group. Tigermed-BDM Inc. and Tigermed-Xinze are engaged in the business of providing biostatistics, data management and statistical programming services to our customers as well as customers of the Tigermed Group. See "*Business — Our Strategic Partnerships and Associates*" for more information.

The graphic below provides a high-level overview of the services we offer in support of the drug discovery and development process.

# Our services in each stage of the drug discovery and development process

Discovery	Pre-clinical development	Clinical trials (phases I-III)	Post approval (phase IV)
МРК			
PK screening and characterisation PK/PD studies	<ul> <li>In vitro and in vivo ADME</li> <li>Metabolite ID / Profiling in difference species</li> </ul>	<ul> <li>Mass balance studies</li> <li>Metabolites in safety testing</li> <li>Drug-drug interaction studies</li> </ul>	
Safety and Toxicology			
Immunosafety testing Pharmacology assessment	<ul> <li>Regulatory / general toxicity studies</li> <li>Pathology, ophthalmology and Cardiovascular safety</li> <li>First-in-human IND application support</li> <li>Non-GLP and GLP toxicology studies</li> </ul>	<ul> <li>Chronic toxicity studies</li> <li>Investigative toxicology</li> <li>Carcinogenicity studies</li> <li>Toxicology support for a</li> </ul>	additional indications
CMC			
<ul> <li>Lead compound qualification</li> <li>Analytical testing</li> </ul>	<ul> <li>Formulation development Analytical testing</li> <li>In vitro release and product testing</li> <li>Stability testing and storage</li> <li>GLP toxicology batch manufacturing</li> </ul>	<ul> <li>CTM/GMP manufacturing</li> <li>Stability testing and storage</li> <li>Extractability studies</li> <li>Impurity identification</li> </ul>	Commercial product release and stability testing
Bioanalytical			
	<ul> <li>Quantification of che</li> <li>Non-GLP research ba</li> </ul>		
		Bioequivalence	
		<ul> <li>Bioequivalence studies</li> <li>Related medical writing and regulatory support</li> </ul>	



Services provided in China

#### **OUR STRENGTHS**

# Integrated CRO operating in a large and growing market and well positioned to capitalise on strong industry growth drivers, especially in China

We provide integrated, scientifically-driven research, analytical and development services in the United States and China - the two largest pharmaceutical markets in the world. The United States and China accounted for 38.7% and 18.3% of the global pharmaceutical market in 2018, respectively, and their market sizes are expected to continue to grow, according to Frost & Sullivan. Driven by the growth in the pharmaceutical market, the pharmaceutical CRO market in the United States is expected to increase to US\$41.1 billion by 2023 from an estimated market size of US\$27.0 billion in 2018. Following a series of industry and regulatory reforms since 2015, the size of the pharmaceutical CRO market in China is expected to increase to US\$19.1 billion in 2023 from US\$5.5 billion in 2018 at a CAGR of 28.3%.

Leveraging the breadth and depth of our service offerings, along with our focus on technical excellence, we believe we are well positioned to capitalise on the strong growth drivers in the markets in which we operate. In particular, we believe that we can take advantage of our value-add technical expertise to capitalise on the industry and regulatory developments that encourage innovative patented drugs. We also believe that we have a leading position for bioequivalence studies in China which, in turn, positions us to benefit from the heightened level of regulatory scrutiny on generic drugs in China.

In addition, our "Two Countries, One System" approach enables us to be a partner of choice for pharmaceutical companies with multinational requirements, which we believe could uniquely position us for the outsourcing demands from foreign companies entering China as well as Chinese pharmaceutical companies expanding into the United States.

# Proven ability to deliver value-add technical expertise because of our deep pool of talented scientists and world-class facilities and equipment

We believe that we deliver high quality services through our focus on technical excellence, which enables us to understand and solve complex scientific challenges (such as challenges in drug formulation, data interpretation and bioanalysis). This helps us form strong, long-term relationships and partnerships with our customers. We believe this approach - where we are positioned as a value-add partner - differs from certain of our competitors, who focus on offering a variable-cost alternative to their customers' internal product development functions and supporting their customers on their more routine work.

Our deep pool of talented and highly qualified scientists is integral to our business. As of December 31, 2018, a majority of our scientists held advanced degrees, including PhDs, MDs or Master's degrees. In addition to being highly qualified, our scientists are regularly trained on new scientific and regulatory developments and frequently participate in academic activities. A number of our scientists have expertise across a range of disciplines, that enables them to perform and manage

a wide variety of tasks across our various business units. This helps us provide flexibility in allocating resources to our customers and maximizes our productivity. We believe that the depth of our scientific knowledge base is a key strength and the foundation of our reputation and competitive position in our markets.

We believe that our leading technical expertise has been recognised by representatives of regulatory authorities. For example, we have collaborated with staff of the US FDA on certain publications. We have also received accolades in China in recognition of our quality management and expertise. For example in 2012, we were ranked as one of the top ten CROs by the *Journal of Medical Field*.

In addition, our facilities and equipment enables us to deliver results that meet our customers' needs. Each of our facilities is equipped with state-of-the-art equipment, which includes over 80 mass spectrometers across our facilities and high performance chromatography systems. We aim for our facilities and equipment to remain at the forefront of the global pharmaceutical research, analytical and development standards.

### Effective quality management systems and strong track record of regulatory inspections

We have adopted and maintain effective quality management systems, which comprise a quality control team embedded within our various business units and a separate quality assurance team. We have nine personnel who work on quality control across our various business units. In addition, our independent quality assurance team has 16 personnel.

Our senior management is actively involved in formulating our quality management policies and procedures, including ensuring that they are consistent with global best practices. Moreover, our "Two Countries, One System" approach, which assures our customers the same quality standards, operating procedures, setup and systems in China as in the United States, is also demonstrative and supportive of our effective quality management system. In 2016, our China business received the ISO 9001 quality management system certification from the Beijing ZhongDaHuaYuan certification centre.

We have a strong track record of successful regulatory inspections. Our facilities have successfully undergone inspections by the US FDA, NMPA and Health Canada on numerous occasions. In addition, our facilities have also been inspected by the US EPA, the US Drug Enforcement Agency ("DEA"), the World Health Organization ("WHO") and the US Nuclear Regulatory Commission ("NRC"). None of these inspections have resulted in any materially adverse issues being identified. Any questions that have been raised have consistently been addressed to the satisfaction of the relevant regulatory authorities, demonstrating that we meet or exceed the high standards placed on our industry.

#### Proven success in growing our customer base and increasing customer retention

Our diverse customer base includes leading pharmaceutical companies, such as Janssen, BeiGene, Blueprint, Fresenius Kabi, Celgene, Rhodes and Duke in the United States and Yangzijiang Pharma, Hisun Pharma, Luye Pharma, Simcere Pharma and Chia Tai Tianqing in China. We provide services to companies of varying sizes, academic institutions and research centres. We witnessed a significant growth in the number of customers during the Track Record Period.

Our returning customers often engage us on a wider range of services than those for which they initially contracted. Certain of our returning customers who have engaged us in the United States have subsequently engaged our services in China (or vice versa). Our scientific knowledge base, technical expertise and reputation for high quality services have been integral to our ability to enter into strong long-term strategic relationships and partnerships with our key customers. We believe that by clearly communicating and aligning our approach with the expectations of our customers at the beginning of an engagement, we develop a trusted relationship where our customers typically grant us greater control over the drug discovery and development processes. This results in greater accountability on our part and, we believe, more consistent delivery of our services and greater customer satisfaction. We believe our partnering approach, coupled with our scientifically-driven model, ensures efficient and high-quality execution and, in turn, stronger customer relationships.

Our revenue from major pharmaceutical companies has grown as these customers' demand for outsourcing research, analytical and development services and outsourcing budgets continue to increase. Of the top twenty largest pharmaceutical companies in the world in 2018 (by revenue), 11 were our customers in the same year according to Frost & Sullivan. Our position as a reliable and regular partner to our customers has also been strengthened by our development of long-term strategic partnerships and collaborations

As at December 31, 2018, we had a contracted future revenue of approximately US\$73.67 million, which we believe will continue to support and provide visibility on our growth.

In China, through our customers, we have been involved in several first-to-market generic drugs. For example, we worked in China with one of our key customers on the first generic version of a drug approved by the US FDA and its subsequent approval by NMPA through the consistency evaluation waiver program.

#### Strong track record of efficient and integrated delivery differentiated by flexibility

We believe we have a reputation for completing projects on time and delivering on budget, while maintaining the flexibility to provide accelerated delivery services as and when required by our customers. We are also able to respond swiftly to the requirements of our customers and maximize efficient delivery by maintaining flexibility with our agile project management and decision-making processes. For example, our research scientists regularly act as project managers and interact with customers directly to generate practical, sustainable and innovative solutions to problems as and when they emerge in projects.

Our scientists are also trained to develop and implement detailed experimental plans for non-standard situations, as well as understand customer needs. This is made possible by the calibre of our scientists, whose technical knowledge combined with a high level of data literacy, solution-driven thinking and critical decision making skills enable them to stand out to our customers as trusted partners throughout the progress of a project.

#### Highly experienced and professional management team

Our Company is led by our CEO Dr Zhihe Li and our Chief Business Officer Dr Hugh M. Davis. Our founder, Dr Song Li, is also the Honourary Chairman of the Company. With over 25 years of experience in the pharmaceutical industry, Dr Song Li's visionary leadership of Frontage Labs has earned him wide respect in the industry and within our Group. Our highly skilled and experienced management team possesses extensive knowledge of the markets in which we operate. Most of our senior management team have experience with leading global pharmaceutical companies and an in-depth understanding of our markets and the requirements of our customers.

Our senior management team has been with us for more than five years on average and their technical and industry expertise have significantly contributed to the growth of our institutional knowledge base. Almost all members of our senior management team possesses a scientific background with a PhD and/or MD in their relevant field. They also regularly contribute to peer-reviewed industry publications and journals as well as present at national and international scientific conferences.

Several of our senior management team also have experience working in the pharmaceutical or related industries in China. They are therefore able to position our services to China headquartered pharmaceutical companies, thereby capitalising on the increasing demand for high quality outsourcing services in China.

#### **OUR STRATEGIES**

#### Continue to expand capacities to meet increased demand for our services

Outsourcing by the pharmaceutical industry is expected to continue to increase in the near- and medium-term in both the United States and China. According to Frost and Sullivan, the size of the global pharmaceutical CRO market is expected to increase from US\$27.0 billion in 2018 to US\$41.1 billion in 2023 in the United States and from US\$5.5 billion in 2018 to US\$19.1 billion in 2023 in China. We also anticipate increased attention to the development of innovative drugs by the pharmaceutical industry in China due to continued regulatory and policy reform which, in turn, is expected to increase the demand for our services. See also "— Our Strategies — Continue to capitalise on China's growing outsourcing market". In addition, we anticipate increasing investments by pharmaceutical companies in the development of biologics in both the United States and China.

Consequently, we intend to leverage our existing strengths and expand our capacity to pursue opportunities from the anticipated increase in outsourcing by the pharmaceutical industry and the related demand for our services. Specifically, we plan to expand our capacity by recruiting additional scientists, adding to our equipment, expanding or enhancing our existing facilities (including a proposed expansion of our laboratories located in Pennsylvania and Ohio, USA and enhancing our facilities located at Zhangjiang Hi-Tech Park, Shanghai and Suzhou, Jiangsu), adding new facilities and continuing to invest in state-of-the-art equipment and technologies to ensure we remain adaptive to growth and changes in our industries. We may also acquire companies or make further investments in our existings associates to expand our capacities.

# Strategically extend the range of our services to offer our customers more integrated solutions through organic growth and potential acquisitions

We aim to pursue a range of opportunities arising out of the growing demand for CRO services by effectively evaluating strategic expansion and potential acquisition opportunities to develop our capability in markets we have identified as attractive based on our analysis of the relevant market dynamics. We believe there could be a wide range of potential growth opportunities for us to extend our range of services offered to better serve our customers and some of these opportunities include:

- Expanding the range of our service offerings in both the United States and China. For example expanding our bioanalytical services to cover central laboratory and diagnostic testing, and expanding our CMC services to enhance our sample manufacturing capabilities for chemical drugs. In addition, we believe expanding our service offering in both the United States and China for safety and toxicology studies, in particular, in relation to large animal studies would enable us to offer a more comprehensive range of services to our customers and position us to generate a larger volume of work from large pharmaceutical companies.
- Expanding our capabilities through acquisitions in China to capture growth in the drug discovery and early stage development and other ancillary services. For example, Active Pharmaceutical Ingredients ("APIs") manufacturing, medicinal chemistry, pharmacology and pre-clinical services. We also believe there is an opportunity to draw on the large pool of medicinal chemists in China to synthesise New Chemical Entities ("NCE") to be tested in select enzyme and cell-based pharmacological systems, following which subsequent *in vitro* and *in vivo* screening could then be performed to identify lead candidates for potential development.
- Expanding our capabilities generally in relation to biologics across our various existing services.
- Expanding our capabilities for the manufacture of terminal sterilised injectable and lyophilised drug products, as well as general CMO capabilities in both the United States and China.
- Expanding our service scope for agrochemical customers. We believe that by expanding our services to provide a complete set of EPA-regulated studies to our agrochemical customers, which would include soil metabolism, crop metabolism, animal metabolism, environmental fate studies and toxicology, we will be able to significantly increase our revenue from agrochemical customers and capitalise on the synergies between our pharmaceutical and agrochemical CRO services. Specifically, we intend to build a marketing team dedicated to the agrochemical business and potentially form strategic relationships with select agrochemical companies.

In addition, by forming partnerships with certain of our key customers, we aim to create more platforms for growth across all areas of our business. We will also consider a strategic alliance with a central laboratory and other alliances and investments, which would extend the reach of our service sales beyond the United States and China. We expect that this would also enable us to cross-sell our services to a wider range of customers. As part of this strategy, since late 2018, we have had an arrangement with the Bio Analytical Research Corporation ("BARC") whereby BARC refers their clients in need of laboratory services (that BARC does not perform) to Frontage Labs. BARC is a Ghent (Belgium) headquartered, independent, global, central laboratory that supports pharmaceutical companies in the development of new drugs by managing the samples and data of clinical trials and by conducting safety laboratory analysis for those trials. In addition, we are in active discussions with BARC for laboratory and employee sharing in their central laboratory in Ghent. As an extension of the strategic alliance, we expect to be able to use three of BARC's business development staff based in Germany, Belgium and France. We believe that this will enable us to cross-sell our laboratory services to European pharmaceutical companies that have chosen to partner with BARC.

#### Continue to capitalise on China's growing outsourcing market

We intend to continue to capitalise on the anticipated growth in outsourcing by pharmaceutical companies in China. According to Frost and Sullivan, the size of the pharmaceutical CRO market in China is expected to increase from US\$5.5 billion in 2018 to US\$19.1 billion in 2023, and the rate of penetration of the total China research and development expenditure by outsourcing services is expected to grow from 32.3% in 2018 to 46.7% in 2023. The growth of the pharmaceutical market in China is partly driven by favourable policies from the government of the PRC, aimed at developing the market for quality drugs and biologics. These policies, combined with enhancing regulatory standards, have led to a significant increase in demand for high quality CRO services from both local and foreign pharmaceutical companies. See "Industry Overview".

As a consequence, we intend to leverage our existing reputation in China for quality, consistency and efficient delivery. In particular, we intend to expand our service offering for biologics in China to realise opportunities from the expected increase in spending. Going forward, we believe that increased demand from existing and new clients, particularly for bioanalytical services, will drive our revenue growth in China.

We believe that our strong service offering in China is also attractive to customers based in the United States, who intend to bring innovative drug development projects to China and apply for equivalence recognition in China. Our expertise with the regulatory regime overseen by the US FDA, we believe, will also be attractive to customers based in China, who wish to access the United States with their innovative drug products.

### Maintain and deepen our strong relationships with existing customers to secure new projects

We believe that the breadth and depth of our service offerings, expertise and technology, combined with our existing business and customer relationships will position us to benefit from the anticipated increases in pharmaceutical and agrochemical outsourcing over the near and medium term. Over the past several years, we have built dedicated customer relationship teams for our large customers, allowing us to cross-sell our services, and to proactively help our customers identify

additional ways our services can enable them to further improve their research, analytical and development productivity. In addition, we will continue to invest in our relationships with pharmaceutical companies. Specifically, we intend to extend our existing approach of forming strategic partnerships with larger pharmaceutical companies to our other customers. The breadth and depth of our service offerings enable us to develop relationships with key decision makers at our customers. We intend to leverage our customer relationships and strategic partnerships to further capitalise on new opportunities as our customers continue to seek to optimise their cost structures through increased outsourcing.

# Attract new customers and expand our customer base by leveraging our existing market position and reputation

We intend to leverage our reputation as a cost effective provider of the highest quality services to gain additional work in the future. We believe this strategy will help us to ensure we maintain a strong position in the market and attract new customers. In addition, we intend to establish further service alliances with other CROs, central laboratories and hospitals to augment our service offering, to build our internal expertise and to open up channels to new customer relationships.

In China and the United States, we intend to expand our business development and marketing teams and better capitalise on our track record for quality, our knowledge of the regulatory regimes. In particular, we will continue to develop and promote our "Two Countries, One System" approach, in order to continue to strengthen our capabilities to transfer technical information seamlessly between our operations in the United States and China, and potentially elsewhere if we decide to expand to other markets in the future. Our intention is to position ourselves as the go-to partner for customers wishing to take advantage of our integrated service offering, our expertise in the United States and Chinese regulatory regimes and our effective quality management systems. We envision that our "Two Countries, One System" approach will be particularly attractive to companies with plans to make parallel regulatory submissions in the United States, and China, China-based companies with international development plans in the United States, and multinational companies who wish to introduce their products in China without having to build on-the-ground technical expertise in-house.

We also intend to continue to develop our collaborative business relationship with Tigermed so as to offer our customers in China, a comprehensive solutions for clinical trial support, from Phases I through IV, through Tigermed's services, while increasing our access to Tigermed's customer base, particularly in relation to bioanalytical services.

#### Continue to attract and retain talent to support our growth

We intend to maintain our high service standards, industry leading expertise and reputation for quality and innovation by expanding and retaining our pool of talent, particularly our research scientist staff. Our approach to attracting and retaining talent and expertise will focus on a combination of structured campus recruitment programs and lateral hires from competitors, pharmaceutical companies and academic organisations. We believe our transparent performance

evaluation, clear career progression opportunities, technical and managerial training and competitive compensation will help to ensure that our employees are "best in class" and capable of meeting our customers' high expectations. In addition, we will seek to grant share options to additional employees in order to retain key members of our management and senior scientists.

#### **OUR BUSINESS MODEL**

We are a fast growing CRO providing integrated, scientifically-driven research, analytical and development services throughout the drug discovery and development process to enable pharmaceutical companies to achieve their drug development goals. We benefit greatly from having operations in both the United States and China (the two largest markets for CRO services in the world) and are well placed to capture growth opportunities in both markets. See "*Industry Overview*". Our "Two Countries, One System" approach is integral to our commitment to high quality standards. We galvanise our strengths in both markets by sharing technical expertise and personnel across the two countries, and by leveraging our knowledge of the two regulatory regimes to serve our customers' discovery and development goals. We are uniquely positioned to support multinational corporations in China that aim to access the US market through ANDA application, using data derived from studies in China and the United States, and to support international companies and Chinese companies with drugs already approved in the United States and elsewhere, seeking to access the China market through support for consistency evaluation and bioequivalence recognition.

Our bioanalytical services, which are the largest source of our revenue (contributing 48.23%, 50.57% and 53.18% of our revenue for the years ended December 31, 2016, 2017 and 2018, respectively), are offered both in the United States and in China. Other services we provide in the United States include DMPK, Safety and Toxicology and CMC. In China, we also conduct bioequivalence studies and provide related services. Certain of our services in the United States are also offered to agrochemical companies.

The table below provides an overview of the services we offer in each of our business units.

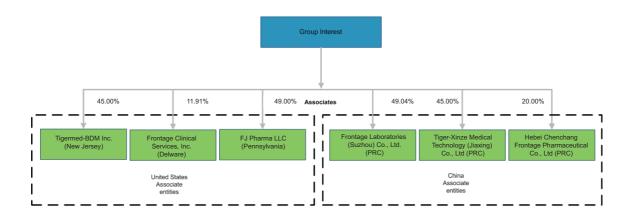
Discovery	Pre-clinical development	Clinical trials (phases I-III)	Post approval (phase IV)
OMPK			
<ul> <li>PK screening and characterisation</li> <li>PK/PD studies</li> </ul>	<ul> <li>In vitro and in vivo ADME</li> <li>Metabolite ID / Profiling in difference species</li> </ul>	<ul> <li>Mass balance studies</li> <li>Metabolites in safety testing</li> <li>Drug-drug interaction studies</li> </ul>	
Safety and Toxicology			
<ul> <li>Immunosafety testing</li> <li>Pharmacology assessment</li> </ul>	Regulatory / general toxicity studies     Pathology, ophthalmology and Cardiovascular safety     First-in-human IND application support     Non-GLP and GLP toxicology studies	<ul> <li>Chronic toxicity studies</li> <li>Investigative toxicology</li> <li>Carcinogenicity studies</li> <li>Toxicology support for a</li> </ul>	
CMC			
<ul> <li>Lead compound qualification</li> <li>Analytical testing</li> </ul>	<ul> <li>Formulation development Analytical testing</li> <li>In vitro release and product testing</li> <li>Stability testing and storage</li> <li>GLP toxicology batch manufacturing</li> </ul>	<ul> <li>CTM/GMP manufacturing</li> <li>Stability testing and storage</li> <li>Extractability studies</li> <li>Impurity identification</li> </ul>	Commercial product release and stability testing
Bioanalytical			
		Bioequivalence	

- Bioequivalence studies Related medical writing and regulatory support



Services provided in the United States Services provided in the United States and China Services provided in China

We have invested in certain other businesses in which we hold minority equity interests. We refer to these businesses in which we have invested as our associates. The results of our associates are not consolidated with our results. For more information on these associates, see "— Our Strategic Partnerships and Associates". The simplified corporate structure chart of our investments in these associates is set forth below. See "History, Reorganisation and Corporate Structure — Corporate Structure" for the full chart:



The graphic below provides a high-level overview of the services offered by our associates in the drug discovery and development process:

<b>Business Nature</b>	Services Our Associates Offer
СМС	<ul> <li>Lead compound qualification</li> <li>Formulation development</li> <li>Impurity identification</li> <li><i>In vitro</i> release and product testing</li> <li>Analytical testing</li> <li>Stability testing and storage</li> <li>Release testing</li> <li>Extractability/leachability studies</li> <li>GLP toxicology batch manufacturing</li> <li>CTM/GMP manufacturing</li> <li>Commercial product release</li> </ul>
Clinical	<ul> <li>Early phase human clinical study design and execution</li> <li>Data management and pharmacokinetics</li> <li>Data analysis</li> <li>Medical writing and regulatory support</li> </ul>
Biometrics	<ul> <li>PK/PD analysis and pharmacometrics</li> <li>Data management</li> <li>Statistical programming</li> <li>Biostatistics</li> <li>Regulatory submission package support</li> </ul>

Services provided in both the United States and China

Services provided in the United States

Services provided in China

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# **Our Services**

We offer our services primarily through our wholly owned subsidiary in the United States, Frontage Labs, and our wholly owned subsidiary in China, Frontage Shanghai. An overview of our service offerings is provided below.

Drug Metabolism and Pharmacokinetics ("DMPK")	We offer standard and customised <i>in vivo</i> and <i>in vitro</i> DMPK services. This includes pharmacokinetic (" <b>PK</b> ") and pharmacodynamics (" <b>PD</b> ") studies throughout the development process. We also offer ADME studies. For the discovery phase, we also offer PK screening and characterisation to enable structure optimisation. We also offer metabolite identification in different animal species, Metabolites in Safety Testing (" <b>MIST</b> "), drug-drug interaction, and radiolabelling studies. These services are currently provided in the United States from our facility in Exton, Pennsylvania (700 Pennsylvania Drive).
Safety and toxicology	Our acquisition of Concord in April 2018 allows us to offer an extensive range of safety and toxicology services, including large animal testing, to our customers for the first time. These services include non-GLP and GLP toxicology studies to support regulatory submissions such as INDs. Additional toxicological assessments include pathology, ophthalmology and cardiovascular studies. We also offer chronic toxicity and investigative toxicology studies, carcinogenicity studies and support for additional indications. We also assist with the development of safety and toxicology testing plans, mainly for the pre-clinical stage, with the goal of identifying the pharmacological and toxicological effects of drug candidates. These services are currently provided in the United States from our facility in Concord, Ohio.
Bioanalytical	Our bioanalytical services include non-GLP research based and GLP assays (both <i>in vivo</i> and <i>in vitro</i> ) for small and large molecule drugs and biomarkers throughout the drug development process as well as immunogenicity and neutralizing antibody assessments. These assays support first-in-human dose justifications and Investigational New Drug ("IND") packages for pharmaceutical therapeutics. We provide method development and validation services in addition to sample analysis services to assess pharmacokinetics, immunogenicity and pharmacodynamics effect. These services are currently provided both in the United States and China from our facilities in Exton, Pennsylvania (700 Pennsylvania Drive) and Concord, Ohio as

well as our facility in the Zhangjiang Hi-Tech Park, Shanghai.

Chemistry, manufacturing and	Our portfolio of CMC services spans drug discovery to the
controls (CMC)	post approval phase, including lead compound quantification
	and analytical testing for the discovery phase, formulation
	development, GLP toxicology batch studies, release and
	product testing, stability testing, CTM and Good
	Manufacturing Practice ("GMP") manufacturing,
	extractability and leachability studies and commercial
	product release following approval of an application. These
	services are currently offered in the United States from our
	facility in Exton, Pennsylvania (75 East Uwchlan Avenue).
Bioequivalence	We provide bioequivalence ("BE") and related services (such
	as medical writing and regulatory support) in China.
	Bioequivalence is the term used to assess the expected in vivo
	biological equivalence of two preparations of a drug.
	Bioequivalence is generally defined as the absence of a
	significant difference in the rate and extent of which the
	active ingredient or active moiety in pharmaceutical
	equivalents or pharmaceutical alternatives becomes available
	at the site of drug action when administrated at the same
	molar dose under similar conditions in an appropriately
	designed study. These services are currently provided by us in
	China from our facility in Zhengzhou, Henan, and 17 clinical
	research centres in our collaborating hospitals in China.

The following table sets forth a breakdown of our revenue (including Concord) by type of service and geographical location of our facilities during the Track Record Period:

	For the financial year ended December 31,					
	20	16	2017		20	18
	US\$ millions	% of revenue	US\$ millions	% of revenue	US\$ millions	% of revenue
United States						
DMPK <sup>(1)</sup>	7.43	15.28	8.39	11.94	9.95	11.97
Safety and toxicology <sup>(1)</sup>	_	_	_	_	5.61	6.75
Bioanalytical	19.45	39.98	23.48	33.43	25.24	30.37
СМС	14.58	29.98	16.74	23.83	13.86	16.68
Sub-total <sup>(2)</sup>	41.47	85.24	48.60	69.20	54.66	65.77
China						
Bioanalytical	4.01	8.24	12.05	17.15	18.96	22.81
Bioequivalence	3.17	6.52	9.59	13.65	9.49	11.42
Sub-total	7.18	14.75	21.64	30.81	28.45	34.23
Total	48.64	100.00	70.25	100.00	83.11	100.00

Notes:

(1) With effect from April 1, 2018 (i.e. the closing date of the Concord Acquisition), we have started recording a substantial portion of the revenue from Concord under a new business segment — safety and toxicology. The remainder of Concord's revenue amount to US\$2.94 million was included in our DMPK revenue in 2018.

(2) Excluding Concord, our revenue from our facilities in the United States was US\$46.77 million in 2018.

#### **OUR FEE MODEL AND ONGOING PROJECTS**

#### Our Fee Model

We generate fee income primarily on a fee-for-service ("**FFS**") basis for the services we provide. Under the FFS approach, we receive recurring payments in accordance with a payment schedule specified in the relevant contract or work order. The payment schedule sets out the service fee for the services we are required to provide.

We determine the fee level based on our scope of services, the estimated costs and expenses of the required services, and the amount of time we need to allocate, among other factors. Our service contracts and work orders typically include a detailed schedule that sets forth specifications of the services to be provided, the anticipated delivery time and the payment dates. A number of our work orders are for very short periods of time and may be completed in a few weeks.

Each work order generally contains an annexure detailing the timeline for delivery of services, the payment schedule and a template form of certification by the customer that services have been rendered and payment is due according to the project timeline. A work order typically comprises a number of tasks and each task involves the completion of several steps. We typically bill our customers after completion of a task and a task is considered to be completed after completion of all the steps required to perform the task. The specifications contained in our work orders contain a high level of detail on the deliverables (e.g. technical reports, units produced, samples tested/services transferred) required to be sent to a customer to complete a particular step. In determining the performance obligation of our work order, we consider whether the customers benefits from each particular step on its own and whether it is distinct in the context of the contract. For the services delivered to the customer based on the extent of progress towards completion of the performance obligation, our performance does not create an asset with an alternative future use and the contract terms specify that we have an enforceable right to payment for performance completed to date, revenue generated from such performance is recognised over time. Depending on which better depicts the transfer of value to the customer, we generally measure our progress under the terms of the contract using either the cost-to-cost (i.e. input method) or units produced/services transferred to the customer to date (i.e. output method). As a result, the service fee is recorded as unbilled revenue along with our recognition of revenue over time until the entire task is completed, at which time an invoice is sent to the customer. Unbilled revenue is converted into a trade receivable at this time. Our revenue recognition mechanism is in line with industry practice, according to the Frost & Sullivan Report. Our Directors are also of the view that the revenue attributable to a particular step is recognised in a fair and reasonable manner and not prematurely.

We also generate a small proportion of our income in the United States on a full-time-equivalent ("FTE") basis. Fees received from our services under the FTE model contributed less than 5.00% of our revenue 2016 and less than 7.50% of our revenue in 2017 and 2018. Under the FTE approach, we designate employees for the customer's projects at a fixed rate per FTE employee per period of time. These employees typically work on-site at our facilities throughout the term of the project, and in some cases in a dedicated lab. In a smaller number of cases, our employees are embedded in our customers' laboratory facilities. We determine the amount of service fees based on the number of scientists, the average revenue that can be generated per scientist, materials and equipment costs and the amount of time required for completing the project, among other factors. The terms of our FTE contracts are as agreed with our customer and can range from three months to five years. Under some long-term FTE contracts, we are allowed to adjust our service fee rate per FTE employee per period of time when a certain amount of time has passed. Under the FTE model, we typically require the customer to make monthly payments for the duration of the contract. We typically adopt this FTE approach upon a customer's request, particularly when we are looking to establish a long-term partnership with a customer.

#### Working capital cycle

As we have had immaterial inventories during the Track Record Period, our working capital is the amount of trade receivables less the amount of trade payables. While the absolute amount of our working capital increased during the Track Record Period as our business grew, our working capital cycle remained healthy in our view. For a discussion of our working capital cycle, please see "Financial Information — Liquidity and Capital Resources — Working Capital".

## Contracted Future Revenue

Contracted future revenue represents, at a particular point in time, future service revenues from work not yet completed or performed under all signed contracts (that may be terminated by a customer at any time) or customers' purchase orders in effect at that time. Once work begins on a project, revenue is recognised over the duration of the project. See "Financial Information - Critical Accounting Policies — Revenue Recognition". Contracted future revenue is assessed by reference to signed contracts or work orders (where a customer has agreed to pay for certain services at a certain price) and by reference to the percentage of work completed in relation to such contract. As with all our contracts, they are cancellable by our customers and in that situation the revenue may not be earned as expected. See "Risk Factors — Risks Relating to our Business and Industry — We might not realize all of the anticipated future revenue associated with our contracted future revenue". There is no standardised accounting practice for calculating contracted future revenue and approaches to estimating contracted future revenue value may vary considerably between industry players. As a result, we advise caution on any reliance of an analysis of contracted future revenue between our company and competitors as a reliable like-for-like comparison of value. There are a range of methodologies in our industry for the calculation of contracted future revenue and/or backlog. According to the Frost & Sullivan Report, our approach to calculating contracted future revenue is appropriate, meaningful and within the range of methodologies employed in our industry. Our Directors are also of the view that contracted future revenue is calculated in a fair and reasonable manner.

Using the method described above of calculating contracted future revenue, as at December 31, 2018, our contracted future revenue was approximately US\$73.67 million. See also "Risk Factors — Risks Relating to our Business and Industry — We might not realize all of the anticipated future revenue associated with our contracted future revenue".

The following table sets out certain information relating to our material ongoing projects (on the basis of contribution to revenue) as at the Latest Practicable Date.

	Revenue for the period			
Projects ranked by revenue	from January 1, 2019 to	Date of		Nature of services (and whether provided from
as at the Latest Practicable Date	May 7, 2019 (US\$ million)	Commencement of Project	Date of completion of project	China or the United States)
1	1.41	July 19, 2018	Ongoing	Bioanalytical and Bioequivalence; China
2	0.77	September 23, 2016	Ongoing	Bioanalytical; United States
3	0.74	September 12, 2018	Ongoing	Bioanalytical, safety and toxicology; United States
4	0.64	April 5, 2018	Ongoing	States Safety and toxicology; United States
5	0.64	October 16, 2018	Ongoing	Bioanalytical and Bioequivalence; China
6	0.56	May 15, 2018	Ongoing	Bioanalytical; United States
7	0.53	August 21, 2018	Ongoing	Bioanalytical, safety and toxicology; United States
8	0.44	October 23, 2017	Ongoing	Bioanalytical; United States
9	0.34	December 6, 2018	Ongoing	Bioanalytical; United States
10	0.31	August 7, 2018	Ongoing	DMPK; United States
Total revenue	6.38			

### Our Material Projects (based on contribution to revenue) during the Track Record Period

The following tables set out certain information relating to a number of our more significant projects in terms of revenue generated in the years ended December 31, 2016, 2017 and 2018, respectively:

Projects ranked by				Nature of services
revenue in the Year ended	Revenue	Date of Commencement	Date of Completion	(and whether provided from China or the United
December 31, 2016	(US\$ million)	of Project	of Project	States)
1	1.53	February 15, 2016	February 14, 2017	Bioanalytical; United States
2	1.44	March 3, 2016	March 31, 2017	CMC; United States
3	0.66	June 29, 2015	November 30, 2016	DMPK; United States
4	0.49	April 22, 2014	Ongoing	Bioanalytical; United
				States
5	0.47	September 6, 2016	January 17, 2017	Bioanalytical; United
				States
6	0.52	May 13, 2016	July 31, 2017	Bioanalytical and
				Bioequivalence; China
7	0.47	March 22, 2016	Ongoing	CMC; United States
8	0.46	December 10, 2015	February 28, 2017	CMC; United States
9	0.46	January 15, 2016	October 26, 2016	Bioanalytical; United
				States
10	0.40	October 12, 2015	Ongoing	Bioanalytical; United
				States
Total revenue	6.90			
Total revenue				
contribution	14.18%			

Projects ranked byrevenue in the Year ended December 31, 2017	Date of Revenue Commencement (US\$ million) of Project		Date of Completion of Project	Nature of services (and whether provided from China or the United States)	
1	2.07	September 23, 2016	Ongoing	Bioanalytical; United States	
2	1.53	March 22, 2016	Ongoing	CMC; United States	
3	1.31	April 1, 2017	March 30, 2018	CMC; United States	
4	0.93	December 13, 2016	Ongoing	DMPK; United States	
5	0.54	January 6, 2017	December 6, 2017	Bioanalytical and Bioequivalence; China	
6	0.54	January 28, 2015	Ongoing	CMC; United States	
7	0.52	April 27, 2017	Ongoing	Bioanalytical and Bioequivalence; China	
8	0.51	January 22, 2017	January 18, 2018	Bioanalytical and Bioequivalence; China	
9	0.51	December 15, 2016	April 10, 2018	Bioanalytical and Bioequivalence; China	
10	0.50	January 20, 2017	June 5, 2017	Bioanalytical and Bioequivalence; China	
Total revenue	8.96			- · ·	
Total revenue contribution	12.75%				

Projects ranked by revenue in the year ended December 31, 2018	Revenue (US\$ million)	Date of Commencement of Project	Date of Completion of Project	Nature of services (and whether provided from China or the United States)	
1	2.71	September 23, 2016	ongoing	Bionalytical; United States	
2	1.27	April 1, 2018	ongoing	CMC; United States	
3	0.99	April 1, 2018	December 13, 2018	Safety and Toxology; United States	
4	0.92	May 16, 2018	ongoing	Bionalytical; United States	
5	0.71	August 24, 2017	October 26, 2018	Bionalytical and Bioequivalence; China	
6	0.65	December 6, 2017	October 15, 2018	Bionalytical and Bioequivalence; China	
7	0.60	March 12, 2018	December 5, 2018	Bionalytical and Bioequivalence; China	
8	0.59	March 22, 2016	ongoing	CMC; United States	
9	0.48	March 12, 2018	January 6, 2019	Safety and Toxology; United States	
10	0.47	August 22, 2017	January 4, 2019	Safety and Toxology; United States	
Total revenue	9.39				
Total revenue contribution	11.29%				

The following table further sets out the number of new contracts and average revenue per contract for each of 2016, 2017 and 2018 respectively as well as the typical duration of a contract.

_	Number of new contracts signed during the financial year ended December 31,		durin	e new contract g the financial led December 3	al year	
_	2016	2017	2018	2016	2017	2018
					(US\$ 000)	
United States						
DMPK	147	214	256	49	37	37
Safety and toxicology <sup><math>(1)</math></sup>	—	—	119		—	48
Bioanalytical	360	459	501	84	58	67
СМС	359	309	307	57	47	48
Sub-total of new contracts signed or average new contract size (as applicable)	866	982	1,183	67	50	54
China						
Bioanalytical	132	159	275	94	103	92
Bioequivalence	59	62	123	173	246	173
Sub-total of new contracts signed or average new contract size (as applicable)	191	221	398	119	143	117
Total of new contracts signed or average new contract size						
(as applicable)	1,057	1,203	1,581	76	67	70

Notes:

During the Track Record Period and up to the Latest Practicable Date, none of our projects made losses and there were no projects where we experienced material unexpected delays.

<sup>(1)</sup> With effect from April 1, 2018 (i.e. the closing date of the concord acquisition), we have started recording a substantial portion of the revenue from Concord under a new business unit — safety and toxicology.

<sup>(2)</sup> Average contract size is calculated by dividing the aggregate of the fees payable (as set forth in each new contract signed during a financial year) by the total number of contracts signed in such financial year.

Our average new contract size was approximately US\$76,000, US\$67,000 and US\$70,000 for each of 2016, 2017 and 2018, respectively. During the Track Record Period, our projects/work orders were generally for a duration of two or three weeks to three years (although there were a few instances where work orders/projects were shorter or longer periods).

#### **RECENT DEVELOPMENTS**

Since the end of the Track Record Period and up to the date of this prospectus, we have experienced revenue growth and are beginning to see the results of the increased management attention and focus on business development activities, particularly in the United States.

As at the Latest Practicable Date, we had signed 569 new contracts since December 31, 2018 (as compared with 1,581 contracts in 2018). The average size of these contracts was approximately US\$79,000.

Of our contracted future revenue of US\$73.67 million as of December 31, 2018 (and on the assumption that we will realise all of our anticipated future revenue associated with our contracted future revenue), we expect to recognise, on an estimated basis, US\$39.29 million in revenue in the first six months of 2019 and US\$34.38 million in subsequent periods.

Our Directors confirm that, having performed reasonable due diligence on the Group, since December 31, 2018 and up to the date of this prospectus, there have been no material adverse change in our financial or trading position.

#### **OUR SERVICES**

Our services are offered through our wholly-owned subsidiary in the United States, Frontage Laboratories Inc., and its wholly-owned subsidiary in China, Frontage Shanghai. A detailed description of our service offerings is set forth below.

#### DRUG METABOLISM AND PHARMACOKINETICS (DMPK)

DMPK studies attempt to determine the absorption and distribution of an administered drug, the rate at which a drug takes effect, the duration a drug maintains its effects and what happens to the drug after being metabolized by the body. A drug developer will often modify a drug candidate based on the results of these studies. Studies determining absorption, distribution, metabolism and excretion ("ADME") patterns in laboratory animals comprise an integral part of our DMPK services. The ADME properties of a drug allow the drug developer to understand the safety and efficacy data required for regulatory approval. As of December 31, 2018, we had approximately 26 employees who work on DMPK services. Our DMPK services business unit is headed by Dr Abdul Ezaz Mutlib, who has over 30 years of experience in drug metabolism and analytical chemistry and has published more than 60 papers in peer-reviewed journals. These services are currently provided in the United States from our facility in Exton, Pennsylvania (700 Pennsylvania Drive). Our DMPK services include:

**Pharmacokinetic ("PK") and Pharmacodynamics ("PD") studies.** Pharmacokinetics refers to what happens to a drug's chemical components through the processes of absorption, distribution, metabolism and excretion, and Pharmacodynamics refers to the study of what happens to an animal's body when exposed to a drug. We offer *in vivo* PK and PD services in rodents, dogs and non-human primates by measuring drug concentrations in a range of biological matrices, including blood, urine, bile and tissues. Typically, a PK study involves administering a fixed amount of the drug (the dose)

to an animal and collecting, at various times post dose, samples of an easily accessible tissue or fluid (usually blood) for analysis of the drug. A PD study involves monitoring an animal, including through blood and urine samples, throughout the total period of exposure to a drug and for a period of time afterwards. We offer PK and PD studies throughout the drug discovery and development process.

We have capabilities to administer drugs using a variety of dosing routes and to provide results with a rapid turnaround time. Since the iterative nature of *in vivo* PK screening requires rapid cycle times, we have built a team of scientists, facilities and processes designed specifically to meet this requirement.

Structure Optimisation. We offer services at the discovery phase of development to assist in the understanding and design of compound structures to optimise the candidate compounds suitability for further testing, including in live animals. This involves studies focusing on how a compound's structure affects physio-chemical properties and interactions in organic matrices, such as blood plasma, urine, dermal tissue or brain tissue. This involves testing such characteristics as solubility, ability to travel through semi-permeable membranes, characteristics at differing pH levels, interaction with enzymes and binding to proteins. Through this process the drug-like properties of an initial lead or lead series are improved.

**ADME studies.** ADME studies are designed to investigate the disposition of a drug in the human body with respect to absorption, distribution, metabolism and excretion. When a drug is administered, it must overcome multiple obstacles presented by the body's physiological and biochemical processes as well as defence mechanisms. For example, the compound may fail to be absorbed into the bloodstream and so not reach tissues or organs or the compound may break down after entering the body as metabolism occurs. The human body must also be able to excrete the drug from the body using natural processes. As a result, scientists evaluate ADME profiles of compounds to assess their suitability as drug candidates.

Our ADME services aid in the decision making process of drug discovery and development by analysing (i) the metabolic stability of drug candidates in cell particles, (ii) drug-drug interaction, (iii) plasma protein binding and (iv) the manner in which drugs are transported in the body.

*Non-GLP bioanalytical studies.* We offer bioanalytical services for PK studies that do not need to fall within the scope of GLP regulations. While high standards of practice are required for all laboratory studies, the regulatory regimes differ depending on a range of factors, including whether *in vivo* testing is involved. Agencies in the United States, Europe and Japan do not require compliance with GLP regulations for certain early stage exploratory pre-clinical studies. We offer non-GLP *in vitro* drug metabolism and drug interaction PK studies (referred to as non-GLP bioanalytical and DMPK services) in support of studies conducted in-house by our customers, with the flexibility to meet the timelines and diverse needs for discovering the best drug candidate. Our research-grade (non-GLP) assay approach is capable of analysing samples for compound ranking in the discovery stage.

*Radiolabelled studies* (*including mass balance studies*). Synthesis of a radiolabelled version of a compound is typically critical to facilitate the conduct of future studies. We perform mass balance studies by administering radioactive drug molecules to animals and monitoring metabolites in plasma, urine, bile and tissue samples. Mass balance excretion studies in laboratory animals using radiolabelled compounds represent a standard part of the development process for new drugs. From these studies, the full picture of what happens to drug-related material is obtained, including: mass balance, routes of excretion, and, with additional analyses, metabolic pathways.

*Metabolite identification and profiling.* When a drug is administered into the body, it gets metabolically modified into products known as metabolites. In some cases, the metabolite is actually the drug that is active but often unstable. By identifying metabolites in the body during the different phases of metabolism, research scientists can map the metabolic pathway of a drug candidate. Early identification of potentially active or toxic metabolites can help identify more potent and safer drug candidates, helping scientists determine whether a drug candidate warrants further development. Our services include the isolation, analysis and identification of metabolites in biological matrices in support of drug safety studies.

*Metabolites in Safety Testing.* We offer services designed to test the role played by drug metabolites in the toxicity associated with their respective parent compounds. This involves determining the exposure values of metabolites that are found in human circulation through examination of plasma or urine from both single and multiple dose studies.

### SAFETY AND TOXICOLOGY

We offer a wide range of safety and toxicology testing services and assist our customers in the development of safety and toxicology testing plans needed to ensure drugs are appropriate for human testing, are consistent with regulatory requirements and meet applicable ethical standards. As of December 31, 2018, we had approximately 80 employees who work on safety and toxicology services. Our safety and toxicology services business unit is led by Dr Abdul Ezaz Mutlib, who also heads our DMPK services division. These services are currently only provided in the United States from our facility in Concord, Ohio.

Using *in vitro* and *in vivo* studies, our safety and toxicology services help identify toxicology issues and devise testing plans to address the determination of a safe starting dose in humans. Following our recent acquisition of Concord in April 2018, we are now able to offer a range of safety and toxicology studies, including chronic and investigative toxicology testing, carcinogenicity studies, pathology, ophthalmology and cardiovascular safety toxicology studies. Prior to our acquisition of Concord, we did not offer any significant toxicology services.

**Rodent toxicology.** We have the capacity to conduct a comprehensive panel of safety evaluations and general toxicology studies in rodent species. These include acute and chronic toxicology studies, carcinogenicity studies and safety studies on respiratory function, central nervous system function, gastrointestinal and renal function.

*Non-rodent toxicology.* We conduct large animal testing services in addition to our historic services performed on small animals. The types of testing services we offer for non-rodent species include acute and chronic studies, dermal studies and immunotoxicology studies that allow for assessment of immune system involvement, as well as its compromise or stimulation, as well as safety pharmacology studies.

The large animal species used in safety and toxicology studies are selected based on their specific biochemical and physiological similarities to humans, including, for example, their target homology, affinity of a therapeutic agent to the target, receptor expression level, metabolism, tissue structure and pharmacokinetic traits. Due to these species specific constraints, we rely mainly on dogs and non-human primates for these animal studies. These studies and the resulting data allow for the closest approximation to human responses to a compound prior to clinical testing.

**Related services.** We provide related services in support of our primary testing services as well as for our customers' in-house toxicology departments. These services include: gene toxicology studies, *in vitro* toxicology, risk assessments, the design of safety pharmacology, genotoxicity, ADME, toxicokinetic and repeat-dose toxicology studies, reviews of safety testing plans and relevant data sets, literature reviews, technology assessments and GLP study report writing.

### **BIOANALYTICAL SERVICES**

Our bioanalytical services are offered in both the United States and China throughout the drug discovery and development process and contributed, in aggregate, 48.23%, 50.57% and 53.18% of our revenue for the years ended December 31, 2016, 2017 and 2018, respectively. Our bioanalytical services provide precise quantitative and qualitative analyses of compounds in a range of biological matrices (such as blood plasma, urine, skin tissue, muscle tissue, synovial tissue and brain tissue). Bioanalytical studies are a set of methods and procedures used at every stage of the drug discovery and development process. As of December 31, 2018, we had approximately 115 employees in the United States and more than 100 employees in China who work on bioanalytical services. Our bioanalytical services business unit is headed by Zhongping (John) Lin, PhD, who joined Frontage Labs in 2007 and has over 20 years of industry experience. Tianyi (Tee) Zhang, PhD, MBA, heads, among other things, our bioanalytical service offering in China and has over 24 years of experience in drug research and bioanalysis and has authored over 60 publications in the areas of drug metabolism, bioanalytical method development, phospholipids research, and GLP lab management. Our bioanalytical services are offered from our facilities in Exton, Pennsylvania and Concord, Ohio in the United States, and at Zhengzhou, Henan, China.

We have received recognition for the quality of our bioanalytical services and our expertise. For example, in 2015, our bioanalytical services were recognised as ranking the second highest of any CRO in the United States by "*Nice Insight*" (a leading market intelligence institution specialising in life sciences) on the basis of six criteria (quality, reliability, scientific innovation, regulatory compliance, productivity and affordability).

The bioanalytical services we provide across the range of study-subjects outlined above include:

*Sample analysis.* Our assays support first-in-human and IND packages for pharmaceutical therapeutics, including small molecules, peptides, protein, mAb, drug conjugates, and oligonucleotides, as well as supporting specific immunogenicity and neutralizing antibody assessments. The assays we perform in later phases also include genotyping analysis and detailed pharmacodynamics studies.

Sample analysis is the core of our bioanalytics service, and includes both *in vitro* and *in vivo* assays and cell based assays, which may focus on a wide range of phenomena, from observing the immune response to a compound, to observing its pharmacokinetic properties. Our sample analyses may be undertaken in support of DMPK studies, safety and toxicology studies, or different phase clinical trials. We also develop expertise in relation to specific biological matrices in which sample analyses are performed, including handling procedures and techniques to separate plasma.

**Discovery testing.** Our bioanalytical discovery services assist in identifying lead compounds by using industry standard methods. We have capacity to undertake both small and large molecule discovery testing, and provide discovery phase services in respect of immunogenicity assays, cell based studies, ligand binding studies and biomarker assays.

Method development, validation, transfer, cross-validation. Method development aims to ensure that the methods utilised meet the objectives required at each stage of drug development. Method validation refers to an assessment of a procedure to ensure it meets its own analytical objectives. This involves ensuring that an analytical method produces results with sufficient accuracy and precision within a range of concentrations that is appropriate to a particular substance. It also involves ensuring the method will generate results that are directly proportional to the concentration of substance, referred to as the method's 'linearity'. Method transfer involves testing whether a new laboratory is capable of applying a method developed elsewhere to obtain results that closely correlate with the laboratory in which the method was developed. Method cross-validation is to demonstrate the method equivalency between the laboratories, which is an important test for the multi-site study support. We undertake method development, validation, transfer and cross-validation in respect of bioanalytical services throughout the development phases.

The compounds that form the subjects of bioanalytical studies are conventionally divided into three groups: small molecules, large molecules and biomarkers — we provide services in relation to each of these groups. Each study-subject presents its own challenges, and our service areas for these subjects can be described as follows:

*Small molecule drug bioanalysis.* 'Small molecule' is a term used to refer to synthesised chemical compounds, which have traditionally constituted the majority of pharmaceutical drugs. The types of studies that we perform in small molecule bioanalysis include nonclinical toxicokinetic and pharmacokinetic screening, clinical bioavailability studies, bioequivalence studies, therapeutic drug monitoring studies, drug-drug interaction studies, protein binding studies, quantification of antibodies and antibody drug conjugates, and determining the ratio between antibodies and drugs for

antibody-drug conjugates using our more than 80 mass spectrometry instruments. We also use liquid chromatography/mass spectrometry technique for some of our studies, which is an analytical process that combines the liquid chromatography technique of separating the components of liquid mixtures, with the sensitive mass spectrometry technique of structural and mass analysis at a molecular level. We believe our expertise and ability to develop methods to solve complex challenges in this area distinguishes us from our competitors. For example, challenges can arise in liposomal drug development. A liposome is a vehicle for transporting drugs that have an outer lipid bilayer that acts in a similar way to a cell membrane, maintaining a different set of conditions within the vesicle compared to the surrounding environment. Bioanalysis of liposomal drugs requires separating the free drug and the encapsulated drug from human plasma, as well as assessing the dual variables of efficacy of the drug compound and the conditions required for its efficient transport to its target sites. Ensuring that there is no drug rupturing during sample processing, shipment and storage can also be challenging. While working to support one of our customers' leading liposomal drug applications, our team has developed sample handling procedures and new methods for determining the free, encapsulated drug and total drug in human plasma. In particular, we have developed new sample procedures and methods, such as a new microsampling technique, using plastic capillary tubing and stabilisation procedures.

Large molecule drug bioanalysis. Bioanalysis for large molecules refers to the methods that enable scientists to analyse specific complex compounds found in, and commonly made by, living organisms, as well as understanding the biochemical reactions underlying live processes. Typical 'large molecules' include peptides, proteins, monoclonal antibodies, antibody drug conjugate (ADC). To perform a comprehensive analysis of a large molecule, scientists need to design a strategy to detect that biomolecule, isolate it in pure form from thousands of other molecules and impurities that can be found in a biological sample, characterize it, quantify it and analyse its function. Our scientists facilitate this analysis and provide solutions tailored to the molecule in question. The challenges associated with analysing large molecules can be significant. For example, to support the ADC drug development we need to analyse samples using four methods, one for the free drug, one for the total antibody drugs, one for conjugated drug and one for immunogenicity assessment. The sample volume for the animal GLP studies is very limited, which presents a serious challenge. In these situations, our scientists have to develop multiplexing sensitive assays using a small sample volume.

*Biomarker services.* A biomarker (or biological marker) is a biological characteristic, which can be objectively measured and correlated with health, disease or drug treatment. For example, biomarkers may include genetic markers or alternations in the genome, particular proteins, binding sites, or metabolites. Biomarkers are important tools in drug development as they serve as indicators for assessing the therapeutic activity of drugs and can assist in predicting therapeutic efficacy, as well as alerting researchers to potential toxicity issues. Biomarkers could include a broad range of biochemical entities, such as nucleic acids, proteins, sugars, lipids and small metabolites, cytogenetic and cytokinetic parameters as well as whole tumour cells found in the body fluid. Selected biomarker panels from genomic alterations (genomics), proteins (proteomics) and metabolites (metabolomics) will be critical to enhanced disease monitoring, companion diagnostics and improved patient outcomes. In order to support the biomarker testing, a comprehensive bioanalytical platform is needed. We were the first CRO to validate multiple single molecule array ("**Simoa**") instruments for use in GLP studies. This technology allows for detecting and quantifying biomarkers at the smallest concentrations currently observable. Biomarkers may be present at these extremely low levels in the very early stages of physiological abnormalities and provide early detection of issues, well before the onset of disease symptoms. Analysis of biomarkers at these low levels may also be useful for predicting therapeutic effectiveness of interventions by drugs and other therapies.

### CHEMISTRY, MANUFACTURING AND CONTROLS (CMC) SERVICES

Our portfolio of CMC services span drug discovery to the post-approval phase, including lead compound quantification, analytical testing, product development, analysis, delivery and supply, release and product testing, stability testing, CTM manufacturing, extractability and leachability studies and commercial product release. We have experience with a variety of compound types (small molecules and biologics), formulations, routes of administration and therapeutic areas. Our highly trained scientists and staff have advanced degrees in a variety of scientific disciplines, such as chemistry, biochemistry and pharmacy, and work experience in large pharmaceutical organisations. Our CMC services business unit is headed by Dr Dongmei Wang, who has a PhD in Chemistry and over 22 years of pharmaceutical industry experience in formulation development, pharmaceutical analysis and GMP manufacturing of clinical trial materials for IND, NDA and ANDA filings. As of December 31, 2018, we had approximately 90 employees in the United States who work on CMC services. These services are currently offered in the United States from our facility in Exton, Pennsylvania (75 East Uwchlan Avenue). Frontage Suzhou (in which we hold a 49.04% equity interest) offers CMC services in China. See "— *Our strategic partnerships and associates — Frontage Suzhou*". Our services include:

*Lead Compound Qualification.* Qualification is a stage of analysis following optimisation of lead compounds, and involves applying additional analytical rigour to assessment of a lead compound before it can progress to early development studies, such as PK studies. The process is similar to lead optimisation, and involves analysis of lead compounds using mass spectrometry. At this stage, quality control samples are also included to provide additional confidence in the results.

*Formulation and Development.* We provide support for product formulation and development throughout the various stages of drug development as well as services for the development of novel compounds and generics. For early development support, we perform pre-formulation experiments to verify the properties of a candidate and determine an appropriate formulation to support GLP studies and GMP supplies based on the results. We can also start with existing evaluations and data generated by our customers and rationally design stability studies to obtain prototypes, ensuring that quality and manufacturing ability are built into the process. We have capacity to develop liquid filled capsules, general liquids, suspensions, oral solids, blends, gels, creams and ointments. We perform these services in respect of small and large molecules, including therapeutic proteins. In respect of generics, we typically reverse engineer the reference drug, develop a formulation and optimise the product. We then ensure the ability to conduct the manufacturing process is appropriately transferred from our laboratories to the manufacturing facility.

*GLP Toxicology batch manufacturing.* We have capabilities to synthesise batches of candidate compounds.

*Clinical Trial Materials (CTM) manufacturing.* CTM refers to the materials (whether an oral, topical, injection or ophthalmic) that are administered to subjects in clinical trials. Our CTM manufacturing team designs formulations for targeted delivery of CTM in clinical trials and then develops manufacturing processes in line with regulatory GMP requirements to ensure that a high quality product is produced for clinical trials. We have experience optimising medicinal chemistry procedures into scalable synthetic processes for API manufacturing, as well as ensuring transfer of these procedures to large production facilities. Our own manufacturing capacity ranges from scales of one gram to ten kilos for early clinical trial supplies. In addition, we also manufacture prototype materials.

*CMC Analytical Services.* Our CMC analytical services include stability and storage testing, impurity identification, API testing, topical *in vitro* release testing and *in vitro* permeation testing, extractability and leachability studies, impurity identification studies and bioequivalence and comparator product analysis for the development of generics. Our analytical services are designed to help our customers in their effort to fully characterize drug substances, developmental formulations and commercial drug products. For example, impurity identification studies are required both to identify impurities in samples as well as to ensure that the levels of impurities used in clinical batches are at or below the levels of impurities in early trials, which are usually manufactured at a smaller scale. We specialize in analytical method development, validation and transfer for product development and CTM manufacturing support, as well as commercial product release and stability testing. Our capacity for the storage and stability studies are substantial and cover a range of storage conditions required for development of drugs for different markets around the world. Through these services, we also provide support at the commercial product release phase.

#### BIOEQUIVALENCE

We provide bioequivalence (BE) services and related medical writing and regulatory support in China. As of December 31, 2018, we had approximately 158 employees who work on bioequivalence studies and related services. Bioequivalence services are currently provided in China in the 17 clinical research centres in our collaborating hospitals.

Bioequivalence is the term used to assess the expected *in vivo* biological equivalence, typically of a generic drug as compared to a reference listed drug. Bioequivalence is generally defined as the absence of a significant difference in the rate and extent of which the active ingredient or active moiety in pharmaceutical equivalents or pharmaceutical alternatives becomes available at the site of drug action when administrated at the same molar dose under similar conditions in an appropriately designed study. These studies focus on comparing three indicators of a generic's activity in humans: (i) its physical and chemical characteristics (for example, its solubility, and the pattern of the generic's release in the body), (ii) the maximum concentration the drug achieves in a tested area of the body after a single dose has been administered and (iii) the total exposure of the drug in the body over time,

from its administration to the time it is entirely absorbed by the body. BE studies are conducted mostly in healthy volunteers and focus on generics. The demand for BE studies in China from high quality CROs increased significantly after the Chinese FDA took a more robust approach to the enforcement of quality standards and issues with data deficiencies and, in certain cases, required that certain generics that had already been approved be retested and new bioequivalence studies to be conducted.

We are familiar with the applicable regulations and relevant industry standards required and expected by our customers for standard medical documentation, including consent forms, periodic safety reports, protocols and abstracts. We have worked on the bioequivalence studies for many drugs, addressing a variety of conditions including: cancer, infectious disease and central nervous system disease. We possess all the licences and certifications required to conduct this business in China.

Our service offering in China includes clinical trial services conducted on healthy volunteers in collaboration with 17 hospitals, of which most are public hospitals and a small number are private hospitals. As Chinese regulation requires that all clinical trials are conducted at hospitals, when we agree with our customers to provide bioequivaence services, we subcontract to our collaborating hospitals the actual clinical trial element of the work. See also "— *Subcontractors*". Separately, we often recommend to our collaborating hospitals that Hangzhou SMO Co., Ltd. (an entity in the Tigermed Group) provides site management organisation ("SMO") and clinical research coordinator ("CRC") services in respect of these trials.

Our bioequivalence business unit provides support for international customers seeking to make applications for approval in the United States. We have supported many ANDA filings by Chinese companies for generic drugs in the United States, and have continued to build on our experience in this area.

#### Our collaboration agreements in relation to the 17 clinical research centres

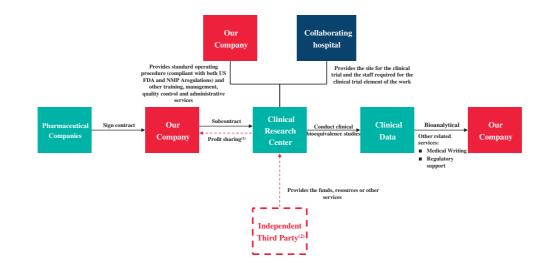
Our clinical research centres are set up pursuant to collaboration agreements. An additional benefit of such collaborations is that Frontage Shanghai has the opportunity to cross-sell its bioanalytical services to all customers of the clinical research center. Of our 17 clinical research centres, 11 are set up pursuant to bilateral collaboration agreements while 6 are set up pursuant to tripartite collaboration agreements. We had 9, 17 and 17 collaboration agreements in place as of December 31, 2016, 2017 and 2018, respectively.

In a tripartite collaboration, the hospital provides the site for the clinical trial as well as the staff required for the clinical trial element of the work, Frontage Shanghai provides the standard operating procedure (compliant with both US and NMPA regulations) and other training, management, quality control and administrative services, and the independent third party provides the funds, resources or other services to construct the research center to carry out the clinical trial work. In our bilateral collaboration, funds were not required for the construction of research centres as the hospitals' existing facilities could be used or a research centre had already been set up by the hospital and therefore, Frontage Shanghai provided the standard operating procedure (compliant with both US and FDA regulations) and other training, management, quality control and administrative services while the hospital provided the site for the clinical trial and the staff to conduct the clinical trial element of the work.

A significant majority of our bioequivalence studies are conducted pursuant to customers approaching us directly — we then subcontract the actual clinical trial element of the work. In cases where we are awarded the complete contract from a customer, we assume liability to the customer for the entire contract (including the subcontracted clinical trial element of the work). In cases where a customer chooses to split the contract between us and the clinical research centre, each party takes liability for the services it provides to the customer.

In relation to four clinical research centres (out of the six that were set up pursuant to tripartite collaborations), we have entered into profit sharing arrangements where our profit share is generally 20% of the profits of the research centre in any given year. Since these collaborations were entered into in 2017. We do not expect the clinical research centres (in which we have a profit sharing arrangement) to generate profits for the next few years, if at all. There have been no profits to date. The profit sharing arrangement ensures an alignment of interests of all concerned parties. In one such tripartite collaboration, a new company (Hebei Frontage) was incorporated with Frontage Shanghai holding a 20.00% equity interest while the other collaborators — Baoding Chenchang Pharmaceutical Technology Company Co. Ltd and an affiliated hospital of Hebei University holding a 55.00% and 25.00% equity interest, respectively. See "History, Reorganisation and Corporate Structure — Acquisitions, Investments and Disposals — Hebei Frontage". To date, Hebei Frontage is the only associate of our Company that has been established a part of setting up clinical research centres incollaboration with a hospital.

The graphic below provides an overview of our bioequivalence business model.



Notes:

(1) In relation to four clinical research centres.

<sup>(2)</sup> Not applicable to bilateral collaborations.

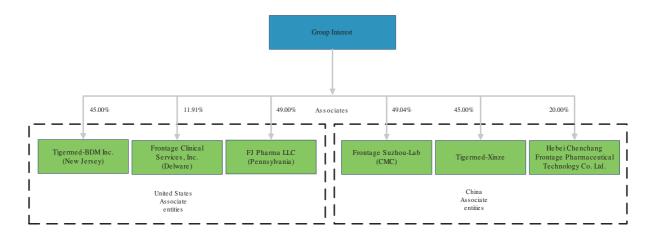
### AGROCHEMICALS

We also provide services to agrochemical customers. These services are substantially similar and in some cases identical to the services offered to our pharmaceutical customers. The early stage process for discovering new agrochemicals, including pesticides, herbicides and fungicides, is very similar to the process for new drugs. Typically, targets are identified and compounds are screened for their proximity to the desired target. Further, the probability of a given molecule being a successful pharmaceutical drug or agrochemical is similar. The trial phases of agrochemical products differ more significantly, with trials of agrochemicals taking place in actual field situations over test periods of two years or less, compared to the more intensive periods required for clinical testing of pharmaceutical drugs. We have worked for a range of agrochemical customers of varying sizes.

A significant majority of our revenue was contributed by pharmaceutical companies in 2016, 2017 and 2018. For the years ended December 31, 2016 and 2017 our services to agrochemical customers contributed less than 2.00% of our revenue. For the year ended December 31, 2018, our services to agrochemical customers contributed less than 4.00% of our revenue. The increase in the revenue contributed by our agrochemical customers in 2018 was primarily due to our acquisition of Concord.

### OUR STRATEGIC PARTNERSHIPS AND ASSOCIATES

We have invested in certain other businesses in which we hold minority equity interests. We refer to these businesses in which we have invested as our "associates" The results of our associates are not consolidated with our results. The simplified corporate structure chart of our investments in these associates is set forth below. See "*History, Reorganisation and Corporate Structure* — *Corporate Structure*" for the full chart:



#### Our Strategic Partnerships with Tigermed

There is a clear delineation between the Tigermed Group's business and our Group's business. In general, our Group's business is to provide laboratory and related services to pharmaceutical and agrochemical companies as well as bioequivalence services. The Tigermed Group's business is to provide (a) clinical trial services involving studies on humans (conducted in hospitals or clinical centres), (b) registration services for drugs or medical instruments or medical devices that have successfully completed clinical trials, (c) clinical trial support services, including site management services and (d) biometrics services.

Moreover, in the United States, the Tigermed Group has no presence other than through its interest in our Company and its majority ownership of Tigermed-BDM Inc. (which is a joint venture between us and the Tigermed Group). In China, our Group's business is to provide bioanalytical services and bioequivalence services. The Tigermed Group does not offer these bioanalytical and bioequivalence services in China.

Given this clear delineation of business and the synergies that exist between the Tigermed Group and our Group, we have a collaborative relationship with the Tigermed Group. Our strengths are complementary to the strengths of the Tigermed Group. Specifically, our relationship with the Tigermed Group allows us to offer our customers in China a comprehensive solution for clinical trial support, from Phases I through IV. In turn, Tigermed Group's customers have access to our services, particularly in relation to bioanalytical services. Tigermed-BDM Inc. and Tigermed-Xinze are engaged in the business of providing biostatistics, data management and statistical programming services to our customers as well as customers of the Tigermed Group.

Our Group also has investments in two companies, Tigermed-BDM Inc. and Tigermed-Xinze, both of which are jointly owned by us and members of the Tigermed Group.

#### **Tigermed-BDM Inc.**

On March 13, 2015, Frontage Labs acquired a 45.00% equity interest in BDM Consulting Inc. Hangzhou Tigermed Consulting Co., Ltd. (which is the owner of our Controlling Shareholder, Hong Kong Tigermed Co., Limited) had previously acquired a 55.00% equity interest in BDM Consulting Inc. (now named Tigermed-BDM Inc.).

BDM Consulting Inc. (now named Tigermed-BDM Inc.) is an independent CRO specialising in biostatistics, data management and statistical programming. Our share of Tigermed-BDM Inc.'s profits for the years ended December 31, 2016, 2017 and 2018 was US\$0.38 million, US\$0.32 million and US\$0.61 million, respectively. See also "History, Reorganisation and Corporate Structure — Acquisitions, Investments and Disposals — Tigermed-BDM Inc.".

### **Tigermed-Xinze**

In June 2015, Frontage Shanghai acquired a 45.00% equity interest in Tigermed-Xinze from Shanghai Tigermed Technology Co., Ltd., a wholly owned subsidiary of Hangzhou Tigermed Consulting Co., Ltd. The remaining 55.00% of Tigermed-Xinze is held by Hangzhou Tigermed Consulting Co. Ltd. Tigermed-Xinze offers biostatistics services and is also engaged in the business of medicinal technology. See also "History, Reorganisation and Corporate Structure — Acquisitions, Investments and Disposals — Tigermed-Xinze".

We had no profits from Tigermed-Xinze for 2016. Our share of profits from Tigermed-Xinze for 2017 and 2018 was US\$0.30 million and US\$0.05 million, respectively.

#### **Other Associates**

In addition to our investment in Tigermed-BDM Inc. and Tigermed-Xinze, we have also invested in certain other businesses (described below). Where there are opportunities on existing projects for which we do not have capacity or the relevant expertise, we actively cross-sell the services of Tigermed or our associates, such as Frontage Clinical Services, Inc. in the United States. For example, on a project for which we have been contracted to formulate CTMs within our CMC service offering, we may recommend the services of Frontage Clinical Services, Inc. to perform some or all of the relevant phase I clinical trials. Our associates also cross-sell our services to their customers.

#### Frontage Clinical Services, Inc.

Frontage Clinical Services, Inc. (in which we hold a 11.91% equity interest) offers clinical pharmacology services (including study design and execution, pharmacokinetics, modelling and simulation medical writing services, protocol development, database development and data management services). We had no profits from Frontage Clinical Services, Inc. during the Track Record Period. See also "History, Reorganisation and Corporate Structure — Acquisitions, Investments and Disposals — Frontage Clinical Services, Inc.". The other shareholders of Frontage Clinical Services, Inc. are Sunrex LLC (who is the majority owner), Neurology Care Center, Zhenlin Chen, Yao Huang, Jian Wu and Yu Meng, which are independent third parties.

Frontage Labs has a right of first refusal to buy the shares of Frontage Clinical Services, Inc. which we do not currently own, either in the event that Sunrex LLC wishes to sell its shares or if Sunrex LLC intends to direct Frontage Clinical Services, Inc. to issue further shares to raise capital. This right must be exercised by Frontage Labs within a certain specified period of being notified of Sunrex LLC's desire to sell or require the company to issue shares, failing which Sunrex LLC is free to offer the shares to third parties. Frontage Labs also has the right to match the terms of any third party's offer for the shares of Frontage Clinical Services, Inc. within a specified period.

#### FJ Pharma LLC

FJ Pharma LLC was formed as a 49:51 joint venture in June 2016. We hold a 49.00% equity interest with the remaining 51.00% equity interest held by Jiuzhou Pharmaceutical Co., Ltd, which is a PRC incorporated company, listed on the Shanghai stock exchange. FJ Pharma LLC is a contract development organisation, providing API development and support services for commercial manufacturing to its customers in the United States from its facility. We had no profits from FJ Pharma LLC during the Track Record Period.

### **Frontage Suzhou**

Frontage Suzhou (in which we hold a 49.04% equity interest) offers CMC services in China from its facility in Suzhou. The other shareholders are Mr. Zhu Jianguo and Zhejiang Jiuzhou Pharmaceutical Co., Ltd., an independent third party.

Our share of Frontage Suzhou's profits was US\$0.03 million, US\$0.33 million and US\$0.45 million for the years ended December 31, 2016, 2017 and 2018, respectively. Frontage Suzhou's service offering is similar to our CMC services, which include *in vitro* release and product testing, stability testing, analytical testing, CTM and GMP manufacturing and stability testing and storage.

Our PRC legal adviser is of the view that, during the Track Record Period and as of the Latest Practicable Date, Frontage Suzhou has been in compliance with relevant laws and regulations and has not been subject to any material regulatory sanctions.

### Hebei Frontage

Hebei Chenchang Frontage Pharmaceutical Technology Co., Ltd ("**Hebei Frontage**") is the only subsidiary or associate of our Company that has been established as part of setting up a clinical research centre in collaboration with a hospital. See "*Business — Our Services — Bioequivalence*".

We hold a 20.00% equity interest in Hebei Frontage. The other shareholders of Hebei Frontage are Baoding Chenchang Pharmaceutical Technology Co., Ltd, an independent third party (which holds a 55.00% equity interest) and a subsidiary of Hebei University, an independent third party (which holds a 25.00% equity interest).

## MARKETING AND BUSINESS DEVELOPMENT

We procure business from new customers through the business development efforts of our scientists, word-of-mouth referrals by customers, and the role played by our marketing, business development and sales teams. Our marketing, business development and sales teams play a role in supporting the growth of our global customer base. We engage pharmaceutical and agrochemical companies through a variety of channels including direct marketing and face-to-face initiatives primarily in the United States and China. The overarching role of the marketing and business development departments is to increase our brand awareness, drive new business opportunities and expand existing customer relationships.

### Marketing

The specific role of the marketing team is to provide high quality prospects to the business development team and to create tangible opportunities for new business. The marketing strategy involves building greater awareness of the Frontage brand and increasing customer engagement through lead generation and nurturing contacts. This is represented diagrammatically as follows:



Enhancing our brand identity is achieved through consistent outreach to our target customers, which includes leveraging marketing channels and directing customers to our website. We initiate contact with our customers directly through marketing and advertising campaigns, leveraging digital marketing channels and attending conferences and events. We also leverage a number of high-profile publications to drive our key marketing initiatives and advertising. Potential customers are also driven to our website where they are able to register in order to access a range of content including whitepapers, video material, case studies, scientific posters and other resources. Our website serves as a central location for all information about our services and the value we can offer our customers. Since our inception, our senior management has been actively involved in managing our sales and marketing activities and maintaining direct relationships with our key customers. In addition, we actively participate in customer facing initiatives, such as webinars, scientific symposiums, conferences and other targeted events.

The current marketing team is headed by Deborah Santolini, who has more than ten years of experience in marketing and sales, and consists of one marketing specialist in the United States. This specialist focused on support for conferences and events and on digital marketing and development of collateral. We intend to expand our marketing team to meet the needs of our growing businesses in the United States and China.

### **Business Development**

The specific role of the business development team is to grow our business across all our service areas. We aim to broaden our customer base by targeting pharmaceutical and agrochemical companies that recognise the efficiency and cost-effectiveness of outsourcing their drug discovery and development activities. In addition to targeting new customers, we leverage existing relationships to cross sell other service areas. The breadth of our services has enabled us to successfully transform customers with specific and isolated project mandates into customers who utilize the full spectrum of our services and the services of our associates.

Our business development team consists of representatives that are dispersed across the United States and China and are responsible for all accounts within their geographical territory. In the United States, we have one representative located on the West Coast and four located along the East Coast servicing both the East Coast and Mid-West. In China, we increased our sales team significantly in 2017, aiming to take advantage of the increased demand for our services as a result of regulatory developments and enforcement trends. In anticipation of our business expansion and increasing customer base, we plan to further expand our business development teams in both the United States and China, as well as increasingly integrating our business development systems.

The business development team utilizes online tools and conferences and events to prospect for potential new customers; follow up on leads that are generated through our various marketing initiatives; engage prospects at all customer-facing activities; host customers for site visits; and meet with customers face to face to present Frontage's capabilities and technical expertise and discuss potential opportunities for collaboration. Once a business opportunity is identified, the business development team liaises between the external customer and internal operations to facilitate teleconference discussions, help maintain ongoing positive working relationships and ensure contracts are signed.

Furthermore, an additional responsibility of the business development team is to identify potential strategic alliances or preferred provider relationships and drive discussions to negotiated agreements. Such relationships can involve large pharmaceutical partners that send Frontage a steady stream of repeat business or utilize our in-house FTE approach. Other agreements are established with non-competitor contract research organisations that offer complimentary services. In these agreements, our respective business development teams will commit to cross sell, identify potential business opportunities and introduce leads. We believe these relationships are mutually beneficial in that they further expand brand awareness, service offerings and business opportunities for both companies.

Our business development and marketing teams are both supported by a sales and marketing operations coordinator. This role is accountable for the maintenance of all data in the customer relationship management system and provides business analytics for sales and marketing metrics. This includes sales forecasts, dashboards, opportunity reports and lead metrics. This role also oversees the execution of customer contracts. This function will continue to expand with the business.

#### QUALITY MANAGEMENT

#### **Quality Control and Quality Assurance**

We believe that an effective quality management system is critical to ensure the quality of our services and maintain our reputation and success. We have established an in-house quality management system consisting of quality control and quality assurance programs. We seek to ensure that our services consistently meet the high industry standards and regulatory requirements applicable to us.

The primary responsibility of our quality control team (which is embedded within each business unit and reports to the head of that business unit) is to provide hands on oversight of our activities, review data generated from studies and assess reported data in order to ensure that any errors and issues identified are fully investigated and resolved prior to release of the results, deliverables or reports to our customers. We have nine personnel, who work on quality control across our various business units.

Our independent quality assurance team has 16 personnel. The team is led by Ellen Jimenez, who has over 20 years' experience in our industry. Our quality assurance team is responsible for supervising the implementation of our quality strategies in relation to consumables, deliverables and equipment. The quality assurance team also organizes regular training programs for our employees across business units on new quality assurance measures and policies.

The quality control team within each business unit always conducts the first stage of the final review of all the reported data results submitted, which is followed by a final audit conducted by the independent quality assurance team. This process is essential to ensuring that any errors or issues identified have been fully investigated and satisfactorily resolved prior to the final release of results to the customer. Any quality control or regulatory issues identified by quality assurance team reviews are documented in writing with justification and details of the proposed or enacted corrective and preventative measures through a corrective action plan, known as the 'quality assurance findings.' All investigations, corrective actions and preventive actions documented in quality assurance findings may ultimately be made available to the relevant customers, investigators and regulators, and are an important source of information for the evaluation of Frontage's internal processes and compliance with regulatory requirements.

We have a strong track record of successful regulatory inspections. Our facilities have successfully undergone inspections by the US FDA, NMPA and Health Canada on numerous occasions. In addition, our facilities have also been inspected by the US EPA, the DEA, the WHO and the US Nuclear Regulatory Commission. None of these inspections resulted in any materially adverse issues being identified. Any questions that have been raised have consistently been addressed to the satisfactions of the relevant regulatory authorities, demonstrating that we met or exceeded the high standards placed on our industry. See also "Appendix III — Taxation and Regulatory Overview — Regulatory Regime for the Development of Drugs".

### Quality Control of Equipment and Consumables

We purchase equipment only from selected suppliers that we believe to be reputable. For more information about our suppliers see "— *Suppliers*". We conduct inspections and relevant testing on the equipment we purchase to ensure that it is in satisfactory condition and fully functional before delivery. We also communicate with the technical and customer support staff of our equipment suppliers regularly regarding the maintenance and upkeep of our equipment. For each of our projects, our procurement team or our customer compiles a list of required consumable materials. We determine the specifications of any required consumables. We carefully select suppliers, and where consumables are supplied to us, we regularly request quality reports from the relevant supplier. Each step of our procurement is documented for our internal records as well as for customer audits. During the Track Record Period and up to the Latest Practicable Date, we did not experience any material quality issues in relation to our consumables.

# AWARDS AND RECOGNITION

The table below sets forth an indicative list of some of the awards and recognitions we have received since 2012.

Award/Recognition	Recipient	Award Date	Awarding Organisation/Authority
CRO Leadership Awards (Capabilities, Compatibilities, Expertise, Quality, Reliability)	Frontage Labs	2018	Life Science Leader/ Nice Insights
CRO Leadership Awards ( <i>Capabilities</i> , <i>Services</i> )	Frontage Labs	2015	Life Science Leader/ Nice Insights
CRO Leadership Awards ( <i>Quality, Productivity, Reliability</i> )	Frontage Labs	2014	Life Science Leader/ Nice Insights
Fast 50 Award	Frontage Labs	2012	USPAACC
Life Sciences Award/Best CRO	Frontage Labs	2012	PA BIO/Philly Buss Journal
Top 10 CRO companies with most investment value award	Frontage Shanghai	2012	Journal of Medical Field

#### **CUSTOMERS**

We have a diversified customer base. As at December 31, 2018, we had 466 customers to whom we were providing services from our facilities. Almost all of our customers are biotechnology and pharmaceutical companies, including leading pharmaceutical companies, such as Janssen, BeiGene, Blueprint, Celgene, Fresenius Kabi, Rhodes and Duke in the United States and Yangzijiang Pharmaceutical Group, Hisun and Luye in China. In addition, we also provide services to companies of varying sizes, academic institutions and research centers. A significant majority of our revenue was contributed by pharmaceutical companies. For the years ended December 31, 2016 and 2017, our services to agrochemical customers contributed less than 2.00% of our revenue. For the year ended December 31, 2018, our services to agrochemical customers contributed by our agrochemical customers in the year ended December 31, 2018 was primarily due to our acquisition of Concord.

We enjoy a high level of customer loyalty and have developed strong working relationships with many customers. Our customers regularly conduct audits on our facilities to ensure that the processes carried out at our facilities meet the good laboratory practice requirements imposed by relevant government authorities (for example, the US FDA) in the country or region in which the drugs are intended to be used in clinical trials or distributed after commercialisation is approved.

Many of our customers return to us for additional projects, and our customer base grew both in number and in average revenue per customer during the Track Record Period. Our returning customers often engage us on a wider range of services than those that they initially contracted us for. Certain of our returning customers, who have engaged us in the United States, have subsequently engaged our services in China (or vice versa). Revenue generated from our top five customers amounted to US\$12.47 million, US\$14.94 million and US\$24.28 million for the years ended December 31, 2016, 2017 and 2018, respectively, accounting for 25.64%, 21.27% and 29.21% of our total revenue in each period, respectively. In addition, our total number of customers grew from 281 in 2016 to 466 in 2018. A majority of our ten largest customers in the year ended December 31, 2018 had relationships with us for the entire Track Record Period. See "*Risk Factors — Risks Relating to our Business and Industry — The potential loss of multiple contracts, our key customers or any of our large contracts could adversely affect our business, financial condition and results of operations"*.

11 of the top twenty largest pharmaceutical companies in the world in 2018 (by revenue) were our customers in the same year according to Frost & Sullivan. As disclosed above, Customer A was comprised of wholly-owned subsidiaries of Frontage Shanghai until April 2018. The following table sets forth certain information about our five largest customers in terms of revenue generated during 2018, 2017 and 2016, respectively:

	Years of Relationship as of December —	Services Provided	Revenue (US\$ million)	Revenue Contribution (%)
Customer <sup>(1)</sup>	31, 2018	in the year e	nded December 31,	2018
Customer A <sup>(2)</sup>	9 months	Bioanalytical	12.08	14.54
Customer B	11 years	Bioanalytical	4.89	5.88
Customer $C^{(3)}$	5 years	Bioanalytical	2.90	3.48
Customer D	8 years	DMPK	2.67	3.21
Customer E	7 years	DMPK	1.74	2.10
Total			24.28	29.21

Notes:

<sup>(1)</sup> Our top five customers in 2018 have been designated "A", "B", "C", "D" and "E". Where any of these customers were also our top five customers for 2017 and 2016, the same names have been used (for the purposes of identification) in the tables below.

<sup>(2)</sup> Customer A is Shanghai Frontage Biotech Co., Ltd. and Suzhou Frontage Biotech Co., Ltd (which are under common ownership) and which used to be wholly owned subsidiaries of Frontage Shanghai until April 2018. See also "History, Reorganisation and Corporate Structure — Acquisitions, Investments and Disposals — Suzhou Frontage Biotech Co., Ltd (蘇州方達生物技術有限公司) and Shanghai Frontage Biotech Co., Ltd (上海方達生物技術有限公司)".

<sup>(3)</sup> Customer C is Hangzhou Tigermed, Shanghai Tigermed Technology Co., Ltd. and Guangzhou Tigermed Research Co., Ltd. Hangzhou Tigermed is our Controlling Shareholder. Shanghai Tigermed Technology Co., Ltd. and Guangzhou Tigermed Research Co., Ltd are entities affiliated with Hangzhou Tigermed. Guangzhou Tigermed Research Co., Ltd did not contribute any revenue to the Group in 2018. Please see "Connected Transactions - Non-exempt Continuing Connected Transactions" for further details.

	Years of Relationship as of December	Services Provided	Revenue (US\$ million)	Revenue Contribution (%)
Customer <sup>(1)</sup>	31, 2017	in the Year end	ed December 31, 2	2017
Customer B	10 years	Bioanalytical	4.66	6.63
Customer D	7 years	DMPK	3.60	5.12
Customer $C^{(2)}$	4 years	Bioanalytical	3.18	4.53
Customer F	7 years	CMC	1.88	2.67
Customer G	3 years	Bioanalytical, CMC	1.62	2.32
Total			14.94	21.27

#### Notes:

(1) Two customers designated "F" and "G" were in our list of top five customers for 2017 but not in our list of top five customers in 2018.

<sup>(2)</sup> Customer C is Hangzhou Tigermed, Shanghai Tigermed Technology Co., Ltd. and Guangzhou Tigermed Research Co., Ltd. Hangzhou Tigermed is our Controlling Shareholder. Shanghai Tigermed Technology Co., Ltd. and Guangzhou Tigermed Research Co., Ltd are entities affiliated with Hangzhou Tigermed. Each of Hangzhou Tigermed, Shanghai Tigermed Technology Co., Ltd. and Guangzhou Tigermed Research Co., Ltd contributed revenue to the Group in 2017. Please see "Connected Transactions — Non-exempt Continuing Connected Transactions" for further details.

	Years of Relationship as at December	Services Provided	Revenue (US\$ million)	Revenue Contribution (%)
Customer <sup>(1)</sup>	31, 2016	in the Year end	2016	
Customer B	9 years	Bioanalytical	4.53	9.32
Customer D	6 years	DMPK	3.67	7.55
Customer H	9 years	CMC	1.61	3.30
Customer F	6 years	CMC	1.53	3.14
Customer G	2 years	Bioanalytical, CMC	1.13	2.33
Total			12.47	25.64

Note:

(1) One customer designated "H" was in our list of top five customers for 2016 but not in our list of top five customers for 2018 and 2017.

During the Track Record Period and up to the Latest Practicable Date, we did not have any material dispute with our customers or any material breach of our service contracts or agreements. To the best of our knowledge, as of the Latest Practicable Date, there exists no information or arrangement that would lead to termination of our relationships with any of our key customers.

Other than as disclosed in relation to Customer "C" above, none of our Directors, their respective associates or Shareholders who, to the knowledge of our Directors, own 5% or more of our issued share capital had any interest in any of our five largest customers during the Track Record Period. Our largest customer (by revenue) in 2017 and 2016 was our second largest customer in 2018.

#### Terms of our agreements with customers

With a small proportion of our large customers, we have entered into master services agreements pursuant to which specific work orders are issued. The terms of these master services agreements typically range from two to five years. Our master service agreements typically have a maturity date and set forth the general rights and obligations of the parties. Services for each project under a standard master service agreement are provided pursuant to a work order, which sets forth project specifications, the project schedule and the provisions governing reporting and transfer of data and results, the fee payable and payment details. The duration of our work orders depends on the specific service to be provided. In general, the typical duration of a work order varies from three months to two years though in certain cases the work order may be completed in a few weeks. We generate fee income primarily on a fee-for-service (or FFS) basis for the services provided. If a customer terminates a project-based service contract or a work order, the customer is typically obliged to pay for the services already rendered and costs and expenses already incurred or committed up to the date we receive the termination notice, and in some cases the customer is also obliged to pay a cancellation fee, but this is not typical.

#### **Customer Support**

We regularly interact with our customers through emails, bi-weekly or weekly reports and conference calls.

We also conduct customer satisfaction surveys with certain key customers, which enable us to measure key performance indicators to improve our planning, execution, evaluation and support. We focus internally on operational improvement to reduce costs, make better use of our facilities and assets, increase accuracy, add more value and simplify processes.

### **Customer Audits**

From time to time, our customers audit and inspect our facilities, processes and practices to ensure that our services are in compliance with their standards in the drug development process.

Each step of our services, including testing, data generation, reporting and analysis is documented for our internal records as well as customer audits. Both our quality control and quality assurance teams are involved in responding to the questions and comments raised during the customer audit process. As we need to be responsive to specific questions raised by our customers during the customer audit process, it is not possible for us to put in place internal control measures that can deal with each inquiry or observation. Therefore, given the bespoke nature of the process, our independent

quality assurance team and quality control teams are trained to deal with customer audits. During the Track Record Period and up to the Latest Practicable Date, we did not experience any material issues in audits conducted by our customers. We also believe that our existing systems are adequate to deal with any customers audits conducted in the future.

### SUPPLIERS

Given our broad range of services, we procure a wide variety of consumables and equipment, such as mass spectrometers and test tubes. We have stable relationships with many of our key suppliers. We had relationships in excess of five years with three of our five largest suppliers for the year ended December 31, 2018.

The following tables set forth certain information relating to our five largest suppliers (which includes subcontractors) in 2018, 2017 and 2016.

	Years of Relationship as at December 31,	Description of materials or service provided	Purchase amount	Purchase Contribution (%)
Supplier <sup>(1)</sup>	2018	during the year e	nded December 31, 20	18
			(US\$ million)	
Supplier A	7 years	Equipment leasing services	2.13	3.91
Supplier B	7 years	Landlord of one of our US facilities	1.51	2.77
Supplier C	8 years	Labour Dispatch Service	1.25	2.29
Supplier D	2 years	Clinical trial services conducted by one of our 17 collaborating hospitals in China	1.10	2.01
Supplier E	3 years	Clinical trial services conducted by one of our 17 collaborating hospitals in China	1.04	1.90
Total			7.03	12.88

Notes:

(2) Supplier D and E are the same entities as subcontractors A and B. See "- Subcontractors".

<sup>(1)</sup> Our top five suppliers in 2018 have been designated "A", "B", "C", "D" and "E". Where any of these suppliers were also our top customers for 2017 and 2016, the same names have been used (for the purposes of identification) in the tables below.

	Years of Relationship as at December 31,	Description of materials or service provided	Purchase amount	Purchase Contribution (%)
Supplier <sup>(1)</sup>	2017	in the Year ende	ed December 31, 2017	
			(US\$ mi	llion)
Supplier B	6 years	Landlord of one of our facilities in the US	1.56	2.88
Supplier $F^{(2)}$	2 years	Clinical trial services conducted by one of our 17 collaborating hospitals in China	1.45	2.66
Supplier G <sup>(2)</sup>	2 years	Clinical trial services conducted by one of our 17 collaborating hospitals in China	1.36	2.50
Supplier H <sup>(2)</sup>	2 years	Clinical trial services conducted by one of our 17 collaborating hospitals in China	1.27	2.33
Supplier I	14 years	Health insurance premium for US employees of our Group	1.22	2.26
Total			6.86	12.63

Notes:

(1) Four suppliers designated "F", "G", "H" and "I" were in the list of top five suppliers for 2017 but not in our list of top five suppliers in 2018.

(2) Suppliers F, G and H are the same entities as Subcontractors F, C and G. See "- Subcontractors".

	Years of Relationship as at December 31,	Description of materials or service provided	Purchase amount	Purchase Contribution (%)
Supplier <sup>(1)</sup>	2016	in the Year end	ed December 31, 2016	
			(US\$ mil	llion)
Supplier I	13 years	Health insurance premium for US employees of our Group	2.22	6.67
Supplier B	5 years	Landlord of one of our facilities	1.56	4.69
Supplier J	6 years	Laboratory supplies and equipment	1.28	3.86
Supplier E	7 years	Clinical trial services conducted by one of our 17 collaborating hospitals in China	1.27	3.83
Supplier $K^{(2)} \dots$	8 months	Clinical trial services conducted by one of our 17 collaborating hospitals in China	1.06	3.22
Total			7.39	22.27

Notes:

(1) Two suppliers designated "J" and "K" were in our list of top five suppliers for 2016 but not in our list of top five suppliers for 2017 or 2018.

(2) Supplier K is the same as Subcontractor I. See "— Subcontractors".

The equipment and consumables required for the provision of our services are generally readily available in the market through a number of suppliers. We procure some consumables on behalf of our customers and pass on these costs to our customers; in some cases our customers will supply consumables or direct us on where purchase them.

For the purchase of equipment, we send a separate purchase order with equipment specifications, quantity and purchase price and delivery requirements for each purchase.

During the Track Record Period and up to the Latest Practicable Date, we did not have any material disputes with our suppliers or any material breach of our supply contracts or agreements. To the best of our knowledge, as of the Latest Practicable Date, there was no information or arrangement that would lead to termination of our relationships with any of our major suppliers.

None of our Directors, their respective associates, or Shareholders who own 5% or more of our issued share capital had any interest in any of our five largest suppliers during the Track Record Period. During the Track Record Period, none of our major suppliers was also our customer.

### SUBCONTRACTORS

As a percentage of our total cost of services, the portion of our services that are subcontracted are very small (occasionally, we subcontract laboratory services in areas where our customers require certain specialist inputs) save for services that are subcontracted to our 17 collaborating hospitals in China. See "— Our Services — Bioequivalence". As Chinese law requires that all clinical trials are conducted at hospitals, when we agree with our customers to provide bioequivalence services, we subcontract to our collaborating hospitals the actual clinical trial element of the work. The cost of clinical trials is dependent on the number of healthy volunteers being used. See also "Risk Factors — Risks Relating to our Business and Industry — Any deterioration in the performance of our partnerships and collaborations could have an adverse impact on our business, financial condition and results of operations".

Typically, payments are made to our subcontractors with reference to the progress of the project which is generally in accordance with the payment schedule set out in our service agreement (or work order) with our customer. Certain of our collaboration agreements with hospitals in China contain profit sharing terms. For a more detailed description, see "— *Our Services* — *Bioequivalence*". Some of our subcontracting agreements are terminable for customary events of default.

During the Track Record Period, all of our subcontractors were independent third parties. In 2018, the total amount paid to our five largest subcontractors was US\$4.21 million. In 2017 and 2016, the total amount paid to our five largest subcontractors (all of which were our collaborating hospitals) was US\$6.20 million and US\$3.32 million, respectively. The amounts paid to our five largest subcontractors (and to all subcontractors) have increased significantly during the Track Record Period due to the growth of our bioequivalence business in China, particularly following regulatory developments in China since 2015. As a percentage of our cost of sales, the total amount paid to all our subcontractors was 12.91%, 20.90% and 13.51% in 2016, 2017 and 2018, respectively.

The following table sets forth certain information about our five largest subcontractors in terms of subcontracting fees paid in 2018, 2017 and 2016, respectively:

		Years of relationship as at December 31, 2018	Total amount of subcontractor fee paid (US\$ million)	Services provided to our Group
Subcontractor <sup>(1)</sup>	Principal business of subcontractor	in th	e year ended D	ecember 31, 2018
Subcontractor A .	Our top five subcontractors were amongst our 17 collaborating hospitals in	2 years	1.10	Provision of healthy volunteers for Phase 1 trials
Subcontractor B .	China who performed the	9 years	1.04	same as above
Subcontractor C .	clinical trial element of the	3 years	0.77	same as above
Subcontractor D .	subcontracted services	2 years	0.68	same as above
Subcontractor E .		2 years	0.62	Outsourcing
Total			4.21	laboratory services

Note:

<sup>(1)</sup> Our top five subcontractors in 2018 have been designated "A", "B", "C", "D" and "E". Where any of these subcontractors were also our top subcontractors customers for 2017 and 2016, the same names have been used (for the purposes of identification) in the tables below.

		Years of relationship s as of December 31, 2017	Total amount of subcontracting fees paid (US\$ million)	Services provided to our Group
Subcontractor <sup>(1)</sup>	Principal business of subcontractor	in the	e Year ended D	ecember 31, 2017
Subcontractor F	Our top five subcontractors were amongst our 17	1 year	1.45	Provision of healthy volunteers for Phase 1 trials
Subcontractor C .	collaborating hospitals in China who performed the	1 years 3 months	1.36	same as above
Subcontractor G .	clinical trial element of the	7 years	1.27	same as above
Subcontractor B .	subcontracted services.	8 years	1.16	same as above
Subcontractor H .		3 months	0.96	same as above
Total			6.20	

Note:

(1) Three subcontractors designated "F", "G" and "H" were in the list of top of five subcontractors for 2017 but not in our list of top five subcontractors for 2018.

		as of December 31, 2016	Total amount of subcontracting fees paid (US\$ million)	Services provided to our Group
Subcontractor <sup>(1)</sup>	Principal business of subcontractor	in the	Year ended D	ecember 31, 2016
Subcontractor B .	Our top five subcontractors were amongst our 17	7 years	1.27	Provision of healthy volunteers for Phase 1 trials
Subcontractor I	collaborating hospitals in	2 months	1.06	same as above
Subcontractor C .	China who performed the clinical trial element of the	3 months	0.54	same as above
Subcontractor J	subcontracted services.	8 months	0.24	same as above
Subcontractor K .	subcontracted services.	5 years	0.10	same as above
Total			3.21	

Note:

<sup>(1)</sup> Three subcontractors designated "I", "J" and "K" were in our list of top five subcontractors for 2016 but not in our list of top five customers for 2018 or 2017.

None of our Directors, their respective associates, or Shareholders who, to the knowledge of our Directors, own 5.00% or more of our issued share capital had any interest in any of our five largest subcontractors during the Track Record Period.

#### Quality control measures for subcontractors

We assess our subcontractors (principally, our collaborating hospitals) in terms of their quality system management capability, facilities, track record and ability to perform the services under the relevant service contract. In the case of our collaborations with hospitals, we have developed a quality management system through a standard operating procedure ("**SOP**") that is compliant with both US FDA regulations and NMPA regulations. The majority of our 17 collaborating hospitals adopt our SOPs or we assisted them to draft their SOPs. In addition, our bioequivalence group also monitors and inspects the quality of the services to ensure the study protocol and SOPs are followed during the study conducted at the hospital.

### **OUR FACILITIES**

As of the Latest Practicable Date, we had three facilities in the United States, consisting of two facilities in Exton, Pennsylvania and one facility in Concord, Ohio as well as three facilities in China, consisting of one in Shanghai, one in Zhengzhou, Henan and one in Suzhou, Jiangsu. The following tables set forth a summary of these facilities as of the Latest Practicable Date. See also "— *Properties*".

Locations in the United States <sup>(1)</sup>	Exton, Pennsylvania (700 Pennsylvania Drive)	Exton, Pennsylvania (75 East Ewchlan Avenue)	Concord, Ohio
Date of commencement of operations Area (square feet)	2012 69,968	2007 31,645	1986 Over 90,000
Operations conducted and services provided	Company Headquarters Bioanalytical DMPK	CMC Services	Safety and toxicology Bioanalytical DMPK

Note:

<sup>(1)</sup> We also hold a lease interest in respect of facilities located in Secaucus, New Jersey and used by Frontage Clinical Services, Inc. However, pursuant to an arrangement with Frontage Clinical Services, Inc. (in which Frontage Labs holds a 11.91% equity interest) the facilities are used by Frontage Clinical Services, Inc. and rental expenses are paid directly by Frontage Clinical Services, Inc. to the lessor.

DUSINESS						
Zhangjiang Hi-Tech						
Locations in China	Park, Shanghai	Zhengzhou	Suzhou			
Date of commencement of operations	2005	2009	2014			
Area (square feet)	61,253	11,661	3,229			
Operations conducted and services provided .	Bioanalytical	Bioequivalent	Bioanalytical			

### Capacity and Utilisation of the Group's facilities

According to Frost & Sullivan, there is the no industry practice or method of measurement for calculating the capacity or utilisation rate of facilities for CROs such as the Group. However, we believe that each of the Group's facilities in Exton in the US and in Zhangjiang, Zhengzhou and Suzhou in China, were operating at or close to their maximum capacity in respect of the deployment of staff, equipment and to available floor space for such equipment and staff. The Group's management have arrived at this assessment based on productivity and busyness levels of the Group's staff working at each of these facilities as well as the equipment that are seen to be used at each of these facilities. The Group's management have also concluded that there is no material available floor space for additional equipment and/or staff at any of these facilities.

Our facility in Concord (which was recently acquired as a result of the Concord acquisition) has been operating, we believe, at well below half of its maximum capacity. In order for our facility at Concord to operate at maximum capacity, it will require substantial renovation and upgrading, as described in further detail in "Future Plans and Use of Proceeds — Use of Proceeds."

# PROPERTIES

Pursuant to our acquisition of Concord on April 1, 2018, we own the freehold of a facility located in Concord, Ohio, spread over more than 20 acres. The gross floor area of the built up properties of the Concord facility is over 90,000 sq. ft. Our Concord facility also enables us to expand our capacities to meet the increased demand for our services. We have also leased a number of properties in the United States and in China. The following table sets forth a summary of the properties leased by us as of the Latest Practicable Date:

Location <sup>(1)</sup>	Type of Property	Gross Floor Area (sq. ft.)	Lease Term	Expiry Date of lease term
United States				
Exton, Pennsylvania (700 Pennsylvania Drive)	Company Headquarters and Laboratory site	69,968	11 years	July 31, 2022
Exton, Pennsylvania (75 East Uwchlan Avenue)	Laboratory site	31,645	17 years	December 31, 2024

Location <sup>(1)</sup>	Type of Property	Gross Floor Area (sq. ft.)	Lease Term	Expiry Date of lease term
101 Carnegie Centre, Princeton, New Jersey	Commercial office site	4,521	3 years	February 14, 2021
200 Meadowlands Parkway, Secaucus, New Jersey <sup>(1)</sup>	Clinical testing site	33,000	11 years 9 months	February 22, 2027
China				
Zhangjiang Hi-Tech Park, Shanghai (Halei Road)	Office site	3,000	3 years	June 18, 2020
Zhangjiang Hi-Tech Park, Shanghai (Zhangheng Road, Halei Road)	Laboratory site	42,290	10 years	November 19, 2028
Libing Road, Zhangjiang Hi-Tech Park, Shanghai	Laboratory site	15,963	3 years	July 17, 2020
Suzhou	Office site	3,229	3 years	April 16, 2021
Zhengzhou, Henan	Office site; divided into three leases:			
Lease 1	Office site	977	3 years	September 20, 2021
Lease 2	Office site	996	3 years	September 1, 2021
Lease 3	Laboratory site	9,688	5 years	March 31, 2024
Changchun	Office site	1,044	2 years	May 3, 2020

#### Notes:

(1) We hold a lease interest in respect of the facilities located in Secaucus, New Jersey. However, pursuant to an arrangement with Frontage Clinical Services, Inc. (in which we hold a 11.91% equity interest) the facilities are used by Frontage Clinical Services, Inc. who directly pay the rental amounts due to the lessor.

### **Leased Properties**

For one of our eight leased properties in the PRC, the landlord has not provided us with the copy of the building ownership certificate after our request for such certificate, and therefore we are unable to ascertain whether the landlord is the owner of such property. As advised by our PRC legal adviser, this issue with the lease may affect our continuing use of such property.

We use the above-mentioned leased property as office space. We believe that even if we have to move to other properties due to the landlord's potential title defects, the relocation costs would be low given that we use such leased property for office space purposes and there are many other available properties in places where we operate. In addition, the landlord has provided us with a written undertaking, in which it confirms that it has the right to lease the property and it undertakes to indemnify us against all losses arising from the potential title defect. Therefore, the Directors are of the view that this issue has not and will not have a material adverse impact on our business or results of operations.

In addition, the lease agreements with respect to seven properties we lease in the PRC for our business operations have not been registered with the relevant PRC government authorities. As advised by our PRC legal adviser, failure to register such lease agreements with relevant PRC government authorities does not affect the validity of the relevant lease agreements, but the relevant PRC government authorities may order us or the lessors to, within a prescribed time limit, register the lease agreements. Under relevant regulations of the province where relevant properties are situated, we, as lessees, are responsible for the registration of only four of such unregistered lease agreements. Failure to do so may subject us to a fine ranging from RMB1,000.00 to RMB10,000.00 for each lease agreement. Our PRC legal adviser is of the view, and the Directors concur, that this will not have a material adverse impact on our business or results of operations.

#### **Property Valuation**

As none of our properties had a carrying amount of 15% or more of our consolidated total assets, we are not required to include a property valuation report in this prospectus.

### **RESEARCH AND DEVELOPMENT**

We do not have a research and development department. Our research and development activities are mainly focused on (i) developing technologies and methodologies to continue to enhance our services and (ii) improving the quality and efficiency of our services.

For the years ended December 31, 2016, 2017 and 2018, our research and development expenses were US\$0.48 million, US\$1.30 million and US\$1.69 million, respectively. Our research and development expenses primarily comprise expenses incurred in connection with enhancing our standards and systems in China in line with our "Two Countries, One System" approach. See "Financial Information — Description of Key Statement of Profit or Loss Items — Research and Development Expenses". As of the Latest Practicable Date, we had not outsourced any R&D activities to third parties or engaged the services of any third party consultants to enhance our in-house R&D activities.

### **PROJECT MANAGEMENT**

We generally assume full project management responsibility for our projects with our research scientists regularly acting as project managers and interacting directly with customers on matters that affect the direction of research.

We have developed a project management system to ensure timely, consistent and accurate delivery of quality services. Upon receiving a new project from a customer, we set the schedule of the project and liaise with the relevant business units, to determine the staffing of the project team. A lead scientist is usually appointed to oversee the project. Scientists assigned on a project team are typically divided into several groups based on the type of services to be provided. Each group is headed by a group leader, who is responsible for supervising the services carried out by the group. The work of our scientists is governed by strict guidelines and monitored by senior-ranking specialists within a specific research group, as well as members of our quality assurance teams, to ensure that all work practices and/or procedures strictly adhere to all applicable regulatory requirements and standard operation procedures. We use an electronic notebook system to manage studies which helps ensure compliance with procedures and SOPs. Our project management team uses a Quick Base platform for scheduling and planning.

We regularly monitor the progress of the project and keep in regular contact with the customer. To ensure our service meets our quality requirements, each technical report or deliverable is reviewed by the head of the relevant business unit and audited by quality assurance team members before it is submitted to the customer. See "— *Quality Management*" for further information.

### **EMPLOYEES**

As of December 31, 2018, we had a total of 578 employees, of whom 340 were located in the United States and 238 were located in China.

The following table sets forth a breakdown of our employees in the United States by function as of the dates indicated:

	As at 31 December		
-	2016	2017	2018
Scientific and technical support staff	158	190	273
Sales and marketing	11	10	12
Administration	21	20	31
Management	20	18	24
Total	210	238	340

The following table sets forth a breakdown of our employees in China by function as of the dates indicated:

-	As at 31 December		
-	2016	2017	2018
Scientific and technical support staff	72	127	192
Sales and marketing	2	5	11
Administration	13	19	24
Management	7	11	11
Total	94	162	238

The following table sets forth a breakdown of the level of qualification achieved by our employees in the United States as of the dates indicated.

-	As at 31 December		
-	2016	2017	2018
MD or PhD, or above	68	78	89
MA or MSc degree	6	79	91
BA or BSc or below	76	81	160
Total	210	238	340

The following table sets forth a breakdown of the level of qualification achieved by our employees in China as of the dates indicated.

-	As at 31 December		
-	2016	2017	2018
MD or PhD, or above	7	5	7
MA or MSc degree	45	79	105
BA or BSc or below	42	78	126
Total	94	162	238

We believe that our success depends in part on our ability to attract, recruit and retain quality employees. We provide our employees with opportunities to work on cutting-edge projects with world-class scientists. We also aim to establish a collaborative work environment that encourages our employees to develop their careers with us. In addition, we have training systems, including orientation and on-the-job training for all staff, to accelerate the learning progress and improve the knowledge and skill levels of our workforce. We also have a training programme for senior management that focuses on management skills, conflict resolution and effective communication skills and sessions on how to recruit and retain talent. Our orientation process covers our corporate culture and policies, work ethics, introduction to the drugs development process, quality management and occupational safety. Our periodic on-the-job training covers certain technical aspects of our services, environmental, health and safety management systems and mandatory training required by applicable laws and regulations.

We generally enter into at-will contracts with our employees in the US, and in China we enter written employment contracts. In general, we determine the remuneration payable based on the qualifications, position and performance of our employees. In the United States, we offer a suite of standard corporate benefits, including medical insurance and certain retirement plan benefits. In China, we make contributions to social insurance funds, including basic pension insurance, medical insurance, unemployment insurance, childbirth insurance, and work-related injury insurance funds and housing reserve fund in accordance with applicable requirements. In addition, we have adopted an employee share option plan to provide an additional means to attract, motivate, retain and reward our senior management. Certain members of our senior management, scientists and technical personnel have also entered into restrictive covenants with us in consideration for their stock options. As a result, such employees are subject to non-compete and non-solicitation provisions for a duration of six to twelve months upon leaving employment with Frontage Labs.

We regularly review our capabilities to ensure we have the right mix of expertise to meet the demand for our services. We believe that our reputation, work environment, training systems, remuneration packages and employee share option plans attract highly qualified candidates. We offer opportunities to our employees to participate in exchange programs between our offices in China and the United States, and to attend a wide range of educational workshops and industry events.

We believe that we maintain a good working relationship with our employees. We had not experienced any material disputes with our employees or any material difficulties in recruiting employees for our operations during the Track Record Period and up to the Latest Practicable Date.

### **Dispatched** workers

As of December 31, 2018, Frontage Shanghai had 238 employees of which 19 were dispatched workers. These dispatched workers are either scientific and technical support staff to assist with our clinical trial projects in our collaborating hospitals or sales and marketing staff to facilitate our business development activities. Frontage Shanghai engages dispatched workers as this helps to mobilise the staff and allocate resources to relevant projects and marketing events in a more efficient way. Pursuant to the Labour Contract Law and its amendments, dispatched labour is intended to be a

supplementary form of employment and the fundamental form should be direct employment by enterprises and organisations that hire employees. Further, it is stated in the Interim Provisions on Labour Dispatch that became effective on March 1, 2014 that the number of dispatched workers an employer uses may not exceed 10.00% of its total labour force and the employer has a two-year transition period to comply with such requirement. The number of dispatched workers used by Frontage Shanghai had previously exceeded 10.00% of its total labour force. Such non-compliance has been rectified as at the date of this prospectus. Our PRC legal adviser is of the view that such previous non-compliance will not materially adversely affect our business, financial condition and results of operations.

In order to control the percentage of dispatched workers, we require the human resource department of Frontage Shanghai to calculate the ratio of the number of despatched workers to the total number of its employees on a monthly basis to ensure compliance with the relevant labour despatch requirement.

### COMPETITION

The global pharmaceutical CRO market is highly competitive and we expect this high level of competition to continue to increase. We face competition from a substantial number of large, established, multinational CROs that are able to provide a range of services to meet the demands of a large number of complex and challenging projects simultaneously. We also face competition from a substantial number of smaller to medium sized CROs, both multinational and locally based, that compete for market share. Competition with CROs of varying financial strength and size is based on several factors. CROs differentiate themselves in the pharmaceutical markets, primarily, by demonstrating a track record of reliable project delivery and high quality technical expertise. Successful participants are therefore likely to have experienced management teams and a substantial number of highly qualified scientific research staff, as well as state-of-the-art facilities and equipment. The quality of data that is generated by these research teams, and the timescale for its delivery, are key drivers of the reputation of CROs in these markets. Data that is exceptional in its degree of accuracy and sophistication, as well as a regulatory track record of minimal compliance issues are significant considerations of any successful CRO's business, whether operating in one market or across multiple markets.

We believe that we are able to distinguish ourselves from our competitors through, among other things, (i) our proven ability to deliver value-add technical expertise on account of our deep pool of talented scientists and world-class facilities and equipment, (ii) our strong track record of efficient and integrated delivery differentiated by flexibility and (iii) our stringent quality management system and strong track record of regulatory inspections. See "— *Our Strengths*".

#### INTELLECTUAL PROPERTY

We develop and use a number of proprietary methodologies, systems, technologies, trade secrets and know-how in the conduct of our business. We maintain various licences to use the intellectual property of third parties which facilitates our laboratory operations. As of the Latest Practicable Date, we had applied for two trademarks in relation to pharmaceutical CRO services in the PRC and had completed registration for one trademark in relation to pharmaceutical CRO services in Hong Kong and one trademark in relation to pharmaceutical CRO services in the United States. We had also been granted two utility model patents by the National Intellectual Property Administration of the PRC. We have also registered the domain names www.frontagelab.com; www.frontagelab.com.cn and www.concordbio.com.

Due to the nature of our services, we typically have access to a significant amount of intellectual property owned by our customers. In addition, our customers generally retain ownership of all intellectual property associated with their projects, including the intellectual property that they provide to us and the intellectual property arising from the services we provide.

We enter into agreements with all of our employees under which they disown all intellectual property they create during their employment and waive any intellectual property rights or claims. All of our employees have agreed to disclose and assign to us all inventions conceived by them during their term of employment.

#### **Intellectual Property Protection**

The protection of our customers' intellectual property is essential to our business. Protecting the proprietary rights of our customers has been one of our highest priorities since our inception. As at the Latest Practicable Date, there were no claims initiated or, to our knowledge, threatened against us by any of our customers in respect of any intellectual property infringement. See "*Risk Factors* — *Risks Relating to our Business and Industry* — *We may not be successful in protecting our customers' and certain of our licensors' intellectual property*".

During the Track Record Period and up to the Latest Practicable Date, we were not subject to, nor were we party to, any intellectual property rights infringement claims or litigations and were not aware of any material infringement of our intellectual property rights that had or could have a material adverse effect on our business. We had complied with all applicable intellectual property laws and regulations in all material respects during the Track Record Period and up to the Latest Practicable Date.

### **INFORMATION TECHNOLOGY**

We are heavily dependent on our IT infrastructure, applications and services for conducting our business operations, maintaining our competitive position in the market, protecting our customer's data and information privacy and ensuring the integrity of our information handling processes. Our IT infrastructure is centred in the US, and is headed globally by Hanming Tu, who has over 15 years in

the IT industry. Our IT infrastructure provides an overarching service that enables site to site connections for all our US operations and a secure virtual private network connection to enable remote working within China. We also have site specific IT infrastructures and services which are not fully integrated across our offices. We intend to increase our integration in the near future and ultimately aim to have a single set of integrated systems across our global offices for all business areas. For all of our business areas we have implemented industry standard business applications with domain knowledge and custom procedures that meet the sophisticated technological demands of our customers' drug development projects.

We use security processes and systems which rely on proven network devices and safeguards to protect data generated in the performance of our services for our customers. See also "Risk Factors — Risks Relating to our Business and Industry — We depend on the continued effectiveness and availability of our information systems and other infrastructure that may fail and may face security, including cyber security, risks". As at the Latest Practicable Date, each of our Bioanalytics, CMC, IT and finance platforms were in the process of being updated to support our ongoing needs.

Each of our services has developed a set of standard operating procedures to enforce information technology controls over our computing environments and business systems and ensure business continuity and recovery in the event of any disasters. We follow a set of IT policies and standard operating procedures to manage user accounts, network devices, database servers and business systems and conduct backup, archival and restore of customer and any other critical data. The backups are conducted on the planned schedules. Every month, we ship the full backup media to a secure data centre operated by Iron Mountain in Pennsylvania, US.

While we have experienced a limited number of minor IT incidents, we have been able to retrieve all historical data each time there has been an IT incident. Our data centres have been equipped with uninterruptible power supply systems and generators. The power supply of the data centres automatically switches to generators in less than a minute in case of powers outages and switches back on as soon as the external power supply is recovered. We maintain a policy of backing up all system images for critical computer systems and stocked spare parts, making it possible to recover these systems in a very short timeframe. Based on these policies, both the Recovery Point Objective (RPO) and Recovery Time Objective (RTO) for our data are set to 24 hours (or one business day). We have plans in place to reduce RPO to one hour and RTO to four hours for most of our critical systems by applying virtualisation technology.

Our expenditure on IT services amounted to US\$1.16 million in 2018. See also "Risk Factors — Risks Relating to our Business and Industry — Upgrading the information systems that support our operating processes and evolving the technology platform for our services pose risks to our business".

#### HEALTH, SAFETY AND ENVIRONMENTAL MATTERS

Our operations and facilities are subject to extensive environmental protection and health and safety laws and regulations, which govern, among other things, the generation, storage, handling, use and transportation of hazardous materials and the handling and disposal of hazardous waste generated at our facilities. These laws and regulations generally impose liability regardless of the negligence or fault of a responsible party. We maintain internal policies in relation to the disposal of hazardous wastes, blood borne pathogen control, chemical safety, personal protective equipment and animal welfare. We also employ an external contractor in relation to the disposal of hazardous wastes.

For the years ended December 31 2016, 2017 and 2018, our total cost of compliance with environmental protection and health and safety laws and regulations was less than US\$0.10 million. These costs did not include historical capital expenditures for our plants and equipment that may be attributable to such compliance. We do not expect our costs of complying with current and future environmental protection and health and safety laws to increase significantly going forwards. However, because the requirements imposed by these laws and regulations may change, we may be unable to accurately predict the cost of complying with these laws and regulations. See "*Risk Factors* — *Risks Relating to our Business and Industry* — We are subject to environmental protection and health and safety laws and regulations and may be exposed to potential liabilities, including consequences of incidents, accidental contamination, biological hazards or personal injury and claims by employees resulting from health and safety issues".

There had not been any material accidents in the course of our operation or any material claims for personal or property damages in connection with environmental protection, health or work safety against us during the Track Record Period and up to the Latest Practicable Date.

## **CERTIFICATES, PERMITS AND LICENCES**

During the Track Record Period and up to the Latest Practicable Date, we had obtained all requisite certificates, permits and licences that are material for our operation, and all of such certificates, permits and licences are valid and up-to-date to the extent that they are still needed. We have not experienced any material difficulties in renewing such certificates, permits and licences during the Track Record Period and up to the Latest Practicable Date, and do not expect to face any material difficulties in renewing them upon their expiry, if applicable. During the Track Record Period and up to the Latest Practicable Date, by any government authorities for any non-compliance relating to our material certificates, permits and licences.

The following table sets forth a summary of the key licences, permits and certificates that we hold and which are necessary for our business as at the Latest Practicable Date.

Holder	Certificate/ Permit/Licence	Issue Authority	Establishment Date/Issue Date	Expiry Date
Frontage Shanghai	business licence	Shanghai Administration for Industry and Commerce	August 2, 2005	August 1, 2025
Frontage Shanghai	Certificate of Foreign Invested Enterprises	Shanghai Municipal Peoples Government	August 13, 2012	NA
Frontage Shanghai, Suzhou Branch	business licence	Suzhou Administration for Industry and Commerce	April 27, 2018	NA
Frontage Shanghai	High and New Technology Enterprises Certificate	Jointly by Shanghai Science and Technology Commission, Shanghai Finance Bureau, Shanghai State Taxation Bureau and Shanghai Local Taxation Bureau	November 23, 2017	November 22, 2020
Frontage Labs	US Fish and Wildlife Permit	US Fish and Wildlife Service	June 1, 2018	May 31, 2019
Frontage Labs	Clinical Laboratories Permit	Pennsylvania Department of Health	August 15, 2018	August 15, 2019
Frontage Labs	Pennsylvania Certificate of Licensure (Drug and Device)	Pennsylvania Department of Health	April 24, 2012	May 31, 2019
Frontage Labs	GDUFA Frontage Self ID Statement for financial year 2019	US FDA	Valid for financial year 2019	Valid for financial year 2019
Frontage Labs	DEA Registration Analytical Licence	Drug Enforcement Administration	September 7, 2018	September 30, 2019

## **BUSINESS**

Holder	Certificate/ Permit/Licence	Issue Authority	Establishment Date/Issue Date	Expiry Date
Frontage Labs	DEA Registration Manufacturing Licence	Drug Enforcement Administration	September 25, 2018	September 30, 2019
Frontage Labs	Radioactive Materials License	Pennsylvania Department of Environmental Protection	April 26, 2010	April 30, 2020
Frontage Labs	Radioactive Materials License	Ohio Department of Health	August 31, 2016	October 1, 2021
Frontage Labs	Business License for Distribution of Dangerous Drugs	Ohio State Board of Pharmacy	March 31, 2018	March 31, 2019
Frontage Labs	DHHS Animal Welfare Assurance	Department of Health and Human Services	April 10, 2017	March 31, 2021
Frontage Labs	Permit to receive Soil	Department of Agriculture	November 8, 2018	January 24, 2021

We believe we are in compliance with the terms of all our certificates, permits and licences. Between May 26, 2016 and March 1, 2018 we owned a minority interest in Frontida Biopharm, Inc. ("**Frontida**"), a company that provided, among other things, CMC manufacturing services. On June 8, 2016 Frontida acquired certain assets which included a manufacturing facility which had been subject to a closure letter by the US FDA, issued on the basis of inspections conducted on June 15 and June 17, 2015. The issues identified by the US FDA were resolved to the regulator's satisfaction and the site remained operational through the period of our ownership of an interest in Frontida. Other than as described above, there were no incidents of non-compliance in relation to Frontida prior to March 1, 2018 when we sold our minority interest in the company.

## **INSURANCE**

We maintain property insurance policies covering physical damage to, or loss of, our facilities, equipment, office furniture and inventory; employer's liability insurance generally covering death or work injury of employees; business crime insurance covering illicit funds transfers and theft of company property; insurance covering product liability claims, personal injury claims and claims arising from negligence in connection with our services; public liability insurance covering certain incidents involving third parties that occur on our premises; machinery breakdown insurance covering unforeseen and sudden physical loss or damage to our machinery; cargo insurance covering physical loss or damage to freight during transportation; and directors and officers liability insurance.

## **BUSINESS**

We do not maintain key-man life insurance for any members of our senior management, or business disruption insurance. We do maintain key-man life insurance for our Founder and Honourary Chairman, Dr Song Li. While we believe that our insurance coverage is adequate and in line with the industry norms, it may, however, be insufficient to cover all claims for product liability or damage to our assets. See "Risk Factors — Risks Relating to our Business and Industry — We have limited insurance coverage, and any claims beyond our insurance coverage may result in us incurring substantial costs and a diversion of resources".

#### LEGAL MATTERS

#### Legal proceedings

From time to time, we are involved in contractual disputes or legal proceedings arising out of the ordinary course of business. Except as set out below, during the Track Record Period and as at the Latest Practicable Date, neither we nor any of our Directors were engaged in any litigation, claim or arbitration of material importance nor, to the best of our own and our Directors' knowledge, is any litigation, claim or arbitration of material importance pending or threatened against us or the Directors in relation to the Group. In addition, as at the Latest Practicable Date, no material litigation, arbitration or administrative proceedings had been threatened against us or any of our subsidiaries.

#### Dave Feng Litigation

On February 6, 2018, Dave Feng filed a lawsuit against Frontage Labs and Dr Song Li, in the Superior Court of New Jersey. David Feng has alleged that he was verbally promised the position of Chief Financial Officer of Frontage Labs by Dr Song Li and that he is owed remuneration for certain work that he allegedly completed for Frontage Labs. The damages claimed by Dave Feng from Frontage Labs and Dr Song Li is approximately US\$1.0 million plus a salary component for the position of Chief Financial Officer of Frontage Labs. We have denied the allegations asserted against us and Dr Song Li in the lawsuit, including that any offer of employment was ever made to Dave Feng and we believe that the claims have no merit and will not result in any form of legal liability on Frontage Labs or Dr Song Li.

#### Potential claim by the Estate of Ge Guo

On February 28, 2018, a former employee of Frontage Labs, Ge Guo, committed suicide while she was at work by ingesting potassium cyanide, a substance that she had legitimate and compliant access to and signed out from our facility pursuant to our standard operating procedures. On April 6, 2018, Frontage Labs received a letter from a law firm representing the Estate of Ge Guo demanding that Frontage Labs preserves all documents, tangible things and electronically stored information potentially relevant to the suicide of Ge Guo. No specific claim has been asserted against us. Should any claim be asserted against us in the future, we believe that it will not result in any form of legal liability on Frontage Labs. Based on legal advice we have received, we do not believe that the claims / potential claims set out above will result in any form of legal liability on us or that the defense of the claims / potential claims will have a material adverse effect on our business.

## Legal compliance

During the Track Record Period and up to the Latest Practicable Date, we did not have non-compliance incidents that we or our Directors believe would, individually or in the aggregate, have a material operational or financial impact on our Group as a whole. During the Track Record Period and up to the Latest Practicable Date, we disposed of our interests in Frontage Clinical Services, Inc. such that it ceased to be a subsidiary of Frontage Labs. The following non-material incidents of non-compliance occurred during the Track Record Period in relation to Frontage Clinical Services, Inc. prior to the disposal of our Group's majority interest in Frontage Clinical Services, Inc.

- on May 9, 2016, the Company provided the FDA a report alleging theft or loss of controlled substances at the clinical facility in Secaucus, New Jersey, in the United States. The findings were closed during a FDA follow up inspection and all matters were resolved to the satisfaction of the FDA;
- on April 15, 2015, the FDA alleged in a Form 483, in respect of a former facility at Hackensack New Jersey, that there had been a deviation from protocol by including a participant in a clinical trial when that person was pregnant and therefore met the relevant criteria for exclusion from the trial. The findings were closed during a FDA follow up inspection and all matters were resolved to the satisfaction of the FDA; and
- on May 20, 2014, the FDA alleged in a Form 483 that Frontage Clinical Services, Inc. had failed to retain samples of three test articles used in a trial. The findings were closed during a FDA follow up inspection and all matters were resolved to the satisfaction of the FDA.

Other than as described above, there were no incidents of non-compliance in relation to Frontage Clinical Services, Inc. during the Track Record Period prior to the disposal of our Group's majority interest in Frontage Clinical Services, Inc. In relation to Frontage Clinical Services, Inc., our legal advisors have conducted the relevant searches on the US FDA databases, and based solely on those searches, have not found instances of any US FDA enforcement action against Frontage Clinical Services, Inc. during the Track Record Period prior to the disposal of the Group's majority interest in Frontage Clinical Services, Inc.

#### Licences and permits

During the Track Record Period and the subsequent period up to the Latest Practicable Date, we had obtained from the relevant government authorities the required licences, approvals and permits that are material for our business operations.

#### **Regulatory Matters**

The regulatory regime applicable to the development of drugs is applicable to us as a company providing laboratory and related services to pharmaceutical and agrochemical companies as well as bioequivalence studies. We do not act as the regulatory sponsor for the purposes of drug development. A description of the regulatory regime, including a description of the ability of certain regulatory authorities (such as the US FDA and NMPA) to inspect and audit our facilities and services is set out in "Appendix III — Taxation and Regulatory Overview — Regulatory Regime for the Development of Drugs".

We have a strong track record of successful regulatory inspections. Our facilities have successfully undergone inspections by the US FDA, NMPA and Health Canada on numerous occasions. In addition, our facilities have also been inspected by the US EPA, the DEA, WHO and the NRC. None of these inspections resulted in any materially adverse issues being identified. Any questions that have been raised have consistently been addressed to the satisfactions of the relevant regulatory authorities demonstrating that we meet or exceed the high standards placed on our industry.

## **RISK MANAGEMENT AND INTERNAL CONTROL**

#### **Risk Management**

We recognise that risk management is critical to the success of our business. We believe that key operational risks faced by us include changes in the general market conditions and the regulatory environment of the global CRO market, our ability to offer quality drug development services, our ability to manage our anticipated growth and to execute on our growth strategies, our ability to compete with other CROs and comply with regulations and industry standards. See "*Risk Factors*" for a discussion of various risks and uncertainties we face. We also face various market risks. In particular, we are exposed to credit, liquidity, interest rate and currency risks that arise in the normal course of our business.

In order to meet these challenges, our audit and risk management committee, which is chaired by Li Yifan, who has responsibility for overseeing and managing the overall risks associated with our business operations from time to time. Our audit committee and risk management committee (i) reviews and approves our risk management policy to ensure that it is consistent with our corporate objectives; (ii) reviews and approves our corporate risk tolerance; (iii) monitors the most significant risks associated with our business operation and our management's handling of such risks; (iv) reviews our corporate risk in the light of our corporate risk tolerance; and (v) monitors and ensures the appropriate application of our risk management framework across our Group.

# **Internal Controls**

We have engaged an internal control consultant (the "Internal Control Consultant"), to perform certain agreed-upon procedures in connection with the internal control of our Company and our major operating subsidiaries and to report factual findings on our Group's entity-level controls and internal controls of various processes, including financial reporting and disclosure controls, sales, accounts receivable and collection, procurement, accounts payable and payment, fixed assets and assets under construction, human resources and payroll management, cash and treasury management, general controls of IT system, taxation management, production and costing, insurance management, research and development and intangible assets. The Internal Control Consultant performed procedures in May 2018 and follow-up procedures in June 2018 on our Company's system of internal control. As of the Latest Practicable Date, there was no material issue remaining in relation to the internal controls of our Group.

In addition to the arrangements we have put in place pursuant to our risk management framework, we have adopted a series of internal control policies, measures and procedures designed to provide reasonable assurance for achieving objectives, including effective and efficient operations, reliable financial reporting and compliance with applicable laws and regulations. Below is a summary of the internal control policies, measures and procedures we have implemented or plan to implement.

- Our Board and senior management oversee and manage the overall risks associated with our business operations.
- Our internal audit department supervises the implementation of our risk management policy at the corporate level.
- We have put a policy in place pursuant to which a working group (consisting of representatives from each of our business units) is responsible for identifying the possibility of competition between us and our controlling shareholders based on publicly available information relating to the businesses of our controlling shareholders. Any relevant information is brought to the attention of the audit and risk management committee who may then decide to escalate it to the Company's board of directors. With this policy in place, we expect to be able to monitor the possibility of competition with our controlling shareholders and make announcements as required in accordance with the Listing Rules and other applicable laws.
- We have engaged Somerley Capital Limited as our compliance adviser to provide advice to our Directors and management team until the end of the first fiscal year after the Listing regarding matters relating to the Listing Rules. Our compliance adviser is expected to ensure our use of funding complies with the section headed "Future Plans and Use of Proceeds" in this prospectus after the Listing, as well as to provide support and advice regarding requirements of relevant regulatory authorities in a timely fashion.
- We plan to engage a PRC law firm to advise us on and keep us abreast of PRC laws and regulations after the Listing.

- We plan to engage a US law firm to advise us on and keep us abreast of US laws and regulations after the Listing.
- We will continue to arrange various trainings to be provided by external legal advisors from time to time when necessary and/or any appropriate accredited institution to update our Directors, senior management, and relevant employees on the latest US and PRC laws and regulations.

You should read the following discussion and analysis in conjunction with our audited consolidated financial information as at and for the years ended 31 December 2016, 2017 and 2018, including the notes thereto, set out in the accountants' report in Appendix I to this prospectus. Our audited consolidated financial information has been prepared in accordance with IFRS, which may differ in material aspects from generally accepted accounting principles in other jurisdictions. Historical results are not indicative of future performance.

The following discussion contains forward-looking statements that involve risks, uncertainties and assumptions. We caution you that our business and financial performance are subject to substantial risks and uncertainties. Our actual results could differ materially from those projected in any forward-looking statements. In evaluating our business, you should carefully consider the information provided in "Risk Factors" and "Responsibility Statement and Forward-looking Statements".

## **OVERVIEW**

We are a fast-growing CRO providing integrated, scientifically-driven research, analytical and development services throughout the drug discovery and development process to enable pharmaceutical companies to achieve their drug development goals. We benefit greatly from having operations in both the United States and China - the two largest markets for CRO services in the world - and are well placed to capture growth opportunities in both markets. See "Industry Overview".

The services we provide in the United States include DMPK, safety and toxicology, and CMC, in each case, throughout the drug discovery and development process. Our bioanalytical services, which are the largest source of our revenue (contributing 48.23%, 50.57% and 53.18% of our revenue for the years ended December 31, 2016, 2017 and 2018, respectively), are offered throughout the drug discovery and development process both in the United States and in China. We also provide bioequivalence and related services in China. Certain of our services are also offered to agrochemical companies.

In the United States, we are recognised as a leader in the CRO industry. For example, in 2018, we were awarded the CRO leadership award by "*Life Science Leader*" (a United States business journal targeted at life science executives) based on research conducted by "*Nice Insight*" (a leading United States market intelligence institution specialising in life sciences).

In China, we have successfully capitalised on the recent growth of outsourcing opportunities for CROs, having significantly increased our revenue in China from US\$7.18 million in 2016 to US\$28.45 million in 2018. This growth of outsourcing opportunities in China has been primarily driven by significant regulatory changes in China, starting in 2015. See "Industry Overview — The Global Pharmaceutical Outsourcing Industry — The Pharmaceutical CRO Market in China".

#### **BASIS OF PRESENTATION**

Our Company was incorporated in the Cayman Islands on April 16, 2018 for the purpose of facilitating the Global Offering. See "*History, Reorganisation and Corporate Structure*" for more information. The financial information of the Group has been prepared in accordance with IFRS (which comprise all standards and interpretations approved by the IASB). The financial information is presented in US dollars. Upon the completion of the Reorganisation on April 17, 2018, the Company became the holding company of the companies now comprising the Group. See "*History, Reorganisation and Corporate Structure — The Reorganisation*". The financial information of the Group has been prepared on the basis as if the Company has always been the holding company of the companies now comprising the group structure upon completion of the Reorganisation had been in existence throughout the Track Record Period. In addition, the Group has elected to early apply the complete version of IFRS 15 "Revenue from Contracts with Customers" using the full retrospective method. This "Financial Information" section addresses the Group as it existed during the Track Record Period, and does not address Concord, which was acquired after the Track Record Period.

#### **Application of IFRS 9 and IFRS 15**

IFRS 9 "Financial Instruments" replaces IAS 39 "Financial Instruments" for recognition and measurement for financial assets and liabilities. The standard is effective for annual periods beginning on or after January 1, 2018. We have applied IAS 39 for the three years ended December 31, 2017 and applied IFRS 9 on January 1, 2018 in accordance with the transition provisions.

We have assessed the effects of the adoption of IFRS 9 on our financial statements and assessed the financial impact on the Group's financial position and performance as compared to the requirements of IAS 39. Specifically, the application of expected credit loss model under IFRS 9 would not cause a material impact on the impairment loss allowance for our financial assets measured at amortised cost and unbilled revenue as at January 1, 2018 and December 31, 2018 as compared with the incurred loss model under IAS 39. Please refer to the detailed financial impact of the adoption of IFRS 9 on our financial position and financial performance at the date of initial application on January 1, 2018 as set out in the Accountant's Report in Appendix I.

IFRS 15 "Revenue from Contracts with Customers" replaces IAS 18 "Revenue" to report useful information about the nature, amount, timing and uncertainty of revenue and cash flow arising from a contract with a customer. The standard is effective for annual periods beginning on or after January 1, 2018 and earlier application is permitted. We have elected to early apply IFRS 15, which has been applied consistently in the Track Record Period.

We have assessed the effects of early adoption of IFRS 15 on our financial statements and concluded that there was no significant impact on the Group's financial position and performance as compared to the requirements of IAS 18 except that contract assets are recognised for our right to consideration in exchange for goods or services that we has transferred to a customer that is not yet unconditional and contract liabilities are recognised for our obligation to transfer goods or services to customers for which we have received consideration from the customer under IFRS 15.

There has been no significant impact during the Track Record Period on the financial position and performance of the Group as a result of the adoption of IFRS 9 and IFRS 15, as compared to the requirements of IAS 18 and IAS 39.

# SIGNIFICANT FACTORS AFFECTING OUR RESULTS OF OPERATIONS AND FINANCIAL CONDITION

Our results of operations and financial condition have been, and are expected to continue to be, affected by a variety of factors, including those set forth below.

#### Acquisitions, Investments and Disposals

This discussion and analysis should be reviewed in the context of certain acquisitions, investments and disposals that we have undertaken during the Track Record Period and up to the date of this Prospectus. Our results of operations were substantially impacted by such acquisitions, investments and disposals. For further details, please see "History, Reorganisation and Corporation Structure — Acquisitions, Investments and Disposals".

# Growth of the pharmaceutical industry, and to a lesser extent, the agrochemical industry, and outsourcing trends in these industries

The success of our business depends primarily on the number and size of service contracts with our customers, who are primarily pharmaceutical companies. Certain of our customers are agrochemical companies. Over the past several years, including the Track Record Period, we have benefitted from an increased demand for our services primarily as a result of the continued growth of the pharmaceutical industry, increasing research and development expenditure of our customers and a greater degree of outsourcing by our customers. See "Industry Overview".

We believe that our customers will continue to outsource some of their activities to CROs. See "Industry Overview" for a detailed discussion on the growth drivers of pharmaceutical and agrochemical industries and the outsourcing trends in these industries. See "Industry Overview". See also "Risk Factors — Risks Relating to our Business and Industry — We depend on the demand for CRO services in the pharmaceutical industry, and to a lesser extent, in the agrochemical industry and the continued growth of those industries; outsourcing trends in these industries may change or fail to grow as we expect".

#### **Regulatory developments and enforcement trends**

Regulatory developments and changes in enforcement trends, particularly in China, have historically had a significant impact on our results of operations. For example, in China, regulatory reform since 2015 has been aimed at creating a framework to encourage the research and development of new drugs and enhancing the quality and transparency of the review and approval process especially for existing drugs introduced as generics to the Chinese market. This regulatory reform significantly increased the level of regulatory scrutiny in relation to the discovery and development of drugs, which in turn, has raised the demand for high quality CRO services in China.

In China, we have successfully capitalised on the growth of outsourcing opportunities from these regulatory developments and changes in enforcement trends, having significantly increased our revenue in China from US\$7.18 million in 2016 to US\$28.45 million in 2018. Our rapid historical growth in China may not be sustainable or indicative of our future growth.

## Our ability to grow our existing customer base and increase customer retention

Our diverse customer base includes leading pharmaceutical companies. We provide services to companies of varying sizes, academic institutions and research centres. We provided services to 281, 407 and 466 customers in the years ended December 31, 2016, 2017 and 2018, respectively. Our results of operations depend on our ability to enter into new service contracts with our existing customers as well as enter into service contracts with new customers. Our ability to enter into service contracts is affected by the quality of our services, price, range of services and capacity. Our integrated services and strong technical expertise have enabled us to enter into new service contracts with existing customers, increase our average revenue per customer and attract new customers during the Track Record Period. Our returning customers often engage us on a wider range of services than those for which they initially contracted with us. See also "Risk Factors — Risks Relating to our Business and Industry — The potential loss of multiple contracts, key customers or any of our large contracts could adversely affect our business, financial condition and results of operations".

## Our ability to realize our anticipate future revenue associated with our contracted future revenue

Our contracted future revenue represents, at a particular point in time, future service revenues from work not yet completed or performed under signed contracts or a customer's purchase order. Once work begins on a project, revenue is recognised over the duration of the project. See "— *Critical Accounting Policies* — *Revenue Recognition*".

We believe that there is no standardised accounting practice for calculating contracted future revenue and approaches to estimating contracted future revenue value may vary considerably between industry players. As a result, we do not believe that an analysis of contracted future revenue between our company and competitors will constitute a reliable like-for-like comparison of value. A number of factors may affect contracted future revenue, including:

- the size, complexity and duration of the projects;
- the cancellation or delay of projects (which might result from the quality of our work, our reputation and other factors); and
- change in the scope of work during the course of a project.

Fluctuations in our reported contracted future revenue levels also result from the fact that we may receive a small number of relatively large orders in any given reporting period that may be included in our contracted future revenue. Because of these large work orders, our contracted future revenue in that reporting period may reach levels that may not be sustained in subsequent reporting periods. Additionally, any delayed projects will remain in contracted future revenue and will not generate revenue at the rate originally anticipated in the financial period expected. Thus, the relationship of contracted future revenue to realised revenues may vary. See also "*Risk Factors — We might not realise all of the anticipated future revenue associated with our contracted future revenue*".

#### Success of our customer's projects

Our financial performance is affected by whether the research and development of our customers' products can successfully progress as planned. We generally enter into service contracts under which we receive fee income on a FFS approach for the services provided or under a full-time-equivalent (or FTE) approach where we designate employees to the customer's projects at a fixed rate per FTE employee per period of time.

Under the FFS approach, we generally receive payments in accordance with a payment schedule specified in the contract or work order. The payment schedule sets out the service fee for the services we are required to provide. We determine the fee level based on our scope of services, the estimated costs and expenses of the required services, the amount of time we would need to allocate, the prices charged by our competitors for similar services, among others. Our service contracts and work orders typically include a detailed schedule that sets forth specifications of the services to be provided, the anticipated delivery time and the payment dates. Certain of our work orders are for very short periods of time and may be completed in a few days or weeks. Our customers' projects may be terminated or delayed for reasons beyond our control. To the extent projects are delayed, the timing of our revenue could be affected.

#### Our service mix and pricing

The services required for different projects or under different service contracts may vary significantly depending on a number of factors. As a result, our revenue and gross profit margins may vary between different projects and different services. Any significant change in the mix of our projects and types of services may impact our results of operations and our overall gross profit margin.

Pricing is also an important factor affecting our results of operations. If we are able to negotiate favourable contract terms with our customers, our gross profit and gross profit margin may increase. As a CRO, we compete with other CROs as well as the in-house development capabilities of our customers. As competition intensifies, we will need to maintain our superior service quality, and increase our service capacities, while continuing to offer attractive pricing terms to compete effectively and increase our market share. Furthermore, changes in pricing strategies by our competitors may have an adverse impact on our results of operations. See "Business — Competition" and "Risk Factors — Risks Relating to our Business and Industry — We face increasing competition and our inability to compete effectively may result in downward pricing pressure or reduced demand for our services".

#### Increasing cost of services, particularly our staff costs

Our cost of services amounted to US\$29.35 million, US\$39.16 million, US\$49.22 million for the years ended December 31, 2016, 2017 and 2018, respectively. Our cost of services consists of costs associated with our staff costs, depreciation for property, plant and equipment used in rendering our services and lease payments in respect of rented premises.

Our staff costs are the most significant component of our costs of services. In recent years, competition for qualified employees has become more intense. The labour market for trained scientists and other qualified staff with suitable experience is highly competitive. All of our employees are employed in the United States or the PRC. Fluctuation in our staff costs may lead to fluctuation in our cost of services. See "Risk Factors — Risks Relating to our Business and Industry — Increased employee costs could slow our growth and affect our profitability".

#### Seasonal fluctuations

We have experienced, and expect to continue to experience, seasonal fluctuations in our results of operations. Historically, we have experienced some decreased demand for our services in certain quarters due to holiday periods in the United States and China. As a result of these seasonal fluctuations, comparisons of revenue and our results of operations between different periods within a single financial year are not necessarily meaningful, nor can these comparisons be relied upon as indicators of our future performance. See also "Risk Factors — Risks Relating to our Business and Industry — Our business is subject to seasonal fluctuations".

#### Changes to the US corporate income tax system

The Tax Cuts and Jobs Act (the "2017 Tax Act"), which was signed into law on December 22, 2017, has resulted in significant changes to the US corporate income tax system. These changes reduce tax rates and modify policies, credits and deductions for businesses. The 2017 Tax Act also transitions the US international taxation from a worldwide system to a modified territorial system and includes base erosion prevention measures on non-US earnings, which could result in subjecting certain earnings of Frontage Shanghai to US taxation. These changes are effective beginning in 2018. The 2017 Tax Act also includes a tax on the mandatory deemed repatriation of accumulated previously untaxed foreign earnings of Frontage Shanghai (the "Transition Tax"). The Transition Tax resulted in a one-time income tax expense of US\$1.0 million which is payable over eight years without interest. The liability was fully recognised as a current tax liability in the financial year ended December 31, 2017. See also "- Discussion of Results of Operations - 2017 Compared to 2016". As part of the 2017 Tax Act, a Global Intangible Low Taxed Income (GILTI) provision was enacted. The GILTI provision includes certain income of controlled foreign corporations in the US taxable income, and allows a credit to be taken for foreign income taxes paid by such controlled foreign corporations. In the year ended December 31, 2018, we recognised an additional US\$1.07 million of income tax expense resulting from the global intangible low-taxed income (GILTI) provisions of the 2017 Tax Act which was offset by allowed deemed paid foreign tax credits. The changes to the US corporate income tax system did not adversely impact our income tax expenses or profit for the year. We also do not anticipate any adverse impact of these changes on our results of operations going forward.

## **CRITICAL ACCOUNTING POLICIES**

This discussion and analysis of our financial position and results of operations is based on our consolidated financial information, which have been prepared in accordance with IFRS which were in effect during the Track Record Period. With effect from January 1, 2019, certain new standards (including IFRS 16) and amendments to existing standards will be applicable. For additional details, see "Accountants' Report — Application of New and Revised IFRS — New standards and amendments to IFRSs issued but not yet effective". The preparation of our consolidated financial information requires management to make estimates, judgments and assumptions that affect the reported amounts of revenues, expenses, assets and liabilities, and the disclosure of contingent liabilities at the end of each reporting period. Uncertainty about these estimates and assumptions could result in outcomes that require a material adjustment to the carrying amount of the asset or liability affected in future periods. Our more critical accounting policies and significant estimates, assumptions and judgments are described below. See notes 4 and 5 to the Accountants' Report in Appendix I in this prospectus for further details on our accounting policies and estimates.

#### **Revenue recognition**

Revenue is recognised to depict the transfer of promised services to customers in an amount that reflects the consideration to which the Group expects to be entitled in exchange for those services. Specifically, the Group uses a 5-step approach to revenue recognition:

- Step 1: Identify the contract(s) with a customer
- Step 2: Identify the performance obligations in the contract
- Step 3: Determine the transaction price
- Step 4: Allocate the transaction price to the performance obligations in the contract
- Step 5: Recognise revenue when (or as) the entity satisfies a performance obligation

Revenue is recognised when, or as, obligations under the terms of a contract are satisfied, which occurs when control of the promised products or services is transferred to customers. Revenue is measured as the amount of consideration the Group expects to receive in exchange for transferring products or services to a customer ("**transaction price**").

A performance obligation represents a good and service (or a bundle of goods or services) that is distinct or a series of distinct goods or services that are substantially the same.

Control is transferred over time and revenue is recognised over time by reference to the progress towards complete satisfaction of the relevant performance obligation if one of the following criteria is met:

- the customer simultaneously receives and consumes the benefits provided by the Group's performance as the Group performs;
- the Group's performance creates and enhances an asset that the customer controls as the Group performs; or
- the Group's performance does not create an asset with an alternative use to the Group and the Group has an enforceable right to payment for performance completed to date.

Otherwise, revenue is recognised at a point in time when the customer obtains control of the distinct good or service.

A contract asset represents the Group's right to consideration in exchange for goods or services that the Group has transferred to a customer that is not yet unconditional. In contrast, a receivable represents the Group's unconditional right to consideration, i.e. only the passage of time is required before payment of that consideration is due.

A contract liability represents the Group's obligation to transfer goods or services to a customer for which the Group has received consideration (or an amount of consideration is due) from the customer.

Generally, significant payment terms are disclosed within the contents of a given contract and are in the form of either milestone payment terms representing a percentage of the total budgeted contract price or corresponding directly with the value to the customer of the Group's performance. Revenues recognised in excess of billings are recognised as contract assets and disclosed in the consolidated statements of financial position as unbilled revenue. Amounts billed in accordance with contracted payment schedules but in excess of revenues earned are recognised as contract liabilities and disclosed in the consolidated statements of financial positions as advances from customers.

Contracts are terminable by the customers either immediately or upon proper notice specified within the contracts, generally 30 days. A termination fee is generally assessed in addition to the Group being entitled to compensation equivalent to the efforts and costs to satisfy any performance obligations.

To the extent the transaction price includes variable consideration, the Group estimates the amount of variable consideration that should be included in the transaction price utilising the most likely amount to which the Group expects to be entitled. Variable consideration is included in the transaction price if, in the Group's judgment, it is probable that a significant future reversal of cumulative revenue under the contract will not occur. Estimates of variable consideration and

determination of whether to include estimated amounts in the transaction price are based largely on an assessment of the Group's anticipated performance and all information (historical, current and forecasted) that is reasonably available. Sales, value added, and other taxes collected on behalf of third parties are excluded from revenue.

The transaction price also includes reimbursable expenses (i.e. out-of-pocket expenses, outside consultants and other reimbursable expenses). Reimbursable expenses which do not represent a transfer of goods or services to the customer are not distinct. Such reimbursable expenses are included in total transaction price for the contract and allocated to individual performance obligations which are satisfied over time.

Contracts with customers may contain multiple performance obligations. For such arrangements, the transaction price is allocated to each performance obligation based on the estimated relative standalone selling prices of the promised products or services underlying each performance obligation, inclusive of reimbursable expenses.

When the sum of the stand-alone transaction prices of those products or services exceeds the promised consideration in a contract, the Group recognises a discount on that particular contract. If the entity does not have observable evidence that the entire discount relates to one or more, but not all performance obligations under the specific contract, the discount is proportionately applied to all performance obligations under a contract.

Contracts are often modified to account for changes in contract specifications and requirements. Contract modifications exist when the modification either creates new, or changes existing, enforceable rights and obligations. Generally, the modification is considered to be a separate contract and revenue is recognised prospectively.

For the services delivered to the customer based on the extent of progress towards completion of the performance obligation, the Group's performance does not create an asset with an alternative future use and the contract terms specify the Group has an enforceable right to payment for performance completed to date, revenue generated from such performance is recognised over time.

The selection of the method to measure progress towards completion requires judgment and is based on the nature of the products or services to be provided. Depending on which better depicts the transfer of value to the customer, the Group generally measures its progress using either cost-to-cost (input method) or units produced/services transferred to the customer to date (output method). The Group uses the known cost measure of progress when it best depicts the transfer of value to the customer which occurs as the Group incurs costs on its contract, generally related to fixed fee service contracts. Under the cost-to-cost measure of progress, the extent of progress towards completion is measured based on the ratio of costs incurred to date to the total estimated costs at completion of the performance obligation. Revenue is recorded proportionally as costs are incurred. The units produced/services transferred to the customer to date measure of progress is generally related to rate per unit contracts or contracts for the delivery of services, as the extent of progress towards completion is measured based on discrete service or time-based increments, such as samples tested or services transferred.

Interest income from a financial asset is recognised when it is probable that the economic benefits will flow to the Group and the amount of income can be measured reliably. Interest income is accrued for each period, by reference to the principal outstanding and at the effective interest rate applicable, which is the rate that exactly discounts the estimated future cash receipts through the expected life of the financial asset to that asset's net carrying amount on initial recognition.

#### **Basis of consolidation**

The historical financial information incorporates the financial statements of the Company and its subsidiaries. Control is achieved when the Company:

- has power over the investee;
- is exposed, or has rights, to variable returns from its involvement with the investee; and
- has the ability to use its power to affect its returns.

The Group reassesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control listed above.

Consolidation of a subsidiary begins when the Group obtains control over the subsidiary and ceases when the Group loses control of the subsidiary. Specifically, income and expenses of a subsidiary acquired or disposed of during the year are included in the consolidated statements of profit or loss and other comprehensive income from the date the Group gains control until the date when the Group ceases to control the subsidiary.

When necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies into line with the Group's accounting policies.

All intragroup assets and liabilities, equity, income, expenses and cash flows relating to transactions between members of the Group are eliminated in full on consolidation.

#### Changes in the Group's ownership interests in existing subsidiaries

When the Group loses control of a subsidiary, the assets and liabilities of that subsidiary are derecognised. A gain or loss is recognised in profit or loss and is calculated as the difference between (i) the aggregate of the fair value of the consideration received and the fair value of any retained interest and (ii) the previous carrying amount of the assets and liabilities of the subsidiary attributable to the owners of the Company. All amounts previously recognised in other comprehensive income in relation to that subsidiary are accounted for as if the Group had directly disposed of the related assets or liabilities of the subsidiary (i.e. reclassified to profit or loss or transferred to another category of equity as specified/permitted by applicable IFRSs). The fair value of any investment retained in the former subsidiary at the date when control is lost is regarded as the fair value on initial recognition for subsequent accounting under IAS 39 or, when applicable, the cost on initial recognition of an investment in an associate or a joint venture.

#### Investments in associates

An associate is an entity over which the Group has significant influence. Significant influence is the power to participate in the financial and operating policy decisions of the investee but is not to control or to have joint control over those policies.

The results and assets and liabilities of associates are incorporated in the Historical Financial Information using the equity method of accounting. The financial statements of associates used for equity accounting purposes are prepared using uniform accounting policies as those of the Group for like transactions and events in similar circumstances. Under the equity method, an investment in an associate is initially recognised in the consolidated statements of financial position at cost and adjusted thereafter to recognise the Group's share of the profit or loss and other comprehensive income of the associate. Changes in net assets of the associates other than profit or loss and other comprehensive income are not accounted for unless such changes resulted in changes in ownership interest held by the Group. When the Group's share of losses of an associate exceeds the Group's interest in that associate (which includes any long-term interests that, in substance, form part of the Group's net investment in the associate), the Group discontinues recognising its share of further losses. Additional losses are recognised only to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of the associate.

An investment in an associate is accounted for using the equity method from the date on which the investee becomes an associate. On acquisition of the investment in an associate, any excess of the cost of the investment over the Group's share of the net fair value of the identifiable assets and liabilities of the investee is recognised as goodwill, which is included within the carrying amount of the investment. Any excess of the Group's share of the net fair value of the identifiable assets and liabilities over the cost of the investment, after reassessment, is recognised immediately in profit or loss in the period in which the investment is acquired.

When there is objective evidence that the investment in an associate is impaired, the entire carrying amount of the investment is tested for impairment in accordance with IAS 36 Impairment of Assets as a single asset by comparing its recoverable amount (higher of value in use and fair value less costs of disposal) with its carrying amount. Any impairment loss recognised forms part of the carrying amount of the investment. Any reversal of that impairment loss is recognised in accordance with IAS 36 to the extent that the recoverable amount of the investment subsequently increases.

When the Group ceases to have significant influence over an associate, it is accounted for as a disposal of the entire interest in the investee with a resulting gain or loss being recognised in profit or loss.

When a group entity transacts with an associate of the Group, profits and losses resulting from the transactions with the associate are recognised in the Group's Historical Financial Information only to the extent of interests in the associate that are not related to the Group.

#### **Foreign currencies**

In preparing the financial statements of each individual group entity, transactions in currencies other than the functional currency of that entity (foreign currencies) are recorded in the respective functional currency (i.e. the currency of the primary economic environment in which the entity operates) at the rates of exchange prevailing on the dates of the transactions. At the end of the reporting period, monetary items denominated in foreign currencies are retranslated at the rates prevailing at that date. Non-monetary items that are measured in terms of historical cost in a foreign currency are not retranslated.

Exchange differences arising on the settlement of monetary items, and on the retranslation of monetary items, are recognised in profit or loss in the period in which they arise.

For the purposes of presenting the historical financial information, the assets and liabilities of the Group's operations are translated into the presentation currency of the Group (i.e. US\$) using exchange rates prevailing at the end of each reporting period. Income and expenses items are translated at the average exchange rates for the period, unless exchange rates fluctuate significantly during the period, in which case, the exchange rates prevailing at the dates of transactions are used. Exchange differences arising, if any, are recognised in other comprehensive income and accumulated in equity under the heading of foreign currency translation reserve.

On the disposal of a foreign operation (that is, a disposal of the Group's entire interest in a foreign operation, or a disposal involving loss of control over a subsidiary that includes a foreign operation, or a partial disposal of an interest in an associate that includes a foreign operation of which the retained interest becomes a financial asset), all of the exchange differences accumulated in equity in respect of that operation attributable to the owners of the Company are reclassified to profit or loss.

#### **Borrowing costs**

All borrowing costs are recognised in profit or loss in the period in which they are incurred. There were no borrowing costs eligible to be capitalised into property, plant and equipment during the Track Record Period.

## Taxation

Income tax expense represents the sum of the tax currently payable and deferred tax.

#### Current tax

The tax currently payable is based on taxable profit for the year. Taxable profit differs from "profit before tax" as reported in the consolidated statements of profit or loss and other comprehensive income because of items of income or expense that are taxable or deductible in other years and items that are never taxable or deductible. The Group's liability for current tax is calculated using tax rates that have been enacted or substantively enacted by the end of each reporting period.

## Deferred tax

Deferred tax is recognised on temporary differences between the carrying amounts of assets and liabilities in the Historical Financial Information and the corresponding tax bases used in the computation of taxable profit. Deferred tax liabilities are generally recognised for all taxable temporary differences. Deferred tax assets are generally recognised for all deductible temporary differences to the extent that it is probable that taxable profits will be available against which those deductible temporary differences can be utilised. Such deferred tax assets and liabilities in a transaction that affects neither the taxable profit nor the accounting profit. Deferred tax liabilities are recognised for taxable temporary differences arising on investments in subsidiaries or associates except where the Group is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future.

The carrying amount of deferred tax assets is reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the period in which the liability is settled or the asset realised, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of each reporting period.

The measurement of deferred tax liabilities and assets reflects the tax consequences that would follow from the manner in which the Group expects, at the end of each reporting period, to recover or settle the carrying amount of its assets and liabilities.

Current and deferred tax is recognised in profit or loss.

#### Impairment losses on tangible and intangible assets

At the end of each reporting period, the Group reviews the carrying amounts of its tangible and intangible assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss, if any.

When it is not possible to estimate the recoverable amount of an individual asset, the Group estimates the recoverable amount of the cash-generating unit to which the asset belongs. Where a reasonable and consistent basis of allocation can be identified, corporate assets are also allocated to individual cash-generating units, or otherwise they are allocated to the smallest group of cash-generating units for which a reasonable and consistent allocation basis can be identified.

Recoverable amount is the higher of fair value less costs of disposal and value in use. In assessing value in use, the estimated future cash flows of the tangible asset (or the cash-generating unit) are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset (or the cash-generating unit) for which the estimates of future cash flows have not been adjusted.

If the recoverable amount of an asset (or a cash-generating unit) is estimated to be less than its carrying amount, the carrying amount of the asset (or a cash-generating unit) is reduced to its recoverable amount. An impairment loss is recognised immediately in profit or loss.

When an impairment loss subsequently reverses, the carrying amount of the asset (or cash-generating unit) is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognised for the asset (or a cash-generating unit) in prior years. A reversal of an impairment loss is recognised immediately in profit or loss.

## **Financial instruments**

A description of the relevant policy in relation to financial instruments that was applied for the years ended December 31, 2017 and 2016 (i.e. prior to the adoption of IFRS 9 on January 1, 2018) is set forth below.

Financial assets and financial liabilities are recognised when a group entity becomes a party to the contractual provisions of the instrument.

Financial assets and financial liabilities are initially measured at fair value. Transaction costs that are directly attributable to the acquisition of financial assets or issue of financial liabilities are added to or deducted from the fair value of the financial assets or financial liabilities, as appropriate, on initial recognition.

A description of the relevant policy in relation to financial instruments that was applied for the year ended December 31, 2018 (i.e. under IFRS 9 which was adopted on January 1, 2018) is set forth below.

Financial assets and financial liabilities are recognised when a group entity becomes a party to the contractual provisions of the instrument. All regular way purchases or sales of financial assets are recognised and derecognised on a trade date basis. Regular way purchases or sales are purchases or sales of financial assets that require delivery of assets within the time frame established by regulation or convention in the marketplace.

Financial assets and financial liabilities are initially measured at fair value except for trade receivables arising from contracts with customers which are initially measured in accordance with IFRS 15. Transaction costs that are directly attributable to the acquisition of financial assets or issue of financial liabilities (other than financial assets and financial liabilities at fair value through profit or loss ("**FVTPL**") ) are added to or deducted from the fair value of the financial assets or financial liabilities, as appropriate, on initial recognition. Transaction costs directly attributable to the acquisition of financial assets or financial liabilities.

The effective interest method is a method of calculating the amortised cost of a financial asset or financial liability and of allocating interest income and interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash receipts and payments (including all fees and points paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts) through the expected life of the financial asset or financial liability, or, where appropriate, a shorter period, to the gross carrying amount on initial recognition.

## **Business combinations**

Acquisitions of businesses are accounted for using the acquisition method. The consideration transferred in a business combination is measured at fair value, which is calculated as the sum of the acquisition-date fair values of the assets transferred by the Group, liabilities incurred by the Group to the former owners of the acquiree and the equity interests issued by the Group in exchange for control of the acquiree. Acquisition-related costs are generally recognised in profit or loss as incurred.

At the acquisition date, the identifiable assets acquired and the liabilities assumed are recognised at their fair value, except that:

- deferred tax assets or liabilities, and assets or liabilities related to employee benefit arrangements are recognised and measured in accordance with IAS 12 Income Taxes and IAS 19 Employee Benefits, respectively;
- liabilities or equity instruments related to share-based payment arrangements of the acquiree or share-based payment arrangements of the Group entered into to replace share-based payment arrangements of the acquiree are measured in accordance with IFRS 2 Share-based Payment at the acquisition date (see the accounting policy below); and
- assets (or disposal groups) that are classified as held for sale in accordance with IFRS 5 Non-current Assets Held for Sale and Discontinued Operations are measured in accordance with that standard.

Goodwill is measured as the excess of the sum of the consideration transferred, the amount of any non-controlling interests in the acquiree, and the fair value of the acquirer's previously held equity interest in the acquiree (if any) over the net amount of the identifiable assets acquired and the liabilities assumed as at acquisition date. If, after re-assessment, the net amount of the identifiable assets acquired and liabilities assumed exceeds the sum of the consideration transferred, the amount of any non-controlling interests in the acquiree and the fair value of the acquirer's previously held interest in the acquiree (if any), the excess is recognised immediately in profit or loss as a bargain purchase gain.

#### Critical judgements in applying accounting policies

The following are the critical judgements, apart from those involving estimations (see below), that the directors of the Company have made in the process of applying the Group's accounting policies and that have the most significant effect on the amounts recognised in the Historical Financial Information.

# Judgements in determining the performance obligations and timing of satisfaction of performance obligations

#### Performance Obligation Determination:

In making their judgements, the directors of the Company considered the detailed criteria for recognition of revenue set out in IFRS 15. In determining performance obligations, the directors of the Company consider whether the customer benefits from each service on its own and whether it is distinct in the context of the contract. Specifically, when concluding a contract has multiple performance obligations, the directors of the Company consider that the individual performance obligation is regularly sold separately and the service is separately identifiable from other promises within the contract.

## Satisfaction of Performance Obligations:

The directors of the Company have determined that performance obligations are satisfied over time and that generally the output method best reflects progress towards completion. The key assumption is that the units produced or services transferred to date relative to the remaining units or services promised under the contract best depict the Group's performance in transferring control of goods or services.

For the performance obligations that are satisfied over time and the Group uses the input method to determine revenue recognition, the management has a judgment that the use of known cost measure of progress best depicts the transfer of value of goods or services to the customer. This key judgement involves calculation of performance to date. On partially completed contracts the Group recognizes revenue based on stage of completion of the project which is estimated by comparing the costs incurred on the project with the total costs expected to complete the project.

## Judgements in determining the significant influence in investments

Where the Group holds less than 20% of voting rights in an investee but the Group has the power to exercise significant influence, such investment is treated as an investment in an associate. Details of the basis of such management judgement are set out in Note 21.

#### Key sources of estimation uncertainty

#### Estimated loss allowance of trade receivables and unbilled revenue

Prior to the application of IFRS 9, management estimates the amount of loss allowance of trade receivables when there is objective evidence of potential impairment loss. The amount of the impairment loss is measured as the difference between the carrying amount of the trade receivables and the present value of estimated future cash flows (excluding future credit losses that have not been incurred) discounted at the financial asset's original effective interest rate (i.e. the effective interest rate computed at initial recognition of the trade receivables). Where the future cash flows are less than expected, or being revised downward due to changes in facts and circumstances, a material impairment loss/further impairment loss may arise. Estimation of future cash flows involves uncertainty. Actual cash flows may differ from estimated cash flows.

Upon the application of IFRS 9, management estimates the amount of loss allowance for ECL on trade receivables and unbilled revenue based on the credit risk of trade receivables and unbilled revenue. The loss allowance amount is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows after taking into consideration of expected future credit loss of the trade receivables and unbilled revenue. The assessment of the credit risk of the trade receivables and unbilled revenue. The assessment of the credit risk of the trade receivables and unbilled revenue involves high degree of estimation and uncertainty. When the actual future cash flows are different from expected, a material impairment loss or a material reversal of impairment loss may arise, accordingly.

#### Impairment of investments in associates

Determining impairment of investments in associates requires an estimation of the value in use of the investments. The value in use calculation requires directors of the Company to estimate the future cash flows expected to arise from the investments and a suitable discount rate in order to calculate present value. Where actual cash flows are less than expected, a material impairment may arise. Details of the impairment calculation in relation to the Frontida investments are set out in Note 21.

#### Impairment provision on long-term note receivables

Where the Group has outstanding long-term note receivable, the counter party is monitored, so that the Group can consider if there is objective evidence of impairment loss. As with trade receivables, the Group takes into consideration the estimation of future cash flows from the note receivable. The amount of the impairment loss is measured as the difference between the carrying amount of the note receivable and the amount that is realistically expected to be recovered, based on the Group's understanding of the counter party and the relevant circumstance at the end of each reporting period.

# DESCRIPTION OF KEY STATEMENT OF PROFIT OR LOSS ITEMS

The following table sets forth our consolidated statements of profit or loss and other income for the periods indicated:

_	Year ended December 31,			
	2016	2017	2018	
		(US\$ millions)		
Revenue	48.64	70.25	83.11	
Cost of services	(29.35)	(39.16)	(49.22)	
Gross profit	19.29	31.08	33.90	
Other income	0.31	0.24	0.47	
Other gains and losses, net	0.11	(0.02)	0.08	
Impairment losses recognised on				
- trade receivables	(0.63)	(0.30)	(0.61)	
- unbilled revenue	(0.11)	(0.33)	(0.04)	
Research and development expenses	(0.48)	(1.30)	(1.69)	
Selling and marketing expenses	(1.89)	(1.57)	(2.58)	
Listing expenses	—		(6.39)	
Gain on disposal of an associate	—		0.44	
Gain on disposal of subsidiaries	—		0.14	
Bargain purchase gain	—		0.79	
Administrative expenses	(6.53)	(8.27)	(10.37)	
Finance cost	(0.27)	(0.32)	(0.38)	
Share of profit (loss) of associates	0.57	(1.35)	0.34	
Impairment of investment in an associate		(1.74)		
Profit before tax	10.37	16.12	14.09	
Income tax expense	(3.13)	(5.96)	(2.85)	
Profit for the year from continuing operations	7.24	10.16	11.24	
Loss for the year from discontinued operations	(0.59)			
Profit for the year	6.65	10.16	11.24	
Other comprehensive (expense) income	(0.25)	0.46	(0.97)	
Total comprehensive income for the year	6.40	10.62	10.27	

#### Revenue

We primarily generate revenue from fee income for the services provided to our customers. See "Business — Our Fee Model and Ongoing Projects". We recorded revenue of US\$48.64 million, US\$70.25 million, US\$83.11 million for the years ended December 31, 2016, 2017 and 2018, respectively.

The two tables below show the growing importance of our operations in China and our China based customers during the Track Record Period. As a percentage of revenue, the contribution of our revenue from our facilities in China increased from 14.75% in 2016 to 30.81% in 2017 to 34.23% in 2018. As a consequence, the contribution of our revenue from customers based in China have also increased consistently during the Track Record Period, increasing from 17.62% in 2016 to 32.20% in 2017 to 36.20% in 2018.

#### Breakdown of our revenue by type of service and geographical location of our facilities

The following table sets forth a breakdown of our revenue by type of service and geographical location of our facilities during the Track Record Period:

	For the financial year ended December 31,					
	20	16	2017		20	18
	US\$ millions	% of revenue	US\$ millions	% of revenue	US\$ millions	% of revenue
United States						
DMPK <sup>(1)</sup>	7.43	15.28	8.39	11.94	9.95	11.97
Safety and toxicology <sup>(1)</sup>	_	_		_	5.61	6.75
Bioanalytical	19.45	39.98	23.48	33.43	25.24	30.37
СМС	14.58	29.98	16.74	23.83	13.86	16.68
Sub-total	41.47	85.24	48.60	69.20	54.66	65.77
China						
Bioanalytical	4.01	8.24	12.05	17.15	18.96	22.81
Bioequivalence	3.17	6.52	9.59	13.65	9.49	11.42
Sub-total	7.18	14.75	21.64	30.81	28.45	34.23
Total	48.64	100.00	70.25	100.00	83.11	100.00

Note:

<sup>(1)</sup> With effect from April 1, 2018 (i.e. the closing date of the Concord Acquisition), we have started recording a substantial portion of the revenue from Concord under a new business segment — safety and toxicology. The remainder of Concord's revenue of US\$2.94 million was included in our DMPK revenue in 2018.

Breakdown of our revenue by geographical location of our customers

The following table sets forth a breakdown of our revenue by geographical location of our customers during the Track Record Period:

	For the financial year ended December 31,						
	2016		2017		20	18	
	US\$ millions	% of revenue	US\$ millions	% of revenue	US\$ millions	% of revenue	
United States	37.68	77.47	43.57	62.02	46.83	56.35	
China	8.57	17.62	22.62	32.20	30.09	36.20	
Rest of the world <sup><math>(1)</math></sup>	2.39	4.91	4.06	5.78	6.19	7.45	
Total	48.64	100.00	70.25	100.00	83.11	100.00	

Note:

(1) The countries included in rest of the world are Australia, Barbados, Belgium, Canada, Czech Republic, Denmark, France, Germany, India, Ireland, Israel, Japan, Jordan, Mexico, Netherlands, New Zealand, South Korea, Switzerland, Taiwan and the United Kingdom.

## **Cost of Services**

Our cost of services consists of direct labour costs, direct materials, direct service expenses, depreciation charges to property, plant and equipment and other direct costs related to providing services. Direct labour costs primarily consist of salaries, bonuses, benefits and share based compensations for the employees in the Group's business units. Cost of materials primarily consists of costs incurred for the purchase of materials used in rendering of our services. Direct service expenses include fees paid to our collaborating hospitals (in relation to our 17 collaborations in China for bioequivalence services), laboratory maintenance costs and repair and equipment maintenance costs.

In the years ended December 31, 2016, 2017 and 2018, our cost of services was US\$29.35 million, US\$39.16 million and US\$49.22 million, respectively.

The following table sets forth a breakdown of our cost of services during the Track Record Period:

	For the financial year ended December 31,					
	2016		2017		20	18
	US\$ millions	% of cost of services	US\$ millions	% of cost of services	US\$ millions	% of cost of services
Direct labour costs	15.84	54.0	18.80	48.0	25.70	52.21
Direct materials costs	4.93	16.8	6.45	16.5	8.35	16.96
Direct service expenses	3.74	12.7	8.85	22.6	7.37	14.97
Depreciation charges relating to property,						
plant and equipment	2.34	8.0	2.52	6.4	3.67	7.46
Other direct costs	2.50	8.5	2.55	6.5	4.13	8.40
Total	29.35	100.0	39.16	100.0	49.22	100.0

## **Gross Profit and Gross Profit Margin**

In the years ended December 31, 2016, 2017 and 2018, our gross profit was US\$19.29 million, US\$31.08 million and US\$33.90 million, respectively. For the same periods, our gross profit margin was 39.66%, 44.25% and 40.78%, respectively.

The following table sets forth a breakdown of our gross profit and gross profit margin by geographical location of our facilities during the Track Record Period:

	For the financial year ended December 31,							
	2016		2017		2018 (including Concord)		2018 (excluding Concord)	
	US\$ millions	Gross profit margin %	US\$ millions	Gross profit margin %	US\$ millions	Gross profit margin %	US\$ millions	Gross profit margin %
United States	16.74	40.37	20.54	42.28	17.01	31.12	17.28	36.94
China	2.55	35.52	10.54	48.67	16.89	59.35	16.89	59.35
Total	19.29	39.66	31.08	44.25	33.90	40.78	34.17	45.42

## Other Income

Other income consists of government grants and subsidies, interest income, service income and miscellaneous. In the years ended December 31, 2016, 2017 and 2018, our other income was US\$0.31 million, US\$0.24 million and US\$0.47 million, respectively.

## Other Gains and Losses, Net

Other gains and losses, net consist of net foreign exchange gain or loss, gain or loss on disposal of property, plant and equipment and others. In the years ended December 31, 2016, 2017 and 2018 we recorded net other gains (losses) of US\$0.11 million, US\$(0.02) million and US\$0.08 million, respectively. The following table sets forth a breakdown of our other gains and losses for the periods indicated:

	For the financial year ended December 31,			
	2016	2017	2018	
		(US\$ millions)		
Net foreign exchange gain	_	0.03	0.11	
Gain (loss) on disposal of property, plant and equipment	0.12	0.02	(0.03)	
Others	(0.01)	(0.07)		
Total	0.11	(0.02)	0.08	

## Impairment losses recognised on trade receivables and unbilled revenue

Impairment losses recognised on trade receivables and unbilled revenue primarily consists of provisions made for impaired trade receivables and unbilled revenue, which are due from companies in financial difficulty. We determine the allowance for impaired trade receivables and unbilled revenue based on our evaluation of the possibility of recovery and aging analysis of the relevant accounts and our management's judgment, including the assessment of change in credit quality and the past collection history of the relevant customer. In the years ended December 31, 2016, 2017 and 2018, we recorded impairment loses recognised on trade receivables and unbilled revenue of US\$0.74 million, US\$0.63 million and US\$0.65 million.

# Selling and Marketing Expenses

Our selling and marketing expenses consist of staff costs associated with our business development and marketing team, commissions, advertising costs, conference costs and other costs, such as travel and entertainment expenses. In the years ended December 31, 2016, 2017 and 2018, our selling and marketing expenses were US\$1.89 million, US\$1.57 million and US\$2.58 million, respectively. We expect our selling and marketing expenses to increase in line with the increase in our revenue.

## Listing Expenses

We incurred listing expenses primarily comprising professional fees to legal, accounting and other advisers for their services rendered in relation to the Listing and the Global Offering of US\$6.39 million in the year ended December 31, 2018. See "— *Listing Expenses*".

## Gain on Disposal of an Associate

We recorded a gain of US\$0.44 million in the year ended December 31, 2018 in connection with the disposal of 30% of our equity interest in Frontida to Dr Song Li. See "*History, Reorganisation and Corporate Structure — Acquisitions, Investments and Disposals — Frontida*". See also note 21 to the Accountants' Report in Appendix I.

#### Gain on Disposal of Subsidiaries

We recorded a gain of US\$0.14 million in the year ended December 31, 2018 in connection with the disposal of our entire shareholding interest in our subsidiaries, Suzhou Frontage Biotech Co., Ltd. (蘇州方達生物技術有限公司) and Shanghai Frontage Biotech Co., Ltd. (上海方達生物技術有限公司). See note 45 to the Accountants' Report in Appendix I.

#### **Bargain Purchase Gain**

Bargain purchase gain is the difference between the assessed fair value of the net assets of Concord (i.e. US\$5.11 million) and the fair value of the consideration paid for Concord (US\$4.32 million) (i.e. the total consideration subject to the Concord Holdback) to the sellers of Concord in the first half of 2018. See "History, Reorganisation and Corporate Structure — Acquisitions, Investments and Disposals — Concord".

As a result, we recorded a bargain purchase gain of US\$0.79 million in the year ended December 31, 2018. Concord was not profitable at the time of the acquisition and therefore we were able to negotiate a purchase price that was lower than the fair value of the consideration paid for Concord.

#### **Administrative Expenses**

Our administrative expenses consist of staff costs associated with our administrative personnel, rent, utility and facility maintenance expenses, professional fees, insurance, office supplies and others.

In the years ended December 31, 2016, 2017 and 2018, our administrative expenses were US\$6.53 million, US\$8.27 million and US\$10.37 million, respectively.

The following table sets forth a breakdown of our administrative expenses during the Track Record Period:

	For the financial year ended December 31,						
		2016		2017	2018		
	US\$ millions	% of% ofadministrativeUS\$expensesmillionsexpenses		US\$ millions	% of administrative expenses		
Staff costs Rent and utility expenses and	4.13	63.2	5.54	67.0	6.32	60.95	
facility maintenance	0.56	8.6	0.54	6.5	1.08	10.41	
Professional fees	0.40	6.1	0.51	6.2	0.84	8.10	
Insurance	0.27	4.1	0.25	3.0	0.34	3.28	
Office supplies and others	0.35	5.4	0.47	5.7	0.58	5.59	
Other	0.82	12.6	0.96	11.6	1.21	11.67	
Total	6.53	100.0	8.27	100.0	10.37	100.0	

#### **Research and Development Expenses**

Research and development expenses primarily comprise headcount expenses incurred in relation to the development of our data systems in China, with a view to enhancing our standards and systems in China in line with our "Two Countries, One System" approach. We also incurred research and development expenses on a research project commissioned by a hospital.

In the years ended December 31, 2016, 2017 and 2018, our research and development expenses were US\$0.48 million, US\$1.30 million and US\$1.69 million, respectively.

## **Finance Cost**

Our finance cost primarily consists of interest expenses on bank and other borrowings, loans from related parties (Dr Song Li and Tigermed-BDM, Inc.) and interest on finance leases. In the years ended December 31, 2016, 2017 and 2018, our finance cost was US\$0.27 million, US\$0.32 million and US\$0.38 million, respectively. See also "— *Indebtedness*".

#### **Income Tax Expense**

Our income tax expense primarily consists of the current income tax at the statutory rates applicable to our assessable profit before taxation as determined under relevant laws and regulations in the United States and China. We did not have any assessable income in Cayman Islands during the Track Record Period.

In the years ended December 31, 2016, 2017 and 2018, our income tax expense was US\$3.13 million, US\$5.96 million and US\$2.85 million respectively. The following table sets forth a breakdown of our income tax expenses for the periods indicated:

_	Year ended December 31,			
_	2016 2017		2018	
		(US\$ millions)		
Current tax:				
PRC Enterprise Income Tax ("EIT")	0.34	1.31	2.0	
US Federal Tax	3.05	4.85	1.14	
US State Tax	0.65	0.94	0.54	
(Over) under provision of EIT, US Federal Tax and				
US State Tax in prior year	(0.41)	0.50	(0.64)	
	3.63	7.60	3.04	
Deferred tax:				
Current year	(0.50)	(1.64)	(0.19)	
	3.13	5.96	2.85	

# **US Income Tax**

Frontage Labs is subject to US federal and state income taxes. The US combined statutory income tax rate was 40.62% for the year ended December 31, 2016, 41.86% for the year ended December 31, 2017 and 27.44% for the year ended December 31, 2018. Frontage Labs was also subject to the Transition Tax for the year ended December 31, 2017. See "— Significant Factors Affecting our Results of Operations and Financial Condition — Changes to the US corporate income tax system".

## ENTERPRISE INCOME TAX OF THE PRC

Enterprise income tax of the PRC, or EIT, constituted a portion of our income tax expense during the Track Record Period. According to the PRC Enterprise Income Tax Law, or the EIT Law, and its implementation rules, the standard EIT rate applicable to our PRC subsidiaries is 25.00%. See "Appendix III — Taxation and Regulatory Overview — Taxation" for further details on our applicable income tax.

In 2015, Frontage Shanghai was recognised by the local government authorities as an "Advanced Technology Service Enterprises" under the "Notice of the Ministry of Finance, the State Administration of Taxation, the Ministry of Commerce, and other Ministries on Issues concerning the Improvement in the Enterprise Income Tax Policies for Advanced Technology Service Enterprises", which made it eligible for a preferential EIT rate of 15.00% for a period of three years commencing from the beginning of 2015 so long as certain requirements were met. Frontage Shanghai satisfied these requirements in 2015 and was therefore able to enjoy the preferential rate of 15.00% in 2015. In 2016, the standard EIT rate of 25.00% was applicable.

In 2017, Frontage Shanghai was recognised by the relevant local government authorities as a "High and New Technology Enterprise", or HNTE, under the EIT Law, which made it eligible for a preferential EIT rate of 15.00% for a period of three years commencing from the beginning of 2017. It was therefore able to enjoy the preferential rate of 15.00% in 2017.

# **Effective Tax Rate**

Our effective tax rate, representing income tax expense divided by profit before taxation, was 30.18%, 36.97% and 20.23% in the years ended December 31, 2016, 2017 and 2018, respectively.

## Non-IFRS Measure: Adjusted profit from continuing operations

To supplement our financial information which are presented in accordance with IFRS, we also use adjusted profit from continuing operations as an additional financial measure, which is not required by, or presented in accordance with, IFRS. We believe that this non-IFRS measure facilitates comparisons of operating performance from period to period and company to company by eliminating potential impacts of items that our management do not consider to be indicative of our operating performance. We believe that this measure provides useful information to investors and others in understanding and evaluating our consolidated results of operations in the same manner as they help our management. However, our presentation of adjusted profit from continuing operations may not be comparable to a similarly titled measure presented by other companies. The use of this non-IFRS measure has limitations as an analytical tool, and you should not consider it in isolation from, or as substitute for analysis of, our results of operations or financial condition as reported under IFRS.

We define adjusted profit as profit for the year from continuing operations added back with listing expenses, gain on disposal of an associate, gain on disposal of subsidiaries, impairment of investment in an associate, bargain purchase gain and share based compensation expense. The following table reconciles our adjusted profit from continuing operations to the most directly comparable financial measure calculated and presented in accordance with IFRS, which is profit for the year from continuing operations for the periods indicated:

	Year ended December 31,					
	2016	2017	2018 (excluding Concord)	2018 (including Concord)		
		(US\$ m	illions)			
Profit for the year from continuing operations Add:	7.24	10.16	11.58	11.24		
Listing expenses	_		6.39	6.39		
Gain on disposal of an associate	—		(0.44)	(0.44)		
Gain on disposal of subsidiaries	—		(0.14)	(0.14)		
Impairment of investment in an associate	—	1.74	_			
Bargain purchase gain	—		_	(0.79)		
Share based compensation expense	0.54	0.81	0.37	0.37		
Adjusted profit for the year	7.78	12.71	17.76	16.63		

## DISCUSSION OF RESULTS OF OPERATIONS

## 2018 compared to 2017

The most significant event in 2018 which had an impact on our results of operations was the Concord Acquisition which completed on April 1, 2018. The impact of the Concord Acquisition on our results of our operations in 2018 is also discussed. At the time, Concord was acquired, it's gross profit margin was significantly lower than our gross profit margin.

# Revenue

The table below sets forth a breakdown of our revenue (including Concord) by type of service and geographical location of our facilities for the periods indicated:

	Year ended December 31,						
	201	7	201	8			
-	US\$ millions	% of revenue	US\$ millions	% of revenue			
United States							
DMPK <sup>(1)</sup>	8.39	11.94	9.95	11.97			
Safety and toxicology <sup>(1)</sup>	_	_	5.61	6.75			
Bioanalytical	23.48	33.43	25.24	30.37			
СМС	16.74	23.83	13.86	16.68			
Sub-total <sup>(2)</sup>	48.60	69.20	54.66	65.77			
China							
Bioanalytical	12.05	17.15	18.96	22.81			
Bioequivalence	9.59	13.65	9.49	11.42			
Sub-total	21.64	30.81	28.45	34.23			
Total Revenue	70.25	100.00	83.11	100.00			

Notes:

(1) With effect from April 1, 2018 (i.e. the closing date of the Concord Acquisition), we have started recording a substantial portion of the revenue from Concord under a new business segment — safety and toxicology. The remainder of Concord's revenue amounting to US\$2.94 million was included in our DMPK revenue in 2018.

(2) Excluding Concord, our revenue from our facilities in the United States was US\$46.77 million in 2018.

Our revenue increased from US\$70.25 million in 2017 to US\$83.11 million (including Concord), an increase of 18.31% and to US\$75.22 million (excluding Concord), an increase of 7.07% in 2018. The increase in our revenue in this period was primarily attributable to the contribution of revenue from Concord to the newly created safety and toxicology business unit and to DMPK services in 2018 and to the growth in our revenue from bioanalytical services in China, which was partially offset by a decrease in our revenue from CMC services in the United States and a slight decrease in our revenue from bioequivalence services in China in 2018.

Our revenue from our operations in China increased by 31.47% from US\$21.64 million in 2017 to US\$28.45 million in 2018 due to growth from bioanalytical services in China as we continued to successfully capitalise on the growth of outsourcing opportunities in China and our enhanced visibility, growing reputation and recognition in the China market as a CRO with a reputation for high quality services.

Our revenue from bioanalytical services in China increased by 57.34% from US\$12.05 million in 2017 to US\$18.96 million in 2018 due to increased demand for our bioanalytical services from existing and new customers as well as our ability to cross-sell our bioanalytical services to customers that were provided with bioequivalence services. Our revenue growth from bioanalytical services in China also benefitted from the industry-wide growth of the innovative drugs market in China in 2018. Our revenue from bioequivalence services in China decreased slightly by 1.04% from US\$9.59 million in 2017 to US\$9.49 million in 2018 due in part to the transfer of our interest in our subsidiaries, Suzhou Frontage Biotech Co., Ltd. and Shanghai Frontage Biotech Co., Ltd. in April 2018, which offset the growth in our bioequivalence revenue in China in 2018 from existing and new customers. See also "*History, Reorganisation and Corporate Structure — Acquisitions, Investments and Disposals*". The disposal of these entities was to streamline our business in China and with a view to increasing the contribution of revenue from bioanalytical services in China, which has a higher gross profit margin compared to the gross profit margin for bioequivalence services.

Our revenue from our operations in the United States increased by 12.47% from US\$48.60 million in 2017 to US\$54.66 million in 2018 due to the contribution of Concord to the newly created safety and toxiology business unit and DMPK services in 2018. Excluding Concord, our revenue from the United States decreased from US\$48.61 million in 2017 to US\$46.77 million in 2018 primarily due to a decrease in our revenue from CMC services due to a decrease in demand for CMC services in 2018.

Our revenue from DMPK in the United States increased by 18.59% from US\$8.39 million in 2017 to US\$9.95 million in 2018 due to the contribution of Concord to our revenue from DMPK services in 2018. Excluding Concord, our revenue from DMPK services in the United States in 2018 decreased from US\$8.39 million in 2017 to US\$7.01 million in 2018 due to a decrease in demand for PK studies from our most important customer for DMPK services in 2018. In the last quarter of 2018, we have seen increased demand for DMPK services from existing and new customers compared to the preceding quarter and are beginning to see the benefits of increased management focus on business development activities associated with DMPK services since December 31, 2018. See "Summary — Recent Developments".

Our revenue from CMC in the United States decreased by 17.20% from US\$16.74 million in 2017 to US\$13.86 million in 2018 due to a decrease in demand for CMC services in 2018. This was primarily because of a decrease in the number of new contracts signed in respect of CMC services in 2017 compared to 2016. We signed 309 new contracts in respect of CMC services in 2017 compared to 359 in 2016. The decrease in the number of new contracts in 2017 was partially a result of our reduced expenditure and focus on business development activities in 2017 due to the one-off restructuring of our business development team in 2017 which had a disproportionate impact on our revenue from CMC services in 2018. We are now focusing on increased management attention and time on CMC services and expect that the corrective steps we are taking in respect of business

development activities associated with CMC services and expansion of our capabilities to provide additional CMC services, particularly in relation to biologics (for example, cell-line generation and development testing) will support revenue growth from CMC services from existing and new customers in 2019.

Our revenue from bioanalytical in the United States increased by 7.50% from US\$23.48 million in 2017 to US\$25.24 million in 2018 due to an increase in demand for our bioanalytical services in relation to biologics which was driven by the industry-wide growth of the biologics market in the United States in 2018 as well as our increased focus on biologics.

We recorded revenue of US\$5.61 million under the newly created safety and toxicology business unit. This revenue was contributed entirely by Concord for the April 1, 2018 (i.e. the closing date of the Concord Acquisition) to the December 31, 2018 period. We are currently focusing on integrating Concord with the rest of our business and relaunching its business development activities.

#### **Cost of Services**

Our cost of services increased from US\$39.16 million in 2017 to US\$49.22 million (including Concord), a 25.66% increase and to US\$41.06 million (excluding Concord), a 4.83% increase in 2018. Excluding Concord, the increase in our cost of services from 2017 to 2018 was generally in line with our increase in revenue. Specifically, as a percentage of our revenue, our cost of services slightly decreased from 55.76% in 2017 to 54.58% (excluding Concord) in 2018.

Our direct labour costs increased by 17.02% from US\$18.80 million in 2017 to US\$22.00 million (excluding Concord) in 2018 due to an increase in our headcount as well as an increase in salaries and bonuses paid to our existing employees. Our direct materials costs increased slightly by 2.02% from US\$6.45 million in 2017 to US\$6.58 million (excluding Concord) in 2018 due to an overall growth of our business. Our direct service expenses decreased by 29.27% from US\$8.85 million in 2017 to US\$6.26 million (excluding Concord) in 2018 due to a decline in the fees paid to our collaborating hospitals in China in 2018. Our depreciation charges relating to property, plant and equipment increased by 31.35% from US\$2.52 million in 2017 to US\$3.31 million (excluding Concord) in 2018. Our other direct costs increased by 14.12% from US\$2.55 million in 2017 to US\$2.91 million (excluding Concord) in 2018 in the ordinary course of our business.

#### **Gross Profit and Gross Profit Margin**

Our gross profit margin decreased from 44.25% in 2017 to 40.78% (including Concord) and increased to 45.42% (excluding Concord) in 2018. Excluding Concord, our gross profit from our facilities in the United States decreased from US\$20.54 million in 2017 to US\$17.28 million in 2018.

Excluding Concord, our gross profit margin from our facilities in the United States decreased from 42.28% in 2017 to 36.94% in 2018 primarily due to a decrease in revenue from CMC and DMPK services in 2018. Concord has further reduced our overall gross profit margin. In 2018, our gross profit margin (including Concord) from our facilities in the United States was 31.12%. We continue to integrate Concord with the rest of our business and our management is taking steps to increase the revenue and gross profit margin of Concord.

Our gross profit from our facilities in China increased from US\$10.54 million in 2017 to US\$16.89 million in 2018. Our gross profit margin from our facilities in China increased from 48.67% in 2017 to 59.35% in 2018 due to an increase in the contribution of revenue from bioanalytical services to our total revenue in China. Our business of bioanalytical services in China has a higher gross profit margin compared to the gross profit margin for bioequivalence services.

## **Other Income**

Our other income increased by 95.83% from US\$0.24 million in 2017 to US\$0.47 million in 2018 due to a significant increase in governments grants in China, which comprised of certain special financial subsidies (浦東新區世博地區開發管理委員會十三五專項財政補貼) and, subsidies for providing stable jobs (政府穩崗補貼款) and certain charges in relation to income tax (代扣代繳個人 所得税手續費). See also note 8 to the Accountants' Report set out in Appendix I to this prospectus.

#### Other Gains and Losses, Net

The table below sets forth a breakdown of our net other gains and losses for the periods indicated:

_	Year ended December 31,		
_	2017	2018	
	(US\$ mil	lions)	
Net foreign exchange gain	0.03	0.11	
Gain (loss) on disposal of property, plant and equipment	0.02	(0.03)	
Others	(0.07)		
Total	(0.02)	0.08	

Our net other losses slightly increased from US (0.02) million in 2017 to US 0.08 million in 2018.

#### Impairment losses recognised on trade receivables and unbilled revenue

Our impairment losses recognised on trade receivables and unbilled revenue increased from US\$0.63 million in 2017 to US\$0.65 million in 2018 in the ordinary course of our business.

#### **Research and Development Expenses**

Our research and development expenses increased by 30.0% from US\$1.30 million in 2017 to US\$1.69 million in 2018 primarily because of additional headcount expenses associated with the development of our data systems in China, which were incurred with a view to enhancing our standards and systems in China in line with our "Two Countries, One System" approach.

#### Selling and Marketing Expenses

Our selling and marketing expenses increased from US\$1.57 million in 2017 to US\$2.58 million (including Concord), an increase of 64.33% and to US\$2.33 million (excluding Concord), an increase of 48.41% in 2018. This increase was because of a number of factors, including (i) an increase in our staff costs associated with our China-based business development and marketing team as a result of an increase in the number of our China-based business development and marketing employees, (ii) additional business development initiatives by our China-based business development team, including sponsorship of workshops and conferences and (iii) an increase in the number of employees in our US business development team.

#### **Administrative Expenses**

Our administrative expenses increased from US\$8.27 million in 2017 to US\$10.37 million (including Concord), an increase of 25.39% and to US\$9.49 million (excluding Concord), an increase of 14.75% in 2018. Excluding Concord, the increase in our administrative expenses was primarily due to an increased expenditure on our management team commensurate with an overall growth of our business during the Track Record Period and in line with our plan to become a publicly listed company.

## **Finance Cost**

Our finance cost increased marginally from US\$0.32 million in 2017 to US\$0.38 million in 2018 due to a slight increase in our interest expense on bank and other borrowings as well as a slight increase in our interest on finance leases.

#### **Income Tax Expense**

Our income tax expense decreased by 52.18% from US\$5.96 million in 2017 to US\$2.85 million in 2018. Our effective tax rate, representing income tax expense divided by profit before taxation, decreased from 36.97% in 2017 to 20.23% in 2018. The decrease in tax expense and the effective tax rate is primarily due to a reduction of the US federal income tax rate from 35% in 2017 to 21% in 2018. In addition, there was a one-time Transition Tax of US\$1.0 million in our 2017 income tax expense resulting from a provision in the 2017 Tax Act. See "— Significant Factors affecting our Results of Operations and Financial Condition — Changes to the US corporate income tax system".

#### Profit for the Period from Continuing Operations and Net Profit Margin

Our profit for the period from continuing operations increased from US\$10.16 million in 2017 to US\$11.24 million (including Concord), which was a 10.63% increase and to US\$11.58 million (excluding Concord), which was a 13.98% increase. Excluding Concord, the increase in our profit for the period in 2018 was primarily due to an overall growth in our business, particularly the increase in the contribution of our revenue from bioanalytical services in China. Our net profit margin therefore increased from 14.46% in 2017 to 15.39% (excluding Concord) or 13.52% (including Concord) in 2018, due to the increase in our profit for the period.

#### Adjusted profit for the period from continuing operations

Our adjusted profit for the period from continuing operations increased from US\$12.71 million in 2017 to US\$16.63 million (including Concord) in 2018, which was a 30.84% increase and to US\$18.92 million (excluding Concord), which was a 48.86% increase. Excluding Concord, the increase in our adjusted profit for the period in 2018 was primarily due to an overall growth in our business, particularly the increase in the contribution of our revenue from bioanalytical services in China.

## 2017 Compared to 2016

## Revenue

The table below sets forth a breakdown of our revenue by type of service and geographical location of our facilities for the periods indicated:

_	Year ended December 31,			
-	2016		201	7
-	US\$ millions	% of revenue	US\$ millions	% of revenue
United States				
DMPK	7.43	15.28	8.39	11.94
Safety and toxicology		_		
Bioanalytical	19.45	39.98	23.48	33.43
СМС	14.58	29.98	16.74	23.83
Sub-total	41.47	85.24	48.60	69.20
China				
Bioanalytical	4.01	8.24	12.05	17.15
Bioequivalence	3.17	6.52	9.59	13.65
Sub-total	7.18	14.75	21.64	30.81
Total Revenue	48.64	100.00	70.25	100.00

Our revenue increased by 44.43% from US\$48.64 million in 2016 to US\$70.25 million in 2017. Although we grew our revenues across every type of service in 2017, the significant increase in our revenue in this period was primarily attributable to growth in our revenue from services provided by our facilities in China, and to a lesser extent, to growth in our revenue from services provided by our facilities in the United States.

Our revenue from our operations in China increased by 201.39% from US\$7.18 million in 2016 to US\$21.64 million in 2017. This growth in China was a result of having successfully capitalised on the growth of outsourcing opportunities in China in 2017, which has been driven by significant regulatory changes in China since 2015. Our revenue from bioequivalence services in China increased by 202.52% from US\$3.17 million in 2016 to US\$9.59 million in 2017 due to our enhanced visibility, growing reputation and recognition in the China market as a CRO with a reputation for high quality services and an increase in our capacity in 2017 due to an increased number of collaborations with clinical research centres in 2017 compared to 2016. We entered into eight collaborations in 2017 which increased the total number of our collaborations from nine as of December 31, 2016 to 17 as of December 31, 2017.

Our revenue from bioanalytical services in China increased from by 200.50% from US\$4.01 million in 2016 to US\$12.05 million in 2017 primarily due to our enhanced visibility, growing reputation and recognition in the China market as a CRO with a reputation for high quality services which resulted in additional customers approaching us for bioanalytical services, and to a lesser extent, due to our ability to cross-sell our bioanalytical services to customers of the clinical research facilities that are provided with our bioequivalence services.

Our revenue from our operations in the United States increased by 17.19% from US\$41.47 million in 2016 to US\$48.60 million in 2017, primarily due to a consistent growth in our revenue from services across all of our business units.

Our revenue from DMPK in the United States increased by 12.92% from US\$7.43 million in 2016 to US\$8.39 million in 2017 primarily due to an increase in revenue from our major customers for DMPK services which, in turn, was due to an increased demand for our DMPK services from such customers. In addition, 214 new contracts were signed in respect of DMPK services in 2017 compared to 147 new contracts in 2016 which also contributed to our revenue growth in 2017.

Our revenue from bioanalytical in the United States increased by 20.72% from US\$19.45 million in 2016 to US\$23.48 million in 2017 primarily due to an increase in demand for our bioanalytical services in relation to biologics which was primarily driven by the industry-wide growth of the biologics market in the United States in 2017. See "Industry Overview — The Global Pharmaceutical Outsourcing Industry — The Pharmaceutical CRO Market in the United States."

Our revenue from CMC in the United States increased by 14.81% from US\$14.58 million in 2016 to US\$16.74 million in 2017 primarily due to an increase in revenue from our major customers for CMC services which, in turn, was due to an increased demand for our CMC services from such customers.

#### **Cost of Services**

Our cost of services increased by 33.46% from US\$29.35 million in 2016 to US\$39.16 million in 2017 primarily as a result of the overall growth of our business. Specifically, as a percentage of our revenue, our cost of services decreased from 60.34% in 2016 to 55.76% in 2017.

Our direct labour costs increased by 18.69% from US\$15.84 million in 2016 to US\$18.80 million in 2017 due to increased headcount as a result of an overall growth of our business. Our direct materials costs increased by 30.83% from US\$4.93 million in 2016 to US\$6.45 million in 2017 due to increased expenditure on consumables and equipment as a result of a growth of our business. Similarly, our direct service expenses increased by 136.63% from US\$3.74 million in 2016 to US\$8.85 million in 2017 due to additional fees paid by us to our collaborating hospitals in China in 2017, which, in turn, was due to an increased demand for our bioequivalence services in China. Our depreciation charges relating to property, plant and equipment increased slightly by 7.69% from US\$2.34 million in 2016 to US\$2.52 million in 2017. Our other direct costs also increased slightly by 2.00% from US\$2.50 million in 2016 to US\$2.55 million in 2017.

#### **Gross Profit and Gross Profit Margin**

Our gross profit margin increased from 39.66% in 2016 to 44.25% in 2017, primarily due to the growth of our business in China. Specifically, as a percentage of revenue, the contribution of our China business increased from 14.75% in 2016 to 30.81% in 2017. Our gross profit margin therefore improves as a result of the increased contribution of revenue from China to our total revenue.

Our gross profit from our facilities in the United States increased from US\$16.74 million in 2016 to US\$20.54 million in 2017 primarily due to an increase in revenue from all of our services in the United States due to increased demand from existing and new customers. Our gross profit margin from our facilities in the United States increased from 40.37% in 2016 to 42.28% in 2017.

Our gross profit from our facilities in China increased significantly from US\$2.55 million in 2016 to US\$10.54 million in 2017 due to an increase in revenue from our existing and new customers for both bioanalytical and bioequivalence services in China, which, in turn, was due to our enhanced visibility, growing reputation and recognition in the China market as a CRO with a reputation for high quality services. As a result of this significant increase in our gross profit, our gross profit margin from our facilities in China increased from 35.52% in 2016 to 48.67% in 2017.

# **Other Income**

Our other income decreased by 22.58% from US\$0.31 million in 2016 to US\$0.24 million in 2017 due to a slight decrease in our other income from other sources in the ordinary course of business from US\$0.23 million in 2016 to US\$0.17 million in 2017. See note 8 to the Accountants' Report set out in Appendix I to this prospectus.

## Other Gains and Losses, Net

The table below sets forth a breakdown of our net other gains (losses) for the periods indicated:

_	Year ended December 31,		
	2016	2017	
	(US\$ mil	lions)	
Net foreign exchange gain	_	0.03	
Gain on disposal of property, plant and equipment	0.13	0.02	
Others	(0.02)	(0.07)	
Total	0.11	(0.02)	

Our net other gains decreased marginally from US0.11 million in 2016 to US(0.02) million in 2017 in the ordinary course of our business.

#### Impairment losses recognised on trade receivables and unbilled revenue

Our impairment losses recognised on trade receivables and unbilled revenue decreased marginally from US\$0.74 million in 2016 to US\$0.63 million in 2017 in the ordinary course of our business.

#### **Research and Development Expenses**

Our research and development expenses increased by 170.83% from US\$0.48 million to US\$1.30 million primarily because of additional expenses associated with the development of our data systems in China, which were incurred with a view to enhancing our standards and systems in China in line with our "Two Countries, One System" approach. Specifically, these additional expenses primarily comprise labour costs associated with the development of our data systems and other expenses associated with analytical record management, recruitment management and other management tools.

#### Selling and Marketing Expenses

Our selling and marketing expenses decreased by 16.93% from US\$1.89 million in 2016 to US\$1.57 million in 2017, primarily because of a one-off restructuring of our business development team which entailed our scientists taking on a greater role in business development activities which, in turn, resulted in a decrease in our expenditure on our business development team. Certain members of our business development team also left us in 2017 which reduced our staff costs under our selling and marketing expenses.

#### Administrative Expenses

Our administrative expenses increased by 26.65% from US\$6.53 million in 2016 to US\$8.27 million in 2017, primarily due to a US\$1.41 million increase in the staff costs associated with our administrative personnel as a result of an increase in the number of administrative personnel. The increase in our administrative expenses was slightly lower that the increase in our revenue from 2016 to 2017. Our rent and utility expenses and facility maintenance expenses decreased slightly from US\$0.56 million in 2016 to US\$0.54 million in 2017. Our expenses associated with professional fees increased slightly from US\$0.40 million in 2016 to US\$0.51 million in 2017. Our expenses on insurance decreased slightly from US\$0.27 million in 2016 to US\$0.25 million in 2017. Our expenses on office supplies increased from US\$0.35 million in 2016 to US\$0.47 million in 2017 and our other administrative expenses increased from US\$0.82 million in 2016 to US\$0.96 million in 2017 due to the overall growth in our business.

## **Finance Cost**

Our finance cost increased marginally from US\$0.27 million in 2016 to US\$0.32 million in 2017 due to a slight increase in our interest expense on bank and other borrowings as well as a slight increase in our interest on finance leases.

#### **Income Tax Expense**

Our income tax expense increased by 90.42% from US\$3.13 million in 2016 to US\$5.96 million in 2017, primarily due to an increase in our assessable profit before taxation. Our effective tax rate, representing income tax expense divided by profit before taxation, increased from 30.18% in 2016 to 36.97% in 2017 due to a change in the US taxation regime. In December 2017, a change in the US taxation regime required that we recognise as a current tax liability a one-off transition tax on the accumulated, previously untaxed foreign earnings of Frontage Shanghai. As of December 31, 2017, US\$1.0 million was recognized in income tax expense related to the Transition Tax applied to foreign earnings of our subsidiaries yet to be repatriated. See also "— Significant Factors affecting our Results of Operations and Financial Condition — Changes to the US corporate income tax system".

#### Profit for the Year from Continuing Operations and Net Profit Margin

Our profit for the year from continuing operations increased significantly from US\$7.24 million in 2016 to US\$10.16 million in 2017. Our net profit margin decreased marginally from 14.88% in 2016 to 14.46% in 2017.

## Adjusted profit for the year from continuing operations

Our adjusted profit from continuing operations increased significantly from US\$7.78 million in 2016 to US\$12.71 million in 2017 primarily as a result of growth in our revenue from services provided by our facilities in both China and the United States.

# DISCUSSION OF SELECTED ITEMS FROM THE CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

The table below sets forth our current assets, current liabilities and net current assets for the dates indicated:

_	As	of December 31	l,	As at March 31,
_	2016	2017	2018	2019
				(unaudited)
		(US\$ mi	llions)	
Inventories	_	_	0.07	0.08
Trade and other receivables and prepayment	8.34	13.16	19.46	21.12
Unbilled revenue	5.95	12.63	7.13	5.76
Tax recoverable		0.20	1.20	0.99
Restricted bank deposits			0.02	0.14
Cash and cash equivalents	3.25	4.34	16.31	17.47
Current Assets	17.54	30.33	44.19	45.56
Trade and other payables	2.76	5.15	11.05	10.05
Advances from customers	9.72	10.35	11.35	10.75
Bank borrowings	0.44	2.25	2.67	3.67
Loans from related parties	0.20		1.50	1.50
Income tax payable	0.06		1.10	1.00
Consideration payable on acquisition of an				
associate	1.12		—	—
Amounts due to shareholders	0.21	0.21	0.21	0.21
Lease liabilities			—	4.02
Obligations under finance leases	1.25	1.64	1.86	
Current Liabilities	15.76	19.60	29.74	31.20
Net Current Assets	1.78	10.73	14.45	14.36

We recorded net current assets of US\$14.45 million as of December 31, 2018, compared with net current assets of US\$10.73 million as of December 31, 2017 primarily due to a US\$11.97 million increase in cash and cash equivalents, which was partially offset by a US\$5.90 million increase in trade and other payables and a US\$1.00 million increase in advances from customers. We recorded net current assets of US\$10.73 million as of December 31, 2017, compared with net current assets of US\$1.78 million as of December 31, 2016, primarily due to a US\$4.82 million increase in trade and other receivables and prepayment, a US\$6.68 million increase is unbilled revenue and unbilled revenue partially offset by a US\$2.39 million increase in our trade and other payables. See "— *Discussion of Selected Items from the Consolidated Statements of Financial Position — Trade and Other Receivables and Prepayment*".

We recorded net current assets of US\$14.36 million as of March 31, 2019.

## Trade and Other Receivables and Prepayment

The following table shows a breakdown of our trade and other receivables by category as of the dates indicated:

_	As of December 31,		
_	2016	2017	2018
		(US\$ millions)	
Trade receivables			
- related parties	0.14	0.51	0.57
- third parties	7.91	11.82	16.35
- Loss allowance for trade receivables	(1.22)	(1.53)	(2.32)
	6.83	10.80	14.60
Other receivables			
- related parties	0.91	1.43	1.35
- third parties	0.06	0.09	0.16
	0.97	1.52	1.51
Prepayments			
- related parties		0.01	—
- third parties	0.54	0.79	1.07
	0.54	0.80	1.07
Deferred listing costs	_	_	2.21
Value added tax recoverable		0.04	0.07
	8.34	13.16	19.46

Our trade and other receivables and prepayment increased by 47.87% from US\$13.16 million as of December 31, 2017 to US\$19.46 million as of December 31, 2018, primarily due to an increase in (i) trade receivables from third parties which was primarily on account of Concord, (ii) other receivables from third parties (which primarily comprised of dividends receivable from Suzhou Frontage Biotech Co., Ltd (蘇州方達生物技術有限公司) and Shanghai Frontage Biotech Co., Ltd (上海方達生物技術有限公司), formerly our subsidiaries that were sold in April, 2018) and (iii) deferred listing costs.

Our trade and other receivables and prepayment increased by 57.79% from US\$8.34 million as of December 31, 2016 to US\$13.16 million as of December 31, 2017, primarily attributable to the increase in (i) trade receivables from third parties and (ii) other receivables from third parties. Our trade receivables from third parties increased partially as a result of a significant growth in our revenue, which increased by 44.43% from US\$48.64 million in 2016 to US\$70.25 million in 2017.

As of March 31, 2019, US\$12.27 million (or 84.04%) of the Group's outstanding trade receivables as of December 31, 2018 had been settled.

During the Track Record Period and up to the Latest Practicable Date, we did not have any material dispute or disagreement with our customers in relation to the timing, amounts of billing or the collection of our trade receivables.

We typically grant our customers credit periods ranging from 30 days to 90 days. The following table sets forth an ageing analysis of our trade receivables (net of allowance for doubtful debts), presented based on invoice dates as of the dates indicated:

	As of December 31,		
	2016	2017	2018
		(US\$ millions)	
Within 90 days	6.04	8.99	12.63
91 to 180 days	0.35	1.15	1.38
181 days to one year	0.32	0.47	0.37
Over one year	0.12	0.19	0.22
Total	6.83	10.80	14.60

In determining the recoverability of the trade receivable, we consider any change in the credit quality of the trade receivable from the date on which the credit was initially granted up to the reporting date. The credit quality of trade receivables that were neither past due nor impaired had not changed during the Track Record Period.

For the years ended December 31, 2016, 2017 and 2018, our trade receivables turnover days were 65 days, 53 days and 64 days, respectively. We calculate the trade receivables turnover days using the average of the opening and closing balances of trade receivables for the relevant period before adjustment for doubtful debts), divided by the corresponding revenue for the period, and then multiplied by 365 days.

The normal range of our trade receivable turnover days was 60 to 70 days during the Track Record Period. In 2017, our trade receivable turnover days was below the normal range as a result of some customers settling their invoices sooner than expected.

#### **Unbilled Revenue**

Our unbilled revenue decreased by 43.55% from US\$12.63 million as of December 31, 2017 to US\$7.13 million as of December 31, 2018, due to an our efforts and focus (particularly in China) on billing our customers promptly in accordance with the payment schedules agreed with them. Of the Group's US\$7.13 million unbilled revenue as of December 31, 2018, the Group had billed US\$4.52 million as of March 31, 2019 (or 63.37% of the unbilled revenue as of December 31, 2018), of which US\$3.99 million (or 55.93% of the unbilled revenue as of December 31, 2018) had been received from customers as of March 31, 2019.

An aggregate amount of US\$2.61 million (representing approximately 36.63% of the Group's unbilled revenue as of December 31, 2018) remained unbilled as of March 31, 2019, principally as we were not able to send invoices under the terms of the payment schedules agreed with the relevant customers. We believe that we will be able to send invoices to our customers in respect of the remaining unbilled amount of US\$2.61 million by June 30, 2019 in accordance with the terms of the applicable payment schedules.

During the Track Record Period, there were no amounts of the Group's revenue and unbilled revenue that had that had either (i) been reversed subsequent to customer certification, or (ii) were in dispute with any customers.

Our unbilled revenue increased by 112.27% from US\$5.95 million as of December 31, 2016 to US\$12.63 million as of December 31, 2017 due to an increase in the growth of our business, particularly in China. Our unbilled revenue increased at a rate higher than the increase in our revenue from 2016 to 2017 primarily because we were unable to send out invoices to all of our customers for services provided (particularly in China) before the end of 2017.

For further details relating to our unbilled revenue, see note 24b to the accountants' report set out in Appendix I to this prospectus.

#### **Trade and Other Payables**

The following table sets forth a breakdown of our trade and other payables by category as of the dates indicated:

_	As of December 31,			
_	2016	2017	2018	
		(US\$ millions)		
Trade payables				
- related parties	0.49	1.12	0.69	
- third parties	0.79	2.08	2.88	
	1.28	3.20	3.57	
Other payables				
- related parties	0.01	0.01	0.01	
- third parties	0.45	0.42	1.07	
	0.46	0.43	1.08	
Accrued listing expenses and issue costs	_	_	3.46	
Salary and bonus payables	0.86	1.07	2.35	
Other taxes payable	0.16	0.45	0.59	
Total	2.76	5.15	11.05	

Our trade and other payables increased by 114.56% from US\$5.15 million as of December 31, 2017 to US\$11.05 million as of December 31, 2018 primarily due to an increase in our trade payables from third parties, accrued listing expenses and issue costs and salary and bonus payables. Our trade payables from third parties increased from US\$2.08 million as of December 31, 2017 to US\$2.88 million as of December 31, 2018 due to the impact of the Concord Acquisition. Our other payables from third parties increased from US\$0.42 million as of December 31, 2017 to US\$1.07 million in as of December 31, 2018 due to the impact of the Concord Acquisition as well as the transfer of our interest in our subsidiaries, Suzhou Frontage Biotech Co., Ltd. and Shanghai Frontage Biotech Co., Ltd. in April 2018.

Our trade and other payables increased by 86.59% from US\$2.76 million as of December 31, 2016 to US\$5.15 million as of December 31, 2017, primarily due to an increase in trade payables to third parties from US\$0.79 million to US\$2.08 million, which was a result of the general growth in our business, and an increase in trade payables to related parties from US\$0.49 million to US\$1.12 million, which was primarily attributable to an increase in trade payables to certain members of the Tigermed Group, i.e. Hangzhou Tigermed Consulting Co., Ltd. and Jiaxing Tigermed Data Management Co., Ltd.

As of March 31, 2019, 71.33% of our trade payables as of December 31, 2018 had been settled.

The following table sets forth an ageing analysis of our trade payables based on invoice dates as of the dates indicated:

-	As of December 31,		
_	2016	2017	2018
		(US\$ millions)	
Within three months	1.10	1.87	2.58
Over three months but within one year	0.03	0.92	0.45
Over one year	0.15	0.41	0.54
Total	1.28	3.20	3.57

Our third party suppliers typically grant us credit terms of up to 90 days from the time when the goods or services are received from such suppliers. However, our trade payables turnover days are significantly lower than the credit terms because only a small portion of our cost of services involve third party suppliers.

For the years ended December 31, 2016, 2017 and 2018, our trade payables turnover days were 16 days, 21 days and 25 days, respectively. We calculate the trade payables turnover days using the average of the opening and closing balances of trade payables for the relevant period divided by the corresponding cost of services for the period, and then multiplied by 365 days.

Our trade payables turnover days increased from 16 days in 2016 to 21 days in 2017 and to 25 days in 2018, as we tried to optimize our operating cash flows by delaying payments to suppliers within the credit terms.

Our Directors confirm that we had no material defaults in our trade and other payables during the Track Record Period and up to the Latest Practicable Date.

#### **Advances from Customers**

Our advances from customers increased by 9.66% from US\$10.35 million as of December 31, 2017 to US\$11.35 million as of December 31, 2018, primarily due to an increase in the volume of our projects (particularly in relation to Concord) with terms that enabled us to bill our customers in accordance with the contracted payment schedule but in excess of revenue that we were able to recognise. Of the Group's advances from customers that amounted to US\$11.35 million as of December 31, 2018, the Group had subsequently recognised US\$5.56 million in revenue as of March 31, 2019 in accordance with our revenue recognition policy.

Our advances from customers increased by 6.48% from US\$9.72 million as of December 31, 2016 to US\$10.35 million as of December 31, 2017, primarily due to an increase in the volume of our projects with terms that enabled us to bill our customers in accordance with the contracted payment schedule but in excess of revenue that we were able to recognise.

#### LIQUIDITY AND CAPITAL RESOURCES

#### **Cash Flows**

Our primary uses of cash are to fund working capital, payment for the purchase of property, plant and equipment and other recurring expenses. During the Track Record Period, we funded our working capital and other capital expenditure requirements through a combination of cash generated from operations, loans from related parties, advances from related parties and bank borrowings.

The following table sets forth selected cash flow data from our consolidated information of cash flows for the periods indicated:

-	Year ended December 31,			
-	2016	2017	2018	
	(US	5\$ millions)		
Net cash generated from operating activities	9.34	6.76	22.66	
Net cash used in investing activities	(7.39)	(7.04)	(11.44)	
Net cash (used in) generated from financing activities	(2.11)	1.07	1.33	
Net (decrease) increase in cash and cash equivalents	(0.16)	0.79	12.55	
Cash and cash equivalents at beginning of year	3.50	3.25	4.34	
Effects of exchange rate changes	(0.09)	0.30	(0.58)	
Cash and cash equivalents at end of year	3.25	4.34	16.31	

Our cash inflow from operating activities primarily comprises fees from our customers for our services. Cash outflow from operating activities primarily comprises payments for staff costs and materials, income tax, administration and other operating expenses.

In 2018, our net cash generated by operating activities was US\$22.66 million, primarily consisting of profit before tax from continuing and discontinuing operations of US\$14.09 million and adjustments for (i) depreciation of property, plant and equipment of US\$4.23 million, (ii) impairment losses recognised on trade receivables and unbilled revenue of US\$0.65 million, (iii) share-based payment expense of US\$0.37 million, (iv) share of loss of associates of US\$0.34 million and (v) gain on disposal of an associate of US\$0.44 million.

In 2017, our net cash generated by operating activities was US\$6.76 million, primarily consisting of profit before tax from continuing and discontinuing operations of US\$16.13 million and adjustments for (i) depreciation of property, plant and equipment of US\$3.01 million, (ii) impairment losses recognised on trade receivables and unbilled revenue of US\$0.63 million, (iii) share-based payment expense of US\$0.81 million, (iv) share of loss of associates of US\$1.35 million and (v) finance costs of US\$0.32 million.

In 2016, our net cash generated by operating activities was US\$9.34 million, primarily consisting of profit before tax from continuing and discontinuing operations of US\$10.31 million and adjustments for (i) depreciation of property, plant and equipment of US\$2.67 million, (ii) impairment losses recognised on trade receivables and unbilled revenue of US\$0.74 million, (iii) gain on disposal of a subsidiary of US\$0.34 million, (iv) share-based compensation expense of US\$0.54 million and (v) finance costs of US\$0.27 million.

#### **Investing Activities**

Our cash used in investing activities mainly reflects our cash used in payments for purchases of property, plant and equipment and investments in our associates.

In 2018, our net cash used in investing activities was US\$11.44 million, primarily attributable to payments for (i) a cash outflow from the disposal of subsidiaries of US\$2.77 million, (ii) acquisition of a subsidiary, net of cash acquired of US\$4.19 million and (iii) purchase of property, plant and equipment of US\$5.22 million.

In 2017, our net cash used in investing activities was US\$7.04 million, primarily attributable to payments for (i) purchase of property, plant and equipment of US\$3.22 million and (ii) investments in our associates of US\$4.18 million.

In 2016, our net cash used in investing activities was US\$7.39 million, primarily attributable to (i) payments for purchase of property, plant and equipment of US\$4.02 million and (ii) investments in our associates of US\$4.45 million.

#### **Financing Activities**

Our cash inflow from financing activities mainly comprises bank borrowings and loans from related parties.

In 2018, our net cash generated from financing activities was US\$1.33 million, primarily attributable to proceeds from bank borrowings of US\$1.00 million and proceeds from loans from related parties of US\$5.00 million, partially offset by a US\$1.25 million repayment of bank borrowings and a US\$1.81 million repayment of obligations under finance leases.

In 2017, our net cash generated from financing activities was US\$1.07 million, primarily attributable to proceeds from bank borrowings of US\$3.58 million, partially offset by a US\$0.60 million repayment of bank borrowings and a US\$1.39 million repayment of obligations under finance leases.

In 2016, our net cash used in financing activities was US\$2.11 million, primarily attributable to repayment of bank borrowings of US\$2.13 million and repayment of loans of US\$0.50 million to related parties, partially offset by loans from related parties of US\$1.50 million and proceeds from bank borrowings of US\$0.44 million.

### Working Capital

As we have had immaterial inventories during the Track Record Period, our working capital is the amount of trade receivables, less the amount of trade payables. While the absolute amount of our working capital increased during the Track Record Period as our business grew, our working capital cycle remained healthy in our view. Our working capital cycle was 49 days in 2016, 32 days in 2017, and 39 days in 2018.

The table below sets forth, for the periods indicated, our working capital cycle.

_	Year ended 31 December			
_	2016	2017	2018	
	(n			
Trade receivables turnover days	65	53	64	
Trade payables turnover days	16	21	25	
Working capital cycle	49	32	39	

The normal range of our trade receivable turnover days was 60 to 70 days during the Track Record Period. In 2017, our trade receivable turnover days was below the normal range as a result of some customers paying their invoices sooner than expected.

Our trade payables turnover days steadily increased during the Track Record Period as we tried to optimize our operating cash flows by delaying payments to suppliers within the credit terms.

For an ageing analysis of our trade payables and trade receivables, please see "Financial Information — Discussion of Selected Items from the Consolidated Statements of Financial Position — Trade and Other Payables" and "Financial Information — Discussion of Selected Items from the Consolidated Statements of Financial Position — Trade and Other Receivables and Prepayment", respectively.

As of December 31, 2016, 2017 and 2018, we had cash and cash equivalents, represented by bank balances and cash of US\$3.25 million, US\$4.34 million and US\$16.31 million, respectively. Taking into account the estimated net proceeds of the Global Offering, cash and cash equivalents on hand, cash flow generated from our operations and facilities available to us, our Directors believe that we have sufficient working capital to meet our present and future cash requirements for at least the next twelve months from the date of this prospectus. See "— *Discussion of Selected Items from the Consolidated Statements of Financial Position*" for more information.

## **CAPITAL EXPENDITURES**

Our principal capital expenditures relate primarily to purchases of property, plant and equipment in relation to the expansion and enhancement of our facilities and purchases of equipment used in providing our services.

We added US\$13.51 million to our property, plant and equipment in 2018, which we funded primarily through cash generated from operations and bank facilities. We expect to incur US\$10 million in capital expenditures in 2019, which we expect to fund through cash generated from operations, our existing bank facilities and the net proceeds from the Global Offering. See also *"Future Plans and Use of Proceeds — Use of Proceeds"*. Our current capital expenditure plans for any future period are subject to change, and we may adjust our capital expenditures according to our future cash flows, results of operations and financial condition, our business plans, market conditions and various other factors.

## INDEBTEDNESS

## **Bank Borrowings**

The following table sets forth our bank borrowings as at the dates indicated:

_	As of December 31,			March 31,
-	2016	2017	2018	2019
		(US\$ mill	lions)	(unaudited)
Secured and unguaranteed bank borrowings		2.83	3.17	4.00
Unsecured and guaranteed bank				
borrowings	0.44	0.58		
	0.44	3.41	3.17	4.00
Carrying amount repayable <sup>(1)</sup> within one year	0.44	2.25	2.67	3.67
within a period of more than one year but not exceeding two years within a period of more than two years	_	0.67	0.50	0.33
but not exceeding five years Less: Amounts due within one year	—	0.50	—	—
shown under current liabilities	(0.44)	(2.25)	(2.67)	(3.67)
		1.17	0.50	0.33

Note:

(1) The amounts due are based on scheduled repayment dates set out in the loan agreements.

#### Secured and unguaranteed bank borrowings

The three-year US\$2.00 million term loan agreement (which carries interest at a variable rate of LIBOR plus 1.85% per annum) and two-year US\$3.00 million revolving line of credit note (which carries interest at a variable rate of LIBOR plus 1.75% per annum) is secured by a lien on all assets of Frontage Labs and all of its existing and future US subsidiaries.

As of March 31, 2019, we had utilised US\$4.00 million from our secured and unguaranteed banking facilities and did not have any secured and unguaranteed unutilised banking facilities.

#### Unsecured and guaranteed bank borrowings

The one-year US\$2.00 million revolving loan facility (which carried interest at a variable rate of LIBOR plus 2.30% per annum) was guaranteed by Hangzhou Tigermed Consulting Co., Ltd. We drew down US\$0.44 million during 2016 and repaid the entire amount in 2016 and drew down US\$0.58 million during 2017 pursuant to this unsecured and guaranteed revolving loan facility. As of March 31, 2019, the outstanding balance of this unsecured and guaranteed revolving loan facility was nil as we had paid off the bank borrowing in full.

#### Loans from related parties

In addition to bank borrowings, we also satisfied our capital requirements partially through two loans from related parties during the Track Record Period. Both these loans were unsecured and unguaranteed. The following table sets out our loans from related parties as of the dates indicated.

-	Α	March 31,		
_	2016	2017	2018	2019
				(unaudited)
		(US\$ mil	llions)	
Loan from Dr Song Li	1.70	1.50	1.50	1.50
Loan from Tigermed-BDM, Inc	1.50	1.50		
	3.20	3.00	1.50	1.50

Pursuant to an agreement dated June, 30 2018 between Tigermed-BDM, Inc. and Frontage Labs, the loan from Tigermed — BDM, Inc. was settled in full in consideration of Frontage Lab assigning a US\$1.50 million interest in the long term note dated August 31, 2016 issued to Frontage Labs by Frontage Clinical Services, Inc. in the amount of US\$2.51 million (the "Clinical Services Note"). Frontage Labs continues to hold an interest in the remainder of the Clinical Services Note. Moreover, all interest that has accrued on the Clinical Services Note up to December 31, 2018 shall be retained by Frontage Labs.

The loan from Dr Song Li was unsecured, unguaranteed and carried interest at the fixed rate of 3.00% per annum. This loan was repaid in full on April 26, 2019.

## Promissory Notes entered into with Dr Song Li in March 2018

On March 1, 2018, a US\$5.37 million promissory note was issued in favour of Frontage Labs by Dr Song Li. The promissory note was issued as consideration for the sale of our 30% equity interest in Frontida to Dr. Song Li for US\$5.37 million. See "*History, Reorganisation and Corporate Structure* — *Acquisitions, Investments and Disposals* — *Frontida*".

On March 28, 2018, Frontage Labs raised US\$5.00 million from Dr Song Li by issuing a promissory note in favour of Dr Song Li. This US\$5.00 million amount (of which US\$0.68 million was subject to the Concord Holdback) was used to acquire Concord. See "*History, Reorganisation and Corporate Structure — Acquisitions, Investments and Disposals — Concord*".

In May 2018, Dr Song Li and Frontage Labs agreed to waive all interest that had accrued under the US\$5.37 million promissory note issued in favour of Frontage Labs as well as the US\$5.00 million promissory note issued in favour of Dr Song Li. Dr Song Li and Frontage Labs also agreed to set off US\$5.00 million of the amount owed under the US\$5.37 million promissory note in exchange for cancellation of the US\$5.00 million promissory note. Dr Song Li discharged his remaining liability under the US\$5.37 million promissory note by making a US\$0.37 million payment to Frontage Labs on May 22, 2018.

#### **Obligations under Finance Leases**

We lease certain of our equipment under finance lease agreements with lease terms of three to five years, which expire at various times through December 31, 2021. The table below sets forth our obligations under finance leases as at the dates indicated:

-	As of December 31,			
_	2016	2017	2018	
		(US\$ millions)		
Analysed for reporting purposes as:				
Current liabilities	1.25	1.64	1.86	
Non-current liabilities	2.85	2.62	2.31	

For additional details relating to our obligations under finance leases, please see note 32 of the Accountants' Report set out in Appendix I to this prospectus.

## Lease liabilities

Upon application of IFRS 16 since January 1, 2019, we have recognized right-of-use assets and corresponding lease liabilities in respect of all leases except for exempted low value leases and short-term leases. As of March 31, 2019, the Group has outstanding aggregate unpaid contractual lease payments (for the remainder of relevant lease terms) of US\$20.59 million (excluding contingent rental payments under lease agreements) in relation to the corresponding lease liabilities as follow:

	As of March 31, 2019	
	(US\$ million)	
Current liabilities	4.02	
Non-current liabilities	13.21	
Total	17.23	

Of our US\$17.23 million lease liabilities, US\$3.97 million are secured by the underlying assets (where the Group has the right to obtain legal title at the end of the lease terms), US\$12.49 million are secured by rental deposits and US\$0.77 million are unsecured. All of our lease liabilities are unguaranteed.

#### **Indebtedness Statement**

Our Directors confirm that as of the Latest Practicable Date, the agreements under our borrowings did not contain any covenant that would have a material adverse effect on our ability to make additional borrowings or issue debt or equity securities in the future. Our Directors further confirm that we had no material defaults in bank and other borrowings, nor did we breach any covenants (that were not waived) during the Track Record Period and up to the Latest Practicable Date. Our Directors further confirm that during the Track Record Period and up to the Latest Practicable Date, we did not experience any material difficulties in obtaining credit facilities, or withdrawal of facilities or requests for early repayment.

Save as otherwise disclosed under "— *Indebtedness*" and "— *Contractual Obligations*", we did not have any outstanding loan, capital issued or agreed to be issued, debt securities, mortgages, charges, debentures, bank overdrafts, loans or other similar indebtedness, liabilities under acceptances or acceptance credits, hire purchase commitments or other contingent liabilities as of March 31, 2019. Save as otherwise disclosed under "— *Frontage Shanghai's Guarantees dated August 1, 2018*", as of March 31, 2019, we had not guaranteed the indebtedness of any independent third parties.

## **CONTRACTUAL OBLIGATIONS**

#### **Capital Commitments**

Our capital commitments are related to purchase of equipment and the expansion and enhancement of our facilities. We expect to satisfy our capital commitments using net proceeds to be received from the Global Offering, cash from operations and bank facilities available to us. The following table sets forth our capital commitments as of the date indicated:

_	As of December 31,			
_	2016	2017	2018	
Contracted but not provided for	0.45	_	_	

#### **Operating Leases**

Operating lease payments represents rentals payable for certain of our office premises and laboratories. The following table sets forth our commitments for future lease payments under our premises which fall due as indicated:

-	As of December 31,			
_	2016	2017	2018	
		(US\$ millions)		
Within one year	1.18	1.39	2.83	
In the second to fifth years inclusive	4.56	5.01	10.83	
Over five years	2.52	1.31	4.51	
Total	8.26	7.71	18.17	

Our lease commitments increased from US\$7.71 million as of December 31, 2017 to US\$18.17 million as of December 31, 2018 primarily because of new offices we rented in Princeton, New Jersey and in China. With effect from January 1, 2019, a new accounting standard for leases, IFRS 16 will come into effect. See the "Accountants' Report — Application of New and Revised IFRS — IFRS 16 Leases".

Our lease commitments decreased from US\$8.26 million as of December 31, 2016 to US\$7.71 million as of December 31, 2017 primarily because the remaining terms of our lease agreements have reduced.

#### **CONTINGENT LIABILITIES**

During the Track Record Period, the Group had no material contingent liabilities other than as described below.

#### Obligations under a promissory note entered into in connection with the acquisition of Frontida

As of June 30, 2018, we recognised a contingent liability of US\$13.00 million pursuant to US\$17.00 million promissory note that we co-signed with Frontida in favour of Mutual Pharma, an independent third party. On December 31, 2018, Frontida repaid the entire US\$13.00 million outstanding under the promissory note. On January 30, 2019, Mutual Pharma acknowledged that it had received final payment in full satisfaction of all obligations under the promissory note.

As a result, our obligations under the promissory note have been fully extinguished with effect from December 31, 2018.

We intend to continue to provide Frontida certain administrative services (which include shared secretarial, legal, staff training, human resource and business development services) in the ordinary and usual course of business of the Group and on normal commercial terms or better to the Group. See "Connected Transactions — Exempt Continuing Connected Transactions".

A more detailed description of the events that led to our co-signing this promissory note with Frontida in favour of Mutual Pharma is set out below.

On March 28, 2016, Mutual Pharma made a loan in the amount of US\$17.00 million to Frontida pursuant to an asset purchase agreement entered into with Mutual Pharma in connection with the acquisition of certain assets by Frontida belonging to Mutual Pharma. Our founder, Dr Song Li and his family are majority shareholders of Frontida. As at the Latest Practicable Date, Dr. Song Li and his family own 55.21% of Frontida. See also "*History, Reorganisation and Corporate Structure — Acquisitions, Investments and Disposals — Frontida*".

On May 26, 2016, Frontage Labs subscribed for a 2.5% equity interest in Frontida for a cash consideration of US\$0.20 million. On June 8, 2016, Frontage Labs agreed to co-sign a US\$17.00 million non-interest bearing promissory note pursuant to which Frontage and Frontida agreed to be jointly and severally liable to Mutual Pharma. The promissory note was secured by the same assets that were acquired by Frontida from Mutual Pharma (and in connection with which Mutual Pharma had made the US\$17.00 million loan to Frontida described above). At that time, Frontage Labs was considering acquiring full ownership of Frontida as the CMO capabilities of Frontida were then seen as potentially complementary to Frontage Labs' business. The agreement to co-sign the promissory note in 2016 was made with these considerations. We abandoned our plan to acquire Frontida subsequently and on March 1, 2018, Frontage Labs sold its entire 30% equity interest in Frontida to Dr Song Li for a consideration of US\$5.37 million as the business of Frontida is outside of our primary business of laboratory and related services. See "*History, Reorganisation and Corporate Structure — Acquisitions, Investments and Disposals — Frontida*".

The liability of Frontage Labs as a co-signatory with Frontida of the promissory note in favour of Mutual Pharma was not extinguished on the disposal of Frontida by Frontage Labs in March 2018 as this would not have been acceptable to Mutual Pharma which is an independent third party with its own commercial considerations.

#### FRONTAGE SHANGHAI'S GUARANTEES DATED AUGUST 1, 2018

On August 1, 2018, in respect of an amount of RMB3 million loaned by China Construction Bank Suzhou Branch (an independent third party which is a financial institution) to Frontage Suzhou, Frontage Shanghai agreed to provide guarantees (pursuant to which it assumes joint liability in respect of all obligations of Frontage Suzhou) ultimately in favour of China Construction Bank Suzhou Branch. Frontage Shanghai's maximum potential liability under these guarantees is RMB4 million. As at March 31, 2019, the total amount drawn down by Frontage Suzhou was RMB3 million and the related unpaid interest was approximately RMB5,000.

## **OFF-BALANCE SHEET COMMITMENTS AND ARRANGEMENTS**

During the Track Record Period and up to the Latest Practicable Date, except as disclosed in this prospectus, we had no material off-balance sheet arrangements.

# **RELATED PARTY TRANSACTIONS**

We had the following transactions with related parties during the Track Record Period:

# a) Laboratory and Bioequivalence service income from related parties

_	Year ended December 31,			
_	2016	2016 2017		
		(US\$ millions)		
Hangzhou Tigermed Consulting Co., Ltd	0.56	1.19	2.52	
Guangzhou Tigermed Research Co., Ltd	0.14	0.05		
Shanghai Tigermed Technology Co., Ltd	0.10	1.92	0.38	
Frontage Laboratories (Suzhou) Co., Ltd		0.09	0.02	
Taiwan TigerMed Consulting Co., Ltd	0.12	0.02		
Tigermed India Data Solutions Pvt. Limited		0.01		
Frontage Clinical Services, Inc		0.33	0.08	
Total	0.92	3.61	3.00	

# b) Fees paid to related parties for biometric service, electronic data capture software services and clinical site management organisation service

	Year ended December 31,		
	2016	2016 2017	
		(US\$ millions)	
Hangzhou Tigermed Consulting Co., Ltd	_	0.15	0.08
Hunan Tigermed Research Co., Ltd		—	—
Frontage Laboratories (Suzhou) Co., Ltd	0.07	—	—
Hangzhou Simo Laboratories CO., Ltd		0.02	0.02
Jiaxing Tigermed Data Management Co., Ltd		0.19	0.08
Jiaxing EDC Computer Technology Co., Ltd		0.01	0.05
Tigermed-BDM, Inc	0.02	0.11	—
FJ Pharma LLC		0.01	—
Frontage Clinical Services, Inc	0.12	0.14	0.54
Frontida BioPharma, Inc		0.04	0.04
Total	0.21	0.67	0.81

# c) Interest income on loan to a related party

_	Year ended December 31,			
_	2016	2017	2018	
		(US\$ millions)		
Frontida	0.04			

The interest income from Frontida in 2016 was paid to us pursuant to a US\$2.00 million loan made by Frontage Labs to Frontida. The US\$2.00 million loan was exchanged by Frontage Labs for an additional 13.5% equity interest in Frontida on December 27, 2016. See "History, Reorganisation and Corporate Structure — Acquisitions, Investments and Disposals — Frontida" for further details.

# d) Interest expense on loans from related parties

	Year ended December 31,			
	2016 2017		2018	
		(US\$ millions)		
Dr. Song Li	0.06	0.04	0.05	
Tigermed-BDM, Inc	0.02	0.05	0.02	
Total	0.08	0.09	0.07	

The loan from Tigermed-BDM was settled in full on June 30, 2018. The loan from Dr Song Li will be repaid prior to Listing. See "— *Indebtedness* — *Related party loans*".

## e) Equipment rental income from a related party

_	Year ended December 31,			
_	2016	2017	2018	
	(US\$ million		)	
Frontage Laboratories (Suzhou) Co., Ltd	0.02	_	_	

_	Year ended December 31,			
_	2016	2016 2017		
		(US\$ millions)		
Tigermed MacroStat, LLC	0.05	0.26	0.22	
Frontage Clinical Services, Inc	0.37	0.39	0.62	
Frontida BioPharm, Inc	0.28	0.23	0.10	
Frontage Laboratories (Suzhou) Co., Ltd	_	0.31	0.30	
FJ Pharma LLC		0.12	0.21	
Hangzhou Tigermed	_		0.07	
Tigermed-BDM Inc.			0.08	
Total	0.70	1.31	1.60	

## f) Administrative services provided to related parties

## g) Property, Plant and equipment sold to a related party

_	Year ended December 31,			
_	2016 2017		2018	
		(US\$ millions)	s)	
FJ Pharma LLC	0.75	_		

See also note 42 to the accountants' report set out in Appendix I to this prospectus for our related party balances as at December 31, 2016, 2017 and 2018.

It is the view of our Directors that each of the related party transactions set out in note 42 to the accountants' report set out in Appendix I to this prospectus (i) was conducted in the ordinary and usual course of business and on normal commercial terms between the relevant parties and (ii) does not distort our Track Record Period results or make our historical results not otherwise reflective of future performance.

# QUALITATIVE AND QUANTITATIVE DISCLOSURE ABOUT MARKET RISK

The Group's activities expose it primarily to currency risk and interest rate risk. There was no change in the Group's exposure to these risks or the manner in which it managed and measured the risks during each of the Track Record Periods. For further details, including relevant sensitivity analysis, see note 37 to the Accountants' Report set out in Appendix I to this prospectus.

### **Currency Risk**

Certain entities in our Group have RMB and EUR sales and purchases, which exposes us to foreign currency risk. We did not use any derivative contracts to hedge against our exposure to currency risk during the Track Record Period and up to the Latest Practicable Date.

## **Interest Rate Risk**

We are exposed to fair value interest rate risk in relation to restricted bank deposits, long-term note receivables, obligations under finance leases, loans from related parties and consideration payable on the acquisition of an associate. We currently do not have an interest rate hedging policy to mitigate the interest rate risk. Our management monitors our interest rate exposure and will consider hedging significant interest rate risk should the need arise.

We are also exposed to cash flow interest rate risk in relation to variable rate bank borrowings. Our cash flow interest rate risk is mainly concentrated on the fluctuation of the Prime Rate and LIBOR benchmark rates. For the variable rate bank borrowings, we currently do not have an interest rate hedging policy to mitigate interest rate risk; nevertheless, our management monitors interest rate exposure and will consider hedging significant interest rate risk should the need arise.

### **Credit Risk**

We are exposed to credit risk primarily arising from trade and other receivables. Our maximum exposure to credit risk in the event that the counterparties fail to perform their obligations as of the end of each reporting period in relation to each class of recognised financial assets was the carrying amounts of those assets as stated in the consolidated statements of financial position. In order to minimize the credit risk, our management has designated a team responsible for the determination of credit limits, credit approvals and other monitoring procedures to ensure that follow-up actions are taken to recover overdue debts. In addition, our Directors review the recoverability of each trade debt at the end of each reporting period to ensure that adequate impairment losses are made for irrecoverable amounts. In this regard, our Directors are of the view that our credit risk is significantly reduced.

## Liquidity Risk

We manage our liquidity risk by maintaining a level of cash and cash equivalents deemed adequate by our management to finance our operations and mitigate the impacts of fluctuations in cash flows.

## **KEY FINANCIAL RATIOS**

The following table sets forth certain of our key financial ratios as of the dates for the periods indicated:

	Year ended December 31,				
	2016	2017	2018 (excluding Concord)	2018 (including Concord)	
		9	p		
Profitability ratios					
Gross profit margin <sup>(1)</sup>	39.66%	44.25%	45.42%	40.78%	
Net profit margin <sup>(2)</sup>	14.88%	14.46%	15.39%	13.52%	
Return on equity <sup>(3)</sup>	43.44%	41.51%	33.46%	30.44%	
Liquidity ratio					
Current ratio <sup>(4)</sup>	111.29%	154.74%	169.36%	148.61%	
Leverage ratio					
Gearing ratio <sup>(5)</sup>	23.91%	20.95%	(19.67%)	(17.11%)	

Notes:

- (2) Net profit margin is calculated using profit for the year from continuing operations divided by revenue and multiplied by 100.00%.
- (3) Return on equity is calculated using profit for the period attributable to owners of the Company divided by the average of the opening and closing balances of total equity and multiplied by 100.00%.
- (4) Current ratio is calculated using total current assets divided by total current liabilities and multiplied by 100.00%.
- (5) Gearing ratio is calculated using interest-bearing borrowings less cash and cash equivalents divided by total equity and multiplied by 100.00%. Our gearing ratio was negative as of December 31, 2018, because our cash and cash equivalents exceeded our interest-bearing borrowings as of December 31, 2018.

See "— *Discussion of Results of Operations*" for a discussion of the factors affecting our gross profit margin and net profit margin during the respective periods.

Our return on equity decreased from 41.51% in 2017 to 30.44% in 2018. Our return on equity decreased from 43.44% in 2016 to 41.51% in 2017.

Our current ratio decreased from 154.74% as of December 31, 2017 to 148.61% as of December 31, 2018, primarily because our current liabilities increased at a faster pace compared to our current assets. Our current ratio increased from 111.29% as of December 31, 2016 to 154.74% as of December 31, 2017, primarily attributable to a US\$12.79 million increase in our current assets. Our current liabilities also increased by US\$3.84 million, but at a slower rate when compared to the increase in our current assets.

<sup>(1)</sup> Gross profit margin is calculated using gross profit divided by revenue and multiplied by 100.00%.

Our gearing ratio decreased from 20.95% as of December 31, 2017 to (17.11%) as of December 31, 2018, because our cash and cash equivalents exceeded our interest-bearing borrowings as of December 31, 2018 and our total equity increased from US\$30.22 million as of December 31, 2017 to US\$43.63 million as of December 31, 2018. Our gearing ratio decreased from 23.91% as of December 31, 2016 to 20.95% as of December 31, 2017, primarily attributable to an increase in our interest-bearing borrowings (specifically, an increase in our secured bank loans from nil as of December 31, 2016 to US\$2.83 million as of December 31, 2017).

#### DIVIDENDS

No dividend has been paid or declared by any companies comprising our Group during the Track Record Period or the Company since its incorporation.

Our Company currently does not have any dividend policy. Our Board may declare dividends in the future after taking into account our results of operations, financial condition, cash requirements and availability and other factors as it may deem relevant at such time. Any declaration and payment as well as the amount of dividends will be subject to our constitutional documents and applicable law. Our shareholders at a general meeting must approve any declaration of dividends, which must not exceed the amount recommended by our Board. In addition, our Board may from time to time authorise such interim dividends as our Board considers to be justified by our profits and overall financial requirements, or special dividends of such amounts and on such dates as they think appropriate. No dividend shall be declared or payable except out of our profits and reserves lawfully available for distribution. Our future declarations of dividends may or may not reflect our historical declarations of dividends and will be at the absolute discretion of our Board.

Future dividend payments will also depend upon the availability of dividends received from our subsidiaries in China. PRC laws require that dividends be paid only out of net profits calculated according to PRC accounting principles, which differ in many aspects from generally accepted accounting principles in other jurisdictions, including IFRS. PRC laws also require foreign invested enterprises, such as some of our subsidiaries in China, to set aside part of their net profit as statutory reserves, which are not available for distribution as cash dividends. Distributions from our subsidiaries may also be restricted if they incur debt or losses, or in accordance with any restrictive covenants in bank credit facilities or other agreements that we or our subsidiaries may enter into in the future.

The Company expects that US federal income tax withholding at a 30% rate will be made from all dividends. In addition, the Company also expects that there will not be a mechanism available for Non-US Holders to obtain the documentation required to make a claim with the US Internal Revenue Service ("IRS") for a refund or credit of US federal income tax withheld from such dividends. We expect that dividends will be paid in US dollars. See "*Risk Factors — The Company expects to be treated as a domestic US corporation for US Federal income tax purposes and dividends on the Offer Shares will be Subject to US withholding tax*".

#### NEGATIVE RESERVES AND ACCUMULATED LOSSES

As of January 1, 2016 and December 31, 2016, we had negative reserves of US\$6.96 million and US\$0.02 million respectively, which was primarily due to our accumulated losses of US\$7.62 million and US\$0.98 million as of those dates, respectively. The reason for our accumulated losses as of January 1, 2016 and December 31, 2016 was a result of a redemption of preferred shares held by Baird Capital Partners Asia and certain other investors in Frontage Labs.

In 2008, Baird Financial Corp. ("Baird"), an entity affiliated with Baird Capital Partners Asia, the Greater China-focused investment Group of Baird Private Equity and certain other investors invested US\$10.24 million in Frontage Labs in exchange for 21,776,596 preferred shares in Frontage Labs. See "History, Reorganisation and Corporate Structure — Changes in Shareholding of Frontage Labs." In view of the conversion rights and redemption rights attaching to the preferred shares, Frontage Labs designated the preferred shares as financial liabilities measured at fair-value-through-profit-or-loss category (FVTPL) in accordance with IAS 32. In 2013 and 2014, the preferred shares attributable to this investment were fully redeemed at the contractually agreed return which resulted in a payment by Frontage Labs to Baird and the other investors of US\$20 million. Baird and the other investors fully exited and ceased to be shareholders of Frontage Labs after the redemption of the preferred shares. The difference between the actual redemption amount paid to Baird and the other investors (i.e. US\$20 million) and the initial investment amount (i.e. US\$10.24 million) was approximately US\$9.76 million. This US\$9.76 million amount represented the historical change in fair value of the preferred shares which was included in the accumulated net losses of the Group as at January 1, 2016 and December 31, 2016. Our accumulated losses decreased from US\$7.62 million as of January 1, 2016 to US\$0.98 million as of December 31, 2016 due to our net profits in 2016 which offset our accumulated net losses from prior years. See also "Risk Factors - Risks Relating to our Business and Industry — We had negative reserves and accumulated losses as of January 1 and December 31, 2016".

#### RESERVES

As of December 31, 2018, we had reserves of US\$43.63 million.

#### LISTING EXPENSES

Our listing expenses mainly include underwriting fees and commissions and professional fees paid to legal, accounting and other advisors for their services rendered in relation to the Listing and the Global Offering. Assuming full payment of the discretionary incentive fee, the estimated total listing expenses (based on the mid-point of the Offer Price Range and assuming that the Over-allotment Option is not exercised) for the Global Offering are approximately HK\$134.39 million. We incurred listing expenses of HK\$67.43 million in 2018, including HK\$50.12 million that has been expensed through the statement of profit or loss and HK\$17.31 million that has been deferred

as issue costs on the statement of financial position as of December 31, 2018. We expect to incur additional listing expenses of HK\$66.96 million in connection with the Global Offering, of which an estimated amount of HK\$6.78 million is expected to be expensed through the statement of profit or loss and the remaining amount of HK\$60.20 million is expected to be recognised directly as a deduction from equity upon the Listing. Our Directors do not expect such expenses would have a material adverse impact on our results of operations for the year ending December 31, 2019.

# NO MATERIAL ADVERSE CHANGE

Our Directors confirm that, having performed reasonable due diligence on the Group, since December 31, 2018 and up to the date of this prospectus, there has been no material adverse change in our financial or trading position.

# DISCLOSURE REQUIRED UNDER THE LISTING RULES

We confirm that, as of the Latest Practicable Date, there were no circumstances that would give rise to a disclosure requirement under Rules 13.13 to 13.19 of the Listing Rules.

## SHARE CAPITAL

The following is a description of the authorised and issued share capital of the Company as at the date of this prospectus and immediately following the completion of the Global Offering and the Capitalisation Issue:

		Nominal Value (US\$)		
Authorised share	canital	(05\$)		
5,000,000,000	Shares	50,000.00		
, , ,		,		
Number of shares issued and to be issued, fully paid or credited as fully paid				
150,573,091	Shares in issue as at the date of this prospectus	1,505.73091		
1,355,157,819	Shares to be issued pursuant to the Capitalisation Issue	13,551.57819		
501,910,000	Shares to be issued pursuant to the Global Offering	5,019.10000		
2,007,640,910	Total	20,076.40910		

# ASSUMPTIONS

The above table assumes that the Global Offering becomes unconditional, the Over-allotment Option is not exercised, no outstanding awards granted under the Pre-IPO Share Incentive Plans are exercised and no awards are granted under the 2018 Share Incentive Plan, and does not take into account any Shares which may be issued or repurchased by the Company pursuant to the general mandates granted to the Directors to issue or repurchase Shares as described below.

#### RANKING

The Offer Shares are ordinary shares in the share capital of the Company and will rank equally in all respects with all the Shares in issue or to be issued as set out in the above table, and will qualify for all dividends and other distributions declared, made or paid by the Company following the completion of the Global Offering.

## Pre-IPO Share Incentive Plans and 2018 Share Incentive Plan

We adopted the Pre-IPO Share Incentive Plans and the 2018 Share Incentive Plan. Please see "Appendix V — Statutory and General Information — Pre-IPO Share Incentive Plans" and "Appendix V — Statutory and General Information — 2018 Share Incentive Plan" for further details.

# GENERAL MANDATES GRANTED TO THE DIRECTORS

Subject to the Global Offering becoming unconditional, general mandates have been granted to the Directors to allot and issue Shares and to repurchase Shares. For details of such general mandates, see "Appendix V — Statutory and General Information — Further Information About the Company".

# SUBSTANTIAL SHAREHOLDERS

So far as is known to any Director or chief executive of the Company as at the Latest Practicable Date, immediately following the completion of the Global Offering and the Capitalisation Issue (assuming the Over-allotment Option is not exercised, no outstanding awards granted under the Pre-IPO Share Incentive Plans are exercised and no awards are granted under the 2018 Share Incentive Plan), the following persons (other than a Director or chief executive of the Company) will have an interest and/or short position (as applicable) in the Shares or underlying Shares which would fall to be disclosed to the Company and the Stock Exchange under the provisions of Divisions 2 and 3 of Part XV of the SFO, once the Shares are listed on the Stock Exchange:

Name of Shareholder	Capacities	Number of Shares	Approximate percentage interest in the Company
Hong Kong Tigermed <sup>(1)</sup>	Beneficial owner	1,032,964,090	51.45%
Hangzhou Tigermed <sup>(1)</sup>	Interest of controlled corporations	1,032,964,090	51.45%
Dr Song Li	Beneficial owner/ Trustee/Founder of the trust <sup>(2)</sup>	192,647,320	9.60%
Hillhouse Capital Advisors, Ltd. ("Hillhouse Capital") <sup>(3)</sup>		155,396,308	7.77%
Gaoling Fund, L.P. ("Gaoling") <sup>(3)</sup> .	Beneficial owner	144,504,000	7.20%

# **Interests and Long Positions in Shares**

Note:

(1) Hangzhou Tigermed is deemed to be interested in the 1,032,964,090 Shares which Hong Kong Tigermed, its wholly-owned subsidiary, is interested in as beneficial owner as Hong Kong Tigermed.

<sup>(2)</sup> As of the date of this prospectus, Dr Song Li is the beneficial owner of 3,488,305 Shares and is the founder and a trustee of each of The Linna Li GST Exempt Trust, The Wendy Li GST Exempt Trust and The Yue Monica Li GST Exempt Trust, which, as of the date of this prospectus, hold 5,258,809 Shares, 5,258,809 Shares and 5,258,809 Shares, respectively.

# SUBSTANTIAL SHAREHOLDERS

(3) Hillhouse Capital Advisors, Ltd. is the sole investment manager and the general partner of Gaoling and YHG Investment, L.P. ("YHG") respectively. Hillhouse Capital is deemed to be interested in the aggregate number of 153,890,000 Shares to be held by Gaoling and YHG, each of which has agreed to subscribe for such number of the Offer Shares (rounded down to the nearest whole board lot of 2,000 Shares) at the Offer Price which may be purchased with an aggregate amount of US\$46,950,000 and US\$3,050,000 respectively. The number of Shares to be held by Gaoling and YHG, being 144,504,000 and 9,386,000 respectively, are calculated based on the Offer Price of HK\$2.55, being the Minimum Offer Price. For details, see "Cornerstone Investors". In addition, HH RSV FTL Holdings Limited is the beneficial owner of 2,006,308 Shares. Hillhouse Capital Management, Ltd., an affiliate of Hillhouse Capital, controls the shareholder of HH RSV FTL Holdings Limited and 100% of the voting rights of HH RSV FTL Holdings Limited and is deemed to have an interest in the Shares held by HH RSV FTL Holdings Limited.

# **RELATIONSHIP WITH THE CONTROLLING SHAREHOLDERS**

#### THE CONTROLLING SHAREHOLDERS

Immediately following the completion of the Global Offering and the Capitalisation Issue (assuming the Over-allotment Option is not exercised, no outstanding awards granted under the Pre-IPO Share Incentive Plans are exercised and no awards are granted under the 2018 Share Incentive Plan), Hong Kong Tigermed, an investment holding company, will directly hold 51.45% of the issued share capital of the Company. Hong Kong Tigermed is a wholly-owned subsidiary of Hangzhou Tigermed, a company listed on ChiNext market of the Shenzhen Stock Exchange with stock code 300347. Hangzhou Tigermed does not have any shareholder who controls more than 50.00% of its voting rights. Accordingly, Hangzhou Tigermed and Hong Kong Tigermed, as a group, are the Controlling Shareholders of the Company.

## INDEPENDENCE FROM THE CONTROLLING SHAREHOLDERS

After considering the following factors, the Directors are of the view that the Company is capable of independently carrying on the Group's business from, and does not place undue reliance on, the Controlling Shareholders:

#### **Clear Delineation of Business**

There is a clear delineation between the Tigermed Group's business and our Group's business in terms of services provided. In general, our Group's business is to provide laboratory and related services to pharmaceutical and agrochemical companies as well as bioequivalence services. The Tigermed Group's business is to provide (a) clinical trial services involving studies on humans (conducted in hospitals or clinical centres), (b) registration services for drugs or medical instruments or medical devices that have successfully completed clinical trials, (c) clinical trial support services, including site management services and (d) biometrics services. Specifically, the Tigermed Group's clinical trial service offering involve studies on humans for innovative drugs, whereas the Group's clinical trial service offering involve bioequivalence studies on healthy subjects for generic drugs. The Tigermed Group does not provide similar services to those of the Group, regardless of geographical location.

There is also a clear delineation between the business of Tigermed Group and that of the Group in terms of the geographical locations of their facilities. In the United States, the Tigermed Group has no presence other than through its interest in our Company and its majority ownership of Tigermed-BDM Inc. (which is a joint venture between us and the Tigermed Group). In China, our Group's business is to provide bioanalytical services and bioequivalence services. The Tigermed Group does not offer these bioanalytical and bioequivalence services in China.

# **RELATIONSHIP WITH THE CONTROLLING SHAREHOLDERS**

Both the Group and Tigermed Group provide services to customers located globally (i.e., whether based in the United States, China or the rest of the world). However, both the Group and Tigermed Group have independent access to, and relationships with their respective customers. The Group has developed its business and operations independently from Tigermed Group since incorporation and is not dependent in any manner whatsoever on the Tigermed Group for access to the Group's existing or prospective customers. Similarly, Tigermed Group is not dependent in any manner whatsoever on the Group for access to Tigermed Group's existing or prospective customers. The services provided by the Group in the rest of the world do not overlap with those provided by Tigermed Group. Moreover, the Tigermed Group does not provide similar services to those of the Group to customers in the US and China. From time to time, our Group and Tigermed Group refer business opportunities and/or prospective customers to each other. Although we do not track the exact value of such referrals since the contribution of such referrals to our overall business is very low, we believe that significantly less than 1% of our Group's revenue and the Tigermed Group's revenue was derived through such referrals during the Track Record Period.

Given this clear delineation of business and the synergies that exist between the Tigermed Group and our Group, we have a collaborative relationship with the Tigermed Group. Our strengths are complementary to the strengths of the Tigermed Group. Specifically, our relationship with the Tigermed Group allows us to offer our customers in China a comprehensive solution for clinical trial support, from Phases I through IV. In turn, Tigermed Group's customers have access to our services, particularly in relation to bioanalytical services. Our Group also has investments in two companies, Tigermed-BDM Inc. and Tigermed-Xinze, both of which are jointly owned by us and members of the Tigermed Group. Tigermed-BDM Inc. and Tigermed-Xinze are engaged in the business of providing biostatistics, data management and statistical programming services to our customers as well as customers of the Tigermed Group. See "Business — Our Strategic Partnerships and Associates" for more information.

Accordingly, the Directors are of the view that there is clear delineation of business of the Tigermed Group and the Group in terms of services provided and the geographical location of their facilities.

## **RELATIONSHIP WITH THE CONTROLLING SHAREHOLDERS**

The table below sets out details relating to the clear delineation of business between the Tigermed Group and our Group.

_	The Company and its subsidiaries (the "Group")	Hangzhou Tigermed Consulting Co. Ltd. and its subsidiaries (other than the Company) (the "Tigermed Group")
Nature of Business • Services	Laboratory and related services and bioequivalence studies.	• Clinical trial services involving studies on humans, registration services for drugs or medical instruments or medical devices that have successfully completed clinical trials, clinical trial support services, including site management services and biometric services.
• evelopment	Services provided throughout the drug discovery and development process.	• Services provided in the clinical trials (phases i to iii) and post-approval phase (phase iv).
Customer Base •	Pharmaceutical and agrochemical companies.	• Pharmaceutical and medical device companies.
•	Independent access to customer base (i.e. no dependence on the Tigermed Group for customers). There are some cross-referrals of customers.	• Independent access to customer base (i.e. no dependence on the Group for customers). There are some cross-referrals of customers.
Geography •	Business operations in the United States and China.	• Taiwan, Korea, Japan, Malaysia, Singapore and India through more than 30 subsidiaries.
•	United States: Majority of revenue from the United States (contributing 85.24%, 69.20% and 65.77% of the total revenue for 2016, 2017 and 2018).	• United States: No presence in the United States other than through its interest in the Group and its majority (55%) ownership of Tigermed-BDM Inc. See "Investments" in this table below. See also "Business — Our Strategic Partnerships and Associates —Tigermed-BDM Inc.".
•	China: Services offered in China are limited to bioanalytical services and bioequivalence and related services.	• China: Services offered in China do not include bioanalytical services and bioequivalence and related

services.

_	The Company and its subsidiaries (the "Group")	Hangzhou Tigermed Consulting Co. Ltd. and its subsidiaries (other than the Company) (the "Tigermed Group")
Controlling shareholder . •	Hong Kong Tigermed Co., Ltd. (which is wholly-owned by Hangzhou Tigermed Consulting Co. Ltd) is the controlling shareholder of the Company.	• Hangzhou Tigermed Consulting Co., Ltd. (a company listed on the Chinext market of the Shenzhen Stock Exchange) is the holding company of the Tigermed Group.
•	Hong Kong Tigermed Co., Ltd. owns 68.60% of the issued share capital of Company as of the date of this prospectus.	• Ye Xiaoping and Cao Xiaochun own approximately 24.82% and 8.75% of the issued share capital of Hangzhou Tigermed Consulting Co., Ltd as of June 15, 2018. They are the two largest shareholders.
Management •	Board of directors of the Company: One non-executive director (Henry Gao Jun) is also a member of senior management of the Tigermed Group.	• <u>Board of directors of Hangzhou</u> <u>Tigermed Consulting Co. Ltd.</u> : None of the directors of the Company or members of senior management of the Group are directors on the board of Hangzhou Tigermed Consulting Co. Ltd.
•	Senior management: No member of the senior management of the Company is a member of the senior management of the Tigermed Group.	• <u>Senior management</u> : No member of senior management of Hangzhou Tigermed Consulting Co., Ltd. is a member of senior management of the Company.
Non-Exempt Connected • Transactions	Services provided by the Group to the Tigermed Group: Certain laboratory and bioequivalence studies services in the ordinary course of business. See "Connected Transactions — Non-Exempt Continuing Connected Transactions".	• Services provided by the Tigermed Group to the Group: Certain biometrics services, electronic data capture software services and clinical site management organisation services in the ordinary course of business. See "Connected Transactions — Non-Exempt Continuing Connected Transactions".
Investments•	The Group owns a 45.00% equity interest in Tigermed-BDM, Inc., (a New Jersey, USA corporation) an independent CRO specialising in biostatistics, data management and statistical programming. The Group also owns a 45.00% equity interest in Tigermed-Xinze (a PRC company) which is engaged in the business of biostatistics.	• Listed on Shenzhen ChiNext market of the Shenzhen Stock Exchange with stock code 300347 in 2012.

See also "Business — Risk Management and Internal Control — Internal Controls" for a summary of our internal control policy in relation to the clear delineation of business.

## (a) Management independence

The Group's business is managed and conducted by the Board and the senior management. Upon Listing, the Board will consist of five Directors, comprising one executive Director, one non-executive Director and three independent non-executive Directors. The executive management team of the Group is led by the executive Director who is supported by a team of senior management. Please refer to "Directors and Senior Management" for further details.

Mr Jun Gao currently also holds a position in the Controlling Shareholders and/or their associates. Set out below is the position held by Mr Gao in the Group and in the Controlling Shareholders and their associates:

Name	Position within the Group	Position within the Controlling Shareholders and their associates	Contributions to the Group
Jun Gao	Non-executive Director of the Company	The Chief Financial Officer of Hangzhou Tigermed	Responsible for the high-level oversight of the management and operations of the Group

As of the Latest Practicable Date, no other Director or member of the senior management of the Group is also a director or member of senior management in any of the Controlling Shareholders or their associates.

We believe that the Directors and senior management as a whole are able to perform their roles in the Group independently and that the Group is capable of managing its business independently from the Controlling Shareholders. We believe the position in the Controlling Shareholders held by Mr Jun Gao will not materially impact on the abilities of the Directors and senior management of the Group to discharge their fiduciary duties and duties of skill, care and diligence to the Company for the following reasons:

- Mr Jun Gao is a Non-executive Director of the Company and does not hold any executive roles or responsibilities within the Group and is not responsible for the day-to-day operations or management of the Group;
- (ii) there is no overlapping director on the respective board of directors of the Company and Hangzhou Tigermed;

- (iii) the Executive Director of the Company and the members of the senior management of the Group are responsible for the day-to-day management of the Group's business and none of them hold any roles with the Tigermed Group; and
- (iv) all of the Independent Non-executive Directors of the Company are independent of the Tigermed Group.

In addition, the Articles require each Director to observe the requirements in relation to the disclosure of his interest in transactions or proposed transactions with the Company or of any office or property possessed by him which might create duties or interests in conflict with his duties or interests as a Director. The Articles further provide that a Director shall not vote on any Board resolution approving any transaction, contract or arrangement or any other proposal whatsoever in which the Director or any of such Director's close associates (and if required by the Listing Rules, such Director's other associates) has any material interest otherwise than by virtue of his interests in Shares, debentures or other securities of or otherwise in or through the Company, except in certain prescribed circumstances, details of which are set out in "Appendix IV — Summary of the Constitution of the Company and Cayman Islands Company Law". The provisions of the Articles ensure that matters involving a conflict of interest which may arise from time to time will be managed in line with accepted corporate governance practice with a view to ensuring that decisions are taken having regard to the best interests of the Company and the Shareholders (including the independent Shareholders) taken as a whole.

In view of the above, the Directors are of the view that the Board as a whole and together with the Group's senior management team are able to perform their managerial roles in the Group independently of the Controlling Shareholders upon the Listing.

## (b) Operational independence

The Group is not operationally dependent on the Controlling Shareholders. The Group holds all relevant licences and has possessed the expertise necessary to carry on its business. The Group has sufficient capital, facilities, equipment and employees to operate its business independently from the Controlling Shareholders. The Group also has independent access to its customers, its own headcount of employees for its operations and independently manages its human resources.

While there is a clear delineation of the Group's business from the other businesses of the Controlling Shareholders, we have and will continue to enter into certain agreements with associates of the Controlling Shareholders in respect of providing and receiving certain services in the ordinary course of business of the Group. Please refer to "*Connected Transactions*" for more details.

## (c) Financial independence

The Group has an independent financial system and makes financial decisions according to the Group's own business needs. The Group has an independent internal control and accounting system and also an independent finance department responsible for discharging the treasury function. The Group is capable of obtaining financing from third parties, if necessary, without reliance on the Controlling Shareholders.

We have no loans or guarantees provided by, or granted to, the Controlling Shareholders or their associates that will be outstanding as of the Listing.

In view of the above, the Directors believe that the Group is able to operate financially independently from the Controlling Shareholders after the Listing.

## CORPORATE GOVERNANCE MEASURES

The Directors recognise the importance of corporate governance to safeguard and protect the interests of the Shareholders. The Company will comply with the provisions of the Corporate Governance Code in Appendix 14 to the Listing Rules (the "Corporate Governance Code"), which sets out principles of good corporate governance. Moreover, the Group will adopt the following measures in order to manage potential conflicts of interests between the Group and the Controlling Shareholders, and to maintain good corporate governance standards:

- (a) where a Shareholders' meeting is to be held for considering proposed transactions in which any of the Controlling Shareholders or any of their associates have a material interest, the Controlling Shareholders will not vote on the resolutions and shall not be counted in the quorum for the vote;
- (b) where a Board meeting is to be held to consider a proposed connected transaction between the Group and other business in which any of their Directors or their respective associates have any interest, the relevant interested Director will not be counted in the quorum and will abstain from voting on such matters;
- (c) internal control mechanisms have been established to identify potential connected transactions, and if entered into, the Company will strictly observe the reporting, annual review, announcement and independent Shareholder' approval requirements under Chapter 14A of the Listing Rules where applicable;
- (d) the independent non-executive Directors will review on an annual basis whether there is any conflict of interests between the Group and the Controlling Shareholders, and provide impartial and professional advice to protect the interests of the minority Shareholders;

- (e) the Company will disclose decisions on matters (with basis) reviewed by the independent non-executive Directors either in its annual report or by way of announcements;
- (f) where the Directors reasonably request the advice of independent professionals, such as financial advisors, the appointment of such independent professionals will be made at the Company's expense; and
- (g) Somerley Capital Limited has been appointed as the Company's compliance adviser to provide advice and guidance to the Group in respect of compliance with the Listing Rules, applicable Laws, and other aspects of corporate governance.

Based on the above, the Directors are satisfied that sufficient corporate governance measures have been put in place to manage potential conflicts of interest between the Group and the Controlling Shareholders, and to protect minority Shareholders' interests after the Listing.

#### **OVERVIEW**

Prior to the Listing, the Group has entered into certain transactions with certain parties who will, upon the Listing, become connected persons of the Company. Details of the continuing connected transactions of the Company following the Listing are set out below.

## EXEMPT CONTINUING CONNECTED TRANSACTIONS

Following the Listing, the following transactions will be regarded as continuing connected transactions exempt from the reporting, announcement, annual review and independent shareholders' approval requirements under the Listing Rules.

### Provision of administrative services to Frontida

#### (a) Description of the Transactions

As of the date of this prospectus, Dr Song Li and his associates hold a 55.21% interest in Frontida. Dr Song Li is a substantial shareholder of the Company and Frontida is an associate of Dr Song Li. Accordingly, Frontida is a connected person of the Company.

The Group provides to Frontida certain administrative services which include shared secretarial, legal, staff training, human resource and business development services. The provision of such administrative services by the Group to Frontida is in the ordinary and usual course of business of the Group and on normal commercial terms or better to the Group.

#### (b) Listing Rules Implications

As the provision of administrative services by the Group to Frontida is on a cost basis and the costs are identifiable and are allocated to the Group and Frontida on a fair and equitable basis, such continuing connected transactions would, upon the Listing, be exempt from the reporting, announcement, annual review and independent shareholders' approval requirements pursuant to Rule 14A.98 of the Listing Rules.

## NON-EXEMPT CONTINUING CONNECTED TRANSACTIONS

#### **Provision of Various Services**

#### (a) Description of the Transactions

Hangzhou Tigermed is a Controlling Shareholder and therefore, is a connected person of the Company. The Group, in its ordinary course of business, provides to the Tigermed Group certain laboratory and bioequivalence studies services in connection with services being provided by the Tigermed Group. The Tigermed Group also provides to the Group certain biometrics services, electronic data capture software services and clinical site management organisation services. The provision and receipt of the above services by the Group is in the ordinary and usual course of business of the Group and is on normal commercial terms.

The Company entered into a services framework agreement with Hangzhou Tigermed (the "**Services Framework Agreement**") on May 11, 2019 to govern the existing and future provision of the relevant services between the Group and the Tigermed Group with effect from the Listing Date.

The Services Framework Agreement provides that the provision of various specified services by the Group to the Tigermed Group and by the Tigermed Group to the Group must be (i) in the ordinary and usual course of business of the Group and the Tigermed Group, (ii) on an arm's length basis, (iii) on normal commercial terms or better to the Group, (iv) on terms no less favourable than those offered by the Tigermed Group to independent third parties for similar or comparable services (in respect of provision of the relevant services by the Tigermed Group to the Group) and on terms no less favourable than those offered by the Group to independent third parties for similar services (in respect of the provision of the relevant services by the Group to the Tigermed Group), (v) in accordance with the specified pricing policies and (vi) in compliance with, among other things, the Listing Rules and applicable laws and regulations.

The Services Framework Agreement expires on December 31, 2021 and is automatically renewable for successive periods of three years thereafter, subject to compliance with the then applicable provisions of the Listing Rules, unless terminated earlier by not less than six months' prior written notice or otherwise in accordance with the terms of the Services Framework Agreement.

## (b) Historical Transaction Amounts

The historical transaction amounts in respect of the relevant services referred to in the Services Framework Agreement for each of the three years ended December 31, 2018 are as follows:

_	For the year ended December 31,			
_	2016 2017		2018	
		(US\$ '000)		
Revenue received from providing laboratory and bioequivalence studies services to the Tigermed	919	3.184	2.899	
Group Fees paid for biometrics services, electronic data capture software services and clinical site management organisation services provided by the	919	5,104	2,099	
Tigermed Group	28	523	267	

### (c) Annual Caps on Future Transaction Amounts

The annual caps of the transaction amounts for the relevant services to be provided under the Services Framework Agreement for each of the three years ending December 31, 2021 are as follows:

_	Annual Caps For the year ending December 31,			
_				
_	2019	2021		
		(US\$ '000)		
Revenue to be received from providing laboratory and				
bioequivalence studies services to the Tigermed				
Group	3,500	4,200	5,100	
Fees to be paid for biometrics services, electronic				
data capture software services and clinical site				
management organisation services provided by the				
Tigermed Group	320	390	470	

The pricing basis for the relevant services provided and received by the Group under the Services Framework Agreement is as follows:

The fees for the laboratory and bioequivalence studies services provided by the Group to the Tigermed Group are agreed and set out in the relevant service agreements which will be determined based on arm's length negotiations after taking into account various factors including (1) the actual cost and expenses incurred in providing such services, (2) the types and nature of the services provided, (3) the expected technical complexity of the required services and duration of the project involved, (4) the market rates for providing the relevant services of similar types and nature and (5) the expected commitment of resources required for providing the relevant services.

The fees for the biometrics services, electronic data capture software services and clinical site management organisation services provided by the Tigermed Group to the Group are agreed and set out in the relevant service agreements which will be determined based on arm's length negotiations after taking into account various factors including (1) the requirements of the ultimate client, (2) the types and nature of the services provided, (3) the expected technical complexity of the required services and duration of the project involved, (4) the market rates for providing the relevant services of similar types and nature and (5) the expected commitment of resources required for providing the relevant services.

The annual caps in respect of the provision of the relevant services by the Group and the Tigermed Group under the Services Framework Agreement were determined by reference to the following: (i) the respective historical fees for the relevant services paid by the Tigermed Group to the Group and paid by the Group to the Tigermed Group during the three financial years ended December 31, 2018, (ii) the currently expected types and volume of services required by each of the

Group and the Tigermed Group in the next three years and (iii) the expected growth of the respective businesses of the Group and the Tigermed Group, and the incidental growth of demand for support services of the Group and the Tigermed Group over the next three years by not less than 20.00% to 30.00% per year.

## (d) Listing Rules Implications

As the highest applicable percentage ratio in respect of the revenue to be received by the Group from providing the relevant services to the Tigermed Group under the Services Framework Agreement is, on an annual basis, more than 5.00% but is less than 25.00%, the continuing connected transactions of the Group providing the relevant services to the Tigermed Group as described above will, upon the Listing, be subject to the annual review, reporting, announcement and independent shareholders' approval requirements under Chapter 14A of the Listing Rules.

As the highest applicable percentage ratio in respect of fees to be paid by the Group for the relevant services provided by the Tigermed Group under the Services Framework Agreement is, on an annual basis, more than 0.10% but is less than 5.00%, the continuing connected transactions of the Group receiving the relevant services from the Tigermed Group as described above will be, upon the Listing, subject to the annual review, reporting and announcement requirements but exempt from the independent shareholders' approval requirement under Chapter 14A of the Listing Rules.

## WAIVER APPLICATION FOR CONTINUING CONNECTED TRANSACTIONS

As the non-exempt continuing connected transactions described in this section will be carried out on a continuing basis and will extend over a period of time, the Directors consider that strict compliance with the announcement and, where applicable, the independent shareholders' approval requirements under the Listing Rules would be impractical and unduly burdensome and would impose unnecessary administrative costs upon the Company. Accordingly, the Company has applied for, and the Stock Exchange has granted, a waiver from strict compliance with the announcement and, where applicable, independent shareholders' approval requirements in relation to the non-exempt continuing connected transactions described in this section.

## MEASURES TO SAFEGUARD SHAREHOLDERS' INTERESTS

In order to further safeguard the interests of the Shareholders as a whole (including the minority Shareholders), the Group has implemented the following internal procedures in relation to the continuing connected transactions:

• before confirming the pricing and terms of proposed connected transactions, the Group will review and consider the pricing offered to or quoted by, as the case may be, two or more independent third parties in respect of transactions of a similar nature and scale in order to

determine whether the prosed pricing and terms of the connected transactions are fair, reasonable and no less favourable than those quoted by independent third parties to the Group or no more favourable than those offered by the Group to independent third parties, as the case may be. If no pricing quoted by or offered to independent third parties can be obtained for the purpose of the above comparison, the relevant connected transaction will have to be separately considered and approved by the head of the relevant business unit in order to ensure that the pricing will be fair and reasonable to the Group;

- the Group has approved internal guidelines which provide that if the value of any proposed connected transaction is expected to exceed certain thresholds, the relevant staff must report the proposed transactions (directly or through the head of the relevant business unit) in order for the Company to commence the necessary additional assessment and approval procedures and ensure that the Company will comply with the application requirements under Chapter 14A of the Listing Rules; and
- the Company will provide information and supporting documents to the Independent Non-executive Directors and the auditors in order for them to conduct an annual review of the continuing connected transactions entered into by the Company. In accordance with the requirements under the Listing Rules, the Independent Non-executive Directors will provide an annual confirmation to the Board as to whether the continuing connected transactions have been entered into in the ordinary and usual course of business of the Group, are on normal commercial terms and are in accordance with the agreement governing them on terms that are fair and reasonable and in the interests of the Shareholders as a whole, and the auditors will provide an annual confirmation to the Board as to whether anything has come to their attention that causes them to believe that the continuing connected transactions have not been approved by the Board, are not in accordance with the pricing policies of the Group in all material respects, are not entered into in accordance with the relevant agreement governing the transactions in all material respects or have exceeded the cap.

## CONFIRMATION FROM THE DIRECTORS AND THE JOINT SPONSORS

The Directors (including the Independent Non-executive Directors) are of the view that the non-exempt continuing connected transactions described in this section have been and will be entered into in the ordinary and usual course of business of the Group, on normal commercial terms or better and are fair and reasonable and in the interests of the Group and the Shareholders as a whole, and that the proposed annual caps for the non-exempt continuing connected transactions described in this section are fair and reasonable and in the interests of the Group and the Shareholders as a whole.

Having taken into account the information set out in "— Non-Exempt Continuing Connected Transactions", the Joint Sponsors have reviewed the relevant information and historical figures prepared and provided by the Company relating to the non-exempt continuing connected transactions, and have also discussed the transactions with the Company, and obtained various representations from the Company. Based on the above due diligence work, the Joint Sponsors are of the view that (i) the non-exempt continuing connected transactions described above are entered into in the ordinary and usual course of business of the Group, on normal commercial terms or better, and are fair and reasonable and in the interests of the Group and its Shareholders as a whole; and (ii) the proposed annual caps for the non-exempt continuing connected transactions described in this section are fair and reasonable and in the interests of the Company and its Shareholders as a whole.

## **BOARD OF DIRECTORS**

The Board of Directors consists of five Directors, comprising one Executive Director, one Non-executive Director and three Independent Non-executive Directors. Brief information of the Directors is set out below:

Name	Age	Position	Date of Appointment	Date of Joining the Group	Principal Responsibilities
Dr Zhihe Li (李志和)	64	Executive Director, Chief Executive Officer and Chairman	April 16, 2018	April 16, 2007	Responsible for the formulation of the strategic direction of the Group and the day-to-day management of the Group
Mr Jun Gao (高峻)	43	Non-executive Director	April 17, 2018	April 17, 2018	Responsible for the high level oversight of the management and operations of the Group
Mr Yifan Li (李軼梵)	51	Independent Non-executive Director	April 17, 2018	April 17, 2018	Responsible for addressing conflicts and giving strategic advice and guidance on the business and operations of the Group
Mr Erh Fei Liu (劉二飛)	60	Independent Non-executive Director	April 17, 2018	April 17, 2018	Responsible for addressing conflicts and giving strategic advice and guidance on the business and operations of the Group
Dr Jingsong Wang (王勁松)	55	Independent Non-executive Director	April 17, 2018	April 17, 2018	Responsible for addressing conflicts and giving strategic advice and guidance on the business and operations of the Group

## **Executive Director**

Dr Zhihe Li (李志和), aged 64, was appointed as a Director on April 16, 2018 and designated as an Executive Director on June 20, 2018. Dr Li is the chairman of the Company.

Dr Li has been the Chief Executive Officer of the Company since May 2018, responsible for corporate strategies and global operations. He has also served as the senior vice president of Frontage Labs since April 2007, responsible for its China operations. Before joining Frontage Labs, he worked at Scios Inc. (subsequently acquired by Johnson & Johnson in 2003) as a senior scientist. Prior to that, he worked at Megabios Corporation (Valentis, Inc) as a Scientist.

Dr Li also possesses extensive academic experience. He was a scientist at the National Institutes of Health, United States.

Dr Li received his M.D. degree majoring in medicine from Norman Bethune University of Medical Sciences, China in August 1978 and his PhD degree from McGill University, Canada in May 1993.

Dr Li received the Merit Award for Outstanding Research from the National Institutes of Health, United States, in September 1995. He is an owner of two medical patents and has contributed to many scientific publications.

Dr Li will in effect assume the responsibilities and executive roles of the chairman and the chief executive of the Company upon the Listing. Code Provision A.2.1 of the Corporate Governance Code in Appendix 14 to the Listing Rules states that the roles of the chairman and the chief executive should be separate and should not be performed by the same individual. The Board believes that Dr Li is a suitable candidate to, in effect, assume the responsibilities and executive roles of the chairman and the chief executive of the Company and the above arrangement can help improve the efficiency of the decision-making and execution process of the Company. The Company has put in place an appropriate check-and-balance mechanism through the Board and the Independent Non-executive Directors. In light of the above, the Board considers that the deviation from Code Provision A.2.1 of the Corporate Governance Code is appropriate in the circumstances of the Company.

#### **Non-executive Director**

**Mr Jun Gao** (高峻), aged 43, was appointed as a Director on April 17, 2018 and designated as a Non-executive Director on June 20, 2018.

Mr Gao has been working at Hangzhou Tigermed as the senior vice president and chief financial officer since November 2016, heading finance and investment. Prior to this and until October 2016, he was the chief financial officer and board secretary of Shanghai Xiaoi Robot Technology Corporation Limited, a company that was listed on the National Equities Exchange and Quotations in the PRC with stock code 834869. From May 2011 to December 2015, he was the chief financial officer and board secretary of McWong Environmental Technology Corporation Limited. Prior to that Mr. Gao

held various positions in Hong Kong Shanghai Alliance Holdings Limited, formerly known as Van Shun Chong Holdings Limited, a company listed on the Hong Kong Stock Exchange with stock code 1001, City North Infrastructure Pty Ltd., Rio Tinto Group, a company listed on the London Stock Exchange with stock code RIO and on the Australian Securities Exchange with stock code RIO, and Felix Resources Ltd, a company that was listed on the Australian Securities Exchange with stock code FLX. From May 2001 to June 2007, he worked at Foster Wheeler AG, a company listed on NASDAQ with stock code FWLT, taking up different roles including the China finance manager, chief compliance officer and project control director. Prior to that, he worked in the business assurance and advisory section of PricewaterhouseCoopers Business Consulting (Shanghai) Co., Limited.

Mr Gao received his bachelor's degree from Shanghai University of Finance & Economics, China in June 1997, majoring in International accounting. He is a Certified Public Accountant in China, an internationally accredited Certified Internal Auditor, an Associate of the Chartered Institute of Management Accountants (UK), a member of the Association of International Certified Professional Accountants (US & UK) and a Fellow of the Association of Chartered Certified Accountants (UK).

## **Independent Non-executive Directors**

Mr Yifan Li (李軼梵), aged 51, was appointed as an Independent Non-executive Director on April 17, 2018. Mr Li has extensive experience in corporate financial management. His experience spans across various industries such as automotive, insurance, port operations, environmental services, online financing and real estate development and management in both United States and China.

Mr Li is a Vice President of Zhejiang Geely Holding Group since October 2013, responsible for the strategic investments and new business. Prior to joining Geely, he had held the CFO role in China Zenix Auto International Limited (stock code: XIN) from December 2010 to February 2014, which is a company listed on the New York Stock Exchange.

Mr Li received his MBA from the University of Chicago Booth School of Business, United States, in June 2000, his Master of Science in Accounting from University of Texas at Dallas, United States, in May 1994, and his Bachelor of Economics in World Economy from Fudan University, China, in July 1989.

Mr Li has been an independent non-executive director of ZhongAn Online P & C Insurance Co., Ltd. (stock code: 6060) since December 2016 which is a company listed on the Hong Kong Stock Exchange, Shanghai International Port Group Co., Ltd. (stock code: 600018) since September 2015 and Heilongjiang Interchina Water Treatment Co., Ltd. (stock code: 600187) since May 2015 which are companies listed on the Shanghai Stock Exchange, Zhejiang Tiantie Industry Co., Ltd. (stock code: 300587) since December 2017 which is a company listed on the Shenzhen Stock Exchange, and Qudian Inc. (stock code: QD) since October 2017 and Xinyuan Real Estate Co., Ltd. (stock code: XIN) since February 2017, which are companies listed on the New York Stock Exchange.

Mr Erh Fei Liu (劉二飛), aged 60, was appointed as an Independent Non-executive Director on April 17, 2018. Mr Liu was a co-founder of Cindat Capital Management Limited ("Cindat"), a global real estate investment platform. Prior to founding Cindat, he was an investment banker. From December 1999 to July 2012, he was the Managing Director of Merrill Lynch, based in Hong Kong. He was awarded the Asian Banker Skills-based Achievements Award in investment banking in 2006 by The Asian Banker.

From 1992 to 1994, he worked at Goldman Sachs Group, Inc. as the head of investment banking for China. From May 1987 to March 1990, he worked as an associate at Goldman Sachs Group, Inc's New York and Tokyo offices.

Mr Liu graduated from Harvard Business School, United States, in June 1987 with a master's degree in business administration, from Brandeis University, United States, in May 1984 with a bachelor of arts degree in economics and from the Beijing Foreign Studies University, China, in 1981.

Mr Liu is an independent non-executive director of Qingling Motors Co. Ltd since May 2015 (stock code: 1122) which is a company listed on the Hong Kong Stock Exchange, Jiangxi Copper Company Limited since July 2016 which is a company listed on the Hong Kong Stock Exchange with stock code 0358 and listed on the Shanghai Stock Exchange with stock code 600362, and 21 Vianet Group, Inc. (stock code: VNET) since May 2015 which is a company listed on NASDAQ. Mr Liu was an independent non-executive director of Fortunet e-Commerce Group Limited, a company listed on the Hong Kong Stock Exchange with stock code 1039, from March 2015 to April 2017.

Dr Jingsong Wang (王勁松), aged 55, was appointed as an Independent Non-executive Director on April 17, 2018.

Dr Wang is the CEO of Harbour BioMed since December 2016, a global biotech company specialising in developing biological therapeutics in the areas of immunoncology and inflammatory diseases with operations in Boston, Rotterdam and Shanghai. From November 2011 to December 2015, he was the Head of China R&D of Sanofi (China) Investment Co., Ltd.

Dr Wang received his PhD degree from China Pharmaceutical University in June 2011, majoring in microbiology and biochemical pharmacy. Dr. Wang was a medical physician and surgeon in Pennsylvania, United States.

Dr Wang has published in numerous leading scientific journals related to inflammation, autoimmune diseases and translational medicine.

Dr Wang currently serves on the board of directors of Silicon Therapeutics LLC, a Boston based biotech company focusing on the design of novel small molecule therapeutics in highly unmet disease areas since August 2016.

Notwithstanding Mr Yifan Li and Mr Erh Fei Liu's engagement as independent directors and other positions in a number of companies, Mr Yifan Li and Mr Erh Fei Liu have confirmed that they will devote sufficient time to act as independent non-executive Directors of the Company based on the following:

- involvement in Zhejiang Geely Holding Group and Cindat do not require their full-time participation in the daily operations, as they are supported by the senior management teams with members that are able to devote substantially all of their time to the respective businesses;
- with their background and experience, they are fully aware of the responsibilities and expected time involvements for independent non-executive directors. They have not found difficulties in managing their time with numerous companies and they are confident that with their experience in being responsible for several roles, they will be able to discharge their duties to the Company; and
- they will attend meetings from time to time to review and discuss with senior management in relation to the Group's businesses.

Save as disclosed in "— Board of Directors" above and "Appendix V — Statutory and General Information", each Director had not held any other directorships in listed companies during the three years immediately prior to the Latest Practicable Date and there is no other information in respect of the Directors to be disclosed pursuant to Rule 13.51(2) of the Listing Rules and there is no other matter that needs to be brought to the attention of the Shareholders.

## SENIOR MANAGEMENT OF THE GROUP

The Chief Executive Officer and members of the senior management of the Group are responsible for the day-to-day management of our business. Certain information relating to the Chief Executive Officer is set out in "— *Board of Directors*" above. The senior management of the Group comprises Mr Yifeng Gao, Dr Hugh M. Davis, Dr Zhongping Lin, Dr Dongmei Wang, Dr Abdul Ezaz Mutlib, Dr Tianyi Zhang and Dr Song Li.

# Senior management of the Group with roles in our Company

Name	Age	Position in the Group	Roles and Responsibilities	Date of Appointment to Senior Management	Date of Joining the Group
Mr Yifeng Gao (高奕峰)	39	Chief Financial Officer	Responsible for the management of all aspects of the Group's finance and treasury matters	January 9, 2019	January 9, 2019
Dr Hugh M. Davis	60	Chief Business Officer	Responsible for the management of sales, marketing, business development and strategic alliances	April 30, 2018	April 30, 2018
Dr Zhongping (John) Lin (林仲平)	55	Executive Vice President for bioanalytical services	Responsible for the management of planning, execution, and quality of bioanalytical services	April 17, 2018	September 4, 2007
Dr Dongmei Wang	55	Executive Vice President for global CMC services	Responsible for the management of global CMC services	April 17, 2018	February 26, 2007
Dr Abdul Ezaz Mutlib	58	Executive Vice President	Responsible for the management of drug metabolism and pharmacokinetics services	April 17, 2018	March 10, 2010
Dr Tianyi Zhang (張天誼)	50	Senior Vice President	Responsible for the China operations	April 17, 2018	December 1, 2011

**Dr Zhihe Li** (李志和), aged 64, is the chief executive officer of the Group and the executive Director of the Board. Please refer to "— *Board of Directors*" above for further details.

**Mr Yifeng Gao** (高奕峰), aged 39, has been the chief financial officer of the Group since January 2019, responsible for the management of all aspects of the Group's finance and treasury matters. Prior to January 2019, Mr Gao held various positions in Baixing Co., Ltd., a multi-category classifieds platform company. In particular, he was the chief financial officer from November 2011 to June 2018 and the secretary of the board from August 2015 to November 2018. Prior to that, Mr Gao worked in the audit and assurance section of Deloitte Touche Tohmatsu from July 2001 to October 2011.

Mr Gao received his bachelor's degree from Shanghai International Studies University in Accounting in June 2001. He is a member of the American Institute of Certified Public Accountants, a Certified Public Accountant in China, a Certified Internal Auditor and a Certified Management Accountant.

**Dr Hugh M. Davis**, aged 60, has been the chief business officer of the Group since April 2018, responsible for sales, marketing, business development and strategic alliances. From 2001 to 2018, he worked at Janssen Research & Development, LLC, holding various management positions. In particular, from February 2004, he was the vice president of Clinical Pharmacology. Prior to that he was the vice president and head of biologics Development Sciences.

Dr Davis received his bachelor's of science from Gannon University, United States, in May 1980, and his PhD degree in Chemistry from Villanova University, United States, in December 1985. He has held professional positions at several academic institutions including Villanova University, chemistry department as an adjunct professor since September 1984. He is also a member of the Dean's Advisory Council for the College of Liberal Arts and Sciences at Villanova University. He is an author of over 75 scientific publications in refereed journals and has a patent on the ovarian cancer antigen CA125.

**Dr Zhongping (John) Lin** (林仲平), aged 55, has been an executive vice president of the Group since 2017, responsible for bioanalytical and biologics services. From 2007 to 2017, he was a senior vice president of Frontage Labs, responsible for bioanalytical and biologics services. Before joining Frontage Labs, he worked at AstraZeneca Pharmaceuticals LP as a scientist and later on was responsible for global DMPK business. Prior to this, he worked at Avantix Laboratories, Inc. as a senior research scientist and a manager of bioanalytical chemistry from 2000 to 2005.

Dr Lin also has extensive research and academic experience. He was a research associate at the James Cancer Hospital and Research Institute, Ohio State University, United States. From 1998 to 1999, he was a postdoctoral fellow at the Institute of Ocean Sciences, the Department of Fisheries and Oceans, Canada. Previously, he was a research and teaching assistant at Dalhousie University, United States. From 1987 to 1993, he was an analytical chemist and director at the Modern Instrumental Analysis Laboratory, Yunnan University.

Dr Lin received his bachelor's degree majoring in chemistry from Fuzhou Teacher's College (now known as Minjian University), China, in August 1982, his master's degree majoring in analytical chemistry from Yunnan University, China, in October 1987, and his PhD degree majoring in chemistry from Dalhousie University, Canada, in May 1998. He is a member of the American Chemical Society in 2005 and a member of the American Association of Pharmaceutical Scientists. In addition, he is an author of numerous scientific publications.

**Dr Dongmei Wang (with former name as** 王東梅), aged 55, has been an executive vice president of the Group since June 2017, responsible for CMC services. She has been working at Frontage Labs since February 2007. From February 2007 to March 2016, she was the senior vice president, responsible for analytical R&D and project management. From April 2016 to June 2017, she was the senior vice president, responsible for CMC services. Prior to joining our Group, she worked at NovaDel Pharma Inc., as the director of analytical chemistry.

Dr Wang received her bachelor's degree in Chemistry from Peking University, China, in July 1984, her master's degree in nuclear chemical engineering from the China, Institute of Atomic Energy, China in July 1987, and her PhD degree in inorganic chemistry from Iowa State University, United States in December 1995. In addition, she has obtained the research excellence award from Iowa State University in May 1995.

**Dr** Abdul Ezaz Mutlib, aged 58, has been an executive vice president of the Group since June 2017, responsible for our DMPK services. From April 2010 to December 2017, he was the vice president of Frontage Labs. Before joining our Group, he was a director of Wyeth Pharmaceuticals, Inc/Pfizer Inc.. Prior to that, he was an associate director of Pfizer Global Research and Development Ann Arbor Laboratories, United States, a senior research associate of DuPont Pharmaceuticals and a research associate of Hoechst-Roussell Pharmaceuticals Company. He was a postdoctoral fellow at the University of British Columbia, Canada.

Dr Mutlib received his bachelor's degree in pharmacy and his PhD degree in pharmaceutical chemistry from the University of Sydney, Australia in 1983 and 1987, respectively.

Dr Mutlib has been a member of the American Society for Mass Spectrometry since 1990. He has also received numerous awards, including the DuPont Merck Summit Award in 1997, and the Wyeth Team of the Year Award (Quantitative NMR Leader) in 2009. He is also an author of numerous scientific articles and an owner of four patents.

**Dr Tianyi Zhang** (張天誼), aged 50, is a senior vice president of the Group and the general manager of Frontage Shanghai since January 2016. He is responsible for the general operation, financial performance and business growth of our China business. From December 2011 to December 2015, he was the vice president of Frontage Shanghai, responsible for bioanalytical/DMPK development and services in China. From June 2010 to November 2011, he worked at MPI Research Inc. as a director of operation and bioanalytical services. From April 2006 to June 2010, he was the lab manager of PPD Development, a subsidiary of Pharmaceutical Product Development Inc. From May 2004 to May 2006, he was the project manager of Tandem Labs, Inc., a subsidiary of NWT Inc. He was the senior research scientist of Bioanalytical Systems, Inc. before joining Tandem Labs, Inc.

Dr Zhang received his bachelor of science degree in chemistry and master of science degree in chemistry from Nanjing University, China, in July 1991 and July 1994, respectively. He then received his PhD degree in analytical chemistry from the University of Florida, United States, in July 2001 and his MBA degree from the Virginia Commonwealth University, United States, in June 2009. In addition, he has contributed over 60 scientific publications and reports.

The business address of the members of the senior management is 700 Pennsylvania Drive, Exton PA 19341, United States and Building 13, Lane 67, Libing Road, Zhangjiang Hi-Tech Park, China.

			Date of Appointment to			
Name	Age	Position in the Group	Roles and Responsibilities	Senior Management	Date of Joining the Group	
Dr Song Li (李松)	61	Director and chief executive officer of Frontage Labs Honourary Chairman of the Company	Responsible for the formulation of the strategic direction and the day-to-day management of Frontage Labs and acting as Honourary Chairman of the Company (see below)	April 21, 2014	April 21, 2014	

#### Senior management of the Group with executive roles in our subsidiaries

**Dr Song Li** (李松), aged 61, is the Honourary Chairman of the Company and the CEO of Frontage Labs. In 2001, he founded Frontage Labs and has been CEO ever since (and will remain CEO of Frontage Labs after Listing) and remains a driving force behind the Group's strategic, technical and commercial success. His visionary leadership of Frontage Labs has earned him widespread respect in the industry and within our Group. In order to focus on the overall strategic direction of the Company and detailed operations of Frontage Labs, Dr Song Li currently serves as Honourary Chairman of the Company and the CEO of Frontage Labs instead of being a director or a member of senior management of the Company, which would have required redirecting a substantial part of his focus to day-to-day operations of the Company and administrative burden of that of a director. We have benefitted greatly from Dr Song Li's leadership and we believe he will continue to contribute significantly to the growth of the Group in his capacity as Honourary Chairman of the Company. It was determined that the role of Honorary Chairman of the Company and CEO of Frontage Labs best suit our Controlling Shareholders, the Company and Dr. Song Li for a variety of reasons, including the fact that he is based in the United States and his personal interest and working style.

There is no intention (either by the Company or by Dr Song Li) for Dr Song Li to become a director or a member of senior management of the Company, regardless of the continued applicability of Section 2(6) of Circular 67. Pursuant to section 2(6) of Circular 67, the directors and senior management of, a listed company in the PRC (the "**PRC Listed Company**") or the subsidiary of the PRC Listed Company the shares of which are to be listed overseas (the "**Overseas Listed Company**") and their affiliated persons shall not, in aggregate, hold more than 10% of the total share capital of the Overseas Listed Company prior to its overseas listing. Based on the advice of our PRC legal advisers, the fact that Dr Song Li (i) does not hold any directorship or senior management position in our Company; and (ii) acts as a director and CEO of Frontage Labs does not contravene the relevant requirements of Circular 67.

As the Honourary Chairman of the Company, Dr Song Li may attend board meetings of the Company at the invitation of the board of the Company even though he is neither a director nor an executive of the Company and has no voting rights on the board of the Company.

Dr Li received his PhD degree from McGill University, Canada, in 1992.

Dr Li has received the "Outstanding 50 Asian Americans in Business" award from the Asian American Business Development Center and the Healthcare CEO award in May 2018.

## **COMPANY SECRETARY**

Ms Karen Ying Lung Chang (張盈倫), aged 55, was appointed as the Company Secretary of the Company on June 20, 2018. She is an associate solicitor at Chiu & Partners since April 2000, a law firm specialising in listings in Hong Kong and other general commercial transactions.

Ms Chang received a bachelor of arts degree from Tamkang University, Taiwan, in June 1988. She then received her Hong Kong Common Professional Examination Certificate in Laws and Post-graduate Certificate in Laws from the University of Hong Kong, Hong Kong, in June 1996 and June 1997, respectively.

## **BOARD COMMITTEES**

The Board has established the audit and risk management committee, the remuneration committee and the nomination committee.

### Audit and Risk Management Committee

The Company has established the Audit and Risk Management Committee in compliance with Rule 3.21 of the Listing Rules and the Corporate Governance Code as set out in Appendix 14 to the Listing Rules. The primary duties of the Audit and Risk Management Committee are to oversee the financial reporting system, risk management and internal control systems of the Group, review the financial information of the Company and consider issues relating to the external auditors and their appointment.

The Audit and Risk Management Committee consists of three Directors. The members of the Audit and Risk Management Committee are:

Mr Yifan Li (*Chairman*) Mr Erh Fei Liu Mr Jun Gao

## **Remuneration Committee**

The Company has established the Remuneration Committee of the Board in compliance with Rule 3.25 of the Listing Rules and the Corporate Governance Code as set out in Appendix 14 to the Listing Rules. The primary duties of the Remuneration Committee are to make recommendations to the Board on the Company's policy and structure for all remuneration of Directors and senior management and on the establishment of a formal and transparent procedure for developing policy on such remuneration.

The Remuneration Committee consists of three Directors. The members of the remuneration committee are:

Dr Jingsong Wang (*Chairman*) Mr Yifan Li Dr Zhihe Li

#### Nomination Committee

The Company has established the Nomination Committee of the Board as recommended by the Corporate Governance Code as set out in Appendix 14 to the Listing Rules. The primary duties of the Nomination Committee are to review the structure, size and composition of the Board, assess the independence of the Independent Non-executive Directors and make recommendations to the Board on the appointment and re-appointment of Directors and succession planning for Directors.

The Nomination Committee consists of three Directors. The members of the Nomination Committee are:

Dr Jingsong Wang (*Chairman*) Mr Erh Fei Liu Dr Zhihe Li

## DIVERSITY

We have adopted the board diversity policy which sets out the objective and approach to achieve and maintain diversity of our Board in order to enhance the effectiveness of our Board. Pursuant to the board diversity policy, we seek to achieve Board diversity through consideration of a number of factors, including but not limited to professional experience, skills, relevant knowledge, gender, age, cultural and education background, ethnicity and length of service. After the Listing, our Nomination Committee will review the board diversity policy from time to time to ensure its continued effectiveness.

# DIRECTORS' REMUNERATION AND REMUNERATION OF FIVE HIGHEST PAID INDIVIDUALS

For 2016, 2017 and 2018, the aggregate amount of the fees, salaries, housing allowances, other allowances, benefits in kind (including contributions to pension schemes) and bonuses paid by the Group to the Directors were approximately US\$250,000, US\$383,000 and US\$329,000, respectively.

Under the current arrangements, the aggregate remuneration and benefits in kind payable to the Directors for 2019 are estimated to be approximately US\$780,000.

For 2016, 2017 and 2018, one of the five highest paid individuals was a Director. The aggregate amount of the fees, salaries, housing allowances, other allowances, benefits in kind (including contributions to pension schemes) and bonuses paid by the Group to the four remaining highest paid individuals were approximately US\$1,395,000, US\$1,859,000 and US\$1,690,000, respectively.

During the Track Record Period, no remuneration was paid to the Directors or the five highest paid individuals as an inducement to join or upon joining the Group. No compensation was paid to, or receivable by, the Directors or past directors of the Company or the five highest paid individuals for the loss of office as director of any member of the Group or of any other office in connection with the management of the affairs of any member of the Group. None of the Directors had waived any remuneration and/or emoluments during the Track Record Period.

Information on the letters of appointment entered into between the Company and the Directors is set out in "Appendix V — Statutory and General Information".

## **COMPLIANCE ADVISER**

The Company has appointed Somerley Capital Limited as its compliance adviser pursuant to Rule 3A.19 of the Listing Rules to provide advisory services to the Company. In compliance with Rule 3A.23 of the Listing Rules, the Company must consult with, and if necessary, seek advice from, the compliance adviser on a timely basis in the following circumstances:

- (a) before the publication of any regulatory announcement, circular or financial report;
- (b) where a transaction, which might be a notifiable or connected transaction, is contemplated;
- (c) where the Company proposes to use the proceeds of the Global Offering in a manner different from that detailed in this prospectus or where the Group's business activities, developments or results of operation deviate from any forecast, estimate or other information in this prospectus; and
- (d) where the Stock Exchange makes an inquiry regarding unusual movements in the price or trading volume of the Shares, the possible development of a false market in the Shares or any other matters.

The term of the appointment of the compliance adviser will commence on the Listing Date and will end on the date on which the Company distributes its annual report in respect of its financial results for the first full financial year commencing after the Listing Date.

## OTHER INFORMATION ABOUT SENIOR MANAGEMENT OF THE GROUP

As at the Latest Practicable Date, Dr Song Li and his family own 55.21% of equity interest in Frontida. Dr. Song Li is also Chairman of the board of Frontida.

We believe that Dr Li is able to perform his role in the Group independently from that in Frontida, for the following reasons:

- (a) there was no competition between our Group and Frontida during the Track Record Period and any competition between our Group and Frontida is not anticipated in the future;
- (b) Dr Li is aware of his duties to the Group which require, among other things, that he acts for the benefit and in the interest of the Group and do not allow any conflict between his duties to the Group and his personal interests, and in any event, Dr Li has specifically agreed with us that he will spend no more than twenty hours a month in respect of his role as Chairman on the board of Frontida;
- (c) our daily management and operations are carried out by a senior management team and overseen by the Directors with substantial experience, all of whom will therefore be able to make business decisions that are in the best interests of the Group;
- (d) we have three independent non-executive Directors and certain matters of the Company must always be referred to the independent non-executive Directors for review. Our independent non-executive Directors have extensive experience in corporate management and development, including in listed companies, and are appointed to ensure that our decisions are made only after due consideration of independent and impartial opinions; and
- (e) in the event that there is a potential conflict of interests between the Group and Frontida, the interested persons are required to declare the nature of such interest in respect of such transactions.

The other shareholders of Frontida (all of whom are friends or contacts of Dr Song Li) are (a) individuals who are directors, senior management members or employees of the Group (who collectively hold a 11.40% equity interest), (b) individuals who were former employees of our Group (who collectively hold a 0.91% equity interest), (c) individuals who are directors, senior management members or employees of Frontida (who collectively hold a 14.66% equity interest) and (d) certain other shareholders (all of whom are independent third parties) who collectively hold a 17.70% equity interest.

The directors, senior management members and employees of the Group who collectively hold a 11.40% equity interest in Frontida are Dr. Zhihe Li (7.52% equity interest), Zhongping (John) Lin (1.50% equity interest), Dongmei Wang (0.75% equity interest), Kang Wang (0.60% equity interest), Harry Zhao (0.53% equity interest), Abdul Mutlib (0.38% equity interest) and Arthur Hartel (0.12% equity interest). None of these directors, senior management members and employees of the Group have any involvement in the management or operations of Frontida other than Arthur Hartel who is the General Counsel and Secretary of both Frontage Labs and Frontida as an independent consultant. Arthur Hartel is not an employee of either Frontage Labs or Frontida.

#### **FUTURE PLANS**

We intend to (i) expand the scale of our operations by continuing to expand our capacities to pursue opportunities from the anticipated increase in the demand for our existing services from existing and new customers, (ii) strategically extend the range of our capabilities organically to meet the anticipated demand for new services from existing and new customers, and (iii) expand both our capacities and capabilities through the potential acquisition of, or making investments in, or entering into joint ventures with companies and/or businesses providing similar or complementary services to the services we provide or plan to provide. See "Business — Our Strategies" for a detailed description of our future plans and strategies and "— Use of Proceeds" below for a discussion of our intended use of the net proceeds from the Global Offering in pursuit of these future plans.

We believe that our expansion plans will enable us to capture new business opportunities to meet the increased demand for our services from existing and new customers, which in addition to industry drivers (that will lead to a growth in the demand for CRO services) are specific to us because of our focus on quality and technical excellence which enables us to solve complex scientific challenges and form strong, long-term partnerships with our existing and new customers. It is our emphasis on quality and technical excellence that, we believe, will enable us to capitalise on the strong growth drivers in the markets in which we operate by enabling us to generate more work from existing and new customers. Historically, we believe that our business growth has been driven by our focus on quality and technical excellence. In our discussions with our existing and prospective customers, we emphasise this approach on quality and technical excellence and seek to position ourselves as a value-add partner with the ability to understand and solve complex scientific challenges (such as challenges in drug formulation, data interpretation and bioanalysis). We believe that this approach has distinguished us from some of our competitors who focus instead on offering a variable-cost alternative to their customers' internal product development functions and supporting their customers on their more routine work. See also "Business — Our Strengths — Proven ability to deliver value-add technical expertise because of our deep pool of talented scientists and world-class facilities and equipment", "Business — Our Strengths — Effective quality management systems and strong track record of regulatory inspections" and "Business — Our Strengths — Proven success in growing our customer base and increasing customer retention".

We also anticipate increasing investments by pharmaceutical companies in the development of biologics. Accordingly, we plan to increase both our capacities and our capabilities in relation to biologics to meet the increased demand for services in relation to biologics from both existing and new customers.

We will carefully monitor our capital expenditure and acquisition plans in accordance with business needs and opportunities that arise from time to time. We do not have any definitive acquisition plan, nor have we identified or approached any acquisition target, as at the date of this prospectus.

In pursuing an acquisition opportunity, we are generally open to acquiring complete ownership of, or a controlling or minority interest in the proposed target. We consider and pursue acquisition opportunities by taking into account, among other things, the following factors: (i) the strategic rationale for the acquisition, (ii) the growth prospects of the proposed target and the alignment and

complementary nature of the target's business with our overall business and growth strategy, including the attractiveness and quality of services provided by the proposed target from the perspective of our existing and targeted customers, (iii) the anticipated synergies and returns that we expect to achieve from the acquisition, (iv) the valuation of the proposed target and accounting impact of the proposed acquisition, and (v) any expected challenges in completing the acquisition or any expected integration related challenges. See "— *Use of Proceeds*" below for a discussion of our intended use of the net proceeds from the Global Offering in pursuit of our future plans for investments and acquisitions of entities.

#### **REASONS FOR THE SPIN-OFF AND LISTING**

The spin-off and Listing will enable investors to appraise the business, prospects, and strategies of the Group independently from that of the Tigermed Group. Given the clear delineation between the Tigermed Group's business and our Group's business, the Directors have determined that our Group's risk and return profile and business strategies for growth are very different to that of the Tigermed Group. The spin-off and Listing will offer investors the opportunity to invest in a fast-growing CRO (providing laboratory and related services and bioequivalence services) with operations in both the United States and China — the two largest markets for CRO services in the world as compared to an investment in the Tigermed Group which is more focused on providing clinical trial services, registration services for drugs or medical instruments or medical devices that have successfully completed clinical trials and clinical trial support services principally in China, Korea, Japan, Malaysia, Singapore and India.

Our Directors believe that the Listing is strategically important to the long-term growth of our Group as it will help promote our reputation, strengthen our competitiveness, enable us to capture more business opportunities, access a more diversified and international shareholder base and provide us additional avenues to raise capital.

The Listing will enhance our reputation by providing us with a standalone listed group platform to directly engage with investors and customers. Reputation and credibility are major factors that customers consider when assessing our suitability for outsourcing work. Our Directors believe that the Listing will enhance our credibility, reputation and our bargaining power with our customers, suppliers and potential business partners. The Listing will also improve our ability to recruit, motivate and retain our pool of talented scientists and management personnel. The Listing will also facilitate the implementation of our growth strategy, including by enabling us to expand our capacity to meet the anticipated increased demand of our services from both existing and new customers and by enabling us to extend our range of services so that we can better serve both our existing and new customers.

Our Directors also believe that our internal controls and corporate governance practices will be enhanced on Listing — both of which will strengthen our competitiveness. Furthermore, we believe that the Listing will enable us to better position ourselves as a fast-growing CRO that intends to capitalise on China's growing outsourcing market, particularly given Hong Kong's proximity to our markets in China, which is key to our continued growth.

## **USE OF PROCEEDS**

The net proceeds from the Global Offering which the Company will receive, after deducting the underwriting commissions, the discretionary incentive fee (assuming the full payment of the discretionary incentive fee) and the estimated expenses in relation to the Global Offering (assuming the Over-allotment is not exercised), will be:

- approximately HK\$1,202.24 million, assuming an Offer Price of HK\$2.55 (being the Minimum Offer Price);
- approximately HK\$1,361.23 million, assuming an Offer Price of HK\$2.88 (being the mid-point of the Offer Price Range); or
- approximately HK\$1,515.41 million, assuming an Offer Price of HK\$3.20 (being the Maximum Offer Price).

The Company intends to use the net proceeds of HK\$1,361.23 million, assuming an Offer Price of HK\$2.88 (being the mid-point of the Offer Price Range), from the Global Offering (assuming the Over-allotment Option is not exercised) as follows:

During the Track Record Period and up to the Latest Practicable Date, we believe that each of our facilities in Exton in the United States, and Zhangjiang, Zhengzhou and Suzhou in China, were operating at or close to their maximum capacity (including in respect to the deployment of equipment and staff) and to available floor space for such equipment and staff. See "Business — Our Facilities". We need to increase the capacities in these facilities in terms of space, equipment and staff to be able to meet the anticipated demand for our existing services from both existing and new customers.

Our facility in Concord (which was recently acquired as a result of the Concord acquisition) has been operating, we believe, at well below half of its maximum capacity. In order for our facility at Concord to operate at maximum capacity, it will require substantial renovation and upgrading, as described below.

- We expect to use the allocated amount of approximately HK\$272 million (or approximately 20% of the net proceeds) within a period of 12 to 18 months from Listing towards the following anticipated expenditures as part of our plans to enhance and expand our existing capacities:
  - approximately HK\$81 million for enhancing, upgrading and expanding our existing facilities located in the United States as follows:
    - approximately HK\$34 million for the expansion and enhancement of our existing facilities in Exton, Pennsylvania within an anticipated period of six to nine months from Listing. This amount will be used to enhance our Exton, Pennsylvania facility located at 700 Pennsylvania Drive to enable the additional provision of biologics bioanalytical services. The proposed investment will enable us to expand the capacity of Exton, Pennsylvania facility located at 700

Pennsylvania Drive by approximately 50%. For a discussion on the challenges associated with CROs expanding into biologics, please see "Industry Overview — The Competitive Landscape in our Markets." We believe these additional investments in expanding our capacities will enable us to capitalise on the increasing investments by pharmaceutical companies in the development of biologics.

- approximately HK\$47 million for the renovation and upgrading of our existing facility in Concord, Ohio within an anticipated period of 12 to 18 months from Listing. The enhancement of our Concord facility will entail substantial renovations and upgrading as well outfitting it with several additional rooms for animal studies. We believe that this investment will enable us to operate the Concord facility at maximum capacity as well as allow us take on more safety and toxicology studies, especially enhanced non-human primates IND-enabling studies to meet the demand for such services from our existing and new customers.
- approximately HK\$46 million on the renovation of a new facility we plan to lease in China in Zhangjiang Hi-Tech Park, Shanghai with an approximate gross floor area of approximately 40,000 to 50,000 sq. ft. to provide our existing bioanalytical services to existing and prospective customers in China. We expect to complete the renovation of the new facility shortly after we have entered into a leasehold agreement in respect of the new facility. We have started the process of identifying appropriate sites which we can lease and expect to enter into a leasehold agreement within three to six months of Listing and will commence the renovation immediately thereafter. We expect the renovation of the new leasehold site to be complete within a period of 18 months from Listing.
- approximately HK\$39 million to enhance our systems, processes and applications for our Group's operations across the United States and China, including improving, updating and enhancing our websites, our IT security systems and our sales and finance systems.
- approximately HK\$106 million to purchase new equipment and technologies for our facilities and on recruiting additional scientists in both the United States and China. We expect to use this amount within a period of 12 to 18 months from Listing. Specifically, we intend to use:
  - approximately HK\$37 million to purchase approximately 10 mass spectrometry instruments and other equipment for use in our facilities in China and hiring approximately 20 additional technicians (at an approximate cost of HK\$10 million) to operate such equipment, including for the purposes of using the liquid chromatography/mass spectrometry technique for our studies.
  - approximately HK\$31 million to purchase additional biologics and biomarker instruments, equipment and robotics for use in our facilities in the United States and hiring approximately 25 additional technicians (at an approximate cost of HK\$15 million) to operate such equipment.

• approximately HK\$38 million to purchase additional equipment for biologics structural assessment (e.g. analytical ultracentrifugation, crystallization, hydrogen-deuterium exchange to elucidate epitome mapping) for use in our Exton, Pennsylvania facility located at 700 Pennsylvania Drive and hiring approximately 10 additional technicians (at an approximate cost of HK\$10 million) to operate such equipment.

None of this new equipment has been earmarked for specific projects in our pipeline; all new equipment purchased by us will give us increased capacity generally. Our existing employees are familiar with the proposed new equipment to be purchased for the provision of services to existing and new customers and we do not anticipate any difficulties in our ability to operate such equipment. See "Business — Our Strategies — Continue to expand capacities to meet increased demand for our services".

- approximately HK\$545 million (or approximately 40% of the net proceeds) will be used to expand and broaden our range of capabilities and services organically within a period of 12 to 18 months of Listing. We intend to use:
  - approximately HK\$176 million in the United States, of which:
    - approximately HK\$100 million will be used to expand the range of our CMC services. Specifically, we plan to offer additional CMC packages for small molecules from our facilities in the United States.
    - approximately HK\$42 million will be used to expand the range of our bioanalytical services to be able to more comprehensively conduct gene and cell-based analyses, including CAR-T and oligonucleotide-based therapeutics.

For a discussion on the challenges associated with CROs expanding into biologics, please see "Industry Overview — The Competitive Landscape in our Markets — Future opportunities and challenges in our markets." We believe these additional investments in expanding our capabilities in relation to biologics will enable us to capitalise on the increasing investments by pharmaceutical companies in the development of biologics.

- approximately HK\$34 million will be used to expand the range of our pre-clinical and toxicology services offered from our Concord facility to include radioactive synthesis to be able to conduct mass balance studies and IND-enabling studies in large animals.
- approximately HK\$369 million in China, of which:
  - approximately HK\$171 million will be used to offer (in collaboration with a partner with existing facilities to conduct animal testing) services for pre-clinical IND-enabling studies for small molecule and biologic asset development. We have identified a few potential partners and aim to engage in discussions with them shortly after Listing.

• approximately HK\$198 million will be used to offer (in collaboration with a partner) drug discovery and DMPK services in China and to enhance our biologics bioanalytical capabilities in China. We have identified a few potential partners and aim to engage in discussions with them shortly after Listing. We have also initiated the process of engaging external consultants to conduct market research, including market size, competitive landscape and key growth drivers in relation to the provision of these services in China. See "Business — Our Strategies — Strategically extend the range of our services to offer our customers more integrated solutions through organic growth and potential acquisitions".

In relation to each of these new services, we anticipate an initial ramp-up period of 12 to 18 months where the increase in our costs may outpace the increase in revenue resulting from these services. See also "Risk Factors — Risks Relating to our Business and Industry — If we fail to effectively manage our anticipated growth or execute on our growth strategies, our business, financial condition and results of operations could suffer".

- approximately HK\$408 million (or approximately 30% of the net proceeds) will be used to expand our capacity and/or capabilities through potential acquisitions of companies and/or businesses providing relevant services that we identify as attractive based on our future expansion plan and analysis of the relevant market dynamics, strategic alliances as well as additional investments in our existing associate companies. Such acquisitions, alliances or investments will be to expand our capacity to meet the anticipated increased demand for our existing services, or to expand our range of capabilities a combination of both. In particular, we anticipate making the following investments or completing the following acquisitions within a period of two years of Listing:
  - acquiring or entering into a joint venture with a biologics bioanalytical entity in the United States entailing an investment of approximately HK\$217 million. We intend to engage external consultants to assist us with identifying potential targets/ joint venture partners upon Listing.
  - investments in an amount of approximately HK\$42 million in connection with entering into a strategic alliance with a central laboratory with a worldwide presence to extend the reach of our services beyond the United States and China. We expect the strategic alliance to enable us to provide our services in the European market, initially with bioanalysis for pharmacokinetics of small and large molecules as well as biomarkers. We have recently identified a potential strategic alliance partner and intend to enter into discussions with it upon Listing.
  - investments in an amount of approximately HK\$91 million in connection with establishing a joint venture with an established biologics contract development and manufacturing organisation for the provision of services in both the United States and China. We have recently identified a few potential joint venture partners.

- acquiring or entering into a joint venture with an organic synthesis or drug discovery organisation in China entailing an investment of approximately HK\$58 million. We intend to engage external consultants to assist us with identifying potential targets/ joint venture partners upon Listing.
- approximately HK\$136 million (or approximately 10% of the net proceeds) will be used for working capital and general corporate purposes including, in particular to enhance our general systems, operations, and processes across our business.

In the event that the Offer Price is fixed at a higher or lower level compared to the mid-point of the Offer Price Range, the net proceeds will be allocated to the above purposes on a pro rata basis.

If the Over-allotment is exercised in full, the additional net proceeds which the Company will receive, after deducting underwriting commissions, the discretionary incentive fee (assuming the full payment of the discretionary incentive fee) and the estimated expenses in relation to the Global Offering, will be:

- approximately HK\$184.29 million, assuming an Offer Price of HK\$2.55 (being the Minimum Offer Price);
- approximately HK\$208.13 million, assuming an Offer Price of HK\$2.88 (being the mid-point of the Offer Price Range); or
- approximately HK\$231.26 million, assuming an Offer Price of HK\$3.20 (being the Maximum Offer Price).

The additional net proceeds will be allocated to the above purposes on a pro rata basis.

Pending the deployment of the net proceeds from the Global Offering as described above, the Company intends to deposit such net proceeds into short-term interest bearing deposits and/or money market instruments.

# **CORNERSTONE INVESTORS**

## **CORNERSTONE INVESTMENTS**

As part of the International Offering, the Company has entered into cornerstone investment agreements with three cornerstone investors, details of which are set out below (together, the "Cornerstone Investors").

The Cornerstone Investors have agreed to subscribe at the Offer Price for such number of Offer Shares (rounded down to the nearest board lot of 2,000 Shares) that may be subscribed for an aggregate amount of approximately HK\$667,122,500.

Assuming an Offer Price of HK\$2.55, being the Minimum Offer Price, the Cornerstone Investors have agreed to subscribe for an aggregate of 261,612,000 Offer Shares, representing (a) approximately 13.03% of the total Shares in issue and approximately 52.12% of the total number of Offer Shares, in each ease immediately following the completion of the Global Offering and the Capitalisation Issue and assuming the Over-allotment Option is not exercised and (b) approximately 12.56% of the total number of Shares in issue and approximately 45.32% of the total number of Offer Shares, in each case immediately following the completion of the Global Offering and the Capitalisation Issue and assuming the Over-allotment Option is not exercised in full.

Assuming an Offer Price of HK\$2.88, being the mid-point of the Offer Price Range, the Cornerstone Investors have agreed to subscribe for an aggregate of 231,634,000 Offer Shares, representing (a) approximately 11.54% of the total Shares in issue and approximately 46.15% of the total number of Offer Shares, in each case immediately following the completion of the Global Offering and the Capitalisation Issue and assuming the Over-allotment Option is not exercised and (b) approximately 11.12% of the total number of Shares in issue and approximately 40.13% of the total number of Offer Shares, in each case immediately following the completion of the Global Offering and the Capitalisation Issue and assuming the Over-allotment Option is not exercised and the Capitalisation Issue and assuming the Completion of the Global Offering and the Capitalisation Issue and assuming the Completion of the Global Offering and the Capitalisation Issue and assuming the Over-allotment Option is exercised in full.

Assuming an Offer Price of HK\$3.20, being the Maximum Offer Price, the Cornerstone Investors have agreed to subscribe for an aggregate of 208,472,000 Offer Shares, representing (a) approximately 10.38% of the total Shares in issue and approximately 41.54% of the total number of Offer Shares, in each case immediately following the completion of the Global Offering and the Capitalisation Issue and assuming the Over-allotment Option is not exercised and (b) approximately 10.01% of the total number of Shares in issue and approximately 36.12% of the total number of Offer Shares, in each case immediately following the completion of the Global Offering and the Capitalisation Issue and assuming the Over-allotment Option is not exercised and the Capitalisation Issue and assuming the Completion of the Global Offering and the Capitalisation Issue and assuming the Over-allotment Option is exercised in full.

The Offer Shares to be delivered to each of the Cornerstone Investors pursuant to the relevant cornerstone investment agreements will rank *pari passu* with all other Shares then in issue and to be listed on the Stock Exchange and will count towards the public float of the Shares.

# **CORNERSTONE INVESTORS**

Save for the Cornerstone Investors which are close associates of HH RSV FTL Holdings Limited and OrbiMed Global Healthcare Master Fund, L.P., which are existing Shareholders, respectively, (a) each Cornerstone Investor is an independent third party, is not a connected person of the Company and is not an existing Shareholder and (b) immediately following the completion of the Global Offering and the Capitalisation Issue, none of the Cornerstone Investors will become a substantial shareholder of the Company.

The Cornerstone Investor (a) will not have any representation on the Board immediately following the completion of the Global Offering and the Capitalisation Issue, (b) will not subscribe for any Offer Shares pursuant to the Global Offering, other than pursuant to the relevant cornerstone investment agreements and (c) do not have any preferential rights compared with other public shareholders in their respective cornerstone investment agreements.

The Offer Shares to be subscribed by the Cornerstone Investors may be affected by any reallocation of the Offer Shares between the International Offering and the Hong Kong Public Offering in the event of over-subscription under the Hong Kong Public Offering as described in the section headed "Structure of the Global Offering — The Hong Kong Public Offering — Reallocation". Details of the allocations to the Cornerstone Investors will be disclosed in the announcement of results of allocations to be published on May 29, 2019.

			Based on the Offer Price of HK\$2.55 (being the Minimum Offer Price)				
					te % of total Offer Shares	Shares in issu following the the Global Of	te % of total ne immediately completion of fering and the ation Issue
Cornerstone Investor	Investment Amount	Number of Offer Shares to be Subscribed (rounded down to nearest whole board lot of 2,000 Shares)	Assuming the Over-allotment Option is not exercised	Assuming the Over-allotment Option is exercised in full	Assuming the Over-allotment Option is not exercised	Assuming the Over-allotment Option is exercised in full	
Gaoling Fund, L.P. and YHG Investment, L.P Worldwide Healthcare	US\$50,000,000 <sup>(1)</sup> (HK\$392,425,000) US\$15,000,000	153,890,000 <sup>(1)</sup>	30.66%	26.66%	7.67%	7.39%	
Trust PLC	(HK\$117,727,500)	46,166,000	9.20%	8.00%	2.30%	2.22%	
Greenwoods Asset Management Limited .	US\$20,000,000 (HK\$156,970,000)	61,556,000	12.26%	10.66%	3.07%	2.96%	
Total	US\$85,000,000 (HK\$667,122,500)	261,612,000	52.12%	45.32%	13.03%	12.56%	

# DETAILS OF THE CORNERSTONE INVESTORS

Note:

(1) Gaoling agreed to subscribe for the number of Shares equal to US\$46,950,000 (HK\$368,487,075) divided by the Offer Price and YHG agreed to subscribe for the number of Shares equal to US\$3,050,000 (HK\$23,937,925) divided by the Offer Price, each rounded down to the nearest whole board lot of 2,000 Shares.

			Based on the Offer Price of HK\$2.88 (being the mid-point of the Offer Price Rang				
			••	e % of total Offer Shares	Shares in issu following the the Global Of	e % of total e immediately completion of fering and the ation Issue	
Cornerstone Investor	Investment Amount	Number of Offer Shares to be Subscribed (rounded down to nearest whole board lot of 2,000 Shares)	Assuming the Over-allotment Option is not exercised	Assuming the Over-allotment Option is exercised in full	Assuming the Over-allotment Option is not exercised	Assuming the Over-allotment Option is exercised in full	
Gaoling Fund, L.P. and YHG Investment, L.P Worldwide Healthcare	US\$50,000,000 <sup>(1)</sup> (HK\$392,425,000) US\$15,000,000	136,256,000 <sup>(1)</sup>	27.15%	23.61%	6.79%	6.54%	
Trust PLC	(HK\$117,727,500) US\$20,000,000	40,876,000	8.14%	7.08%	2.04%	1.96%	
Management Limited .	(HK\$156,970,000)	54,502,000	10.86%	9.44%	2.71%	2.62%	
Total	US\$85,000,000 (HK\$667,122,500)	231,634,000	46.15%	40.13%	11.54%	11.12%	

Note:

<sup>(1)</sup> Gaoling agreed to subscribe for the number of Shares equal to US\$46,950,000 (HK\$368,487,075) divided by the Offer Price and YHG agreed to subscribe for the number of Shares equal to US\$3,050,000 (HK\$23,937,925) divided by the Offer Price, each rounded down to the nearest whole board lot of 2,000 Shares.

			Based on the Offer Price of HK\$3.20 (being the Maximum Offer Price)			
		Approxima Shares in iss following the Approximate % of total the Global O		e % of total the immediately completion of fering and the ation Issue		
Cornerstone Investor	Investment Amount	Number of Offer Shares to be Subscribed (rounded down to nearest whole board lot of 2,000 Shares)	Assuming the Over-allotment Option is not exercised	Assuming the Over-allotment Option is exercised in full	Assuming the Over-allotment Option is not exercised	Assuming the Over-allotment Option is exercised in full
Gaoling Fund, L.P. and YHG Investment, L.P	US\$50,000,000 (HK\$392,425,000)	122,632,000	24.43%	21.25%	6.11%	5.89%
Worldwide Healthcare Trust PLC	US\$15,000,000 (HK\$117,727.500)	36,788,000	7.33%	6.37%	1.83%	1.77%
Greenwoods Asset Management Limited .	US\$20,000,000 (HK\$156,970,000)	49,052,000	9.77%	8.50%	2.44%	2.35%
Total	US\$85,000,000 (HK\$667,122,000)	208,472,000	41.54%	36.12%	10.38%	10.01%

Note:

#### Information about Gaoling Fund, L.P. and YHG Investment, L.P.

Gaoling Fund, L.P. and YHG Investment, L.P. are limited partnerships formed under the laws of the Cayman Islands. Hillhouse Capital Advisors, Ltd. ("Hillhouse Capital") serves as the sole investment manager of Gaoling Fund, L.P. and the general partner of YHG Investment, L.P..

HH RSV FTL Holdings Limited is a company limited by shares incorporated under the laws of the Cayman Islands. Hillhouse Capital Management, Ltd. controls the shareholder of HH RSV FTL Holdings Limited and 100% of the voting rights of HH RSV FTL Holdings Limited. HH RSV FTL Holdings Limited is mainly engaged in investment holding. HH RSV FTL Holdings Limited is a Pre-IPO Investor. As of the date of this prospectus, HH RSV FTL Holdings Limited holds approximately 1.33% of the total issued and outstanding Shares. See "History, Reorganisation and Corporate Structure — Pre-IPO Investments — Information on the Pre-IPO Investors" for further details.

<sup>(1)</sup> Gaoling agreed to subscribe for the number of Shares equal to US\$46,950,000 (HK\$368,487,075) divided by the Offer Price and YHG agreed to subscribe for the number of Shares equal to US\$3,050,000 (HK\$23,937,925) divided by the Offer Price, each rounded down to the nearest whole board lot of 2,000 Shares.

Founded in 2005, Hillhouse Capital is a global firm of investment professionals and operating executives who are focused on building and investing in high quality business franchises that achieve sustainable growth. Independent proprietary research and industry expertise, in conjunction with world-class operating and management capabilities, are key to Hillhouse Capital's investment approach. Hillhouse Capital partners with exceptional entrepreneurs and management teams to create value, often with a focus on enacting innovation and technological transformation. Hillhouse Capital invests in the healthcare, consumer, TMT, advanced manufacturing, financials and business services sectors in companies across all equity stages. Hillhouse Capital and its group members manage assets on behalf of institutional clients such as university endowments, foundations, sovereign wealth funds, and family offices.

#### Information about Worldwide Healthcare Trust PLC

Worldwide Healthcare Trust PLC is a closed-end fund incorporated in the United Kingdom and whose portfolio is managed by OrbiMed Capital LLC ("**OrbiMed Capital**"). OrbiMed Capital is an investment firm dedicated exclusively to the healthcare sector. OrbiMed Capital invests globally across a spectrum of healthcare companies, from venture capital start-ups to large multinational companies. OrbiMed Capital manages a series of private equity funds, public equity funds, royalty/debt funds and other investment vehicles.

OrbiMed Global Healthcare Master Fund, L.P. is an exempted limited partnership incorporated under the laws of the Cayman Islands. It is a pooled-investment fund with OrbiMed Advisors LLC acting as the investment manager. Being the managing member of the general partner of OrbiMed Global Healthcare Master Fund, L.P., OrbiMed Advisors LLC is the ultimate controlling entity of OrbiMed Global Healthcare Master Fund, L.P. OrbiMed Global Healthcare Master Fund, L.P. is a Pre-IPO Investor. OrbiMed Advisors LLC and OrbiMed Capital are under common control of Sven Borho, Carl Gordon and Jonathan Silverstein. See "History, Reorganisation and Corporate Structure — Pre-IPO Investments — Information on the Pre-IPO Investors". As of the date of this prospectus, OrbiMed Global Healthcare Master Fund, L.P. holds 1.00% of the total issued and outstanding Shares.

#### Information about Greenwoods Asset Management Limited

Greenwoods Asset Management Limited ("Greenwoods") is an exempted company incorporated in Cayman Islands with limited liability. Greenwoods manages several funds and accounts, among which Greenwoods China Healthcare Master Fund is focused on investments in companies in the healthcare sector. The track record of Golden China Fund, the first fund managed by Greenwoods, started from July 2004. Investors of funds and accounts managed by Greenwoods include institutional investors such as sovereign wealth funds, pensions, university endowments, banks, family offices and high net worth individuals worldwide.

#### **CONDITIONS PRECEDENT**

The obligation of each Cornerstone Investor to subscribe, and the obligation of the Company to issue and deliver, the Offer Shares pursuant to the relevant cornerstone investment agreement is conditional upon the following:

- (a) the Underwriting Agreements being entered into and having become unconditional (in accordance with their respective original terms or as subsequently waived or varied by agreement of the parties thereto) by no later than the time and date as specified in the Underwriting Agreements or as subsequently waived or varied by agreement of the parties thereto;
- (b) neither of the Underwriting Agreements having been terminated;
- (c) no laws having been enacted or promulgated by any governmental authority which prohibits the consummation of the transactions contemplated in the Global Offering or the subscription of the Offer Shares under the relevant cornerstone investment agreement and there being no order or injunction of a court of competent jurisdiction in effect which precludes or prohibits the consummation of such transactions;
- (d) the Listing Committee of the Stock Exchange granting the listing of, and permission to deal in, the Shares and such approval or permission not having been revoked prior to the commencement of dealings in the Shares on the Stock Exchange;
- (e) the representations, warranties, undertakings and confirmations of the relevant Cornerstone Investor in the relevant cornerstone investment agreement remaining true and accurate in all material respects and there being no material breach of the relevant cornerstone investment agreement on the part of the relevant Cornerstone Investor;
- (f) (in relation to Worldwide Healthcare Trust PLC) the representations, warranties, undertakings and confirmations of the Company in the relevant cornerstone investment agreement remaining true and accurate in all material respects and there being no material breach of the relevant cornerstone investment agreement on the part of the relevant Cornerstone Investor; and
- (g) (in relation to (i) Gaoling Fund, L.P. and YHG Investment, L.P. and (ii) Worldwide Healthcare Trust PLC) the Stock Exchange granting the waiver from strict compliance with Rule 10.04 and the consent under paragraph 5(2) of Appendix 6 of the Listing Rules in respect of their Offer Shares and such waiver or consent not having been revoked prior to the commencement of dealings in the Shares on the Stock Exchange.

#### **RESTRICTIONS ON DISPOSAL OF SHARES BY THE CORNERSTONE INVESTORS**

Each Cornerstone Investor has agreed that without the prior written consent of the Company, it will not, whether directly or indirectly, at any time during the period of six months commencing from and including the Listing Date, dispose of any of the Shares subscribed for by it pursuant to the relevant cornerstone investment agreement and any interest in any Shares or any other securities of the Company which are derived therefrom (the "**Relevant Shares**") or any interest in any company or entity holding any of the Relevant Shares.

Each Cornerstone Investor may transfer the Relevant Shares in certain limited circumstances as set out in the relevant cornerstone investment agreement, such as a transfer to a wholly-owned subsidiary of such Cornerstone Investor, provided that prior to such transfer, such wholly-owned subsidiary undertakes to be bound by such Cornerstone Investor's obligations under the relevant cornerstone investment agreement and be subject to the restrictions on disposal of Relevant Shares imposed on such Cornerstone Investor.

In preparation of the Global Offering, the Company has sought the following waivers from strict compliance with the relevant provisions of the Listing Rules and exemption from strict compliance with the relevant provisions of the Companies (WUMP) Ordinance:

## 1. Waiver in Relation to Non-Exempt Continuing Connected Transactions

Certain members of the Group have entered into certain transactions which will constitute continuing connected transactions of the Company under the Listing Rules following the completion of the Global Offering. The Company has applied to the Stock Exchange for, and the Stock Exchange has granted, a waiver from strict compliance with the announcement and, where applicable, independent shareholders' approval requirements in respect of such continuing connected transactions under Chapter 14A of the Listing Rules. For further details of such continuing connected transactions and the waiver, please see "Connected Transactions — Waiver Application for Continuing Connected Transactions".

## 2. Waiver in respect of Management Presence in Hong Kong

Pursuant to Rule 8.12 of the Listing Rules, all applicants applying for a primary listing on the Stock Exchange must have a sufficient management presence in Hong Kong. This will normally means that at least two of the executive directors of the listing applicant must be ordinarily resident in Hong Kong.

The Group's principal business operations are located in the United States and the PRC. The Group's headquarters, principal place of business, Directors and senior management are all based in the United States and the PRC and the Group believes it is more effective and efficient for the Directors and senior management to be based in a location where the Group has significant operations.

Accordingly, the Company has applied to the Stock Exchange for, and the Stock Exchange has granted, a waiver from strict compliance with the requirements under Rule 8.12 of the Listing Rules, provided that the Company will ensure there is an effective channel of communication between the Stock Exchange and the Company by way of the following arrangements:

- (i) the Company has designated Dr Zhihe Li and Ms Karen Ying Lung Chang as its authorised representatives who will be the principal channel of communication with the Stock Exchange on behalf of the Company and will make themselves available to communicate with the Stock Exchange. Both Dr Zhihe Li and Ms Karen Ying Lung Chang will be readily available for meetings with the Stock Exchange in person, if necessary, and will be readily contactable by the Stock Exchange by telephone, facsimile and email, if necessary, to deal with enquiries from the Stock Exchange from time to time;
- (ii) all Directors who are not ordinarily resident in Hong Kong possess or can apply for valid travel documents to visit Hong Kong and can meet with the Stock Exchange within a reasonable period. In addition, each Director has provided his contact details, such as

mobile phone numbers, office phone numbers, email addresses and fax numbers, to the authorised representatives and to the Stock Exchange. This will ensure that each of the authorised representatives and the Stock Exchange will have the means to contact all of the Directors (including the independent non-executive Directors) promptly as and when required and when the Stock Exchange wishes to contact the Directors on any matters; and

(iii) the Company has retained the services of Somerley Capital Limited to be its compliance adviser in compliance with Rule 3A.19 of the Listing Rules. The compliance adviser will, among other things, act as an additional channel of communication with the Stock Exchange in addition to the authorised representatives of the Company. The Company will ensure that there are adequate and efficient means of communication among itself, its authorised representatives, Directors, other officers, and the compliance adviser.

#### 3. Waiver and Exemption in relation to the Pre-IPO Share Incentive Plans

Under Rule 17.02(1)(b) of, and paragraph 27 of Appendix 1A to, the Listing Rules, and paragraph 10 of Part I of the Third Schedule to the Companies (Winding Up and Miscellaneous Provisions) Ordinance, this prospectus is required to include, among other things, details of the number, description and amount of any Shares in or debentures of our Company which any person has, or is entitled to be given, an option to subscribe for, together with certain particulars of each option, namely the period during which it is exercisable, the price to be paid for Shares or debentures subscribed for under it, the consideration (if any) given or to be given for it or for the right to it, the names and addresses of the persons to whom it was given, and their potential dilution effect of the shareholding upon listing as well as the impact on the earnings per share arising from the exercise of such outstanding options (the "Share Option Disclosure Requirements"). According to the Guidance Letter HKEx-GL11-09 (July 2009) (updated in March 2014), the Stock Exchange would normally grant waivers from disclosing names and addresses of certain grantees if the issuer could demonstrate that such disclosures would be irrelevant and mainly burdensome, subject to certain conditions specified therein.

As at the Latest Practicable Date, the Company has granted options under Pre-IPO Share Incentive Plans to 89 grantees, including employees, executives, directors and officers of our Group and its affiliates, to subscribe for an aggregate of 11,700,000 Shares (before adjustment for the Capitalisation Issue), representing 5.83% of the total number of Shares in issue immediately after completion of Global Offering and the Capitalisation Issue (assuming the Over-allotment Option is not exercised, the awards granted under the Pre-IPO Share Incentive Plans are not exercised and no awards are granted under the 2018 Share Incentive Plan), on the terms set out in the section headed "Statutory and General Information — Pre-IPO Share Incentive Plans" in Appendix V to this prospectus.

The Company has applied to the Stock Exchange and the SFC for: (i) a waiver from strict compliance with the applicable Share Option Disclosure Requirements; and (ii) a certificate of exemption under section 342A of the Companies (Winding Up and Miscellaneous Provisions)

Ordinance exempting the Company from strict compliance with the applicable Share Option Disclosure Requirements, respectively, on the ground that the exemption will not prejudice the interest of the investing public and strict compliance with the above requirements would be unduly burdensome for our Company for the following reasons:

- (a) given that 89 grantees are involved, strict compliance with such disclosure requirements in setting out full details of the grantees under the Pre-IPO Share Incentive Plans in this prospectus on an individual basis would be costly and unduly burdensome for the Company in light of a significant increase in cost and time for information compilation, preparation, and printing;
- (b) as of the Latest Practicable Date, among all the grantees, two are Directors and six are senior management of the Group and the remaining 81 grantees are only employees of the Group and its affiliates. Strict compliance with the applicable Share Option Disclosure Requirements to disclose names, addresses, and entitlements on an individual basis in this document will require a substantial volume of additional disclosure that does not provide any material information to the investing public;
- (c) material information relating to the options under the Pre-IPO Share Incentive Plans will be disclosed in this prospectus, including the total number of Shares subject to the Pre-IPO Share Incentive Plans, the exercise price per share, the potential dilution effect on shareholding, and the impact on the earnings per share upon the full exercise of the options granted under the Pre-IPO Share Incentive Plans; and
- (d) adoption of alternative disclosure regarding the Pre-IPO Share Incentive Plans would not prevent the Company from providing its potential investors with an informed assessment of the activities, assets, liabilities, financial position, management and prospects of the Company.

The Stock Exchange has granted us a waiver under the Listing Rules on the conditions that:

- (a) full details of the options under the Pre-IPO Share Incentive Plans granted to each of our Directors, members of the senior management of the Group, connected persons of the Company and other grantees who have been granted options to subscribe for 200,000 Shares (before adjustment for the Capitalisation Issue) of the Company or more will be disclosed in "Appendix V Statutory and General Information Pre-IPO Share Incentive Plans", on an individual basis, as required under the applicable Share Option Disclosure Requirements;
- (b) for the remaining grantees (being the other grantees who are not Directors, members of the senior management of the Group, connected persons of the Company or other grantees who have been granted options to subscribe for 200,000 Shares (before adjustment for the Capitalisation Issue) of the Company or more), disclosure will be made, on an aggregate

basis, of (1) the aggregate number of grantees and the number of Shares underlying the options under the Pre-IPO Share Incentive Plans, (2) the consideration (if any) paid for the grant of the options under the Pre-IPO Share Incentive Plans, and (3) the exercise period and the exercise price for the options granted under the Pre-IPO Share Incentive Plans;

- (c) there will be disclosure in this prospectus for the aggregate number of Share underlying the options under the Pre-IPO Share Incentive Plans and the percentage of our Company's total issued share capital represented by such number of Shares as of the Latest Practicable Date;
- (d) the dilution effect and impact on earnings per Share upon full exercise of the options under the Pre-IPO Share Incentive Plans will be disclosed in "Appendix V Statutory and General Information Pre-IPO Share Incentive Plans";
- (e) a summary of the major terms of the Pre-IPO Share Incentive Plans will be disclosed in "Appendix V — Statutory and General Information — Pre-IPO Share Incentive Plans";
- (f) a full list of all the grantees (including those persons whose details have already been disclosed in this prospectus) under the Pre-IPO Share Incentive Plans, containing all the particulars as required under the applicable Share Option Disclosure Requirements, will be made available for public inspection as detailed in "Appendix VI — Documents Delivered to the Registrar of Companies and Available for Inspection";
- (g) the grant of a certificate of exemption under the Companies (Winding Up and Miscellaneous Provisions) Ordinance from the SFC exempting the Company from paragraph 10 of Part I of the Third Schedule to the Companies (Winding Up and Miscellaneous Provisions) Ordinance; and
- (h) the particulars of the waiver will be disclosed in this prospectus.

The SFC has granted to our Company the certificate of exemption under section 342A of the Companies (Winding Up and Miscellaneous Provisions) Ordinance, exempting the Company from strict compliance with paragraph 10(d) of Part I of the Third Schedule to the Companies (Winding Up and Miscellaneous Provisions) Ordinance, on the conditions that:

(a) full details of the options under the Pre-IPO Share Incentive Plans granted to each of our Directors, members of the senior management of the Group, connected persons of the Company and other grantees who have been granted options to subscribe for 200,000 Shares (before adjustment for the Capitalisation Issue) of the Company or more will be disclosed in "Appendix V — Statutory and General Information — Pre-IPO Share Incentive Plans", on an individual basis, as required by paragraph 10 of Part I of the Third Schedule to the Companies (Winding Up and Miscellaneous Provisions) Ordinance;

- (b) for the remaining grantees (being the other grantees who are not Directors, members of the senior management of the Company, connected persons of the Company or other grantees who have been granted options to subscribe for 200,000 Shares (before adjustment for the Capitalisation Issue) of the Company or more), disclosure will be made, on an aggregate basis, of (1) the aggregate number of grantees and the number of Shares underlying the options under the Pre-IPO Incentive Plans (2) the consideration (if any) paid for the grant of the options under the Pre-IPO Share Incentive Plans, and (3) the exercise period and the exercise price for the options granted under the Pre-IPO Share Incentive Plans;
- (c) a full list of all grantees (including those persons whose details have already been disclosed in this prospectus) under the Pre-IPO Share Incentive Plans, containing all the particulars as required under paragraph 10 of Part I of the Third Schedule to the Companies (Winding Up and Miscellaneous Provisions) Ordinance, will be made available for public inspections as detailed in "Appendix VI — Documents Delivered to the Registrar of Companies and Available for Inspection"; and
- (d) the particulars of the exemption will be disclosed in this prospectus, and the Company's prospectus will be issued on or before May 17, 2019.

Further details of the Pre-IPO Share Incentive Plans are set forth in "Appendix V — Statutory and General Information — Pre-IPO Share Incentive Plans".

# ALLOCATION OF SHARES TO EXISTING SHAREHOLDERS AND THEIR CLOSE ASSOCIATES

Rules 10.03(1), 10.03(2) and 10.04 of the Listing Rules provide that a person who is an existing shareholder of the issuer may only subscribe for or purchase securities for which listing is sought which are being marketed by or on behalf of a new applicant either in his or its own name or through nominees if the following conditions are fulfilled: (i) no securities are to be offered to the existing shareholders on a preferential basis and no preferential treatment is given to them in the allocation of the securities; and (ii) the minimum prescribed percentage of public shareholders required by Rule 8.08(1) of the Listing Rules is achieved.

Paragraph 5(2) of Appendix 6 to the Listing Rules provides, among other matters, that unless with the prior written consent of the Stock Exchange, no allocations will be permitted to directors or existing shareholders of the applicant or their close associates, whether in their own names or through nominees unless the conditions set out in Rules 10.03 and 10.04 of the Listing Rules are fulfilled.

The Company has applied to the Stock Exchange for, and the Stock Exchange has granted, a waiver from strict compliance with the requirements under Rule 10.04 of the Listing Rules, and its consent under paragraph 5(2) of Appendix 6 to the Listing Rules to permit the Company to allocate the Offer Shares in the International Offering (1) to Gaoling Fund, L.P. and YHG Investment, L.P. and

Worldwide Healthcare Trust PLC, which are close associates of existing Shareholders, as cornerstone investors and (2) to certain existing Shareholders and their close associates as placees (collectively, the "**Participating Shareholders**"), subject to the following conditions:

- (a) each Participating Shareholder is interested in less than 5% of the issued Shares in the Company prior to the Listing;
- (b) the Participating Shareholders and their close associates are not, and will not be, core connected persons of the Company or any close associate of any such core connected person immediately prior to or following the completion of the Global Offering and the Capitalisation Issue;
- (c) the Participating Shareholders have no right to appoint directors of the Company and do not have other special rights in the Company;
- (d) allocation of Shares to the Participating Shareholders or their close associates will not affect the Company's ability to satisfy the public float requirement under Rule 8.08 of the Listing Rules;
- (e) each of the Company, the Joint Bookrunners and the Joint Sponsors has confirmed to the Stock Exchange in writing that no preferential treatment has been, nor will be, given to the Participating Shareholders and their close associates by virtue of their relationship with the Company in any allocation of Shares in the International Offering; and
- (f) the relevant information in respect of the allocation of Shares to the Participating Shareholders or their close associates will be disclosed in the allotment results announcement.

Further details of the cornerstone investments of Gaoling Fund L.P. and YHG Investment, L.P. and Worldwide Healthcare Trust PLC are set out in "*Cornestone Investors*".

#### HONG KONG UNDERWRITERS

Merrill Lynch (Asia Pacific) Limited Goldman Sachs (Asia) L.L.C. CLSA Limited Haitong International Securities Company Limited

## UNDERWRITING

This prospectus is published solely in connection with the Hong Kong Public Offering. The Hong Kong Public Offering is fully underwritten by the Hong Kong Underwriters on a conditional basis. The International Offering is expected to be fully underwritten by the International Underwriters. If, for any reason, the Offer Price is not agreed between the Joint Global Coordinators (on behalf of the Underwriters) and the Company, the Global Offering will not proceed and will lapse.

The Global Offering comprises the Hong Kong Public Offering of initially 50,192,000 Hong Kong Offer Shares and the International Offering of initially 451,718,000 International Offer Shares, subject, in each case, to reallocation on the basis as described in "*Structure of the Global Offering*" as well as to the Over-allotment Option (in the case of the International Offering).

## UNDERWRITING ARRANGEMENTS AND EXPENSES

## Hong Kong Public Offering

#### Hong Kong Underwriting Agreement

The Hong Kong Underwriting Agreement was entered into on May 16, 2019. Pursuant to the Hong Kong Underwriting Agreement, the Company is offering the Hong Kong Offer Shares for subscription on the terms and conditions set out in this prospectus, the Application Forms and the Hong Kong Underwriting Agreement at the Offer Price.

Subject to (a) the Listing Committee granting approval for the listing of, and permission to deal in, the Shares in issue and to be issued pursuant to the Global Offering and the Capitalisation Issue and the Shares to be issued pursuant to the awards granted under the Pre-IPO Share Incentive Plans and the awards to be granted under the 2018 Share Incentive Plan on the Main Board of the Stock Exchange and such approval not having been withdrawn and (b) certain other conditions set out in the Hong Kong Underwriting Agreement, the Hong Kong Underwriters have agreed severally but not jointly to procure subscribers for, or themselves to subscribe for, their respective applicable proportions of the Hong Kong Offer Shares being offered which are not taken up under the Hong Kong Public Offering on the terms and conditions set out in this prospectus, the Application Forms and the Hong Kong Underwriting Agreement.

The Hong Kong Underwriting Agreement is conditional on, among other things, the International Underwriting Agreement having been executed and becoming unconditional and not having been terminated in accordance with its terms.

## Grounds for Termination

The Joint Sponsors and the Joint Global Coordinators (for themselves and on behalf of the Hong Kong Underwriters) shall be entitled by notice (orally or in writing) to the Company to terminate this Agreement with immediate effect if, at any time prior to 8:00 a.m. on the Listing Date:

- (i) there shall develop, occur, exist or come into effect:
  - (a) any local, national, regional or international event or circumstance in the nature of force majeure (including, without limitation, any acts of government, declaration of a national or international emergency or war, calamity, crisis, epidemic, pandemic, outbreak of disease, economic sanctions, strikes, lock-outs, fire, explosion, flooding, earthquake, volcanic eruption, civil commotion, riots, public disorder, acts of war, outbreak or escalation of hostilities (whether or not war is declared), acts of God or acts of terrorism) in or affecting the Cayman Islands, Hong Kong, the PRC, the United States (including but not limited to Pennsylvania, Delaware or New Jersey), the United Kingdom or the European Union (collectively, the "Relevant Jurisdictions"); or
  - (b) any change, or development involving a prospective change (whether or not permanent), or any event or circumstance likely to result in any change or development involving a prospective change, in any local, national, regional or international financial, economic, political, military, industrial, fiscal, regulatory, currency, credit or market conditions (including, without limitation, conditions in the stock and bond markets, money and foreign exchange markets, investment markets, the interbank markets and credit markets) in or affecting any Relevant Jurisdictions; or
  - (c) any moratorium, suspension or restriction (including, without limitation, any imposition of or requirement for any minimum or maximum price limit or price range) in or on trading in securities generally on the Stock Exchange, the Shanghai Stock Exchange, the Shenzhen Stock Exchange, the New York Stock Exchange, the NASDAQ Global Market and the London Stock Exchange; or
  - (d) any moratorium, suspension or restriction (including, without limitation, any imposition of or requirement for any minimum or maximum price limit or price range) in or on trading in any securities of Hangzhou Tigermed; or
  - (e) any general moratorium on commercial banking activities in the Cayman Islands, Hong Kong (imposed by the Financial Secretary or the Hong Kong Monetary Authority or other competent authority), the PRC, New York (imposed at U.S. Federal or New York State level or other competent authority), the United States, the United Kingdom, the European Union (or any member thereof), or any disruption in commercial banking or foreign exchange trading or securities settlement or clearance services, procedures or matters in any of the Relevant Jurisdictions; or

- (f) any new law, or any change or any development involving a prospective change or any event or circumstance likely to result in a change or a development involving a prospective change in (or in the interpretation or application by any court or other competent authority of) existing laws, in each case, in or affecting any of the Relevant Jurisdictions; or
- (g) the imposition of economic sanctions, or withdrawal of trading privileges, in whatever form, directly or indirectly, in any of the Relevant Jurisdictions applicable to the business operations of the Group; or
- (h) a change or development involving a prospective change in or affecting Taxes or exchange control, currency exchange rates or foreign investment regulations (including, without limitation, a material devaluation of the Hong Kong dollar or the Renminbi against any foreign currencies), or the implementation of any exchange control, in any of the Relevant Jurisdictions; or
- (i) any litigation, actions, writs, suits and proceedings (including any investigation or inquiry by or before any authority) and claims (whether or not any such claim involves or results in any action, suit or proceeding) of any third party being threatened or instigated against any member of the Group; or
- (j) a contravention by any member of the Group of the Listing Rules or applicable laws; or
- (k) any change or development or event involving a prospective change, or a materialization of, any of the risks set out in "*Risk Factors*"; or
- (1) a prohibition by an authority on the Company for whatever reason from offering, allotting, issuing or selling any of the Shares (including the additional Shares which may be issued pursuant to any exercise of the Over-allotment Option) pursuant to the terms of the Global Offering; or
- (m) non-compliance of this prospectus (or any other documents used in connection with the contemplated offer and sale of the Offer Shares) or any aspect of the Global Offering with the Listing Rules or any other applicable laws; or
- (n) (other than with the prior written consent of the Joint Global Coordinators) the issue or requirement to issue by the Company of any supplement or amendment to this prospectus (or to any other documents issued or used in connection with the contemplated offer and sale of the Shares) pursuant to the Companies Ordinance or the Companies (Winding Up and Miscellaneous Provisions) Ordinance or the Listing Rules or any requirement or request of the Stock Exchange and/or the SFC; or

(o) an order or petition for the winding up of any member of the Group or any composition or arrangement made by any member of the Group with its creditors or a scheme of arrangement entered into by any member of the Group or any resolution for the winding up of any member of the Group or the appointment of a provisional liquidator, receiver or manager over all or part of the material assets or undertaking of any member of the Group or anything analogous thereto occurring in respect of any member of the Group,

which, individually or in the aggregate, in the sole opinion of the Joint Global Coordinators and the Joint Sponsors (1) has or will have or may have a material adverse effect on the assets, liabilities, business, general affairs, management, prospects, shareholders' equity, profits, losses, results of operations, position or condition, financial or otherwise, or performance of the Group as a whole; or (2) has or will have or may have a material adverse effect on the success of the Global Offering or the level of applications under the Hong Kong Public Offering or the level of interest under the International Offering or anticipated dealings in the Shares in the secondary market; or (3) makes or will make or may make it inadvisable or inexpedient or impracticable for the Global Offering to proceed or to market the Global Offering; or (4) has or will have or may have the effect of making any part of the Hong Kong Underwriting Agreement (including underwriting) incapable of performance in accordance with its terms or preventing or delaying the processing of applications and/or payments pursuant to the Global Offering or pursuant to the underwriting thereof; or

- (ii) there has come to the notice of the Joint Global Coordinators and the Joint Sponsors:
  - (a) that any statement contained in any of this prospectus, the Application Forms and/or in any notices, announcements, advertisements, communications or other documents issued or used by or on behalf of the Company in connection with the Hong Kong Public Offering (including any supplement or amendment thereto) (collectively, the "Offer Related Documents"), but excluding information relating to the Underwriters, was, when it was issued, or has become, untrue, incorrect or misleading in any material respect, or that any forecast, estimate, expression of opinion, intention or expectation contained in any of the Offer Related Documents is not fair and honest and based on reasonable assumptions; or
  - (b) that any matter has arisen or has been discovered which would, had it arisen or been discovered immediately before the date of this prospectus, constitute a material misstatement or omission from any of the Offer Related Documents; or
  - (c) any material breach of any of the obligations imposed upon any party to the Hong Kong Underwriting Agreement or the International Underwriting Agreement (other than upon any of the Joint Sponsors, the Joint Global Coordinators or the Underwriters); or

- (d) any event, act or omission which gives or is likely to give rise to any material liability of any of the Company or the Controlling Shareholders pursuant to the indemnities given by any of them in the Hong Kong Underwriting Agreement; or
- (e) any material adverse change, or a material adverse effect, or any development involving a prospective material adverse change, in or affecting the assets, liabilities, business, general affairs, management, prospects, shareholders' equity, profits, losses, results of operations, position or condition, financial or otherwise, or performance of the Company and the other members of the Group, taken as a whole; or
- (f) any breach of, or any event or circumstance rendering untrue or incorrect or misleading in any respect, any of the representations, warranties, agreements and undertakings given by the Company and the Controlling Shareholders in the Hong Kong Underwriting Agreement; or
- (g) that approval by the Listing Committee of the listing of, and permission to deal in, the Shares in issue or to be issued or sold pursuant to the Global Offering (including any additional Shares that may be issued or sold pursuant to the exercise of the Over-Allotment Option), the Capitalisation Issue and the awards granted or to be granted pursuant to the Pre-IPO Share Incentive Plans and the 2018 Share Incentive Plan is refused or not granted, other than subject to customary conditions, on or before the Listing Date, or if granted, the approval is subsequently withdrawn, qualified (other than by customary conditions) or withheld; or
- (h) the Company withdraws any of this propectus and the Application Forms (and/or any other documents issued or used in connection with the Global Offering; or
- (i) a Director or the Honorary Chairman of the Company being charged with an indictable offence or prohibited by operation of law or otherwise disqualified from taking part in the management of a company; or
- (j) the Honorary Chairman or chief executive officer of the Company vacating his or her office; or
- (k) an authority or a political body or organization in any of the Relevant Jurisdictions commencing any investigation or other action, or announcing an intention to investigate or take other action, against any Director or the Honorary Chairman of the Company;
- a valid demand by any creditor for repayment or payment of any indebtedness of any member of the Group or in respect of which any member of the Group is liable prior to its stated maturity; or
- (m) any person (other than the Joint Sponsors) has withdrawn its consent to being named in this prospectus as an expert or to the issue of any of this prospectus and the Application Forms.

## UNDERWRITING

#### Undertakings to the Stock Exchange pursuant to the Listing Rules

#### (A) Undertakings by the Company

Pursuant to Rule 10.08 of the Listing Rules, the Company has undertaken to the Stock Exchange that it will not exercise its power to issue any further Shares, or securities convertible into Shares (whether or not of a class already listed) or enter into any agreement to such an issue within six months from the Listing Date (whether or not such issue of Shares or securities will be completed within six months from the Listing Date), except (a) pursuant to the Global Offering and the Over-allotment Option or (b) under any of the circumstances provided under Rule 10.08 of the Listing Rules.

## (B) Undertakings by the Controlling Shareholders

Pursuant to Rule 10.07 of the Listing Rules, each of the Controlling Shareholders has undertaken to the Stock Exchange and the Company that, except pursuant to any lending of Shares pursuant to the Stock Borrowing Agreement (if entered into), it will not and will procure that the relevant registered holder(s) will not:

- (i) in the period commencing on the date by reference to which disclosure of its holding of Shares is made in this prospectus and ending on the date which is six months from the Listing Date, dispose of, nor enter into any agreement to dispose of or otherwise create any options, rights, interests or encumbrances in respect of, any of the Shares in respect of which it is shown by this prospectus to be the beneficial owner; and
- (ii) in the period of six months commencing on the date on which the period referred to in paragraph (i) above expires, dispose of, nor enter into any agreement to dispose of or otherwise create any options, rights, interests or encumbrances in respect of, any of the Shares referred to in paragraph (i) above if, immediately following such disposal or upon the exercise or enforcement of such options, rights, interests or encumbrances, it would cease to be a controlling shareholder of the Company,

in each case, save as permitted under the Listing Rules.

Pursuant to Note 3 to Rule 10.07(2) of the Listing Rules, each of the Controlling Shareholders has undertaken to the Stock Exchange and the Company that, within the period commencing on the date by reference to which disclosure of its holding of Shares is made in this prospectus and ending on the date which is 12 months from the Listing Date, it will and will procure that the relevant registered holder(s) will:

(1) when it pledges or charges any Shares beneficially owned by it in favour of an authorised institution (as defined in the Banking Ordinance (Chapter 155 of the Laws of Hong Kong)) pursuant to Note 2 to Rule 10.07(2) of the Listing Rules, immediately inform the Company of such pledge or charge together with the number of Shares so pledged or charged; and (2) when it receives indications, either verbal or written, from the pledgee or chargee of any Shares that any of the pledged or charged Shares will be disposed of, immediately inform the Company of such indications.

## Undertakings Pursuant to the Hong Kong Underwriting Agreement

#### (A) Undertakings by the Company

The Company has undertaken to each of the Joint Global Coordinators, the Joint Bookrunners, the Joint Sponsors and the Hong Kong Underwriters not to (save for the issue, offer or sale of the Shares by the Company pursuant to the Global Offering (including pursuant to the Over-allotment Option, the Capitalization Issue and the Pre-IPO Share Incentive Plans and the 2018 Share Incentive Plan and otherwise pursuant to the Listing Rules), without the prior written consent of the Joint Sponsors and the Joint Global Coordinators (on behalf of the Hong Kong Underwriters) and unless in compliance with the requirements of the Listing Rules, at any time during the period commencing on the date of the Hong Kong Underwriting Agreement and ending on, and including, the date that is six months from the Listing Date (the "**First Six-Month Period**"):

- (i) allot, issue, sell, accept subscription for, offer to allot, issue or sell, contract or agree to allot, issue or sell, grant or sell any option, warrant, contract or right to subscribe for or purchase, grant or purchase any option, warrant, contract or right to allot, issue or sell, or otherwise transfer or dispose of, or agree to transfer or dispose of, either directly or indirectly, conditionally or unconditionally, any Shares or other equity securities of the Company, or any interest in any of the foregoing (including, without limitation, any securities convertible into or exchangeable or exercisable for or that represent the right to receive, or any warrants or other rights to purchase, any Shares or other equity securities of the Company or any interest in any of the foregoing), or deposit any Shares or other equity securities of the company or any interest in any of the foregoing), or deposit any Shares or other equity securities of the company or any interest in any of the foregoing), or deposit any Shares or other equity securities of the company or any interest in any of the foregoing), or deposit any Shares or other equity securities of the company with a depositary in connection with the issue of depositary receipts; or
- (ii) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of any Shares or other equity securities of the Company, or any interest in any of the foregoing (including, without limitation, any securities convertible into or exchangeable or exercisable for or that represent the right to receive, or any warrants or other rights to purchase, any Shares or other equity securities of the Company or any interest in any of the foregoing); or
- (iii) enter into any transaction with the same economic effect as any transaction specified in paragraph (i) or (ii) above; or
- (iv) offer to or agree to or announce any intention to effect any transaction specified in paragraph (i), (ii) or (iii) above,

in each case, whether any of the transactions specified in paragraph (i), (ii) or (iii) above is to be settled by delivery of any Shares or other equity securities of the Company or any interest in any of the foregoing, or in cash or otherwise (whether or not the issue of such Shares or other equity

## UNDERWRITING

securities will be completed within the First Six-Month Period). During the period of six months commencing on the date on which the First Six-Month Period expires (the "Second Six-Month Period"), the Company will not enter into any of the transactions specified in paragraph (i), (ii) or (iii) above or offer to or agree to or announce any intention to effect any such transaction such that any Controlling Shareholder, directly or indirectly, would cease to be a controlling shareholder (within the meaning defined in the Listing Rules) of the Company. In the event the Company enters into any of the transactions specified in paragraph (i), (ii) or (iii) above or offers to or agrees to or announces any intention to effect any such transaction, the Company will take all steps to ensure that it will not create a disorderly or false market in the securities of the Company. The Controlling Shareholders have undertaken to each of the Joint Global Coordinators, the Joint Bookrunners, the Hong Kong Underwriters and the Joint Sponsors to procure the Company to comply with the above undertakings.

#### (B) Undertakings by the Controlling Shareholders

Each of the Controlling Shareholders has undertaken to each of the Company, the Joint Global Coordinators, the Joint Bookrunners, the Hong Kong Underwriters and the Joint Sponsors that, without the prior written consent of the Joint Sponsors and the Joint Global Coordinators (on behalf of the Hong Kong Underwriters) and unless in compliance with the requirements of the Listing Rules:

it will not, at any time during the First Six-Month Period, (a) sell, offer to sell, contract or (i) agree to sell, mortgage, charge, pledge, hypothecate, lend, grant or sell any option, warrant, contract or right to purchase, grant or purchase any option, warrant, contract or right to sell, or otherwise transfer or dispose of or create a mortgage, charge, pledge, lien or other security interest or any option, restriction, right of first refusal, right of pre-emption or other third party claim, right, interest or preference or any other encumbrance of any kind ("Encumbrance") over, or agree to transfer or dispose of or create an Encumbrance over, either directly or indirectly, conditionally or unconditionally, any Shares or other equity securities of the Company or any interest therein (including, without limitation, any securities convertible into or exchangeable or exercisable for or that represent the right to receive, or any warrants or other rights to purchase, any Shares or any other equity securities or any interest in any of the foregoing) beneficially owned by it as at the Listing Date (the "Locked-up Securities"), or deposit any Shares or other equity securities of the Company with a depositary in connection with the issue of depositary receipts, or (b) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of any Locked-up Securities, or (c) enter into any transaction with the same economic effect as any transaction specified in paragraph (a) or (b) above, or (d) offer to or agree to or announce any intention to effect any transaction specified in paragraph (a), (b) or (c) above, in each case, whether any of the transactions specified in paragraph (a), (b) or (c) above is to be settled by delivery of Shares or other equity securities of the Company or in cash or otherwise (whether or not the issue of such Shares or other equity securities will be completed within the First Six-Month Period);

- (ii) it will not, during the Second Six-Month Period, enter into any of the transactions specified in paragraph (a), (b) or (c) above or offer to or agree to or announce any intention to effect any such transaction if, immediately following any sale, transfer or disposal or upon the exercise or enforcement of any option, right, interest or Encumbrance pursuant to such transaction, it will cease to be a "controlling shareholder" (as the term is defined in the Listing Rules) of the Company; and
- (iii) until the expiry of the Second Six-Month Period, in the event that it enters into any of the transactions specified in paragraph (a), (b) or (c) above or offer to or agrees to or announce any intention to effect any such transaction, it will take all reasonable steps to ensure that it will not create a disorderly or false market in the securities of the Company.

#### Hong Kong Underwriters' Interests in the Company

Save for their respective obligations under the Hong Kong Underwriting Agreement and, if applicable, the Stock Borrowing Agreement (if entered into), as at the Latest Practicable Date, none of the Hong Kong Underwriters was interested, legally or beneficially, directly or indirectly, in any Shares or any securities of any member of the Group or had any right or option (whether legally enforceable or not) to subscribe for or purchase, or to nominate persons to subscribe for or purchase, any Shares or any securities of any member of the Group.

Following the completion of the Global Offering, the Hong Kong Underwriters and their affiliated companies may hold a certain portion of the Shares as a result of fulfilling their respective obligations under the Hong Kong Underwriting Agreement.

#### **International Offering**

#### International Underwriting Agreement

In connection with the International Offering, the Company and the Controlling Shareholders expect to enter into the International Underwriting Agreement with the International Underwriters on the Price Determination Date. Under the International Underwriting Agreement and subject to the Over-allotment Option, the International Underwriters would, subject to certain conditions set out therein, agree severally but not jointly to procure subscribers for, or themselves to subscribe for, their respective applicable proportions of the International Offer Shares initially being offered pursuant to the International Offering. It is expected that the International Underwriting Agreement. Potential investors should note that in the event that the International Underwriting Agreement is not entered into, the Global Offering will not proceed. See "Structure of the Global Offering — The International Offering".

#### **Over-allotment** Option

The Company is expected to grant to the International Underwriters the Over-allotment Option, exercisable by the Joint Global Coordinators on behalf of the International Underwriters at any time from the Listing Date until 30 days after the last day for lodging applications under the Hong Kong

## UNDERWRITING

Public Offering, pursuant to which the Company may be required to issue up to an aggregate of 75,286,000 Shares, representing not more than 15% of the number of Offer Shares initially available under the Global Offering, at the Offer Price, to cover over-allocations in the International Offering, if any. See "Structure of the Global Offering — Over-allotment Option".

#### **Commissions and Expenses**

Merrill Lynch (Asia Pacific) Limited and Goldman Sachs (Asia) L.L.C. will receive an underwriting commission of 3.0% of the aggregate Offer Price of all the Offer Shares (including any Offer Shares to be issued pursuant to the exercise of the Over-allotment Option), out of which they will pay any sub-underwriting commissions and other fees.

The Joint Bookrunners may receive a discretionary incentive fee of up to 1.0% of the aggregate Offer Price of all the Offer Shares (including any Offer Shares to be issued pursuant to the exercise of the Over-allotment Option).

For any unsubscribed Hong Kong Offer Shares reallocated to the International Offering, the underwriting commission will not be paid to the Hong Kong Underwriters but will instead be paid, at the rate applicable to the International Offering, to the relevant International Underwriters.

The aggregate underwriting commissions payable to the Underwriters in relation to the Global Offering (assuming an Offer Price of HK\$2.88 per Offer Share (which is the mid-point of the Offer Price Range), the full payment of the discretionary incentive fee and the exercise of the Over-allotment Option in full) will be approximately HK\$66.5 million.

The aggregate underwriting commissions and fees together with the Stock Exchange listing fees, the SFC transaction levy and the Stock Exchange trading fee, legal and other professional fees and printing and all other expenses relating to the Global Offering are estimated to be approximately HK\$94.07 million (assuming an Offer Price of HK\$2.88 per Offer Share (which is the mid-point of the Offer Price Range) and the full payment of the discretionary incentive fee) and will be paid by the Company.

#### Indemnity

The Company has agreed to indemnify the Hong Kong Underwriters for certain losses which they may suffer or incur, including losses arising from their performance of their obligations under the Hong Kong Underwriting Agreement and any breach by them of the Hong Kong Underwriting Agreement.

#### **ACTIVITIES BY SYNDICATE MEMBERS**

The underwriters of the Hong Kong Public Offering and the International Offering (together, the "**Syndicate Members**") and their affiliates may each individually undertake a variety of activities (as further described below) which do not form part of the underwriting or stabilising process.

The Syndicate Members and their affiliates are diversified financial institutions with relationships in countries around the world. These entities engage in a wide range of commercial and investment banking, brokerage, funds management, trading, hedging, investing and other activities for their own account and for the account of others. In the ordinary course of their various business activities, the Syndicate Members and their respective affiliates may purchase, sell or hold a broad array of investments and actively trade securities, derivatives, loans, commodities, currencies, credit default swaps and other financial instruments for their own account and for the accounts of their customers. Such investment and trading activities may involve or relate to assets, securities and/or instruments of the Company and/or persons and entities with relationships with the Company and may also include swaps and other financial instruments entered into for hedging purposes in connection with the Group's loans and other debt.

In relation to the Shares, the activities of the Syndicate Members and their affiliates could include acting as agent for buyers and sellers of the Shares, entering into transactions with those buyers and sellers in a principal capacity, including as a lender to initial purchasers of the Shares (which financing may be secured by the Shares) in the Global Offering, proprietary trading in the Shares, and entering into over-the-counter or listed derivative transactions or listed or unlisted securities transactions (including issuing securities such as derivative warrants listed on a stock exchange) which have as their underlying assets, assets including the Shares. Such transactions may be carried out as bilateral agreements or trades with selected counterparties. Those activities may require hedging activity by those entities involving, directly or indirectly, the buying and selling of the Shares, which may have a negative impact on the trading price of the Shares. All such activities could occur in Hong Kong and elsewhere in the world and may result in the Syndicate Members and their affiliates holding long and/or short positions in the Shares, or in derivatives related to any of the foregoing.

In relation to issues by Syndicate Members or their affiliates of any listed securities having the Shares as their underlying securities, whether on the Stock Exchange or on any other stock exchange, the rules of the stock exchange may require the issuer of those securities (or one of its affiliates or agents) to act as a market maker or liquidity provider in the security, and this will also result in hedging activity in the Shares in most cases.

All such activities may occur both during and after the end of the stabilising period described in "*Structure of the Global Offering*". Such activities may affect the market price or value of the Shares, the liquidity or trading volume in the Shares and the volatility of the price of the Shares, and the extent to which this occurs from day to day cannot be estimated. It should be noted that when engaging in any of these activities, the Syndicate Members will be subject to certain restrictions, including the following:

- (a) the Syndicate Members (other than the Stabilising Manager or any person acting for it) must not, in connection with the distribution of the Offer Shares, effect any transactions (including issuing or entering into any option or other derivative transactions relating to the Offer Shares), whether in the open market or otherwise, with a view to stabilising or maintaining the market price of any of the Offer Shares at levels other than those which might otherwise prevail in the open market; and
- (b) the Syndicate Members must comply with all applicable laws and regulations, including the market misconduct provisions of the SFO, including the provisions prohibiting insider dealing, false trading, price rigging and stock market manipulation.

Certain of the Syndicate Members or their respective affiliates have provided from time to time, and expect to provide in the future, investment banking and other services to the Company and each of its affiliates for which such Syndicate Members or their respective affiliates have received or will receive customary fees and commissions.

In addition, the Syndicate Members or their respective affiliates may provide financing to investors to finance their subscriptions of Offer Shares in the Global Offering.

#### THE GLOBAL OFFERING

This prospectus is published in connection with the Hong Kong Public Offering as part of the Global Offering. Merrill Lynch (Asia Pacific) Limited, Goldman Sachs (Asia) L.L.C, CLSA Limited and Haitong International Securities Company Limited are the Joint Global Coordinators of the Global Offering.

The listing of the Shares on the Main Board of the Stock Exchange is sponsored by the Joint Sponsors. The Joint Sponsors have made an application on behalf of the Company to the Listing Committee of the Stock Exchange for the listing of, and permission to deal in, the Shares in issue and to be issued as mentioned in this prospectus.

501,910,000 Offer Shares will initially be made available under the Global Offering comprising:

- (a) the Hong Kong Public Offering of initially 50,192,000 Shares (subject to reallocation) in Hong Kong as described in "— The Hong Kong Public Offering" below; and
- (b) the International Offering of initially 451,718,000 Shares (subject to reallocation and the Over-allotment Option) (i) in the United States solely to QIBs in reliance on Rule 144A or another exemption from, or in a transaction not subject to, the registration requirements of the U.S. Securities Act and (ii) outside the United States (including to professional and institutional investors within Hong Kong) in offshore transactions in reliance on Regulation S, as described in "— *The International Offering*" below.

Investors may either:

- (i) apply for Hong Kong Offer Shares under the Hong Kong Public Offering; or
- (ii) apply for or indicate an interest for International Offer Shares under the International Offering,

but may not do both.

The Offer Shares will represent approximately 25.00% of the total Shares in issue immediately following the completion of the Global Offering and the Capitalisation Issue, assuming the Over-allotment Option is not exercised, no outstanding awards granted under the Pre-IPO Share Incentive Plans are exercised and no awards are granted under the 2018 Share Incentive Plan. If the Over-allotment Option is exercised in full, the Offer Shares will represent approximately 27.71% of the total Shares in issue immediately following the completion of the Global Offering.

References in this prospectus to applications, Application Forms, application monies or the procedure for applications relate solely to the Hong Kong Public Offering.

#### THE HONG KONG PUBLIC OFFERING

#### Number of Offer Shares initially offered

The Company is initially offering 50,192,000 Shares for subscription by the public in Hong Kong at the Offer Price, representing approximately 10.00% of the total number of Offer Shares initially available under the Global Offering. The number of Offer Shares initially offered under the Hong Kong Public Offering, subject to any reallocation of Offer Shares between the International Offering and the Hong Kong Public Offering, will represent approximately 2.50% of the total Shares in issue immediately following the completion of the Global Offering and the Capitalisation Issue (assuming the Over-allotment Option is not exercised, no outstanding awards granted under the Pre-IPO Share Incentive Plans are exercised and no awards are granted under the 2018 Share Incentive Plan).

The Hong Kong Public Offering is open to members of the public in Hong Kong as well as to institutional and professional investors. Professional investors generally include brokers, dealers, companies (including fund managers) whose ordinary business involves dealing in shares and other securities and corporate entities that regularly invest in shares and other securities.

Completion of the Hong Kong Public Offering is subject to the conditions set out in "- *Conditions of the Global Offering*" below.

#### Allocation

Allocation of Offer Shares to investors under the Hong Kong Public Offering will be based solely on the level of valid applications received under the Hong Kong Public Offering. The basis of allocation may vary, depending on the number of Hong Kong Offer Shares validly applied for by applicants. Such allocation could, where appropriate, consist of balloting, which could mean that some applicants may receive a higher allocation than others who have applied for the same number of Hong Kong Offer Shares, and those applicants who are not successful in the ballot may not receive any Hong Kong Offer Shares.

For allocation purposes only, the total number of Hong Kong Offer Shares available under the Hong Kong Public Offering (after taking into account any reallocation referred to below) will be divided equally (to the nearest board lot) into two pools: pool A and pool B. The Hong Kong Offer Shares in pool A will be allocated on an equitable basis to applicants who have applied for Hong Kong Offer Shares with an aggregate price of HK\$5 million (excluding the brokerage, the SFC transaction levy and the Stock Exchange trading fee payable) or less. The Hong Kong Offer Shares in pool B will be allocated on an equitable basis to applied for Hong Kong Offer Shares in pool B will be allocated on an equitable basis to applicants who have applied for Hong Kong Offer Shares in pool B will be allocated on an equitable basis to applicants who have applied for Hong Kong Offer Shares with an aggregate price of more than HK\$5 million (excluding the brokerage, the SFC transaction levy and the Stock Exchange trading fee payable) and up to the total value in pool B.

Investors should be aware that applications in pool A and applications in pool B may receive different allocation ratios. If any Hong Kong Offer Shares in one (but not both) of the pools are unsubscribed, such unsubscribed Hong Kong Offer Shares will be transferred to the other pool to

satisfy demand in that other pool and be allocated accordingly. For the purpose of the immediately preceding paragraph only, the "price" for Hong Kong Offer Shares means the price payable on application therefor (without regard to the Offer Price as finally determined). Applicants can only receive an allocation of Hong Kong Offer Shares from either pool A or pool B and not from both pools. Multiple or suspected multiple applications under the Hong Kong Public Offering and any application for more than 25,096,000 Hong Kong Offer Shares, being 50% of the total number of Offer Shares initially available under the Hong Kong Public Offering, is liable to be rejected.

## Reallocation

The allocation of the Offer Shares between the Hong Kong Public Offering and the International Offering is subject to reallocation. Paragraph 4.2 of Practice Note 18 of the Listing Rules requires a clawback mechanism to be put in place which would have the effect of increasing the number of Offer Shares under the Hong Kong Public Offering to a certain percentage of the total number of Offer Shares offered under the Global Offering if certain prescribed total demand levels are reached.

If the number of Offer Shares validly applied for under the Hong Kong Public Offering represents (a) 15 times or more but less than 50 times, (b) 50 times or more but less than 100 times and (c) 100 times or more of the total number of Offer Shares initially available under the Hong Kong Public Offering, then Offer Shares will be reallocated to the Hong Kong Public Offering from the International Offering. As a result of such reallocation, the total number of Offer Shares (in the case of (a)), 200,764,000 Offer Shares (in the case of (b)) and 250,956,000 Offer Shares (in the case of (c)), representing approximately 30.00%, 40.00% and 50.00% of the total number of Offer Shares initially available under the Global Offering, respectively (before any exercise of the Over-allotment Option) (the "**PN18 Clawback**"). In each case, the additional Offer Shares reallocated to the Hong Kong Public Offering will be correspondingly reduced in such manner as the Joint Global Coordinators deem appropriate.

In addition, the Joint Global Coordinators may reallocate Offer Shares from the International Offering to the Hong Kong Public Offering to satisfy valid applications under the Hong Kong Public Offering. According to Guidance Letter HKEX-GL91-18 issued by the Stock Exchange, if (a) the International Offering is undersubscribed and the Hong Kong Public Offering is fully subscribed or oversubscribed or (b) the International Offering is fully subscribed or oversubscribed and the Hong Kong Public Offering is oversubscribed by less than 15 times of the total number of Offer Shares initially available under the Hong Kong Public Offering, then the Joint Global Coordinators may only reallocate Offer Shares from the International Offering to the Hong Kong Public Offering other than pursuant to Practice Note 18 of the Listing Rules on the following conditions in accordance with Guidance Letter HKEX-GL91-18 (the "Allocation Cap"):

 (i) the maximum total number of Shares that may be reallocated from the International Offering to the Hong Kong Public Offering shall be not more than double the number of Hong Kong Offer Shares initially available under the Hong Kong Public Offering (i.e. 100,384,000 Offer Shares); and

(ii) the final Offer Price shall be fixed at the bottom of the Offer Price Range stated in this prospectus.

If the Hong Kong Public Offering is not fully subscribed, the Joint Global Coordinators may reallocate all or any unsubscribed Hong Kong Offer Shares to the International Offering, in such proportions as the Joint Global Coordinators deem appropriate. The Allocation Cap will not be triggered.

The Offer Shares to be offered in the Hong Kong Public Offering and the Offer Shares to be offered in the International Offering may, in certain circumstances, be reallocated between these offerings at the discretion of the Joint Global Coordinators, subject to the PN18 Clawback and the Allocation Cap (as applicable).

#### Applications

Each applicant under the Hong Kong Public Offering will be required to give an undertaking and confirmation in the application submitted by him that he and any person(s) for whose benefit he is making the application has not applied for or taken up, or indicated an interest for, and will not apply for or take up, or indicate an interest for, any International Offer Shares under the International Offering. Such applicant's application is liable to be rejected if such undertaking and/or confirmation is/are breached and/or untrue (as the case may be) or if he has been or will be placed or allocated International Offer Shares under the International Offering.

Applicants under the Hong Kong Public Offering are required to pay, on application, the Maximum Offer Price of HK\$3.20 per Offer Share in addition to the brokerage, the SFC transaction levy and the Stock Exchange trading fee payable on each Offer Share, amounting to a total of HK\$6,464.49 for one board lot of 2,000 Shares. If the Offer Price, as finally determined in the manner described in "— *Pricing and Allocation*" below, is less than the Maximum Offer Price of HK\$3.20 per Offer Share, appropriate refund payments (including the brokerage, the SFC transaction levy and the Stock Exchange trading fee attributable to the surplus application monies) will be made to successful applicants, without interest. Further details are set out in "*How to Apply for Hong Kong Offer Shares*".

#### THE INTERNATIONAL OFFERING

#### Number of Offer Shares initially offered

The International Offering will consist of an offering of initially 451,718,000 Shares, representing approximately 90% of the total number of Offer Shares initially available under the Global Offering (subject to reallocation and the Over-allotment Option). The number of Offer Shares initially offered under the International Offering, subject to any reallocation of Offer Shares between the International Offering and the Hong Kong Public Offering, will represent approximately 22.5% of the total Shares in issue immediately following the completion of the Global Offering and the Capitalisation Issue (assuming the Over-allotment Option is not exercised, no outstanding awards granted under the Pre-IPO Share Incentive Plans are exercised and no awards are granted under the 2018 Share Incentive Plan).

#### Allocation

The International Offering will include selective marketing of Offer Shares to QIBs in the United States as well as institutional and professional investors and other investors anticipated to have a sizeable demand for such Offer Shares in Hong Kong and other jurisdictions outside the United States in reliance on Regulation S. Professional investors generally include brokers, dealers, companies (including fund managers) whose ordinary business involves dealing in shares and other securities and corporate entities that regularly invest in shares and other securities. Allocation of Offer Shares pursuant to the International Offering will be effected in accordance with the "book-building" process described in "— *Pricing and Allocation*" below and based on a number of factors, including the level and timing of demand, the total size of the relevant investor's invested assets or equity assets in the relevant sector and whether or not it is expected that the relevant investor is likely to buy further Shares and/or hold or sell its Shares after the Listing. Such allocation is intended to result in a distribution of the Shares on a basis which would lead to the establishment of a solid professional and institutional shareholder base to the benefit of the Group and the Shareholders as a whole.

The Joint Global Coordinators (on behalf of the Underwriters) may require any investor who has been offered Offer Shares under the International Offering and who has made an application under the Hong Kong Public Offering to provide sufficient information to the Joint Global Coordinators so as to allow it to identify the relevant applications under the Hong Kong Public Offering and to ensure that they are excluded from any allocation of Offer Shares under the Hong Kong Public Offering.

#### Reallocation

The total number of Offer Shares to be issued or sold pursuant to the International Offering may change as a result of the clawback arrangement described in "— *The Hong Kong Public Offering* — *Reallocation*" above, the exercise of the Over-allotment Option in whole or in part and/or any reallocation of unsubscribed Offer Shares originally included in the Hong Kong Public Offering.

#### **OVER-ALLOTMENT OPTION**

In connection with the Global Offering, the Company is expected to grant the Over-allotment Option to the International Underwriters, exercisable by the Joint Global Coordinators (on behalf of the International Underwriters).

Pursuant to the Over-allotment Option, the International Underwriters will have the right, exercisable by the Joint Global Coordinators (on behalf of the International Underwriters) at any time from the Listing Date until 30 days after the last day for lodging applications under the Hong Kong Public Offering, to require the Company to issue up to an aggregate of 75,286,000 additional Offer Shares, representing not more than 15.00% of the total number of Offer Shares initially available under the Global Offering, at the Offer Price under the International Offering to cover over-allocations in the International Offering, if any.

If the Over-allotment Option is exercised in full, the additional Offer Shares to be issued pursuant thereto will represent approximately 3.61% of the total Shares in issue immediately following the completion of the Global Offering and the Capitalisation Issue. If the Over-allotment Option is exercised, an announcement will be made.

#### STABILISATION

Stabilisation is a practice used by underwriters in some markets to facilitate the distribution of securities. To stabilise, the underwriters may bid for, or purchase, the securities in the secondary market during a specified period of time, to retard and, if possible, prevent a decline in the initial public market price of the securities below the offer price. Such transactions may be effected in all jurisdictions where it is permissible to do so, in each case in compliance with all applicable laws and regulatory requirements, including those of Hong Kong. In Hong Kong, the price at which stabilisation is effected is not permitted to exceed the offer price.

In connection with the Global Offering, the Stabilising Manager (or any person acting for it), on behalf of the Underwriters, may over-allocate or effect transactions with a view to stabilising or supporting the market price of the Shares at a level higher than that which might otherwise prevail for a limited period after the Listing Date. However, there is no obligation on the Stabilising Manager (or any person acting for it) to conduct any such stabilising action. Such stabilising action, if taken, (a) will be conducted at the absolute discretion of the Stabilising Manager (or any person acting for it) and in what the Stabilising Manager reasonably regards as the best interest of the Company, (b) may be discontinued at any time and (c) is required to be brought to an end within 30 days of the last day for lodging applications under the Hong Kong Public Offering.

Stabilisation action permitted in Hong Kong pursuant to the Securities and Futures (Price Stabilizing) Rules of the SFO (Chapter 571W of the Laws of Hong Kong) includes (a) over-allocating for the purpose of preventing or minimising any reduction in the market price of the Shares, (b) selling or agreeing to sell the Shares so as to establish a short position in them for the purpose of preventing or minimising any reduction in order to close out any position established under paragraph (a) or (b) above, (d) purchasing, or agreeing to purchase, any of the Shares for the sole purpose of preventing or minimising any reduction in the market price of the Shares, (e) selling or agreeing to sell any Shares in order to liquidate any position established as a result of those purchases and (f) offering or attempting to do anything as described in paragraph (b), (c), (d) or (e) above.

Specifically, prospective applicants for and investors in the Offer Shares should note that:

- (a) the Stabilising Manager (or any person acting for it) may, in connection with the stabilising action, maintain a long position in the Shares;
- (b) there is no certainty as to the extent to which and the time or period for which the Stabilising Manager (or any person acting for it) will maintain such a long position;

- (c) liquidation of any such long position by the Stabilising Manager (or any person acting for it) and selling in the open market may have an adverse impact on the market price of the Shares;
- (d) no stabilising action can be taken to support the price of the Shares for longer than the stabilisation period, which will begin on the Listing Date, and is expected to expire on Friday, June 21, 2019, being the 30th day after the last day for lodging applications under the Hong Kong Public Offering. After this date, when no further stabilising action may be taken, demand for the Shares, and therefore the price of the Shares, could fall;
- (e) the price of the Shares cannot be assured to stay at or above the Offer Price by the taking of any stabilising action; and
- (f) stabilising bids or transactions effected in the course of the stabilising action may be made at any price at or below the Offer Price and can, therefore, be done at a price below the price paid by applicants for, or investors in, the Offer Shares.

The Company will ensure or procure that an announcement in compliance with the Securities and Futures (Price Stabilizing) Rules of the SFO (Chapter 571W of the Laws of Hong Kong) will be made within seven days of the expiration of the stabilisation period.

## **Over-Allocation**

Following any over-allocation of Shares in connection with the Global Offering, the Stabilising Manager (or any person acting for it) may cover such over-allocations by exercising the Over-allotment Option in full or in part, by using Shares purchased by the Stabilising Manager (or any person acting for it) in the secondary market at prices that do not exceed the Offer Price or through the Stock Borrowing Agreement (if entered into) as detailed below or a combination of these means.

#### STOCK BORROWING AGREEMENT

In order to facilitate the settlement of over-allocations, if any, in connection with the Global Offering, the Stabilising Manager (or any person acting for it) may choose to borrow up to 75,286,000 Shares (being the maximum number of Shares which may be issued pursuant to the exercise of the Over-allotment Option) from Hong Kong Tigermed, pursuant to the Stock Borrowing Agreement, which may be entered into between the Stabilising Manager (or any person acting for it) and Hong Kong Tigermed on or about the Price Determination Date.

If the Stock Borrowing Agreement with Hong Kong Tigermed is entered into, the borrowing of Shares will only be effected by the Stabilising Manager (or any person acting for it) for the settlement of over-allocations in the International Offering and such borrowing arrangement is not subject to the restrictions of Rule 10.07(1)(a) of the Listing Rules, provided that the requirements set out in Rule 10.07(3) of the Listing Rules, being that the Stock Borrowing Agreement will be for the sole purpose of covering any short position prior to the exercise of the Over-allotment Option in connection with the International Offering, are complied with.

The same number of Shares so borrowed must be returned to Hong Kong Tigermed or its nominees, as the case may be, on or before the third business day following the earlier of (a) the last day for exercising the Over-allotment Option and (b) the day on which the Over-allotment Option is exercised in full.

The Share borrowing arrangement described above will be effected in compliance with all applicable laws, rules and regulatory requirements. No payment will be made to Hong Kong Tigermed by the Stabilising Manager (or any person acting for it) in relation to such Share borrowing arrangement.

#### PRICING AND ALLOCATION

Pricing for the Offer Shares for the purpose of the various offerings under the Global Offering will be fixed on the Price Determination Date, which is expected to be on or about Thursday, May 23, 2019 and, in any event, no later than Wednesday, May 29, 2019, by agreement between the Joint Global Coordinators (on behalf of the Underwriters) and the Company, and the number of Offer Shares to be allocated under the various offerings will be determined shortly thereafter.

The Offer Price will not be more than HK\$3.20 per Offer Share and is expected to be not less than HK\$2.55 per Offer Share, unless otherwise announced, as further explained below. Applicants under the Hong Kong Public Offering must pay, on application, the Maximum Offer Price of HK\$3.20 per Offer Share plus brokerage of 1.0%, SFC transaction levy of 0.0027% and Stock Exchange trading fee of 0.005%, amounting to a total of HK\$6,464.49 for one board lot of 2,000 Shares. **Prospective investors should be aware that the Offer Price to be determined on the Price Determination Date may be, but is not expected to be, lower than the Minimum Offer Price stated in this prospectus.** 

The International Underwriters will be soliciting from prospective investors indications of interest in acquiring Offer Shares in the International Offering. Prospective professional and institutional investors will be required to specify the number of Offer Shares under the International Offering they would be prepared to acquire either at different prices or at a particular price. This process, known as "book-building", is expected to continue up to, and to cease on or about, the last day for lodging applications under the Hong Kong Public Offering.

The Joint Global Coordinators (on behalf of the Underwriters) may, where they deem appropriate, based on the level of interest expressed by prospective investors during the book-building process in respect of the International Offering, and with the consent of the Company, reduce the number of Offer Shares offered and/or the Offer Price Range below that stated in this prospectus at any time on or prior to the morning of the last day for lodging applications under the Hong Kong Public Offering. In such a case, the Company will, as soon as practicable following the decision to make such reduction, and in any event not later than the morning of the last day for lodging applications under the Hong Kong Public Offering, cause to be published in the *South China Morning Post* (in English) and the *Hong Kong Economic Times* (in Chinese) and on the websites of the Company and the Stock Exchange at www.frontagelab.com and www.hkexnews.hk, respectively,

notices of the reduction. Upon the issue of such a notice, the revised number of Offer Shares and/or the Offer Price Range will be final and conclusive and the Offer Price, if agreed upon by the Joint Global Coordinators (on behalf of the Underwriters) and the Company, will be fixed within such revised Offer Price Range.

Before submitting applications for the Hong Kong Offer Shares, applicants should have regard to the possibility that any announcement of a reduction in the number of Offer Shares and/or the Offer Price Range may not be made until the last day for lodging applications under the Hong Kong Public Offering. Such notice and/or supplemental prospectus (if required) will also include confirmation or revision, as appropriate, of the working capital statement and the Global Offering statistics as currently set out in this prospectus, and any other financial information which may change as a result of any such reduction. In the absence of any such notice so published, the number of Offer Shares will not be reduced and/or the Offer Price, if agreed upon by the Joint Global Coordinators (on behalf of the Underwriters) and the Company, will under no circumstances be set outside the Offer Price Range as stated in this prospectus. However, if the number of Offer Shares and/or the Offer Price Range is reduced, applicants under the Hong Kong Public Offering will be entitled to withdraw their applications unless positive confirmations from the applicants to proceed are received.

#### **Announcement of Final Offer Price**

The final Offer Price, the level of indications of interest in the International Offering, the level of applications in the Hong Kong Public Offering, the basis of allocations of the Hong Kong Offer Shares and the results of allocations in the Hong Kong Public Offering are expected to be made available through a variety of channels in the manner described in "*How to Apply for Hong Kong Offer Shares — Publication of Results*".

## UNDERWRITING

The Hong Kong Public Offering is fully underwritten by the Hong Kong Underwriters under the terms and conditions of the Hong Kong Underwriting Agreement and is subject to, among other things, the Joint Global Coordinators (on behalf of the Underwriters) and the Company agreeing on the Offer Price.

The Company expects to enter into the International Underwriting Agreement relating to the International Offering on the Price Determination Date.

These underwriting arrangements, including the Underwriting Agreements, are summarised in "Underwriting".

#### CONDITIONS OF THE GLOBAL OFFERING

Acceptance of all applications for Offer Shares will be conditional on:

- (a) the Listing Committee granting approval for the listing of, and permission to deal in, the Shares in issue and to be issued pursuant to the Global Offering and the Capitalisation Issue and the Shares to be issued pursuant to the awards granted under the Pre-IPO Share Incentive Plans and the awards to be granted under the 2018 Share Incentive Plans on the Main Board of the Stock Exchange and such approval not subsequently having been withdrawn or revoked prior to the Listing Date;
- (b) the Offer Price having been agreed between the Joint Global Coordinators (on behalf of the Underwriters) and the Company;
- (c) the execution and delivery of the International Underwriting Agreement on or about the Price Determination Date; and
- (d) the obligations of the Hong Kong Underwriters under the Hong Kong Underwriting Agreement and the obligations of the International Underwriters under the International Underwriting Agreement becoming and remaining unconditional and not having been terminated in accordance with the terms of the respective agreements,

in each case on or before the dates and times specified in the respective Underwriting Agreements (unless and to the extent such conditions are validly waived on or before such dates and times) and, in any event, not later than the date which is 30 days after the date of this prospectus.

If, for any reason, the Offer Price is not agreed between the Joint Global Coordinators (on behalf of the Underwriters) and the Company on or before Wednesday, May 29, 2019, the Global Offering will not proceed and will lapse.

The consummation of each of the Hong Kong Public Offering and the International Offering is conditional upon, among other things, the other offering becoming unconditional and not having been terminated in accordance with its terms.

If the above conditions are not fulfilled or waived prior to the dates and times specified, the Global Offering will lapse and the Stock Exchange will be notified immediately. Notice of the lapse of the Hong Kong Public Offering will be published by the Company in the *South China Morning Post* (in English) and the *Hong Kong Economic Times* (in Chinese) and on the websites of the Company and the Stock Exchange at **www.frontagelab.com** and **www.hkexnews.hk**, respectively, on the next day following such lapse. In such a situation, all application monies will be returned, without interest, on the terms set out in "*How to Apply for Hong Kong Offer Shares* — *Refund of Application Monies*". In the meantime, all application monies will be held in separate bank account(s) with the receiving banks or other bank(s) in Hong Kong licenced under the Banking Ordinance (Chapter 155 of the Laws of Hong Kong).

Share certificates for the Offer Shares will only become valid at 8:00 a.m. on Thursday, May 30, 2019, provided that the Global Offering has become unconditional in all respects at or before that time.

## **DEALINGS IN THE SHARES**

Assuming that the Hong Kong Public Offering becomes unconditional at or before 8:00 a.m. in Hong Kong on Thursday, May 30, 2019, it is expected that dealings in the Shares on the Stock Exchange will commence at 9:00 a.m. on Thursday, May 30, 2019.

The Shares will be traded in board lots of 2,000 Shares each and the stock code of the Shares will be 1521.

# HOW TO APPLY FOR HONG KONG OFFER SHARES

#### IMPORTANT

The Company will be relying on Section 9A of the Companies (Exemption of Companies and Prospectuses from Compliance with Provisions) Notice (Chapter 32L of the Laws of Hong Kong) and will be issuing the **WHITE** and **YELLOW** Application Forms without them being accompanied by a printed prospectus. The contents of the printed prospectus are identical to the electronic version of the prospectus which can be accessed and downloaded from the websites of the Company at **www.frontagelab.com** and the Stock Exchange at **www.hkexnews.hk** under the "*HKExnews* > *Listed Company Information* > *Latest Listed Company Information*" section, respectively.

Members of the public may obtain a copy of the printed prospectus, free of charge, upon request during normal business hours from 9:00 a.m. on Friday, May 17, 2019 until 12:00 noon on Wednesday, May 22, 2019 at the following locations:

1. any of the following branches of the receiving bank for the Hong Kong Public Offering:

	Branch Name	Address		
Hong Kong Island	Shek Tong Tsui Branch	534 Queen's Road West,		
		Shek Tong Tsui, Hong Kong		
	Gilman Street Branch	136 Des Voeux Road Central,		
		Hong Kong		
Kowloon	194 Cheung Sha Wan Road	194-196 Cheung Sha Wan		
	Branch	Road, Sham Shui Po,		
		Kowloon		
	Olympian City Branch	Shop 133, 1/F, Olympian		
		City 2, 18 Hoi Ting Road,		
		Kowloon		
New Territories	Shatin Branch	Shop 20, Level 1, Lucky Plaza, 1-15 Wang Pok Street,		
		Sha Tin, New Territories		
	Kwai Cheong Road Branch	40 Kwai Cheong Road, Kwai		
		Chung, New Territories		

## (a) Bank of China (Hong Kong) Limited

- 2. any of the following offices of the Joint Sponsors:
  - (a) Merrill Lynch Far East Limited at 55/F, Cheung Kong Center, 2 Queen's Road Central, Hong Kong; and
  - (b) **Goldman Sachs (Asia) L.L.C.** at 59/F, Cheung Kong Center, 2 Queen's Road Central, Hong Kong; and
- 3. the Depository Counter of HKSCC at 1/F, One & Two Exchange Square, 8 Connaught Place, Central, Hong Kong.

# HOW TO APPLY FOR HONG KONG OFFER SHARES

Details of where printed prospectuses may be obtained will be displayed prominently at every branch of Bank of China (Hong Kong) Limited where WHITE Application Forms are distributed.

During normal business hours from 9:00 a.m. on Friday, May 17, 2019 until 12:00 noon on Wednesday, May 22, 2019, at least three copies of the printed prospectus will be available for inspection at every location where the **WHITE** and **YELLOW** Application Forms are distributed as set out below.

## A. APPLICATIONS FOR HONG KONG OFFER SHARES

#### 1. How to Apply

If you apply for Hong Kong Offer Shares, then you may not apply for or indicate an interest for International Offer Shares.

To apply for Hong Kong Offer Shares, you may:

- use a WHITE or YELLOW Application Form;
- apply online through the HK eIPO White Form service at www.hkeipo.hk; or
- electronically cause HKSCC Nominees to apply on your behalf.

None of you or your joint applicant(s) may make more than one application, except where you are a nominee and provide the required information in your application.

The Company, the Joint Global Coordinators, the HK eIPO White Form Service Provider and their respective agents may reject or accept any application, in full or in part, for any reason at their discretion.

#### 2. Who Can Apply

You can apply for Hong Kong Offer Shares on a **WHITE** or **YELLOW** Application Form if you or any person(s) for whose benefit you are applying:

- are 18 years of age or older;
- have a Hong Kong address;
- are outside the United States (within the meaning of Regulation S) or are a person described in paragraph (h)(3) of Rule 902 of Regulation S; and
- are not a legal or natural person of the PRC (except qualified domestic institutional investors).

# HOW TO APPLY FOR HONG KONG OFFER SHARES

If you apply for Hong Kong Offer Shares online through the **HK eIPO White Form** service, in addition to the above you must also:

- have a valid Hong Kong identity card number; and
- provide a valid e-mail address and a contact telephone number.

If you are a firm, the application must be in the individual members' names. If you are a body corporate, the Application Form must be signed by a duly authorised officer, who must state his representative capacity, and stamped with your corporation's chop.

If an application is made by a person under a power of attorney, the Company and the Joint Global Coordinators, as the Company's agent, may accept it at their discretion, and on any conditions they think fit, including requiring evidence of the attorney's authority.

The number of joint applicants may not exceed four and they may not apply by means of the **HK eIPO White Form** service for the Hong Kong Offer Shares.

Unless permitted by the Listing Rules, you cannot apply for any Hong Kong Offer Shares if:

- you are an existing beneficial owner of Shares and/or a substantial shareholder of any of the Company's subsidiaries;
- you are a director or chief executive of the Company and/or any of the Company's subsidiaries;
- you are a close associate of any of the above persons;
- you are a core connected person of the Company or a person who will become a core connected person of the Company immediately upon the completion of the Global Offering; or
- you have been allocated or have applied for any International Offer Shares or otherwise participate in the International Offering.

## 3. Applying for Hong Kong Offer Shares

#### Which Application Channel to Use

For Hong Kong Offer Shares to be issued in your own name, use a WHITE Application Form or apply online through the HK eIPO White Form service at www.hkeipo.hk.

For Hong Kong Offer Shares to be issued in the name of HKSCC Nominees and deposited directly into CCASS to be credited to your or a designated CCASS Participant's stock account, use a **YELLOW** Application Form or electronically instruct HKSCC via CCASS to cause HKSCC Nominees to apply for you.

#### Where to Collect the Application Forms

You can collect a **WHITE** Application Form and a prospectus during normal business hours from 9:00 a.m. on Friday, May 17, 2019 until 12:00 noon on Wednesday, May 22, 2019 from:

(a) any of the following offices of the Joint Sponsors:

Merrill Lynch Far East Limited	Goldman Sachs (Asia) L.L.C.
55/F, Cheung Kong Center	59/F, Cheung Kong Center
2 Queen's Road Central	2 Queen's Road Central
Hong Kong	Hong Kong

(b) any of the following branches of the receiving bank for the Hong Kong Public Offering:

	Branch Name	Address
Hong Kong Island	Shek Tong Tsui Branch	534 Queen's Road West,
	Gilman Street Branch	Shek Tong Tsui, Hong Kong 136 Des Voeux Road Central,
Kowloon	194 Cheung Sha Wan Road	Hong Kong 194-196 Cheung Sha Wan
	Branch	Road, Sham Shui Po,
		Kowloon
	Olympian City Branch	Shop 133, 1/F, Olympian
		City 2, 18 Hoi Ting Road,
		Kowloon
New Territories	Shatin Branch	Shop 20, Level 1, Lucky
		Plaza, 1-15 Wang Pok Street,
		Sha Tin, New Territories
	Kwai Cheong Road Branch	40 Kwai Cheong Road, Kwai
		Chung, New Territories

#### (i) Bank of China (Hong Kong) Limited

You can collect a **YELLOW** Application Form and a prospectus during normal business hours from 9:00 a.m. on Friday, May 17, 2019 until 12:00 noon on Wednesday, May 22, 2019 from:

- the Depository Counter of HKSCC at 1/F, One & Two Exchange Square, 8 Connaught Place, Central, Hong Kong; or
- your stockbroker.

#### Time for Lodging Application Forms

Your completed **WHITE** or **YELLOW** Application Form, together with a cheque or a banker's cashier order attached and marked payable to "BANK OF CHINA (HONG KONG) NOMINEES LIMITED — FRONTAGE HOLDINGS PUBLIC OFFER" for the payment, should be deposited in the special collection boxes provided at any of the branches of the receiving bank listed above at the following times:

Friday, May 17, 2019 — 9:00 a.m. to 5:00 p.m. Saturday, May 18, 2019 — 9:00 a.m. to 1:00 p.m. Monday, May 20, 2019 — 9:00 a.m. to 5:00 p.m. Tuesday, May 21, 2019 — 9:00 a.m. to 5:00 p.m. Wednesday, May 22, 2019 — 9:00 a.m. to 12:00 noon

The application lists will be open from 11:45 a.m. to 12:00 noon on Wednesday, May 22, 2019, the last day for applications, or such later time as described in "— *Effect of Bad Weather on the Opening and Closing of the Application Lists*" below.

#### 4. Terms and Conditions of an Application

Follow the detailed instructions in the **WHITE** or **YELLOW** Application Form carefully, otherwise your application may be rejected.

By submitting a WHITE or YELLOW Application Form or applying through the HK eIPO White Form service, among other things, you:

- (a) undertake to execute all relevant documents and instruct and authorise the Company and/or the Joint Global Coordinators (or its agents or nominees), as agents of the Company, to execute any documents for you and to do on your behalf all things necessary to register any Hong Kong Offer Shares allocated to you in your name or in the name of HKSCC Nominees as required by the Articles of Association;
- (b) agree to comply with the Memorandum and Articles of Association of the Company, the Companies (Winding Up and Miscellaneous Provisions) Ordinance and Cayman Companies Law;
- (c) confirm that you have read the terms and conditions and application procedures set out in this prospectus and in the Application Form and agree to be bound by them;
- (d) confirm that you have received and read this prospectus and have relied only on the information and representations in this prospectus in making your application and will not rely on any other information or representations, except those in any supplement to this prospectus;

- (e) confirm that you are aware of the restrictions on the Global Offering set out in this prospectus;
- (f) agree that none of the Company, the Relevant Persons and the HK eIPO White Form Service Provider is or will be liable for any information and representations not in this prospectus (and any supplement to this prospectus);
- (g) undertake and confirm that you or the person(s) for whose benefit you have made the application have not applied for or taken up, or indicated an interest for, and will not apply for or take up, or indicate an interest for, any International Offer Shares nor participated in the International Offering;
- (h) agree to disclose to the Company, the Hong Kong Share Registrar, the receiving banks and the Relevant Persons any personal data which any of them may require about you and the person(s) for whose benefit you have made the application;
- (i) if the laws of any place outside Hong Kong apply to your application, agree and warrant that you have complied with all such laws and neither the Company nor the Relevant Persons will breach any laws outside Hong Kong as a result of the acceptance of your offer to purchase, or any action arising from your rights and obligations under the terms and conditions in this prospectus and the Application Form;
- (j) agree that once your application has been accepted, you may not rescind it because of an innocent misrepresentation;
- (k) agree that your application will be governed by the laws of Hong Kong;
- (1) represent, warrant and undertake that (i) you understand that the Hong Kong Offer Shares have not been and will not be registered under the U.S. Securities Act and (ii) you and any person for whose benefit you are applying for the Hong Kong Offer Shares are outside the United States (within the meaning of Regulation S) or are a person described in paragraph (h)(3) of Rule 902 of Regulation S;
- (m) warrant that the information you have provided is true and accurate;
- (n) agree to accept the Hong Kong Offer Shares applied for or any lesser number allocated to you under the application;

- (o) authorise (i) the Company to place your name(s) or the name of HKSCC Nominees on the register of members of the Company as the holder(s) of any Hong Kong Offer Shares allocated to you and such other registers as required under the Memorandum and Articles of Association of the Company and (ii) the Company and/or its agents to send any Share certificate(s) and/or any e-Auto Refund payment instructions and/or any refund cheque(s) to you or the first-named applicant for joint applications by ordinary post at your own risk to the address stated on the application, unless you have fulfilled the criteria mentioned in "— *Personal Collection*" below to collect the Share certificate(s) and/or refund cheque(s) in person;
- (p) declare and represent that this is the only application made and the only application intended by you to be made to benefit you or the person for whose benefit you are applying;
- (q) understand that the Company, the Directors and the Joint Global Coordinators will rely on your declarations and representations in deciding whether or not to allocate any of the Hong Kong Offer Shares to you and that you may be prosecuted for making a false declaration;
- (r) (if the application is made for your own benefit) warrant that no other application has been or will be made for your benefit on a WHITE or YELLOW Application Form or by giving electronic application instructions to HKSCC or through the HK eIPO White Form service or by any one as your agent or by any other person; and
- (s) (if you are making the application as an agent for the benefit of another person) warrant that (i) no other application has been or will be made by you as agent for or for the benefit of that person or by that person or by any other person as agent for that person on a WHITE or YELLOW Application Form or by giving electronic application instructions to HKSCC and (ii) you have due authority to sign the Application Form or give electronic application instructions on behalf of that other person as its agent.

#### Additional Instructions for YELLOW Application Forms

You should refer to the YELLOW Application Form for details.

#### 5. Applying Through the HK eIPO White Form Service

#### General

Individuals who meet the criteria in "— *Who Can Apply*" above may apply through the **HK eIPO** White Form service for the Offer Shares to be allocated and registered in their own names through the designated website at www.hkeipo.hk.

Detailed instructions for application through the **HK eIPO White Form** service are set out on the designated website. If you do not follow the instructions, your application may be rejected and may not be submitted to the Company. If you apply through the designated website, you authorise the HK eIPO White Form Service Provider to apply on the terms and conditions in this prospectus, as supplemented and amended by the terms and conditions of the HK eIPO White Form Service Provider.

#### Time for Submitting Applications under the HK eIPO White Form Service

You may submit your application through the service through the designated website at **www.hkeipo.hk** (24 hours daily, except on the last day for applications) from 9:00 a.m. on Friday, May 17, 2019 until 11:30 a.m. on Wednesday, May 22, 2019 and the latest time for completing full payment of application monies in respect of such applications will be 12:00 noon on Wednesday, May 22, 2019, the last day for applications, or such later time as described in "— *Effect of Bad Weather on the Opening and Closing of the Application Lists*" below.

#### No Multiple Applications

If you apply by means of the **HK eIPO White Form** service, once you complete payment in respect of any electronic application instruction given by you or for your benefit through the **HK eIPO White Form** service to make an application for Hong Kong Offer Shares, an actual application will be deemed to have been made. For the avoidance of doubt, giving an electronic application instruction under the **HK eIPO White Form** service more than once and obtaining different payment reference numbers without effecting full payment in respect of a particular reference number will not constitute an actual application.

Only one application may be made for the benefit of any person. If you are suspected of submitting more than one application through the **HK eIPO White Form** service or by any other means, all of your applications are liable to be rejected.

#### Section 40 of the Companies (Winding Up and Miscellaneous Provisions) Ordinance

For the avoidance of doubt, the Company and all other parties involved in the preparation of this prospectus acknowledge that each applicant who gives or causes to give electronic application instructions is a person who may be entitled to compensation under Section 40 of the Companies (Winding Up and Miscellaneous Provisions) Ordinance (as applied by Section 342E of the Companies (Winding Up and Miscellaneous Provisions) Ordinance).

#### 6. Applying By Giving Electronic Application Instructions to HKSCC via CCASS

#### General

CCASS Participants may give electronic application instructions to apply for the Hong Kong Offer Shares and to arrange payment of the money due on application and payment of refunds under their participant agreements with HKSCC and the General Rules of CCASS and the CCASS Operational Procedures.

If you are a **CCASS Investor Participant**, you may give these **electronic application instructions** through the CCASS Phone System by calling +852 2979 7888 or through the CCASS Internet System (**https://ip.ccass.com**) (using the procedures in HKSCC's "An Operating Guide for Investor Participants" in effect from time to time).

HKSCC can also input electronic application instructions for you if you go to:

# Hong Kong Securities Clearing Company Limited

Customer Service Centre 1/F, One & Two Exchange Square, 8 Connaught Place, Central, Hong Kong

and complete an input request form.

You can also collect a prospectus from the above address.

If you are not a CCASS Investor Participant, you may instruct your broker or custodian who is a CCASS Clearing Participant or a CCASS Custodian Participant to give electronic application instructions via CCASS terminals to apply for the Hong Kong Offer Shares on your behalf.

You will be deemed to have authorised HKSCC and/or HKSCC Nominees to transfer the details of your application to the Company, the Joint Global Coordinators and the Hong Kong Share Registrar.

#### Giving Electronic Application Instructions to HKSCC via CCASS

Where you have given **electronic application instructions** to apply for the Hong Kong Offer Shares and a **WHITE** Application Form is signed by HKSCC Nominees on your behalf:

- (a) HKSCC Nominees will only be acting as a nominee for you and is not liable for any breach of the terms and conditions of the **WHITE** Application Form or this prospectus; and
- (b) HKSCC Nominees will do the following things on your behalf:
  - agree that the Hong Kong Offer Shares to be allocated shall be registered in the name of HKSCC Nominees and deposited directly into CCASS for the credit of the CCASS Participant's stock account on your behalf or your CCASS Investor Participant's stock account;
  - agree to accept the Hong Kong Offer Shares applied for or any lesser number allocated;
  - undertake and confirm that you have not applied for or taken up, or indicated an interest for, and will not apply for or take up, or indicate an interest for, any International Offer Shares nor participated in the International Offering;

- (if the electronic application instructions are given for your benefit) declare that only one set of **electronic application instructions** has been given for your benefit;
- (if you are an agent for another person) declare that you have only given one set of **electronic application instructions** for the other person's benefit and are duly authorised to give those instructions as its agent;
- confirm that you understand that the Company, the Directors and the Joint Global Coordinators will rely on your declarations and representations in deciding whether or not to allocate any of the Hong Kong Offer Shares to you and that you may be prosecuted for making a false declaration;
- authorise the Company to place HKSCC Nominees' names on the register of members of the Company as the holder of the Hong Kong Offer Shares allocated to you and such other registers as required under the Articles of Association, and despatch Share certificate(s) and/or refund monies in accordance with the arrangements separately agreed between the Company and HKSCC;
- confirm that you have read the terms and conditions and application procedures set out in this prospectus and agree to be bound by them;
- confirm that you have received and read a copy of this prospectus and have relied only on the information and representations in this prospectus in causing the application to be made and will not rely on any other information or representations, except those in any supplement to this prospectus;
- agree that neither the Company nor the Relevant Persons are or will be liable for any information and representations not in this prospectus (and any supplement to this prospectus);
- agree to disclose to the Company, the Hong Kong Share Registrar, the receiving banks and the Relevant Persons any personal data which they may require about you;
- agree (without prejudice to any other rights which you may have) that once HKSCC Nominees' application has been accepted, it cannot be rescinded for innocent misrepresentation;
- agree that any application made by HKSCC Nominees on your behalf is irrevocable on or before June 16, 2019, such agreement to take effect as a collateral contract with the Company, and to become binding when you give the instructions and such collateral contract to be in consideration of the Company agreeing that it will not offer any Hong Kong Offer Shares to any person on or before June 16, 2019, except by

means of one of the procedures referred to in this prospectus. However, HKSCC Nominees may revoke the application on or before June 16, 2019, if a person responsible for this prospectus under Section 40 of the Companies (Winding Up and Miscellaneous Provisions) Ordinance (as applied by Section 342E of the Companies (Winding Up and Miscellaneous Provisions) Ordinance) gives a public notice under that section on or before the fifth day after the time of the opening of the application lists (excluding any day which is a Saturday, Sunday or public holiday in Hong Kong) which excludes or limits that person's responsibility for this prospectus;

- agree that once HKSCC Nominees' application is accepted, neither that application nor **your electronic application instructions** can be revoked, and that acceptance of that application will be evidenced by the announcement of the results of the Hong Kong Public Offering by the Company;
- agree to the arrangements, undertakings and warranties under the participant agreement between you and HKSCC, read with the General Rules of CCASS and the CCASS Operational Procedures, for giving electronic application instructions to apply for Hong Kong Offer Shares;
- agree with the Company, for itself and for the benefit of each Shareholder (and so that the Company will be deemed by its acceptance in whole or in part of the application by HKSCC Nominees to have agreed, for the Company and on behalf of each Shareholder, with each CCASS Participant giving **electronic application instructions**) to observe and comply with the Memorandum and Articles of Association of the Company, the Companies (Winding Up and Miscellaneous Provisions) Ordinance and Cayman Companies Law; and
- agree that your application, any acceptance of it and the resulting contract will be governed by and construed in accordance with the laws of Hong Kong.

## Effect of Giving Electronic Application Instructions to HKSCC via CCASS

By giving **electronic application instructions** to HKSCC or instructing your broker or custodian who is a CCASS Clearing Participant or a CCASS Custodian Participant to give such instructions to HKSCC, you (and, if you are joint applicants, each of you jointly and severally) are deemed to have done the following things. Neither HKSCC nor HKSCC Nominees will be liable to the Company or any other person in respect of the things mentioned below:

• instructed and authorised HKSCC to cause HKSCC Nominees (acting as nominee for the relevant CCASS Participants) to apply for the Hong Kong Offer Shares on your behalf;

- instructed and authorised HKSCC to arrange payment of the Maximum Offer Price, brokerage, SFC transaction levy and Stock Exchange trading fee by debiting your designated bank account and, in the case of a wholly or partially unsuccessful application and/or if the Offer Price is less than the Maximum Offer Price initially paid on application, refund of the application monies (including brokerage, SFC transaction levy and Stock Exchange trading fee) by crediting your designated bank account; and
- instructed and authorised HKSCC to cause HKSCC Nominees to do on your behalf all the things stated in the **WHITE** Application Form and in this prospectus.

#### Minimum Purchase Amount and Permitted Numbers

You may give or cause your broker or custodian who is a CCASS Clearing Participant or a CCASS Custodian Participant to give **electronic application instructions** for a minimum of 2,000 Hong Kong Offer Shares. Instructions for more than 2,000 Hong Kong Offer Shares must be in one of the numbers set out in the table in the Application Forms. No application for any other number of Hong Kong Offer Shares will be considered and any such application is liable to be rejected.

#### Time for Inputting Electronic Application Instructions<sup>(1)</sup>

CCASS Clearing/Custodian Participants can input electronic application instructions at the following times on the following dates:  $^{(1)}$ 

Friday, May 17, 2019 — 9:00 a.m. to 8:30 p.m. Monday, May 20, 2019 — 8:00 a.m. to 8:30 p.m. Tuesday, May21, 2019 — 8:00 a.m. to 8:30 p.m. Wednesday, May 22, 2019 — 8:00 a.m. to 12:00 noon

CCASS Investor Participants can input **electronic application instructions** from 9:00 a.m. on Friday, May 17, 2019 until 12:00 noon on Wednesday, May 22, 2019 (24 hours daily, except on Wednesday, May 22, 2019, the last day for applications).

The latest time for inputting your **electronic application instructions** will be 12:00 noon on Wednesday, May 22, 2019, the last day for applications, or such later time as described in "— *Effect of Bad Weather on the Opening and Closing of the Application Lists*" below.

Note:

<sup>(1)</sup> The times in this sub-section are subject to change as HKSCC may determine from time to time with prior notification to CCASS Clearing/Custodian Participants and/or CCASS Investor Participants.

#### No Multiple Applications

If you are suspected of having made multiple applications or if more than one application is made for your benefit, the number of Hong Kong Offer Shares applied for by HKSCC Nominees will be automatically reduced by the number of Hong Kong Offer Shares for which you have given such instructions and/or for which such instructions have been given for your benefit. Any **electronic application instructions** to make an application for the Hong Kong Offer Shares given by you or for your benefit to HKSCC will be deemed to be an actual application for the purposes of considering whether multiple applications have been made.

#### Section 40 of the Companies (Winding Up and Miscellaneous Provisions) Ordinance

For the avoidance of doubt, the Company and all other parties involved in the preparation of this prospectus acknowledge that each CCASS Participant who gives or causes to give **electronic application instructions** is a person who may be entitled to compensation under Section 40 of the Companies (Winding Up and Miscellaneous Provisions) Ordinance (as applied by Section 342E of the Companies (Winding Up and Miscellaneous Provisions) Ordinance).

#### Personal Data

The section of the Application Form headed "Personal Data" applies to any personal data held by the Company, the Hong Kong Share Registrar, the receiving banks and the Relevant Persons about you in the same way as it applies to personal data about applicants other than HKSCC Nominees.

#### 7. Warning for Electronic Applications

The application for Hong Kong Offer Shares by giving **electronic application instructions** to HKSCC is a facility provided only to CCASS Participants. Similarly, the application for Hong Kong Offer Shares through the **HK eIPO White Form** service is a facility provided only by the HK eIPO White Form Service Provider to public investors. Such facilities are subject to capacity limitations and potential service interruptions and you are advised not to wait until the last day for applications to make your electronic application. The Company, the Relevant Persons and the HK eIPO White Form Service Provider take no responsibility for such applications and provide no assurance that any CCASS Participant or person applying through the **HK eIPO White Form** service will be allocated any Hong Kong Offer Shares.

To ensure that CCASS Investor Participants can give their **electronic application instructions**, they are advised not to wait until the last minute to input their instructions to the systems. In the event that CCASS Investor Participants have problems connecting to the CCASS Phone System or the CCASS Internet System for submission of their **electronic application instructions**, they should either (a) submit a **WHITE** or **YELLOW** Application Form or (b) go to HKSCC's Customer Service Centre to complete an input request form for **electronic application instructions** before 12:00 noon on Wednesday, May 22, 2019, the last day for applications, or such later time as described in "— *Effect of Bad Weather on the Opening and Closing of the Application Lists*" below.

#### 8. How Many Applications Can You Make

Multiple applications for the Hong Kong Offer Shares are not allowed except by nominees. If you are a nominee, in the box on the Application Form marked "For nominees", you must include:

- an account number; or
- some other identification code

for **each** beneficial owner or, in the case of joint beneficial owners, for each joint beneficial owner. If you do not include this information, the application will be treated as being made for your benefit.

All of your applications will be rejected if more than one application on a WHITE or YELLOW Application Form or by giving electronic application instructions to HKSCC or through the HK eIPO White Form service is made for your benefit (including the part of the application made by HKSCC Nominees acting on electronic application instructions).

If an application is made by an unlisted company and:

- the principal business of that company is dealing in securities; and
- you exercise statutory control over that company,

then the application will be treated as being made for your benefit.

"Unlisted company" means a company with no equity securities listed on the Stock Exchange.

"Statutory control" means you:

- control the composition of the board of directors of the company;
- control more than half of the voting power of the company; or
- hold more than half of the issued share capital of the company (not counting any part of it which carries no right to participate beyond a specified amount in a distribution of either profits or capital).

## B. HOW MUCH ARE THE HONG KONG OFFER SHARES

The Maximum Offer Price is HK\$4.00 per Offer Share. You must also pay a brokerage fee of 1.0%, an SFC transaction levy of 0.0027% and a Stock Exchange trading fee of 0.005%. This means that for one board lot of 2,000 Hong Kong Offer Shares, you will pay HK\$6,464.49.

You must pay the Maximum Offer Price, together with brokerage, SFC transaction levy and Stock Exchange trading fee, in full upon application for Hong Kong Offer Shares under the terms and conditions set out in the Application Forms.

The Application Forms have tables showing the exact amount payable for the numbers of Offer Shares that may be applied for.

You may submit an application using a WHITE or YELLOW Application Form or through the HK eIPO White Form service in respect of a minimum of 2,000 Hong Kong Offer Shares. Each application or electronic application instruction in respect of more than 2,000 Hong Kong Offer Shares must be in one of the numbers set out in the table in the Application Form, or as otherwise specified on the designated website at www.hkeipo.hk.

If your application is successful, the brokerage fee will be paid to the Exchange Participants (as defined in the Listing Rules), and the SFC transaction levy and the Stock Exchange trading fee will be paid to the Stock Exchange (in the case of the SFC transaction levy, collected by the Stock Exchange on behalf of the SFC).

For further details on the Offer Price, see "Structure of the Global Offering – Pricing and Allocation".

# C. EFFECT OF BAD WEATHER ON THE OPENING AND CLOSING OF THE APPLICATION LISTS

The application lists will not open or close if there is:

- a tropical cyclone warning signal number 8 or above; or
- a "black" rainstorm warning

in force in Hong Kong at any time between 9:00 a.m. and 12:00 noon on Wednesday, May 22, 2019. Instead, they will open between 11:45 a.m. and 12:00 noon on the next business day which does not have either of those warnings in force in Hong Kong at any time between 9:00 a.m. and 12:00 noon.

If the application lists do not open and close on Wednesday, May 22, 2019 or if there is a tropical cyclone warning signal number 8 or above or a "black" rainstorm warning signal in force in Hong Kong that may affect the dates mentioned in "*Expected Timetable*", an announcement will be made.

#### D. PUBLICATION OF RESULTS

The Company expects to announce the final Offer Price, the level of indications of interest in the International Offering, the level of applications in the Hong Kong Public Offering and the basis of allocations of the Hong Kong Offer Shares on Wednesday, May 29, 2019 in the *South China Morning Post* (in English) and the *Hong Kong Economic Times* (in Chinese) and on the websites of the Company at www.frontagelab.com and the Stock Exchange at www.hkexnews.hk.

The results of allocations and the Hong Kong identity card/passport/Hong Kong business registration numbers of successful applicants under the Hong Kong Public Offering will be available at the times and dates and in the manner set out below:

- in the announcement to be posted on the websites of the Company and the Stock Exchange at **www.frontagelab.com** and **www.hkexnews.hk**, respectively, by no later than 9:00 a.m. on Wednesday, May 29, 2019;
- from the designated results of allocations websites at **www.tricor.com.hk/ipo/result** and **www.hkeipo.hk/IPOResult** with a "search by ID" function on a 24 hour basis from 8:00 a.m. on Wednesday, May 29, 2019 to 12:00 midnight on Tuesday, June 4, 2019;
- from the allocation results telephone enquiry line by calling +852 3691 8488 between 9:00 a.m. and 6:00 p.m. from Wednesday, May 29, 2019 to Monday, June 3, 2019 (excluding Saturday, Sunday and Hong Kong public holiday); and
- in the special allocation results booklets which will be available for inspection during the opening hours of the individual receiving bank branches referred to above from Wednesday, May 29, 2019 to Friday, May 31, 2019.

If the Company accepts your offer to purchase (in whole or in part), which it may do by announcing the basis of allocations and/or making available the results of allocations publicly, there will be a binding contract under which you will be required to purchase the Hong Kong Offer Shares if the conditions of the Global Offering are satisfied and the Global Offering is not otherwise terminated. Further details are set out in "*Structure of the Global Offering*".

You will not be entitled to exercise any remedy of rescission for innocent misrepresentation at any time after acceptance of your application. This does not affect any other right you may have.

# E. CIRCUMSTANCES IN WHICH YOU WILL NOT BE ALLOCATED HONG KONG OFFER SHARES

You should note the following situations in which the Hong Kong Offer Shares will not be allocated to you:

#### (a) If your application is revoked:

By completing and submitting an Application Form or giving **electronic application instructions** to HKSCC or through the **HK eIPO White Form** service, you agree that your application or the application made by HKSCC Nominees on your behalf cannot be revoked on or before June 16, 2019. This agreement will take effect as a collateral contract with the Company.

Your application or the application made by HKSCC Nominees on your behalf may only be revoked on or before June 16, 2019 in the following circumstances:

- (i) if a person responsible for this prospectus under Section 40 of the Companies (Winding Up and Miscellaneous Provisions) Ordinance (as applied by Section 342E of the Companies (Winding Up and Miscellaneous Provisions) Ordinance) gives a public notice under that section on or before the fifth day after the time of the opening of the application lists (excluding any day which is a Saturday, Sunday or public holiday in Hong Kong) which excludes or limits that person's responsibility for this prospectus; or
- (ii) if any supplement to this prospectus is issued, in which case applicants who have already submitted an application will be notified that they are required to confirm their applications. If applicants have been so notified but have not confirmed their applications in accordance with the procedure to be notified, all unconfirmed applications will be deemed revoked.

If your application or the application made by HKSCC Nominees on your behalf has been accepted, it cannot be revoked. For this purpose, acceptance of applications which are not rejected will be constituted by notification in the press of the results of allocation, and where such basis of allocation is subject to certain conditions or provides for allocation by ballot, such acceptance will be subject to the satisfaction of such conditions or results of the ballot, respectively.

#### (b) If the Company or its agents exercise their discretion to reject your application:

The Company, the Joint Global Coordinators, the HK eIPO White Form Service Provider and their respective agents or nominees have full discretion to reject or accept any application, or to accept only part of any application, without giving any reasons.

#### (c) If the allocation of Hong Kong Offer Shares is void:

The allocation of Hong Kong Offer Shares will be void if the Listing Committee does not grant permission to list the Shares either:

- within three weeks from the closing date of the applications lists; or
- within a longer period of up to six weeks if the Listing Committee notifies the Company of that longer period within three weeks of the closing date of the application lists.

#### (d) If:

- you make multiple applications or are suspected of making multiple applications;
- you, or the person for whose benefit you apply for, have applied for or taken up, or indicated an interest for, or have been or will be placed or allocated (including conditionally and/or provisionally) Hong Kong Offer Shares and International Offer Shares;
- your payment is not made correctly or the cheque or banker's cashier order paid by you is dishonoured upon its first presentation;
- your Application Form is not completed in accordance with the stated instructions;
- your electronic application instructions through the HK eIPO White Form service are not completed in accordance with the instructions, terms and conditions on the designated website at www.hkeipo.hk;
- you apply for more than 25,096,000 Hong Kong Offer Shares, being 50% of the 50,192,000 Hong Kong Offer Shares initially available under the Hong Kong Public Offering;
- the Company or the Joint Global Coordinators believe that by accepting your application, it would violate applicable securities or other laws, rules or regulations; or
- the Underwriting Agreements do not become unconditional or are terminated.

## F. REFUND OF APPLICATION MONIES

If an application is rejected, not accepted or accepted in part only, or if the Offer Price as finally determined is less than the Maximum Offer Price per Offer Share (excluding the brokerage fee, SFC transaction levy and Stock Exchange trading fee payable thereon) paid on application, or if the conditions of the Global Offering as set out in "*Structure of the Global Offering — Conditions of the Global Offering*" are not satisfied or if any application is revoked, the application monies, or the appropriate portion thereof, together with the related brokerage fee, SFC transaction levy and Stock Exchange trading fee, will be refunded, without interest or the cheque or banker's cashier order will not be cleared.

Any refund of your application monies will be made on or before Wednesday, May 29, 2019.

# G. DESPATCH/COLLECTION OF SHARE CERTIFICATES/E-AUTO REFUND PAYMENT INSTRUCTIONS/REFUND CHEQUES

You will receive one Share certificate for all Hong Kong Offer Shares allocated to you under the Hong Kong Public Offering (except pursuant to applications made on **YELLOW** Application Forms or by **electronic application instructions** to HKSCC via CCASS where the Share certificates will be deposited into CCASS as described below).

No temporary document of title will be issued in respect of the Offer Shares. No receipt will be issued for sums paid on application.

If you apply by **WHITE** or **YELLOW** Application Form, subject to personal collection as mentioned below, the following will be sent to you (or, in the case of joint applicants, to the first-named applicant) by ordinary post, at your own risk, to the address specified on the Application Form:

- (a) Share certificate(s) for all the Hong Kong Offer Shares allocated to you (for applicants on YELLOW Application Forms, Share certificate(s) for the Hong Kong Offer Shares allocated to you will be deposited into CCASS as described below); and
- (b) refund cheque(s) crossed "Account Payee Only" in favour of the applicant (or, in the case of joint applicants, the first-named applicant) for (i) all or the surplus application monies for the Hong Kong Offer Shares, wholly or partially unsuccessfully applied for and/or (ii) the difference between the Offer Price and the Maximum Offer Price paid on application in the event that the Offer Price is less than the Maximum Offer Price paid on application (including a brokerage fee of 1.0%, SFC transaction levy of 0.0027% and Stock Exchange trading fee of 0.005% but without interest).

Part of the Hong Kong identity card number/passport number provided by you or the first-named applicant (if you are joint applicants) may be printed on your refund cheque, if any. Your banker may require verification of your Hong Kong identity card number/passport number before encashment of your refund cheque. Inaccurate completion of your Hong Kong identity card number/passport number may invalidate or delay encashment of your refund cheque.

Subject to arrangement on despatch/collection of Share certificates and refund cheques as mentioned below, any refund cheques and Share certificate(s) are expected to be posted on or before Wednesday, May 29, 2019. The right is reserved to retain any Share certificate(s) and any surplus application monies pending clearance of cheque(s) or banker's cashier order(s).

Share certificates will only become valid at 8:00 a.m. on Thursday, May 30, 2019, provided that the Global Offering has become unconditional in all respects at or before that time. Investors who trade Share on the basis of publicly available allocation details or prior to the receipt of the Share certificates or prior to the Share certificates becoming valid do so entirely at their own risk.

## **Personal Collection**

#### (a) If you apply using a WHITE Application Form:

- If you apply for 1,000,000 Hong Kong Offer Shares or more on a **WHITE** Application Form and have provided all information required by your Application Form, you may collect your refund cheque(s) and/or Share certificate(s) (where applicable) from the Hong Kong Share Registrar, Tricor Investor Services Limited at Level 22, Hopewell Centre, 183 Queen's Road East, Hong Kong from 9:00 a.m. to 1:00 p.m. on Wednesday, May 29, 2019, or any other place or date notified by the Company in the newspapers.
- If you are an individual who is eligible for personal collection, you must not authorise any other person to collect for you. If you are a corporate applicant who is eligible for personal collection, your authorised representative must provide a letter of authorisation from your corporation stamped with your corporation's chop. Both individuals and authorised representatives must produce, at the time of collection, evidence of identity acceptable to the Hong Kong Share Registrar.
- If you do not personally collect your refund cheque(s) and/or Share certificate(s) (where applicable) within the time specified for collection, they will be despatched promptly to you to the address specified in your Application Form by ordinary post and at your own risk.
- If you apply for less than 1,000,000 Hong Kong Offer Shares on a **WHITE** Application Form, your refund cheque(s) and/or Share certificate(s) (where applicable) will be sent to the address specified in your Application Form on or before Wednesday, May 29, 2019 by ordinary post and at your own risk.

## (b) If you apply using a YELLOW Application Form:

- If you apply for 1,000,000 Hong Kong Offer Shares or more and have provided all information required by your Application Form, please follow the same instructions as described above for collection of your refund cheque(s). If you have applied for less than 1,000,000 Hong Kong Offer Shares, your refund cheque(s) will be sent to the address specified in the Application Form on Wednesday, May 29, 2019 by ordinary post and at your own risk.
- If you apply by using a **YELLOW** Application Form and your application is wholly or partially successful, your Share certificate(s) will be issued in the name of HKSCC Nominees and deposited into CCASS for credit to your or your designated CCASS Participant's stock account as stated in your Application Form on Wednesday, May 29, 2019 or, in the event of a contingency, on any other date determined by HKSCC or HKSCC Nominees.
- If you apply through a designated CCASS Participant (other than a CCASS Investor Participant) for Hong Kong Offer Shares credited to your designated CCASS Participant's stock account (other than a CCASS Investor Participant), you can check the number of Hong Kong Offer Shares allocated to you with that CCASS Participant.
- If you apply as a CCASS Investor Participant, the Company expects to publish the results of CCASS Investor Participants' applications together with the results of the Hong Kong Public Offering on Wednesday, May 29, 2019 in the manner as described in "— *Publication of Results*" above. You should check the announcement published by the Company and report any discrepancies to HKSCC before 5:00 p.m. on Wedneday, May 29, 2019 or any other date as determined by HKSCC or HKSCC Nominees. Immediately after the credit of the Hong Kong Offer Shares to your stock account, you can check your new account balance via the CCASS Phone System and the CCASS Internet System. HKSCC will also make available to you an activity statement showing the number of Hong Kong Offer Shares credited to your CCASS Investor Participant stock account.

#### (c) If you apply through HK eIPO White Form service:

- If you apply for 1,000,000 Hong Kong Offer Shares or more through the **HK eIPO White Form** service and your application is wholly or partially successful, you may collect your Share certificate(s) (where applicable) in person from the Hong Kong Share Registrar, Tricor Investor Services Limited at Level 22, Hopewell Centre, 183 Queen's Road East, Hong Kong, from 9:00 a.m. to 1:00 p.m. on Wednesday, May 29, 2019, or any other place or date notified by the Company in the newspapers as the date of despatch or collection of Share certificates.
- If you do not personally collect your Share certificate(s) within the time specified for collection, they will be sent to the address specified in your application instructions by ordinary post and at your own risk.

- If you apply for less than 1,000,000 Hong Kong Offer Shares through the **HK eIPO White Form** service, your Share certificate(s) (where applicable) will be sent to the address specified in your application instructions on or before Wednesday, May 29, 2019 by ordinary post and at your own risk.
- If you apply and pay the application monies from a single bank account, any refund monies will be despatched to that bank account in the form of e-Auto Refund payment instructions. If you apply and pay the application monies from multiple bank accounts, any refund monies will be despatched to the address specified in your application instructions in the form of refund cheque(s) on or before Wednesday, May 29, 2019 by ordinary post and at your own risk.

## (d) If you apply by giving electronic application instructions to HKSCC via CCASS:

## Allocation of Hong Kong Offer Shares

• For the purposes of allocating Hong Kong Offer Shares, HKSCC Nominees will not be treated as an applicant. Instead, each CCASS Participant who gives **electronic application instructions** or each person for whose benefit instructions are given will be treated as an applicant.

#### Deposit of Share Certificates into CCASS and Refund of Application Monies

- If your application is wholly or partially successful, your Share certificate(s) will be issued in the name of HKSCC Nominees and deposited into CCASS for the credit of your designated CCASS Participant's stock account or your CCASS Investor Participant stock account on Wednesday, May 29, 2019 or on any other date determined by HKSCC or HKSCC Nominees.
- The Company expects to publish the application results of CCASS Participants (and where the CCASS Participant is a broker or custodian, the Company will include information relating to the relevant beneficial owner), your Hong Kong identity card/passport/Hong Kong business registration number or other identification code (Hong Kong business registration number for corporations) and the basis of allocations of the Hong Kong Offer Shares in the manner as described in "— *Publication of Results*" above on Wednesday, May 29, 2019. You should check the announcement published by the Company and report any discrepancies to HKSCC before 5:00 p.m. on Wednesday, May 29, 2019 or such other date as determined by HKSCC or HKSCC Nominees.
- If you have instructed your broker or custodian to give **electronic application instructions** on your behalf, you can also check the number of Hong Kong Offer Shares allocated to you and the amount of refund monies (if any) payable to you with that broker or custodian.

- If you have applied as a CCASS Investor Participant, you can also check the number of Hong Kong Offer Shares allocated to you and the amount of refund monies (if any) payable to you via the CCASS Phone System and the CCASS Internet System (under the procedures contained in HKSCC's "An Operating Guide for Investor Participants" in effect from time to time) on Wednesday, May 29, 2019. Immediately following the credit of the Hong Kong Offer Shares to your stock account and the credit of the refund monies to your bank account, HKSCC will also make available to you an activity statement showing the number of Hong Kong Offer Shares credited to your CCASS Investor Participant stock account and the amount of refund monies (if any) credited to your designated bank account.
- Refund of your application monies (if any) in respect of wholly and partially unsuccessful applications and/or a difference between the Offer Price and the Maximum Offer Price per Offer Share initially paid on application (including brokerage, SFC transaction levy and Stock Exchange trading fee but without interest) will be credited to your designated bank account or the designated bank account of your broker or custodian on Wednesday, May 29, 2019.

# H. ADMISSION OF THE SHARES INTO CCASS

If the Stock Exchange grants the listing of, and permission to deal in, the Shares and the Company complies with the stock admission requirements of HKSCC, the Shares will be accepted as eligible securities by HKSCC for deposit, clearance and settlement in CCASS with effect from the date of commencement of dealings in the Shares on the Stock Exchange or any other date HKSCC chooses. Settlement of transactions between Exchange Participants (as defined in the Listing Rules) is required to take place in CCASS on the second business day after any trading day.

All activities under CCASS are subject to the General Rules of CCASS and CCASS Operational Procedures in effect from time to time.

Investors should seek the advice of their stockbroker or other professional adviser for details of the settlement arrangements as such arrangements may affect their rights and interests.

All necessary arrangements have been made to enable the Shares to be admitted into CCASS.

The following is the text of a report received from the Company's reporting accountants, Deloitte Touche Tohmatsu, Certified Public Accountants, Hong Kong, for the purpose of incorporation in this prospectus.

# **Deloitte.**



## ACCOUNTANTS' REPORT ON HISTORICAL FINANCIAL INFORMATION TO THE DIRECTORS OF FRONTAGE HOLDINGS CORPORATION, MERRILL LYNCH FAR EAST LIMITED AND GOLDMAN SACHS (ASIA) L.L.C.

#### Introduction

We report on the historical financial information of Frontage Holdings Corporation (the "Company") and its subsidiaries (hereinafter collectively referred to as the "Group") set out on pages I-4 to I-106, which comprises the consolidated statements of financial position of the Group as at December 31, 2016, 2017 and 2018, the statement of financial position of the Company as at December 31, 2018, the consolidated statements of profit or loss and other comprehensive income, the consolidated statements of changes in equity and the consolidated statements of cash flows of the Group for each of the three years ended December 31, 2018 (the "Track Record Period") and a summary of significant accounting policies and other explanatory information (together, the "Historical Financial Information"). The Historical Financial Information forms an integral part of this report, which has been prepared for inclusion in the prospectus of the Company dated May 17, 2019 (the "Prospectus") in connection with the initial listing of the shares of the Company on the Main Board of The Stock Exchange of Hong Kong Limited (the "Stock Exchange").

#### Directors' responsibility for the Historical Financial Information

The directors of the Company are responsible for the preparation of the Historical Financial Information that gives a true and fair view in accordance with the basis of preparation and presentation set out in Note 2 to the Historical Financial Information, and for such internal control as the directors of the Company determine is necessary to enable the preparation of the Historical Financial Information that is free from material misstatement, whether due to fraud or error.

#### Reporting accountants' responsibility

Our responsibility is to express an opinion on the Historical Financial Information and to report our opinion to you. We conducted our work in accordance with Hong Kong Standard on Investment Circular Reporting Engagements 200 "Accountants' Reports on Historical Financial Information in Investment Circulars" issued by the Hong Kong Institute of Certified Public Accountants (the "HKICPA"). This standard requires that we comply with ethical standards and plan and perform our work to obtain reasonable assurance about whether the Historical Financial Information is free from material misstatement.

#### **ACCOUNTANTS' REPORT**

Our work involved performing procedures to obtain evidence about the amounts and disclosures in the Historical Financial Information. The procedures selected depend on the reporting accountants' judgement, including the assessment of risks of material misstatement of the Historical Financial Information, whether due to fraud or error. In making those risk assessments, the reporting accountants consider internal control relevant to the entity's preparation of the Historical Financial Information that gives a true and fair view in accordance with the basis of preparation and presentation set out in Note 2 to the Historical Financial Information in order to design procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Our work also included evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the directors of the Company, as well as evaluating the overall presentation of the Historical Financial Information.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

#### Opinion

In our opinion, the Historical Financial Information gives, for the purposes of the accountants' report, a true and fair view of the Group's financial position as at December 31, 2016, 2017 and 2018, of the Company's financial position as at December 31, 2018, and of the Group's financial performance and cash flows for the Track Record Period in accordance with the basis of preparation and presentation set out in Note 2 to the Historical Financial Information.

Report on matters under the Rules Governing the Listing of Securities on the Stock Exchange and the Companies (Winding Up and Miscellaneous Provisions) Ordinance

#### Adjustments

In preparation of the Historical Financial Information, no adjustments to the Underlying Financial Statements as defined on page I-3 as have been made.

#### Dividends

We refer to Note 17 to the Historical Financial Information which states that no dividends have been declared or paid by any companies comprising the Group in respect of the Track Record Period.

**Deloitte Touche Tohmatsu** *Certified Public Accountants* Hong Kong May 17, 2019

#### HISTORICAL FINANCIAL INFORMATION OF THE GROUP

#### **Preparation of Historical Financial Information**

Set out below is the Historical Financial Information which forms an integral part of this accountants' report.

The consolidated financial statements of the Group for the Track Record Period, on which the Historical Financial Information is based, have been prepared in accordance with the accounting policies which conform with International Financial Reporting Standards ("IFRSs") issued by the International Accounting Standards Board (the "IASB") and were audited by us in accordance with Hong Kong Standards on Auditing issued by the HKICPA ("Underlying Financial Statements").

The Historical Financial Information is presented in US dollars ("US\$") and all values are rounded to the nearest thousand (US\$'000) except when otherwise indicated.

# CONSOLIDATED STATEMENTS OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

		Year ended December 31,		oer 31,
	NOTES	2016	2017	2018
		US\$'000	US\$'000	US\$'000
Continuing operations				
Revenue	6	48,644	70,245	83,114
Cost of services	0	(29,353)	(39,162)	(49,216)
Gross profit Other income	8	19,291 312	31,083 244	33,898 467
Other gains and losses, net	9	115	(23)	82
Research and development expenses		(484)	(1,296)	(1,694)
Impairment losses recognised on		(101)	(1,2)0)	(1,0)1)
- trade receivables	24a	(632)	(298)	(608)
- unbilled revenue	24b	(112)	(328)	(39)
Selling and marketing expenses		(1,894)	(1,569)	(2,585)
Listing expenses		_	_	(6,386)
Gain on disposal of an associate	21			437
Gain on disposal of subsidiaries	45	—		143
Bargain purchase gain	44	—		788
Administrative expenses		(6,522)	(8,285)	(10,368)
Finance cost	10	(272)	(315)	(378)
Share of profit (loss) of associates	21	568	(1,345)	336
Impairment of investment in an associate	21		(1,736)	
Profit before tax	11	10,370	16,132	14,093
Income tax expense	12	(3,134)	(5,967)	(2,852)
Profit for the year from continuing operations		7,236	10,165	11,241
Discontinued operation				
Loss for the year from a discontinued operation	15	(590)		
Profit for the year attributable to the owners of the				
Company		6,646	10,165	11,241
Other comprehensive (expense) income				
Items that may be reclassified subsequently to profit or				
loss:				
Exchange differences arising from translation of foreign				
operations		(246)	467	(971)
Total comprehensive income for the year attributable				
to the owners of the Company		6,400	10,632	10,270
	16			
Earnings per share	16			
From continuing and discontinued operations		0.0044	0 0069	0.0075
— Basic (US\$)		0.0044	0.0068	0.0075
— Diluted (US\$)		0.0044	0.0067	0.0074
From continuing operations				
— Basic (US\$)		0.0048	0.0068	0.0075
— Diluted (US\$)		0.0048	0.0067	0.0074

# STATEMENTS OF FINANCIAL POSITION

				The Company	
				As at	
			December 31,		December 31,
	NOTES	2016	2017	2018	2018
_		US\$'000	US\$'000	US\$'000	US\$'000
NON-CURRENT ASSETS					
Property, plant and					
equipment.	19	12,580	14,244	22,884	
Intangible assets	20	12,500		22,004	
Investments in associates	20	10,646	10,735	9,879	
Investments in a subsidiary.	18	10,040	10,755	),07)	28,421
Long-term note	10		_		20,421
receivables	22	1,190	1,190	_	_
Deferred tax assets	23	53	57	68	_
Restricted bank deposits	25	550	550	300	_
Other long-term deposits	26	82	82	120	
		25,101	26,858	33,276	28,421
CURRENT ASSETS					
Inventories				73	_
Trade and other receivables					
and prepayment	24a	8,344	13,161	19,456	2,206
Unbilled revenue	24b	5,940	12,635	7,129	_
Tax recoverable			198	1,209	_
Restricted bank deposits	25	_	—	15	_
Cash and cash equivalents .	25	3,254	4,339	16,306	
		17,538	30,333	44,188	2,206
CURRENT LIABILITIES					
Trade and other payables .	27a	2,760	5,145	11,050	8,592
Advances from customers .	27b	9,732	10,360	11,350	_
Bank borrowings	28	435	2,245	2,667	_
Loans from related parties .	29	200		1,500	_
Income tax payable		56	—	1,093	—
Consideration payable on					
acquisition of an					
associate	30	1,119	—	—	—
Amounts due to					
shareholders	31	210	210	210	—
Obligations under finance					
leases	32	1,250	1,642	1,864	
		15,762	19,602	29,734	8,592

# ACCOUNTANTS' REPORT

			The Group		The Company
			As at December 31,		As at December 31,
	NOTES	2016	2017	2018	2018
_		US\$'000	US\$'000	US\$'000	US\$'000
NET CURRENT ASSETS					
(LIABILITIES)		1,776	10,731	14,454	(6,386)
TOTAL ASSETS LESS CURRENT					
LIABILITIES		26,877	37,589	47,730	22,035
NON-CURRENT LIABILITIES					
Bank borrowings	28	_	1,167	500	
Loans from related parties .	29	3,000	3,000	—	
Deferred tax liabilities Obligations under finance	23	1,659	25	767	
leases	32	2,852	2,616	2,311	
Other long-term liabilities .	33	585	561	518	
		8,096	7,369	4,096	
NET ASSETS		18,781	30,220	43,634	22,035
CAPITAL AND RESERVES					
Invested capital/share					
capital	34	18,800	18,800	2	2
Reserves	47	(19)	11,420	43,632	22,033
TOTAL EQUITY		18,781	30,220	43,634	22,035

# **ACCOUNTANTS' REPORT**

## CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

			Reserves								
	Share capital	Invested capital	Share premium	Statutory reserve	currency	Equity-settled share based compensation reserve	Reorganisation reserve	Capital reserve	Accumulated (loss) profit	Total reserves	Total
	US\$'000	US\$'000	US\$'000	US\$'000 (note (i))	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000
As at January 1, 2016		18,800			449	212			(7,620)	(6,959)	11,841
Profit for the year	_	_	_	_	_	_	_	_	6,646	6,646	6,646
Other comprehensive expense for the year	_	_	_	_	(246)	_	_	_	_	(246)	(246)
Total comprehensive income											
for the year	_	—	_	_	(246)	_	_	_	6,646	6,400	6,400
Transfer to statutory reserve	_	_	_	2	_	_	_	_	(2)	_	_
Recognition of equity-settled											
share-based compensation .						540				540	540
As at December 31, 2016		18,800		2	203	752			(976)	(19)	18,781
Profit for the year	_	_	_	_	_	_	_	_	10,165	10,165	10,165
Other comprehensive income for the year	_	_	_	_	467	_	_	_	_	467	467
Total comprehensive income											
for the year	_	_	_	_	467	_	_	_	10,165	10,632	10,632
Transfer to statutory reserve	—	_	_	620	_	—	_	—	(620)	—	—
Recognition of equity-settled share-based compensation	_	_	_	_	_	807	_	_	_	807	807
As at December 31, 2017		18,800		622	670	1,559			8,569	11,420	30,220
Adoption of IFRS 9											
(note (ii))									(326)	(326)	(326)
Adjusted balance as at January											
1, 2018	_	18,800	_	622	670	1,559	_	_	8,243	11,094	29,894
Profit for the year	-	_	_	_	_	_	_	_	11,241	11,241	11,241
Other comprehensive expense											
for the year					(971)					(971)	(971)
Total comprehensive income											
for the year	_	_	_	_	(971)	_	_	_	11,241	10,270	10,270
Transfer from statutory reserve Exercise of share options prior	_	_	_	1,316	_	_	_	_	(1,316)	_	_
to the completion of											
Reorganisation	_	90	_	_	_	(41)	_	_	_	(41)	49
Conversion upon											
Reorganisation (Note 2)	2	(18,890)	28,419	_	_	_	(9,531)	_	—	18,888	—
Contributions by shareholders											
(note (iii))	_	_	_	—	—	_	—	3,050	_	3,050	3,050
Recognition of equity-settled share-based compensation	_	_	_	_	_	371	_	_	_	371	371
	2		28,419	1.020	(201)		(0.521)	2 050	10 160		
As at December 31, 2018			20,419	1,938	(301)	1,889	(9,531)	3,050	18,168	43,632	43,634

Notes:

- (i) In accordance with the Articles of Association of all subsidiaries established in the People's Republic of China (the "PRC"), those subsidiaries are required to transfer 10% of the profit after taxation to the statutory reserve until the reserve reaches 50% of the registered capital. Transfer to this reserve must be made before distributing dividends to equity holders. The statutory reserve can be used to make up for previous years' losses, expand the existing operations or convert into additional capital of the subsidiaries.
- (ii) Upon the adoption of IFRS 9 "Financial Instruments" on January 1, 2018, an accumulated impact of US\$326,000 was recorded as an adjustment to the accumulated profit as at January 1, 2018, which represented the impairment loss allowance, net of deferred tax impact. Details of the adjustment are set out in Note 3.
- (iii) Contributions by shareholders are made up of the following transactions:
  - As disclosed in Note 21(v), on March 1, 2018, Frontage Laboratories, Inc. ("Frontage Labs") sold its 30% equity interest in Frontida BioPharm, Inc. ("Frontida") to Dr Song Li for an aggregate consideration of US\$5,367,000. Based on disposal date fair value of Frontida, the Group recorded a gain on disposal of an associate of US\$437,000 and a net of tax capital contribution from shareholders of US\$2,880,000 related to this transaction.
  - As disclosed in Note 22, the Group recorded a US\$170,000 capital contribution in connection with the settlement of its note receivable with Frontage Clinical Services, Inc. ("Frontage Clinical") and its promissory note payable with Tigermed-BDM, Inc. ("Tigermed-BDM") on June 30, 2018.

# ACCOUNTANTS' REPORT

## CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year ended December 31,			
	2016	2017	2018	
	US\$'000	US\$'000	US\$'000	
OPERATING ACTIVITIES				
Profit before tax from continuing and				
discontinuing operations	10,307	16,132	14,093	
Adjustments for:				
Depreciation for property, plant and				
equipment	2,668	3,005	4,234	
Amortisation of intangible assets	_	_	75	
Impairment losses recognised on				
- trade receivables	632	298	608	
- unbilled revenue	112	328	39	
Share of (profit) loss of associates	(568)	1,345	(336)	
Gain on disposal of subsidiaries	(338)	_	(143)	
Impairment of investment in an				
associate	_	1,736		
Interest income	(47)	(76)	(144)	
Finance cost	272	315	378	
Net foreign exchange loss (gain)	1	(30)	(114)	
Share-based payment expense	540	807	371	
Gain on disposal of an associate	—	_	(437)	
(Gain) loss on disposal of property,				
plant and equipment	(126)	(18)	25	
Bargain purchase gain	_	_	(788)	
Operating cash flows before movements				
in working capital	13,453	23,842	17,861	
Increase in trade and other receivables,	15,455	25,042	17,001	
prepayment and unbilled revenue	(4,252)	(12,138)	(5,437)	
Increase in trade and other payables and	(4,252)	(12,156)	(3, +37)	
advances from customers	4,015	2,938	13,141	
Decrease in other long-term liabilities Increase in inventories	(21)	(24)	(43) (21)	
Cash generated from operations	13,195	14,618	25,501	
Income tax paid	(3,850)	(7,859)	(2,843)	
NET CASH GENERATED FROM				
<b>OPERATING ACTIVITIES</b>	9,345	6,759	22,658	

# ACCOUNTANTS' REPORT

		Year	• 31,	
	NOTES	2016	2017	2018
_		US\$'000	US\$'000	US\$'000
INVESTING ACTIVITIES				
Investments in associates		(4,450)	(4,179)	
Cash outflow from disposal of		(1,150)	(1,17)	
subsidiaries	15, 45	(26)	_	(2,774)
Net proceeds from disposal of an				
associate			_	367
Purchase of property, plant and				
equipment		(4,019)	(3,215)	(5,220)
Proceeds from disposal of property, plant				
and equipment		1,056	280	1
Interest received		47	76	144
Acquisition of a subsidiary, net of cash	44			(1 100)
acquired Placement of restricted bank deposits	44			(4,188) (15)
Withdrawal of restricted bank deposits				250
NET CASH USED IN INVESTING				
ACTIVITIES		(7,392)	(7,038)	(11,435)
		(7,392)	(7,038)	(11,455)
FINANCING ACTIVITIES		425	2 570	1 000
Proceeds from bank borrowings Repayment of bank borrowings		435 (2,133)	3,578 (601)	1,000 (1,245)
Interest paid on bank borrowings		(2,133) (26)	(65)	(1,243) (127)
Repayment of obligations under finance		(20)	(05)	(127)
leases		(1,144)	(1,394)	(1,813)
Interest paid on obligations under finance		(-,)	(-,-,-,	(-,)
leases		(138)	(160)	(183)
Proceeds from loans from related parties .		1,500	—	5,000
Loan repayment to related parties		(500)	(200)	—
Interest paid on loans from related				
parties		(85)	(90)	(68)
Interest paid on consideration payable on				
acquisition of an associate		(23)	—	
Proceeds from exercise of share options .			—	49
Issue costs paid				(1,284)
NET CASH (USED IN) GENERATED				
FROM FINANCING ACTIVITIES	46	(2,114)	1,068	1,329

# ACCOUNTANTS' REPORT

	Year ended December 31,			
	2016	2017	2018	
	US\$'000	US\$'000	US\$'000	
NET (DECREASE) INCREASE IN				
CASH AND CASH EQUIVALENTS	(161)	789	12,552	
CASH AND CASH EQUIVALENTS AT				
BEGINNING OF YEAR	3,496	3,254	4,339	
Effects of exchange rate changes	(81)	296	(585)	
CASH AND CASH EQUIVALENTS AT				
END OF YEAR, REPRESENTED BY				
BANK BALANCES AND CASH	3,254	4,339	16,306	

#### NOTES TO HISTORICAL FINANCIAL INFORMATION

#### 1. GENERAL INFORMATION

The Company was incorporated in the Cayman Islands as an exempted company with limited liability on April 16, 2018 under the Company Law of the Cayman Islands in preparation for the listing of the Company's shares on the Stock Exchange (the "Listing"). The respective addresses of the registered office and the principal place of business of the Company are set out in the section headed "Corporate Information" to the Prospectus. As at the date of this report, the immediate holding company of the Company is Hong Kong Tigermed Co., Limited, a company incorporated in Hong Kong ("Hong Kong Tigermed"). The ultimate holding company of the Company is Hangzhou Tigermed Consulting Co., Ltd., a company established in Hangzhou, the PRC ("Hangzhou Tigermed") and whose shares have been listed on ChiNext ("創業板") of the Shenzhen Stock Exchange.

The Company is a holding company. The principal activities of the Group is to provide laboratory and related services to pharmaceutical and agrochemical companies as well as bioequivalence studies.

The functional currency of the Company and the operating subsidiaries incorporated in the United States of America (the "USA") is US\$. The functional currency of the PRC operating subsidiaries is Renminbi ("RMB"). Details of the subsidiaries of the Company are set out in Note 18.

The reporting currency used for the Historical Financial Information is presented in US\$, which is the same as the functional currency of the Company.

# 2. REORGANISATION, BASIS OF PREPARATION AND PRESENTATION OF HISTORICAL FINANCIAL INFORMATION

Immediately before the completion of a reorganisation as explained on the section "History and Corporate Structure" of the Prospectus (the "Reorganisation"), all the companies now comprising the Group as listed in Note 18 have been held by Frontage Labs, which was owned 68.60% by Hong Kong Tigermed, 13.79% by Dr Song Li and three family trusts of which he is the founder and trustee (the "Trusts"), 3.98% by Dr Zhihe Li and the remaining 13.63% by other shareholders (collectively the "Then shareholders"). The Reorganisation involved:

#### (a) Incorporation of the Company

On April 16, 2018, the Company was incorporated and one share was acquired on the same day by Dr Zhihe Li, such that the Company was wholly-owned by Dr Zhihe Li. The authorised share capital of the Company was US\$50,000, which was divided into 5,000,000 shares of a nominal or par value of US\$0.01 each. The Company then undertook a sub division of authorised share capital, such that the existing shares were subdivided so as to consist of 5,000,000,000 shares, with a par value of US\$0.0001.

#### (b) Share Exchange and Merger with Frontage Labs

The Company effected a share exchange and merger which took effect on April 17, 2018 and which resulted in Frontage Labs becoming a wholly-owned subsidiary of the Company. In the share exchange, Hong Kong Tigermed, Dr Song Li and the Trusts transferred their shares in Frontage Labs to the Company in exchange for the issue of the equivalent number of shares in the Company. The Company then transferred all of its newly acquired shares in Frontage Labs to its subsidiary (the "Merger Sub") in exchange for the issue of an equivalent number of shares in the Merger Sub. As a result of this share exchange and transfer, Frontage Labs became a subsidiary of the Merger Sub.

Immediately following the completion of this share exchange and transfer, the parties effected a short-form merger under the laws of the Commonwealth of Pennsylvania, which simultaneously merged the Merger Sub with Frontage Labs and resulted in each share of Frontage Labs held by the Then Shareholders being exchanged into ordinary shares of the Company. As a consequence, Frontage Labs became a wholly-owned subsidiary of the Company. Pursuant to the share exchange, the merger and by operation of law, all the original shareholders of Frontage Labs immediately prior to the share exchange and merger became shareholders of the Company.

As such, on April 17, 2018, the Company became the holding company of the companies now comprising the Group. The Reorganisation has been arranged in a way that enables the Then Shareholders to maintain their respective beneficial ownership interests in Frontage Labs and its subsidiaries in the same manner before and after the Reorganisation. Accordingly, the Historical Financial Information has been prepared on the basis as if the Company has always been the holding company of the companies now comprising the Group throughout the Track Record Period. As such, the assets and liabilities of Frontage Labs and its subsidiaries have been included in the Historical Financial Information with existing book values. The consolidated statements of profit or loss and other comprehensive income, consolidated statements of changes in equity and consolidated statements of cash flows include the results and cash flows of the companies now comprising the Group have been prepared as if the current group structure upon completion of the Reorganisation had been in existence throughout the Track Record Period or since their respective dates of incorporation/establishment, where this is a shorter period. The consolidated statements of financial position of the Group as at December 31, 2016 and 2017 have been prepared to present the assets and liabilities of the companies now comprising the Group as if the current group structure upon completion of the Reorganisation had been in existence as at those dates, taking into account the respective dates of incorporation/establishment.

The Historical Financial Information has been prepared based on the accounting policies set out in Note 4 which conform with IFRSs issued by the IASB. In addition, the Historical Financial Information included applicable disclosures required by the Rules Governing the Listing of Securities on the Stock Exchange and complied with the Hong Kong Companies Ordinance.

#### 3. APPLICATION OF NEW AND REVISED IFRSs

For the purpose of preparing and presenting the Historical Financial Information for the Track Record Period, the Group has consistently applied the accounting policies which conform with IFRSs which are effective for the financial period beginning on January 1, 2018, including IFRS 15 "Revenue from Contracts with Customers", throughout the Track Record Period except that the Group adopted IFRS 9 "Financial Instruments" on January 1, 2018. The accounting policies for financial instruments which conform with IFRS 9 that are applicable from January 1, 2018 onwards and IAS 39 "Financial Instruments" which are applicable for each of the two years ended December 31, 2017, are set out in Note 4 below.

The Group has applied IFRS 9 in accordance with the transition provisions set out in IFRS 9. i.e. applied the classification and measurement requirements (including impairment) retrospectively to instruments that have not been derecognised at January 1, 2018 (date of initial application) and has not applied the requirements to instruments that have already been derecognised at January 1, 2018. The difference between carrying amounts at December 31, 2017 and the carrying amounts at January 1, 2018 are recognised in the opening accumulated profit, without restating comparative information. Accordingly, certain comparative information may not be comparable as comparative information was prepared under IAS 39.

	Original measurement category under IAS 39	New measurement category under IFRS 9	Original carrying amount under IAS 39 US\$'000	Additional loss allowance recognised under IFRS 9 US\$'000	New carrying amount under IFRS 9 US\$'000
Long-term note receivables (Note 22)	Loans and receivables	Financial assets at amortised cost	1,190	—	1,190
Restricted bank deposits (Note 25)	Loans and receivables	Financial assets at amortised cost	550	—	550
Other long-term deposits (Note 26)	Loans and receivables	Financial assets at amortised cost	82	—	82
Trade and other receivables (Note 24a)	Loans and receivables	Financial assets at amortised cost	12,319	(289)	12,030
Cash and cash equivalents (Note 25)	Loans and receivables	Financial assets at amortised cost	4,339	_	4,339

The table below illustrates the classification and measurement of financial assets and financial liabilities under IFRS 9 and IAS 39 at the date of initial application on January 1, 2018.

## **ACCOUNTANTS' REPORT**

	Original measurement category under IAS 39	New measurement category under IFRS 9	Original carrying amount under IAS 39 US\$'000	Additional loss allowance recognised under IFRS 9 US\$'000	New carrying amount under IFRS 9 US\$'000
Trade and other payables (Note 27a)	Financial liabilities at amortised cost	Financial liabilities at amortised cost	3,631	_	3,631
Bank borrowings (Note 28)	Financial liabilities at amortised cost	Financial liabilities at amortised cost	3,412		3,412
Loans from related parties (Note 29)	Financial liabilities at amortised cost	Financial liabilities at amortised cost	3,000	—	3,000
Amounts due to shareholders (Note 31)	Financial liabilities at amortised cost	Financial liabilities at amortised cost	210	_	210

For unbilled revenue, which arises from IFRS 15 and is subject to estimated credit loss ("ECL") under IFRS 9, the additional loss allowance recognised under IFRS 9 at the date of initial application on January 1, 2018 is US\$75,000.

The additional impairment loss allowance upon the initial application of IFRS 9 as disclosed above resulted entirely from a change in the measurement attribute of the loss allowance relating to each financial asset, i.e. ECL model under IFRS 9, as opposed to incurred credit loss model under IAS 39.

There were no financial assets or financial liabilities which the Group had previously measured at amortised cost under IAS 39 that were subject to reclassification, or which the Group has elected to reclassify upon the application of IFRS 9.

The table below shows the amount of adjustment for each financial statement line item of the Group affected by the application of IFRS 9.

Impact on assets and equity as at January 1, 2018:

	As previously reported	IFRS 9 adjustment	As restated
	US\$'000	US\$'000	US\$'000
Trade and other receivables	12,319	(289)	12,030
Unbilled revenue	12,635	(75)	12,560
Deferred tax assets	57	29	86
Deferred tax liabilities	(25)	9	(16)
Total effect on net assets		(326)	
Reserves	11,420	(326)	11,094
Total effect on equity		(326)	

#### New and amendments to IFRSs issued but not yet effective

The Group has not early applied the following new and amendments to IFRSs and interpretations that have been issued but are not yet effective:

IFRS 16	Leases <sup>1</sup>
IFRS 17	Insurance Contracts <sup>3</sup>
IFRIC 23	Uncertainty over Income Tax Treatments <sup>1</sup>
Amendments to IFRS 3	Definition of a Business <sup>4</sup>
Amendments to IFRS 9	Prepayment Features with Negative Compensation <sup>1</sup>
Amendments to IFRS 10 and IAS 28	Sale or Contribution of Assets between an Investor and its
	Associate or Joint Venture <sup>2</sup>
Amendments to IAS 1 and IAS 8	Definition of Material <sup>5</sup>
Amendments to IAS 19	Plan Amendment, Curtailment or Settlement <sup>1</sup>
Amendments to IAS 28	Long-term Interests in Associates and Joint Ventures <sup>1</sup>
Amendments to IFRSs	Annual Improvements to IFRS Standards 2015-2017
	Cycle <sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Effective for annual periods beginning on or after January 1, 2019

<sup>&</sup>lt;sup>2</sup> Effective for annual periods beginning on or after a date to be determined

<sup>&</sup>lt;sup>3</sup> Effective for annual periods beginning on or after January 1, 2021

<sup>&</sup>lt;sup>4</sup> Effective for business combinations and asset acquisitions for which the acquisition date is on or after the beginning of the first annual period beginning on or after January 1, 2020

<sup>&</sup>lt;sup>5</sup> Effective for annual periods beginning on or after January 1, 2020

Except as disclosed below, the directors of the Company anticipate that application of other new and amendments to IFRSs will have no material impact to the Group's financial performance and consolidated financial positions and/or on the disclosures in future consolidated financial statements.

#### IFRS 16 Leases

IFRS 16 introduces a comprehensive model for the identification of lease arrangements and accounting treatments for both lessors and lessees. IFRS 16 will supersede IAS 17 *Leases* and the related interpretations when it becomes effective.

IFRS 16 distinguishes lease and service contracts on the basis of whether an identified asset is controlled by a customer. In addition, IFRS 16 requires sales and leaseback transactions to be determined based on the requirements of IFRS 15 as to whether the transfer of the relevant asset should be accounted as a sale. IFRS 16 also includes requirements relating to sublease and lease modifications.

Distinctions of operating leases and finance leases are removed for lessee accounting, and is replaced by a model where a right-of-use asset and a corresponding liability have to be recognised for all leases by lessees, except for short-term leases and leases of low value assets.

The right-of-use asset is initially measured at cost and subsequently measured at cost (subject to certain exceptions) less accumulated depreciation and impairment losses, adjusted for any remeasurement of the lease liability. The lease liability is initially measured at the present value of the lease payments that are not paid at that date. Subsequently, the lease liability is adjusted for interest and lease payments, as well as the impact of lease modifications, amongst others. For the classification of cash flows, the Group currently presents operating lease payments as operating cash flows. Upon application of the IFRS 16, lease payments in relation to lease liability will be allocated into a principal and an interest portion which will be presented as financing cash flows by the Group, upfront prepaid lease payments will continue to be presented as investing or operating cash flows in accordance to the nature, as appropriate.

Under IAS 17, the Group has already recognised an asset and a related finance lease liability for finance lease arrangement where the Group is a lessee. The application of IFRS 16 would result in potential changes in classification of these assets depending on whether the Group presents right-of-use assets separately or within the same line item at which the corresponding underlying assets would be presented if they were owned.

Furthermore, extensive disclosures are required by IFRS 16.

As at December 31, 2018, the Group has non-cancellable operating lease commitments of US\$18,174,000 as disclosed in Note 38. A preliminary assessment indicates that these arrangements will meet the definition of a lease under IFRS 16 and hence upon application of IFRS 16, the Group will recognise a right-of-use asset and a corresponding liability in respect of all these leases unless they qualify for low value or short-term leases.

In addition, the Group currently considers refundable rental deposits paid as at December 31, 2018 as rights and obligations under leases to which IAS 17 applies. Based on the definition of lease

payments under IFRS 16, such deposits are not payments relating to the right to use the underlying assets, accordingly, the carrying amounts of such deposits may be adjusted to amortised cost and such adjustments are considered as additional lease payments. Adjustments to refundable rental deposits paid would be included in the carrying amount of right-of-use assets.

Furthermore, the application of new requirements under IFRS 16 would result in changes in measurement, presentation and disclosure as indicated above. The directors of the Company assessed that such changes would increase the consolidated assets and consolidated liabilities of the Group, but would not result in significant impact on the financial performance of the Group upon adoption of IFRS 16.

Except as disclosed above, the directors of the Company anticipate that application of the new and amendments to IFRSs will have no material impact to the Group's future financial statements.

The Group elected the practical expedient to apply IFRS 16 to contracts that were previously identified as leases applying IAS 17 and IFRIC 4 "Determining whether an Arrangement contains a Lease", which already existed prior to the date of initial application. Therefore, the Group has not reassessed whether the contracts are, or contain, a lease which already existed prior to the date of initial application. The Group applied a single discount rate to a portfolio of leases with reasonably similar characteristics (such as leases with a similar remaining lease term for a similar class of underlying asset in a similar economic environment). The Group also used hindsight in determining the lease term if the contract contains options to extend or terminate the lease. In addition, the Group also elected the practical expedient not to apply for leases for which the lease term ends within 12 months at the date of initial application. Furthermore, the Group elected the modified retrospective approach for the application of IFRS 16 as lessee and recognized the cumulative effect of initial application to opening accumulated losses without restating comparative information.

## 4. SIGNIFICANT ACCOUNTING POLICIES

The Historical Financial Information has been prepared on the historical cost basis at the end of each reporting period, as explained in the accounting policies set out below. Historical cost is generally based on the fair value of the consideration given in exchange for goods and services.

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date, regardless of whether that price is directly observable or estimated using another valuation technique. In estimating the fair value of an asset or a liability, the Group takes into account the characteristics of the asset or liability if market participants would take those characteristics into account when pricing the asset or liability at the measurement date. Fair value for measurement and/or disclosure purposes in the Historical Financial Information is determined on such a basis, except for share-based payment transactions that are within the scope of IFRS 2 *Share-based Payment*, leasing transactions that are within the scope of IAS 17, and measurements that have some similarities to fair value but are not fair value, such as net realisable value in IAS 2 *Inventories* or value in use in IAS 36 *Impairment of Assets*.

# **ACCOUNTANTS' REPORT**

In addition, for financial reporting purposes, fair value measurements are categorised into Level 1, 2 or 3 based on the degree to which the inputs to the fair value measurements are observable and the significance of the inputs to the fair value measurement in its entirety, which are described as follows:

- Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the entity can access at the measurement date;
- Level 2 inputs are inputs, other than quoted prices included within Level 1, that are observable for the asset or liability, either directly or indirectly; and
- Level 3 inputs are unobservable inputs for the asset or liability.

The principal accounting policies are set out below.

## **Basis of consolidation**

The Historical Financial Information incorporates the financial statements of the Company and its subsidiaries. Control is achieved when the Company:

- has power over the investee;
- is exposed, or has rights, to variable returns from its involvement with the investee; and
- has the ability to use its power to affect its returns.

The Group reassesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control listed above.

Consolidation of a subsidiary begins when the Group obtains control over the subsidiary and ceases when the Group loses control of the subsidiary. Specifically, income and expenses of a subsidiary acquired or disposed of during the year are included in the consolidated statements of profit or loss and other comprehensive income from the date the Group gains control until the date when the Group ceases to control the subsidiary.

When necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies into line with the Group's accounting policies.

All intragroup assets and liabilities, equity, income, expenses and cash flows relating to transactions between members of the Group are eliminated in full on consolidation.

## Changes in the Group's ownership interests in existing subsidiaries

When the Group loses control of a subsidiary, the assets and liabilities of that subsidiary are derecognised. A gain or loss is recognised in profit or loss and is calculated as the difference between (i) the aggregate of the fair value of the consideration received and the fair value of any retained interest and (ii) the previous carrying amount of the assets and liabilities of the subsidiary attributable to the owners of the Company. All amounts previously recognised in other comprehensive income in relation to that subsidiary are accounted for as if the Group had directly disposed of the related assets or liabilities of the subsidiary (i.e. reclassified to profit or loss or transferred to another category of equity as specified/permitted by applicable IFRSs). The fair value of any investment retained in the former subsidiary at the date when control is lost is regarded as the fair value on initial recognition for subsequent accounting under IAS 39/IFRS 9 or, when applicable, the cost on initial recognition of an investment in an associate or a joint venture.

#### **Business combinations**

Acquisitions of businesses are accounted for using the acquisition method. The consideration transferred in a business combination is measured at fair value, which is calculated as the sum of the acquisition-date fair values of the assets transferred by the Group, liabilities incurred by the Group to the former owners of the acquiree and the equity interests issued by the Group in exchange for control of the acquiree. Acquisition-related costs are generally recognised in profit or loss as incurred.

At the acquisition date, the identifiable assets acquired and the liabilities assumed are recognised at their fair value, except that:

- deferred tax assets or liabilities, and assets or liabilities related to employee benefit arrangements are recognised and measured in accordance with IAS 12 *Income Taxes* and IAS 19 *Employee Benefits*, respectively;
- liabilities or equity instruments related to share-based payment arrangements of the acquiree or share-based payment arrangements of the Group entered into to replace share-based payment arrangements of the acquiree are measured in accordance with IFRS 2 *Share-based Payment* at the acquisition date (see the accounting policy below); and
- assets (or disposal groups) that are classified as held for sale in accordance with IFRS 5 *Non-current Assets Held for Sale and Discontinued Operations* are measured in accordance with that standard.

Goodwill is measured as the excess of the sum of the consideration transferred, the amount of any non-controlling interests in the acquiree, and the fair value of the acquirer's previously held equity interest in the acquiree (if any) over the net amount of the identifiable assets acquired and the liabilities assumed as at acquisition date. If, after re-assessment, the net amount of the identifiable assets acquired and liabilities assumed exceeds the sum of the consideration transferred, the amount of any non-controlling interests in the acquiree and the fair value of the acquirer's previously held interest in the acquiree (if any), the excess is recognised immediately in profit or loss as a bargain purchase gain.

#### Investment in a subsidiary

Investment in a subsidiary is stated at cost less any identified impairment loss on the statement of financial position of the Company.

#### Investments in associates

An associate is an entity over which the Group has significant influence. Significant influence is the power to participate in the financial and operating policy decisions of the investee but is not to control or to have joint control over those policies.

The results and assets and liabilities of associates are incorporated in the Historical Financial Information using the equity method of accounting. The financial statements of associates used for equity accounting purposes are prepared using uniform accounting policies as those of the Group for like transactions and events in similar circumstances. Under the equity method, an investment in an associate is initially recognised in the consolidated statements of financial position at cost and adjusted thereafter to recognise the Group's share of the profit or loss and other comprehensive income of the associate. Changes in net assets of the associates other than profit or loss and other comprehensive income are not accounted for unless such changes resulted in changes in ownership interest held by the Group. When the Group's share of losses of an associate exceeds the Group's interest in that associate (which includes any long-term interests that, in substance, form part of the Group's net investment in the associate), the Group discontinues recognising its share of further losses. Additional losses are recognised only to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of the associate.

An investment in an associate is accounted for using the equity method from the date on which the investee becomes an associate. On acquisition of the investment in an associate, any excess of the cost of the investment over the Group's share of the net fair value of the identifiable assets and liabilities of the investee is recognised as goodwill, which is included within the carrying amount of the investment. Any excess of the Group's share of the net fair value of the identifiable assets and liabilities over the cost of the investment, after reassessment, is recognised immediately in profit or loss in the period in which the investment is acquired.

When there is objective evidence that the investment in an associate is impaired, the entire carrying amount of the investment is tested for impairment in accordance with IAS 36 *Impairment of Assets* as a single asset by comparing its recoverable amount (higher of value in use and fair value less costs of disposal) with its carrying amount. Any impairment loss recognised forms part of the carrying amount of the investment. Any reversal of that impairment loss is recognised in accordance with IAS 36 to the extent that the recoverable amount of the investment subsequently increases.

When the Group ceases to have significant influence over an associate, it is accounted for as a disposal of the entire interest in the investee with a resulting gain or loss being recognised in profit or loss.

When a group entity transacts with an associate of the Group, profits and losses resulting from the transactions with the associate are recognised in the Group's Historical Financial Information only to the extent of interests in the associate that are not related to the Group.

## **Revenue recognition**

Revenue is recognised to depict the transfer of promised services to customers in an amount that reflects the consideration to which the Group expects to be entitled in exchange for those services. Specifically, the Group uses a 5-step approach to revenue recognition:

- Step 1: Identify the contract(s) with a customer
- Step 2: Identify the performance obligations in the contract
- Step 3: Determine the transaction price
- Step 4: Allocate the transaction price to the performance obligations in the contract
- Step 5: Recognise revenue when (or as) the entity satisfies a performance obligation

Revenue is recognised when, or as, obligations under the terms of a contract are satisfied, which occurs when control of the promised products or services is transferred to customers. Revenue is measured as the amount of consideration the Group expects to receive in exchange for transferring products or services to a customer ("transaction price").

A performance obligation represents a good and service (or a bundle of goods or services) that is distinct or a series of distinct goods or services that are substantially the same.

Control is transferred over time and revenue is recognised over time by reference to the progress towards complete satisfaction of the relevant performance obligation if one of the following criteria is met:

- the customer simultaneously receives and consumes the benefits provided by the Group's performance as the Group performs;
- the Group's performance creates and enhances an asset that the customer controls as the Group performs; or
- the Group's performance does not create an asset with an alternative use to the Group and the Group has an enforceable right to payment for performance completed to date.

Otherwise, revenue is recognised at a point in time when the customer obtains control of the distinct good or service.

A contract asset represents the Group's right to consideration in exchange for goods or services that the Group has transferred to a customer that is not yet unconditional. In contrast, a receivable represents the Group's unconditional right to consideration, i.e. only the passage of time is required before payment of that consideration is due.

A contract liability represents the Group's obligation to transfer goods or services to a customer for which the Group has received consideration (or an amount of consideration is due) from the customer.

Generally, significant payment terms are disclosed within the contents of a given contract and are in the form of either milestone payment terms representing a percentage of the total budgeted contract price or corresponding directly with the value to the customer of the Group's performance. Revenues recognised in excess of billings are recognised as contract assets and disclosed in the consolidated statements of financial position as unbilled revenue. Amounts billed in accordance with contracted payment schedules but in excess of revenues earned are recognised as contract liabilities and disclosed in the consolidated statements of financial positions as advances from customers.

Contracts are terminable by the customers either immediately or upon proper notice specified within the contracts, generally 30 days. A termination fee is generally assessed in addition to the Group being entitled to compensation equivalent to the efforts and costs incurred to satisfy any performance obligations.

To the extent the transaction price includes variable consideration, the Group estimates the amount of variable consideration that should be included in the transaction price utilising the most likely amount to which the Group expects to be entitled. Variable consideration is included in the transaction price if, in the Group's judgment, it is probable that a significant future reversal of cumulative revenue under the contract will not occur. Estimates of variable consideration and determination of whether to include estimated amounts in the transaction price are based largely on an assessment of the Group's anticipated performance and all information (historical, current and forecasted) that is reasonably available. Sales, value added, and other taxes collected on behalf of third parties are excluded from revenue.

The transaction price also includes reimbursable expenses (i.e. out-of-pocket expenses, outside consultants and other reimbursable expenses). Reimbursable expenses which do not represent a transfer of goods or services to the customer are not distinct. Such reimbursable expenses are included in total transaction price for the contract and allocated to individual performance obligations which are satisfied over time.

Contracts with customers may contain multiple performance obligations. For such arrangements, the transaction price is allocated to each performance obligation based on the estimated relative standalone selling prices of the promised products or services underlying each performance obligation, inclusive of reimbursable expenses.

When the sum of the stand-alone transaction prices of those products or services exceeds the promised consideration in a contract, the Group recognises a discount on that particular contract. If the entity does not have observable evidence that the entire discount relates to one or more, but not all performance obligations under the specific contract, the discount is proportionately applied to all performance obligations under a contract.

Contracts are often modified to account for changes in contract specifications and requirements. Contract modifications exist when the modification either creates new, or changes existing, enforceable rights and obligations. Generally, the modification is considered to be a separate contract and revenue is recognised prospectively.

For the services delivered to the customer based on the extent of progress towards completion of the performance obligation, the Group's performance does not create an asset with an alternative future use and the contract terms specify the Group has an enforceable right to payment for performance completed to date, revenue generated from such performance is recognised over time.

The selection of the method to measure progress towards completion requires judgment and is based on the nature of the products or services to be provided. Depending on which better depicts the transfer of value to the customer, the Group generally measures its progress using either cost-to-cost (input method) or units produced/services transferred to the customer to date (output method). The Group uses the known cost measure of progress when it best depicts the transfer of value to the customer which occurs as the Group incurs costs on its contract, generally related to fixed fee service contracts. Under the cost-to-cost measure of progress, the extent of progress towards completion is measured based on the ratio of costs incurred to date to the total estimated costs at completion of the performance obligation. Revenue is recorded proportionally as costs are incurred. The units produced/services transferred to the customer to date measure of progress is generally related to rate per unit contracts or contracts for the delivery of services, as the extent of progress towards completion is measured based on discrete service or time-based increments, such as samples tested or services transferred.

Interest income from a financial asset is recognised when it is probable that the economic benefits will flow to the Group and the amount of income can be measured reliably. Interest income is accrued for each period, by reference to the principal outstanding and at the effective interest rate applicable, which is the rate that exactly discounts the estimated future cash receipts through the expected life of the financial asset to that asset's net carrying amount on initial recognition.

#### Leases

Leases are classified as finance leases whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee. All other leases are classified as operating leases.

### The Group as lessee

Assets held under finance leases are recognised as assets of the Group at their fair value at the inception of the lease or, if lower, at the present value of the minimum lease payments. The corresponding liability to the lessor is included in the consolidated statements of financial position as obligations under finance leases.

Lease payments are apportioned between finance expenses and reduction of the lease obligation so as to achieve a constant rate of interest on the remaining balance of the liability.

Finance expenses are recognised immediately in profit or loss.

Operating lease payments are recognised as an expense on a straight-line basis over the lease term.

#### **Foreign currencies**

In preparing the financial statements of each individual group entity, transactions in currencies other than the functional currency of that entity (foreign currencies) are recorded in the respective functional currency (i.e. the currency of the primary economic environment in which the entity operates) at the rates of exchange prevailing on the dates of the transactions. At the end of the reporting period, monetary items denominated in foreign currencies are retranslated at the rates prevailing at that date. Non-monetary items that are measured in terms of historical cost in a foreign currency are not retranslated.

Exchange differences arising on the settlement of monetary items, and on the retranslation of monetary items, are recognised in profit or loss in the period in which they arise.

For the purposes of presenting the Historical Financial Information, the assets and liabilities of the Group's foreign operations are translated into the presentation currency of the Group (i.e. US\$) using exchange rates prevailing at the end of each reporting period. Income and expenses items are translated at the average exchange rates for the period, unless exchange rates fluctuate significantly during the period, in which case, the exchange rates prevailing at the dates of transactions are used. Exchange differences arising, if any, are recognised in other comprehensive income and accumulated in equity under the heading of foreign currency translation reserve.

On the disposal of a foreign operation (that is, a disposal of the Group's entire interest in a foreign operation, or a disposal involving loss of control over a subsidiary that includes a foreign operation, or a partial disposal of an interest in an associate that includes a foreign operation of which the retained interest becomes a financial asset), all of the exchange differences accumulated in equity in respect of that operation attributable to the owners of the Company are reclassified to profit or loss.

## **Borrowing costs**

All borrowing costs are recognised in profit or loss in the period in which they are incurred. There were no borrowing costs eligible to be capitalised into property, plant and equipment during the Track Record Period.

### **Government grants**

Government grants are not recognised until there is reasonable assurance that the Group will comply with the conditions attaching to them and that the grants will be received.

Government grants are recognised in profit or loss on a systematic basis over the periods in which the Group recognises as expense the related costs for which the grants are intended to compensate. Specifically, government grants whose primary condition is that the Group should purchase, construct or otherwise acquire property, plant and equipment are recognised as deferred revenue in the consolidated statements of financial position and transferred to profit or loss on a systematic and rational basis over the useful lives of the related assets.

Government grants that are receivable as compensation for expenses or losses already incurred or for the purpose of giving immediate financial support to the Group with no future related costs are recognised in profit or loss in the period in which they become receivable.

#### **Retirement benefit costs**

The Group participates in two defined contribution schemes:

- a) A state-managed retirement benefit scheme in the PRC pursuant to which the Group pays a fixed percentage of its qualifying staff's wages as contributions to the scheme.
- b) A defined contribution plan in the USA pursuant to which the Group matches 50 cents for every dollar contributed by each qualifying member of staff up to 4% of their salary. The maximum match is 2% of the qualifying member of staff's gross pay.

Payments to such retirement benefit schemes are charged as an expense when employees have rendered service entitling them to the contributions.

#### Short-term employee benefits

Short-term employee benefits are recognised at the undiscounted amount of the benefits expected to be paid as and when employees rendered the services. All short-term employee benefits are recognised as an expense unless another IFRS requires or permits the inclusion of the benefit in the cost of an asset.

A liability is recognised for benefits accruing to employees (such as wages and salaries, annual leave and sick leave) after deducting any amount already paid.

#### Share-based payment transactions

Equity-settled share-based payments to employees (including directors of the Company) are measured at the fair value of the equity instruments at the grant date.

The fair value determined at the grant date of the equity-settled share-based transaction (without taking into consideration all non-market vesting condition) is expensed on a straight-line basis over the vesting period, based on the Group's estimate of equity instruments that will eventually vest, with a corresponding increase in equity (equity-settled share-based compensation reserve). At the end of each reporting period, the Group reviews its estimates of the number of equity instruments expected to vest. The impact of the revision of the original estimates, if any, is recognised in profit or loss such that the cumulative expense reflects the revised estimates, with a corresponding adjustment to the equity-settled share-based compensation reserve.

When the share options are exercised, the amount previously recognised in the equity-settled share-based compensation reserve will be transferred to share premium. When the share options are forfeited after the vesting date or are still not exercised at the expiry date, the amount previously recognised in the equity-settled share-based compensation reserve will be transferred to accumulated profit.

#### Taxation

Income tax expense represents the sum of the tax currently payable and deferred tax.

#### Current tax

The tax currently payable is based on taxable profit for the year. Taxable profit differs from "profit before tax" as reported in the consolidated statements of profit or loss and other comprehensive income because of items of income or expense that are taxable or deductible in other years and items that are never taxable or deductible. The Group's liability for current tax is calculated using tax rates that have been enacted or substantively enacted by the end of each reporting period.

#### Deferred tax

Deferred tax is recognised on temporary differences between the carrying amounts of assets and liabilities in the Historical Financial Information and the corresponding tax bases used in the computation of taxable profit. Deferred tax liabilities are generally recognised for all taxable temporary differences. Deferred tax assets are generally recognised for all deductible temporary differences to the extent that it is probable that taxable profits will be available against which those deductible temporary differences can be utilised. Such deferred tax assets and liabilities are not recognised if the temporary difference arises from the initial recognition of assets and liabilities in a transaction that affects neither the taxable profit nor the accounting profit.

Deferred tax liabilities are recognised for taxable temporary differences arising on investments in subsidiaries or associates except where the Group is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future.

The carrying amount of deferred tax assets is reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the period in which the liability is settled or the asset realised, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of each reporting period.

The measurement of deferred tax liabilities and assets reflects the tax consequences that would follow from the manner in which the Group expects, at the end of each reporting period, to recover or settle the carrying amount of its assets and liabilities.

Current and deferred tax is recognised in profit or loss.

#### Property, plant and equipment

Property, plant and equipment other than construction in progress are stated in the consolidated statements of financial position at cost less subsequent accumulated depreciation and accumulated impairment losses, if any.

Depreciation is provided to write off the cost of items of property, plant and equipment other than construction in progress over their estimated useful lives and after taking into account of their estimated residual value, using the straight-line method. The estimated useful lives, residual values and depreciation method are reviewed at the end of each reporting period, with the effect of any changes in estimate accounted for on a prospective basis. Freehold land is not depreciated.

Property, plant and equipment in the course of construction for production are carried at cost less any recognised impairment loss. Such assets are classified to the appropriate category of property, plant and equipment when completed and ready for their intended use. Depreciation of these assets, on the same basis as other assets, commences when the assets are ready for their intended use.

Assets held under finance leases are depreciated over their expected useful lives on the same basis as owned assets. However, when there is no reasonable certainty that ownership will be obtained by the end of the lease term, assets are depreciated over the shorter of the lease term and their useful lives.

An item of property, plant and equipment is derecognised upon disposal or when no future economic benefits are expected to arise from the continued use of the asset. Any gain or loss arising on derecognition of the asset (calculated as the difference between the net disposal proceeds and the carrying amount of the item) is included in profit or loss in the period in which the item is derecognised.

#### Research and development expenditure

Expenditure on research activities is recognised as an expense in the period in which it is incurred. There were no costs incurred in relation to projects in the development phase, as defined by IAS 38, *Intangible assets*, during the Track Record Period.

#### Intangible assets acquired in a business combination

Intangible assets acquired in a business combination are recognised separately from goodwill and are initially recognised at their fair value at the acquisition date (which is regarded as their cost).

Subsequent to initial recognition, intangible assets acquired in a business combination with finite useful lives are reported at costs less accumulated amortisation and any accumulated impairment losses, on the same basis as intangible assets that are acquired separately.

An intangible asset is derecognised on disposal, or when no future economic benefits are expected from use or disposal. Gains and losses arising from derecognition of an intangible asset, measured as the difference between the net disposal proceeds and the carrying amount of the asset, are recognised in profit or loss when the asset is derecognised.

#### Impairment losses on tangible and intangible assets

At the end of each reporting period, the Group reviews the carrying amounts of its tangible and intangible assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss, if any.

When it is not possible to estimate the recoverable amount of an individual asset, the Group estimates the recoverable amount of the cash-generating unit to which the asset belongs. Where a reasonable and consistent basis of allocation can be identified, corporate assets are also allocated to individual cash-generating units, or otherwise they are allocated to the smallest group of cash-generating units for which a reasonable and consistent allocation basis can be identified.

Recoverable amount is the higher of fair value less costs of disposal and value in use. In assessing value in use, the estimated future cash flows of the tangible asset (or the cash-generating unit) are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset (or the cash-generating unit) for which the estimates of future cash flows have not been adjusted.

If the recoverable amount of an asset (or a cash-generating unit) is estimated to be less than its carrying amount, the carrying amount of the asset (or a cash-generating unit) is reduced to its recoverable amount. An impairment loss is recognised immediately in profit or loss.

When an impairment loss subsequently reverses, the carrying amount of the asset (or cash-generating unit) is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognised for the asset (or a cash-generating unit) in prior years. A reversal of an impairment loss is recognised immediately in profit or loss.

## Financial instruments (before the adoption of IFRS 9 on January 1, 2018)

Financial assets and financial liabilities are recognised when a group entity becomes a party to the contractual provisions of the instrument.

Financial assets and financial liabilities are initially measured at fair value. Transaction costs that are directly attributable to the acquisition of financial assets or issue of financial liabilities are added to or deducted from the fair value of the financial assets or financial liabilities, as appropriate, on initial recognition.

#### **Financial assets**

The Group's financial assets are classified into loans and receivables. The classification depends on the nature and purpose of the financial assets and is determined at the time of initial recognition. All regular way purchases or sales of financial assets are recognised and derecognised on a trade date basis. Regular way purchases or sales are purchases or sales of financial assets that require delivery of assets within the time frame established by regulation or convention in the marketplace.

#### Effective interest method

The effective interest method is a method of calculating the amortised cost of a financial asset and of allocating interest income over the relevant periods. The effective interest rate is the rate that discounts estimated future cash receipts (including all fees and points paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts) through the expected life of the financial asset, or, where appropriate, a shorter period to its net carrying amount on initial recognition.

Interest income is recognised on an effective interest basis.

#### Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. Subsequent to initial recognition, loans and receivables (including long-term note receivables, trade and other receivables, restricted bank deposits and cash and cash equivalents) are carried at amortised cost using the effective interest method, less any identified impairment losses (see accounting policy on impairment loss on financial assets below).

## Impairment of financial assets

Financial assets are assessed for indicators of impairment at the end of each reporting period. Financial assets are considered to be impaired where there is objective evidence that, as a result of one or more events that occurred after the initial recognition of the financial asset, the estimated future cash flows of the financial asset have been affected.

For loans and receivables, objective evidence of impairment could include:

- significant financial difficulty of the issuer or counterparty; or
- breach of contract, such as a default or delinquency in interest or principal payments; or
- it becoming probable that the borrower will enter bankruptcy or financial re-organisation.

For certain categories of loans and receivables such as trade receivables, assets that are assessed not to be impaired individually are, in addition, assessed for impairment on a collective basis even if they were assessed not to be impaired individually. Objective evidence of impairment for a portfolio of receivables could include the Group's past experience of collecting payments, an increase in the number of delayed payments in the portfolio past the normal repayment period, during which the Group typically recover balances, or observable changes in national or local economic conditions that correlate with default on receivables.

The amount of the impairment loss recognised is the excess of the asset's carrying amount over the present value of the estimated future cash flows discounted at the financial asset's original effective interest rate.

The carrying amount of the financial asset is reduced by the impairment loss directly for all financial assets with the exception of trade receivables and long-term note receivables, where the carrying amount is reduced through the use of an allowance account. Changes in the carrying amount of the allowance account are recognised in profit or loss. When a trade receivable or a long-term note receivable is considered uncollectible, it is written off against the allowance account. Subsequent recoveries of amounts previously written off are credited to profit or loss.

If, in a subsequent period, the amount of impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment loss was recognised, the previously recognised impairment loss is reversed through profit or loss to the extent that the carrying amount of the asset at the date the impairment is reversed does not exceed what the amortised cost would have been had the impairment loss not been recognised.

## Financial liabilities and equity instruments

#### Classification as debt or equity

Debt and equity instruments issued by a group entity are classified as either financial liabilities or as equity in accordance with the substance of the contractual arrangements and the definitions of a financial liability and an equity instrument.

### Equity instruments

An equity instrument is any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities. Equity instruments issued by an entity are recognised at the proceeds received, net of direct issue costs.

### Effective interest method

The effective interest method is a method of calculating the amortised cost of a financial liability and of allocating interest expense over the relevant periods. The effective interest rate is the rate that discounts estimated future cash payments (including all fees and points paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts) through the expected life of the financial liability, or (where appropriate) a shorter period, to the net carrying amount of the financial liability on initial recognition. Interest expense is recognised on an effective interest basis.

## Financial liabilities

Financial liabilities (including trade and other payables, bank borrowings, loans from related parties, consideration payable on acquisition of an associate and amounts due to shareholders) are subsequently measured at amortised cost using the effective interest method.

#### Financial guarantee contracts

A financial guarantee contract is a contract that requires the issuer to make specified payments to reimburse the holder for a loss it incurs because a specified debtor fails to make payment when due in accordance with the terms of a debt instrument.

Financial guarantee contracts issued by the Group are initially measured at their fair values and, if not designated as at fair value through profit or loss, are subsequently measured at the higher of:

- (1) the amount of obligation under the contract, as determined in accordance with IAS 37 *Provisions, Contingent Liabilities and Contingent Assets*; and
- (2) the amount initially recognised less, where appropriate, cumulative amortisation recognised over the guarantee period.

## Derecognition of financial assets and financial liabilities

The Group derecognises a financial asset only when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another entity.

On derecognition of a financial asset, the difference between the asset's carrying amount and the sum of the consideration received and receivable and the cumulative gain or loss that had been recognised in other comprehensive income and accumulated in equity is recognised in profit or loss.

The Group derecognises a financial liability when, and only when, the Group's obligations are discharged, cancelled or expire. The difference between the carrying amount of the financial liability derecognised and the consideration paid and payable is recognised in profit or loss.

### Financial instruments (under IFRS 9)

Financial assets and financial liabilities are recognised when a group entity becomes a party to the contractual provisions of the instrument. All regular way purchases or sales of financial assets are recognised and derecognised on a trade date basis. Regular way purchases or sales are purchases or sales of financial assets that require delivery of assets within the time frame established by regulation or convention in the marketplace. The trade date is the date that the Group commits to purchase or sell an asset.

Financial assets and financial liabilities are initially measured at fair value except for trade receivables arising from contracts with customers which are initially measured in accordance with IFRS 15. Transaction costs that are directly attributable to the acquisition of financial assets or issue of financial liabilities (other than financial assets and financial liabilities at fair value through profit or loss ("FVTPL") ) are added to or deducted from the fair value of the financial assets or financial liabilities, as appropriate, on initial recognition. Transaction costs directly attributable to the acquisition of financial assets or financial liabilities at FVTPL are recognised immediately in profit or loss.

The effective interest method is a method of calculating the amortised cost of a financial asset or financial liability and of allocating interest income and interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash receipts and payments (including all fees and points paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts) through the expected life of the financial asset or financial liability, or, where appropriate, a shorter period, to the gross carrying amount on initial recognition.

## Financial assets

## Classification and subsequent measurement of financial assets

Financial assets that meet the following conditions are subsequently measured at amortised cost:

- the financial asset is held within a business model whose objective is to collect contractual cash flows; and
- the contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Financial assets that meet the following conditions are subsequently measured at fair value through other comprehensive income:

- the financial asset is held within a business model whose objective is achieved by both collecting contractual cash flows and selling; and
- the contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

All other financial assets are subsequently measured at FVTPL.

#### Amortised cost and interest income

Interest income is recognised using the effective interest method for financial assets measured subsequently at amortised cost. Interest income is calculated by applying the effective interest rate to the gross carrying amount of a financial asset, except for financial assets that have subsequently become credit-impaired. For financial assets that have subsequently become credit-impaired, interest income is recognised by applying the effective interest rate to the amortised cost of the financial asset from the next reporting period. If the credit risk on the credit-impaired financial instrument improves so that the financial asset is no longer credit-impaired, interest income is recognised by applying the effective interest income is recognised by applying the reporting period. If the credit risk on the credit-impaired financial instrument improves so that the financial asset is no longer credit-impaired, interest income is recognised by applying the effective interest rate to the gross carrying amount of the financial asset from the beginning of the reporting period following the determination that the asset is no longer credit impaired.

## Impairment of financial assets

The Group recognises a loss allowance for ECL on financial assets which are subject to impairment under IFRS 9 (including long-term note receivables, trade and other receivables, restricted bank deposits and cash and cash equivalents). The amount of ECL is updated at each reporting date to reflect changes in credit risk since initial recognition.

Lifetime ECL represents the ECL that will result from all possible default events over the expected life of the relevant instrument. In contrast, 12-month ECL ("12m ECL") represents the portion of lifetime ECL that is expected to result from default events that are possible within 12 months after the reporting date. Assessment are done based on the Group's historical credit loss experience, adjusted for factors that are specific to the debtors, general economic conditions and an assessment of both the current conditions at the reporting date as well as the forecast of future conditions.

The Group always recognises lifetime ECL for trade receivables. The ECL on these financial assets are assessed collectively using a provision matrix based on the Group's historical credit loss experience, adjusted for factors that are specific to the debtors, general economic conditions and an assessment of both the current as well as the forecast direction of conditions at the reporting date, including time value of money where appropriate.

For all other instruments, the Group measures the loss allowance equal to 12m ECL, unless there has been a significant increase in the credit risk since initial recognition, then the Group recognises lifetime ECL. The assessment of whether lifetime ECL should be recognised is based on significant increases in the likelihood or risk of a default occurring since initial recognition.

### Significant increase in credit risk

In assessing whether the credit risk has increased significantly since initial recognition, the Group compares the risk of a default occurring on the financial instrument as at the reporting date with the risk of a default occurring on the financial instrument as at the date of initial recognition. In making this assessment, the Group considers both quantitative and qualitative information that is reasonable and supportable, including historical experience and forward-looking information that is available without undue cost or effort.

In particular, the following information is taken into account when assessing whether credit risk has increased significantly:

- an actual or expected significant deterioration in the financial instrument's external (if available) or internal credit rating;
- significant deterioration in external market indicators of credit risk, e.g. a significant increase in the credit spread, or the credit default swap prices for the debtor;
- existing or forecast adverse changes in business, financial or economic conditions that are expected to cause a significant decrease in the debtor's ability to meet its debt obligations;
- an actual or expected significant deterioration in the operating results of the debtor;
- an actual or expected significant adverse change in the regulatory, economic, or technological environment of the debtor that results in a significant decrease in the debtor's ability to meet its debt obligations.

Irrespective of the outcome of the above assessment, the Group presumes that the credit risk has increased significantly since initial recognition when contractual payments are more than 30 days past due, unless the Group has reasonable and supportable information that demonstrates otherwise.

Despite the aforegoing, the Group assumes that the credit risk on a debt instrument has not increased significantly since initial recognition if the debt instrument is determined to have low credit risk at the reporting date. A debt instrument is determined to have low credit risk if i) it has a low risk of default, ii) the borrower has a strong capacity to meet its contractual cash flow obligations in the near term and iii) adverse changes in economic and business conditions in the longer term may, but will not necessarily, reduce the ability of the borrower to fulfil its contractual cash flow obligations.

The Group regularly monitors the effectiveness of the criteria used to identify whether there has been a significant increase in credit risk and revises them as appropriate to ensure that the criteria are capable of identifying significant increase in credit risk before the amount becomes past due.

## Definition of default

For internal credit risk management, the Group considers an event of default to have occurred when information developed internally or obtained from external sources indicates that the debtor is unlikely to pay its creditors, including the Group, in full (without taking into account any collaterals held by the Group).

Irrespective of the above analysis, the Group considers that default has occurred when a financial asset is more than 90 days past due unless the Group has reasonable and supportable information to demonstrate that a more lagging default criterion is more appropriate.

#### Credit-impaired financial assets

A financial asset is credit-impaired when one or more events of default that have a detrimental impact on the estimated future cash flows of that financial asset have occurred. Evidence that a financial asset is credit-impaired includes observable data about the following events:

- a) significant financial difficulty of the issuer or the borrower;
- b) a breach of contract, such as a default or past due event;
- c) the lender(s) of the borrower, for economic or contractual reasons relating to the borrower's financial difficulty, having granted to the borrower a concession(s) that the lender(s) would not otherwise consider; or
- d) it is becoming probable that the borrower will enter bankruptcy or other financial reorganisation.

Write-off policy

The Group writes off a financial asset when there is information indicating that the counterparty is in severe financial difficulty and there is no realistic prospect of recovery, e.g. when the counterparty has been placed under liquidation or has entered into bankruptcy proceedings, or in the case of accounts receivables, when the amounts are over two years past due, whichever occurs sooner. Financial assets written off may still be subject to enforcement activities under the Group's recovery procedures, taking into account legal advice where appropriate. A write-off constitutes a derecognition event. Any subsequent recoveries made are recognised in profit or loss.

## Measurement and recognition of ECL

The measurement of ECL is a function of the probability of default, loss given default (i.e. the magnitude of the loss if there is a default) and the exposure at default. The assessment of the probability of default and loss given default is based on historical data adjusted by forward-looking information. Estimation of ECL reflects an unbiased and probability-weighted amount that is determined with the respective risks of default occurring as the relevant weighting.

Generally, the ECL is the difference between all contractual cash flows that are due to the Group in accordance with the contract and all the cash flows that the Group expects to receive, discounted at the effective interest rate determined at initial recognition.

Where ECL is measured on a collective basis to cater for cases where evidence at the individual instrument level may not yet be available, the financial instruments are grouped on the following basis:

- Nature of financial instruments (i.e. the Group's trade receivables, other receivables are each assessed as a separate group. Long-term note receivables are assessed for ECL on an individual basis);
- Past-due status;
- Nature, size and industry of debtors; and
- External credit ratings where available.

The grouping is regularly reviewed by management to ensure the constituents of each group continue to share similar credit risk characteristics.

Interest income is calculated based on the gross carrying amount of the financial asset unless the financial asset is credit impaired, in which case interest income is calculated based on amortised cost of the financial asset.

The Group recognises an impairment gain or loss in profit or loss for all financial instruments by adjusting their carrying amount through a loss allowance account.

## Derecognition of financial assets

The Group derecognises a financial asset only when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another party.

On derecognition of a financial asset measured at amortised cost, the difference between the asset's carrying amount and the sum of the consideration received and receivable is recognised in profit or loss.

### Financial liabilities and equity instruments

#### Classification as debt or equity

Debt and equity instruments are classified as either financial liabilities or as equity in accordance with the substance of the contractual arrangements and the definitions of a financial liability and an equity instrument.

### Equity instruments

An equity instrument is any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities. Equity instruments issued by the Company are recognised at the proceeds received, net of direct issue costs.

## Financial liabilities

All financial liabilities are subsequently measured at amortised cost using the effective interest method or at FVTPL.

#### Financial liabilities at amortised cost

Financial liabilities, including trade and other payables, bank borrowings, loans from related parties and amounts due to shareholders, are subsequently measured at amortised cost, using the effective interest method.

#### Financial guarantee contracts

A financial guarantee contract is a contract that requires the issuer to make specified payments to reimburse the holder for a loss it incurs because a specified debtor fails to make payments when due in accordance with the terms of a debt instrument.

Financial guarantee contracts issued by a group entity are initially measured at their fair values and, if not designated as at FVTPL and do not arise from a transfer of a financial asset, are subsequently measured at the higher of:

- the amount of the loss allowance determined in accordance with IFRS 9; and
- the amount initially recognised less, where appropriate, cumulative amount of income recognised in accordance with the revenue recognition policies.

### Derecognition of financial liabilities

The Group derecognises financial liabilities when, and only when, the Group's obligations are discharged, cancelled or have expired. The difference between the carrying amount of the financial liability derecognised and the consideration paid and payable is recognised in profit or loss.

# 5. CRITICAL ACCOUNTING JUDGEMENTS AND KEY SOURCES OF ESTIMATION UNCERTAINTY

In the application of the Group's accounting policies, which are described in Note 4, the directors of the Company are required to make judgements, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates, judgements and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an on-going basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period, or in the period of the revision and future periods if revision affects both current and future periods.

#### Critical judgements in applying accounting policies

The following are the critical judgements, apart from those involving estimations (see below), that the directors of the Company have made in the process of applying the Group's accounting policies and that have the most significant effect on the amounts recognised in the Historical Financial Information.

# Judgements in determining the performance obligations and timing of satisfaction of performance obligations

#### Performance Obligation Determination:

In making their judgements, the directors of the Company considered the detailed criteria for recognition of revenue set out in IFRS 15. In determining performance obligations, the directors of the Company consider whether the customer benefits from each service on its own and whether it is

distinct in the context of the contract. Specifically, when concluding a contract has multiple performance obligations, the directors of the Company consider that the individual performance obligation is regularly sold separately and the service is separately identifiable from other promises within the contract.

### Satisfaction of Performance Obligations:

The directors of the Company have determined that performance obligations are satisfied over time and that generally the output method best reflects progress towards completion. The key judgement is that the units produced or services transferred to date relative to the remaining units or services promised under the contract best depict the Group's performance in transferring control of goods or services.

For the performance obligations that are satisfied over time and the Group uses the input method to determine revenue recognition, management has a judgment that the use of known cost measure of progress best depicts the transfer of value of goods or services to the customer. This key judgement involves calculation of performance to date. On partially completed contracts the Group recognises revenue based on stage of completion of the project which is estimated by comparing the costs incurred on the project with the total costs expected to complete the project.

#### Judgements in determining the significant influence in investments

Where the Group holds less than 20% of voting rights in an investee but the Group has the power to exercise significant influence, such investment is treated as investment in an associate. Details of the basis of such management judgement are set out in Note 21.

#### Key sources of estimation uncertainty

#### Estimated loss allowance of trade receivables and unbilled revenue

Prior to the application of IFRS 9, management estimates the amount of loss allowance of trade receivables when there is objective evidence of potential impairment loss. The amount of the impairment loss is measured as the difference between the carrying amount of the trade receivables and the present value of estimated future cash flows (excluding future credit losses that have not been incurred) discounted at the financial asset's original effective interest rate (i.e. the effective interest rate computed at initial recognition of the trade receivables). Where the future cash flows are less than expected, or being revised downward due to changes in facts and circumstances, a material impairment loss/further impairment loss may arise. Estimation of future cash flows involves uncertainty. Actual cash flows may differ from estimated cash flows. As at December 31, 2016 and 2017, the carrying amount of trade receivables was US\$6,828,000 (net of allowance for doubtful debts of US\$1,224,000) and US\$10,796,000 (net of allowance for doubtful debts of US\$1,527,000), respectively.

Upon the application of IFRS 9, management estimates the amount of loss allowance for ECL on trade receivables and unbilled revenue based on the credit risk of trade receivables and unbilled revenue. The loss allowance amount is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows after taking into consideration of expected future credit loss of the trade receivables and unbilled revenue. The assessment of the credit risk of the trade receivables and unbilled revenue. The assessment of the credit risk of the trade receivables and unbilled revenue involves high degree of estimation and uncertainty. When the actual future cash flows are different from expected, a material impairment loss or a material reversal of impairment loss may arise, accordingly. As at December 31, 2018, the carrying amounts of trade receivables and unbilled revenue were US\$14,604,000 (net of allowance for ECL of US\$2,315,000) and US\$7,129,000 (net of allowance for ECL of US\$322,000), respectively.

### Useful lives and estimated impairment on property, plant and equipment

The Group determines the estimated useful lives and related depreciation charges for its property, plant and equipment. This estimate is based on the historical experience of the actual useful lives of property, plant and equipment of similar nature and functions. The Group will increase the depreciation charge where useful lives are less than previously estimated lives, or will write-off or write-down technically obsolete or non-strategic assets that have been abandoned or sold.

The Group regularly reviews whether there are any indications of impairment and recognises an impairment loss if the carrying amount of an asset is lower than its recoverable amount. The Group tests for impairment for property, plant and equipment whenever there is an indication that the asset may be impaired. The recoverable amounts have been determined based on the higher of the fair value less costs of disposal and value in use. These calculations require the use of estimates, such as discount rates, future profitability and growth rates.

As at December 31, 2016, 2017 and 2018, the carrying amount of property, plant and equipment was US\$12,580,000, US\$14,244,000 and US\$22,884,000, respectively.

#### Impairment of investments in associates

Determining impairment of investments in associates requires an estimation of the value in use of the investments. The value in use calculation requires directors of the Company to estimate the future cash flows expected to arise from the investments and a suitable discount rate in order to calculate present value. Where actual cash flows are less than expected, a material impairment may arise. Details of the impairment calculation in relation to investment in an associate are set out in Note 21.

# 6. **REVENUE**

The Group's revenue streams are categorised as follows:

- Bioanalytical services consist of providing method development and validation as well as sample analysis services.
- Chemistry, Manufacturing and Control ("CMC") services involve assisting the customers with drug product development, analysis, and clinical trial materials' delivery and supply.
- Drug Metabolism and Pharmacokinetic ("DMPK") services include study designs, execution of studies, and interpretation of the data through structural optimisation in early discovery, pharmacokinetic studies in rodents, non-GLP bioanalytical studies, etc.
- Safety and Toxicology services include in-vitro and in-vivo studies, to help identify toxicology issues and devise testing plans to address the determination of a safe starting dose in humans in clinical studies.
- Bioequivalence services consist of bioequivalence studies designed, coordinated, and reported by the Group to the customers.

An analysis of the Group's revenue from continuing operations is as follows:

-	Year ended December 31,				
-	2016	2016	2016	2016 2017	2018
	US\$'000	US\$'000	US\$'000		
Bioanalytical	23,464	35,522	44,204		
СМС	14,575	16,742	13,857		
DMPK	7,431	8,392	9,954		
Safety and Toxicology	_		5,606		
Bioequivalence	3,174	9,589	9,493		
	48,644	70,245	83,114		

All revenue of the Group listed above are recognised over time as the Group's performance does not create an asset with an alternative future use since the Group cannot redirect the asset for use on another customer, and the contract terms specify the Group has an enforceable right to payment for performance completed to date.

#### **Transaction Price Allocated to Future Performance Obligations**

IFRS 15 requires that the Group disclose the aggregate amount of transaction price that is allocated to each performance obligation that has not yet been satisfied as at year-end. The guidance provides certain practical expedients that limit this requirement and, therefore, for the vast majority of contracts, the Group does not disclose the value of unsatisfied performance obligations for (i) contracts with an original expected length of one year or less and (ii) contracts for which revenue is recognised at the amount to which the Group has the right to invoice for services performed.

For the service contracts for which the Group does not recognise revenue at the amount to which the Group has the right to invoice for services performed, management has assessed whether there are any contracts with an original expected length greater than one year. While contracts do occasionally extend beyond one year, the timing of the services performed is contingent upon when the customer provides items for testing, and are not subject to a contractual term. Accordingly, for these contracts management is unable to determine whether the original contract term will exceed one year and has not disclosed the related unsatisfied performance obligations.

However, certain contracts within the safety and toxicology stream have been entered into for which the practical expedient cannot be elected. The amount of revenue that will be recognised in future periods on these existing contracts as at December 31, 2018 when the remaining performance obligations will be satisfied is analysed as follows:

	Year ending December 31,				
	2019	2020	thereafter	Total	
	US\$'000	US\$'000	US\$'000	US\$'000	
Safety and Toxicology	212	176		388	

## 7. SEGMENT INFORMATION

Operating segments are determined based on the Group's internal reports which are submitted to Chief Executive Officer, being the chief operating decision maker ("CODM") of the Group for the purpose of performance assessment and resources allocation. This is also the basis upon which the Group is organised and managed.

The Group's consolidated revenue and results are primarily attributable to the markets in the USA (country of domicile) and the PRC and all of the Group's consolidated assets and liabilities are either located in the USA or the PRC.

No segment assets and liabilities are presented as they were not regularly provided to the CODM for the purpose of resource allocation and performance assessment.

The following are the Group's reportable segments under IFRS 8:

- USA segment, including Bioanalytical, CMC, DMPK and Safety and Toxicology services in the USA
- PRC segment, including Bioanalytical, Bioequivalence services in the PRC

Clinical operations in the USA were discontinued during the year ended December 31, 2016. The segment information reported does not include any amounts for the discontinued operation, which is described in more details in Note 15.

#### Segment revenues and results

The following is an analysis of the Group's revenue by reportable segments from continuing operations.

### For the year ended December 31, 2016

	USA	PRC	Total
	US\$'000	US\$'000	US\$'000
Revenue			
- Bioanalytical	19,462	4,002	23,464
- CMC	14,575		14,575
- DMPK	7,431		7,431
- Bioequivalence		3,174	3,174
	41,468	7,176	48,644
Cost of services	(24,727)	(4,626)	(29,353)
Other income	248	64	312
Other gains and losses, net	66	49	115
Research and development expenses	_	(484)	(484)
Impairment losses recognised on trade receivables and			
unbilled revenue	(707)	(37)	(744)
Selling and marketing expenses	(1,881)	(13)	(1,894)
Administrative expenses	(5,907)	(615)	(6,522)
Finance cost	(271)	(1)	(272)
Share of profit of associates	271	297	568
Profit before tax	8,560	1,810	10,370

For the year ended December 31, 2017

	USA	PRC	Total
	US\$'000	US\$'000	US\$'000
Revenue			
- Bioanalytical	23,468	12,054	35,522
- CMC	16,742		16,742
- DMPK	8,392		8,392
- Bioequivalence		9,589	9,589
	48,602	21,643	70,245
Cost of services	(28,053)	(11,109)	(39,162)
Other income	122	122	244
Other gains and losses, net	16	(39)	(23)
Research and development expenses	_	(1,296)	(1,296)
Impairment losses recognised on trade receivables and			
unbilled revenue	(280)	(346)	(626)
Selling and marketing expenses	(1,546)	(23)	(1,569)
Administrative expenses	(7,043)	(1,242)	(8,285)
Finance cost	(282)	(33)	(315)
Share of (loss) profit of associates	(1,674)	329	(1,345)
Impairment of investment in an associate	(1,736)		(1,736)
Profit before tax	8,126	8,006	16,132

# For the year ended December 31, 2018

	USA	PRC	Total
	US\$'000	US\$'000	US\$'000
Revenue			
- Bioanalytical	25,244	18,960	44,204
- CMC	13,857		13,857
- DMPK	9,954	—	9,954
- Safety and Toxicology	5,606		5,606
- Bioequivalence		9,493	9,493
	54,661	28,453	83,114
Cost of services	(37,651)	(11,565)	(49,216)
Other income	155	312	467
Other gains and losses, net	13	69	82
Research and development expenses		(1,694)	(1,694)
Impairment (losses) gains recognised on trade			
receivables and unbilled revenue	(756)	109	(647)
Selling and marketing expenses	(2,046)	(539)	(2,585)
Gain on disposal of an associate	437	—	437
Gain on disposal of subsidiaries		143	143
Bargain purchase gain	788	—	788
Administrative expenses	(8,944)	(1,424)	(10,368)
Finance cost	(370)	(8)	(378)
Share of (loss) profit of associates	(159)	495	336
Segment profit	6,128	14,351	20,479
Unallocated listing expenses			(6,386)
Profit before tax			14,093

The accounting policies of reportable segments are the same as the Group's accounting policies described in Note 4.

## Other segment information

## Amounts included in the measure of segment profit or loss:

## For the year ended December 31, 2016

_	USA	PRC	Total
	US\$'000	US\$'000	US\$'000
Depreciation for property, plant and equipment	(2,301)	(243)	(2,544)
Interest income	45	2	47
Gain on disposal of property, plant and equipment	66	60	126

## For the year ended December 31, 2017

_	USA	PRC	Total
	US\$'000	US\$'000	US\$'000
Depreciation for property, plant and equipment	(2,424)	(581)	(3,005)
Interest income	72	4	76
Gain on disposal of property, plant and equipment	18	—	18

## For the year ended December 31,2018

_	USA	PRC	Total
	US\$'000	US\$'000	US\$'000
Depreciation for property, plant and equipment	(3,188)	(1,046)	(4,234)
Amortisation of intangible assets	(75)	—	(75)
Interest income	112	32	144
Loss on disposal of property, plant and equipment	—	(25)	(25)

## **Geographical information**

The Group's operations and non-current assets are located in the USA and the PRC.

An analysis of the Group's revenue from continuing operations from external customers, analysed by the customer's respective country/region of operation, is presented below:

	Year ended December 31,				
	2016	2016	16 2017	2016 2017 20	2018
	US\$'000	US\$'000	US\$'000		
Revenue from external customers					
- USA	37,689	43,572	46,833		
- PRC	8,570	22,616	30,090		
- Rest of the world	2,385	4,057	6,191		
	48,644	70,245	83,114		

Information about the Group's non-current assets by geographical location of the assets are presented below:

_	As at December 31,			
_	2016 US\$'000	2017	2018	
		US\$'000 US\$'000	US\$'000	
Non-current assets excluding financial assets and deferred tax assets				
- USA	19,623	19,346	25,856	
- PRC	3,603	5,633	6,932	
	23,226	24,979	32,788	

## Information about major customers

Revenue from customers of the corresponding years contributing over 10% of the total sales of the Group are as follows:

-	Year ended December 31,				
	2016 US\$'000	2016	2016	2017	2018
		US\$'000	US\$'000		
Company A	N/A <sup>1</sup>	N/A <sup>1</sup>	12,083		

<sup>&</sup>lt;sup>1</sup> The corresponding revenue did not contribute over 10% of the total revenue of the Group.

# 8. OTHER INCOME

-	Year ended December 31,			
_	2016	2017	2018	
	US\$'000	US\$'000	US\$'000	
Continuing operations				
Equipment rental income from a related party				
(Note 42)	19	—	—	
Interest income	47	76	144	
Government grants related to income	15	1	195	
Others	231	167	128	
	312	244	467	

# 9. OTHER GAINS AND LOSSES, NET

-	Year ended December 31,		
_	2016 US\$'000	2017 US\$'000	2018 US\$'000
Continuing operations			
Net foreign exchange (loss) gain	(1)	30	114
Gain (loss) on disposal of property, plant and			
equipment	126	18	(25)
Others	(10)	(71)	(7)
	115	(23)	82

# **10. FINANCE COST**

Year ended December 31,		
2016 US\$'000	2017 US\$'000	2018 US\$'000
26	65	127
85	90	68
138	160	183
23		
272	315	378
	2016 US\$'000 26 85 138 23	2016         2017           US\$'000         US\$'000           26         65           85         90           138         160           23         —

# 11. PROFIT BEFORE TAX

Profit before tax from continuing operations has been arrived at after charging:

	Year ended December 31,		
_	2016	2016 2017	2018
	US\$'000	US\$'000	US\$'000
Staff cost (including directors' emoluments):			
- Salaries and other benefits	20,955	24,734	33,797
- Retirement benefit scheme contributions	495	774	1,055
- Share-based payment expense	540	807	371
	21,990	26,315	35,223
Depreciation for property, plant and equipment	2,544	3,005	4,234
Amortisation of intangible assets		—	75
Minimum operating lease payments in respect of			
rented premises	1,648	1,752	1,913

# **12. INCOME TAX EXPENSE**

_	Year ended December 31,		
	2016 US\$'000	2017	2018 US\$'000
		US\$'000	
Continuing operations			
Current tax:			
- PRC Enterprise Income Tax ("EIT")	342	1,308	1,996
- US Federal Tax	3,052	4,851	1,141
- US State Tax	647	939	539
(Over) under provision of EIT, US Federal Tax and			
US State Tax in prior year:	(414)	504	(638)
	3,627	7,602	3,038
Deferred tax:			
- Current year	(493)	(1,635)	(186)
Total income tax expense	3,134	5,967	2,852

Under the Law of the PRC on Enterprise Income Tax (the "EIT Law") and Implementation Regulation of the EIT Law, the EIT rate of the PRC subsidiaries is 25% unless subject to tax exemption set out below.

方達醫藥技術(上海)有限公司 Frontage Laboratories (Shanghai) Co., Ltd. ("Frontage Shanghai"), a wholly owned subsidiary of the Group in the PRC, was accredited as a "High and New Technology Enterprise" in November 2017 and therefore is entitled to a preferential tax rate of 15% for a three-year period commencing from the beginning of 2017.

Frontage Labs is subject to Federal and State Income taxes, the effective combined income tax rate is 40.62% for the year ended December 31, 2016, 41.86% for the year ended December 31, 2017 and 27.44% for the year ended December 31, 2018. The Tax Cuts and Jobs Act (the "2017 Tax Act") was signed into law on December 22, 2017. The 2017 Tax Act includes a tax on the mandatory deemed repatriation of accumulated previously untaxed foreign earnings (the "Transition Tax"). The US entities are subject to Transition Tax for the years ended December 31, 2017 and 2018, which is included in the Federal tax expense above.

The income tax expenses for the Track Record Period can be reconciled to the profit before tax from continuing operations per the consolidated statements of profit or loss and other comprehensive income as follows:

	Year ended December 31,		
	2016 US\$'000	2017	2018 US\$'000
		000 US\$'000	
Profit before tax from continuing operations	10,370	16,132	14,093
Tax charge at effective combined income tax rate			
(40.62% for 2016, 41.86% for 2017 and 27.44% for			
2018)	4,212	6,753	3,867
Tax effect of share of profit of associates	(120)	(138)	(136)
Tax effect of income that is exempt from taxation	—		(190)
Tax effect of expenses not deductible for tax purpose	114	1,209	1,821
(Over) under provision in respect of prior year	(414)	504	(638)
Effect of research and development expenses that are			
additionally deducted	(65)	(229)	(340)
Effect of deductible temporary differences and tax			
losses not recognised as deferred tax assets	_	101	_
Utilisation of deductible temporary differences and tax			
losses previously not recognised	(296)	_	
Tax at concessionary rate		(688)	(1,222)
Effect on deferred tax assets or liabilities resulting			
from change in applicable tax rate	(46)	(215)	2
Effect of different tax rate of subsidiaries operating in			
other jurisdiction	(251)	(1,330)	(312)
Income tax expense	3,134	5,967	2,852

# 13. DIRECTORS' AND CHIEF EXECUTIVE'S EMOLUMENTS

Details of the emoluments paid or payable to the directors and the Chief Executive Officer of the Company (including emoluments for their services as managerial level employees of group entities prior to becoming the directors of the Company) for the services provided to the Group during the Track Record Period are as follows:

	Year ended December 31,		
	2016	2017	2018
	US\$'000	US\$'000	US\$'000
Executive Director and Chief Executive Officer: Dr Zhihe Li (note i)			
- director's fee	227	273	306
- performance-based bonus	20	107	20
- retirement benefits scheme contributions	3	3	3
- share-based compensation			
	250	383	329
Non-executive Director:			
Mr Jun Gao (note ii)			
- director's fee	—	—	—
- salaries and other benefits	—	_	—
- performance-based bonus	—	—	
- retirement benefits scheme contributions	_		
- share-based compensation			
Independent Non-executive Directors:			
Mr Yifan Li (note iii)			
- director's fee	_		
- salaries and other benefits	_	_	_
- performance-based bonus	_		
- retirement benefits scheme contributions	—	—	
- share-based compensation			
	_		
Mr Erh Fei Liu (note iii)			
- director's fee			
- salaries and other benefits	_	_	
- performance-based bonus	_		_
- retirement benefits scheme contributions	_	_	_
- share-based compensation			

## ACCOUNTANTS' REPORT

_	Year ended December 31,		
	2016	2017	2018
	US\$'000	US\$'000	US\$'000
Dr Jingsong Wang (note iii)			
- director's fee	—		—
- salaries and other benefits	—		_
- performance-based bonus	—		_
- retirement benefits scheme contributions	—		
- share-based compensation			

Notes:

(i) Dr Zhihe Li was appointed as a director of the Company on April 17, 2018. Dr Zhihe Li is also the Chief Executive Officer of the Company and his emoluments disclosed above included those for his service as a managerial level employee of group entities prior to becoming the director of the Company.

The performance-based bonus is discretionary based on the performance of the individual and the Group.

The executive director's emoluments shown above were for his service in connection with the management of the affairs of the Company and the Group.

During the Track Record Period, no emoluments were paid by the Group to the directors of the Company as an inducement to join or upon joining the Group or as compensation for loss of office. None of the directors of the Company have waived any emoluments during the Track Record Period.

<sup>(</sup>ii) Mr Jun Gao was appointed as non-executive director of the Company on April 17, 2018. Mr Jun Gao is employed by Hangzhou Tigermed.

<sup>(</sup>iii) Mr Yifan Li, Mr Erh Fei Liu and Dr Jingsong Wang were appointed as independent non-executive directors of the Company on April 17, 2018.

## 14. FIVE HIGHEST PAID INDIVIDUALS

The five individuals with the highest emoluments in the Group during the Track Record Period include one director of the Company, details of whose remuneration are set out in Note 13 above. The emoluments of the five highest paid individuals during the Track Record Period were as follows:

_	Year ended December 31,			
_	2016	2016	2016 2017	2018
	US\$'000	US\$'000	US\$'000	
Salaries and other benefits	1,223	1,468	1,650	
Performance-based bonus	255	520	224	
Retirement benefits scheme contributions	17	16	18	
Share-based compensation	150	238	127	
	1,645	2,242	2,019	

The emoluments of the five highest paid individuals were within the following bands:

_	Number of individuals Year ended December 31,		
_			
-	2016	2017	2018
HK\$2,000,001 to HK\$2,500,000	4	—	
HK\$2,500,001 to HK\$3,000,000	1	1	1
HK\$3,000,001 to HK\$3,500,000	_	2	3
HK\$3,500,001 to HK\$4,000,000	_	1	1
HK\$4,000,001 to HK\$4,500,000		1	
	5	5	5

Included in the five highest paid individuals is Dr Song Li, a shareholder and employee of the Group. His emoluments during the years ended December 31, 2016, 2017 and 2018 were US\$370,000, US\$540,000 and US\$400,000, respectively.

#### **15. DISCONTINUED OPERATION**

In August 2016, the Group entered into a sale agreement to dispose 100% of the equity interest of Frontage Clinical to an independent third party for a price of US\$1 and the issuance of a note receivable due to the Group with initial fair value of US\$1,190,000 and principal amount of US\$2,509,000. Frontage Clinical carried out all of the Group's clinical operations in the USA. The disposal was completed on August 31, 2016, on which date control of Frontage Clinical was passed to the acquirer. Details of the information related to the acquisition of minority shareholdings in Frontage Clinical during 2017 are set out in Note 21.

## **ACCOUNTANTS' REPORT**

## **APPENDIX I**

The results of the discontinued operation, which has been included in the consolidated statements of profit or loss and other comprehensive income, were set out below.

	Eight months ended August 31, 2016
	US\$'000
Revenue	4,728 (6,045)
Gross loss	(1,317) (223) 1,142
Selling and marketing expenses	(3)
Loss before tax from a discontinued operation	(401)
Loss from a discontinued operation Post-tax loss on disposal of a subsidiary	(403) (187)
Loss for the year from a discontinued operation	(590)

Cash flows from a discontinued operation were set out below:

	Eight months ended August 31, 2016
	US\$'000
Net cash outflow from operating activities	(69)
Net cash outflow from investing activities	—
Net cash inflow from financing activities	
Net cash outflow	(69)

Loss before tax from discontinued operation has been arrived at after charging:

	Eight months ended August 31, 2016
	USD'000
Staff cost:	
— Salaries and other benefits	2,588
- Retirement and health benefits scheme contributions	14
	2,602
Depreciation for property, plant and equipment	124
Minimum operating lease payments in respect of rented premises	609

A summary of the effects of the disposal of the subsidiary is as follows:

-	As at August 31, 2016 US\$'000
Property, plant and equipment	1,949
Other long-term deposits	47
Trade and other receivables	2,613
Cash and cash equivalents	2,015
Trade and other payables	(4,305)
Other long-term liabilities	(578)
Net liabilities disposed of	(248)
Long-term note receivables received	1,190 (1,100)
Less: Net liabilities disposed	(248)
Pre-tax gain on disposal of a subsidiary	338
Related income tax expense	(525)
Post-tax loss on disposal of a subsidiary	(187)
Cash outflow from disposal of a subsidiary:	
Cash and cash equivalents disposed	(26)

## **16. EARNINGS PER SHARE**

#### For continuing operations

The calculation of the basic and diluted earnings per share attribute to owners of the Company is based on the following data:

Earnings figures are calculated as follows:

	Year ended December 31,		
	2016	2017	2018
	US\$'000	US\$'000	US\$'000
Profit for the year attributable to owners of			
the Company	6,646	10,165	11,241
Less: Loss for the year from a discontinued operation	(590)		
Earnings for the purpose of calculating basic and diluted earnings per share from continuing			
operations	7,236	10,165	11,241

## Number of Shares:

	Year ended December 31,			
	2016	2017	2018	
Weighted average number of ordinary shares for the	1 504 720 010	1 504 720 010	1 505 500 772	
purpose of calculating basic earnings per share Effect of dilutive potential ordinary shares:	1,504,730,910	1,504,730,910	1,505,500,773	
Share options	1,158,005	8,251,077	13,583,769	
Weighted average number of ordinary shares for the				
purpose of calculating diluted earnings per share	1,505,888,915	1,512,981,987	1,519,084,542	

#### For continuing and discontinued operations

The calculation of the basic and diluted earnings per share from continuing and discontinued operations attribute to owners of the Company is based on the following data:

	Year ended December 31,				
	2016	2016	2016 2017	2016 2017 2018	2018
	US\$'000	US\$'000	US\$'000		
Earnings for the purpose of calculating basic and					
diluted earnings per share	6,646	10,165	11,241		

The denominators used are the same as those detailed above for both basic and diluted earnings per share.

#### From a discontinued operation

The calculation of the basic and diluted loss per share from a discontinued operation attribute to owners of the Company is based on the following data:

	Year ended December 31,					
	2016	2016 2017	2016 2017 201	2016 2017 2	2017 2018	2018
	US\$'000	US\$'000	US\$'000			
Loss for the purpose of calculating basic and diluted						
loss per share from discontinued operation	(590)					

The computation of basic and diluted earnings per share for the years ended December 31, 2016, 2017 and 2018 is based on weighted average number of shares assumed to be in issue after taking into account the retrospective adjustments on the assumption that the Reorganisation had been in effect on January 1, 2016 and the Capitalisation Issue as disclosed in Note 49.

The computation of diluted earnings per share for the years ended December 31, 2016 and 2017 and 2018 is based on weighted average number of shares assumed to be in issue after taking into account the retrospective adjustments on the assumption that the Pre-IPO share incentive plans adopted by Frontage Labs and assumed by the Company on April 17, 2018 had been in effect on January 1, 2016. The computation of diluted earnings per share for the year ended December 31, 2016 and 2017 does not assume the exercise of certain pre-IPO share options since their exercise prices plus fair value of services yet to be rendered are higher than the average share prices of the Frontage Labs or the Company as appropriate.

#### **17. DIVIDENDS**

No dividend has been paid or declared by any companies comprising the Group during the Track Record Period.

#### **18. SUBSIDIARIES**

#### The Company

_	As at December 31,		
	2016	2016 2017	2018
	US\$'000	US\$'000	US\$'000
Unlisted shares, at cost (Note)			28,421

*Note:* The amount represents the initial costs of investment amounted to US\$28,421,000 in Frontage Labs, which was equal to the carrying amount of the Company's shares of the equity items shown in the separate financial statements of Frontage Labs on the date of completion of the Reorganisation.

As at the date of this report, the Company has direct and indirect equity interests in the following subsidiaries:

	Place and	Authorized		Equity interest attributable to the Group as at				
	date of incorporation/	share capital/ Registered		December 31		Date of this		
Name of subsidiaries	establishment	capital	Paid up capital	2016	<u>2017</u> %	2018	report	Principal activities
				%	%0	%	%	
Directly held:								
Frontage Labs	USA April 24, 2004	US\$20,000	US\$16,215	100	100	100	100	Bioanalytical, CMC and DMPK services
Indirectly held:								
Frontage Shanghai	PRC, August 2, 2005	US\$4,355,050	US\$4,355,050	100	100	100	100	Bioanalytical and bioequivalence services
上海方達生物技術有限公司 Shanghai Frontage Biotech Co., Ltd ("Shanghai Frontage Biotech") (note (i))	PRC, May 24, 2016	RMB1,000,000	RMB1,000,000	100	100	_	_	Bioanalytical services
蘇州方達生物技術有限公司 Suzhou Frontage Biotech Co., Ltd. ("Suzhou Frontage Biotech") (note (i))	PRC, December 30, 2016	RMB1,000,000	RMB1,000,000	100	100	_	_	Bioanalytical services
Croley Martell Holdings, Inc., (note (ii))	USA February 6, 2017	US\$2,000	US\$1,000	_	_	100	100	Investing holding
Concord Holdings, LLC (note (ii))	USA February 23, 2017	_	_	_	_	100	100	Investing holding
Concord Biosciences, LLC (note (ii))		_	_	_	_	100	100	Safety and Toxicology Services

Notes:

On April 27, 2018 and April 28, 2018, Frontage Shanghai transferred to an independent third party its entire shareholding interest in its subsidiaries, Suzhou Frontage Biotech and Shanghai Frontage Biotech. Details of the disposal of subsidiaries are set out in Note 45.

<sup>(</sup>ii) On April 1, 2018, the Group acquired 100% of the shares of Croley Martell Holdings, Inc, Concord Holdings, LLC and Concord Biosciences, LLC (collectively known as "Concord"), details of which are set out in Note 44. Concord Holdings, LLC and Concord Biosciences, LLC are both limited liability corporations in the USA, and as such do not have share capital.

All subsidiaries now comprising the Group are limited liability companies or corporations and have adopted December 31 as their financial year end date.

No statutory audited financial statements have been prepared for Frontage Labs, Frontage Clinical and Concord as they are incorporated in a jurisdiction where there is no statutory audit requirement.

The statutory financial statements of the subsidiaries registered in the PRC were prepared in accordance with the relevant accounting principles and financial regulations applicable to enterprises established in the PRC and were audited by certified public accountants registered in the PRC as set out below:

Name of subsidiaries	Periods covered	<b>Certified Public Accountants</b>		
Frontage Shanghai	For the year ended December 31, 2016	上海德義致遠會計師事務所 IPO Accountants <sup>#</sup>		
	For the year ended December 31, 2017	上海德義致遠會計師事務所 IPO Accountants <sup>#</sup>		
	For the year ended December 31, 2018	上海德義致遠會計師事務所 IPO Accountants <sup>#</sup>		
Shanghai Frontage Biotech	For the period from May 24, 2016 (date of establishment) to December 31, 2016	上海德義致遠會計師事務所 IPO Accountants <sup>#</sup>		
	For the year ended December 31, 2017	上海德義致遠會計師事務所 IPO Accountants <sup>#</sup>		
Suzhou Frontage Biotech	For the period from December 30, 2016 (date of establishment) to December 31, 2017	蘇州東恒會計師事務所 Suzhou Easthigh Certified Public Accountants <sup>#</sup>		

# English name is for identification only

# ACCOUNTANTS' REPORT

# **19. PROPERTY, PLANT AND EQUIPMENT**

	Furniture, fixtures and equipment US\$'000	Transportation		equipment under finance leases US\$'000	Construction	Buildings US\$'000	Land US\$'000	Total US\$'000
COST								
As at January 1, 2016	21,149	75	4,659	5,397	_	_	_	31,280
Additions	3,641	28	10	1,533	340	—		5,552
equipment under	115			(445)				
finance leases		(41)		(445)		_		(2.077)
Disposals	(2,036)	(41)	_		_	_	_	(2,077)
of a subsidiary	(760)	_	(1,711)	_	—	_	_	(2,471)
Effect of foreign currency exchange								
differences	(365)	(3)			(14)			(382)
As at December 31,								
2016	22,074	59	2,958	6,485	326	_		31,902
Additions	2,929	_	127	1,550	159	_	_	4,765
Transferred from	,			,				,
equipment under								
finance leases	922	_	_	(922)	_	_		
Disposals		_	_	_	_	_	_	(393)
Transfer from	· · · ·							
construction in								
progress	335	_	_		(335)	_		_
Effect of foreign					~ /			
currency exchange								
differences	400	2	_	_	15	_		417
As at December 31, 2017	26,267	61	3,085	7,113	165			36,691
		01				520	_	
Additions	4,074	_	—	1,103	617	529	_	6,323
Acquisition of a	2 269	5	120	706	69	2 000	1.820	7 1 9 7
subsidiary	2,368	5	120	796	68	2,000	1,830	7,187
equipment under finance leases	616			(616)				
			_	(010)	—	_	_	(1.020)
Disposals				_		_	_	(1,020)
Disposal of subsidiaries .	(435)	_	_	_	_	_	_	(435)
Transferred from construction in								
	220				(220)			
progress	230		_	_	(230)	_	_	_
Effect of foreign								
currency exchange differences	(434)	(1)			(2)			(438)
		(1)			(3)			
As at December 31, 2018	31,666	65	3,205	8,396	617	2,529	1,830	48,308

# **ACCOUNTANTS' REPORT**

	Furniture, fixtures and equipment US\$'000	Transportation		quipment under finance leases US\$'000	Construction in progress US\$'000	Buildings US\$'000	Land US\$'000	Total US\$'000
DEPRECIATION AND								
IMPAIRMENT								
As at January 1, 2016		(48)		(1,203)	—	—	_	(18,596)
Provided for the year Transferred from	(1,418)	(11)	(435)	(804)	_	_		(2,668)
equipment under finance leases	(311)	_	_	311	_	_	_	_
Eliminated on disposals .	· · ·	38						1,147
Eliminated on disposal of		50						1,147
a subsidiary		_	234	_	_	_	_	522
Effect of foreign								
currency exchange								
differences	271	2						273
As at December 31,								
2016	(15,604)	(19)	(2,003)	(1,696)	_	_	_	(19,322)
Provided for the year	(1,798)	(12)	(211)	(984)		_	_	(3,005)
Transferred from								
equipment under								
finance leases	(756)	_	_	756	_	—	—	_
Eliminated on disposals .	131	_	_			_	_	131
Effect of foreign								
currency exchange								
differences	(249)	(2)						(251)
As at December 31, 2017	(18,276)	(33)	(2,214)	(1,924)	_	—	_	(22,447)
Provided for the year	(2,856)	(20)	(113)	(1,121)	_	(124)	—	(4,234)
Transferred from equipment under								
finance leases		—	—	370		—	—	—
Eliminated on disposals .		—	—	—		—	—	982
Eliminated on disposal of								
subsidiaries	28	—	_	_		_	_	28
Effect of foreign								
currency exchange differences	245	2						247
As at Decmber 31, 2018	(20,247)	(51)	(2,327)	(2,675)		(124)		(25,424)
NET BOOK VALUES								
As at December 31,								
2016	6,470	40	955	4,789	326			12,580
As at December 31,								
2017	7,991	28	871	5,189	165	_	_	14,244
As at December 21						_		
As at December 31, 2018	11,419	14	878	5,721	617	2,405	1,830	22,884
2010								

# **ACCOUNTANTS' REPORT**

The above items of property, plant and equipment other than the construction in progress and the land are depreciated on a straight-line basis after taking into account of the residual value as follows:

Furniture, fixtures and equipment	14% - 33% per annum
Transportation equipment	20% per annum
Leasehold improvement	Over the shorter of the lease term or ten years
Equipment under finance leases	14% per annum
Buildings	7% per annum

The land is freehold land, which has not been depreciated and has an indefinite useful life.

## **20. INTANGIBLE ASSETS**

	Trade name
	US\$'000
COST	
As at January 1, 2018	_
Acquisition of a subsidiary	100
As at December 31, 2018	100
AMORTISATION AND IMPAIRMENT	
As at January 1, 2018	_
Provided for the year	(75)
As at December 31, 2018	(75)
NET BOOK VALUES	
As at January 1, 2018	
As at December 31, 2018	25

The intangible asset recognised by the Group, its useful economic life and the method used to determine the cost of the intangible asset acquired in a business combination are as follows:

Intangible assets	Useful economic life	Valuation method
Trade name	1 year	Relief of royalty

## 21. INTERESTS IN ASSOCIATES

_	As at December 31,				
_	2016	2017	2018		
	US\$'000	US\$'000	US\$'000		
Cost of unlisted investments in associates	9,813	12,957	7,879		
Share of post-acquisition profits, net of dividends					
received	840	(505)	2,078		
Impairment provision	—	(1,736)			
Exchange adjustments	(7)	19	(78)		
	10,646	10,735	9,879		

The Group had interests in the following principal associates during the Track Record Period:

			interest/v	tion of own oting right the Group	•	
	Place of incorporation/	Registered	as at	t December	· 31,	Principal
Name of associates	establishment	capital	2016 2017		2018	activities
Tigermed-BDM	USA	US\$30	45%	45%	45%	Biometrics
C			(i)			
Frontage Suzhou	PRC	RMB10,000,000	49.04% (ii)	49.04%	49.04%	CMC services
泰格新澤醫藥技術(嘉興)有限公司 Tiger-Xinze Medical Technology (Jiaxing) Co., Ltd. ("Tigermed-Xinze")	PRC	RMB1,847,400	45% (iii)	45%	45%	Biometrics
Frontage Clinical	USA	US\$1,500	N/A	19.4%	11.91%	Clinical
			(iv)	(iv)	(iv)	pharmacology services
Frontida	USA	US\$6,013	16%	30%	_	Contract
			(v)	(v)	(v)	research organisation services
河北宸昌方達醫藥科技有限公司 Hebei Chenchang Frontage Pharmaceutical Technology Co., Ltd. ("Hebei Frontage")	PRC	RMB20,010,000	N/A	20% (vi)	20%	Development of medical products
海南海醫方達醫藥科技有限公司	PRC	RMB9,090,909	N/A	4%	_	Clinical research
Hainan Haiyi Fangda Medical Technology Co., Ltd. ("Haiyi Fangda")				(vii)	(vii)	center
FJ Pharma LLC	USA	US\$2,000,000	49%	49%	49%	Contract
			(viii)			development organisation

services

Notes:

- i. Hangzhou Tigermed owns the remaining 55% of equity interest in Tigermed-BDM.
- ii. The Group owned 49.04% shares of equity interest in Frontage Suzhou as at January 1, 2016. During 2016, the Group invested an additional US\$524,000 in cash, in Frontage Suzhou, together with other shareholders on pro-rata basis. The Group's ownership percentage did not change as a result of the additional investment.
- iii. In June 2015, the Group acquired a 45% of the equity interest of Tigermed-Xinze from a wholly owned subsidiary of Hangzhou Tigermed for a cash consideration of US\$148,000.
- iv. In August 2016, the Group entered into a sale agreement to dispose 100% of its equity interest of Frontage Clinical, which carried out all of the Group's clinical operations in the USA, to an independent third party. The disposal was completed on August 31, 2016, on which date control of Frontage Clinical passed to the acquirer. On June 1, 2017, the Group entered into an agreement to acquire 19.4% of the equity interests of Frontage Clinical for a cash consideration of US\$200,000. For the year ended December 31, 2018, new investors made additional investments into Frontage Clinical which diluted the ownership interests of existing investors. As such, the Group's ownership percentage decreased to 11.91%. Management considers that the Group has significant influence on Frontage Clinical as the Group exchanges essential technical information with Frontage Clinical and there are material transactions between the entities (see related party Note 42 for further information) and hence the investment has been accounted for as an investment in associate effective from June 1, 2017.
- v. On May 26, 2016, Frontage Labs subscribed to 2.5% equity interest in Frontida, on creation of the company for a cash consideration of US\$200,000. From that date, Frontage Labs had significant influence over the business, by virtue of Frontage Labs employees, also being on Board of Frontida, in their role on the board, these personnel also participate in the policy making process of the company and no party can control the board. In addition, on June 8, 2016, Frontage Labs also became jointly and severally liable for a mortgage note with a face value of US\$17,000,000, details of which are set out in Note 41. As a result, from June 8, 2016, Frontage Labs' investment in Frontida has been accounted for as an investment in associate. In August 2016, an additional post close issue of shares was made by Frontida, which Frontage did not participate in, which led to the equity interest being diluted to 2.4%. On December 27, 2016, Frontage Labs acquired an additional 13.6% of equity in Frontida with a consideration of US\$2,000,000. During September, October and November 2017 Frontage Labs subscribed to an additional 14% of the equity interest of Frontida, via five different purchases of tranches of shares. The total cash consideration for these investments was US\$2,804,000. On March 1, 2018, Frontage Labs sold its 30% equity interest in Frontida to Dr Song Li for an aggregate consideration of US\$437,000 and a net of tax capital contribution from shareholders of US\$2,880,000 related to this transaction.
- vi. Hebei Frontage was established in the PRC on October 19, 2017 and is owned 20% by Frontage Shanghai and the remaining 55% and 25% are owned by two independent third parties. No capital was injected as at December 31, 2018.
- vii. Haiyi Fangda was established the PRC on July 21, 2016 and is owned 4% by Shanghai Frontage Biotech and the remaining 51% and 45% by two independent third parties. According to the articles of association of Haiyi Fangda, its total registered capital is RMB9,090,909 which shall be fully paid in by December 30, 2017. In December 2017, RMB363,636 was paid in by Shanghai Frontage Biotech. Shanghai Frontage Biotech is considered having significant influence over the investee by virtue of a Shanghai Frontage Biotech presence on the board of Haiyi Fangda, in the role on the board the personnel also participate in the policy making process of Haiyi Fangda. Hence, the investment in Haiyi Fangda is accounted for as an investment in associate. On April 28, 2018, Shanghai Frontage Biotech was disposed by Frontage Shanghai, thereafter Haiyi Fangda ceased to be associate of the Group.
- viii. In June 2016, Frontage Labs entered into an agreement with an independent third party to establish FJ Pharma LLC. The initial investment by Frontage Labs for a 49% of equity interest in FJ Pharma LLC is US\$980,000. Frontage Labs is able to appoint one of the three board members, that enable it to influence the relevant activities of the company, that combined with the 49% equity interest, gives Frontage Labs significant influence over FJ Pharma, LLC and the investment is therefore classified as an investment in associate.

## Summarised historical financial information of significant associates

Summarised historical financial information in respect of each of the Group's significant associates is set out below. The summarised historical financial information below represents amounts shown in the associate's financial statements prepared in accordance with IFRSs.

All of these associates are accounted for using the equity method in the Historical Financial Information.

#### **Tigermed-BDM**

_	As at December 31,				
_	2016	2017	2018		
	US\$'000	US\$'000	US\$'000		
Current assets	2,930	4,240	6,431		
Non-current assets	1,581	1,611	34		
Current liabilities	113	740	314		
Non-current liabilities	_	2	4		

-	Year ended December 31,				
_	2016	2017	2018		
	US\$'000	US\$'000	US\$'000		
Revenue	6,534	6,910	8,553		
Profit and other comprehensive income for the year	854	711	1,351		
Group's share of profit for the year	384	320	609		

Reconciliation of the above summarised historical financial information to the carrying amount of the interest in Tigermed-BDM recognised in the Historical Financial Information:

_	As at December 31,			
_	2016	2017	2018	
	US\$'000	US\$'000	US\$'000	
Net assets of the associate	4,398	5,109	6,147	
Proportion of the Group's ownership interest	45%	45%	45%	
The Group's share of net assets	1,979	2,299	2,766	
Other adjustments (Note)	3,988	3,988	3,988	
Carrying amounts of the Group's interests in				
the associate	5,967	6,287	6,754	

Note: Tigermed-BDM was acquired by the Group for consideration in excess of the net assets at the acquisition date.

#### **Frontage Suzhou**

-	As at December 31,			
_	2016	2016 2017	2018	
	US\$'000	US\$'000	US\$'000	
Current assets	1,655	1,628	1,893	
Non-current assets	949	1,675	1,671	
Current liabilities	1,647	1,595	1,048	

_	Year ended December 31,			
_	2016	2016 2017		
	US\$'000	US\$'000	US\$'000	
Revenue	1,557	3,347	3,832	
Profit and other comprehensive income for the year	67	670	913	
Group's share of profit for the year	33	329	448	

Reconciliation of the above summarised historical financial information to the carrying amount of the interest in Frontage Suzhou recognised in the Historical Financial Information:

-	As at December 31,		
_	2016	2017	2018
	US\$'000	US\$'000	US\$'000
Net assets of the associate	957	1,708	2,516
Proportion of the Group's ownership interest	49.04%	49.04%	49.04%
The Group's share of net assets	469	838	1,234
Exchange adjustments	(66)	(37)	(64)
Other adjustments (Note)	562	562	562
Carrying amounts of the Group's interests in			
the associate	965	1,363	1,732

Note: Other adjustments represent fair value adjustment of the retained 49.04% equity interest of Frontage Suzhou.

## Frontida

_	As at December 31,			
_	2016	016 2017	2018	
	US\$'000	US\$'000	US\$'000	
Current assets	2,758	10,744	N/A	
Non-current assets	24,117	21,383	N/A	
Current liabilities	7,375	25,426	N/A	
Non-current liabilities	13,000	4,499	N/A	

_	Year ended December 31,			
	2016 US\$'000 (Note i)	2017	2018	
			(Note ii)	
Revenue	14,543	29,598	5,180	
Loss and other comprehensive expense for the period/year	(4,549)	(7,723)	(1,974)	
Group's share of loss for the period/year	(109)	(1,688)	(590)	

Notes:

(i) The revenue and loss and other comprehensive expense represent the revenue and results of Frontida from acquisition date to December 31, 2016.

Reconciliation of the above summarised historical financial information to the carrying amount of the interest in Frontida recognised in the Historical Financial Information:

_	As at December 31,		
_	2016	2017	2018
	US\$'000	US\$'000	US\$'000
Net assets of the associate	6,500	2,202	N/A
Proportion of the Group's ownership interest	16%	30%	N/A
The Group's share of net assets	1,040	661	N/A
Other adjustments (Note i)	1,051	2,545	N/A
Impairment provision (Note ii)		(1,736)	N/A
Carrying amounts of the Group's interests in the			
associate	2,091	1,470	N/A

Notes:

Aggregate information of associates that are not individually material:

	Year ended December 31,				
	2016	2016 2017		2016 2017	2018
	US\$'000	US\$'000	US\$'000		
Group's share of profit (loss) for the year	260	(306)	(131)		
Aggregate carrying amount of the Group's interest in these associates	1,623	1,615	1,393		

 <sup>(</sup>ii) The revenue and loss and other comprehensive expense represent the revenue and results of Frontida from January 1, 2018 to the Group's disposal of Frontida on March 1, 2018.

i. Other adjustments relate to the cumulative goodwill built up during the stepped acquisition of equity interests in Frontida, as described above. The goodwill represents the excess of consideration paid, over the fair value of the assets acquired.

ii. During 2017, due to the continued losses generated by Frontida, a triggering event occurred, which led to a full impairment analysis being performed on the value of the investment. The carrying amount of the investment in Frontida was reduced to its recoverable amount of US\$1,470,000 and an impairment loss of US\$1,736,000 was recognised during the year ended December 31, 2017.

## 22. LONG-TERM NOTE RECEIVABLES

Long-term note receivables represent a note receivable due from Frontage Clinical, which was issued with initial fair value of US\$1,190,000 and principal amount of US\$2,509,000 when the Group disposed its equity interest in Frontage Clinical as disclosed in Note 15. The note receivable is due on August 29, 2019, which carried interest at 1% per annum and then changed to 3% per annum from September 2017.

The Group issued a promissory note payable to Tigermed-BDM in the amount of US\$1,500,000 on May 18, 2016. Details of the balance of the note payable to Tigermed-BDM at the end of each reporting period are set out in Note 29.

Effective on June 30, 2018, the Group entered into an agreement with Tigermed-BDM to convey its interest in the Frontage Clinical note receivable of US\$1,190,000 to Tigermed-BDM in exchange for settlement of its promissory note payable of US\$1,500,000. Since Tigermed-BDM and the Group are under the common control of Hong Kong Tigermed, this transaction is accounted for as a capital contribution. The difference between the note receivable and the note payable is US\$310,000; of which US\$140,000 is recorded as a reduction in the Group's investment in Tigermed-BDM (which reflects the Group's 45% ownership of Tigermed-BDM's equity interest) and the remaining US\$170,000 is recorded as a capital contribution during the year ended December 31, 2018.

#### 23. DEFERRED TAXATION

For the purpose of presentation in the consolidated statements of financial position, certain deferred tax assets and liabilities have been offset. The following is a summary of the deferred tax balances for financial reporting purposes:

	As at December 31,			
	2016	2017	2018	
	US\$'000	US\$'000	US\$'000	
Deferred tax assets	53	57	68	
Deferred tax liabilities	(1,659)	(25)	(767)	
	(1,606)	32	(699)	

The followings are the major deferred tax assets and liabilities recognised and movements thereon before offsetting during the Track Record Period:

	Impairment allowance US\$'000	Deferred rent US\$'000	Stock compensation US\$'000	Accelerated tax depreciation US\$'000	Others US\$'000	Total US\$'000
As at January 1, 2016 Credited (charged) to profit or	230	188	52	(2,591)	26	(2,095)
loss	246	(79)	219	393	(286)	493
Exchange Adjustments	(6)			2		(4)
As at December 31, 2016 Credited (charged) to profit or	470	109	271	(2,196)	(260)	(1,606)
loss	(58)	8	155	511	1,019	1,635
Exchange Adjustments	6			(3)		3
As at December 31, 2017 Adjustment upon adoption of	418	117	426	(1,688)	759	32
IFRS 9	38					38
As at January 1, 2018 Credited (charged) to profit or	456	117	426	(1,688)	759	70
loss	434	39	(18)	57	(326)	186
Charged to reserves	—	—	—	—	(1,170)	(1,170)
(Note 44)	_	_	_	(214)	462	248
Exchange Adjustments	(32)			(1)		(33)
As at December 31, 2018	858	156	408	(1,846)	(275)	(699)

As at December 31, 2016, 2017 and 2018, the Group had unused tax losses of US\$850,000, US\$1,719,000 and US\$586,000 respectively, available to offset against future profits. As at December 31, 2016, 2017 and 2018, unused tax losses of US\$818,000, US\$1,445,000 and US\$586,000 had been recognised in deferred tax assets, while US\$32,000, US\$241,000 and nil had not been recognised as at December 31, 2016, 2017 and 2018, respectively, due to the unpredictability of future profit streams.

Deferred taxation has not been provided for in the Historical Financial Information in respect of temporary differences attributable to accumulated profits of the PRC subsidiaries amounting to US\$5,201,000 and US\$14,954,000 as at December 31, 2017 and 2018 and the temporary differences between the carrying amounts of investments in associates and the corresponding tax bases arising from fair value measurement upon losing control on Frontage Suzhou amounting to US\$615,000 as at December 31, 2016, 2017 and 2018 as the Group is able to control the timing of the reversal of the temporary differences and it is probable that the temporary differences will not reverse in the foreseeable future.

## 24a. TRADE AND OTHER RECEIVABLES AND PREPAYMENT

#### The Group

	As at December 31,		
	2016	2017	2018
	US\$'000	US\$'000	US\$'000
Trade receivables			
- related parties	136	510	571
- third parties	7,916	11,813	16,348
Less: loss allowance for trade receivables	(1,224)	(1,527)	(2,315)
	6,828	10,796	14,604
Other receivables			
- related parties	914	1,427	1,347
- third parties	63	96	160
	977	1,523	1,507
Prepayments			
- related parties		7	_
- third parties	539	794	1,073
	539	801	1,073
Deferred issue costs	_	_	2,206
Value added tax recoverable		41	66
	8,344	13,161	19,456

Details of the trade and other receivables and prepayment due from related parties are set out in Note 42(2).

As at January 1, 2016, trade receivables from contracts with customers amounted to US\$8,341,000.

The Group allows a credit period ranging from 30 to 90 days to its customers. The following is an age analysis of trade receivables (net of allowance for impairment losses), presented based on the invoice dates, at the end of each Track Record Period:

	As at December 31,		
	2016	2017	2018
	US\$'000	US\$'000	US\$'000
Within 90 days	6,041	8,996	12,630
91 to 180 days	354	1,145	1,387
181 days to 1 year	318	468	366
Over 1 year	115	187	221
	6,828	10,796	14,604

In determining the recoverability of the trade receivables, the Group considers any change in the credit quality of the trade receivables from the date on which the credit was initially granted up to the reporting date. The credit quality of the trade receivables that are neither past due nor impaired have not changed during the Track Record Period.

Analysis of trade receivables which are past due but not impaired as at December 31, 2016 and 2017:

-	As at December 31,	
_	2016	2017
	US\$'000	US\$'000
Overdue by:		
Within 90 days	879	2,673
91 to 180 days	160	842
181 days to 1 year	223	362
Over 1 year	115	158
	1,377	4,035

Movement of allowance for doubtful debts on trade receivables for each of the two years ended December 31, 2017:

_	2016	2017
	US\$'000	US\$'000
As at January 1	(833)	(1,224)
Provided	(1,007)	(445)
Reversed	375	147
Write off	216	18
Exchange adjustment	25	(23)
As at December 31	(1,224)	(1,527)

Included in the allowance for doubtful debts are individually impaired trade receivables.

The Group determines the allowance for impaired debts based on the evaluation of collectability and ageing analysis of the receivables and on management's judgement including the assessment of change in credit quality and the past collection history of each customer.

Movement in lifetime ECL that has been recognised for trade receivables in accordance with the simplified approach set out in IFRS 9 for the year ended December 31, 2018:

	Not credit impaired	Credit impaired	Total
	US\$'000	US\$'000	US\$'000
Balance as at December 31, 2017 under IAS 39Adjustment upon application of IFRS 9			(1,527) (289)
Adjusted balance as at January 1, 2018			(1,816)
Transfer to credit impaired	625	(625)	—
ECL provided	(727)		(727)
Reversal of ECL (note)		119	119
Write off		85	85
Exchange effect			24
Balance as at December 31, 2018			(2,315)

*Note:* Reversal of allowance of ECL is due to the Group's recovery of receivables.

Trade and other receivables that are denominated in currencies other than the functional currencies of the respective group entities are set out below:

-	As at December 31,			
	2016	2016	2017	2018
	US\$'000	US\$'000	US\$'000	
US\$	18	547	101	
Euro ("EUR")	34			

## The Company

	As at December 31,			
	2016	2016	2017	2018
	US\$'000	US\$'000	US\$'000	
Deferred issue costs			2,206	

## 24b. UNBILLED REVENUE

_	As at December 31,				
_	2016	2016 2017	2016 2017 2	2016 2017 2018	2018
	US\$'000	US\$'000	US\$'000		
Unbilled revenue					
- related parties	348	2,001	572		
- third parties	5,728	11,115	6,879		
Less: loss allowance for unbilled revenue	(136)	(481)	(322)		
	5,940	12,635	7,129		

Changes in unbilled revenue primarily relate to timing invoicing.

Details of the unbilled revenue due from related parties are set out in Note 42(2).

As at January 1, 2016, unbilled revenue from contracts with customers amounted to US\$4,219,000.

Movement in lifetime ECL that has been recognized for unbilled revenue in accordance with the simplified approach set out in IFRS 9 for the year ended December 31, 2018:

	Not credit impaired	Credit impaired	Total
	US\$'000	US\$'000	US\$'000
Balance as at December 31, 2017 under IAS 39Adjustment upon application of IFRS 9			(481) (75)
Adjusted balance as at January 1, 2018			(556)
ECL provided.Derecognised on disposal of subsidiariesExchange effect	(39)	_	(39) 279 (6)
Balance as at December 31, 2018			(322)

Unbilled revenue that are denominated in currencies other than the functional currencies of the respective group entities are set out below:

	As at December 31,			
	2016	2016	2017	2018
	US\$'000	US\$'000	US\$'000	
US\$	669	1,977	148	
EUR	31	47	6	

#### 25. CASH AND CASH EQUIVALENTS/RESTRICTED BANK DEPOSITS

At the end of each reporting period, cash and cash equivalents of the Group comprised of bank balances and cash held. Bank balances held in the PRC carried interest at prevailing market interest rates which ranged from 0.30% to 0.385%, 0.30% to 0.385% and 0.30% to 0.385% per annum as at December 31, 2016 and 2017 and 2018, respectively. Bank balances held in the USA are not interest bearing.

The Group entered into a lease agreement for a property located in Secaucus, New Jersey with a lease term ending in 2027. As part of the lease agreement, a letter of credit of US\$550,000 is required as a guarantee over the term of the lease and therefore the Group obtained a letter of credit of US\$550,000 from a bank and in return placed an equal amount to the bank as a pledged deposit for the letter of credit during each of the years ended December 31, 2016 and 2017. In 2018, the cash deposit that was required as a guarantee was reduced to US\$300,000. The pledged bank deposit as of December 31, 2016 and 2017 and 2018 carries fixed interest rate of 0.55% per annum and is classified as a long-term asset.

As part of the acquisition of Concord by the Group, US\$680,000 of cash was placed in a bank escrow account for settlement of existing environmental related liabilities and other general expenditures for Concord, and thus the amount is restricted. As at December 31, 2018, the remaining amount in the escrow account is US\$15,000.

Cash and cash equivalents that are denominated in currencies other than the functional currencies of the respective group entities are set out below:

_	As at December 31,			
	2016	2017	2018	
	US\$'000	US\$'000	US\$'000	
	109	110	631	

#### 26. OTHER LONG-TERM DEPOSITS

Other long-term deposits represent rental deposits paid under operating leases which is recoverable after one year.

#### 27a. TRADE AND OTHER PAYABLES

#### The Group

_	As at December 31,		
	2016	2017	2018
	US\$'000	US\$'000	US\$'000
Trade payables			
- related parties	488	1,115	688
- third parties	794	2,087	2,885
	1,282	3,202	3,573
Other payables			
- related parties	6	6	4
- third parties	452	423	1,077
	458	429	1,081
Accrued listing expenses and issue costs	_		3,455
Salary and bonus payables	864	1,073	2,354
Other taxes payable	156	441	587
	2,760	5,145	11,050

Detail of the trade and other payables due to related parties are set out in Note 42(2).

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Payment terms with suppliers are mainly on credit ranging from 30 to 90 days from invoice date. The following is an age analysis of trade payables presented based on invoice date at the end of each reporting period:

-	As at December 31,		
	2016	2017	2018
	US\$'000	US\$'000	US\$'000
Within 90 days	1,104	1,864	2,577
91 days to 1 year	28	924	453
Over 1 year	150	414	543
	1,282	3,202	3,573

Trade and other payables that are denominated in currencies other than the functional currency of the respective group entities are set out below:

_	As at December 31,						
	2016	2016	2016	2016	2016 2017	2017	2018
	US\$'000	US\$'000	US\$'000				
US\$	203	230	24				

#### The Company

_	As at December 31,			
	2016	2016	2017	2018
	US\$'000	US\$'000	US\$'000	
Accrued listing expenses and issue costs	—	—	3,455	
Amounts due to a subsidiary			5,137	
			8,592	

As at December 31, 2018, the amount due to a subsidiary is related to trade in the ordinary course of business, which is unsecured, non-interest bearing and repayable on demand.

## 27b. ADVANCES FROM CUSTOMERS

	As at January 1,	A	s at December 31	,
	2016	2016	2017	2018
	US\$'000	US\$'000	US\$'000	US\$'000
Advances from customers				
- related parties	6	99	400	563
- third parties	9,342	9,633	9,960	10,787
	9,348	9,732	10,360	11,350

Changes in advances from customers primarily relate to the Group's performance of services under the contracts.

Details of the advances from customers which are related parties are set out in Note 42(2).

Revenue of US\$9,348,000, US\$9,732,000 and US\$10,360,000 were recognised in 2016, 2017 and 2018 that were included in the advances from customers at the beginning of the relevant years, respectively.

#### 28. BANK BORROWINGS

_	As at December 31,		
	2016	2017	2018
	US\$'000	US\$'000	US\$'000
Secured and unguaranteed bank loans	_	2,834	3,167
Unsecured and guaranteed bank loans	435	578	
	435	3,412	3,167

Carrying amount repayable\*:

As at December 31,		
2016	2017	2018
US\$'000	US\$'000	US\$'000
435	2,245	2,667
	667	
	500	500
435	3,412	3,167
(435)	(2,245)	(2,667)
	1,167	500
	2016 US\$'000 435  435	2016         2017           US\$'000         US\$'000           435         2,245            667            500           435         3,412           (435)         (2,245)

\* The amounts due are based on scheduled repayment date set out in the loan agreements.

On July 28, 2016, the Group entered into a one-year revolving loan facility with a bank, which granted the Group a line of credit up to US\$2,000,000. The loan facility was guaranteed by Hangzhou Tigermed. The Group drew down US\$435,000 during the year ended December 31, 2016, and repaid US\$435,000 and drew down US\$578,000 during the year ended December 31, 2017. The Group fully repaid this bank loan during 2018.

The above bank loan carries interest at a variable rate of LIBOR plus 2.3% per annum.

On September 1, 2017, the Group entered into a three-year term loan agreement and a two-year revolving line of credit note with a bank, with the grant of security interest of certain collateral which is blanket lien on all assets of the Frontage Labs and all its existing and future US subsidiaries. The bank granted the Group a bank borrowing of US\$2,000,000 and a line of credit up to US\$3,000,000, respectively. The bank borrowing of US\$2,000,000 carries interest at a variable rate of LIBOR plus 1.85% per annum. The Group drew down US\$2,000,000 under the term note agreement on September 20, 2017 and repaid US\$166,000 during October to December 2017, and US\$667,000 during the year ended December 31, 2018. The Group also drew down US\$1,000,000 under the revolving line of credit note in October 2017 and US\$1,000,000 in April 2018, which carries interest at a variable rate of LIBOR plus 1.75% per annum.

Bank borrowings that are denominated in currencies other than the functional currencies of the respective group entities are set out below:

	As at December 31,		
	2016	2017	2018
	US\$'000	US\$'000	US\$'000
US\$	435	578	

## 29. LOANS FROM RELATED PARTIES

_	As at December 31,		
	2016	2016 2017	2018
	US\$'000	US\$'000	US\$'000
Loan from Dr. Song Li	1,700	1,500	1,500
Loan from Tigermed-BDM	1,500	1,500	
	3,200	3,000	1,500

Carrying amount repayable\*:

	As at December 31,		
	2016	2017	2018
	US\$'000	US\$'000	US\$'000
Within one year	200		1,500
two years		1,500	
Within a period of more than two years but not exceed			
five years	3,000	1,500	
	3,200	3,000	1,500
Less: Amounts due within one year shown under			
current liabilities	(200)		(1,500)
	3,000	3,000	

\* The amounts due are based on scheduled repayment date set out in the loan agreements.

The above loans are unsecured and carry interest at the fixed rate of 3% per annum as at December 31, 2016, 2017 and 2018.

Details of the settlement of loan from Tigermed-BDM are set out in Note 22.

#### **30. CONSIDERATION PAYABLE ON ACQUISITION OF AN ASSOCIATE**

	As at December 31,		
	2016	2017	2018
	US\$'000	US\$'000	US\$'000
Consideration payable on acquisition of an associate	1,119		

The consideration payable on acquisition of an associate represents the consideration payable on acquisition of 45% of the equity interest in Tigermed-BDM in 2015, which carries interest at the fixed rate of 2% per annum.

#### 31. AMOUNTS DUE TO SHAREHOLDERS

The amounts represent dividend payable due to the Then Shareholders that were declared prior to the Track Record Period. The directors of the Company are of a view that the amounts due to shareholders will be repaid in full before the Listing.

#### **32. OBLIGATIONS UNDER FINANCE LEASES**

	As at December 31,			
	2016 US\$'000	16 2017	2016 2017 20	2018
		US\$'000	US\$'000	
Analyzed for reporting purposes as:				
Current liabilities	1,250	1,642	1,864	
Non-current liabilities	2,852	2,616	2,311	

The Group leases certain of its equipment under finance lease agreements with lease term of three to five years, which expire at various times through December 31, 2021. The leased equipment was capitalised using borrowing rates ranging from 1.41% to 16.06%, each finance lease liability is secured against the associated asset.

# ACCOUNTANTS' REPORT

Minimum Lease Payments						
As a	at December 3	31,	As at December 31,			
2016	2017	2018	2016	2017	2018	
US\$'000	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000	
1,394	1,784	2,014	1,250	1,642	1,864	
1,234	1,445	1,521	1,139	1,365	1,443	
1,795	1,291	914	1,713	1,251	868	
4,423	4,520	4,449	4,102	4,258	4,175	
321	262	274				
4,102	4,258	4,175				
			1,250	1,642	1,864	
		-				
		-	2,852	2,616	2,311	
	As a 2016 US\$'000 1,394 1,234 1,234 1,795 4,423 321	As at December 3           2016         2017           US\$'000         US\$'000           1,394         1,784           1,234         1,445           1,795         1,291           4,423         4,520           321         262	As at December 31,           2016         2017         2018           US\$'000         US\$'000         US\$'000           1,394         1,784         2,014           1,234         1,445         1,521           1,795         1,291         914           4,423         4,520         4,449           321         262         274	Minimum Lease Payments       Lease         As at December 31,       As at December 31,         2016       2017       2018       2016         US\$'000       US\$'000       US\$'000       US\$'000       US\$'000         1,394       1,784       2,014       1,250         1,234       1,445       1,521       1,139         1,795       1,291       914       1,713         4,423       4,520       4,449       4,102         321       262       274       1,250         4,102       4,258       4,175       1,250	As at December 31,As at December 320162017201820162017US\$'000US\$'000US\$'000US\$'000US\$'000US\$'0001,3941,7842,0141,2501,6421,2341,4451,5211,1391,3651,7951,2919141,7131,2514,4234,5204,4494,1024,25832126227411,2504,1024,2584,1751,2501,642	

## 33. OTHER LONG-TERM LIABILITIES

	As at December 31,		
	2016	2017	2018
	US\$'000	US\$'000	US\$'000
Accrued rent - long term	585	561	518

Other long-term liabilities represent accrued rent for the rental-free period.

#### 34. INVESTED CAPITAL/SHARE CAPITAL

For the purpose of presenting the Invested Capital of the Group prior to the Reorganisation in the consolidated statements of financial position, the balances as at December 31, 2016 and 2017 represent the total carrying value of 162,148,471 issued share capital at par value of US\$0.0001, share premium, and 11,675,380 shares of treasury stock and stock subscription of Frontage Labs. In March 2018, 100,000 share options under the Pre-IPO share option scheme of Frontage Labs were exercised by an employee of the Group and the net proceeds of US\$49,000 from the exercise of the share options and the amount previously recognised in the equity-settled share-based compensation reserve of US\$41,000 were transferred to the Invested Capital.

The Company was incorporated and registered as an exempted company in the Cayman Islands on April 16, 2018 with an authorised share capital of US\$50,000 divided into 5,000,000 shares of a nominal or par value of US\$0.01 each. The Company then undertook a sub-division of authorised share capital, such that the existing shares were divided so as to consist of 5,000,000,000 shares, with a par value of US\$0.00001. Pursuant to the Reorganisation disclosed in Note 2, the Company became the holding company of the companies now comprising the Group on April 17, 2018. On the same day, an aggregate of 150,572,091 shares of the Company were allotted and issued at a par value of US\$0.00001. The share capital as at December 31, 2018 represents the 150,573,091 shares at the par value of US\$0.00001 issued by the Company in exchange for the entire interest in Frontage Labs.

The details of the movement of the Company's authorised and issued ordinary shares during the period from the date of incorporation to December 31, 2018 are set out as below:

	Numb	oer of shares	Amount US\$
Ordinary shares of US\$0.00001 each			
Authorised: As at April 16, 2018 (date of incorporation) and December 31, 2018		0,000,000	50,000
	Number of shares	Amount US\$	Show in the Historical Financial Information as US\$'000
Issued and Fully Paid: As at April 16, 2018 (date of incorporation) Sub-division as at April 16, 2018 Issue of shares	1 999 <u>150,572,091</u>	1,506	2
As at December 31, 2018	150,573,091	1,506	2

# 35. OVERVIEW OF THE GROUP'S EXPOSURE TO CREDIT RISK UPON ADOPTION OF IFRS 9

Credit risk refers to the risk that a counterparty will default on its contractual obligations resulting in financial loss to the Group. At the end of each reporting period, the Group's maximum exposure to credit risk which cause a financial loss to the Group due to failure to discharge an obligation by the counterparties is arising from the carrying amount of the respective recognised financial assets as stated in the consolidated statements of the financial position.

In order to minimise credit risk, the Group has tasked its finance team to develop and maintain the Group's credit risk grading to categorise exposures according to their degree of risk of default. Management uses publicly available financial information and the Group's own historical repayment records to rate its major customers and other debtors. The Group's exposure and the credit ratings of its counterparties are continuously monitored and the aggregate exposure is spread amongst approved counterparties.

For trade receivables and unbilled revenue, the Group has applied the simplified approach in IFRS 9 to measure the loss allowance at lifetime ECL. The Group determines the ECL on these items by using a provision matrix as at December 31, 2018 within lifetime ECL (not credit impaired) estimated based on the financial quality of debtors and historical credit loss experience based on the past due status of the debtors, adjusted as appropriate to reflect current conditions and estimates of future economic conditions. The Group's current credit risk grading framework comprises the following categories:

Category	Description
Current	The counterparty has an invoice that is current at reporting date
Within 90 days	The counterparty has an invoice that is past due within 90 days of the reporting date
91 to 180 days	The counterparty has an invoice that is past due within 91 to 180 days of the reporting date
181 days to 1 year	The counterparty has an invoice that is past due within 181 days to 1 year at reporting date
Over 1 year	The counterparty has an invoice that is past due over 1 year at reporting date

The following table details the risk profile of trade receivables and unbilled revenue:

As at January 1, 2018 — USA operation	Current	Within 90 days	91 to 180 days	181 days to 1 year	Over 1 year	Total
	Not credit	impaired	Ст	edit impaire	d	
Expected credit loss rate Gross carrying amount	1.29%	8.49%	32.90%	61.58%	81.91%	9.00%
(US\$'000)	8,349	3,184	761	467	319	13,080
Lifetime ECL (US\$'000)	(108)	(270)	(250)	(288)	(261)	(1,177)
	8,241	2,914	511	179	58	11,903

As at January 1, 2018 — PRC operation	Current	Within 90 days	91 to 180 days	181 days to 1 year	Over 1 year	Total
	Not credit	impaired	Cı	redit impaire	d	
Expected credit loss rate Gross carrying amount	5.10%	5.98%	34.64%	64.10%	86.34%	9.67%
(US\$'000)	10,174	1,354	153	195	483	12,359
Lifetime ECL (US\$'000)	(519)	(81)	(53)	(125)	(417)	(1,195)
	9,655	1,273	100	70	66	11,164

As at December 31, 2018 — USA operation	Current	Within 90 days	91 to 180 days	181 days to 1 year	Over 1 year	Total
	Not credit	impaired	C	redit impaired	d	
Expected credit loss rate Gross carrying amount	1.35%	5.59%	19.72%	60.83%	91.30%	11.13%
(US\$'000)	8,835	5,350	1,061	587	970	16,803
Lifetime ECL (US\$'000)	(118)	(299)	(209)	(357)	(886)	(1,869)
	8,717	5,051	852	230	84	14,934

As at December 31, 2018 — PRC operation	Current	Within 90 days	91 to 180 days	181 days to 1 year	Over 1 year	Total
	Not credit	impaired	Cı	redit impaired	ł	
Expected credit loss rate Gross carrying amount	5.58%	6.32%	36.88%	59.01%	73.76%	10.15%
(US\$'000)	7,007		63	93	404	7,567
Lifetime ECL (US\$'000)	(391)		(24)	(55)	(298)	(768)
	6,616		39	38	106	6,799

For the purposes of impairment assessment, other receivables, other financial assets that are subject to impairment and financial guarantee contract are considered to have low credit risk as the counterparties to these items have a high credit rating. Accordingly, for the purpose of impairment assessment for these items assets, the loss allowance is measured at an amount equal to 12m ECL. In determining the ECL for other receivables, other financial assets that are subject to impairment and financial guarantee contract, the directors of the Company have taken into account the historical default experience and the future prospects of the industries and/or considering various external sources of actual and forecast economic information, as appropriate, in estimating the probability of default of each of the other receivables, other financial assets that are subject to impairment and financial guarantee contract occurring within their respective loss assessment time horizon, as well as the loss upon default in each case. The directors of the Company considered that the ECL allowance is insignificant at January 1, 2018 and December 31, 2018.

Note 37 details the Group's credit risk management policies.

#### **36. CAPITAL MANAGEMENT**

The Group manages its capital to ensure that entities comprising the Group will be able to continue as going concern while maximizing the return to shareholders through the optimisation of the debt and equity balance.

The capital structure of the Group consists of loans from related parties, obligations under finance leases, bank borrowings (net of cash and cash equivalents) and equity attributable to owners of the Company (comprising capital and reserves).

The directors of the Company review the capital structure on a continuous basis taking into account the cost of capital and the risks associated with each class of capital.

The Group monitors the following key covenant ratios which were applied to the credit facilities in use during the relevant periods, to ensure compliance with the agreed target ratios as required by the underlying agreements:

- For year ended December 31, 2016 Senior debt to tangible net worth (which was defined as Total Equity, less Intangible Assets, less related party receivables, assets due from and investments in affiliates) and Minimum debt service coverage.
- For the years ended December 31, 2017 and 2018 Net worth, Maximum leverage ratio (which was defined as Total Funded Debt to earnings before interest, taxes, depreciation and amortisation ("EBITDA"), tested quarterly on a rolling four quarter basis) and Debt service Coverage (which was defined as EBITDA less cash distributions less maintenance capital expenditures (15% of additions in property, plant and equipment).

The Group will balance its overall capital structure through the payment of dividends, new share issues as well as the issue of new debts.

#### **37. FINANCIAL INSTRUMENTS**

#### **Categories of financial instruments**

#### The Group

	As at December 31,				
	2016 2017		2018		
	US\$'000	US\$'000	US\$'000		
Financial assets					
Loans and receivables (including bank balances and					
cash)	12,881	18,480	—		
Amortised cost			32,443		
Financial liabilities					
Amortised cost	6,704	10,253	9,531		
Obligations under finance leases	4,102	4,258	4,175		

#### The Company

The financial liabilities measured at amortised cost of the Company as at December 31, 2018 is US\$5,137,000.

#### Financial risk management objectives and policies

The Group's major financial assets and liabilities include trade and other receivables, restricted bank deposits, cash and cash equivalents, other long-term deposits, long-term note receivables, trade and other payables, bank borrowings, loans from related parties, consideration payable on acquisition of an associate, amounts due to shareholders and obligations under finance leases. Details of these financial instruments are disclosed in the respective notes. The risks associated with these financial instruments and the policies on how to mitigate these risks are set out below. Management manages and monitors these exposures to ensure appropriate measures are implemented on a timely and effective manner.

#### Market risk

The Group's activities expose it primarily to currency risk and interest rate risk. There had been no change in the Group's exposure to these risks or the manner in which it managed and measured the risks during each of the reporting period.

# Currency risk

As disclosed in Note 1, the functional currency of the PRC operating subsidiaries is RMB. The PRC operating subsidiaries have foreign currency sales and purchases, which expose the Group to foreign currency risk. The carrying amounts of relevant group entities' assets and liabilities other than their functional currency are disclosed in the respective notes.

The PRC operating subsidiaries are mainly exposed to foreign currency of US\$ and EUR. The Group does not use any derivative contracts to hedge against its exposure to currency risk.

The carrying amounts of the Group's foreign currency denominated monetary assets (trade receivables, cash and cash equivalents) and liabilities (trade payables and bank borrowings) at the end of each reporting period are as follows:

	As at December 31,			
	2016	2017	2018	
	US\$'000	US\$'000	US\$'000	
Assets				
US\$	127	657	880	
EUR	65	47	6	
Liabilities				
US\$	718	845	24	

#### Sensitivity analysis

The following table details the Group's sensitivity to a 5% increase and decrease in RMB against US\$, the foreign currency with which the Group may have a material exposure. No sensitivity analysis has been disclosed for the EUR denominated assets/liabilities as the impact on profit is immaterial. 5% represents management's assessment of the reasonably possible change in foreign exchange rate. The sensitivity analysis uses outstanding foreign currency denominated monetary items as a base and adjusts their translation at the end of each reporting period for a 5% change in foreign currency rate. A positive (negative) number below indicates an increase (a decrease) in profit where RMB strengthens 5% against US\$. For a 5% weakening of RMB against US\$, there would be an equal and opposite impact on profit.

-	Year ended December 31,			
	2016	2017	2018	
	US\$'000	US\$'000	US\$'000	
Impact on profit or loss				
US\$	22	8	(31)	

#### Interest rate risk

The Group is exposed to fair value interest rate risk in relation to restricted bank deposits, long-term note receivables, obligations under finance leases, loans from related parties and consideration payable on acquisition of an associate. Borrowing agreements include a mix of fixed and variable rate loans, the exposure in relation to fixed rate agreements is considered to be minimal.

The Group is also exposed to cash flow interest rate risk in relation to variable rate bank borrowings. The Group's cash flow interest rate risk is mainly concentrated on the fluctuation of the Prime Rate and LIBOR benchmark rates. For the variable rate bank borrowings, the Group currently does not have an interest rate hedging policy to mitigate interest rate risk; nevertheless, management monitors interest rate exposure and will consider hedging significant interest rate risk should the need arise.

If the interest rate had been 50 basis points higher/lower and all other variables were held constant, the Group's post-tax profit would decrease/increase by US\$1,000, US\$11,000 and US\$6,000 for each of the years ended December 31, 2016, 2017 and 2018, respectively.

#### Credit risk

As at the end of each reporting period, the Group's maximum exposure to credit risk which will cause a financial loss to the Group due to failure to discharge an obligation by the counterparties is the carrying amount of the respective recognised financial assets as stated in the consolidated statements of financial position.

In addition, as at December 31, 2018, the Group is exposed to credit risk in relation to financial guarantee by the Group (see Note 41 for more details). The Group's maximum exposure in this respect is the maximum amount the Group could have to pay if the guarantee is called on. The Group will continue to monitor the financial position of Frontage Suzhou.

In order to minimise the credit risk, management has designated a team responsible for determination of credit limits, credit approvals and other monitoring procedures to ensure that follow-up actions are taken to recover overdue debts. In addition, the directors of the Company review the recoverability of each significant trade debt at the end of each reporting period to ensure that adequate impairment losses are made for irrecoverable amounts. In this regard, the directors of the Company consider that the Group's credit risk is significantly reduced.

The Group has concentration of credit risk with respect to trade receivables as 28.69%, 19.52% and 26.45% of the total trade receivables was due from the Group's top five customers as at December 31, 2016, 2017 and 2018, respectively.

The Group has concentration of credit risk on liquid funds which are deposited with several banks. However, the credit risk on bank balances is limited because majority of the counterparties are banks with good reputation or banks with good credit rating.

#### Liquidity risk

In the management of the liquidity risk, the Group monitors and maintains a level of cash and cash equivalents and unused banking facilities deemed adequate to finance the Group's operations and mitigate the effects of fluctuations in cash flows.

The following table details the Group's remaining contractual maturity for its non-derivative financial liabilities based on the agreed repayment terms. The table has been drawn up based on the undiscounted cash flows of financial liabilities based on the earliest date on which the Group can be required to pay. The table includes both interest and principal cash flows.

#### The Group

	Weighted average interest rate	On demand or less than one year US\$'000	One to five years US\$'000	Over five years US\$'000	Total undiscounted cash flows US\$'000	Carrying amount US\$'000
As at December 31, 2016						
Trade and other payables	N/A	1,740	_		1,740	1,740
Obligations under finance leases		1,394	3,029		4,423	4,102
Loans from related parties		206	3,090		3,296	3,200
Consideration payable on			,		,	,
acquisition of an associate	2%	1,141		_	1,141	1,119
Bank borrowings		-,			_,	_,,
- Variable interest rate	4.27%	454	_		454	435
Amounts due to shareholders	N/A	210	_		210	210
Financial guarantee contracts	N/A	4,000	13,000	_	17,000	—
Total		9,145	19,119		28,264	10,806
As at December 31, 2017						
Trade and other payables	N/A	3,631	_	_	3,631	3,631
Obligations under finance leases	4.10%	1,784	2,736		4,520	4,258
Loans from related parties			3,090		3,090	3,000
Bank borrowings						
- Variable interest rate	3%	1,717	1,202	_	2,919	2,834
- Variable interest rate	4.25%	603	—		603	578
Amounts due to shareholders	N/A	210	—		210	210
Financial guarantee contracts	N/A	4,000	9,000		13,000	
Total		11,945	16,028		27,973	14,511
As at December 31, 2018						
Trade and other payables	N/A	4,654		_	4,654	4,654
Obligations under finance leases	4.35%	1,945	2,412		4,357	4,175
Loans from related parties	3%	1,545	—		1,545	1,500
Bank borrowings						
- Variable interest rate	3.63%	2,764	518		3,282	3,167
Amounts due to shareholders	N/A	210	—		210	210
Financial guarantee contracts	N/A	586			586	
Total		11,704	2,930		14,634	13,706

#### The Company

	Weighted average Interest rate	On demand or less than one year US\$'000	One to five years US\$'000	Over five years US\$'000	Total undiscounted cash flows US\$'000	Carrying amount US\$'000
As at December 31, 2018						
Trade and other payables	N/A	5,137			5,137	5,137

#### Financial instruments not measured at fair value on a recurring basis

Financial instruments not measured at fair value on a recurring basis includes cash and cash equivalents, trade and other receivables, restricted bank deposits, long-term note receivables, trade and other payables, bank borrowings, loans from related parties, consideration payable on acquisition of an associate and amounts due to shareholders.

The fair value of these financial assets and financial liabilities measured at amortised cost is determined in accordance with generally accepted pricing models based on discounted cash flow analysis.

The directors of the Company consider that the carrying amounts of financial assets and financial liabilities recorded at amortised cost in the Historical Financial Information approximate their fair values.

#### **38. OPERATING LEASES**

#### The Group as leasee

The Group has commitments for future minimum lease payments under non-cancellable operating leases in respect of land and buildings as follows:

_	As at December 31,			
_	2016	016 2017	2018	
	US\$'000	US\$'000	US\$'000	
Within one year	1,178	1,393	2,834	
In the second to fifth years inclusive	4,559	5,008	10,828	
Over five years	2,523	1,311	4,512	
	8,260	7,712	18,174	

Operating lease payments represent rentals payable by the Group for certain of its office premises and laboratories.

#### **39. CAPITAL COMMITMENTS**

The Group has capital commitments for equipment purchased under non-cancellable contracts as follows:

_	As at December 31,			
	2016	2017	2018	
	US\$'000	US\$'000	US\$'000	
Contracted but not provided for	450			

#### 40. RETIREMENT BENEFIT PLANS

The employees of the Group's subsidiaries in the PRC are members of the state-managed retirement benefits schemes operated by the PRC government. The PRC subsidiaries are required to contribute a certain percentage of payroll costs to the retirement benefits schemes to fund the benefits. The only obligation of the Group with respect to the retirement benefits schemes is to make the specified contributions.

A defined contribution plan in the USA pursuant to which the Group matches 50 cents for every dollar contributed by each qualifying member of staff up to 4% of their salary. The maximum match is 2% of the qualifying member of staff's gross pay.

The total cost charged to profit or loss in respect of the above-mentioned schemes amounted to approximately US\$509,000, US\$774,000 and US\$1,055,000 for the years ended December 31, 2016, 2017 and 2018 respectively of which US\$495,000, US\$774,000 and US\$1,055,000 were charged to profit from continuing operations and the remaining balances were charged to discontinued operations.

#### 41. CONTINGENT LIABILITIES

As disclosed in Note 21, during the year ended December 31, 2016, Frontage Labs subscribed for, in aggregate, a 16.00% equity interest in Frontida. As part of the consideration for Frontage Labs' investment in Frontida, Frontage Labs agreed to co-sign a US\$17,000,000 non-interest bearing promissory note pursuant to which Frontage Labs and Frontida agreed to be jointly and severally liable to an independent third party. The promissory note was secured by the same assets which were acquired by Frontida from the third party.

On October 24, 2016, Dr Song Li and the Trusts entered into a stock pledge agreement with Hong Kong Tigermed. Pursuant to this stock pledge agreement, Dr Song Li and the Trusts pledged a certain number of shares of Frontage Labs held by them to Hong Kong Tigermed and also provided that Hong Kong Tigermed could enforce the share pledge if Frontida and/or Frontage Labs were unable to make

payments under the promissory note. Specifically, the share pledge agreement provided that Hong Kong Tigermed would be entitled to purchase up to US\$11.22 million of shares of Frontage Labs held by Dr Song Li and the Trusts, and the proceeds of which would mandatorily need to be invested in Frontida. Frontida would then use those proceeds to make the required payments to the third party.

On June 23, 2018, Dr Song Li entered into a personal guarantee agreement with the Company. Pursuant to this guarantee agreement, Dr Song Li and the Trusts have agreed that should the Company and/or Frontage Labs be liable to the third party under the promissory note, the entire proceeds of the sale of the shares of the Company held by Dr Song Li and the Trusts to Hong Kong Tigermed (up to US\$11.22 million) would be used to repay the balance outstanding under the promissory note. Dr Song Li has also agreed that he will personally pay any shortfall between the proceeds of the sale of the shares of the Company and the outstanding balance due under the promissory note. Frontida and Dr Song Li have also confirmed to the Company that Frontida is raising equity and/or debt finance to enable Frontida to repay the promissory note given by Frontida in favour of the third party prior to the Listing.

On August 16, 2018, the share pledge agreement was amended to reflect the fact that the pledge relates to shares of the Company held by Dr Song Li and the Trusts rather than shares of Frontage Labs. The contingent liability of Frontage Labs as a co-signatory with Frontida of the promissory note in favour of the independent third party was not extinguished on the disposal of Frontida by Frontage Labs in March 2018. On December 31, 2018, Frontida made a payment in respect of the outstanding balance of US\$13.00 million in satisfaction of the full balance due of the promissory note. As such, the promissory note has been satisfied and Frontage Labs has no further obligation with respect to this matter.

As at December 31, 2016 and 2017, the outstanding balance under the promissory note was US\$17.00 million and US\$13.00 million, respectively. The Group considered the possibility of any outflow in settlement of the promissory note is not probable, and the fair value of the financial guarantee as at October 24, 2016 and each subsequent reporting period is minimal.

On August 1, 2018, the Group and an independent financial institution that engages in providing guarantee services entered into one-year guarantee contracts in relation to a loan provided by a commercial bank in China to Frontage Suzhou. In respect of the guarantee provided by the independent financial institution, Frontage Shanghai agreed to provide a counter-guarantee (pursuant to which it assumes joint liability in respect of all obligations of Frontage Suzhou) in favor of the independent financial institution, which covers a maximum amounts of RMB4,000,000 (equivalent to US\$586,000, including both the principle and the interests). As at December 31, 2018, the total loan drawn down by Frontage Suzhou and the related unpaid interest amounted to RMB3,000,000 (equivalent to US\$439,000) and RMB66,000 (equivalent to US\$9,000), respectively. The Group considered the possibility of any outflow to settle such guarantee is remote and therefore the fair value of the financial guarantee as at inception date is minimal.

# 42. RELATED PARTY TRANSACTIONS AND BALANCES

In addition to the transactions and balances disclosed in Notes 21, 22, 28, 29, 31 and 41, the Group had the following significant transactions and balances with related parties during the Track Record Period:

#### (1) Related party transactions:

#### (a) Laboratory and Bioequivalence service income from related parties

	Year ended December 31,			
	2016	2017	2018	
	US\$'000	US\$'000	US\$'000	
Hangzhou Tigermed	560	1,194	2,516	
Guangzhou Tigermed Research Co., Ltd	144	49		
Shanghai Tigermed Technology Co., Ltd	95	1,917	375	
Frontage Suzhou	_	86	23	
Taiwan TigerMed Consulting Co., Ltd	120	20	_	
TigerMed India Data Solutions PVT. Ltd	_	4	8	
Frontage Clinical		332	77	
	919	3,602	2,999	

# (b) Fee paid to related parties for Biometrics service, Electronic data capture software service and Clinical site management organisation service

_	Year ended December 31,			
	2016	2017	2018	
	US\$'000	US\$'000	US\$'000	
Hangzhou Tigermed	_	151	76	
Hunan Tigermed Research Co., Ltd	6			
Frontage Suzhou	69			
Hangzhou Simo Laboratories Co., Ltd		17	20	
Jiaxing Tigermed Data Management Co., Ltd		190	81	
Jiaxing EDC Computer Technology Co., Ltd	_	11	53	
Tigermed-BDM	22	110		
FJ Pharma LLC		9		
Frontage Clinical	124	141	544	
Frontida		44	37	
	221	673	811	

# **ACCOUNTANTS' REPORT**

# (c) Interest income on loans to a related party

	Year ended December 31,			
	2016	2017	2018	
	US\$'000	US\$'000	US\$'000	
Frontida	35			

# (d) Interest expense on loans from related parties

-	Year ended December 31,			
_	2016	2017	2018	
	US\$'000	US\$'000	US\$'000	
Dr Song Li	62	45	45	
Tigermed-BDM	23	45	23	
	85	90	68	

# (e) Equipment rental income from a related party

_	Year ended December 31,			
	2016	2017	2018	
	US\$'000	US\$'000	US\$'000	
Frontage Suzhou	19			

# (f) Administrative services provided to related parties

-	Year ended December 31,			
_	2016	2017	2018	
	US\$'000	US\$'000	US\$'000	
Tigermed MacroStat, LLC	51	262	220	
Frontage Clinical	373	390	623	
Frontida	280	227	101	
Frontage Suzhou		312	297	
FJ Pharma LLC		121	209	
Hangzhou Tigermed			65	
Tigermed-BDM			80	
	704	1,312	1,595	

# (g) Property, plant and equipment sold to a related party

	Year ended December 31,			
	2016	2017	2018	
	US\$'000	US\$'000	US\$'000	
FJ Pharma LLC	750			

The transactions above were carried out in accordance with the terms agreed with the counterparties.

# (2) Related party balances:

As at the end of each reporting period, the Group had balances with related parties as follows:

-	As at December 31,			
_	2016	2017	2018	
	US\$'000	US\$'000	US\$'000	
Trade receivables				
Frontage Suzhou		71	92	
Taiwan TigerMed Consulting Co., Ltd	17			
Hangzhou Tigermed	119	187	397	
Shanghai Tigermed Technology Co., Ltd	_	252	5	
Frontida			77	
	136	510	571	
Unbilled revenue				
Hangzhou Tigermed	204	1,216	572	
Hunan Tigermed Research Co., Ltd	13	_	_	
Guangzhou Tigermed Research Co., Ltd	111	47		
Shanghai Tigermed Technology Co., Ltd	20	718	_	
Taiwan TigerMed Consulting Co., Ltd		20		
	348	2,001	572	

# ACCOUNTANTS' REPORT

	As	s at December 31	,	
	2016	2016	2017	2018
	US\$'000	US\$'000	US\$'000	
Other receivables				
FJ Pharma, LLC	_	17	17	
Frontage Clinical	373	630	221	
Frontage Suzhou	232	463	682	
Frontida	258	264	347	
Tigermed MacroStat, LLC	51	53		
Tigermed-BDM			80	
	914	1,427	1,347	
Prepayments				
Hangzhou Simo Laboratories Co., Ltd		7		
Trade payables				
Tigermed-BDM	415	525	525	
Hangzhou Tigermed		156		
Jiaxing Tigermed Data Management Co., Ltd		208	92	
Frontage Suzhou	54	—		
Jiaxing EDC Computer Technology Co., Ltd		12	15	
Hangzhou Simo Laboratories Co., Ltd		17	23	
Haiyi Fangda		168	—	
Frontage Clinical	19	29	3	
Frontida			30	
	488	1,115	688	
Other payables				
Hangzhou Tigermed	2	2		
Dr Song Li	4	4	4	
	6	6	4	
Advances from customers				
Hangzhou Tigermed	80		543	
Shanghai Tigermed Technology Co., Ltd	80 19	400	20	
Shanghai Tigermeu Teennology Co., Elu				
	99	400	563	

All the above balances with related parties are unsecured, interest free and repayable on demand.

Hangzhou Tigermed is the ultimate holding company of the Company. Dr Song Li is the largest individual shareholder of the Company. Frontage Suzhou, Tigermed-BDM, Frontage Clinical and FJ Pharma LLC are associates of the Group. Frontida was an associate of the Group prior to March 1, 2018 before the Group disposed its shares. After March 1, 2018, Frontida is still considered as related party of the Group because Dr Song Li is Frontida's controlling shareholder. Except for those, all of the other abovementioned related parties are the fellow subsidiaries of the Group.

#### (3) Compensation of key management personnel:

Key management personnel are those persons having authority and responsibility for planning, directing and controlling the activities of the Group.

The remuneration of the directors of the Company and other members of key management of the Group during the Track Record Period were as follows:

_	Year ended December 31,			
	2016	2017	2018	
	US\$'000	US\$'000	US\$'000	
Salaries and other benefits	1,135	1,332	2,177	
Performance-based bonus	148	436	264	
Retirement benefits scheme contributions	16	18	25	
Share-based compensation	113	285	127	
	1,412	2,071	2,593	

The remuneration of key management is determined with reference to the performance of the individuals and market trends.

#### **43. SHARE OPTION SCHEME**

Frontage Labs has adopted 2 Pre-IPO share incentive plans respectively in 2008 and 2015 (collectively referred as the "Schemes") for the primary purpose of attracting, retaining and motivating the directors of Frontage Labs and employees of the Group. Under the Schemes, the directors of Frontage Labs may grant up to 9,434,434 share options under the 2008 share incentive plan and 12,000,000 share options under the 2015 share incentive plan to eligible employees, including the directors of Frontage Labs and employees of the Group, to subscribe for shares in Frontage Labs.

Each option granted has a contractual terms of 10 years and generally vests over a three year period with 33% of the award vesting on the anniversary one year after grant date.

Set out below are details of the movements of the outstanding options granted under the Schemes during the Track Record Period:

	Year ended December 31,						
	20	16	2017		2018		
	Weighted average exercise price (US\$)	Number	Weighted average exercise price (US\$)	Number	Weighted average exercise price (US\$)	Number	
Outstanding at beginning of							
year	0.16	220,000	0.47	2,320,000	0.52	4,135,000	
Granted during the year	0.49	2,305,000	0.57	1,995,000	_	_	
Forfeited during the year	0.37	(205,000)	0.49	(180,000)	_	_	
Exercised during the year					0.49	(100,000)	
Outstanding at end of year	0.47	2,320,000	0.52	4,135,000	0.52	4,035,000	
Options exercisable Weighted average		870,000		2,140,000		3,370,000	
contractual life (years)		9.1		9.0		8.0	

The exercise price of options outstanding ranges from US\$0.16 to US\$0.57.

The estimated fair value of the share options granted were approximately US\$861,000 and US\$1,023,000, respectively, for 2016 and 2017 grants. The fair value was calculated using the Black-Scholes model. The major inputs into the model are as follows:

Grant date	2016	2017
Share price (US\$)	0.60	0.89
Exercise price (US\$)	0.49	0.57
Expected volatility	85.0%	70.0%
Expected life (years)	5.5	5.5
Risk-free interest rate	1.4%	1.9%
Expected dividend yield	—	

Share price is determined as the total fair value of Frontage Labs' equity divided by the total number of shares. To determine the fair value of Frontage Labs' equity value as of grant dates, the Group used primarily the discounted cash flow method under the income approach, using cash flow projections based on financial forecasts approved by management covering a five-year period as appropriate and a discount rate of 21% and 22% for the options granted during the year ended December 31, 2016 and 2017, respectively. Management assessment is that the Group will arrive at a stable growth stage after 5 years period. Cash flow beyond that five-year period has been extrapolated using a steady 3% growth rate. This growth rate does not exceed the long-term average

growth rate for the market in which the Group operates. The result from the income approach was cross checked with the market approach, which incorporates certain assumptions, including the market performance of comparable listed companies, as well as the financial results and growth trends of the Group, to derive the total equity of the Group.

The risk-free interest rate was based on market yield rate of US government bonds with the term corresponding to the contractual life of the options. Expected volatility was determined by using the historical volatility of the comparable companies.

Changes in variables and assumptions may result in changes in the fair values of the share options.

The Group recognised total expense of approximately US\$540,000, US\$807,000 and US\$371,000 for the year ended December 31, 2016 and 2017 and 2018 in relation to share options granted by Frontage Labs under the Schemes.

On April 17, 2018, the Company, Frontage Labs and corresponding employees have entered into an agreement pursuant to which Frontage Labs has assigned, and the Company has assumed, the rights and obligations of Frontage Labs under the Schemes.

On June 21, 2018, the Board of Directors approved a total 7,990,000 share options under the 2015 share incentive plan (the Pre-IPO share incentive plan adopted by Frontage Labs in 2015 and assumed by the Company on April 17, 2018) to eligible employees, included the directors of the Company and the employees of the Group to subscribe for shares in the Company. As at December 31, 2018, the Company had not granted the awards to the eligible employees, and therefore the criteria to determine grant date under IFRS 2 had not been met. Accordingly, the Company has not recognised any expenses in relation to these share options for the year ended December 31, 2018.

#### 44. ACQUISITION OF A SUBSIDIARY

On April 1, 2018, Frontage Labs acquired 100% equity interest in Concord, a Delaware corporation from an independent third party, for a cash consideration of US\$4,317,000. Concord owns 100% of Concord Biosciences, LLC and Concord Holdings, LLC, whose principal activities are to provide safety and toxicology to supplement the Group's existing DMPK service division. This acquisition has been accounted for using the acquisition method.

The Concord business was acquired to fill a strategic gap in the Group's clinical service offering, with this acquisition the Group expands its revenue streams to include safety and toxicology services, which will allow the Group to offer a complete clinical service testing offering in the US.

The purchase price has been allocated based on the estimated fair value of net assets acquired and liabilities assumed at the date of the acquisition.

# ACCOUNTANTS' REPORT

Details of the fair value of identifiable assets and liabilities acquired, purchase consideration and the bargain purchase gain are as follows:

	Fair Value
	US\$'000
Property, plant and equipment	7,187
Intangible assets — Trade name	100
Other long-term deposit	2
Deferred tax assets	248
Inventories	52
Trade and other receivables	1,049
Unbilled revenue	2,096
Cash and cash equivalents	129
Trade and other payables	(5,131)
Obligations under a finance lease	(627)
Net assets acquired	5,105
-	US\$'000
Cash consideration paid	4,317
Less: Fair value of net assets acquired	5,105
Bargain purchase gain	788
Net cash outflow arising on acquisition of a subsidiary:	
Cash consideration paid	4,317
Less: Cash and cash equivalents acquired	129
	4,188

The fair value of trade and other receivables at the date of acquisition amounted to US\$1,049,000. The gross contractual amounts of those trade and other receivables acquired amounted to US\$1,113,000 at the date of acquisition. The best estimate at acquisition date of the contractual cash flows not expected to be collected was US\$64,000.

Since the acquisition date, Concord has contributed US\$8,545,000 to the Group's revenue and a loss of US\$1,125,000 to the overall result of the Group for the year ended December 31, 2018. If the acquisition had occurred on January 1, 2018, the Group's revenue would have been US\$85,985,000 and the profit of the Group would have been US\$10,866,000 for the year ended December 31, 2018.

The pro forma information is for illustrative purposes only and is not necessarily an indication of revenue and results of operations of the Group that actually would have been achieved had the acquisition been completed on January 1, 2018, nor is it intended to be a projection of future results.

In determining the pro forma revenue and profit of the Group had Concord been acquired at the beginning of 2018, the directors of the Company have calculated depreciation of property, plant and equipment and intangible assets acquired on the basis of the fair values arising in the initial accounting for the business combination rather than the carrying amounts recognised in the pre-acquisition financial statements.

Total acquisition costs in relation to the purchase of Concord were US\$8,000, which have been expensed as incurred as part of administrative expenses in the consolidated statements of profit or loss and other comprehensive income.

The bargain purchase gain of US\$788,000 is presented on a separate line on the face of the consolidated statements of profit or loss and other comprehensive income. The gain arose as a result of the Group negotiating a good price when acquiring Concord, due to the prior owners not being able to profitably operate a business of this nature, this led to a negotiation during which the Group was able to agree a cash consideration that was below the assessed fair value of the assets and liabilities acquired.

#### 45. DISPOSAL OF SUBSIDIARIES

On April 27, 2018 and April 28, 2018, Frontage Shanghai transferred to an independent third party its entire shareholding interest in its subsidiaries, Suzhou Frontage Biotech and Shanghai Frontage Biotech (the "Relevant Companies"). In addition, certain assets were transferred from Suzhou Frontage Biotech to Frontage Shanghai. The aggregate consideration paid to Frontage Shanghai was RMB 4,900,000 (equivalent US\$750,000).

A summary of the effects of the disposal of Relevant Companies at the date of disposal is as follows:

-	US\$'000
Property, plant and equipment	407
Investment in associates	57
Trade and other receivables	8,511
Cash and cash equivalents	3,524
Trade and other payables	(11,892)
Net assets disposed of	607
Consideration received	750
Less: Net assets disposed	607
Gain on disposal of subsidiaries	143
Net cash outflow arising on disposal of subsidiaries:	
Cash received	750
Cash and cash equivalents disposed	(3,524)
	(2,774)

In addition, Frontage Shanghai entered into agreements with the Relevant Companies under which Frontage Shanghai agreed to provide certain services to the Relevant Companies in order to help them perform and complete their existing customer contracts, and Frontage Shanghai will receive fees from the Relevant Companies for providing such services.

In light of the above arrangements, save for these existing customer contracts, the Relevant Companies do not hold any assets or businesses related to the Group's business. All necessary PRC regulatory approvals for the transfer of the shares in the Relevant Companies have been obtained and the above disposal of the Relevant Companies was properly and legally completed.

#### 46. RECONCILIATION OF LIABILITIES ARISING FROM FINANCING ACTIVITIES

The table below details changes in the Group's liabilities arising from financing activities, including both cash and non-cash changes. Liabilities arising from financing activities are those for which cash flows were, or future cash flows will be, classified in the Group's consolidated statements of cash flows as cash flows from financing activities.

	Bank borrowings (Note 28) US\$'000	Loans from related parties (Note 29) US\$'000	Obligations under finance leases sl (Note 32) US\$'000	Amounts due to hareholders (Note 31) US\$'000	onsideration payable on acquisition of an associate (Note 30) US\$'000	Accrued issue costs (Note 27a) US\$'000	Total US\$'000
As at January 1, 2016	2,133	2,200	3,713	210	1,865	_	10,121
Financing cash flows	(1,724)	915	(1,282)	_	(23)	_	(2,114)
Investing cash flows	—	—	—	—	(746)	_	(746)
Interest expenses	26	85	138	_	23		272
New finance leases			1,533				1,533
As at December 31, 2016	435	3,200	4,102	210	1,119		9,066
Financing cash flows	2,912	(290)	(1,554)	_	_		1,068
Investing cash flows	—	—	_	—	(1,119)	—	(1,119)
Interest expenses	65	90	160	_	_	_	315
New finance leases			1,550				1,550
As at December 31, 2017	3,412	3,000	4,258	210			10,880
Financing cash flows	(372)	4,932	(1,996)	_	—	(1,284)	1,280
Interest expenses	127	68	183	_	_	_	378
Issue costs		_		_		2,206	2,206
Acquisition of a subsidiary	—	—	627	_	—	—	627
New finance leases	_	_	1,103	_	_	_	1,103
parties		(6,500)					(6,500)
As at December 31, 2018	3,167	1,500	4,175	210		922	9,974

#### 47. RESERVES MOVEMENT OF THE COMPANY

#### The Company

-	Share premium	Accumulated loss	Total
	US\$'000	US\$'000	US\$'000
As at April 16, 2018 (date of incorporation)		_	
Loss and total comprehensive expense for the year	—	(6,386)	(6,386)
Issue of shares	28,419		28,419
As at December 31, 2018	28,419	(6,386)	22,033

#### 48. MAJOR NON-CASH TRANSACTIONS

The Group entered into finance lease arrangements in respect of equipment with a total capital value at the inception of the lease of US\$1,533,000, US\$1,550,000, and US\$1,103,000 for the year ended December 31, 2016, 2017 and 2018, respectively.

In addition to the transactions noted above, the Group also had the following non-cash transactions during the Tracking Record Period:

- a) On December 27, 2016, Frontage Labs exchanged a loan of US\$2,000,000 for an additional 13.5% equity in Frontida. See Note 21 for additional information in relation to this transaction.
- b) Effective on June 30, 2018, the Group entered into an agreement with Tigermed-BDM to convey its interest in the Frontage Clinical note receivable of US\$1,190,000 to Tigermed-BDM in exchange for settlement of its promissory note payable of US\$1,500,000. Details on this transaction are set out in Note 22.
- c) On March 1, 2018, Frontage Labs sold the entire 30% equity interest in Frontida to Dr Song Li for an aggregate consideration of US\$5,367,000 which was settled by issuance of a promissory note at the same amount by Dr Song Li. On March 28, 2018, Frontage Labs entered into a promissory note due to Dr Song Li, for a principal amount of US\$5,000,000. The purpose of the promissory note is to finance Frontage Labs for the acquisition of Concord, details of which are set out in Note 44. In May 2018, Dr Song Li and Frontage Labs agreed to set off US\$5,000,000 of the amount owed under the US\$5,367,000 promissory note in exchange for cancellation of the US\$5,000,000 promissory note by making a US\$367,000 payment to Frontage Labs on May 22, 2018.

#### **49. SUBSEQUENT EVENTS**

The Group has the following events taken place subsequent to December 31, 2018.

- (i) As disclosed in Note 43, on June 21, 2018, the Board of Directors approved a total 7,990,000 share options under the 2015 share incentive plan. The Company had granted such awards to the eligible employees on February 28, 2019 at an exercise price of US\$2.00. Management has preliminary assessed that the fair value of these share options at the grant date is approximately US\$5,001,000, which will be expensed over their corresponding vesting period.
- (ii) On May 11, 2019, a shareholder's resolution was passed under which a total of 1,355,157,819 shares of the Company is expected to be allotted and issued to the shareholders on the register of members or the principal share register of the Company at the close of business on the date immediately proceeding the date on which the international offering and the Hong Kong public offering of the Company (together the "Global Offering") becomes unconditional (or as it/they may direct) in proportion to their then respective shareholdings in the Company by way of capitalisation of certain sums standing to the credit of the share premium account of the Company (the "Capitalisation Issue"). Upon the completion of the Capitalisation Issue, the number of options granted to a grantee under the Pre-IPO share incentive plans will be adjusted to ten times of the original number of options held by that grantee.

#### **50. SUBSEQUENT FINANCIAL STATEMENTS**

No audited financial statements of the Group, the Company or any of its subsidiaries have been prepared in respect of any period subsequent to December 31, 2018.

The information set forth in this Appendix does not form part of the accountants' report on the historical financial information of the Group for the Track Record Period (the "Accountants' **Report**") prepared by Deloitte Touche Tohmatsu, Certified Public Accountants, Hong Kong, the reporting accountants of the Company, as set out in Appendix I to this prospectus, and is included herein for information only. The unaudited pro forma financial information should be read in conjunction with the section headed "Financial Information" in this prospectus and the Accountants' Report set out in Appendix I to this prospectus.

# A. UNAUDITED PRO FORMA STATEMENT OF ADJUSTED CONSOLIDATED NET TANGIBLE ASSETS OF THE GROUP

The following unaudited pro forma statement of adjusted consolidated net tangible assets of the Group prepared in accordance with Rule 4.29 of the Listing Rules is to illustrate the effect of the Global Offering on the consolidated net tangible assets of the Group as at December 31, 2018 as if the Global Offering had taken place on such date.

This unaudited pro forma statement of adjusted consolidated net tangible assets of the Group has been prepared for illustrative purposes only and, because of its hypothetical nature, it may not give a true picture of the consolidated net tangible assets of the Group as at December 31, 2018 following the Global Offering or as at any subsequent dates. It is prepared based on the audited consolidated net tangible assets of the Group as at December 31, 2018 as derived from the Accountants' Report set out in Appendix I to this prospectus and adjusted as described below.

	Audited consolidated net tangible assets of the Group as at December 31, 2018	asolidated net gible assets of Estimated net e Group as at proceeds from ecember 31, the Global		Unaudited pro forma adjusted consolidated net tangible assets of the Group per Share as at December 31, 2018		
	US\$'000 (Note 1)	US\$'000 (Note 2)	US\$'000	US\$ (Note 3)	HK\$ (Note 4)	
Based on an Offer Price of HK\$2.55 per Offer Share . Based on an Offer Price of	. 43,609	153,181	196,790	0.10	0.77	
HK\$3.20 per Offer Share .	. 43,609	193,082	236,691	0.12	0.93	

Notes:

<sup>(1)</sup> The audited consolidated net tangible assets of the Group is calculated based on the net assets of the Group as at December 31, 2018 amounting to approximately US\$43,634,000, extracted from the consolidated statements of financial position of the Accountants' Report set out in Appendix I to this prospectus, and adjusted for intangible assets of the Group as at December 31, 2018 of approximately US\$25,000.

- (2) The estimated net proceeds from the Global Offering are based on 501,910,000 Offer Shares at the indicative Offer Price of HK\$2.55 (equivalent to US\$0.32) and HK\$3.20 (equivalent to US\$0.41) per Offer Share, respectively, after deduction of underwriting fees and commissions and other listing related expenses paid/payable by the Company, excluding listing expenses which have been charged to profit or loss up to December 31, 2018 by the Company, and without taking into account of any shares (i) which may be allotted and issued upon the exercise of the Over-allotment Option or (ii) which may be issued under Pre-IPO Share Incentive Plans and the 2018 Share Incentive Plan or (iii) which may be allotted and issued or repurchased by the Company under the general mandates for the allotment and issue or repurchase of shares granted to the directors of the Company. For the purpose of the estimated net proceeds from the Global Offering, the amounts denominated in Hong Kong dollar have been converted into US dollar at the rate of US\$1 to HK\$7.8485, which was the exchange rate prevailing on May 7, 2019 with reference to the rate published by Bloomberg. No representation is made that the HK\$ amounts have been, could have been or may be converted into US dollar, or vice versa, at that rate or any other rates or at all.
- (3) The unaudited pro forma adjusted consolidated net tangible assets of the Group per Share is arrived at on the basis that 2,007,640,910 Shares were in issue assuming that the Capitalisation Issue and the Global Offering had been completed on December 31, 2018 and without taking into account of any shares (i) which may be allotted and issued upon the exercise of the Over-allotment Option or (ii) which may be issued under Pre-IPO Share Option Scheme or (iii) which may be allotted and issued or repurchased by the Company under the general mandates for the allotment and issue or repurchase of shares granted to the directors of the Company.
- (4) For the purpose of unaudited pro forma adjusted consolidated net tangible assets of the Group per Share, the amounts stated in US dollar are converted into Hong Kong dollar at the rate of US\$1 to HK\$7.8485, which was the exchange rate prevailing on May 7, 2019 with reference to the rate published by Bloomberg. No representation is made that the US dollar amounts have been, could have been or may be converted into Hong Kong dollar, or vice versa, at that rate or any other rates or at all.
- (5) No adjustment has been made to the unaudited pro forma adjusted consolidated net tangible assets of the Group as at December 31, 2018 to reflect any trading result or other transactions of the Group entered into subsequent to December 31, 2018.

# B. ASSURANCE REPORT FROM THE REPORTING ACCOUNTANTS ON UNAUDITED PROFORMA FINANCIAL INFORMATION

The following is the text of the independent reporting accountants' assurance report receiving from Deloitte Touche Tohmatsu, Certified Public Accountants, Hong Kong, the reporting accountants of our Company, in respect of the Group's unaudited pro forma financial information prepared for the purpose of incorporation in this prospectus.

# **Deloitte.**



# INDEPENDENT REPORTING ACCOUNTANTS' ASSURANCE REPORT ON THE COMPILATION OF UNAUDITED PRO FORMA FINANCIAL INFORMATION

#### To the Directors of Frontage Holdings Corporation

We have completed our assurance engagement to report on the compilation of unaudited pro forma financial information of Frontage Holdings Corporation (the "Company") and its subsidiaries (hereinafter collectively referred to as the "Group") by the directors of the Company (the "Directors") for illustrative purposes only. The unaudited pro forma financial information consists of the unaudited pro forma statement of adjusted consolidated net tangible assets as at December 31, 2018 and related notes as set out on pages II-1 to II-2 of Appendix II to the prospectus issued by the Company dated May 17, 2019 (the "Prospectus"). The applicable criteria on the basis of which the Directors have compiled the unaudited pro forma financial information are described on pages II-1 to II-2 of Appendix II to the Prospectus.

The unaudited pro forma financial information has been compiled by the Directors to illustrate the impact of the proposed Global Offering (as defined in the Prospectus) on the Group's financial position as at December 31, 2018 as if the proposed Global Offering had taken place at December 31, 2018. As part of this process, information about the Group's financial position has been extracted by the Directors from the Group's historical financial information for each of the three years ended December 31, 2018, on which an accountants' report set out in Appendix I to the Prospectus has been published.

#### Directors' Responsibilities for the Unaudited Pro Forma Financial Information

The Directors are responsible for compiling the unaudited pro forma financial information in accordance with paragraph 4.29 of the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (the "Listing Rules") and with reference to Accounting Guideline 7 "Preparation of Pro Forma Financial Information for Inclusion in Investment Circulars" ("AG 7") issued by the Hong Kong Institute of Certified Public Accountants (the "HKICPA").

#### **Our Independence and Quality Control**

We have complied with the independence and other ethical requirements of the "Code of Ethics for Professional Accountants" issued by the HKICPA, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior.

Our firm applies Hong Kong Standard on Quality Control 1 "Quality Control for Firms that Perform Audits and Reviews of Financial Statements, and Other Assurance and Related Services Engagements" issued by the HKICPA and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

#### **Reporting Accountants' Responsibilities**

Our responsibility is to express an opinion, as required by paragraph 4.29(7) of the Listing Rules, on the unaudited pro forma financial information and to report our opinion to you. We do not accept any responsibility for any reports previously given by us on any financial information used in the compilation of the unaudited pro forma financial information beyond that owed to those to whom those reports were addressed by us at the dates of their issue.

We conducted our engagement in accordance with Hong Kong Standard on Assurance Engagements 3420 "Assurance Engagements to Report on the Compilation of Pro Forma Financial Information Included in a Prospectus" issued by the HKICPA. This standard requires that the reporting accountants plan and perform procedures to obtain reasonable assurance about whether the Directors have compiled the unaudited pro forma financial information in accordance with paragraph 4.29 of the Listing Rules and with reference to AG 7 issued by the HKICPA.

For purposes of this engagement, we are not responsible for updating or reissuing any reports or opinions on any historical financial information used in compiling the unaudited pro forma financial information, nor have we, in the course of this engagement, performed an audit or review of the financial information used in compiling the unaudited pro forma financial information.

The purpose of unaudited pro forma financial information included in an investment circular is solely to illustrate the impact of a significant event or transaction on unadjusted financial information of the Group as if the event had occurred or the transaction had been undertaken at an earlier date selected for purposes of the illustration. Accordingly, we do not provide any assurance that the actual outcome of the event or transaction as at December 31, 2018 would have been as presented.

A reasonable assurance engagement to report on whether the unaudited pro forma financial information has been properly compiled on the basis of the applicable criteria involves performing procedures to assess whether the applicable criteria used by the Directors in the compilation of the unaudited pro forma financial information provide a reasonable basis for presenting the significant effects directly attributable to the event or transaction, and to obtain sufficient appropriate evidence about whether:

- the related pro forma adjustments give appropriate effect to those criteria; and
- the unaudited pro forma financial information reflects the proper application of those adjustments to the unadjusted financial information.

The procedures selected depend on the reporting accountants' judgment, having regard to the reporting accountants' understanding of the nature of the Group, the event or transaction in respect of which the unaudited pro forma financial information has been compiled, and other relevant engagement circumstances.

The engagement also involves evaluating the overall presentation of the unaudited pro forma financial information.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

#### Opinion

In our opinion:

- (a) the unaudited pro forma financial information has been properly compiled on the basis stated;
- (b) such basis is consistent with the accounting policies of the Group; and
- (c) the adjustments are appropriate for the purposes of the unaudited pro forma financial information as disclosed pursuant to paragraph 4.29(1) of the Listing Rules.

**Deloitte Touche Tohmatsu** *Certified Public Accountants* Hong Kong May 17, 2019

# TAXATION AND REGULATORY OVERVIEW

#### A. TAXATION

The following summary of certain Hong Kong, PRC, United States and Cayman Islands tax consequences of the purchase, ownership and disposition of the Shares is based upon the laws, regulations, rulings and decisions now in effect, all of which are subject to change (possibly with retroactive effect). The summary does not purport to be a comprehensive description of all the tax considerations that may be relevant to a decision to purchase, own or dispose of the Shares and does not purport to apply to all categories of prospective investors, some of whom may be subject to special rules, and is not intended to be and should not be taken to constitute legal or tax advice. Prospective investors should consult their own tax advisers concerning the application of Hong Kong, PRC, United States and Cayman Islands tax laws to their particular situation as well as any consequences of the purchase, ownership and disposition of the Shares arising under the laws of any other taxing jurisdiction. Neither the Company nor any of the Relevant Persons assumes any responsibility for any tax consequences or liabilities that may arise from the subscription for, holding or disposal of the Shares.

The taxation of the Company and that of the Shareholders is described below. Where Hong Kong, PRC, United States and Cayman Islands tax laws are discussed, these are merely an outline of the implications of such laws. Such laws and regulations may be interpreted differently. It should not be assumed that the relevant tax authorities or the Hong Kong, PRC, United States or Cayman Islands courts will accept or agree with the explanations or conclusions that are set out below.

Investors should note that the following statements are based on advice received by the Company regarding taxation laws, regulations and practice in force as at the date of this prospectus, which may be subject to change.

#### 1. OVERVIEW OF TAX IMPLICATIONS OF HONG KONG

#### (a) Hong Kong Taxation of the Company

#### Profits Tax

The Company will be subject to Hong Kong profits tax in respect of profits arising in or derived from Hong Kong at the current rate of 16.5%, unless such profits are chargeable under the half-rate of 8.25% that may apply for the first HK\$2 million of assessable profits for years of assessment beginning on or after April 1, 2018. Dividend income derived by the Company from its subsidiaries will be excluded from Hong Kong profits tax.

#### (b) Hong Kong Taxation of Shareholders

#### Tax on Dividends

No income or withholding tax is payable in Hong Kong in respect of dividends paid by the Company.

#### Profits Tax

Hong Kong profits tax will not be payable by any Shareholders (other than Shareholders carrying on a trade, profession or business in Hong Kong and holding the Shares for trading purposes) on any capital gains made on the sale or other disposal of the Shares. Trading gains from the sale of Shares by persons carrying on a trade, profession or business in Hong Kong where such gains are derived from or arise in Hong Kong from such trade, profession or business will be chargeable to Hong Kong income tax rates of 16.50% on corporations and 15.00% on individuals, unless such gains are chargeable under the respective half-rates of 8.25% and 7.50% that may apply for the first HK\$2 million of assessable profits for years of assessment beginning on or after April 1, 2018. Gains from sales of Shares effected on the Stock Exchange will be considered by the Hong Kong Inland Revenue Department to be derived from or arise in Hong Kong. Shareholders should take advice from their own professional advisers as to their particular tax position.

#### Stamp Duty

Hong Kong stamp duty will be charged on the sale and purchase of Shares at the current rate of 0.20% of the consideration for, or (if greater) the value of, the Shares being sold or purchased, whether or not the sale or purchase is on or off the Stock Exchange. The Shareholder selling the Shares and the purchaser will each be liable for one-half of the amount of Hong Kong stamp duty payable upon such transfer. In addition, a fixed duty of HK\$5 is currently payable on any instrument of transfer of Shares.

#### Estate Duty

Hong Kong estate duty was abolished effective from February 11, 2006. No Hong Kong estate duty is payable by Shareholders in relation to the Shares owned by them upon death.

#### 2. OVERVIEW OF TAX IMPLICATIONS OF THE CAYMAN ISLANDS

Pursuant to section 6 of the Tax Concessions Law (2011 Revision) of the Cayman Islands, the Company has obtained an undertaking from the Governor-in-Cabinet:

- (a) that no law which is enacted in the Cayman Islands imposing any tax to be levied on profits, income, gains or appreciation shall apply to the Company or its operations; and
- (b) that the aforesaid tax or any tax in the nature of estate duty or inheritance tax shall not be payable on or in respect of the shares, debentures or other obligations of the Company.

The undertaking for the Company is for a period of twenty years from April 25, 2018.

The Cayman Islands currently levy no taxes on individuals or corporations based upon profits, income, gains or appreciations and there is no taxation in the nature of inheritance tax or estate duty. There are no other taxes likely to be material to the Company levied by the Government of the Cayman

# TAXATION AND REGULATORY OVERVIEW

Islands save certain stamp duties which may be applicable, from time to time, on certain instruments executed in or brought within the jurisdiction of the Cayman Islands. The Cayman Islands are a party to a double tax treaty entered into with the United Kingdom in 2010 but otherwise is not party to any double tax treaties.

#### **Stamp Duty**

No stamp duty is payable in the Cayman Islands on transfers of shares of Cayman Islands companies except those which hold interests in land in the Cayman Islands.

#### **Exchange Control**

There are no exchange control regulations or currency restrictions in the Cayman Islands.

#### 3. CERTAIN US FEDERAL INCOME AND ESTATE TAX CONSIDERATIONS

The following is a summary based on present law of certain US federal income tax considerations relevant to the acquisition, ownership and disposition of Offer Shares. This summary addresses only Non-US Holders (as defined below) that purchase Offer Shares in the Global Offering and will hold Offer Shares as capital assets (generally, property held for investment). The discussion is a general summary only; it is not a substitute for tax advice. This summary does not purport to be a comprehensive description of all US federal income tax considerations that may be relevant to particular investors in light of their particular circumstances. This summary does not address the tax treatment of Non-US Holders subject to special treatment under the US federal income tax laws, including banks and certain other financial institutions, insurance companies, controlled foreign corporations or passive foreign investment companies, regulated investment companies, real estate investment trusts, dealers in securities, securities traders that elect to mark-to-market, certain US expatriates, tax-exempt organisations, partnerships, S corporations or other pass-through entities, investors subject to the alternative minimum tax, or investors that will hold Offer Shares as part of a straddle, hedging, conversion or other integrated financial transaction or investors that own (directly, indirectly or constructively) 5% or more by vote or value of the Company's equity interests. Except for the discussion of US estate tax below, this summary does not address US federal taxes other than the income tax or any state, local, non-US or other tax laws or matters.

As used herein, the term Non-US Holder means a beneficial owner of Offer Shares that, for US federal income tax purposes, is not (i) a citizen or individual resident of the United States, (ii) a corporation, or other business entity treated as a corporation, created or organised under the laws of the United States or its political subdivisions, (iii) an estate the income of which is subject to US federal income tax without regard to its source, (iv) a trust if a court within the United States is able to exercise primary supervision over the administration of the trust and one or more US persons have the authority to control all substantial decisions of the trust or (v) a partnership (or other entity or arrangement treated as a partnership for US federal income tax purposes).

#### TAXATION AND REGULATORY OVERVIEW

If a partnership (or other entity or arrangement treated as a partnership for US federal income tax purposes) acquires, holds or disposes of Offer Shares, the US federal income tax treatment of a partner in such partnership generally will depend on the status of the partner and the activities of the partnership. Prospective purchasers that are partnerships should consult their own tax advisors concerning the US federal income tax consequences to them and their partners of the acquisition, ownership and disposition of Offer Shares.

#### Treatment of the Company as a Domestic US Corporation for US Federal Income Tax Purposes

Even though the Company is incorporated in the Cayman Islands, the Company believes it will be considered an "inverted corporation" as a result of the Reorganisation and, therefore, will be treated as a domestic US corporation for US federal income tax purposes pursuant to Section 7874(b) of the US Internal Revenue Code of 1986, as amended (the "**Code**"). Accordingly, the Company should generally be subject to US federal corporate income tax as if it were a domestic US corporation organised under the laws of the United States or its political subdivisions. The Company's status as a domestic US corporation for US federal income tax purposes also has implications for shareholders that are Non-US Holders. The remaining discussion contained in this section "*Certain US Federal Income and Estate Tax Considerations*" assumes that the Company will be treated as a domestic US corporation pursuant to Section 7874(b) of the Code.

#### Dividends

The gross amount of distributions, if any, on the Offer Shares (other than certain pro rata distributions of Offer Shares to all Company shareholders) will be treated as US-source dividends to the extent paid from the Company's current or accumulated earnings and profits, as determined under US federal income tax principles. To the extent the amount of a distribution exceeds the Company's current and accumulated earnings and profits, the excess will be treated first as a non-taxable return of capital up to such holder's tax basis in the Offer Shares and thereafter as capital gain from the sale of such Offer Shares, subject to the tax treatment described below in "— Gain on Disposition of the Offer Shares".

Subject to the discussions below under the sections titled "— Backup Withholding and Information Reporting" and "Appendix III, Part A.4 — Foreign Account Tax Compliance Act" dividends paid to a Non-US Holder will be subject to withholding of US federal income tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder's country of residence. A Non-US Holder that claims the benefit of an applicable income tax treaty between the United States and such holder's country of residence generally will be required to certify its entitlement to benefits under such treaty, generally on a properly completed IRS Form W-8BEN or W-8BEN-E (as applicable). However, it should be noted that, at the present time, the Company believes that no mechanism is available through the trading, settlement, and security transferring facilities in Hong Kong for holders to provide to the Company or the applicable withholding agent the certifications required by applicable US Treasury regulations to receive the benefit of any lower applicable treaty withholding tax rate. Accordingly, the Company

expects that US federal income tax withholding at a 30% rate will be made from all dividends. In addition, the Company also expects that there may not be a mechanism available for Non-US Holders to obtain the documentation required to make a claim with the US Internal Revenue Service ("**IRS**") for a refund or credit of US federal income tax withheld from such dividends.

Dividends that are treated as effectively connected with a Non-US Holder's conduct of a trade or business within the United States (and, if an applicable income tax treaty so requires, that are attributable to a permanent establishment or a fixed base of the Non-US Holder within the United States), are generally exempt from the 30% withholding tax described in the preceding paragraph if the Non-US Holder complies with applicable certification and disclosure requirements, generally by providing a properly completed IRS Form W-8ECI, in which event, such US effectively connected income, net of specified deductions and credits, is taxed at the same graduated US federal income tax rates generally applicable to United States persons. However, because no mechanism currently is available through the trading, settlement, and security transferring facilities in Hong Kong for holders to provide to the Company or the applicable withholding agent the certifications required by applicable US Treasury regulations to avoid US federal income tax withholding on dividends that are effectively connected income of a Non-US Holder, the Company expects that US federal income tax withholding at a 30% rate will be made from such dividends. The Company also expects that there may not be a mechanism available for Non-US Holders to obtain the documentation required to make a claim with the IRS for a refund or credit of US federal income tax withheld from such dividends. Any US effectively connected income received by a Non-US Holder that is a corporation may also be subject to an additional "branch profits tax" at a 30% rate or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder's country of residence

#### Gain on Disposition of the Offer Shares

Subject to the discussions below under the sections titled "— Backup Withholding and Information Reporting" and "— Foreign Account Tax Compliance Act", a Non-US Holder generally will not be subject to US federal income or withholding tax on any gain recognised on a disposition of Offer Shares unless:

- such gain is effectively connected with the conduct of a trade or business in the United States by such Non-US Holder, in which event such Non-US Holder generally will be subject to US federal income tax on such gain in substantially the same manner as a US person (except as provided by an applicable tax treaty) and, if it is treated as a corporation for US federal income tax purposes, may also be subject to a branch profits tax at a rate of 30% (or a lower rate if provided by an applicable tax treaty), subject to certain adjustments;
- such Non-US Holder is an individual who is present in the United States for 183 days or more during the taxable year of such sale, exchange or other disposition and certain other conditions are met, in which event such gain (net of certain US-source losses) generally will be subject to US federal income tax at a rate of 30% (except as provided by an applicable tax treaty); or

• the Company is or has been a "United States real property holding corporation" for US federal income tax purposes at any time during the shorter of (x) the five-year period ending on the date of such sale, exchange or other disposition and (y) such Non-US Holder's holding period with respect to such Shares, and certain other conditions are met.

Generally, a corporation is a "United States real property holding corporation" if the fair market value of its United States real property interests equals or exceeds 50% of the sum of the fair market value of its worldwide real property interests and its other assets used or held for use in a trade or business (all as determined for US federal income tax purposes). The Company believes that it is not, and does not presently anticipate that it will become, a United States real property holding corporation. However, because this determination is made from time to time and is dependent upon a number of factors, some of which are beyond our control, including the value of our assets, there can be no assurance that the Company will not become a United States real property holding corporation. If the Company were a United States real property holding corporation during the period described in the third bullet point above, gain recognised by a Non-US Holder on sale or other disposition of the Offer Shares generally would be treated as income effectively connected with the conduct of a trade or business in the United States by such Non-US Holder, with the consequences described in the first bullet point above (except that the branch profits tax would not apply), unless such Non-US Holder owned (directly and constructively) five percent or less of our ordinary shares during such period and our ordinary shares are treated as "regularly traded on an established securities market" at any time during the calendar year of such sale, exchange or other disposition.

#### Information Reporting and Backup Withholding

Generally, the Company, or US-related financial intermediaries through which payments are made, must report annually to the IRS and to Non-US Holders the amount of distributions made to Non-US Holders and the amount of any tax withheld with respect to those payments. Copies of the information returns reporting such distributions and withholding may also be made available to the tax authorities in the country in which a Non-US Holder resides under the provisions of an applicable income tax treaty or tax information exchange agreement.

A Non-US Holder will generally not be subject to backup withholding with respect to payments of dividends, provided the Company receives a properly completed statement to the effect that the Non-US Holder is not a US person and the Company does not have actual knowledge or reason to know that the holder is a US person. The requirements for the statement will be met if the Non-US Holder provides its name and address and certifies, under penalties of perjury, that it is not a US person (which certification may generally be made on IRS Form W-8BEN or W-8BEN-E, as applicable) or if a financial institution holding Offer Shares on behalf of the Non-US Holder certifies, under penalties of perjury, that such statement has been received by it and furnishes the Company or its paying agent with a copy of the statement.

Except as described below under "Appendix III. Part A.4 — Foreign Account Tax Compliance Act", the payment of proceeds from a disposition of Offer Shares to or through a non-US office of a non-US broker will not be subject to information reporting or backup withholding unless the non-US broker has certain types of relationships with the United States. In the case of a payment of proceeds

#### TAXATION AND REGULATORY OVERVIEW

from the disposition of Offer Shares to or through a non-US office of a broker that is either a US person or a US-related person, information reporting (but not backup withholding) on the payment is required unless the broker has documentary evidence in its files that the Non-US Holder is not a US person and the broker has no knowledge to the contrary.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules will be allowed as a refund or a credit against a Non-US Holder's US federal income tax liability, provided the required information is timely furnished to the IRS.

#### US Federal Estate Tax

Offer Shares that are owned or treated as owned by an individual Non-US Holder at the time of death will be included in the individual Non-US Holder's gross estate for US federal estate tax purposes, unless an applicable estate tax or other treaty provides otherwise and, therefore, may be subject to US federal estate tax. In this regard, individual Non-US Holders should be aware that the United States has not entered into an estate tax treaty or other treaty applicable to estate tax with Hong Kong and certain other countries.

#### 4. FOREIGN ACCOUNT TAX COMPLIANCE ACT

Under sections 1471 to 1474 of the Code, or FATCA, a withholding tax of 30% will be imposed in certain circumstances on payments of (i) dividends on Offer Shares and (ii) on or after January 1, 2019, gross proceeds from the sale or other disposition of Offer Shares. In the case of payments made to a "foreign financial institution" (such as a bank, a broker, an investment fund or, in certain cases, a holding company), as a beneficial owner or as an intermediary, this tax generally will be imposed, subject to certain exceptions, unless such institution (i) has agreed to (and does) comply with the requirements of an agreement with the United States, or an "FFI Agreement", or (ii) is required by (and does comply with) applicable foreign law enacted in connection with an intergovernmental agreement between the United States and a foreign jurisdiction, or an IGA, in either case to, among other things, collect and provide to the US tax authorities or other relevant tax authorities certain information regarding US account holders of such institution and, in either case, such institution provides the withholding agent with a certification as to its FATCA status. In the case of payments made to a foreign entity that is not a financial institution (as a beneficial owner), the tax generally will be imposed, subject to certain exceptions, unless such entity provides the withholding agent with a certification as to its FATCA status and, in certain cases, identifies any "substantial" US owner (generally, any specified US person that directly or indirectly owns more than a specified percentage of such entity). If Offer Shares are held through a foreign financial institution that has agreed to comply with the requirements of an FFI Agreement or is subject to similar requirements under applicable foreign law enacted in connection with an IGA, such foreign financial institution (or, in certain cases, a person paying amounts to such foreign financial institution) generally will be required, subject to certain exceptions, to withhold tax on payments made to (i) a person (including an individual) that fails to provide any required information or documentation or (ii) a foreign financial institution that has not agreed to comply with the requirements of an FFI Agreement and is not subject to similar requirements under applicable foreign law enacted in connection with an IGA. Each Non-US Holder should consult its own tax advisor regarding the application of FATCA to the ownership and disposition of Offer Shares.

THE DISCUSSION ABOVE IS A GENERAL SUMMARY. IT DOES NOT COVER ALL TAX MATTERS THAT MAY BE OF IMPORTANCE TO A PARTICULAR INVESTOR. EACH PROSPECTIVE INVESTOR IN OFFER SHARES IS URGED TO CONSULT ITS OWN TAX ADVISOR ABOUT THE TAX CONSEQUENCES TO IT OF ACQUIRING, HOLDING AND DISPOSING OF SHARES IN LIGHT OF SUCH PROSPECTIVE INVESTOR'S OWN CIRCUMSTANCES.

The following is a brief summary of the laws and regulations in the United States of America and the PRC that currently may materially affect the Group and its operations. The principal objective of this summary is to provide potential investors with an overview of the key laws and regulations applicable to the Group. This summary does not purport to be a comprehensive description of all the laws and regulations applicable to the business and operations of the Group and/or which may be important to potential investors. Investors should note that the following summary is based on the laws and regulations in force as at the date of this prospectus, which may be subject to change.

#### **B. REGULATORY REGIME FOR THE DEVELOPMENT OF DRUGS**

The regulatory regime applicable to the development of drugs is applicable to us as a company providing laboratory and related services to pharmaceutical and agrochemical companies as well as bioequivalence studies. We do not act as the regulatory sponsor for the purposes of drug development. A description of the regulatory regime, including a description of the ability of certain regulatory authorities (such as the US FDA and NMPA) to inspect and audit our facilities and services is set out below.

#### Regulation of Drugs in the United States

In the United States we provide certain regulated services to drug and biologic customers, including the conduct and management of pre-clinical studies, laboratory evaluation of clinical study biological samples, the manufacture and testing of product candidates for clinical and pre-clinical studies, and the quality testing of products for commercial distribution. We also provide product candidate development services to our customers outside of the United States which may be used to support United States marketing applications. Below we provide a summary of the stages and regulation of the drug development process in the United States which are applicable to our customers and some of which are applicable to us.

In the United States, the US FDA regulates drugs and biologics under the Federal Food, Drug, and Cosmetic Act, or FDCA, the Public Health Services Act, or PHSA, and their implementing regulations. Before a new drug or biologic may be approved and marketed, it must undergo extensive testing, development, and regulatory review to determine that it is safe and effective and that its manufacturing processes are capable of ensuring the product candidate's identity, strength, quality, purity, and potency. It is not possible to estimate the duration of this testing and development with

respect to a given product candidate, although the time period may last many years, and require the expenditure of significant financial resources. The stages of this development process in the United States are generally as follows:

#### Preclinical Research

Preclinical research involves in-vitro and animal studies to evaluate product candidate chemistry, pharmacology, metabolism, toxicity, and formulation, as well as potential safety and efficacy. This includes the establishment of the relative toxicity of the product candidate over a wide range of doses and the detection of the product candidate's potential to cause a variety of adverse conditions or diseases. Such studies must generally be conducted in accordance with the US FDA's GLPs, which are further discussed below. If results warrant continuing development of the drug or biologic, the results of the preclinical studies, together with manufacturing information, analytical data, any available clinical data, the proposed clinical study protocols, and available preclinical and clinical literature, among other items, are submitted to the US FDA by the product candidate sponsor as part of an investigational new drug application, or IND. An IND automatically becomes effective 30 days after receipt by the US FDA, unless the US FDA, within the 30-day time period, notifies the applicant of safety concerns or questions related to one or more proposed clinical trials and places the trial on a clinical hold. In such a case, the sponsor and the US FDA must resolve any outstanding concerns before the clinical trial can begin. Clinical holds also may be imposed by the US FDA at any time before or during trials due to safety concerns or non-compliance. As a result, submission of an IND may not result in US FDA authorisation to commence a clinical trial. Depending on the clinical trial, additional FDA filings or authorizations may be required, such as investigational device exemptions for investigational in vitro diagnostic devices used during the course of a clinical trial studying a drug or biologic product candidate. Such clinical trials may also require compliance with FDA's investigational device exemption regulations.

#### Clinical Trials

Clinical trials involve the administration of the investigational product to human subjects under the supervision of qualified investigators in accordance with federal regulations and GCPs, as further discussed below. The manufacture of product candidates for the conduct of human clinical trials is subject to GMP requirements, as further discussed below. Investigational and approved products and active ingredients imported into the United States are also subject to regulation by the US FDA. Further, the export of investigational and approved products outside of the United States is subject to regulatory requirements of the receiving country as well as US FDA export requirements.

Clinical trials are conducted under protocols detailing, among other things, the objectives of the trial, the trial procedures, the parameters to be used in monitoring safety, the effectiveness criteria to be evaluated, and a statistical analysis plan. A protocol for each clinical trial, and any subsequent protocol amendments, must be submitted to the US FDA as part of the IND. In addition, an Institutional Review Board, or IRB, at each study site participating in the clinical trial or a central IRB must review and approve the plan for any clinical trial, informed consent forms, and communications to study subjects before a study commences at that site. The IRB must also review amendments to these materials and the use of certain investigational *in vitro* diagnostic devices during the course of the clinical study. An IRB considers, among other things, whether the risks to individuals participating

in the trials are minimized and are reasonable in relation to anticipated benefits, and whether the planned human subject protections are adequate. The IRB must continue to oversee the clinical trial while it is being conducted. During the course of a clinical study, the study sponsor and investigators must submit certain reports to US FDA and the IRB, including annual reports and reports of serious adverse events or other significant safety information. Study sponsors, CROs, laboratories, and clinical and preclinical investigational sites must also ensure the integrity of the study data.

The US FDA may order the modification or temporary, or permanent, discontinuation of a clinical trial at any time, or impose other sanctions, if it believes that the clinical trial either is not being conducted in accordance with US FDA requirements or presents an unacceptable risk to the clinical trial subjects. An IRB may also require the clinical trial at the site to be modified or permanently or temporarily halted for failure to comply with the IRB's requirements or if the trial poses an unexpected serious harm to subjects. The US FDA or an IRB may also impose conditions on the conduct of a clinical trial. Clinical trial sponsors may also choose to discontinue clinical trials as a result of risks to subjects, a lack of favorable results, or changing business priorities.

In general, for purposes of product candidate approval, human clinical trials are typically conducted in three sequential phases, which may overlap or be combined. Phase I clinical trials include basic safety and pharmacology testing in human subjects, usually healthy volunteers, and include trials to evaluate dosage tolerance, structure-activity relationships, the metabolic and pharmacologic action of the product candidate in humans, how the drug or biologic works, how it is affected by other drugs, how it is tolerated and absorbed, where it goes in the body, how long it remains active, and how it is broken down and eliminated from the body. If possible, Phase I trials may also be used to gain an initial indication of product candidate effectiveness. Phase II clinical trials include controlled efficacy (effectiveness) and dose-range testing in a limited patient population afflicted with a specific disease or condition for which the product candidate is intended for use. Phase II clinical trials evaluate product candidate safety, preliminary effectiveness, and optimal dose levels, dose schedules and routes of administration. If Phase II trials yield satisfactory results and no hold is placed on further trials by the US FDA, with IRB approval, Phase III trials can commence. Phase III clinical trials are adequate and well-controlled clinical trials undertaken in expanded subject populations. These include larger scale, multi-centre (generally at geographically dispersed clinical trial sites), clinical trials conducted with patients afflicted by a target disease, in order to provide enough data for a valid statistical test of safety and effectiveness required by the US FDA and other regulatory authorities for approval, to establish the overall risk-benefit profile of the product, and to provide an adequate basis for product labelling. Typically, two Phase III trials are required by the US FDA for product approval. Under some limited circumstances, however, US FDA may approve a marketing application based upon a single Phase III clinical study.

For some kinds of applications, clinical and preclinical studies may be abbreviated. For instance, for abbreviated new drug applications, or ANDAs, which are applications for generic versions of approved drug products, US FDA may approve a marketing application based upon the scientific demonstration that the product candidate is bioequivalent to, or performs in the same manner as, the innovator drug. The generic version must have the same active ingredients, dosage form, strength, route of administration, labeling, performance characteristics and intended use, and deliver the same amount of active ingredients to the site of the drug's action in the same amount of time as the innovator drug product. Under 505(b)(2) New Drug Applications, sponsors may rely, in part, on FDA

#### TAXATION AND REGULATORY OVERVIEW

prior findings of safety and effectiveness for a previously approved drug product or published literature, provided that the sponsor can adequately bridge to the previously approved drug product or literature. Similarly, for biologic licence applications for biosimilar product candidates, the development pathway may be shorter than for a reference biologic. To be deemed biosimilar the product candidate must be highly similar to the reference product notwithstanding minor differences in clinically inactive components, and there must be no clinically meaningful differences between the biosimilar product candidate and the reference product in terms of safety, purity, and potency. Biosimilarity must be shown through analytical studies, animal studies, and at least one clinical trial, absent a waiver by the US FDA. There must be no difference between the reference product and a biosimilar product may be deemed interchangeable with a prior approved product if it meets the higher hurdle of demonstrating that it can be expected to produce the same clinical results as the reference product and, for products administered multiple times, the biologic and the reference biologic may be switched after one has been previously administered without increasing safety risks or risks of diminished efficacy relative to exclusive use of the reference biologic.

Concurrent with clinical trials, sponsors usually complete additional preclinical studies, including animal and stability studies, and must also develop additional information about the chemistry and physical characteristics of the product candidate as well as finalize a process for manufacturing the product in commercial quantities in accordance with GMP requirements. The manufacturing process must be capable of consistently producing quality batches of the product candidate and, among other things, manufacturers must develop methods for testing the identity, strength, quality, potency, and purity of the final product. The US FDA may also require, or sponsors may conduct, additional clinical trials for the same indication after a product is approved. These so-called Phase IV studies may be made a condition to be satisfied after approval. The results of Phase IV studies can confirm or refute the effectiveness of a product candidate, and can provide important safety information. Following approval, product sponsors and their contractors must also continue to comply with applicable regulatory requirements, including GMPs for the manufacturing and testing of approved products.

#### NDA, ANDA or BLA Preparation and Submission

Upon completion of product and manufacturing development, and preclinical and clinical trials, the sponsor assembles the statistically analysed data from all phases of development, along with the chemistry and manufacturing and pre-clinical data and the proposed labelling, among other things, into a single marketing application, which, depending on the product candidate, may be a new drug application, or NDA, full biologic licence application, or BLA, ANDA, or a BLA for a biosimilar product. The US FDA carefully scrutinizes the submitted information and data to determine whether the sponsors and any other companies, such as CROs and laboratories working on the sponsor's behalf, have complied with the applicable regulations, and to determine whether the drug or biologic is safe and effective for the specific use. Additionally, the US FDA typically will inspect the facility or facilities where the product is manufactured. The US FDA will not approve an application unless it determines that the manufacturing processes and facilities, including contract manufacturers and subcontractors, are in compliance with GMP requirements and adequate to assure consistent production of the product within required specifications. Additionally, before approving a marketing application the US FDA may inspect one or more clinical trial sites to assure compliance with GCPs.

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The US FDA may also inspect others involved in the product candidate development process, such as pre-clinical trial sites and laboratories. Even after accepting the submission for review, the US FDA may require additional testing or information before approval of the application. The US FDA must deny approval of an application if applicable regulatory requirements are not satisfied. Moreover, after approval, some types of changes to the approved product, such as adding new indications, manufacturing and testing changes, and additional labeling claims, are subject to further testing requirements and US FDA review and approval. Following product approval, drug and biologic products must continue to be manufactured and tested in accordance with the US FDA's regulatory requirements, including GMPs.

#### Impact of US Regulations: US FDA Enforcement

In the United States, the US FDA has authority to inspect facilities that conduct research on product candidates which are ultimately intended for marketing in the United States, including CROs, and clinical and preclinical study sites. The US FDA also has the authority to inspect facilities, including laboratories, that manufacture and test products and product candidates intended for use in clinical trials or for marketing in the United States following US FDA approval. The US FDA may inspect such facilities, regardless of whether such facilities are located in the United States or overseas, including facilities belonging to entities other than the product or product candidate sponsor. Inspections by the US FDA have the objective of confirming compliance with FDA regulatory requirements, including GLPs, GCPs, and GMPs, and identifying and requiring correction of noncompliant conditions.

Inspections undertaken by the US FDA, in which the inspector observes conditions that do not comply with the applicable regulatory requirements, may result in the US FDA issuing a Form 483. A Form 483 contains observations which, in the inspector's judgement, may constitute potential violations ranging from relatively minor to critical issues. The Form 483 does not constitute a final US FDA determination of whether any condition is violative. Rather, the Form 483 is considered by the US FDA, along with a full written report, evidence or documentation collected during the inspection, and any company responses. Based upon this information, the US FDA determines what further action, if any, is appropriate. The inspected company is responsible for responding directly to the US FDA with a corrective action plan addressing any cited objectionable conditions in the Form 483 and implementing that plan expeditiously.

The production of a Form 483 with significant or critical observations, or other determinations by the US FDA of regulatory noncompliance can precipitate immediate and extremely severe action by the US FDA on the facility's operations and business, as well as causing serious and sometimes irreparable damage to a company's reputation. Such actions may include, but are not limited to, costly corrective actions, rejection of study results as a basis for approval of marketing applications or supplements, restrictions on operations, including the discontinuation of services or closing of facilities, clinical holds, discontinuations or suspension of studies, warning letters, untitled letters, cyber letters, regulatory authority issuance of adverse public statements or alerts, product recalls, fines, restitution, disgorgement of profits or revenue, product seizure or detention, the US FDA debarment or suspension, the US FDA disqualification of testing facilities and investigators, consent decrees or other settlement agreements, injunctions, and civil and criminal penalties.

#### Regulation of Drugs in China

Before a new drug may be approved and marketed in China, it must undergo extensive testing and review to determine that it is safe and effective. The stages of this process are typically as follows:

#### Pre-clinical Research

Pre-clinical studies for drug registration applications must be undertaken, which may include assessing synthetic processes, extraction methods, quality specifications, pharmacology and animal pharmacokinetics studies. All pre-clinical drug studies must conform to their own specific relevant requirements, for example the GLP standards for Non-Clinical Laboratory Studies must be implemented in respect of safety evaluation studies. Companies involved in drug development are required to keep adequate staffing, premises, equipment, instruments and management systems appropriate to the research project, and ensure the authenticity of all experimental data.

#### Clinical Trials

After submitting the results of pre-clinical studies to NMPA and obtaining their regulatory approval, clinical tests may then be carried out and must comply with GCP standards. Companies and organisations undertaking or involved in clinical trials must be certified in order to conduct drug clinical trials.

The clinical trial phase can be sub-divided into phases I, II, III and IV, as is common practice globally across the industry. During the clinical trial phase, NMPA may order a suspension or termination of ongoing trials if there is any evidence of a violation of the GCP requirements. After the completion of a clinical trial, in order to apply for approval of a drug candidate, the drug developer must submit a clinical trial final report, which includes a statistical analysis report and its corresponding database, to NMPA. Any evidence of non-compliance with this filing obligation or the requirements of GCP standards in from the clinical trial report is likely to mean that the application for approval will be rejected by NMPA.

#### Application for Drug Registration

On completing all clinical trials, drug sponsors must file an Application Form for Drug Registration ("**AFAR**") with NMPA, as well as submitting production application dossiers and other related materials as required. NMPA will decide whether or not to approve the application on the basis of the opinions of technical reviewers, production site inspection reports and sample testing results.

#### Pharmaceutical Administration Law of the People's Republic of China

The importation of medicines is strictly regulated in China and all imports must pass through an examinations process organized by the pharmaceutical supervisory and administrative department under the State Council. Drugs which are approved as conforming to the quality standards of safety and efficacy may then be imported and a registered certificate for import shall be issued in respect of each approved drug.

# Impact of PRC Regulations: NMPA Enforcement

NMPA is responsible for drafting laws, regulations and rules, as well as developing policy plans, relating to the administration and supervision of drugs (including all clinically tested medicines, traditional Chinese medicines and ethno-medicines). In particular, NMPA has the authority to inspect facilities that conduct research on drug candidates which are ultimately intended for marketing in China, including facilities belonging to CROs.

NMPA is also tasked with:

- taking measures to reduce risks on regional and systemic drug safety;
- organizing the formulation and publication of the national pharmacopeia;
- supervising the implementation of drug and medical device standards and classification systems;
- developing and promoting good practices in the research, production, distribution and use of drugs and medical devices;
- undertaking drug and medical device registration, supervision and inspection;
- establishing monitoring systems for adverse drug reactions, and the adverse events of medical devices;
- drafting and amending regulations and qualification criteria for licenced pharmacists, including publishing guides on these standards; and
- formulating the list of therapeutics designated "national essential medicines" for prioritisation in the national healthcare system and assist in its implementation.

NMPA also oversees the investigation and enforcement system for drugs, including arranging punishments for major violations; establishing recall and disposal systems for defective products, and supervising drug emergency response systems and investigations into drug safety incidents.

# Regulated facilities, and practices and services

# Good Laboratory Practice (GLP), Good Clinical Practice (GCP), and Good Manufacturing Practice (GMP)

Certain regulatory authorities, including the US FDA, require that submissions made to them are based on research, analysis or development studies conducted in accordance with GLP and GCP provisions and guidelines.

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GLPs set forth the minimum basic requirements for the conduct of in vivo or in vitro experiments in which a test article is studied prospectively in a test system under laboratory conditions to determine its safety. In the United States, GLPs include a number of requirements relating to the conduct of preclinical studies, internal company organisation and personnel, facilities, equipment, operations, test and control articles, study protocols, operating procedures, records and reporting, quality assurance, and the care and use of animals in testing. Other agencies, such as the USDA, also have requirements concerning the conduct of certain animal research and may have requirements for registrations, licenses, approvals, assurances, permits, certificates, and similar authorizations. Moreover, Institutional Animal Care and Use Committees, or IACUCs, review animal research protocols before animal research may commence.

GCPs set forth standards for the conduct of clinical trials in order to ensure that data and reported results are credible and accurate, and that the rights, safety, well-being, integrity, and confidentiality of trial participants are protected. GCPs include requirements concerning clinical study design, conduct, monitoring, auditing, analysis, recording and reporting, among other requirements. GCPs also require that all research subjects provide their informed consent in writing for their participation in any clinical trial and that all studies be reviewed and approved by an IRB.

Regulatory authorities also require that drugs and biologics, and their APIs, intended for use in clinical trials or for the commercial market be manufactured and tested in accordance with GMP provisions and guidelines. The US FDA requires that drug and biologic products used in clinical trials, approved products, and their API, be manufactured under GMPs. GMPs require that manufacturers, which includes entities conducting certain laboratory testing, adequately control manufacturing operations. This includes establishing quality management systems, quality control and assurance, obtaining raw materials that meet quality requirements, establishing operating procedures, detecting and investigating deviations, maintaining laboratory quality, maintaining records, samples, and documentation, and ensuring the integrity of manufacturing and testing data. Poor control of production and testing processes can lead to the introduction of adventitious agents or other contaminants, or to inadvertent changes in the properties or stability of products or product candidates. Manufacturers and other entities involved in the manufacture, including control and contract laboratories are required to annually register their establishments with the FDA. Certain facilities identified in ANDAs, ANDA amendments, and ANDA prior approval supplements, including facilities approved to produce finished dosage forms or active pharmaceutical ingredients, biolanalytical study sites, clinical research organisations, and contract analytical testing sites must also annually provide identification information to FDA. Additional state licences, permits, and registrations may also be required.

Records for laboratory research, clinical studies, and manufacturing and testing must be maintained for specified periods for inspection by the FDA and other regulators. The US FDA requires that electronic records and electronic signatures meet additional requirements to be considered trustworthy, reliable, and generally equivalent to paper records and handwritten signatures. Noncompliance with GLP, GCP, or GMP requirements can result in the disqualification of data collected during the clinical trial, as well as other enforcement actions.

In addition to the above, depending on the jurisdiction, additional laws and regulations may be applicable. For instance, individual states in the United States regulate certain clinical testing activities, requiring state licensing and validation of the individual tests.

### Regulation of Laboratories in the United States

Our United States laboratories are subject to licensing and regulation under federal, state and local laws relating to employee right-to-know regulations, and the safety and health of laboratory employees. To the extent that our United States laboratories test human specimens for the purpose of providing information for the diagnosis, prevention, or treatment of a human disease or impairment, or assessment of human health, our laboratories must obtain a certificate under the Clinical Laboratory Improvement Amendments and follow associated requirements. Additionally, our United States laboratories are subject to applicable federal and state laws and regulations and licensing requirements relating to the handling, storage and disposal of controlled substances and listed chemicals, hazardous waste, radioactive materials and laboratory specimens, including the regulations of the Environmental Protection Agency, the Nuclear Regulatory Commission, the Department of Transportation, or DEA.

#### Regulation of Controlled Substances

The use, research, testing, import and export, and manufacture of controlled substances and listed chemicals is regulated in the United States by the DEA through the Controlled Substances Act and the DEA's implementing regulations, and by similar regulatory bodies in other parts of the world. The DEA regulations cover registration, security, recordkeeping, reporting, storage, shipping, distribution, acquisition, inventory, and other requirements relating to controlled substances. The DEA regulates controlled substances as Schedule I, II, III, IV or V substances. Schedule I substances by definition have no established medicinal use and may not be marketed or sold in the United States. After Schedule I, Schedule II substances are considered to present the highest risk of abuse and Schedule V substances the lowest relative risk of abuse among such substances. Periodic, and in many cases annual registration is required for DEA registrants. The registration and corresponding requirements are specific to the particular location, activity, including research and testing, and controlled substance schedule. For certain entities and for certain controlled substances, purchases, and acquisition and distribution transactions must also be reported to DEA.

The DEA typically inspects a facility to review its security measures prior to issuing a registration and on a periodic basis. Security requirements vary by controlled substance schedule and activities, with the most stringent requirements applying to Schedule I and Schedule II controlled substances. Required security measures include physical security controls, background checks on employees, and inventory reconciliations. Records must be maintained for the handling of all controlled substances and reports must be made to DEA, such as reports of thefts or significant losses of any controlled substance and suspicious orders. There are further DEA requirements concerning controlled substance disposal and destruction. Depending on the controlled substance, DEA authorization, in addition to registration, may be required for United States import and export activities. In addition to DEA, individual states in the United States regulate the use of certain

controlled substances and other drugs under state controlled substance, board of pharmacy, and other statutes and regulations. Failure to comply with DEA's requirements can have significant consequences, including administrative, civil or criminal enforcement action, as well as revocation or suspension of controlled substance registrations, and refusal to renew registrations.

DEA also regulates chemicals that, in addition to legitimate uses, are used in the manufacture of controlled substances. DEA designates such chemicals as List I or List II. List I chemicals include chemicals that are important to the manufacture of a controlled substances, including precursors. List II chemicals include chemicals, other than List I chemicals, identified by DEA that are used in the manufacture of controlled substances. DEA imposes additional requirements for Scheduled Listed Chemicals, which include ephedrine, pseudoephedrine, and phenylpropanolamine. DEA requires registration for entities that manufacture, import, distribute, sell, or export List I and Scheduled Listed Chemicals and also imposes record-keeping, security, and reporting requirements. DEA also establishes quotas for the manufacture, importation, and procurement of Scheduled Listed Chemicals. In addition, DEA imposes specific requirements and restrictions for the retail sale of drug products containing a Scheduled Listed Chemical. Entities that handle only List II chemicals are not required to register with DEA but are subject to certain record-keeping and reporting requirements.

#### Additional Laboratory Requirements

The regulations of the United States Department of Transportation, Public Health Service and Postal Service apply to the surface and air transportation of laboratory specimens. Our laboratories also are subject to International Air Transport Association regulations, which govern international shipments of laboratory specimens. Furthermore, when the materials are sent to a foreign country from the United States, the transportation of such materials becomes subject to the laws, rules and regulations of such foreign country.

In addition to its comprehensive regulation of safety in the workplace, the United States Occupational Safety and Health Administration has established extensive requirements relating to workplace safety for healthcare employers whose workers may be exposed to blood-borne pathogens such as HIV and the hepatitis B virus. These regulations, among other things, require work practice controls, protective clothing and equipment, training, medical follow-up, vaccinations and other measures designed to minimize exposure to chemicals, and transmission of blood-borne and airborne pathogens.

### Regulation of Laboratories in China

#### Regulations on Administration of Biosafety in Pathogenic Microorganism Laboratories

The PRC operates a multi-level based administration of all laboratories that are engaged in teaching, testing, diagnosis and other activities related to bacterial and viral pathogen strains or samples of pathogenic microorganisms. On the basis of risk assessments of each laboratory and in accordance with the standards of the State for laboratory biosafety, the State classifies laboratories into four biosafety levels. A laboratory of Biosafety Level 1 or Biosafety Level 2 is not permitted to conduct laboratory activities related to highly pathogenic microorganisms. Laboratories of Biosafety Level 3 or Biosafety Level 4 are permitted to conduct laboratory activities related to highly pathogenic

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microorganisms or suspected highly pathogenic microorganisms but must apply to the competent health department or the competent veterinary department of the people's government at or above the provincial level for approval, in accordance with the provisions of the competent health department or the competent veterinary department of the State Council. In addition, each such laboratory must report to the local public security organ for the record.

Projects involving the construction, alteration or extension of a laboratory of Biosafety Level 1 or Biosafety Level 2 must be reported for the record to the competent health department or the competent veterinary department of the people's government at the level of a city divided into districts. A laboratory of Biosafety Level 3 or Biosafety Level 4 that has been constructed and that has been accredited by the State must report for the record to the competent environmental protection department of the people's government at the county level of the place where the laboratory in question is located.

#### Regulation of Patient Information in the United States

In the course of providing our services, we may be provided with patient-specific information and health information which is subject to governmental regulations.

Regulations to protect the safety and privacy of human subjects who participate in or whose data are used in clinical research generally require clinical investigators to obtain affirmative informed consent from identifiable research subjects before research is undertaken.

Under the Health Insurance Portability and Accountability Act and regulations promulgated thereunder ("HIPAA"), the United States Department of Health and Human Services Office for Civil Rights has issued regulations mandating heightened privacy and confidentiality protections for certain types of individually identifiable health information, or protected health information ("PHI"), when used or disclosed by healthcare providers and other HIPAA-covered entities or business associates that provide services to or perform functions on behalf of these covered entities. Generally, a disclosure of PHI by a HIPAA-covered entity for research purposes requires a written authorisation from the patient, unless a waiver of authorisation is approved by an Institutional Review Board or Privacy Board in accordance with HIPAA requirements.

#### Regulation of Patient Information in China

In the PRC, medical institutions are subject to requirements to maintain medical record management systems, along with a designated record management department, and to protect the privacy of patient information. Patient medical records must not be disclosed for any purpose other than medical, teaching, or research purposes. Access to medical records is restricted to medical staff providing services to patients, as well as the medical record management department and relevant authorities, including health and family planning authorities.

In addition, the PRC adopts a system by which human genetic resources are subject to specific controls and managed at different levels and subjected to unified examination and approval. Where human genetic resources in China are involved in any international collaborative project, the Chinese collaborating party must report for approval. An application form must be filed and the following

documents submitted: (i) certifications of informed consent of the donor of human genetic resource materials and of his relatives; (ii) a draft contract; and (iii) other documents required by the examining and approving departments. No foreign collaborative institution or individual that has access to the human genetic resources may publicize or publish that resource or information, or apply for a patent related to it or disclose it by any other means without permission.

### United States Healthcare Fraud and Abuse Laws

As a contract research organisation, we may be subject to many federal and state healthcare laws, including those described elsewhere in the Regulatory Regime for the Development of Drugs in the United States and China section of this prospectus, such as the federal Anti-Kickback Statute, the federal civil and criminal False Claims Acts, the civil monetary penalties statute and other laws relating to patient inducements, the Medicaid Drug Rebate statute and other price reporting requirements, the Veterans Health Care Act of 1992, the Foreign Corrupt Practices Act of 1977, the Patient Protection and Affordable Care Act of 2010, and similar state laws. Even though we do not and will not control referrals of healthcare services or bill directly to Medicare, Medicaid or other third-party payors, certain federal and state healthcare laws and regulations pertaining to fraud and abuse, reimbursement programs, government procurement, and patients' rights may be applicable to our business. We would be subject to healthcare fraud and abuse regulation by both the federal government and the states in which we conduct our business.

If we or our operations are found to be in violation of any federal or state healthcare law, or any other governmental laws or regulations that apply to us, we may be subject to penalties, including civil, criminal, and administrative penalties, damages, fines, disgorgement, suspension and debarment from government contracts, and refusal of orders under existing government contracts, exclusion from participation in US federal or state healthcare programs, corporate integrity agreements, and the curtailment or restructuring of our operations, any of which could materially adversely affect our ability to operate our business and our financial results. If any of the physicians or other healthcare providers or entities with whom we expect to do business is found not to be in compliance with applicable laws, such providers may be subject to criminal, civil or administrative sanctions, including, but not limited to, exclusion from participation in government healthcare programs, which could also materially affect our business.

Although an effective compliance program can mitigate the risk of investigation and prosecution for violations of these laws, the risks cannot be entirely eliminated. Moreover, achieving and sustaining compliance with applicable federal and state reimbursement and fraud laws may prove costly. Any action against us for violation of these laws, even if we successfully defend against it, could cause us to incur significant legal expenses and divert our management's attention from the operation of our business.

### C. RELEVANT LAWS AND REGULATIONS OF THE PRC

#### Foreign Investment

Companies with limited liability and joint stock limited companies established in the PRC are governed by the Company Law of the PRC (《中華人民共和國公司法》), ("Company Law"),

promulgated by the Standing Committee of the National People's Congress ("SCNPC") on December 29, 1993 and effective on July 1, 1994, and was subsequently amended on December 25, 1999, August 28, 2004, October 27, 2005 and December 28, 2013 respectively. Foreign invested companies are also subject to the Company Law, except as otherwise provided in the foreign investment laws including Law of the PRC on Wholly Foreign-owned Enterprises (《中華人民共和國外資企業法》), ("WFOE Law"), Sino-Foreign Equity Joint Venture Enterprise Law of the PRC (《中華人民共和國中外合資經 營企業法》) ("EJV Law") and Sino-Foreign Cooperative Joint Venture Enterprise Law of the PRC (《中華人民共和國中外合資經

Investments in the PRC by foreign investors are regulated by the Guidance Catalog of Industries for Foreign Investment (《外商投資產業指導目錄》) ("Catalog"), the latest version of which was promulgated by the National Development and Reform Commission (the "NDRC") and the Ministry of Commerce (the "MOFCOM") on June 28, 2017 and became effective on July 28, 2017. The Catalog has been a longstanding tool used by policymakers of the PRC to manage direct foreign investment. The Catalog is divided into the encouraged industries, the restricted industries and the prohibited industries for foreign investment, and industries which are not listed in the Catalog shall be categorized as the permitted industries for foreign investment. The industry in which our PRC subsidiaries are primarily engaged does not fall into the category of restricted or prohibited industries.

The WFOE Law, the EJV Law and the CJV Law were amended by the SCNPC on September 3, 2016 and became effective from October 1, 2016, among which, the CJV Law was further amended on November 4, 2017 and became effective on November 5, 2017. According to the amendments, for wholly foreign-owned enterprises, Sino-foreign equity joint venture enterprises and Sino-foreign cooperative joint venture enterprises which the special market entry management measures prescribed by the State do not apply to, their establishment and changes only need to be filed with competent authorities. Pursuant to Announcement No. 22, 2016 issued by NDRC and MOFCOM (《國家發展和改革委員會/商務部2016年第22號公告》) ("Announcement No. 22") on October 8, 2016, the special market entry management measures shall be implemented with reference to the relevant regulations in relation to the restricted foreign-invested industries, prohibited foreign-invested industries and encouraged foreign-invested industries with requirements as to shareholding and senior management as stipulated in the Catalog.

To facilitate the implementation of the above amendments made to the WFOE Law, the EJV Law and the CJV Law, the Interim Measures for Record-filing Administration of the Establishment and Change of Foreign-invested Enterprises (《外商投資企業設立及變更備案管理暫行辦法》) ("Interim Measures") promulgated by MOFCOM on October 8, 2016, pursuant to which, the establishment of foreign-invested enterprises which the special market entry management measures prescribed do not apply to and their changes shall be subject to record-filing instead of examination and approval.

Within the record-filing scope stipulated in the Interim Measures, a foreign-invested enterprise shall fill in online and submit an application of record-filing for its establishment or change and the relevant documents for completing the record-filing procedures. However, pursuant to the Announcement No.22, the establishment of an enterprise by way of mergers and acquisitions of domestic enterprises by foreign investors and their changes are still implemented according to the existing laws and regulations including the M&A Rules, instead of the Interim Measures.

On August 8, 2006, six PRC regulatory agencies, namely, MOFCOM, the State-owned Assets Supervision and Administration Commission of the PRC, the State Administration of Taxation ("SAT"), the State Administration for Industry and Commerce, the China Securities Regulatory Commission, and the State Administration of Foreign Exchange (the "SAFE"), jointly adopted the Regulations on Mergers and Acquisitions of Domestic Enterprises by Foreign Investors (《關於外國投資者併購境內企業的規定》) (the "M&A Rules"), which became effective on September 8, 2006 and were amended by MOFCOM on June 22, 2009. The M&A Rules require, among others, that a foreign investor acquiring an equity interest in a non-foreign invested PRC enterprise or purchasing and operating the asset of such enterprise by establishing a foreign invested enterprise shall comply with relevant foreign investment industry policies and shall be subject to approval by MOFCOM or its local competent authorities.

The Interim Measures was amended and became effective on July 30, 2017 and further amended on June 29, 2018 and became effective on June 30, 2018, pursuant to which, the establishment of an enterprise, not involving the special market entry management measures and affiliated mergers, by way of mergers and acquisitions of domestic enterprises by foreign investors and their changes are also subject to record-filing, instead of the partial provisions in Announcement No.22.

### Foreign Exchange

The Administrative Regulations on Foreign Exchange of the PRC ("Foreign Exchange Administrative Regulations") (<外匯管理條例>), promulgated by the State Council on January 29, 1996 and subsequently amended on January 14, 1997 and on August 5, 2008, constitutes an important legal basis for the PRC governmental authorities to supervise and regulate foreign exchange. On June 20, 1996, People's Bank of China further promulgated the Administrative Provisions on the Settlement, Sales and Payment of Foreign Exchange (《結匯、售匯及付匯管理規定》) ("Settlement Provisions") which became effective on July 1, 1996.

Pursuant to the Foreign Exchange Administrative Regulations and the Settlement Provisions, RMB is generally freely convertible to foreign currencies for current account transactions (such as trade and service-related foreign exchange transactions and dividend payments), but not for capital account transactions (such as capital transfer, direct investment, securities investment, derivative products or loans), except where a prior approval from the SAFE and/or its competent local counterparts is obtained.

Foreign-invested enterprises in the PRC may, without any approval from the SAFE and/or its competent local counterparts, purchase foreign exchange for dividend distribution, trade or services by providing certain documentary evidence (such as resolutions of the board of directors and certificates of tax payments).

In August 2008, SAFE issued the Circular on the Relevant Operating Issues Concerning the Improvement of the Administration of the Payment and Settlement of Foreign Currency Capital of Foreign-Invested Enterprises (《關於完善外商投資企業外匯資本金支付結匯管理有關業務操作問題的通知》("SAFE Circular 142"), which provides that the RMB capital converted from settlement of foreign currency registered capital of a foreign-invested enterprise may only be used for purposes within the business scope approved by the applicable government authority and may not be used for equity investments within the PRC unless otherwise provided.

On November 19, 2012, SAFE promulgated the Circular of Further Improving and Adjusting Foreign Exchange Administration Policies on Foreign Direct Investment (《關於進一步改進和調整直接投資外匯管理政策的通知》) ("Circular 59"), which became effective on December 17, 2012 and was amended on May 4, 2015. Circular 59 substantially amended and simplified the current foreign exchange procedure. The major developments under Circular 59 are that the opening of various special purpose foreign exchange accounts (e.g. pre-establishment expenses account, foreign exchange capital account and guarantee account) no longer requires the approval of SAFE. Furthermore, multiple capital accounts for the same entity may be opened in different provinces, which was not possible before the issuance of Circular 59. Reinvestment of RMB proceeds by foreign investors in the PRC no longer requires SAFE's approval.

On May 11, 2013, SAFE promulgated the Circular on Printing and Distributing the Provisions on Foreign Exchange Administration over Domestic Direct Investment by Foreign Investors and the Supporting Documents (關於印發《外國投資者境內直接投資外匯管理規定》及配套文件的通知) which became effective on May 13, 2013 and specified that the administration by SAFE or its local branches over direct investment by foreign investors in the PRC shall be conducted by way of registration. Institutions and individuals shall register with SAFE and/or its branches for their direct investment in the PRC. Banks shall process foreign exchange business relating to the direct investment in the PRC based on the registration information provided by SAFE and its branches.

On March 30, 2015, SAFE released the Notice on the Reform of the Management Method for the Settlement of Foreign Exchange Capital of Foreign-invested Enterprises (《關於改革外商投資企業外匯資本金結匯管理方式的通知》) ("SAFE Circular 19"), which became effective and superseded SAFE Circular 142 from June 1, 2015. On June 9, 2016, SAFE further promulgated the Circular on the Reform and Standardization of the Management Policy of the Settlement of Capital Projects (《關於改革和規範資本項目結匯管理政策的通知》) (the "SAFE Circular 16"). SAFE Circular 19 has made certain adjustments to some regulatory requirements on the settlement of foreign exchange capital of foreign-invested enterprises, and some foreign exchange restrictions under SAFE Circular 142 are expected to be lifted. Under SAFE Circular 19 and SAFE Circular 16, the settlement of foreign exchange settlement at will. However, SAFE Circular 19 and SAFE Circular 16 also reiterate that the settlement of foreign invested enterprises within the business scope of the foreign invested enterprises of authenticity.

### SAFE Circular 37

SAFE promulgated the Circular on Relevant Issues Concerning Foreign Exchange Control on Domestic Residents' Offshore Investment and Financing and Roundtrip Investment through Special Purpose Vehicles (《關於境內居民通過特殊目的公司境外投融資及返程投資外匯管理有關問題的通 知》) ("SAFE Circular 37") on July 4, 2014, which replaced the former circular commonly known as "SAFE Circular 75" promulgated by SAFE on October 21, 2005. SAFE Circular 37 requires PRC residents to register with local branches of SAFE in connection with their direct establishment or indirect control of an offshore entity, for the purpose of overseas investment and financing, with such PRC residents' legally owned assets or equity interests in domestic enterprises or offshore assets or interests, referred to in SAFE Circular 37 as a "special purpose vehicle". SAFE Circular 37 further requires amendment to the registration in the event of any significant changes with respect to the special purpose vehicle, such as increase or decrease of capital contributed by PRC individuals, share transfer or exchange, merger, division or other material event. In the event that a PRC shareholder holding interests in a special purpose vehicle fails to fulfill the required SAFE registration, the PRC subsidiaries of that special purpose vehicle may be prohibited from making profit distributions to the offshore parent and from carrying out subsequent cross-border foreign exchange activities, and the special purpose vehicle may be restricted in its ability to contribute additional capital into its PRC subsidiary. Furthermore, failure to comply with the various SAFE registration requirements described above could result in liability under PRC law for evasion of foreign exchange controls.

On February 13, 2015, SAFE released the Notice on Further Simplifying and Improving Policies for the Foreign Exchange Administration of Direct Investment (《國家外匯管理局關於進一步簡化和 改進直接投資外匯管理政策的通知》) ("SAFE Circular 13"), which became effective from February 13, 2015. According to SAFE Circular 13, local banks shall examine and handle foreign exchange registration for overseas direct investment, including the initial foreign exchange registration and amendment registration under SAFE Circular 37.

### Employment

The relevant labor laws in China include the Employment Law of the People's Republic of China (《中華人民共和國勞動法》), the Labor Contract Law of the People's Republic of China (《中華人民共和國勞動合同法》), Interim Provisions on Labour Dispatching (<勞務派遣暫行規定>), the Social Insurance Law of the People's Republic of China (《中華人民共和國社會保險法》), the Provisional Measures for Company Employee Birth Insurance (1995) (《企業職工生育保險試行辦法》), the Provisional Regulations for the Collection and Payment of Social Insurance Premiums (《社會保險費徵繳暫行條例》), and the Provisional Management Measures for Social Insuran Registration (《社會保險登記管理暫行辦法》) and Regulations for Housing Provision Management (《住房公積金管理條例》) and other laws and regulations released from time to time by relevant governmental departments.

# TAXATION AND REGULATORY OVERVIEW

Based on the Labour Contract Law of the People's Republic of China released on January 1, 2008 by the Standing Committee of National People's Congress and amended on December 28, 2012 (hereinafter referred to as the "Labour Contract Law"), any enterprise or organization which will establish or has established employment relationships with workers should make it official with a written employment contract. No enterprise or institution may force workers to work over time, and employers should pay over-time fee to workers in line with relevant national provisions. Wages during the probation period should not be lower than the minimum level for the same post within the employer or eighty percent of the agreed wage in the employment contract, and such wages should not be lower than the minimum level for the same post.

Based on the Interim Provisions on Labour Dispatch and the Labour Contract Law, which were implemented by the Ministry of Human Resources and Social Security on March 1, 2014, employers may employ dispatched workers in temporary, auxiliary or substitutable positions only which shall not exceed 10% of the total number of its workers. If the employer violates the relevant labour dispatch regulations, the labour administrative department may order it to make corrections within a time limit; if it fails to make corrections within the time limit, a penalty may be imposed on the basis of more than RMB5,000 and less than RMB10,000 per person.

This Appendix contains a summary of the Memorandum and Articles of Association of the Company. As the information set out below is in summary form, it does not contain all of the information that may be important to potential investors.

Set out below is a summary of certain provisions of the Memorandum and Articles of Association of the Company and of certain aspects of Cayman Islands company law.

The Company was incorporated in the Cayman Islands as an exempted company with limited liability on April 16, 2018 under the Cayman Companies Law. The Company's constitutional documents consist of its Memorandum of Association and its Articles of Association.

### 1. MEMORANDUM OF ASSOCIATION

- (a) The Memorandum states, inter alia, that the liability of members of the Company is limited to the amount, if any, for the time being unpaid on the shares respectively held by them and that the objects for which the Company is established are unrestricted (including acting as an investment company), and that the Company shall have and be capable of exercising all the functions of a natural person of full capacity irrespective of any question of corporate benefit, as provided in section 27(2) of the Cayman Companies Law and in view of the fact that the Company is an exempted company that the Company will not trade in the Cayman Islands with any person, firm or corporation except in furtherance of the business of the Company carried on outside the Cayman Islands.
- (b) The Company may by special resolution alter its Memorandum with respect to any objects, powers or other matters specified therein.

# 2. ARTICLES OF ASSOCIATION

The Articles were conditionally adopted on May 11, 2019 with effect from the Listing Date. The following is a summary of certain provisions of the Articles:

### (a) Shares

### (i) Classes of shares

The share capital of the Company consists of ordinary shares.

### (ii) Variation of rights of existing shares or classes of shares

Subject to the Cayman Companies Law, if at any time the share capital of the Company is divided into different classes of shares, all or any of the special rights attached to the shares or any class of shares may (unless otherwise provided for by the terms of issue of that class) be varied, modified or abrogated either with the consent in writing of the holders of not less than three fourths in nominal value of the issued shares of that class or with the sanction of a special resolution passed at a separate general meeting of the holders

of the shares of that class. To every such separate general meeting the provisions of the Articles relating to general meetings will mutatis mutandis apply, but so that the necessary quorum (other than at an adjourned meeting) shall be two persons holding or representing by proxy not less than one third in nominal value of the issued shares of that class and at any adjourned meeting two holders present in person or by proxy (whatever the number of shares held by them) shall be a quorum. Every holder of shares of the class shall be entitled to one vote for every such share held by him.

Any special rights conferred upon the holders of any shares or class of shares shall not, unless otherwise expressly provided in the rights attaching to the terms of issue of such shares, be deemed to be varied by the creation or issue of further shares ranking *pari passu* therewith.

### (iii) Alteration of capital

The Company may by ordinary resolution of its members:

- (i) increase its share capital by the creation of new shares;
- (ii) consolidate all or any of its capital into shares of larger amount than its existing shares;
- (iii) divide its shares into several classes and attach to such shares any preferential, deferred, qualified or special rights, privileges, conditions or restrictions as the Company in general meeting or as the directors may determine;
- (iv) subdivide its shares or any of them into shares of smaller amount than is fixed by the Memorandum; or
- (v) cancel any shares which, at the date of passing of the resolution, have not been taken and diminish the amount of its capital by the amount of the shares so cancelled.

The Company may reduce its share capital or any capital redemption reserve or other undistributable reserve in any way by special resolution.

### (iv) Transfer of shares

All transfers of shares may be effected by an instrument of transfer in the usual or common form or in a form prescribed by The Stock Exchange of Hong Kong Limited (the "**Stock Exchange**") or in such other form as the board may approve and which may be under hand or, if the transferor or transferee is a clearing house or its nominee(s), by hand or by machine imprinted signature or by such other manner of execution as the board may approve from time to time.

Notwithstanding the foregoing, for so long as any shares are listed on the Stock Exchange, titles to such listed shares may be evidenced and transferred in accordance with the laws applicable to and the rules and regulations of the Stock Exchange that are or shall be applicable to such listed shares. The register of members in respect of its listed shares (whether the principal register or a branch register) may be kept by recording the particulars required by Section 40 of the Companies Law in a form otherwise than legible if such recording otherwise complies with the laws applicable to and the rules and regulations of the Stock Exchange that are or shall be applicable to such listed shares.

The instrument of transfer shall be executed by or on behalf of the transferor and the transferee provided that the board may dispense with the execution of the instrument of transfer by the transferee. The transferor shall be deemed to remain the holder of the share until the name of the transferee is entered in the register of members in respect of that share.

The board may, in its absolute discretion, at any time transfer any share upon the principal register to any branch register or any share on any branch register to the principal register or any other branch register.

The board may decline to recognise any instrument of transfer unless a fee (not exceeding the maximum sum as the Stock Exchange may determine to be payable) determined by the Directors is paid to the Company, the instrument of transfer is properly stamped (if applicable), it is in respect of only one class of share and is lodged at the relevant registration office or registered office or such other place at which the principal register is kept accompanied by the relevant share certificate(s) and such other evidence as the board may reasonably require to show the right of the transfer to make the transfer (and if the instrument of transfer is executed by some other person on his behalf, the authority of that person so to do).

The registration of transfers may be suspended and the register closed on giving notice by advertisement in any newspaper or by any other means in accordance with the requirements of the Stock Exchange, at such times and for such periods as the board may determine. The register of members must not be closed for periods exceeding in the whole thirty (30) days in any year.

Subject to the above, fully paid shares are free from any restriction on transfer and free of all liens in favour of the Company.

### (v) Power of the Company to purchase its own shares

The Company is empowered by the Cayman Companies Law and the Articles to purchase its own shares subject to certain restrictions and the board may only exercise this power on behalf of the Company subject to any applicable requirements imposed from time to time by the Stock Exchange.

Where the Company purchases for redemption a redeemable share, purchases not made through the market or by tender must be limited to a maximum price determined by the Company in general meeting. If purchases are by tender, tenders must be made available to all members alike.

The board may accept the surrender for no consideration of any fully paid share.

#### (vi) Power of any subsidiary of the Company to own shares in the Company

There are no provisions in the Articles relating to ownership of shares in the Company by a subsidiary.

### (vii) Calls on shares and forfeiture of shares

The board may from time to time make such calls upon the members in respect of any monies unpaid on the shares held by them respectively (whether on account of the nominal value of the shares or by way of premium). A call may be made payable either in one lump sum or by installments. If the sum payable in respect of any call or instalment is not paid on or before the day appointed for payment thereof, the person or persons from whom the sum is due shall pay interest on the same at such rate not exceeding twenty per cent. (20%) per annum as the board may agree to accept from the day appointed for the payment thereof to the time of actual payment, but the board may waive payment of such interest wholly or in part. The board may, if it thinks fit, receive from any member willing to advance the same, either in money or money's worth, all or any part of the monies uncalled and unpaid or installments payable upon any shares held by him, and upon all or any of the monies so advanced the Company may pay interest at such rate (if any) as the board may decide.

If a member fails to pay any call on the day appointed for payment thereof, the board may serve not less than fourteen (14) clear days' notice on him requiring payment of so much of the call as is unpaid, together with any interest which may have accrued and which may still accrue up to the date of actual payment and stating that, in the event of non payment at or before the time appointed, the shares in respect of which the call was made will be liable to be forfeited.

If the requirements of any such notice are not complied with, any share in respect of which the notice has been given may at any time thereafter, before the payment required by the notice has been made, be forfeited by a resolution of the board to that effect. Such forfeiture will include all dividends and bonuses declared in respect of the forfeited share and not actually paid before the forfeiture.

A person whose shares have been forfeited shall cease to be a member in respect of the forfeited shares but shall, notwithstanding, remain liable to pay to the Company all monies which, at the date of forfeiture, were payable by him to the Company in respect of the shares, together with (if the board shall in its discretion so require) interest thereon from the date of forfeiture until the date of actual payment at such rate not exceeding twenty per cent. (20.00%) per annum as the board determines.

### (b) Directors

#### (i) Appointment, retirement and removal

At each annual general meeting, one third of the Directors for the time being (or if their number is not a multiple of three, then the number nearest to but not less than one third) shall retire from office by rotation provided that every Director shall be subject to retirement at an annual general meeting at least once every three years. The Directors to retire by rotation shall include any Director who wishes to retire and not offer himself for re-election. Any further Directors so to retire shall be those who have been longest in office since their last re election or appointment but as between persons who became or were last re elected Directors on the same day those to retire will (unless they otherwise agree among themselves) be determined by lot.

Neither a Director nor an alternate Director is required to hold any shares in the Company by way of qualification. Further, there are no provisions in the Articles relating to retirement of Directors upon reaching any age limit.

The Directors have the power to appoint any person as a Director either to fill a casual vacancy on the board or as an addition to the existing board. Any Director appointed to fill a casual vacancy shall hold office until the first general meeting of members after his appointment and be subject to re-election at such meeting and any Director appointed as an addition to the existing board shall hold office only until the next following annual general meeting of the Company and shall then be eligible for re-election.

A Director may be removed by an ordinary resolution of the Company before the expiration of his period of office (but without prejudice to any claim which such Director may have for damages for any breach of any contract between him and the Company) and members of the Company may by ordinary resolution appoint another in his place. Unless otherwise determined by the Company in general meeting, the number of Directors shall not be less than two. There is no maximum number of Directors.

The office of director shall be vacated if:

- (aa) he resigns by notice in writing delivered to the Company;
- (bb) he becomes of unsound mind or dies;

- (cc) without special leave, he is absent from meetings of the board for six (6) consecutive months, and the board resolves that his office is vacated;
- (dd) he becomes bankrupt or has a receiving order made against him or suspends payment or compounds with his creditors;
- (ee) he is prohibited from being a director by law; or
- (ff) he ceases to be a director by virtue of any provision of law or is removed from office pursuant to the Articles.

The board may appoint one or more of its body to be managing director, joint managing director, or deputy managing director or to hold any other employment or executive office with the Company for such period and upon such terms as the board may determine and the board may revoke or terminate any of such appointments. The board may delegate any of its powers, authorities and discretions to committees consisting of such Director or Directors and other persons as the board thinks fit, and it may from time to time revoke such delegation or revoke the appointment of and discharge any such committees either wholly or in part, and either as to persons or purposes, but every committee so formed must, in the exercise of the powers, authorities and discretions so delegated, conform to any regulations that may from time to time be imposed upon it by the board.

### (ii) Power to allot and issue shares and warrants

Subject to the provisions of the Cayman Companies Law and the Memorandum and Articles and to any special rights conferred on the holders of any shares or class of shares, any share may be issued (a) with or have attached thereto such rights, or such restrictions, whether with regard to dividend, voting, return of capital, or otherwise, as the Directors may determine, or (b) on terms that, at the option of the Company or the holder thereof, it is liable to be redeemed.

The board may issue warrants or convertible securities or securities of similar nature conferring the right upon the holders thereof to subscribe for any class of shares or securities in the capital of the Company on such terms as it may determine.

Subject to the provisions of the Cayman Companies Law and the Articles and, where applicable, the rules of the Stock Exchange and without prejudice to any special rights or restrictions for the time being attached to any shares or any class of shares, all unissued shares in the Company are at the disposal of the board, which may offer, allot, grant options over or otherwise dispose of them to such persons, at such times, for such consideration and on such terms and conditions as it in its absolute discretion thinks fit, but so that no shares shall be issued at a discount to their nominal value.

Neither the Company nor the board is obliged, when making or granting any allotment of, offer of, option over or disposal of shares, to make, or make available, any such allotment, offer, option or shares to members or others with registered addresses in any particular territory or territories being a territory or territories where, in the absence of a registration statement or other special formalities, this would or might, in the opinion of the board, be unlawful or impracticable. Members affected as a result of the foregoing sentence shall not be, or be deemed to be, a separate class of members for any purpose whatsoever.

#### (iii) Power to dispose of the assets of the Company or any of its subsidiaries

There are no specific provisions in the Articles relating to the disposal of the assets of the Company or any of its subsidiaries. The Directors may, however, exercise all powers and do all acts and things which may be exercised or done or approved by the Company and which are not required by the Articles or the Cayman Companies Law to be exercised or done by the Company in general meeting.

#### (iv) Borrowing powers

The board may exercise all the powers of the Company to raise or borrow money, to mortgage or charge all or any part of the undertaking, property and assets and uncalled capital of the Company and, subject to the Cayman Companies Law, to issue debentures, bonds and other securities of the Company, whether outright or as collateral security for any debt, liability or obligation of the Company or of any third party.

#### (v) Remuneration

The ordinary remuneration of the Directors is to be determined by the Company in general meeting, such sum (unless otherwise directed by the resolution by which it is voted) to be divided amongst the Directors in such proportions and in such manner as the board may agree or, failing agreement, equally, except that any Director holding office for part only of the period in respect of which the remuneration is payable shall only rank in such division in proportion to the time during such period for which he held office. The Directors are also entitled to be prepaid or repaid all travelling, hotel and incidental expenses reasonably expected to be incurred or incurred by them in attending any board meetings, committee meetings or general meetings or separate meetings of any class of shares or of debentures of the Company or otherwise in connection with the discharge of their duties as Directors.

Any Director who, by request, goes or resides abroad for any purpose of the Company or who performs services which in the opinion of the board go beyond the ordinary duties of a Director may be paid such extra remuneration as the board may determine and such extra remuneration shall be in addition to or in substitution for any ordinary remuneration as a Director. An executive Director appointed to be a managing director, joint managing director, deputy managing director or other executive officer shall receive such remuneration and such other benefits and allowances as the board may from time to time decide. Such remuneration may be either in addition to or in lieu of his remuneration as a Director.

The board may establish or concur or join with other companies (being subsidiary companies of the Company or companies with which it is associated in business) in establishing and making contributions out of the Company's monies to any schemes or funds for providing pensions, sickness or compassionate allowances, life assurance or other benefits for employees (which expression as used in this and the following paragraph shall include any Director or ex Director who may hold or have held any executive office or any office of profit with the Company or any of its subsidiaries) and ex employees of the Company and their dependents or any class or classes of such persons.

The board may pay, enter into agreements to pay or make grants of revocable or irrevocable, and either subject or not subject to any terms or conditions, pensions or other benefits to employees and ex employees and their dependents, or to any of such persons, including pensions or benefits additional to those, if any, to which such employees or ex employees or their dependents are or may become entitled under any such scheme or fund as is mentioned in the previous paragraph. Any such pension or benefit may, as the board considers desirable, be granted to an employee either before and in anticipation of, or upon or at any time after, his actual retirement.

The board may resolve to capitalise all or any part of any amount for the time being standing to the credit of any reserve or fund (including a share premium account and the profit and loss account) whether or not the same is available for distribution by applying such sum in paying up unissued shares to be allotted to (i) employees (including directors) of the Company and/or its affiliates (meaning any individual, corporation, partnership, association, joint-stock company, trust, unincorporated association or other entity (other than the Company) that directly, or indirectly through one or more intermediaries, controls, is controlled by or is under common control with, the Company) upon exercise or vesting of any options or awards granted under any share incentive scheme or employee benefit scheme or other arrangement which relates to such persons that has been adopted or approved by the members in general meeting, or (ii) any trustee of any trust to whom shares are to be allotted and issued by the Company in connection with the operation of any share incentive scheme or employee benefit scheme or other arrangement which relates to such persons that has been adopted or approved by the members in general meeting.

### (vi) Compensation or payments for loss of office

Pursuant to the Articles, payments to any Director or past Director of any sum by way of compensation for loss of office or as consideration for or in connection with his retirement from office (not being a payment to which the Director is contractually entitled) must be approved by the Company in general meeting.

### (vii) Loans and provision of security for loans to Directors

The Company must not make any loan, directly or indirectly, to a Director or his close associate(s) if and to the extent it would be prohibited by the Companies Ordinance (Chapter 622 of the laws of Hong Kong) as if the Company were a company incorporated in Hong Kong.

### (viii) Disclosure of interests in contracts with the Company or any of its subsidiaries

A Director may hold any other office or place of profit with the Company (except that of the auditor of the Company) in conjunction with his office of Director for such period and upon such terms as the board may determine, and may be paid such extra remuneration therefor in addition to any remuneration provided for by or pursuant to the Articles. A Director may be or become a director or other officer of, or otherwise interested in, any company promoted by the Company or any other company in which the Company may be interested, and shall not be liable to account to the Company or the members for any remuneration, profits or other benefits received by him as a director, officer or member of, or from his interest in, such other company. The board may also cause the voting power conferred by the shares in any other company held or owned by the Company to be exercised in such manner in all respects as it thinks fit, including the exercise thereof in favour of any resolution appointing the Directors or any of them to be directors or officers of such other company, or voting or providing for the payment of remuneration to the directors or officers of such other company.

No Director or proposed or intended Director shall be disqualified by his office from contracting with the Company, either with regard to his tenure of any office or place of profit or as vendor, purchaser or in any other manner whatsoever, nor shall any such contract or any other contract or arrangement in which any Director is in any way interested be liable to be avoided, nor shall any Director so contracting or being so interested be liable to account to the Company or the members for any remuneration, profit or other benefits realised by any such contract or arrangement by reason of such Director holding that office or the fiduciary relationship thereby established. A Director who to his knowledge is in any way, whether directly or indirectly, interested in a contract or arrangement or proposed contract or arrangement with the Company must declare the nature of his interest at the meeting of the board at which the question of entering into the contract or arrangement is first taken into consideration, if he knows his interest then exists, or in any other case, at the first meeting of the board after he knows that he is or has become so interested.

A Director shall not vote (nor be counted in the quorum) on any resolution of the board approving any contract or arrangement or other proposal in which he or any of his close associates is materially interested, but this prohibition does not apply to any of the following matters, namely:

(aa) any contract or arrangement for giving to such Director or his close associate(s) any security or indemnity in respect of money lent by him or any of his close

associates or obligations incurred or undertaken by him or any of his close associates at the request of or for the benefit of the Company or any of its subsidiaries;

- (bb) any contract or arrangement for the giving of any security or indemnity to a third party in respect of a debt or obligation of the Company or any of its subsidiaries for which the Director or his close associate(s) has himself/themselves assumed responsibility in whole or in part whether alone or jointly under a guarantee or indemnity or by the giving of security;
- (cc) any contract or arrangement concerning an offer of shares or debentures or other securities of or by the Company or any other company which the Company may promote or be interested in for subscription or purchase, where the Director or his close associate(s) is/are or is/are to be interested as a participant in the underwriting or sub underwriting of the offer;
- (dd) any contract or arrangement in which the Director or his close associate(s) is/are interested in the same manner as other holders of shares or debentures or other securities of the Company by virtue only of his/their interest in shares or debentures or other securities of the Company; or
- (ee) any proposal or arrangement concerning the adoption, modification or operation of a share option scheme, a pension fund or retirement, death, or disability benefits scheme or other arrangement which relates both to Directors, his close associates and employees of the Company or of any of its subsidiaries and does not provide in respect of any Director, or his close associate(s), as such any privilege or advantage not accorded generally to the class of persons to which such scheme or fund relates.

# (c) **Proceedings of the Board**

The board may meet for the despatch of business, adjourn and otherwise regulate its meetings as it considers appropriate. Questions arising at any meeting shall be determined by a majority of votes. In the case of an equality of votes, the chairman of the meeting shall have an additional or casting vote.

### (d) Alterations to constitutional documents and the Company's name

The Articles may be rescinded, altered or amended by the Company in general meeting by special resolution. The Articles state that a special resolution shall be required to alter the provisions of the Memorandum, to amend the Articles or to change the name of the Company.

### (e) Meetings of members

### (i) Special and ordinary resolutions

A special resolution of the Company must be passed by a majority of not less than three fourths of the votes cast by such members as, being entitled so to do, vote in person or, in the case of such members as are corporations, by their duly authorised representatives or, where proxies are allowed, by proxy at a general meeting of which notice has been duly given in accordance with the Articles.

Under the Cayman Companies Law, a copy of any special resolution must be forwarded to the Registrar of Companies in the Cayman Islands within fifteen (15) days of being passed.

An ordinary resolution is defined in the Articles to mean a resolution passed by a simple majority of the votes of such members of the Company as, being entitled to do so, vote in person or, in the case of corporations, by their duly authorised representatives or, where proxies are allowed, by proxy at a general meeting of which notice has been duly given in accordance with the Articles.

### (ii) Voting rights and right to demand a poll

Subject to any special rights or restrictions as to voting for the time being attached to any shares, at any general meeting on a poll every member present in person or by proxy or, in the case of a member being a corporation, by its duly authorised representative shall have one vote for every fully paid share of which he is the holder but so that no amount paid up or credited as paid up on a share in advance of calls or installments is treated for the foregoing purposes as paid up on the share. A member entitled to more than one vote need not use all his votes or cast all the votes he uses in the same way.

At any general meeting a resolution put to the vote of the meeting is to be decided by way of a poll save that the chairman of the meeting may in good faith, allow a resolution which relates purely to a procedural or administrative matter to be voted on by a show of hands in which case every member present in person (or being a corporation, is present by a duly authorized representative), or by proxy(ies) shall have one vote provided that where more than one proxy is appointed by a member which is a clearing house (or its nominee(s)), each such proxy shall have one vote on a show of hands.

If a recognised clearing house (or its nominee(s)) is a member of the Company it may authorise such person or persons as it thinks fit to act as its representative(s) at any meeting of the Company or at any meeting of any class of members of the Company provided that, if more than one person is so authorised, the authorisation shall specify the number and class of shares in respect of which each such person is so authorised. A person authorised pursuant to this provision shall be deemed to have been duly authorised without further evidence of the facts and be entitled to exercise the same powers on behalf of the recognised clearing house (or its nominee(s)) as if such person was the registered holder of the shares of the Company held by that clearing house (or its nominee(s)) including, where a show of hands is allowed, the right to vote individually on a show of hands.

Where the Company has any knowledge that any shareholder is, under the rules of the Stock Exchange, required to abstain from voting on any particular resolution of the Company or restricted to voting only for or only against any particular resolution of the Company, any votes cast by or on behalf of such shareholder in contravention of such requirement or restriction shall not be counted.

### (iii) Annual general meetings and extraordinary general meetings

The Company must hold an annual general meeting of the Company every year within a period of not more than fifteen (15) months after the holding of the last preceding annual general meeting or a period of not more than eighteen (18) months from the date of adoption of the Articles, unless a longer period would not infringe the rules of the Stock Exchange.

Extraordinary general meetings may be convened on the requisition of one or more shareholders holding, at the date of deposit of the requisition, not less than one-tenth of the paid up capital of the Company having the right of voting at general meetings. Such requisition shall be made in writing to the board or the secretary for the purpose of requiring an extraordinary general meeting to be called by the board for the transaction of any business specified in such requisition. Such meeting shall be held within 2 months after the deposit of such requisition. If within 21 days of such deposit, the board fails to proceed to convene such meeting, the requisitionist(s) himself/herself (themselves) may do so in the same manner, and all reasonable expenses incurred by the requisitionist(s) by the Company.

#### (iv) Notices of meetings and business to be conducted

An annual general meeting must be called by notice of not less than twenty-one (21) clear days and not less than twenty (20) clear business days. All other general meetings must be called by notice of at least fourteen (14) clear days and not less than ten (10) clear business days. The notice is exclusive of the day on which it is served or deemed to be served and of the day for which it is given, and must specify the time and place of the meeting and particulars of resolutions to be considered at the meeting and, in the case of special business, the general nature of that business.

In addition, notice of every general meeting must be given to all members of the Company other than to such members as, under the provisions of the Articles or the terms of issue of the shares they hold, are not entitled to receive such notices from the Company, and also to, among others, the auditors for the time being of the Company.

Any notice to be given to or by any person pursuant to the Articles may be served on or delivered to any member of the Company personally, by post to such member's registered address or by advertisement in newspapers in accordance with the requirements of the Stock Exchange. Subject to compliance with Cayman Islands law and the rules of the Stock Exchange, notice may also be served or delivered by the Company to any member by electronic means.

All business that is transacted at an extraordinary general meeting and at an annual general meeting is deemed special, save that in the case of an annual general meeting, each of the following business is deemed an ordinary business:

- (aa) the declaration and sanctioning of dividends;
- (bb) the consideration and adoption of the accounts and balance sheet and the reports of the directors and the auditors;
- (cc) the election of directors in place of those retiring;
- (dd) the appointment of auditors and other officers; and
- (ee) the fixing of the remuneration of the directors and of the auditors.

#### (v) Quorum for meetings and separate class meetings

No business shall be transacted at any general meeting unless a quorum is present when the meeting proceeds to business, but the absence of a quorum shall not preclude the appointment of a chairman.

The quorum for a general meeting shall be two members present in person (or, in the case of a member being a corporation, by its duly authorised representative) or by proxy and entitled to vote. In respect of a separate class meeting (other than an adjourned meeting) convened to sanction the modification of class rights the necessary quorum shall be two persons holding or representing by proxy not less than one third in nominal value of the issued shares of that class.

### (vi) Proxies

Any member of the Company entitled to attend and vote at a meeting of the Company is entitled to appoint another person as his proxy to attend and vote instead of him. A member who is the holder of two or more shares may appoint more than one proxy to represent him and vote on his behalf at a general meeting of the Company or at a class meeting. A proxy need not be a member of the Company and is entitled to exercise the same powers on behalf of a member who is an individual and for whom he acts as proxy as such member could exercise. In addition, a proxy is entitled to exercise the same powers on behalf of a member which is a corporation and for which he acts as proxy as such member could exercise as if it were an individual member. Votes may be given either personally (or, in the case of a member being a corporation, by its duly authorised representative) or by proxy.

### (f) Accounts and audit

The board shall cause true accounts to be kept of the sums of money received and expended by the Company, and the matters in respect of which such receipt and expenditure take place, and of the property, assets, credits and liabilities of the Company and of all other matters required by the Cayman Companies Law or necessary to give a true and fair view of the Company's affairs and to explain its transactions.

The accounting records must be kept at the registered office or at such other place or places as the board decides and shall always be open to inspection by any Director. No member (other than a Director) shall have any right to inspect any accounting record or book or document of the Company except as conferred by law or authorised by the board or the Company in general meeting. However, an exempted company must make available at its registered office in electronic form or any other medium, copies of its books of account or parts thereof as may be required of it upon service of an order or notice by the Tax Information Authority pursuant to the Tax Information Authority Law of the Cayman Islands.

A copy of every balance sheet and profit and loss account (including every document required by law to be annexed thereto) which is to be laid before the Company at its general meeting, together with a printed copy of the Directors' report and a copy of the auditors' report, shall not less than twenty-one (21) days before the date of the meeting and at the same time as the notice of annual general meeting be sent to every person entitled to receive notices of general meetings of the Company under the provisions of the Articles; however, subject to compliance with all applicable laws, including the rules of the Stock Exchange, the Company may send to such persons summarised financial statements derived from the Company's annual accounts and the directors' report instead provided that any such person may by notice in writing served on the Company, demand that the Company sends to him, in addition to summarised financial statements, a complete printed copy of the Company's annual financial statement and the directors' report thereon.

At the annual general meeting or at a subsequent extraordinary general meeting in each year, the members shall appoint an auditor to audit the accounts of the Company and such auditor shall hold office until the next annual general meeting. Moreover, the members may, at any general meeting, by special resolution remove the auditors at any time before the expiration of his terms of office and shall by ordinary resolution at that meeting appoint another auditor for the remainder of his term. The remuneration of the auditors shall be fixed by the Company in general meeting or in such manner as the members may determine.

The financial statements of the Company shall be audited by the auditor in accordance with generally accepted auditing standards which may be those of a country or jurisdiction other than the Cayman Islands. The auditor shall make a written report thereon in accordance with generally accepted auditing standards and the report of the auditor must be submitted to the members in general meeting.

### (g) Dividends and other methods of distribution

The Company in general meeting may declare dividends in any currency to be paid to the members but no dividend shall be declared in excess of the amount recommended by the board.

The Articles provide dividends may be declared and paid out of the profits of the Company, realised or unrealised, or from any reserve set aside from profits which the directors determine is no longer needed. With the sanction of an ordinary resolution dividends may also be declared and paid out of share premium account or any other fund or account which can be authorised for this purpose in accordance with the Cayman Companies Law.

Except in so far as the rights attaching to, or the terms of issue of, any share may otherwise provide, (i) all dividends shall be declared and paid according to the amounts paid up on the shares in respect whereof the dividend is paid but no amount paid up on a share in advance of calls shall for this purpose be treated as paid up on the share and (ii) all dividends shall be apportioned and paid pro rata according to the amount paid up on the shares during any portion or portions of the period in respect of which the dividend is paid. The Directors may deduct from any dividend or other monies payable to any member or in respect of any shares all sums of money (if any) presently payable by him to the Company on account of calls or otherwise.

Whenever the board or the Company in general meeting has resolved that a dividend be paid or declared on the share capital of the Company, the board may further resolve either (a) that such dividend be satisfied wholly or in part in the form of an allotment of shares credited as fully paid up, provided that the shareholders entitled thereto will be entitled to elect to receive such dividend (or part thereof) in cash in lieu of such allotment, or (b) that shareholders entitled to such dividend will be entitled to elect to receive an allotment of shares credited as fully paid up in lieu of the whole or such part of the dividend as the board may think fit.

The Company may also upon the recommendation of the board by an ordinary resolution resolve in respect of any one particular dividend of the Company that it may be satisfied wholly in the form of an allotment of shares credited as fully paid up without offering any right to shareholders to elect to receive such dividend in cash in lieu of such allotment.

Any dividend, interest or other sum payable in cash to the holder of shares may be paid by cheque or warrant sent through the post addressed to the holder at his registered address, or in the case of joint holders, addressed to the holder whose name stands first in the register of the Company in respect of the shares at his address as appearing in the register or addressed to such person and at such addresses as the holder or joint holders may in writing direct. Every such cheque or warrant shall, unless the holder or joint holders otherwise direct, be made payable to the order of the holder or, in the case of joint holders, to the order of the holder whose name stands first on the register in respect of such shares, and shall be sent at his or their risk and payment of the cheque or warrant by the bank on which it is drawn shall constitute a good discharge to the Company. Any one of two or more joint holders may give effectual receipts for any dividends or other moneys payable or property distributable in respect of the shares held by such joint holders.

Whenever the board or the Company in general meeting has resolved that a dividend be paid or declared the board may further resolve that such dividend be satisfied wholly or in part by the distribution of specific assets of any kind.

All dividends or bonuses unclaimed for one year after having been declared may be invested or otherwise made use of by the board for the benefit of the Company until claimed and the Company shall not be constituted a trustee in respect thereof. All dividends or bonuses unclaimed for six years after having been declared may be forfeited by the board and shall revert to the Company.

No dividend or other monies payable by the Company on or in respect of any share shall bear interest against the Company.

### (h) Inspection of corporate records

Pursuant to the Articles, the register and branch register of members shall be open to inspection for at least two (2) hours during business hours by members without charge, or by any other person upon a maximum payment of HK\$2.50 or such lesser sum specified by the board, at the registered office or such other place at which the register is kept in accordance with the Cayman Companies Law or, upon a maximum payment of HK\$1.00 or such lesser sum specified by the board, at the office where the branch register of members is kept, unless the register is closed in accordance with the Articles.

# (i) Rights of minorities in relation to fraud or oppression

There are no provisions in the Articles relating to rights of minority shareholders in relation to fraud or oppression. However, certain remedies are available to shareholders of the Company under Cayman Islands law, as summarised in paragraph 3(f) of this Appendix.

# (j) **Procedures on liquidation**

A resolution that the Company be wound up by the court or be wound up voluntarily shall be a special resolution.

Subject to any special rights, privileges or restrictions as to the distribution of available surplus assets on liquidation for the time being attached to any class or classes of shares:

- (i) if the Company is wound up and the assets available for distribution amongst the members of the Company shall be more than sufficient to repay the whole of the capital paid up at the commencement of the winding up, the excess shall be distributed pari passu amongst such members in proportion to the amount paid up on the shares held by them respectively; and
- (ii) if the Company is wound up and the assets available for distribution amongst the members as such shall be insufficient to repay the whole of the paid-up capital, such assets shall be distributed so that, as nearly as may be, the losses shall be borne by the members in proportion to the capital paid up, or which ought to have been paid up, at the commencement of the winding up on the shares held by them respectively.

If the Company is wound up (whether the liquidation is voluntary or by the court) the liquidator may, with the authority of a special resolution and any other sanction required by the Cayman Companies Law divide among the members in specie or kind the whole or any part of the assets of the Company whether the assets shall consist of property of one kind or shall consist of properties of different kinds and the liquidator may, for such purpose, set such value as he deems fair upon any one or more class or classes of property to be divided as aforesaid and may determine how such division shall be carried out as between the members or different classes of members. The liquidator may, with the like authority, vest any part of the assets in trustees upon such trusts for the benefit of members as the liquidator, with the like authority, shall think fit, but so that no contributory shall be compelled to accept any shares or other property in respect of which there is a liability.

### (k) Subscription rights reserve

The Articles provide that to the extent that it is not prohibited by and is in compliance with the Cayman Companies Law, if warrants to subscribe for shares have been issued by the Company and the Company does any act or engages in any transaction which would result in the subscription price of such warrants being reduced below the par value of a share, a subscription rights reserve shall be established and applied in paying up the difference between the subscription price and the par value of a share on any exercise of the warrants.

# (1) **Officers**

The officers of the Company shall consist of at least one chairman, the Directors and the secretary of the Company (the "Secretary"), the Chief Executive Officer, the Chief Financial Officer and such additional officers (who may or may not be Directors) as the board may from time to time determine, all of whom shall be deemed to be officers for the purposes of the Cayman Companies Law and the Articles.

Any member holding thirty per cent. (30%) or more of the issued shares of the Company shall be entitled, by notice in writing to the board, to nominate the chairman and Chief Executive Officer of the Company and may in like manner (i) remove, with or without cause, any person so nominated, and (ii) nominate any other person in their place.

The chairman shall be entitled, by notice in writing to the board, to nominate the Chief Financial Officer of the Company and may in like manner (i) remove, with or without cause, any person so nominated, and (ii) nominate any other person in their place.

The Directors shall, as soon as may be after each appointment or election of Directors, or receipt of any written nomination in accordance with the Articles, elect the chairman and/or Chief Executive Officer and/or Chief Financial Officer of the Company and if more than one (1) person is proposed and/or nominated for any such office, the Directors may elect more than one chairman or Chief Executive Officer or Chief Financial Officer in such manner as the Directors may determine.

The officers shall receive such remuneration as the Directors may from time to time determine.

The Secretary and additional officers, if any, shall be appointed by the board and shall hold office on such terms and for such period as the board may determine. If thought fit, two (2) or more persons may be appointed as joint Secretaries. The board may also appoint from time to time on such terms as it thinks fit one or more assistant or deputy Secretaries.

The Secretary shall attend all meetings of the members and shall keep correct minutes of such meetings and enter the same in the proper books provided for the purpose. He shall perform such other duties as are prescribed by the Cayman Companies Law or the Articles or as may be prescribed by the board.

The officers of the Company shall have such powers and perform such duties in the management, business and affairs of the Company as may be delegated to them by the Directors from time to time.

A provision of the Cayman Companies Law or of the Articles requiring or authorising a thing to be done by or to a Director and the Secretary shall not be satisfied by its being done by or to the same person acting both as Director and as or in place of the Secretary.

### 3. CAYMAN ISLANDS COMPANY LAW

The Company is incorporated in the Cayman Islands subject to the Cayman Companies Law and, therefore, operates subject to Cayman Islands law. Set out below is a summary of certain provisions of Cayman company law, although this does not purport to contain all applicable qualifications and exceptions or to be a complete review of all matters of Cayman company law and taxation, which may differ from equivalent provisions in jurisdictions with which interested parties may be more familiar:

#### (a) Company operations

As an exempted company, the Company's operations must be conducted mainly outside the Cayman Islands. The Company is required to file an annual return each year with the Registrar of Companies of the Cayman Islands and pay a fee which is based on the amount of its authorised share capital.

### (b) Share capital

The Cayman Companies Law provides that where a company issues shares at a premium, whether for cash or otherwise, a sum equal to the aggregate amount of the value of the premiums on those shares shall be transferred to an account, to be called the "share premium account". At the option of a company, these provisions may not apply to premiums on shares of that company allotted pursuant to any arrangement in consideration of the acquisition or cancellation of shares in any other company and issued at a premium.

The Cayman Companies Law provides that the share premium account may be applied by the company subject to the provisions, if any, of its memorandum and articles of association in (a) paying distributions or dividends to members; (b) paying up unissued shares of the company to be issued to members as fully paid bonus shares; (c) the redemption and repurchase of shares (subject to the provisions of section 37 of the Cayman Companies Law); (d) writing-off the preliminary expenses of the company; and (e) writing-off the expenses of, or the commission paid or discount allowed on, any issue of shares or debentures of the company.

No distribution or dividend may be paid to members out of the share premium account unless immediately following the date on which the distribution or dividend is proposed to be paid, the company will be able to pay its debts as they fall due in the ordinary course of business.

The Cayman Companies Law provides that, subject to confirmation by the Grand Court of the Cayman Islands (the "**Court**"), a company limited by shares or a company limited by guarantee and having a share capital may, if so authorised by its articles of association, by special resolution reduce its share capital in any way.

### (c) Financial assistance to purchase shares of a company or its holding company

There is no statutory restriction in the Cayman Islands on the provision of financial assistance by a company to another person for the purchase of, or subscription for, its own or its holding company's shares. Accordingly, a company may provide financial assistance if the directors of the company consider, in discharging their duties of care and acting in good faith, for a proper purpose and in the interests of the company, that such assistance can properly be given. Such assistance should be on an arm's-length basis.

# (d) Purchase of shares and warrants by a company and its subsidiaries

A company limited by shares or a company limited by guarantee and having a share capital may, if so authorised by its articles of association, issue shares which are to be redeemed or are liable to be redeemed at the option of the company or a shareholder and the Cayman Companies Law expressly provides that it shall be lawful for the rights attaching to any shares to be varied, subject to the provisions of the company's articles of association, so as to provide that such shares are to be or are liable to be so redeemed. In addition, such a company may, if authorised to do so by its articles of association do not authorise the manner and terms of purchase, a company cannot purchase any of its own shares unless the manner and terms of purchase have first been authorised by an ordinary resolution of the company may not redeem or purchase any of its shares if, as a result of the redemption or purchase, there would no longer be any issued shares of the company other than shares held as treasury shares. A payment out of capital by a company for the redemption or purchase of its own shares is not lawful unless immediately following the date on which the payment is proposed to be made, the company shall be able to pay its debts as they fall due in the ordinary course of business.

Shares purchased by a company is to be treated as cancelled unless, subject to the memorandum and articles of association of the company, the directors of the company resolve to hold such shares in the name of the company as treasury shares prior to the purchase. Where shares of a company are held as treasury shares, the company shall be entered in the register of members as holding those shares, however, notwithstanding the foregoing, the company is not be treated as a member for any purpose and must not exercise any right in respect of the treasury shares, and any purported exercise of such a right shall be void, and a treasury share must not be voted, directly or indirectly, at any meeting of the company and must not be counted in determining the total number of issued shares at any given time, whether for the purposes of the company's articles of association or the Cayman Companies Law.

A company is not prohibited from purchasing and may purchase its own warrants subject to and in accordance with the terms and conditions of the relevant warrant instrument or certificate. There is no requirement under Cayman Islands law that a company's memorandum or articles of association contain a specific provision enabling such purchases and the directors of a company may rely upon the general power contained in its memorandum of association to buy and sell and deal in personal property of all kinds.

Under Cayman Islands law, a subsidiary may hold shares in its holding company and, in certain circumstances, may acquire such shares.

#### (e) Dividends and distributions

The Cayman Companies Law permits, subject to a solvency test and the provisions, if any, of the company's memorandum and articles of association, the payment of dividends and distributions out of the share premium account. With the exception of the foregoing, there are no statutory provisions relating to the payment of dividends. Based upon English case law, which is regarded as persuasive in the Cayman Islands, dividends may be paid only out of profits.

No dividend may be declared or paid, and no other distribution (whether in cash or otherwise) of the company's assets (including any distribution of assets to members on a winding up) may be made to the company, in respect of a treasury share.

#### (f) Protection of minorities and shareholders' suits

The Courts ordinarily would be expected to follow English case law precedents which permit a minority shareholder to commence a representative action against or derivative actions in the name of the company to challenge (a) an act which is ultra vires the company or illegal, (b) an act which constitutes a fraud against the minority and the wrongdoers are themselves in control of the company, and (c) an irregularity in the passing of a resolution which requires a qualified (or special) majority.

In the case of a company (not being a bank) having a share capital divided into shares, the Court may, on the application of members holding not less than one fifth of the shares of the company in issue, appoint an inspector to examine into the affairs of the company and to report thereon in such manner as the Court shall direct.

Any shareholder of a company may petition the Court which may make a winding up order if the Court is of the opinion that it is just and equitable that the company should be wound up or, as an alternative to a winding up order, (a) an order regulating the conduct of the company's affairs in the future, (b) an order requiring the company to refrain from doing or continuing an act complained of by the shareholder petitioner or to do an act which the shareholder petitioner has complained it has omitted to do, (c) an order authorising civil proceedings to be brought in the name and on behalf of the company by the shareholder petitioner on such terms as the Court may direct, or (d) an order providing for the purchase of the shares of any shareholders of the company by other shareholders or by the company itself and, in the case of a purchase by the company itself, a reduction of the company's capital accordingly.

Generally claims against a company by its shareholders must be based on the general laws of contract or tort applicable in the Cayman Islands or their individual rights as shareholders as established by the company's memorandum and articles of association.

### (g) Disposal of assets

The Cayman Companies Law contains no specific restrictions on the power of directors to dispose of assets of a company. However, as a matter of general law, every officer of a company, which includes a director, managing director and secretary, in exercising his powers and discharging his duties must do so honestly and in good faith with a view to the best interests of the company and exercise the care, diligence and skill that a reasonably prudent person would exercise in comparable circumstances.

### (h) Accounting and auditing requirements

A company must cause proper books of account to be kept with respect to (i) all sums of money received and expended by the company and the matters in respect of which the receipt and expenditure takes place; (ii) all sales and purchases of goods by the company; and (iii) the assets and liabilities of the company.

Proper books of account shall not be deemed to be kept if there are not kept such books as are necessary to give a true and fair view of the state of the company's affairs and to explain its transactions.

An exempted company must make available at its registered office in electronic form or any other medium, copies of its books of account or parts thereof as may be required of it upon service of an order or notice by the Tax Information Authority pursuant to the Tax Information Authority Law of the Cayman Islands.

### (i) Exchange control

There are no exchange control regulations or currency restrictions in the Cayman Islands.

### (j) Taxation

Pursuant to the Tax Concessions Law of the Cayman Islands, the Company has obtained an undertaking:

- (1) that no law which is enacted in the Cayman Islands imposing any tax to be levied on profits, income, gains or appreciation shall apply to the Company or its operations; and
- (2) that the aforesaid tax or any tax in the nature of estate duty or inheritance tax shall not be payable on or in respect of the shares, debentures or other obligations of the Company.

The undertaking for the Company is for a period of twenty years from 25 April 2018.

The Cayman Islands currently levy no taxes on individuals or corporations based upon profits, income, gains or appreciations and there is no taxation in the nature of inheritance tax or estate duty. There are no other taxes likely to be material to the Company levied by the Government of the Cayman Islands save for certain stamp duties which may be applicable, from time to time, on certain instruments executed in or brought within the jurisdiction of the Cayman Islands. The Cayman Islands are a party to a double tax treaty entered into with the United Kingdom in 2010 but otherwise is not party to any double tax treaties.

### (k) Stamp duty on transfers

No stamp duty is payable in the Cayman Islands on transfers of shares of Cayman Islands companies except those which hold interests in land in the Cayman Islands.

### (l) Loans to directors

There is no express provision in the Cayman Companies Law prohibiting the making of loans by a company to any of its directors.

#### (m) Inspection of corporate records

Members of the Company have no general right under the Cayman Companies Law to inspect or obtain copies of the register of members or corporate records of the Company. They will, however, have such rights as may be set out in the Company's Articles.

### (n) Register of members

An exempted company may maintain its principal register of members and any branch registers at such locations, whether within or without the Cayman Islands, as the directors may, from time to time, think fit. A branch register must be kept in the same manner in which a principal register is by the Cayman Companies Law required or permitted to be kept. The company shall cause to be kept at the place where the company's principal register is kept a duplicate of any branch register duly entered up from time to time.

There is no requirement under the Cayman Companies Law for an exempted company to make any returns of members to the Registrar of Companies of the Cayman Islands. The names and addresses of the members are, accordingly, not a matter of public record and are not available for public inspection. However, an exempted company shall make available at its registered office, in electronic form or any other medium, such register of members, including any branch register of members, as may be required of it upon service of an order or notice by the Tax Information Authority pursuant to the Tax Information Authority Law of the Cayman Islands.

### (o) Register of Directors and Officers

The Company is required to maintain at its registered office a register of directors and officers which is not available for inspection by the public. A copy of such register must be filed with the Registrar of Companies in the Cayman Islands and any change must be notified to the Registrar within sixty (60) days of any change in such directors or officers.

# (p) Beneficial Ownership Register

An exempted company is required to maintain a beneficial ownership register at its registered office that records details of the persons who ultimately own or control, directly or indirectly, more than 25.00% of the equity interests or voting rights of the company or have rights to appoint or remove a majority of the directors of the company. The beneficial ownership register is not a public document and is only accessible by a designated competent authority of the Cayman Islands. Such requirement does not, however, apply to an exempted company with its shares listed on an approved stock exchange, which includes the Stock Exchange. Accordingly, for so long as the shares of the Company are listed on the Stock Exchange, the Company is not required to maintain a beneficial ownership register.

### (q) Winding up

A company may be wound up (a) compulsorily by order of the Court, (b) voluntarily, or (c) under the supervision of the Court.

The Court has authority to order winding up in a number of specified circumstances including where the members of the company have passed a special resolution requiring the company to be wound up by the Court, or where the company is unable to pay its debts, or where it is, in the opinion of the Court, just and equitable to do so. Where a petition is presented by members of the company as contributories on the ground that it is just and equitable that the company should be wound up, the Court has the jurisdiction to make certain other orders as an alternative to a winding-up order, such as making an order regulating the conduct of the company's affairs in the future, making an order authorising civil proceedings to be brought in the name and on behalf of the company by the petitioner on such terms as the Court may direct, or making an order providing for the purchase of the shares of any of the members of the company by other members or by the company itself.

A company (save with respect to a limited duration company) may be wound up voluntarily when the company so resolves by special resolution or when the company in general meeting resolves by ordinary resolution that it be wound up voluntarily because it is unable to pay its debts as they fall due. In the case of a voluntary winding up, such company is obliged to cease to carry on its business (except so far as it may be beneficial for its winding up) from the time of passing the resolution for voluntary winding up or upon the expiry of the period or the occurrence of the event referred to above.

For the purpose of conducting the proceedings in winding up a company and assisting the Court therein, there may be appointed an official liquidator or official liquidators; and the court may appoint to such office such person, either provisionally or otherwise, as it thinks fit, and if more persons than one are appointed to such office, the Court must declare whether any act required or authorised to be done by the official liquidator is to be done by all or any one or more of such persons. The Court may also determine whether any and what security is to be given by an official liquidator on his appointment; if no official liquidator is appointed, or during any vacancy in such office, all the property of the company shall be in the custody of the Court.

As soon as the affairs of the company are fully wound up, the liquidator must make a report and an account of the winding up, showing how the winding up has been conducted and how the property of the company has been disposed of, and thereupon call a general meeting of the company for the purposes of laying before it the account and giving an explanation thereof. This final general meeting must be called by at least 21 days' notice to each contributory in any manner authorised by the company's articles of association and published in the Gazette.

### (r) Reconstructions

There are statutory provisions which facilitate reconstructions and amalgamations approved by a majority in number representing seventy-five per cent. (75%) in value of shareholders or class of shareholders or creditors, as the case may be, as are present at a meeting called for such purpose and thereafter sanctioned by the Court. While a dissenting shareholder would have the right to express to the Court his view that the transaction for which approval is sought would not provide the shareholders with a fair value for their shares, the Court is unlikely to disapprove the transaction on that ground alone in the absence of evidence of fraud or bad faith on behalf of management.

# (s) Take-overs

Where an offer is made by a company for the shares of another company and, within four (4) months of the offer, the holders of not less than ninety per cent. (90.00%) of the shares which are the subject of the offer accept, the offeror may at any time within two (2) months after the expiration of the said four (4) months, by notice in the prescribed manner require the dissenting shareholders to transfer their shares on the terms of the offer. A dissenting shareholder may apply to the Court within one (1) month of the notice objecting to the transfer. The burden is on the dissenting shareholder to show that the Court should exercise its discretion, which it will be unlikely to do unless there is evidence of fraud or bad faith or collusion as between the offeror and the holders of the shares who have accepted the offer as a means of unfairly forcing out minority shareholders.

## (t) Indemnification

Cayman Islands law does not limit the extent to which a company's articles of association may provide for indemnification of officers and directors, except to the extent any such provision may be held by the Court to be contrary to public policy (e.g. for purporting to provide indemnification against the consequences of committing a crime).

## (u) Economic Substance Requirements

Pursuant to the International Tax Cooperation (Economic Substance) Law, 2018 of the Cayman Islands ("ES Law") that came into force on 1 January 2019, a "relevant entity" is required to satisfy the economic substance test set out in the ES Law. A "relevant entity" includes an exempted company incorporated in the Cayman Islands as is the Company; however, it does not include an entity that is tax resident outside the Cayman Islands. Accordingly, for so long as the Company is a tax resident outside the Cayman Islands, including in Hong Kong, it is not required to satisfy the economic substance test set out in the ES Law.

# 4. GENERAL

Conyers Dill & Pearman, the Company's special legal counsel on Cayman Islands law, have sent to the Company a letter of advice summarising certain aspects of Cayman Islands company law. This letter, together with a copy of the Cayman Companies Law, is available for inspection as referred to in "Appendix VI — Documents Delivered to the Registrar of Companies and Available for Inspection". Any person wishing to have a detailed summary of Cayman Islands company law or advice on the differences between it and the laws of any jurisdiction with which he is more familiar is recommended to seek independent legal advice.

## A. FURTHER INFORMATION ABOUT THE COMPANY

## 1. Incorporation

The Company was incorporated in the Cayman Islands under the Cayman Companies Law as an exempted company with limited liability on April 16, 2018 under the name "Frontage Holdings Corporation".

The Company has established a place of business in Hong Kong at Level 54, Hopewell Centre, 183 Queen's Road East, Hong Kong. As at the date of this prospectus, the Company has been registered as a non-Hong Kong company in Hong Kong under Part 16 of the Companies Ordinance (Chapter 622 of the Laws of Hong Kong) and the Companies (Non-Hong Kong Companies) Regulation (Chapter 622J of the Laws of Hong Kong) on July 11, 2018, with Lo Yee Har Susan of Level 54, Hopewell Centre, 183 Queen's Road East, Hong Kong and Ho Wing Tsz Wendy of Level 54, Hopewell Centre, 183 Queen's Road East, Hong Kong appointed as the Hong Kong authorised representatives of the Company on June 19, 2018 for acceptance of the service of process and any notices required to be served on the Company in Hong Kong.

As the Company was incorporated in the Cayman Islands, its operations are subject to Cayman Islands law and to its constitution which comprises the Memorandum and Articles of Association. A summary of the Memorandum and Articles of Association of the Company and the Cayman Companies Law is set out in "Appendix IV — Summary of the Constitution of the Company and Cayman Islands Company Law".

## 2. Changes in the Share Capital of the Company

The following changes in the issued and paid-up share capital of the Company have taken place during the two years immediately preceding the date of this prospectus:

- (a) On April 16, 2018, one share in the Company and after certain sub-division of Shares was allotted and issued to Sharon Pierson which was transferred to Dr Zhihe Li on the same date. On the same date, the authorised share capital of the Company was subdivided into 5,000,000,000 Shares with a nominal value of US\$0.00001 each, and the issued share capital of the Company was US\$0.01, comprising 1,000 Shares with a nominal value of US\$0.00001 each. On April 17, 2018, the 1,000 Shares held by Dr Zhihe Li were repurchased by the Company.
- (b) On April 17, 2018, 3,009,462 Shares in the Company were allotted and issued to Southern Creation Limited.
- (c) On April 17, 2018, 50,000 Shares in the Company were allotted and issued to Amit Shah.

- (d) On April 17, 2018, 41,765 Shares in the Company were allotted and issued to Daniel Xiaodong Tang.
- (e) On April 17, 2018, 134,000 Shares in the Company were allotted and issued to Dr Dongmei Wang.
- (f) On April 17, 2018, 104,413 Shares in the Company were allotted and issued to Dr Dalin Zhang.
- (g) On April 17, 2018, 958,515 Shares in the Company were allotted and issued to Dr Guanjuan Liao.
- (h) On April 17, 2018, 417,654 Shares in the Company were allotted and issued to Dr Jianyao Wang.
- On April 17, 2018, 3,814,865 Shares in the Company were allotted and issued to Dr Zhanqing Li.
- (j) On April 17, 2018, 5,990,156 Shares in the Company were allotted and issued to Dr Zhihe Li.
- (k) On April 17, 2018, 104,413 Shares in the Company were allotted and issued to Dr Zhongping Lin.
- On April 17, 2018, 1,093,167 Shares in the Company were allotted and issued to Dr Zhongping Sun.
- (m) On April 17, 2018, 668,246 Shares in the Company were allotted and issued to Dr Harry Zhao.
- (n) On April 17, 2018, 100,237 Shares in the Company were allotted and issued to Feng Li.
- (o) On April 17, 2018, 2,006,308 Shares in the Company were allotted and issued to HH RSV FTL Holdings Limited.
- (p) On April 17, 2018, 103,296,409 Shares in the Company were allotted and issued to Hong Kong Tigermed.
- (q) On April 17, 2018, 50,000 Shares in the Company were allotted and issued to Kang Wang.
- (r) On April 17, 2018, 104,314 Shares in the Company were allotted and issued to Len Stigliano.
- (s) On April 17, 2018, 250,592 Shares in the Company were allotted and issued to Michael Willett.

- (t) On April 17, 2018, 52,207 Shares in the Company were allotted and issued to David Zhang.
- (u) On April 17, 2018, 261,034 Shares in the Company were allotted and issued to Jun Du.
- (v) On April 17, 2018, 42,183 Shares in the Company were allotted and issued to Naidong Weng.
- (w) On April 17, 2018, 208,827 Shares in the Company were allotted and issued to Yujing Li.
- (x) On April 17, 2018, 1,963,308 Shares in the Company were allotted and issued to Oriental Springs Holdings Limited.
- (y) On April 17, 2018, 2,006,308 Shares in the Company were allotted and issued to QM98 Limited.
- (z) On April 17, 2018, 653,553 Shares in the Company were allotted and issued to Ronald and Irene Connolly Joint Revocable Living Trust.
- (aa) On April 17, 2018, 4,988,305 Shares in the Company were allotted and issued to Dr Song Li.
- (bb) On April 17, 2018, 5,258,809 Shares in the Company were allotted and issued to The Linna Li GST Exempt Trust.
- (cc) On April 17, 2018, 5,258,809 Shares in the Company were allotted and issued to The Wendy Li GST Exempt Trust.
- (dd) On April 17, 2018, 5,258,809 Shares in the Company were allotted and issued to The Yue Monica Li GST Exempt Trust.
- (ee) On April 17, 2018, 41,765 Shares in the Company were allotted and issued to Venkata Kota.
- (ff) On April 17, 2018, 10,000 Shares in the Company were allotted and issued to Venkata Vadlapatla.
- (gg) On Apil 17, 2018, 2,253,775 Shares in the Company were allotted and issued to National Philanthropic Trust.
- (hh) On April 17, 2018, 100,000 Shares in the Company were allotted and issued to Yangdong Sang.
- (ii) On April 17, 2018, 20,883 Shares in the Company were allotted and issued to Yi Yang.
- (jj) On April 26, 2018, 750,000 Shares in the Company were tranferred from the National Philanthropic Trust to Teng Yue Partners RDLT, L.P.

- (kk) On April 30, 2018, 1,500,000 Shares in the Company were transferred from Dr Song Li to Harmony Sky Capital Limited.
- (11) On May 1, 2018, 750,000 Shares in the Company were transferred from Dr Zhihe Li to Harmony Sky Capital Limited.
- (mm) On May 3, 2018, 1,503,775 Shares in the Company were transferred from National Philanthropic Trust to OrbiMed Global Healthcare Master Fund, L.P.

Save as disclosed above, there was no change in the issued and paid-up share capital of the Company during the two years immediately preceding the date of this prospectus.

#### 3. Resolutions of the Shareholders Passed on May 11, 2019

On May 11, 2019, the then Shareholders passed resolutions pursuant to which, among other things:

- (a) the Company approved and adopted the amended and restated Memorandum of Association with immediate effect and approved and adopted the amended and restated Articles of Association in substitution for and to the exclusion of the existing articles of association of the Company conditional upon and with effect from the Listing;
- (b) conditional upon the satisfaction (or, if applicable, waiver) of the conditions set out in "Structure of the Global Offering Conditions of the Global Offering" and pursuant to the terms set out therein:
  - the Global Offering was approved and the Directors, or a committee of Directors duly authorised by the Directors, were authorised to allot and issue the Offer Shares pursuant to the Global Offering;
  - (ii) the Listing was approved and the Directors, or a committee of Directors duly authorised by the Directors, were authorised to implement the Listing;
  - (iii) subject to the "lock-up" provisions under Rule 10.08 of the Listing Rules, a general unconditional mandate was granted to the Directors to allot, issue and deal with the Shares or securities convertible into Shares or options, or similar rights to subscribe for the Shares or such convertible securities and to make or grant offers, agreements or options which would or might require the exercise of such powers whether during or after the end of the Applicable Period (as defined below), provided that the aggregate number of Shares allotted or agreed to be allotted by the Directors other than pursuant to a (i) rights issue, (ii) any scrip dividend scheme or similar arrangement providing for the allotment of the Shares in lieu of the whole or part of a dividend on the Shares, (iii) the exercise or vesting of awards granted under the 2008

Share Incentive Plan and the 2015 Share Incentive Plan, (iv) the exercise or vesting of awards granted under the 2018 Share Incentive Plan, or (v) a specific authority granted by the Shareholders in general meeting, shall not exceed the aggregate of:

- (A) 20% of the total number Shares in issue immediately following the completion of the Global Offering and the Capitalisation Issue (excluding any Shares which may be issued pursuant to the exercise of the Over-allotment Option); and
- (B) the aggregate number of Shares repurchased by the Company (if any) under the general mandate to repurchase Shares referred to in paragraph (iv) below,

such mandate to remain in effect during the period from the passing of the resolution until the earliest of (I) the conclusion of the next annual general meeting of the Company, (II) the end of the period within which the Company is required by the Articles of Association or any applicable laws to hold its next annual general meeting and (III) the date on which the mandate is varied or revoked by an ordinary resolution of the shareholders of the Company in general meeting (the "**Applicable Period**");

- (iv) a general unconditional mandate was granted to the Directors to exercise all the powers of the Company to repurchase the Shares on the Stock Exchange, or on any other stock exchange on which the Shares may be listed (and which is recognised by the SFC and the Stock Exchange for this purpose) not exceeding in aggregate 10% of the total number of Shares in issue immediately following the completion of the Global Offering and the Capitalisation Issue (excluding any Shares which may be issued pursuant to the exercise of the Over-allotment Option) and at such price or prices as may be determined by the Directors, provided the purchase price shall not be 5% or more than the average closing market price for the five preceding trading days on which the Shares were traded on the Stock Exchange, and otherwise in accordance with all applicable laws and the requirements of the Listing Rules, such mandate to remain in effect during the Applicable Period;
- (v) the adoption of the 2008 Share Incentive Plan and the 2015 Share Incentive Plan was approved, confirmed and ratified, and (ii) the Board of Directors was authorised to grant awards pursuant to the 2008 Share Incentive Plan and the 2015 Share Incentive Plan, and to allot, issue and deal with the Shares pursuant to the exercise of any options granted pursuant to the 2008 Share Incentive Plan and the 2015 Share Incentive Plan, direct and procure any professional trustee as may be appointed by the Company to assist with the administration, exercise of options and otherwise deal with Shares underlying the awards granted pursuant to the 2008 Share Incentive Plan and the 2015 Share Incentive Plan and the 2015 Share Incentive Plan and when they are exercised;
- (vi) conditional upon (i) the Listing Committee of the Stock Exchange granting the listing of, and permission to deal in, the new Shares that may be allotted and issued by the Company to satisfy the awards which may be granted pursuant to the 2018 Share Incentive Plan and (ii) the commencement of dealings in the Shares on the Main Board of the Stock Exchange, (1) the adoption of the 2018 Share Incentive Plan was

approved, (2) the Board was authorised to grant awards of options and/or RSUs pursuant to the 2018 Share Incentive Plan and to allot and issue Shares, direct and procure any professional trustee as may be appointed by the Company to assist with the administration, exercise and vesting of options and RSUs, transfer Shares and otherwise deal with Shares underlying the options and/or RSUs granted pursuant to the 2018 Share Incentive Plan as and when they vest or are exercised (as the case may be) and (3) the Board was authorised to grant awards of RSUs pursuant to the 2018 Share Incentive Plan in respect of a maximum number of new Shares equal to 3% of the Shares in issue on the Listing Date during the Applicable Period and to allot, issue and deal with Shares underlying the RSUs granted pursuant to the 2018 Share Incentive Plan during the Applicable Period as and when the RSUs vest; and

- (vii) conditional upon the share premium account of the Company having sufficient balance, or otherwise being credited as a result of the allotment and issue of Shares pursuant to the Global Offering, the Capitalisation Issue was approved, and the Directors were authorised to capitalise the amount of US\$13,551.57819 from the amount standing to the credit of the share premium account of the Company to pay up in full at par 1,355,157,819 Shares for allotment and issue to the persons whose names appear on the register of members or the principal share register of the Company at the close of business on May 30, 2019, pro-rata (as nearly as possible without involving fractions so that no fraction of a Share shall be allotted and issued) to such persons' then respective shareholdings in the Company, each ranking *pari passu* in all respects with the Shares then in issue, and the Directors were authorised to give effect to such capitalisation, allotment and issue; and
- (c) the Directors, or a committee of Directors duly authorised by the Directors, were authorised to do all such acts and things to give effect to the above resolutions.

#### 4. Subsidiaries

Details of the subsidiaries of the Company are set out in "Appendix I - Accountants' Report".

None of the subsidiaries of the Company were incorporated within two years immediately preceding the date of this prospectus.

Save as set out above and in "Appendix I - Accountants' Report", there has been no alteration in the share capital of the subsidiaries of the Company within two years immediately preceding the date of this prospectus.

So far as is known to any Director or chief executive of the Company, as at the Latest Practicable Date, no person except a member of the Group was directly or indirectly interested in 10% or more of the issued voting shares of any of the subsidiaries of the Company.

#### 5. Repurchases by the Company of its Own Securities

This section sets out information required by the Stock Exchange to be included in this prospectus concerning the repurchase by the Company of its own securities.

#### (a) **Provisions of the Listing Rules**

The Listing Rules permit companies with a primary listing on the Stock Exchange to repurchase their own securities on the Stock Exchange subject to certain restrictions, the more important of which are summarised below:

#### (i) Shareholders' Approval

All proposed repurchase of shares (which must be fully paid up) by a company with a primary listing on the Stock Exchange must be approved in advance by an ordinary resolution of the shareholders, either by way of general mandate or by specific approval of a particular transaction.

#### (ii) Source of Funds

Repurchases of shares by a listed company must be funded out of funds legally available for the purpose in accordance with the constitutive documents of the listed company, the Listing Rules and the applicable laws and regulations of the listed company's jurisdiction of incorporation. A listed company may not repurchase its own shares on the Stock Exchange for a consideration other than cash or for settlement otherwise than in accordance with the trading rules of the Stock Exchange.

#### (iii) Trading Restrictions

The total number of shares which a listed company may repurchase on the Stock Exchange is the number of shares representing up to a maximum of 10% of the aggregate number of shares in issue. A company may not issue or announce a proposed issue of new shares for a period of 30 days immediately following a repurchase (other than an issue of securities pursuant to an exercise of warrants, share options or similar instruments requiring the company to issue securities which were outstanding prior to such repurchase) without the prior approval of the Stock Exchange. In addition, a listed company is prohibited from repurchasing its shares on the Stock Exchange if the purchase price is 5.00% or more than the average closing market price for the five preceding trading days on which its shares were traded on the Stock Exchange. The Listing Rules also prohibit a listed company from repurchasing its shares if that repurchase would result in the number of listed shares which are in the hands of the public falling below the relevant prescribed minimum percentage as required by the Stock Exchange. A company is required to procure that the broker appointed by it to effect a repurchase of shares discloses to the Stock Exchange such information with respect to the repurchase as the Stock Exchange may require.

#### (iv) Status of Repurchased Shares

All repurchased shares (whether effected on the Stock Exchange or otherwise) will be automatically delisted and the certificates for those shares must be cancelled and destroyed.

#### (v) Suspension of Repurchase

A listed company may not make any repurchase of shares after inside information has come to its knowledge until the information has been made publicly available. In particular, during the period of one month immediately preceding the earlier of (1) the date of the board meeting (as such date is first notified to the Stock Exchange in accordance with the Listing Rules) for the approval of a listed company's results for any year, half-year, quarterly or any other interim period (whether or not required under the Listing Rules) and (2) the deadline for publication of an announcement of a listed company's results for any year or half-year under the Listing Rules, or quarterly or any other interim period (whether or not required under the Listing Rules), the listed company may not repurchase its shares on the Stock Exchange other than in exceptional circumstances. In addition, the Stock Exchange may prohibit a repurchase of shares on the Stock Exchange if a listed company has breached the Listing Rules.

## (vi) Reporting Requirements

Certain information relating to repurchase of shares on the Stock Exchange or otherwise must be reported to the Stock Exchange not later than 30 minutes before the earlier of the commencement of the morning trading session or any pre-opening session on the following business day. In addition, a listed company's annual report is required to disclose details regarding repurchases of shares made during the year, including a monthly analysis of the number of shares repurchased, the purchase price per share or the highest and lowest price paid for all such repurchases, where relevant, and the aggregate price paid for such repurchases.

#### (vii) Connected Persons

A listed company is prohibited from knowingly repurchasing securities on the Stock Exchange from a "core connected person", that is, a director, chief executive or substantial shareholder of the company or any of its subsidiaries or their close associates and a core connected person is prohibited from knowingly selling his securities to the company.

#### (b) Reasons for Repurchases

The Directors believe that the ability to repurchase Shares is in the interests of the Company and the Shareholders. Repurchases may, depending on the circumstances, result in an increase in the net assets and/or earnings per Share. The number of Shares to be repurchased on any occasion and the price and other terms upon which the same are repurchased will be decided by the Directors at the relevant time having regard to the circumstances then pertaining. Repurchases of the Shares will only be made when the Directors believe that such repurchases will benefit the Company and the Shareholders.

#### (c) Funding of Repurchases

In repurchasing Shares, the Company may only apply funds legally available for such purpose in accordance with the Memorandum and Articles of Association, the Listing Rules and the applicable laws and regulations of the Cayman Islands.

There could be a material adverse impact on the working capital or gearing position of the Company (as compared with the position disclosed in this prospectus) if the repurchase mandate were to be carried out in full at any time during the share repurchase period. However, the Directors do not propose to exercise the repurchase mandate to such extent as would, in the circumstances, have a material adverse effect on the working capital requirements of the Company or the gearing position of the Company which in the opinion of the Directors are from time to time appropriate for the Company.

#### (d) General

The exercise in full of the repurchase mandate, on the basis of 2,007,640,910 Shares in issue immediately following the completion of the Global Offering and the Capitalisation Issue (assuming the Over-allotment Option is not exercised, no outstanding awards granted under the Pre-IPO Share Incentive Plans are exercised and no awards are granted under the 2018 Share Incentive Plan), could accordingly result in up to approximately 200,764,091 Shares being repurchased by the Company during the period prior to:

- (i) the conclusion of the next annual general meeting of the Company; or
- (ii) the end of the period within which the Company is required by the Articles of Association or any applicable law to hold its next annual general meeting; or
- (iii) the date on which the repurchase mandate is varied or revoked by an ordinary resolution of the Shareholders in general meeting,

whichever is the earliest.

None of the Directors nor, to the best of their knowledge having made all reasonable enquiries, any of their close associates currently intends to sell any Shares to the Company.

The Directors have undertaken to the Stock Exchange that they will exercise the power of the Company to make any repurchases of Shares pursuant to the repurchase mandate in accordance with the Listing Rules and the applicable laws and regulations in the Cayman Islands.

If, as a result of any repurchase of Shares, a Shareholder's proportionate interest in the voting rights of the Company is increased, such increase will be treated as an acquisition for the purposes of the Takeovers Code. Accordingly, a Shareholder or a group of Shareholders acting in concert could obtain or consolidate control of the Company and become obliged to make a mandatory offer in accordance with Rule 26 of the Takeovers Code. Save for the foregoing, the Directors are not aware of any consequences which would arise under the Takeovers Code as a consequence of any repurchases of Shares pursuant to the repurchase mandate.

# STATUTORY AND GENERAL INFORMATION

Any repurchase of Shares that results in the number of Shares held by the public being reduced to less than 25.00% of the Shares then in issue could only be implemented if the Stock Exchange agreed to waive the Listing Rules requirements regarding the public shareholding referred to above. It is believed that a waiver of this provision would not normally be given other than in exceptional circumstances.

No core connected person of the Company has notified the Company that he or she has a present intention to sell Shares to the Company, or has undertaken not to do so, if the repurchase mandate is exercised.

## **B.** FURTHER INFORMATION ABOUT THE BUSINESS

## 1. Summary of Material Contracts

The Group has entered into the following contracts (not being contracts entered into in the ordinary course of business) within the two years immediately preceding the date of this prospectus that are or may be material:

- (a) the Hong Kong Underwriting Agreement dated May 16, 2019 and entered into by the Company, Hangzhou Tigermed Consulting Co., Ltd., Hongkong Tigermed Co., Limited, Merrill Lynch (Asia Pacific) Limited, Merrill Lynch Far East Limited, Goldman Sachs (Asia) L.L.C. and the Hong Kong Underwriters on the terms as more particularly set out in "Underwriting — Underwriting Arrangements and Expenses".
- (b) the agreement and plan of merger dated April 17, 2018 and entered into by the Company, Frontage Acq Sub Inc. and Frontage Laboratories, Inc. in relation to the merger of Frontage Laboratories, Inc. and Frontage Acq Sub Inc..
- (c) the stock purchase agreement between Song Li and Frontage Laboratories, Inc. dated March 1, 2018 in relation to the sale and purchase of 5,063,500 shares of Class A common stock of Frontida Biopharm, Inc. for a purchase price of US\$5,367,310.
- (d) the share purchase agreement dated March 30, 2018 entered into between Main Market Partners, LLC and Frontage Laboratories, Inc. and (solely for purposes of Section 7.5 thereof) Clifford W. Croley and Michael W. Martell in relation to the sale and purchase of 100% of the shares of Croley Martell Holdings, Inc. for a purchase price of US\$5,000,000 (subject to reduction).
- (e) the share transfer agreement dated April 27, 2018 between Frontage Laboratories (Shanghai) Co., Ltd. (方達醫藥技術(上海)有限公司) and GCP ClinPlus Co., Ltd. (普瑞 盛(北京)醫藥科技開發有限公司) in relation to the transfer of 100% of the shares of Suzhou Frontage Biotech Co., Ltd. (蘇州方達生物技術有限公司) for a consideration of RMB4.90 million (the "Suzhou Frontage Biotech Transfer Agreement").
- (f) the supplemental agreement dated May 10, 2018 between Frontage Laboratories (Shanghai)
   Co., Ltd. (方達醫藥技術(上海) 有限公司) and GCP ClinPlus Co., Ltd. (普瑞盛(北京)醫藥科技開發有限公司) to amend the Suzhou Frontage Biotech Transfer Agreement.

- (g) the share transfer agreement dated April 28, 2018 between Frontage Laboratories (Shanghai) Co., Ltd. (方達醫藥技術(上海)有限公司) and GCP ClinPlus Co., Ltd. (普瑞盛(北京)醫藥科技開發有限公司) in relation to the transfer of 100% of the shares of Shanghai Frontage Biotech Co., Ltd. (上海方達生物技術有限公司) for a consideration of RMB4.90 million (the "Shanghai Frontage Biotech Transfer Agreement").
- (h) the supplemental agreement dated May 10, 2018 between Frontage Laboratories (Shanghai) Co., Ltd. (方達醫藥技術(上海)有限公司) and GCP ClinPlus Co., Ltd. (普瑞盛(北京)醫 藥科技開發有限公司) to amend the Shanghai Frontage Biotech Transfer Agreement.
- (i) the Cornerstone Investment Agreement dated 14 May 2019 and entered into amongst the Company, Gaoling Fund, L.P., YHG Investment, L.P., Merrill Lynch Far East Limited, Merrill Lynch (Asia Pacific) Limited and Goldman Sachs (Asia) L.L.C. pursuant to which Gaoling Fund, L.P. and YHG Investment, L.P. agreed to subscribe at the Offer Price for such number of Offer Shares (rounded down to the nearest whole board lot of 2,000 Shares) that may be subscribed for in the Hong Kong dollar equivalent amount of US\$46,950,000 and US\$3,050,000, respectively.
- (j) the Cornerstone Investment Agreement dated 14 May 2019 and entered into amongst the Company, Worldwide Healthcare Trust PLC, Merrill Lynch Far East Limited, Merrill Lynch (Asia Pacific) Limited and Goldman Sachs (Asia) L.L.C. pursuant to which Worldwide Healthcare Trust PLC agreed to subscribe at the Offer Price for such number of Offer Shares (rounded down to the nearest whole board lot of 2,000 Shares) that may be subscribed for in the Hong Kong dollar equivalent amount of US\$15,000,000.
- (k) the Cornerstone Investment Agreement dated 14 May 2019 and entered into amongst the Company, Greenwoods Asset Management Limited, Merrill Lynch Far East Limited, Merrill Lynch (Asia Pacific) Limited and Goldman Sachs (Asia) L.L.C. pursuant to which Greenwoods Asset Management Limited agreed to subscribe at the Offer Price for such number of Offer Shares (rounded down to the nearest whole board lot of 2,000 Shares) that may be subscribed for in the Hong Kong dollar equivalent amount of US\$20,000,000.

#### 2. Intellectual Property

As at the Latest Practicable Date, the following intellectual property rights are material to the Group's business:

#### (a) Trademarks

(i) As at the Latest Practicable Date, the Group had completed registration of the following trademarks which are material to its business:

No.	Trademark	Class	Registered Owner	Place of Registration	Registration Number	Registration Date
1.		42	the Company	United States	5,708,380	March 26, 2019
2.		05, 32, 42, 44	the Company	Hong Kong	304563469	June 14, 2018

## STATUTORY AND GENERAL INFORMATION

(ii) As at the Latest Practicable Date, the Group had applied for registration of the following trademarks which are material to its business:

No.	Trademark	Class	Registered Owner	Place of Registration	Application Number	Application Date
1.		42	Frontage Shanghai	PRC	30562475	April 27, 2018
2.	FRONTAGE     moving your compound forward	42	Frontage Shanghai	PRC	30555403	April 27, 2018

#### (b) Domain Names

As at the Latest Practicable Date, the Group had obtained licences to be the administrator of or registration to use the following domain names which are material to its business:

No.	Domain Name	Date of Expiry of Licence / Registration
1.	www.frontagelab.com	June 1, 2020
2.	www.frontagelab.com.cn	March 27, 2022
3.	www.concordbio.com	June 15, 2020

## C. FURTHER INFORMATION ABOUT THE DIRECTORS

#### 1. Interests of the Directors and Chief Executive of the Company

Immediately following the completion of the Global Offering and the Capitalisation Issue (assuming the Over-allotment Option is not exercised), the interests and/or short positions (as applicable) of the Directors and the chief executive of the Company in the Shares and debentures of the Company and any interests and/or short positions (as applicable) in shares or debentures of any of the Company's associated corporations (within the meaning of Part XV of the SFO) which (1) will have to be notified to the Company and the Stock Exchange pursuant to Divisions 7 and 8 of Part XV of the SFO (including interests and/or short positions (as applicable) which they are taken or deemed to have under such provisions of the SFO), (2) will be required, pursuant to Section 352 of the SFO, to be entered in the register referred to therein or (3) will be required, pursuant to the Model Code for Securities Transactions by Directors of Listed Issuers as set out in Appendix 10 to the Listing Rules, to be notified to the Company and the Stock Exchange, in each case once the Shares are listed on the Stock Exchange, will be as follows:

#### Long Positions in the Shares

	Number of		Approximate
Name of Director or Chief Executive	Shares	Nature of Interest	Percentage
Dr Zhihe Li	52,401,560	Beneficial owner	3.48%

## STATUTORY AND GENERAL INFORMATION

Save as disclosed above, none of the Directors or the chief executive of the Company will, immediately following the completion of the Global Offering and the Capitalisation Issue, have an interest and/or short position (as applicable) in the Shares or debentures of the Company or any interests and/or short positions (as applicable) in the shares or debentures of the Company's associated corporations (within the meaning of Part XV of the SFO) which (i) will have to be notified to the Company and the Stock Exchange pursuant to Divisions 7 and 8 of Part XV of the SFO (including interests and short positions which they are taken or deemed to have under such provisions of the SFO), (ii) will be required, pursuant to Section 352 of the SFO, to be entered in the register referred to therein or (iii) will be required, pursuant to the Model Code for Securities Transactions by Directors of Listed Issuers as set out in Appendix 10 to the Listing Rules, to be notified to the Company and the Stock Exchange, in each case once the Shares are listed on the Stock Exchange.

#### 2. Particulars of Letters of Appointment

Each Director has entered into a letter of appointment in relation to his role as a director of the Company, which is subject to termination by the Director or the Company in accordance with the terms of the letter of appointment, the requirements of the Listing Rules and the provisions relating to the retirement and rotation of the Directors under the Articles of Association.

Pursuant to the terms of the letter of appointment entered into between each Director (on the one part) and the Company (on the other part), (a) the Executive Director is not entitled to receive any director's fees; and (b) the annual director's fees payable by the Company to each Non-Executive Director and Independent Non-executive Director are RMB150,000 and RMB310,000, respectively.

Each Director is entitled to be indemnified by the Company (to the extent permitted under the Articles of Association and applicable laws) and to be reimbursed by the Company for all necessary and reasonable out-of-pocket expenses properly incurred in connection with the performance and discharge of his duties under his letter of appointment.

Save as disclosed above, none of the Directors has entered into any service contracts as a director with any member of the Group (excluding contracts expiring or determinable by the employer within one year without payment of compensation (other than statutory compensation)).

#### 3. Directors' Remuneration

For details of the Directors' remuneration, see "Directors and Senior Management — Directors' Remuneration and Remuneration of the Five Highest Paid Individuals".

## 4. Agency Fees or Commissions Received

The Underwriters will receive an underwriting commission in connection with the Underwriting Agreements, as detailed in "Underwriting — Commissions and Expenses". Save in connection with the Underwriting Agreements, no commissions, discounts, brokerages or other special terms have been granted by the Group to any person (including the Directors and experts referred to in "— Other Information — Qualifications and Consents of Experts" below) in connection with the issue or sale of any capital or security of the Company or any member of the Group within the two years immediately preceding the date of this prospectus.

## 5. Personal Guarantees

The Directors have not provided personal guarantees in favour of lenders in connection with banking facilities granted to the Group.

## 6. Disclaimers

- (a) None of the Directors nor any of the experts referred to in "— Other Information Qualifications and Consents of Experts" below has any direct or indirect interest in the promotion of, or in any assets which have been, within the two years immediately preceding the date of this prospectus, acquired or disposed of by, or leased to, any member of the Group, or are proposed to be acquired or disposed of by, or leased to, any member of the Group.
- (b) Save in connection with the Underwriting Agreements, none of the Directors nor any of the experts referred to in "— Other Information Qualifications and Consents of Experts" below, is materially interested in any contract or arrangement subsisting at the date of this prospectus which is significant in relation to the business of the Group.
- (c) None of the Directors has any existing or proposed service contracts with any member of the Group (excluding contracts expiring or determinable by the employer within one year without payment of compensation (other than statutory compensation)).
- (d) Save as disclosed in "*Relationship with the Controlling Shareholders*", neither the Controlling Shareholders nor the Directors are interested in any business apart from the Group's business which competes or is likely to compete, directly or indirectly, with the business of the Group.
- (e) No cash, securities or other benefit has been paid, allotted or given within the two years preceding the date of this prospectus to any promoter of the Company nor is any such cash, securities or benefit intended to be paid, allotted or given on the basis of the Global Offering or related transactions as mentioned.

#### **D. Pre-IPO Share Incentive Plans**

#### 1. 2015 Share Incentive Plan

#### Summary

Pursuant to the agreement and plan of merger (the "Merger Agreement") dated April 17, 2018 entered into among the Company, Frontage Acq Sub Inc. and Frontage Labs, Frontage Labs has assigned, and the Company has assumed, the rights and obligations of Frontage Labs under the 2015 Share Incentive Plan. The following is a summary of the principal terms of the 2015 Share Incentive Plan as ratified, approved and confirmed by the sole Director of the Company on April 17, 2018. The terms of the 2015 Share Incentive Plan are not subject to the provisions of Chapter 17 of the Listing Rules as the 2015 Share Incentive Plan will not involve the grant of options by the Company to subscribe for ordinary shares with a par value of US\$0.00001 each once we have become a listed issuer. The 2015 Share Incentive Plan will be terminated upon Listing and no new awards can be granted under the 2015 Share Incentive Plan.

#### (a) Purpose

The purpose of the 2015 Share Incentive Plan is to provide (i) designated employees of the Company and its subsidiaries, (ii) certain consultants and advisors who perform services for the Company or its subsidiaries and (iii) non-employee members of the board of directors of the Company with the opportunity to receive grants of incentive stock options, nonqualified stock options, stock awards, stock units, stock appreciation rights and other equity-based awards (the "Awards").

#### (b) Who may join

All employees of the Company and its subsidiaries, including employees who are officers or members of the board of directors of the Company ("**Employees**"), and members of the board of directors who are not Employees ("**Non-Employee Directors**") shall be eligible to participate in the 2015 Share Incentive Plan. Consultants and advisors who perform services for the Company or any of its subsidiaries ("**Key Advisors**") shall be eligible to participate in the Plan if the Key Advisors render bona fide services to the Company or its subsidiaries, the services are not in connection with the offer and sale of securities in a capital-raising transaction and the Key Advisors do not directly or indirectly promote or maintain a market for the securities in the Company. Each person who receives an Award under the 2015 Share Incentive Plan is deemed a "**Participant**".

#### (c) Maximum number of ordinary shares with a par value of US\$0.00001 each

Provided that there are no changes in capitalisation, the overall limit on the number of underlying Shares which may be issued pursuant to the 2015 Share Incentive Plan is 12,000,000 Shares (before adjustment for the Capitalisation Issue) with a par value of US\$0.00001 each. If and to the extent any options or stock appreciate rights granted under the 2015 Share Incentive Plan terminate, expire, or are canceled, forfeited, exchanged or surrendered without having been exercised or if any stock awards, stock units, or other equity-based awards are forfeited, the Shares subject the relevant grants shall again be available for purposes of the 2015 Share Incentive Plan.

#### (d) Substitute awards

Awards may be granted to an employee, director or advisor of another corporation who becomes an Employee, Non-Employee Director or Key Advisor by reason of a corporate merger, consolidation, acquisition of stock or property, reorganisation or liquidation involving the Company, the parent or any of their subsidiaries in substitution for a stock option or stock awards grant made by such corporation. The terms and conditions of the substitute grants may vary from the terms and conditions required by the 2015 Share Incentive Plan and from those of the substituted stock incentives.

#### (e) Administration

The 2015 Share Incentive Plan will be administered and interpreted by the Board or by a committee (the "**Committee**") consisting of members of the Board, which shall be appointed by the Board. The Board shall have the authority and power to:

- (i) determine the individuals to whom grants shall be made under the 2015 Share Incentive Plan;
- (ii) determine the type, size and terms of the grants to be made to each such individual;
- (iii) determine the time when the grants will be made and the duration of any applicable exercise or restriction period, including the criteria for exercisability and the acceleration of exercisability;
- (iv) amend the terms of any previously issued grant; and
- (v) deal with any other matters arising under the 2015 Share Incentive Plan.

The Committee shall have full power and authority to administer and interpret the 2015 Share Incentive Plan, to make factual determinations and to adopt or amend such rules, regulations, agreements and instruments for implementing the 2015 Share Incentive Plan and for the conduct of its business as it deems necessary or advisable, in its sole discretion. The Committee's interpretations of the 2015 Share Incentive Plan and all determinations made by it pursuant to the powers vested in it shall be conclusive and binding on all persons having any interest in the 2015 Share Incentive Plan or in any Awards granted thereunder. All powers of the Committee shall be executed in its sole discretion, in the best interest of the Company, not as a fiduciary, and in keeping with the objectives of the 2015 Share Incentive Plan and need not be uniform as to similarly situated individuals

#### (f) Option grants

The Committee may grant Options to an Employee, Non-Employee Director or Key Advisor, and determine relevant terms such as the number of Shares will be subject to each grant of options, the exercise price, and terms and conditions applicable to the exercise of the options.

#### (g) Term of the 2015 Share Incentive Plan

The Committee shall determine the term of each option. The term of any option shall not exceed ten years from the date of grant. However, an incentive stock option that is granted to an Employee who, at the time of grant, owns Shares more than 10.00% of the total combined voting power of all classes of shares of the Company, or any subsidiary of the Company, may not have a term that exceeds five years from the date of grant.

## (h) Exercise of option

Options shall become exercisable in accordance with such terms and conditions, consistent with the 2015 Share Incentive Plan, as may be determined by the Committee and specified in the grant instrument. The Committee may accelerate the exercisability of any or all outstanding options at any time for any reason.

## (i) Exercise price

The exercise price of an option shall be determined by the Committee and may be equal to or greater than the fair market value of a Share of the Company on the date the option is granted. However, an incentive stock option may not be granted to an Employee who, at the time of grant, owns Shares more than 10.00% of the total combined voting power of all classes of shares of the Company or any subsidiary of the Company, unless the exercise price per share is not less than 110.00% of the fair market value of the Share on the date of grant.

## (j) Restricted Shares

The Committee may provide in a grant instrument that the grantee may elect to exercise part or all of an option before it otherwise has become exercisable. Any Shares so purchased shall be restricted Shares and shall be subject to a repurchase right in favour of the Company during a specified restriction period, with the repurchase price equal to the lesser of (A) the exercise price or (B) the fair market value of such Shares at the time of repurchase, or such other restrictions as the Committee deems appropriate.

## (k) Other Share-Based Awards

Other Awards include incentive stock options, nonqualified stock options, stock awards, stock units, stock appreciation rights and other equity-based awards. As of the Latest Practicable Date, we have granted options and will further grant options only prior to Listing.

## (l) Adjustments

If there is any change in the number or kind of outstanding Shares that may be issued or transferred under the 2015 Share Incentive Plan (the "**Plan Shares**") by reason of (A) a stock dividend, spinoff, recapitalisation, stock split, or combination or exchange of Shares, (B) a merger,

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reorganisation or consolidation, (C) a reclassification or change in par value, or (D) any other extraordinary or unusual event affecting the Plan Shares as a class without the Company's receipt of consideration, or if the value of the Plan Shares is substantially reduced as a result of a spinoff or the Company's payment of an extraordinary dividend or distribution:

- the maximum number of Shares of the Plan Shares available for issuance under the 2015 Share Incentive Plan;
- (ii) the maximum number of Shares of the Plan Shares for which any individual may receive grants in any year;
- (iii) the kind and number of Shares covered by outstanding grants;
- (iv) the kind and number of Shares issued and to be issued under the 2015 Share Incentive Plan; and
- (v) the price per share or the applicable market value of such grants

shall be equitably adjusted by the Committee to reflect any increase or decrease in the number of, or change in the kind or value of, the issued Shares of the Plan Shares to preclude, to the extent practicable, the enlargement or dilution of rights and benefits under the 2015 Share Incentive Plan and such outstanding grants; provided, however, that any fractional Shares resulting from such adjustment shall be eliminated. Any adjustments to outstanding Grants shall be consistent with section 409A or 424 of the United States Internal Revenue Code of 1986, as amended , to the extent applicable. Any adjustments determined by the Committee shall be final, binding and conclusive.

## (m) Change of Control

- a "Change of Control" shall be deemed to have occurred if:
- (i) Any "person", as such term is used in sections 13(d) and 14(d) of Securities Exchange Act of 1934, as amended (the "Exchange Act") (other than a person who is a shareholder of the Company on the effective date of the 2015 Share Incentive Plan) becomes a "beneficial owner" (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of securities of the Company representing more than 50.00% of the voting power of the then outstanding securities of the Company; provided that a Change of Control shall not be deemed to occur as a result of a transaction in which the Company becomes a subsidiary of another corporation and in which the shareholders of the Company, immediately prior to the transaction, will beneficially own, immediately after the transaction, Shares entitling such shareholders to more than 50.00% of all votes to which all shareholders of the parent corporation would be entitled in the election of directors; or

(ii) The consummation of (i) a merger or consolidation of the Company with another corporation where the shareholders of the Company, immediately prior to the merger or consolidation, will not beneficially own, immediately after the merger or consolidation, Shares entitling such shareholders to more than 50.00% of all votes to which all shareholders of the surviving corporation would be entitled in the election of directors, (ii) a sale or other disposition of all or substantially all of the assets of the Company, or (iii) a liquidation or dissolution of the Company.

Upon a Change of Control, unless the Committee determines otherwise, (i) all outstanding options and share appreciation rights shall accelerate and become fully exercisable, and (ii) all outstanding stock awards, stock units and other equity qwards shall become fully vested and shall be payable on terms determined by the Committee. In the event of a Change of Control, the Committee may take any of the following actions with respect to any or all outstanding grants:

- (i) determine that all outstanding options and share appreciation rights that are not exercised shall be assumed by, or replaced with comparable options by the surviving corporation (or a parent or subsidiary of the surviving corporation), and other outstanding grants that remain in effect after the Change of Control shall be converted to similar grants of the surviving corporation (or a parent or subsidiary of the surviving corporation);
- (ii) require that grantees surrender their outstanding options and share appreciation rights in exchange for one or more payments, in cash or the Plan Shares as determined by the Committee, in an amount, if any, equal to the amount by which the then fair market value of the Shares of the Plan Shares subject to the grantee's unexercised options and share appreciation rights exceeds the exercise price or base amount of the options and share appreciation rights, on such terms as the Committee determines; or
- (iii) after giving grantees an opportunity to exercise their outstanding options and share appreciation rights, terminate any or all unexercised outstanding options and share appreciation rights at such time as the Committee deems appropriate.

Such assumption, surrender or termination shall take place as of the date of the Change of Control or such other date as the Committee may specify.

## (n) Transfer restrictions

Except as provided below, only the grantee may exercise rights under a grant during the Grantee's lifetime. A grantee may not transfer those rights except (i) by will or by the laws of descent and distribution or (ii) with respect to grants other than incentive stock options, if permitted in any specific case by the Committee, pursuant to a domestic relations order or otherwise as permitted by the Committee.

Notwithstanding the foregoing, the Committee may provide, in a grant instrument, that a grantee may transfer nonqualified stock options to family members, or one or more trusts or other entities for the benefit of or owned by family members, consistent with the applicable securities laws, according to such terms as the Committee may determine; provided that the grantee receives no consideration for the transfer of an option and the transferred option shall continue to be subject to the same terms and conditions as were applicable to the option immediately before the transfer.

## (o) Rights on death or disability

- (i) In the event that a grantee ceases to be employed by, or provide service to, the Company and its subsidiaries for any reason other than disability, death, or termination for cause, any option which is otherwise exercisable by the grantee shall terminate unless exercised within 90 days after the date on which the grantee ceases to be employed by, or provide service to, the Company and its subsidiaries (or within such other period of time as may be specified by the Committee), but in any event no later than the date of expiration of the option term. Except as otherwise provided by the Committee, any of the grantee's options that are not otherwise exercisable as of the date on which the grantee ceases to be employed by, or provide service to, the Company and its subsidiaries shall terminate as of such date.
- (ii) In the event the grantee ceases to be employed by, or provide service to, the Company and its subsidiaries on account of a termination for cause by the Company and its subsidiaries, any option held by the grantee shall terminate as of the date the grantee ceases to be employed by, or provide service to, the Company and its subsidiaries. In addition, notwithstanding any other provisions of the 2015 Share Incentive Plan, if the Committee determines that the grantee has engaged in conduct that constitutes cause at any time while the grantee is employed by, or providing service to, the Company and its subsidiaries or after the grantee's termination of employment or service, any option held by the grantee shall immediately terminate and the grantee shall automatically forfeit all Shares underlying any exercised portion of an option for which the Company has not yet delivered the share certificates, upon refund by the Company of the exercise price paid by the grantee for such Shares. Upon any exercise of an option, the Company may withhold delivery of share certificates pending resolution of an inquiry that could lead to a finding resulting in a forfeiture.
- (iii) In the event the grantee ceases to be employed by, or provide service to, the Company and its subsidiaries on account of the grantee's disability, any option which is otherwise exercisable by the grantee shall terminate unless exercised within one year after the date on which the grantee ceases to be employed by, or provide service to, the Company and its subsidiaries (or within such other period of time as may be specified by the Committee), but in any event no later than the date of expiration of the option term. Except as otherwise provided by the Committee, any of the grantee's Options which are not otherwise exercisable as of the date on which the grantee ceases to be employed by, or provide service to, the Company and its subsidiaries shall terminate as of such date.

(iv) If the grantee dies while employed by, or providing service to, the Company and its subsidiaries or within 90 days after the date on which the grantee ceases to be employed or provide service on account of a termination specified in paragraph (ii) above (or within such other period of time as may be specified by the Committee), any option that is otherwise exercisable by the grantee shall terminate unless exercised within one year after the date on which the grantee ceases to be employed by, or provide service to, the Company and its subsidiaries (or within such other period of time as may be specified by the grantee shall terminate unless exercised by the Company and its subsidiaries (or within such other period of time as may be specified by the Committee), but in any event no later than the date of expiration of the option term. Except as otherwise provided by the Committee, any of the grantee's options that are not otherwise exercisable as of the date on which the grantee ceases to be employed by, or provide service to, the Company and its subsidiaries shall terminate as of such date.

## (p) Amendment, modification and termination

- (i) The Board may amend or terminate the 2015 Share Incentive Plan at any time; provided, however, that the Board shall not amend the 2015 Share Incentive Plan without shareholder approval if such approval is required in order to comply with the United States Internal Revenue Code of 1986, as amended or to other applicable law.
- (ii) The 2015 Share Incentive Plan shall terminate on the day immediately preceding the tenth anniversary of its effective date, unless it is terminated earlier by the Board or is extended by the Board.
- (iii) A termination or amendment of the 2015 Share Incentive Plan that occurs after a grant is made shall not materially impair the rights of a grantee unless the grantee consents or unless the Committee acts in compliance with applicable law. The termination of the 2015 Share Incentive Plan shall not impair the power and authority of the Committee with respect to an outstanding grant. Whether or not the 2015 Share Incentive Plan has terminated, an outstanding grant may be terminated or amended in compliance with law or may be amended by agreement of the Company and the grantee consistent with the 2015 Share Incentive Plan.

# (q) Rights of Participants

Nothing in the 2015 Share Incentive Plan shall entitle any Employee, Key Advisor, Non-Employee Director or other person to any claim or right to be granted a grant under the 2015 Share Incentive Plan. Neither the 2015 Share Incentive Plan nor any action taken hereunder shall be construed as giving any individual any rights to be retained by or in the employ of the Company and its subsidiaries or any other employment rights.

## 2. 2008 Share Incentive Plan

Pursuant to the Merger Agreement, Frontage Labs has assigned, and the Company has assumed, the rights and obligations of Frontage Labs under the 2008 Share Incentive Plan. Except that the overall limit on the number of underlying Shares which may be issued pursuant to the 2008 Share Incentive Plan is 9,434,434 Shares (before adjustment for the Capitalisation Issue) and that the extension of the 2008 Share Incentive Plan requires the approval of shareholders while the term of 2015 Share Incentive Plan may be extended by the board without shareholders' approval, other terms of the 2008 Share Incentive Plan are the same as the 2015 Share Incentive Plan. Please refer to "-2015 Share Incentive Plan" above for more information.

## 3. Outstanding options granted

The grant of options to the grantees under the 2015 Share Incentive Plan and the 2008 Share Incentive Plan as set out below. The overall limit on the number of underlying Shares pursuant to the 2015 Share Incentive Plan and the 2008 Share Incentive Plan is 12,000,000 Shares (before adjustment for the Capitalisation Issue) and 9,434,434 Shares (before adjustment for the Capitalisation Issue), respectively. As at the Latest Practicable Date, the number of underlying Shares pursuant to the outstanding options granted under the Pre-IPO Share Incentive Plans amount to 11,700,000 Shares (before adjustment for the Capitalisation Issue), representing 5.83% of the issued Shares immediately following the completion of the Global Offering and the Capitalisation Issue (assuming the Over-allotment Option is not exercised, no outstanding awards granted under the Pre-IPO Share Incentive Plans are exercised and no awards are granted under the 2018 Share Incentive Plan). These options were granted for no consideration. As of the Latest Practicable Date, we had granted options to 89 participants under the Pre-IPO Share Incentive Plans. No further options have been or will be granted under the Pre-IPO Share Incentive Plans subsequent to the Latest Practicable Date. Assuming the full exercise of the outstanding options granted under the Pre-IPO Share Incentive Plans, (a) the shareholding of the Shareholders immediately following the completion of the Global Offering and the Capitalisation Issue (before the exercise of any Over-allotment Option) would be diluted by approximately 5.83% and (b) the basic earnings per Share for the financial year ended 31 December 2018 would have decreased (i) from US\$0.0075 per Share to US\$0.0069 per Share after taking into account the effect of the Capitalisation Issue but prior to the Global Offering and (ii) further to US\$0.0053 per Share after taking into account the effect of the Global Offering and the Capitalisation Issue (assuming the Over-allotment Option is not exercised).

#### (i) Directors and senior management of the Group

As of the Latest Practicable Date, the Directors and the senior management of the Group had been granted options under the 2015 Share Incentive Plan and the 2008 Share Incentive Plan to subscribe for a total of 5,320,000 Shares (before adjustment for the Capitalisation Issue), representing approximately 2.65% of the issued share capital of our Company upon completion of the Global Offering and the Capitalisation Issue (assuming the Over-allotment Option is not exercised, no outstanding awards granted under the Pre-IPO Share Incentive Plans are exercised and no awards are granted under the 2018 Share Incentive Plan). As of the Latest Practicable Date, except the options, no other types of awards had been granted under the 2015 Share Incentive Plan and the 2008 Share Incentive Plan.

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Below are details of the options granted to the Directors and the senior management of the Group under the 2015 Share Incentive Plan and the 2008 Share Incentive Plan as of the Latest Practicable Date and subject to the adjustments set out in "— *Pre-IPO Share Incentive Plans* — 2015 Share Incentive Plan — (l) adjustments" of this section in respect of the Capitalisation Issue:

Name of Director or senior management of the Group	Address	Date of grant	Incentive Plan	Vesting period	Initial exercise price (US\$ per Share) <sup>(1)</sup>	Initial number of Shares under the outstanding options granted <sup>(2)</sup>	Exercise price after adjustment (US\$ per Share) <sup>(1)</sup>	Number of Shares under the outstanding options granted after adjustment <sup>(2)</sup>	Approximate percentage of issued Shares immediately after completion of the Global Offerings <sup>(3)</sup>
Directors of the Com	pany								
Zhihe Li	3904 Powell Rd, Chester Springs, PA 19425, United States	February 28, 2019	2015 Share Incentive Plan	half in 2019, and one-fourth in each of 2020 and 2021 <sup>(4)</sup>	2.00	450,000	0.20	4,500,000	0.224%
Jun Gao	Room 102/53 (Lane 99) Guang Zhong Road West, Shanghai 200072, People's Republic of China	February 28, 2019	2015 Share Incentive Plan	half in 2019, and one-fourth in each of 2020 and 2021 <sup>(4)</sup>	2.00	200,000	0.20	2,000,000	0.100%
Senior management o	of the Group								
Zhongping Lin	12 Lara Lane, Wilmington, DE 19808,	February 28, 2019	2015 Share Incentive Plan	half in 2019, and one-fourth in each of 2020 and $2021^{(4)}$	2.00	550,000	0.20	5,500,000	0.274%
	United States	September 14, 2017	2015 Share Incentive Plan	one-third in each of 2017, 2018 and 2019 <sup>(5)</sup>	0.57	200,000	0.057	2,000,000	0.100%
		June 16, 2016	2015 Share Incentive Plan	one-third in each of 2016, 2017 and 2018 <sup>(5)</sup>	0.49	150,000	0.049	1,500,000	0.075%
Dongmei Wang	410 Hemlock Lane, Chester Springs, PA	February 28, 2019	2015 Share Incentive Plan	half in 2019, and one-fourth in each of 2020 and $2021^{(4)}$	2.00	450,000	0.20	4,500,000	0.224%
	19425, United States	September 14, 2017	2015 Share Incentive Plan	one-third in each of 2017, 2018 and 2019 <sup>(5)</sup>	0.57	200,000	0.057	2,000,000	0.100%
		June 16, 2016	2015 Share Incentive Plan	one-third in each of 2016, 2017 and 2018 <sup>(5)</sup>	0.49	150,000	0.049	1,500,000	0.075%

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Name of Director or senior management of the Group	Address	Date of grant	Incentive Plan	Vesting period	Initial exercise price (US\$ per Share) <sup>(1)</sup>	Initial number of Shares under the outstanding options granted <sup>(2)</sup>	Exercise price after adjustment (US\$ per Share) <sup>(1)</sup>	Number of Shares under the outstanding options granted after adjustment <sup>(2)</sup>	Approximate percentage of issued Shares immediately after completion of the Global Offerings <sup>(3)</sup>
Abdul Ezaz Mutlib .	50 Goldfinch Circe, Phoenixville, PA 19460,	February 28, 2019	2015 Share Incentive Plan	half in 2019, and one-fourth in each of 2020 and $2021^{(4)}$	2.00	450,000	0.20	4,500,000	0.224%
	United States	September 14, 2017	2015 Share Incentive Plan	one-third in each of 2017, 2018 and 2019 <sup>(5)</sup>	0.57	200,000	0.057	2,000,000	0.100%
		June 16, 2016	2015 Share Incentive Plan	one-third in each of 2016, 2017 and 2018 <sup>(5)</sup>	0.49	150,000	0.049	1,500,000	0.075%
		March 31, 2010	2008 Share Incentive Plan	March 31, 2011 (at 20%) and then at 5% on June 30, September 30, December 31 and March 31 of each year until options are fully exercisable <sup>(5)</sup>	0.16	50,000	0.016	500,000	0.025%
Hugh M. Davis	1106 Aurora Drive, West Chester, PA 19380, United States	February 28, 2019	2015 Share Incentive Plan	half in 2019, and one-fourth in each of 2020 and 2021 <sup>(4)</sup>	2.00	500,000	0.200	5,000,000	0.249%
Tianyi Zhang	4407 Willow Run Terrace, Glen Allen, VA 23060,	February 28, 2019	2015 Share Incentive Plan	half in 2019, and one-fourth in each of 2020 and $2021^{(4)}$	2.00	1,000,000	0.200	10,000,000	0.500%
	United States	September 14, 2017	2015 Share Incentive Plan	one-third in each of 2017, 2018 and 2019 <sup>(5)</sup>	0.57	150,000	0.057	1,500,000	0.075%
Song Li	2168 Ferncroft Lane, Chester Springs, PA 19425, United States	February 28, 2019	2015 Share Incentive Plan	half in 2019, and one-fourth in each of 2020 and 2021 <sup>(4)</sup>	2.00	470,000	0.200	4,700,000	0.234%
Subtotal:	8 grantees					5,320,000		53,200,000	2.65%

- (1) On May 11, 2019, the Committee resolved that on condition that the Capitalisation Issue is completed on the Listing Date, the exercise price of the existing options granted under the Pre-IPO Share Incentive Plans will be adjusted to one-tenth of the original exercise price as from the Listing Date. Under the Pre-IPO Share Incentive Plans, the Committee may equitably adjust the price per share or the applicable market value of the grants in certain circumstances. Please refer to " Pre-IPO Share Incentive Plans 2015 Share Incentive Plan (1) Adjustments" for more details.
- (2) On May 11, 2019, the Committee resolved that on condition that the Capitalisation Issue is completed on the Listing Date, the number of options granted to a grantee under the Pre-IPO Share Incentive Plans will be adjusted to ten times of the original number of options held by that grantee as from the Listing Date. Under the Pre-IPO Share Incentive Plans, the Committee may equitably adjust the number of Shares covered by outstanding grants in certain circumstances. Please refer to " Pre-IPO Share Incentive Plans 2015 Share Incentive Plan (l) Adjustments" for more details.
- (3) The above table assumes that the Over-allotment Option is not exercised, no outstanding awards granted under the Pre-IPO Share Incentive Plans are exercised and no awards are granted under the 2018 Share Incentive Plan.
- (4) The option exercise period is five years from the date of grant.
- (5) The option exercise period is 10 years from the date of grant.

# (ii) Other grantees who have been granted options to subscribe for 200,000 Shares (before adjustment for the Capitalisation Issue) of the Company or more

As of the Latest Practicable Date, other grantees who have been granted options to subscribe for 200,000 Shares (before adjustment for the Capitalisation Issue) of the Company or more had been granted options under the 2015 Share Incentive Plan and the 2008 Share Incentive Plan to subscribe for a total of 2,640,000 Shares (before adjustment for the Capitalisation Issue), representing approximately 1.32% of the issued share capital of our Company upon completion of the Global Offering and the Capitalisation Issue (assuming the Over-allotment Option is not exercised, no outstanding awards granted under the Pre-IPO Share Incentive Plans are exercised and no awards are granted under the 2018 Share Incentive Plan). As of the Latest Practicable Date, except the options, no other types of awards had been granted under the 2015 Share Incentive Plan and the 2008 Share Incentive Plan.

Notes:

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Below are details of the options granted to other grantees who have been granted options to subscribe for 200,000 Shares (before adjustment for the Capitalisation Issue) of the Company or more under the 2015 Share Incentive Plan and the 2008 Share Incentive Plan as of the Latest Practicable Date and subject to the adjustments set out in "— *Pre-IPO Share Incentive Plans* — 2015 Share Incentive Plan — (l) adjustments" of this section in respect of the Capitalisation Issue:

Name of grantee	Address	Date of grant	Incentive Plan	Vesting period	Initial exercise price (US\$ per Share) <sup>(1)</sup>	Initial number of Shares under the outstanding options granted <sup>(2)</sup>	Exercise price after adjustment (US\$ per Share) <sup>(1)</sup>	Number of Shares under the outstanding options granted after adjustment <sup>(2)</sup>	Approximate percentage of issued Shares immediately after completion of the Global Offerings <sup>(3)</sup>
Harry Zhao	212 Green	February 28,	2015 Share	half in 2019, and	2.00	200,000	0.20	2,000,000	0.100%
	Valley Rd, Exton, PA 19341,	2019	Incentive Plan	one-fourth in each of 2020 and $2021^{(4)}$	2100	200,000	0.20	2,000,000	01100 /2
	United States	September 14, 2017	2015 Share Incentive Plan	one-third in each of 2017, 2018 and $2019^{(5)}$	0.57	150,000	0.057	1,500,000	0.075%
		June 16, 2016	2015 Share Incentive Plan	one-third in each of 2016, 2017 and $2018^{(5)}$	0.49	150,000	0.049	1,500,000	0.075%
Mira Hong	216 Walker Way, Newark, DE 19711,	February 28, 2019	2015 Share Incentive Plan	half in 2019, and one-fourth in each of 2020 and $2021^{(4)}$	2.00	85,000	0.20	850,000	0.042%
	United States	September 14, 2017	2015 Share Incentive Plan	one-third in each of 2017, 2018 and $2019^{(5)}$	0.57	90,000	0.057	900,000	0.045%
		June 16, 2016	2015 Share Incentive Plan	one-third in each of 2016, 2017 and 2018 <sup>(5)</sup>	0.49	75,000	0.049	750,000	0.037%
Ping Guo	2511 Rainer Road, Chester Springs, PA	February 28, 2019	2015 Share Incentive Plan	half in 2019, and one-fourth in each of 2020 and $2021^{(4)}$	2.00	75,000	0.20	750,000	0.037%
	19425, United States	September 14, 2017	2015 Share Incentive Plan	one-third in each of 2017, 2018 and $2019^{(5)}$	0.57	75,000	0.057	750,000	0.037%
	States	June 16, 2016	2015 Share Incentive Plan	one-third in each of 2016, 2017 and 2018 <sup>(5)</sup>	0.49	75,000	0.049	750,000	0.037%
Kang Wang	559 Taylor Rd, Downingtown, PA 19335,	February 28, 2019	2015 Share Incentive Plan	half in 2019, and one-fourth in each of 2020 and $2021^{(4)}$	2.00	200,000	0.20	2,000,000	0.100%
	United States	September 14, 2017	2015 Share Incentive Plan	one-third in each of 2017, 2018 and 2019 <sup>(5)</sup>	0.57	150,000	0.057	1,500,000	0.075%
		June 16, 2016	2015 Share Incentive Plan	one-third in each of 2016, 2017 and 2018 <sup>(5)</sup>	0.49	100,000	0.049	1,000,000	0.050%

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Name of grantee	Address	Date of grant	Incentive Plan	Vesting period	Initial exercise price (US\$ per Share) <sup>(1)</sup>	Initial number of Shares under the outstanding options granted <sup>(2)</sup>	Exercise price after adjustment (US\$ per Share) <sup>(1)</sup>	Number of Shares under the outstanding options granted after adjustment <sup>(2)</sup>	Approximate percentage of issued Shares immediately after completion of the Global Offerings <sup>(3)</sup>
Li Shen	3080 Highley Rd, Audubon, PA	February 28, 2019	2015 Share Incentive Plan	half in 2019, and one-fourth in each of 2020 and	2.00	75,000	0.20	750,000	0.037%
	19403, United States	September 14, 2017	2015 Share Incentive Plan	2021 <sup>(4)</sup> one-third in each of 2017, 2018 and 2019 <sup>(5)</sup>	0.57	50,000	0.057	500,000	0.025%
		June 16, 2016	2015 Share Incentive Plan	one-third in each of 2016, 2017	0.49	50,000	0.049	500,000	0.025%
		September 30, 2010	2008 Share Incentive Plan	and 2018 <sup>(5)</sup> exercisable at any time <sup>(5)</sup>	0.16	35,000	0.016	350,000	0.017%
Ellen Jimenez	77 Granville Way, Exton, PA 19341, United	February 28, 2019	2015 Share Incentive Plan	half in 2019, and one-fourth in each of 2020 and $2021^{(4)}$	2.00	150,000	0.20	1,500,000	0.075%
	States	September 14, 2017	2015 Share Incentive Plan	one-third in each of 2017, 2018 and $2019^{(5)}$	0.57	100,000	0.057	1,000,000	0.050%
		June 16, 2016	2015 Share Incentive Plan	one-third in each of 2016, 2017 and $2018^{(5)}$	0.49	100,000	0.049	1,000,000	0.050%
Huan Wang	50 Tremont Terrace, Livingston, NJ 07039,	February 28, 2019	2015 Share Incentive Plan	half in 2019, and one-fourth in each of 2020 and $2021^{(4)}$	2.00	150,000	0.20	1,500,000	0.075%
	United States	September 14, 2017	2015 Share Incentive Plan	one-third in each of 2017, 2018 and $2019^{(5)}$	0.57	75,000	0.057	750,000	0.037%
		June 16, 2016	2015 Share Incentive Plan	one-third in each of 2016, 2017 and $2018^{(5)}$	0.49	30,000	0.049	300,000	0.015%
Arthur Hartel	Audubon Ave, Wayne, PA 19087, United	February 28, 2019	2015 Share Incentive Plan	half in 2019, and one-fourth in each of 2020 and 2021 <sup>(4)</sup>	2.00	200,000	0.20	2,000,000	0.100%
Daxing (Philip) Fang	Zhujiang Roman Jiayuan, No. 107 Chaoyang North Road, Chaoyang	February 28, 2019	2015 Share Incentive Plan	half in 2019, and one-fourth in each of 2020 and 2021 <sup>(4)</sup>	2.00	200,000	0.20	2,000,000	0.100%
Subtotal:	District, Beijing, PRC 9 grantees					2,640,000		26,400,000	1.315%

- (1) On May 11, 2019, the Board resolved that on condition that the Capitalisation Issue is completed on the Listing Date, the exercise price of the existing options granted under the Pre-IPO Share Incentive Plans will be adjusted to one-tenth of the original exercise price as from the Listing Date. Under the Pre-IPO Share Incentive Plans, the Committee may equitably adjust the price per share or the applicable market value of the grants in certain circumstances. Please refer to "— Pre-IPO Share Incentive Plans 2015 Share Incentive Plan (1) Adjustments" for more details.
- (2) On May 11, 2019, the Board resolved that on condition that the Capitalisation Issue is completed on the Listing Date, the number of options granted to a grantee under the Pre-IPO Share Incentive Plans will be adjusted to ten times of the original number of options held by that grantee as from the Listing Date. Under the Pre-IPO Share Incentive Plans, the Committee may equitably adjust the number of Shares covered by outstanding grants in certain circumstances. Please refer to " Pre-IPO Share Incentive Plans 2015 Share Incentive Plan (l) Adjustments" for more details.
- (3) The above table assumes that the Over-allotment Option is not exercised, no outstanding awards granted under the Pre-IPO Share Incentive Plans are exercised and no awards are granted under the 2018 Share Incentive Plan.
- (4) The option exercise period is five years from the date of grant.
- (5) The option exercise period is 10 years from the date of grant.

#### (iii) Other grantees

As of the Latest Practicable Date, other than the Directors and members of senior management of the Group and other grantees who have been granted options to subscribe for 200,000 Shares (before adjustment for the Capitalisation Issue) of the Company or more as disclosed above, no options had been granted to any Directors, members of senior management of the Group, any connected person of the Company or other grantees who have been granted options to subscribe for 200,000 Shares (before adjustment for the Capitalisation Issue) of the Company or more under the Pre-IPO Share Incentive Plans and were outstanding.

As of the Latest Practicable Date, a remaining 72 grantees have been granted options which were outstanding under the Pre-IPO Share Incentive Plans to subscribe for a total of 3,740,000 Shares (before adjustment for the Capitalisation Issue), representing approximately 1.86% of the issued share capital of our Company upon completion of the Global Offering and the Capitalisation Issue (assuming the Over-allotment Option is not exercised, no outstanding awards granted under the Pre-IPO Share Incentive Plans are exercised and no awards are granted under the 2018 Share Incentive Plan).

Among these 72 grantees:

- 61 grantees were granted options ranging from 5,000 Shares to 100,000 Shares (before adjustment for the Capitalisation Issue); and
- 11 grantees were granted options ranging from 100,001 Shares to 199,999 Shares (before adjustment for the Capitalisation Issue).

Notes:

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Below are the details of outstanding options granted to the remaining 72 grantees under the Pre-IPO Share Incentive Plans (as of the Latest Practicable Date and subject to the adjustments set out in "— *Pre-IPO Share Incentive Plans* — 2015 Share Incentive Plan — (l) adjustments" of this section in respect of the Capitalisation Issue):

Date of grant	Vesting period	Initial exercise price (US\$ per Share) <sup>(1)</sup>	Initial number of Shares under the outstanding options granted <sup>(2)</sup>	Exercise price after adjustment (US\$ per Share) <sup>(1)</sup>	Number of Shares under the outstanding options granted after adjustment <sup>(2)</sup>	Approximate percentage of issued Shares immediately after completion of the Global Offering and the Capitalisation Issue <sup>(3)</sup>
January 21, 2014	exercisable at any time <sup>(4)</sup>	0.16	60,000	0.016	600,000	0.03%
June 16, 2016	one-third in each of 2016, 2017 and 2018 <sup>(4)</sup>	0.49	615,000	0.049	6,150,000	0.31%
September 14, 2017	one-third in each of 2017, 2018 and 2019 <sup>(4)</sup>	0.57	555,000	0.057	5,550,000	0.28%
February 28, 2019	half in 2019, and one-fourth in each of 2020 and $2021^{(5)}$	2.00	2,510,000	0.200	25,100,000	1.25%
Subtotal:	72 grantees		3,740,000		37,400,000	1.86%

#### Notes:

<sup>(1)</sup> On May 11, 2019, the Board resolved that on condition that the Capitalisation Issue is completed on the Listing Date, the exercise price of the existing options granted under the Pre-IPO Share Incentive Plans will be adjusted to one-tenth of the original exercise price as from the Listing Date. Under the Pre-IPO Share Incentive Plans, the Committee may equitably adjust the price per share or the applicable market value of the grants in certain circumstances. Please refer to " — Pre-IPO Share Incentive Plans — 2015 Share Incentive Plan — (1) Adjustments" for more details.

<sup>(2)</sup> On May 11, 2019, the Board resolved that on condition that the Capitalisation Issue is completed on the Listing Date, the number of options granted to a grantee under the Pre-IPO Share Incentive Plans will be adjusted to ten times of the original number of options held by that grantee as from the Listing Date. Under the Pre-IPO Share Incentive Plans, the Committee may equitably adjust the number of Shares covered by outstanding grants in certain circumstances. Please refer to " — Pre-IPO Share Incentive Plans — 2015 Share Incentive Plan — (l) Adjustments" for more details.

<sup>(3)</sup> The above table assumes that the Over-allotment Option is not exercised, no outstanding awards granted under the Pre-IPO Share Incentive Plans are exercised and no awards are granted under the 2018 Share Incentive Plan.

<sup>(4)</sup> The option exercise period is 10 years from the date of grant.

<sup>(5)</sup> The option exercise period is five years from the date of grant.

#### E. 2018 SHARE INCENTIVE PLAN

#### Summary

The following is a summary of the principal terms of the 2018 Share Incentive Plan as approved by the Shareholders on May 11, 2019. New definitions used below in this section E are relevant to the 2018 Share Incentive Plan.

#### (a) Purpose

The purpose of the 2018 Share Incentive Plan is to advance the interests of the Company's shareholders by enhancing the Company's ability to attract, retain and motivate skilled and experienced personnel who are expected to make important contributions to the Group. In particular, the 2018 Share Incentive Plan aims to motivate personnel to strive for the future development and expansion of the Group by providing them with the opportunity to acquire equity interests in the Company.

## (b) Who may join

Those eligible to participate in the 2018 Share Incentive Plan include the Directors (including executive Directors, non-executive Directors and independent non-executive Directors), the directors of the Company's subsidiaries and the employees, consultants and advisors of the Group or any other person as determined by the Board who the Board considers, in its absolute discretion, have contributed or will contribute to the Group ("**Participants**"). Participants may receive, at the absolute discretion of the Board, options ("**Options**"), restricted share units (a contingent right to receive Shares) ("**RSUs**") and any other type of share incentive award (each, an "**Award**") under the 2018 Share Incentive Plan. Each person who receives an Award under the 2018 Share Incentive Plan is a "**Grantee**".

#### (c) Administration

The 2018 Share Incentive Plan will be subject to the administration of the Board. The Board's decision as to all matters arising in relation to the 2018 Share Incentive Plan or its interpretation or effect shall be final and binding on all parties.

The Company may also appoint a professional trustee ("**Trustee**") to assist with the administration and vesting of Awards. The Company may to the extent permitted by the Companies Law (2016 Revision) of the Cayman Islands ("**Companies Law**") and the Listing Rules: (a) allot and issue Shares to the Trustee to be held by the Trustee pending the vesting of the Awards granted and which will be used to satisfy the Awards upon vesting; and/or (b) direct and procure the Trustee to make on-market purchases of Shares to satisfy the Awards upon vesting.

## (d) Conditions

The 2018 Share Incentive Plan shall take effect subject to (i) the Listing Committee of the Stock Exchange granting the approval of the listing of, and permission to deal in, the Shares to be allotted and issued to satisfy any Award under the 2018 Share Incentive Plan and (ii) the commencement of dealing in the Shares on the Main Board of the Stock Exchange.

## (e) Term

The 2018 Share Incentive Plan will become effective subject to the satisfaction of the above conditions. No Awards shall be granted under the 2018 Share Incentive Plan after the completion of 10 years from the date on which the 2018 Share Incentive Plan becomes effective ("Effective Date"), but Awards granted during that 10 year term shall continue to be valid in accordance with their terms of grant after the completion of 10 years from the Effective Date.

# (f) Grant of Awards

The Board may grant an Award to a Participant by a notice ("**Notice of Grant**") in such form as the Board may from time to time determine requiring the Participant to undertake to hold the Award on the terms on which it is to be granted and to be bound by the terms of the 2018 Share Incentive Plan and any other terms and conditions as contained in the Notice of Grant.

## (g) Timing Restrictions

The Company may not Grant any Award after inside information has come to its knowledge until such time as that information has ceased to constitute inside information. In particular, the Company may not Grant any Award during the period commencing one month immediately before the earlier of:

- (i) the date of the meeting of the Board (as such date is first notified to the Stock Exchange in accordance with the Listing Rules) for the approval of the Company's results for any year, half-year, quarterly or any other interim period (whether or not required under the Listing Rules); and
- (ii) the deadline for the Company to publish an announcement of its results for any year or half-year under the Listing Rules, or quarterly or any other interim period (whether or not required under the Listing Rules),

and ending on the date of the results announcement.

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Where a Grant is to a Director or to any Participant who, because of his office or employment in the Company or any of its subsidiaries, is likely to be in possession of unpublished price-sensitive information in relation to the Shares, no Grant may be made on any day on which the financial results of the Company are published and during the period of:

- (i) 60 days immediately preceding the publication date of the annual results or, if shorter, the period from the end of the relevant financial year up to the publication date of the results; and
- (ii) 30 days immediately preceding the publication date of the quarterly results (if any) and half-year results or, if shorter, the period from the end of the relevant quarterly or half-year period up to the publication date of the results.

## (h) Grant to Connected Persons

Any Grant to any Director, chief executive or substantial shareholder of the Company, or any of their respective associates, shall be subject to the prior approval of the independent non-executive Directors (excluding the independent non-executive Director who is the proposed Grantee of the Grant in question) and all Grants to connected persons shall be subject to compliance with the requirements of the Companies Law and the Listing Rules, including where necessary the prior approval of the Shareholders.

#### (i) Vesting of Awards

Subject to and in accordance with the terms of the 2018 Share Incentive Plan and the specific terms applicable to each Award, an Award shall vest on the date specified in the Notice of Grant ("**Vesting Date**"). If the vesting of an Award is subject to the satisfaction of performance or other conditions and such conditions are not satisfied, the Award shall lapse automatically in respect of such proportion of underlying Shares as have not vested.

Awards which have vested shall be satisfied as soon as practicable on or after the Vesting Date and in any event by no later than 10 Business Days following: (i) in relation to RSUs, the Vesting Date; or (ii) in relation to Options, after receipt of the notice and the payment of the full amount of the relevant aggregate Exercise Price; and (iii) where appropriate, receipt of the Auditors' certificate or the certificate from the independent financial adviser to the Company (as the case may be), at the Company's absolute discretion by:

- (i) the Company allotting and issuing the relevant number of Shares to the Grantee credited as fully paid; or
- (ii) the Company directing and procuring the Trustee to transfer to the Grantee the relevant number of Shares; or
- (iii) the Company paying or procuring the payment of a Cash Payment.

Cash Payment means a payment determined by the Company in accordance with the formula:

## A x (B - C)

where:

A = the number of Shares in respect of which the Award has been exercised or has vested;

B = the Market Value of a Share on the date of exercise of the Option or the date of Vesting (or if the Vesting Date is not a Business Day, the Market Value of a Share on the last Business Day preceding the Vesting Date);

C = the Exercise Price, if any.

## (j) Exercise of Options

An Option may be exercised in whole or in part by the Grantee by giving notice in writing to the Company stating that the Option is thereby exercised and specifying the number of Shares in respect of which it is exercised. Each such notice must be accompanied by payment for the full amount of the Exercise Price multiplied by the number of Shares in respect of which the Option is exercised, save where the Board has determined that the Option is to be satisfied by a Cash Payment or to the extent that other arrangements have been made for the payment of the Exercise Price which are satisfactory to the Board. Any exercise of an Option by a Grantee shall be subject to the applicable laws, regulations, rules and requirements of any relevant country or jurisdiction.

The Exercise Price shall be determined by the Board in its absolute discretion but in any event shall not be less than the higher of:

- (i) the closing price of the Shares as stated in the daily quotations sheets issued by the Stock Exchange on the date on which an offer of the grant of an Award is made to a participant ("Offer Date"), which must be a day on which the Stock Exchange of open for business of dealing in securities (for the purposes of the 2018 Share Incentive Plan, a "Business Day");
- (ii) the average closing price of the Shares as stated in the daily quotation sheets issued by the Stock Exchange for the five Business Days immediately preceding the Offer Date; and
- (iii) the nominal value of the Shares,

provided that for the purpose of determining the Exercise Price where the Shares have been listed on the Stock Exchange for less than five Business Days, the issue price of the Shares in the Global Offering shall be used as the closing price of the Shares for any Business Day falling within the period before the listing of the Shares on the Stock Exchange.

# APPENDIX V STATUTORY AND GENERAL INFORMATION

#### (k) Rights attached to the Awards and the Shares

The Awards do not carry any right to vote at general meetings of the Company, or any dividend, transfer or other rights (including those arising on the liquidation or winding-up of the Company).

No Grantee shall enjoy any of the rights of a Shareholder by virtue of the grant of an Award, unless and until the Shares underlying the Award are actually allotted and issued or transferred (as the case may be) to the Grantee pursuant to the vesting or exercise of such Award.

No dividends or distributions shall be payable in respect of any Shares underlying an Option which has not been exercised.

A Grantee shall have no rights in respect of any Shares underlying the Awards granted until such Shares have been allotted and issued or transferred to the Grantee, including in relation to any dividends or distributions in respect of such Shares. Subject to the foregoing, the Shares to be allotted and issued or transferred upon the vesting or exercise of the Awards shall be subject to all the provisions of the memorandum and articles of association of the Company for the time being in force and shall rank pari passu in all respects with, and shall have the same voting, dividend, transfer and other rights (including those rights arising on the liquidation or winding-up of the Company) as, the existing fully paid Shares in issue on the date on which those Shares are allotted and issued or transferred pursuant to the vesting or exercise of the Awards and, without prejudice to the generality of the foregoing, shall entitle the holders to participate in all dividends or other distributions paid or made on or after the date on which Shares are allotted and issued or transferred, other than any dividends or distributions previously declared or recommended or resolved to be paid or made if the record date thereof shall be before the date on which the Shares are allotted and issued or transferred.

#### (1) Corporate Events

In the event a general offer by way of a takeover or otherwise (other than by way of scheme of arrangement) is made to all the Shareholders (or all such Shareholders other than the offeror and/or any person controlled by the offeror and/or any person acting in association or concert with the offeror) by any person and such offer becomes or is declared unconditional prior to the expiry of the Exercise Period of any Option or the Vesting Date of any RSU, the Company shall, as soon as practicable thereafter, give notice to each Grantee of such general offer. Notwithstanding any other terms on which the Award was granted, the Shares underlying the Award (to the extent not already vested) shall vest and, in the case of an Option, the Grantee shall be entitled to exercise the Option (to the extent vested and not already exercised) at any time after the general offer). Subject to the foregoing, the Award (to the extent not vested or, in the case of Options, not exercised) will lapse automatically on the date on which such offer (or, as the case may be, revised offer) closes.

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In the event a general offer for Shares by way of scheme of arrangement is made by any person to all the Shareholders and has been approved by the necessary number of Shareholders at the requisite meeting(s) prior to the expiry of the Exercise Period of any Option or the Vesting Date of any RSU, the Company shall, as soon as practicable thereafter, give notice to each Grantee of such approval. Notwithstanding any other terms on which the Award was granted, the Shares underlying the Award (to the extent not already vested) shall vest and, in the case of an Option, each Grantee shall be entitled to exercise the Option (to the extent vested and not already exercised) at any time after the meeting(s) whereby the scheme is approved and up to the record date for determining entitlements under such scheme of arrangement. Subject to the foregoing and to the scheme of arrangement becoming effective, the Award (to the extent not vested or, in the case of an Option, not exercised) will lapse automatically on the record date for determining entitlements under such scheme of arrangement.

If, pursuant to the Companies Law, a compromise or arrangement (other than a scheme of arrangement) between the Company and the Shareholders and/or the creditors of the Company is proposed for the purposes of or in connection with a scheme for the reconstruction of the Company or its amalgamation with any other company or companies prior to the expiry of the Exercise Period of any Option or the Vesting Date of any RSU, the Company shall give notice thereof to all the Grantees on the same day as it despatches to the Shareholders and/or its creditors a notice summoning the meeting to consider such a compromise or arrangement. Notwithstanding any other terms on which the Award was granted, the Shares underlying the Award (to the extent not already vested) shall vest and, in the case of an Option, each Grantee shall be entitled to exercise the Option (to the extent vested and not already exercised) provided that such exercise is not later than three Business Days prior to the date of the proposed meeting. The Company shall as soon as possible and in any event no later than one Business Day immediately prior to the date of the proposed meeting, allot and issue or procure the transfer (as the case may be) of such number of Shares to the Grantee which falls to be issued or transferred (as the case may be) on such vesting or exercise of the Award, credited as fully paid, and shall register such Shares in the name of the Grantee and issue to the Grantee (or his custodian agent) share certificates in respect of such Shares. With effect from the date two Business Days before the date of such meeting, the rights of all Grantees to exercise their Options shall be suspended. The Board shall endeavour to procure that the Shares issued or transferred (as the case may be) upon the vesting or exercise of the Awards in such circumstances shall for the purposes of such compromise or arrangement form part of the issued share capital of the Company on the effective date thereof and that such Shares shall in all respects be subject to such compromise or arrangement. If, for any reason, such compromise or arrangement is not approved by the relevant court (whether upon the terms presented to the relevant court or upon any other terms as may be approved by such court), the rights of the Grantees to exercise their Options shall, with effect from the date of the making of the order by the relevant court and to the extent they had not been exercised at the date such rights were suspended, be restored in full as if such compromise or arrangement had not been proposed by the Company and neither the Company nor the Directors shall be liable for any loss or damage suffered or sustained by any Grantee as a result of the aforesaid suspension of rights.

In the event a notice is given by the Company to the Shareholders to convene a general meeting for the purposes of considering and, if thought fit, approving a resolution to voluntarily wind-up the Company prior to the expiry of the Exercise Period of any Option or the Vesting Date of any RSU,

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the Company shall give notice thereof to all the Grantees on the same day as it despatches to the Shareholders the notice convening the meeting. Notwithstanding any other terms on which the Award was granted, the Shares underlying the Award (to the extent not already vested) shall vest and, in the case of an Option, each Grantee shall be entitled to exercise the Option (to the extent vested and not already exercised) provided such exercise is not later than three Business Days prior to the date of the proposed meeting. The Company shall as soon as possible and in any event no later than one Business Day immediately prior to the date of the proposed general meeting, allot and issue or procure the transfer of (as the case may be) such number of Shares to the Grantee which falls to be issued or transferred (as the case may be) on such vesting or exercise of the Award, credited as fully paid and shall register such Shares in the name of the Grantee and issue to the Grantee (or his custodian agent) share certificates in respect of such Shares. With effect from the date two Business Days prior to the date of such meeting, the rights of all Grantees to exercise their Options shall be suspended. If, for any reason, the resolution for the voluntary winding-up of the Company is not approved by the Shareholders, the rights of the Grantees to exercise their Options shall be restored in full, to the extent that they had not been exercised at the date such rights were suspended, as if such resolution for the voluntary winding-up of the Company had not been proposed by the Company and neither the Company nor the Directors shall be liable for any loss or damage suffered or sustained by any Grantee as a result of the aforesaid suspension of rights.

Upon the occurrence of any of the events set out above and prior to the offer becoming or being declared unconditional or prior to the date of the relevant meeting(s) (as the case may be), the number of underlying Shares (if any) which shall vest and the date on which any such vesting will occur shall be determined by the Board in its absolute discretion by reference to factors which may include: (a) the extent to which any performance or other conditions to vesting have been satisfied; and (b) the proportion of the Vesting Period that has expired, in each case as at the relevant event, and the Company shall notify the Grantee of the date on which and the extent to which his Award will vest and, in the case of an Option, the period during which it may be exercised (which period shall not expire after the expiry of the periods for exercising the Options referred to above). If the Board determines that any Award shall vest in part only or shall not vest in its entirety, the balance or the whole of the Award (as the case may be) shall lapse.

For these purposes, "**Exercise Period**" means, in respect of any Option, the period to be determined by the Board and notified to the Grantee in the Notice of Grant, or, where applicable, any period for the exercise of an Option as determined by the Board, which shall expire no later than 10 years from the Offer Date.

#### (m) Maximum number of Shares

The scheme mandate limit ("Scheme Mandate Limit") means the total number of Shares in respect of which Awards may be granted pursuant to the 2018 Share Incentive Plan and any other equity-based incentive plans of the Company, being 10 per cent. of the Shares in issue on the Listing Date or 10 per cent. of the Shares in issue as at the New Approval Date.

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At any time during the Term, the maximum aggregate number of Shares with respect to which Awards may be granted pursuant to this Scheme shall be calculated in accordance with the following formula:

$$\mathbf{X} = \mathbf{A} - \mathbf{B} - \mathbf{C}$$

where:

X = the maximum aggregate number of Shares with respect to which Awards may be granted pursuant to the 2018 Share Incentive Plan;

A = the Scheme Mandate Limit;

- B = the maximum aggregate number of Shares that may be issued and/or transferred upon the vesting of Awards already granted pursuant to the 2018 Share Incentive Plan; and
- C = the maximum aggregate number of Shares that may be issued and/or transferred upon the vesting or exercise of any awards already granted pursuant to any other equity-based incentive plans of the Company.

Shares in respect of Awards which have lapsed in accordance with the terms of the 2018 Share Incentive Plan (or awards that have lapsed under any other equity-based incentive plans of the Company) or which have been satisfied by the making of a Cash Payment will not be counted for the purposes of determining the maximum aggregate number of Shares in respect of which Awards may be granted pursuant to the 2018 Share Incentive Plan.

#### (n) Renewal of Scheme Mandate Limit

The Scheme Mandate Limit may be renewed subject to prior Shareholders' approval, but in any event, the total number of Shares in respect of which Awards may be granted pursuant to the 2018 Share Incentive Plan and any other equity-based incentive schemes of the Company following the date of approval of the renewed limit (the "**New Approval Date**") under the limit as renewed must not exceed 10 per cent. of the Shares in issue as at the New Approval Date. Shares in respect of which Awards are granted pursuant to the 2018 Share Incentive Plan and any other equity-based incentive schemes of the Company (including those outstanding, lapsed or vested Awards) prior to the New Approval Date will not be counted for the purpose of determining the maximum aggregate number of Shares in respect of which the Awards may be granted following the New Approval Date under the limit as renewed. For the avoidance of doubt, Shares issued prior to the New Approval Date pursuant to the 2018 Share Incentive Plan and any other equity-based incentive schemes of the Company will be counted for the purpose of determining the number of Shares in respect as a start the New Approval Date under the limit as renewed. For the avoidance of doubt, Shares issued prior to the New Approval Date pursuant to the vesting of Awards under the 2018 Share Incentive Plan and any other equity-based incentive schemes of the Company will be counted for the purpose of determining the number of Shares in issue as at the New Approval Date.

#### (o) Annual Mandate

If the Company proposes to Grant Awards during the period between one annual general meeting and the subsequent annual general meeting of the Company which may be satisfied by the Company allotting and issuing new Shares upon the vesting of the Awards, the Company shall, at the annual general meeting of the Company, propose for the Shareholders to consider and, if thought fit, approve an ordinary resolution granting a mandate specifying:

- (i) the maximum number of new Shares in respect of which Awards may be granted during the Applicable Period; and
- (ii) that the Board has the power to allot, issue and deal with Shares in respect of which Awards are granted during the Applicable Period as and when the Awards vest.

This mandate shall remain in effect during the period from the passing of the ordinary resolution granting the mandate until the earliest of:

- (i) the conclusion of the next annual general meeting of the Company;
- (ii) the end of the period within which the Company is required by any applicable laws or by the bye-laws of the Company to hold the next annual general meeting of the Company; and
- (iii) the variation or revocation of such mandate by an ordinary resolution of the Shareholders in a general meeting,

#### (the "Applicable Period").

#### (p) Transfer restrictions

An Award shall be personal to the Grantee and shall not be assignable or transferable by the Grantee and the Grantee shall not, without the prior written consent of the Board, in any way sell, transfer, charge, mortgage, encumber or create any interest in favour of any third party over or in relation to the Award. However, following the Grantee's death, Awards may be transferred by will or by the laws of testacy and distribution.

### (q) Rights on death or disability

If the Grantee's employment, service or engagement with a member of the Group is terminated for any reason other than for Cause (including by reason of resignation, retirement, death, Disability or non-renewal of the employment or service agreement (or equivalent) upon its expiration) prior to the expiry of the Exercise Period of any Option or the Vesting Date of any RSU, the Board shall determine in its absolute discretion whether such Award shall vest or remain exercisable (as applicable), the extent to which it shall vest and when such Award (or part thereof) shall vest and/or the period for which it will remain exercisable in the case of an Option. If no such determination is

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made, the Award shall lapse with effect from date on which the Grantee's employment, service or engagement is terminated. To the extent that the Board determines that such Award shall not vest in respect of some or all of the underlying Shares, such Award shall lapse automatically in respect of those Shares with effect from such termination date.

For the purposes of the 2018 Share Incentive Plan, "**Cause**" means with respect to a Grantee, such event as will entitle the Company and/or any of its subsidiaries to terminate the employment or service of the Grantee with immediate notice without compensation under the relevant employment or service agreement or equivalent or, if it is not otherwise provided for in such agreement:

- (i) the commission of an act of theft, embezzlement, fraud, dishonesty, ethical breach or other similar acts or commission of a criminal offence;
- (ii) a material breach of any agreement or understanding between the Grantee and the Company and/or any of its subsidiaries, including any applicable invention assignment, employment, non-competition, confidentiality or other similar agreement;
- (iii) misrepresentation or omission of any material fact in connection with his employment agreement or service agreement or equivalent;
- (iv) a material failure to perform the customary duties of an employee of the Company and/or any of its subsidiaries (where relevant), to obey the reasonable directions of a supervisor or to abide by the policies or codes of conduct of the Group or any member of the Group; or
- (v) any conduct that is or is reasonably likely to be materially adverse to the name, reputation or interests of the Group.

#### (r) Adjustments

In the event of an alteration in the capital structure of the Company by way of a capitalisation of profits or reserves, bonus issue, rights issue, open offer, subdivision or consolidation of shares or reduction of the share capital of the Company in accordance with applicable laws and the Listing Rules (other than any alteration in the capital structure of the Company as a result of an issue of Shares as consideration in a transaction to which the Company or any of its subsidiaries is a party or in connection with any share option, restricted share or other equity-based incentive schemes of the Company) while any Award remains unvested or has vested but has not yet been exercised and/or satisfied (as may be applicable), corresponding adjustments (if any) shall be made to the Scheme Mandate Limit, the number or nominal value of Shares underlying the Option so far as unvested, unexercised or exercised but not yet satisfied; and/or the Exercise Price (where applicable), or any combination thereof, provided that:

(i) any such adjustments give a Grantee the same proportion of the share capital of the Company as that to which that Grantee was previously entitled; and

 (ii) any adjustments as a result of an issue of securities with a price-dilutive element, such as a rights issue, open offer or capitalisation issue, should be based on a scrip factor similar to the one used in accounting standards in adjusting the earnings per share figures,

but no such adjustments shall be made to the extent that a Share would be issued at less than its nominal value. In respect of any such adjustments, the Auditors or an independent financial adviser to the Company (as the case may be) must confirm to the Board in writing that the adjustments are in their opinion fair and reasonable.

#### (s) Amendment, modification and termination

The Board may alter any of the terms of the 2018 Share Incentive Plan at any time. However, those specific provisions of the 2018 Share Incentive Plan which relate to the matters set out in Rule 17.03 of the Listing Rules cannot be altered to the advantage of Participants and changes to the authority of the Board in relation to any alteration of the terms of the 2018 Share Incentive Plan shall not be made, in either case, without the prior approval of Shareholders in general meeting.

Any alterations to the terms and conditions of the 2018 Share Incentive Plan which are of a material nature or any changes to the terms of the Options granted must be approved by the Shareholders in general meeting, except where the alterations or changes take effect automatically under the existing terms of this Scheme. The Board's determination as to whether any proposed alteration to the terms and conditions of the 2018 Share Incentive Plan is material shall be conclusive.

#### (t) Cancellation

The Board may at any time cancel Awards previously granted but which have not yet vested (or in the case of Options, which have not yet been exercised by a Grantee). Where the Company cancels Awards and offers new Awards to the same Grantee, the offer of such new Awards may only be made with available Awards to the extent not yet granted (excluding the cancelled Awards) within the limits prescribed by paragraph 8.

### (u) Termination

The Company by ordinary resolution in general meeting or the Board may at any time terminate the 2018 Share Incentive Plan and in such event, no further Awards may be offered or granted but in all other respects the terms of the 2018 Share Incentive Plan shall remain in full force and effect in respect of Awards which are granted during the Term and which remain unvested immediately prior to the termination of the 2018 Share Incentive Plan.

### General

As at the Latest Practicable Date, no Award has been granted or agreed to be granted by the Company pursuant to the 2018 Share Incentive Plan. The Company expects to make the first invitations and grants under the 2018 Share Incentive Plan only after the Listing Date.

# APPENDIX V STATUTORY AND GENERAL INFORMATION

Details of the 2018 Share Incentive Plan, including particulars and movements of the Awards granted during each financial year of the Company, and our employee costs arising from the grant of the Awards will be disclosed in the Company's annual report.

### F. OTHER INFORMATION

### 1. Estate Duty

The Directors have been advised that no material liability for estate duty is likely to fall on the Group in Hong Kong and the Cayman Islands.

## 2. The Joint Sponsors

Each of the Joint Sponsors satisfies the independence criteria applicable to sponsors set out in Rule 3A.07 of the Listing Rules.

The Joint Sponsors will receive an aggregate fee of US\$800,000.00 for acting as the sponsors for the Listing.

## 3. **Registration Procedures**

The register of members of the Company will be maintained in the Cayman Islands by Conyers Trust Company (Cayman) Limited and a Hong Kong register of members of the Company will be maintained in Hong Kong by the Hong Kong Share Registrar. Save where the Directors otherwise agree, all transfers and other documents of title to Shares must be lodged for registration with, and registered by, the Company's branch share register in Hong Kong and may not be lodged in the Cayman Islands.

### 4. Preliminary Expenses

The total preliminary expenses of the Company are estimated to be approximately HK\$44,000.00 and were paid by the Company.

### 5. Promoter

The Company has no promoter. Save as disclosed above, within the two years immediately preceding the date of this prospectus, no cash, securities or other benefits have been paid, allotted or given to the promoters in connection with the Global Offering or the related transactions described in this prospectus.

#### 6. Qualifications and Consents of Experts

The qualifications of the experts which have given opinions or advice which are contained in, or referred to in, this prospectus are as follows:

Name of Expert	Qualifications
Merrill Lynch Far East Limited	A licenced corporation to conduct type 1 (dealing in securities), type 2 (dealing in futures contracts), type 4 (advising on securities), type 6 (advising on corporate finance) and type 7 (providing automated trading services) regulated activities under the SFO
Goldman Sachs (Asia) L.L.C	A licenced corporation to conduct Type 1 (dealing in securities), Type 4 (advising on securities), Type 5 (advising on futures contracts), Type 6 (advising on corporate finance) and Type 9 (asset management) regulated activities under the SFO
AnJie Law Firm	Qualified PRC Lawyers
Conyers Dill & Pearman	Cayman Islands attorneys-at-law
Morgan, Lewis & Bockius, LLP	Pennsylvania attorneys-at-law
Deloitte Touche Tohmatsu	Certified Public Accountants
Frost & Sullivan	Industry consultant

Each of the Joint Sponsors, AnJie Law Firm, Conyers Dill & Pearman, Morgan, Lewis & Bockius, LLP, Deloitte Touche Tohmatsu and Frost & Sullivan has given and has not withdrawn its written consent to the issue of this prospectus with the inclusion of its report and/or letter and/or opinion and/or references to its name included herein in the form and context in which they respectively appear.

### 7. Binding Effect

This prospectus shall have the effect, if an application is made in pursuance hereof, of rendering all persons concerned bound by all of the provisions (other than the penal provisions) of Sections 44A and 44B of the Companies (Winding Up and Miscellaneous Provisions) Ordinance so far as applicable.

### 8. Bilingual Prospectus

The English language and Chinese language versions of this prospectus are being published separately, in reliance upon the exemption provided in Section 4 of the Companies (Exemption of Companies and Prospectuses from Compliance with Provisions) Notice (Chapter 32L of the Laws of Hong Kong).

## 9. Miscellaneous

- (a) Save as disclosed in "*History, Reorganisation and Corporate Structure*", "*Share Capital*", "*Structure of the Global Offering*" and this Appendix V, within the two years preceding the date of this prospectus, no share or loan capital of the Company or any of its subsidiaries has been issued or has been agreed to be issued fully or partly paid either for cash or for a consideration other than cash.
- (b) Save as disclosed in "— Pre-IPO Share Incentive Plans" and "— 2018 Share Incentive Plan" above, share or loan capital of the Company or any of its subsidiaries is under option or is agreed conditionally or unconditionally to be put under option.
- (c) No founder, management or deferred shares of the Company or any of its subsidiaries have been issued or have been agreed to be issued.
- (d) None of the equity and debt securities of the Company is listed or dealt in on any other stock exchange nor is any listing or permission to deal being or proposed to be sought.
- (e) The Company has no outstanding convertible debt securities or debentures.
- (f) None of the Joint Sponsors, AnJie Law Firm, Conyers Dill & Pearman, Morgan, Lewis & Bockius, LLP, Deloitte Touche Tohmatsu and Frost & Sullivan:
  - (i) is interested beneficially or non-beneficially in any shares in any member of the Group; or
  - (ii) has any right or option (whether legally enforceable or not) to subscribe for or to nominate persons to subscribe for securities in any member of the Group save in connection with the Underwriting Agreements.
- (g) No company within the Group is presently listed on or dealt in on any other stock exchange and no such listing or permission to list is being or is proposed to be sought.
- (h) There has not been any interruption in the business of the Group which may have or has had a significant effect on the financial position of the Group in the 12 months preceding the date of this prospectus.
- (i) The English text of this prospectus and the Application Forms shall prevail over their respective Chinese text.

## APPENDIX VI DOCUMENTS DELIVERED TO THE REGISTRAR OF COMPANIES AND AVAILABLE FOR INSPECTION

#### A. DOCUMENTS DELIVERED TO THE REGISTRAR OF COMPANIES

The documents attached to the copy of this prospectus delivered to the Registrar of Companies in Hong Kong for registration were:

- (a) a copy of each of the WHITE, YELLOW and GREEN Application Forms;
- (b) a copy of each of the material contracts referred to in "Appendix V Statutory and General Information"; and
- (c) the written consents referred to in "Appendix V Statutory and General Information".

### **B. DOCUMENTS AVAILABLE FOR INSPECTION**

Copies of the following documents will be available for inspection at the offices of Freshfields Bruckhaus Deringer at 55th Floor, One Island East, Taikoo Place, Quarry Bay, Hong Kong, during normal business hours up to and including the date which is 14 days from the date of this prospectus:

- (a) the amended and restated Memorandum and Articles of Association of the Company;
- (b) the Accountants' Report and the report on the unaudited pro forma financial information prepared by Deloitte Touche Tohmatsu, the texts of which are set out in "Appendix I Accountants' Report" and "Appendix II Unaudited Pro Forma Financial Information", respectively;
- (c) the audited consolidated financial statements of the Group for the years ended December 31, 2016, 2017 and 2018;
- (d) the letter from Conyers Dill & Pearman, the Company's Cayman Islands legal adviser, summarising the Memorandum and Articles of Association of the Company and certain aspects of Cayman Islands company law referred to in "Appendix IV — Summary of the Constitution of the Company and Cayman Islands Company Law";
- (e) the legal opinion from AnJie Law Firm, the Company's PRC legal adviser, in respect of certain aspects of the Company;
- (f) the legal opinion from Morgan, Lewis & Bockius, LLP, the Company's legal adviser as to Pennsylvania laws;
- (g) the industry report prepared by Frost & Sullivan;
- (h) the Cayman Companies Law;

## APPENDIX VI DOCUMENTS DELIVERED TO THE REGISTRAR OF COMPANIES AND AVAILABLE FOR INSPECTION

- (i) the letters of appointment of the Directors referred to in "Appendix V Statutory and General Information";
- (j) the material contracts referred to in "Appendix V Statutory and General Information";
- (k) the written consents referred to in "Appendix V Statutory and General Information";
- (1) the terms of the Pre-IPO Share Incentive Plans and a list of grantees under the Pre-IPO Share Incentive Plans; and
- (m) the terms of the 2018 Share Incentive Plan.

## **Glossary of technical terms**

In this prospectus, in addition to terms defined elsewhere and unless the context otherwise requires, the following technical terms have the following meanings.

absorption	Within the context of drug metabolism, the process by which drug compounds and other molecules move across cells and tissues such as the gastrointestinal tract into the circulatory system
ADC	Antibody Drug Conjugates, are a class of drugs designed to be used in targeted therapies to kill pathogens and tumour cells
ADME	Absorption, Distribution, Metabolism and Excretion, the analysis of the body's processes of altering, utilising and eliminating ingested and administered drugs and xenobiotics
agrochemicals	Chemicals developed for use in agriculture, including pesticides and fertilizers
ANDA	Abbreviated New Drug Application, an application made in the United States for approval of a generic equivalent to an existing approved drug
antibody	A class of proteins used by the immune system to identify and destroy or neutralize pathogens (such as bacteria and viruses); also called "immunoglobulins"
antigen	A toxin or other foreign substance that induces an immune response in the body, especially the production of antibodies
АРІ	Active Pharmaceutical Ingredient, the component of a drug product that is intended to furnish pharmacological activity or other direct effect in the diagnosis, cure, mitigation, treatment, or prevention of disease, or to affect the structure or any function of the body
assay	A test designed to determine the concentration, content or quality of a substance
bioanalytics	The analytical and quantitative chemistry of certain compounds in biological systems; covering biotics (macromolecules, proteins, DNA, large molecule drugs and metabolites) and xenobiotics
bioassay	Measurement of the concentration or potency of a substance by its effect on living cells or tissues

bioavailability studies	Studies to determine the proportion of a drug that enters circulation when introduced into the body and is therefore able to elicit an active effect
bioequivalence studies	Studies to assess the expected <i>in vivo</i> equivalence of two preparations of a drug. If two products are said to be bioequivalent, it means that there is an absence of a significant difference in the rate and extent to which the active ingredient or active moiety in products becomes available at the site of drug action when administered at the same molar dose under similar conditions in an appropriately designed study
biologics	A drug that is composed of any virus, therapeutic serum, toxin, antitoxin, vaccine, blood, blood component or derivative, allergenic product, protein (except chemically synthesized polypeptides) or analogous product or arsphenamine or derivative of arsphenamine (or any other trivalent organic arsenic compound) applicable to the prevention, treatment or cure of diseases or conditions of human beings
biomarker	A biological characteristic that may correlate with health, disease or drug treatment
biometrics	The collection and analysis of measurements and calculations of human physical characteristics
BLA	Biologics Licence Application, an application in the United States for permission to introduce a biologic product into US inter-state commerce
candidate selection	A stage in early drug discovery where a series of compounds that have indicated potential for desirable effects are selected for further intensive study and analysis
carcinogenicity	The ability or tendency of a chemical to induce tumours or increase the incidents of tumours or their malignancy, or shorten the time of tumour recurrence when it is inhaled, ingested, dermally applied, or injected
cardiovascular	Relating to the heart and blood vessels
cell culture	The process by which cells are grown under controlled conditions in a research or manufacturing environment
cell line	A cell culture developed from a single cell, and therefore consisting of cells with uniform genetic makeup

APPENDIX VII	DEFINITIONS AND GLOSSARY
central laboratory	A laboratory facility used for testing samples from studies conducted at multiple sites
China FDA	China Food and Drug Administration, currently known as NMPA
СМС	Chemistry, Manufacturing and Controls, an important and detailed section detailing the characteristics of a therapeutic and its manufacturing and quality testing process in a dossier used to support clinical studies and marketing applications
commercialisation	The stage in drug development when a new drug is approved and released to the market
CRO	Contract Research Organisation, a company focused on providing research and development services to companies in the pharmaceutical and agrochemical markets
СТМ	Clinical Trial Material, the drug product to be tested in clinical trials
dermal studies	Studies on the effect of a drug or therapeutic agent on skin tissue
distribution	In the context of DMPK, the process by which molecules are transported throughout the body
DMPK	Drug Metabolism and Pharmacokinetics, refers to studies designed to determine the absorption and distribution of an administered drug, the rate at which a drug takes effect, the duration a drug maintains its effects and what happens to the drug after being metabolized by the body
drug-drug interaction	The cumulative changes in a drug's effect on the body when the drug is taken together with another drug. Drug-drug interaction can delay, decrease, or enhance absorption of either drug
EPA	Environmental Protection Agency, a regulatory agency in the United States with responsibility for maintaining a safe environment
formulation development	A stage of analysing and refining the physio-chemical structure of a product to stabilize or enhance its suitability for use in <i>in vivo</i> testing. Formulation development may also include assessing delivery options and delivery device compatibility

genome	The complete set of genetic material present in a cell or organism
genomics	The branch of molecular biology concerned with the structure, function, evolution, and mapping of genomes
genotoxicity	The phenomena of destructive effects on a cell's genetic material (DNA, RNA) affecting its integrity. This can occur through the presence of chemicals, radiation, viruses, etc. that cause mutations
genotyping study	A study which identify differences between genotypes of different individuals with the aim of identifying differences in the genotype which may explain the differences in an organism's observable traits
GLP	Good Laboratory Practice, a quality system of management controls for research laboratories and organisations to try to ensure the uniformity, consistency, reliability, reproducibility, quality and integrity of chemical and pharmaceuticals non-clinical safety tests
GMP	Good Manufacturing Practice, a quality system imposed on pharmaceutical firms to ensure that products produced meet specific requirements for identity, strength, quality and purity, and enforced by public agencies, for example the US FDA
hit-to-lead	A stage in early drug discovery where small molecule hits from a high throughput screen are evaluated and undergo limited optimisation to identify promising lead compounds
immunogenicity	The ability of a particular substance to provoke an immune response in the body of an animal
immunotoxicology	The study of immune dysfunction resulting from exposure of a drug or other foreign substance to an organism
in vitro	Latin for "in glass", studies <i>in vitro</i> are conducted outside of a living organism in a laboratory environment using test tubes, petri dishes, etc. using components of an organism that have been isolated from their usual biological surroundings, such as microorganisms, cells or biological molecules
in vivo	Latin for "within the living", studies <i>in vivo</i> are those in which the effects of various biological entities are tested on whole, living organisms as opposed to a partial or dead organism, or those done <i>in vitro</i>

IND	Investigational New Drug, an application submitted to the US FDA or NMPA to seek permission or no objection to ship unapproved, experimental drug or biologic agents across jurisdictions (usually to clinical investigators) before a marketing application for the drug has been approved
leachability	The ability to remove soluble or other constituents from a mixture, by the movement of a liquid filtering through porous material
lead optimisation	The stage of early drug discovery where promising lead compounds are further optimized in preparation for toxicity assessment prior to human clinical trials
liposomal drug	A drug delivered by means of a transporting liposome (a spherical vesicle that has a lipid bilayer, similar to a cell membrane)
liposome	A spherical vesicle that has a lipid bilayer with a hydrophilic outer layer and a hydrophobic inner layer, which acts as a membrane to regulate the flow of ions and molecules in and out of the vesicle
mAb	Monoclonal antibodies, antibodies developed from a clonal cell line and are typically used as therapeutic agents
macromolecules	Large molecules necessary for life, include carbohydrates, lipids, nucleic acids and proteins
metabolism	The chemical processes that occur within a living organism in order to maintain life, comprising catabolism (breakdown of large molecules into components) and anabolism (the synthesis of smaller molecules into larger ones with specific structures, characteristics and purposes)
metabolites	A substance formed in or necessary for metabolism. A "metabolite" of a drug is a compound formed from the drug's original components through metabolism

Metabolites in Safety Testing (MIST)	Metabolites in Safety Testing is testing on the identification and characterisation of drug metabolites whose nonclinical toxicity needs to be evaluated. The safety of drug metabolites may need to be determined in nonclinical studies because the metabolites are identified only in humans or are present at disproportionately higher levels in humans than in other animal species used during standard nonclinical toxicology testing. The US FDA released a revised guidance on the testing of small molecule non biologic drug metabolites in 2016
metabolomics	The study of the set of metabolites present within an organism, cell, or tissue
method transfer	Testing whether a new laboratory is capable of applying a method developed elsewhere to obtain results that closely correlate with the laboratory that developed the method
method validation	An assessment of a procedure to ensure it meets its own analytical objectives. This involves ensuring that an analytical method produces results with sufficient accuracy and precision within a range of concentrations that is appropriate to a particular analyte
NAB	Neutralizing Antibody, antibodies generated by a host that bind to therapeutic agents and functionally eliminate their activity
NDA	New Drug Application, the formal application to the US FDA or NMPA proposing approval of a new pharmaceutical product for sale and marketing
NGS	Next generation sequencing
NMPA	National Medical Products Administration (formerly known as China FDA), the authority responsible for approving drug and biologic products in China
oligonucleotide	A molecule chain of DNA or RNA material which contains only a small number of nucleotides
ophthalmology	The branch of medicine concerned with the function and health of the eyes
pathogen	A bacterium, virus, or other microorganism that can cause disease
peptide	Small fragments of proteins, composed of amino acids

pharmacodynamics	The branch of pharmacology concerned with the effect of a drug on the body
pharmacokinetics	The branch of pharmacology concerned with the movement of drugs within the body
pharmacology	The branch of medicine concerned with the uses, effects, and modes of action of drugs
pharmacovigilance	The practice of monitoring the effects of medical drugs after they have been licenced for use, especially in order to identify and evaluate previously unreported adverse reactions
phenotypic	Observable characteristics resulting from genetic and environmental factors
protein binding	The situation in which medications attach to proteins within the blood. Often an integral measurement in the understanding of the efficacy of a drug, as the less protein bound a drug is, the more efficiently it can interact with the drug target and effect its action
proteomics	The study of proteomes (total composition of proteins) and their functions
radiolabelling	A technique where drugs and biologics are bound to radionuclides (radioactive isotopes of elements) Radiolabelled drugs are able to be traced in the body allowing for an understanding of their ADME
release testing	An assessment of the measure of release of the active pharmaceutical ingredient ("API") from the drug product matrix in controlled conditions
rt-PCR	Reverse Transcription Polymerase Chain Reaction, a technique to detect and quantify DNA sequences and gene expression
stability testing	Studies to determine the quality of an active substance or pharmaceutical product as it varies with time under the influence of a variety of environmental factors such as temperature, humidity, and light
US FDA	the Food and Drugs Administration of the United States
validation	A process that involves performing laboratory tests to verify that a particular instrument program, or measurement technique is working properly and is capable of being relied upon

## Definitions

In this prospectus, in addition to terms defined elsewhere and unless the context otherwise requires, the following expressions have the following meanings.

"2008 Share Incentive Plan"	the pre-IPO share incentive plan approved by Frontage Labs in 2008 and assumed by our Company on April 17, 2018, the principal terms of which are set out in the section headed "Appendix $V$ — Statutory and General Information — Pre-IPO Share Incentive Plans"
"2015 Share Incentive Plan"	the pre-IPO share incentive plan approved by Frontage Labs in 2015 and assumed by our Company on April 17, 2018, the principal terms of which are set out in the section headed "Appendix $V$ — Statutory and General Information — Pre-IPO Share Incentive Plans"
"2018 Share Incentive Plan"	the post-IPO share incentive plan adopted by our Company on May 11, 2019, the principal terms of which are set out in the section headed "Appendix $V$ — Statutory and General Information — 2018 Share Incentive Plan"
"Application Form(s)"	the <b>WHITE</b> Application Form(s), <b>YELLOW</b> Application Form(s) and <b>GREEN</b> Application Form(s) or, where the context so requires, any of them, that are used in connection with the Hong Kong Public Offering
"Articles" or "Articles of Association"	the articles of association of the Company (as amended from time to time), conditionally adopted on May 11, 2019 and which will become effective upon the Listing Date, a summary of which is set out in "Appendix IV — Summary of the Constitution of the Company and Cayman Islands Company Law"
"Board" or "Board of Directors"	the board of directors of the Company
"business day"	any day (other than a Saturday, Sunday or public holiday) on which banks in Hong Kong are generally open for normal banking business
"Capitalisation Issue"	the issue of $1,355,157,819$ Shares to the Shareholders to be made upon capitalisation of certain sums standing to the credit of the share premium account of the Company as referred to in "Appendix V — Statutory and General Information — Further Information about the Company — Resolutions of the Shareholders Passed on May 11, 2019"

"Cayman Companies Law"	the Companies Law, Cap. 22 (Law 3 of 1961) of the Cayman Islands, as amended or supplemented from time to time
"CCASS"	the Central Clearing and Settlement System established and operated by HKSCC
"CCASS Account"	a securities account maintained by a CCASS Participant with CCASS
"CCASS Clearing Participant"	a person admitted to participate in CCASS as a direct clearing participant or general clearing participant
"CCASS Custodian Participant"	a person admitted to participate in CCASS as a custodian participant
"CCASS Investor Participant"	a person admitted to participate in CCASS as an investor participant who may be an individual or joint individuals or a corporation
"CCASS Operational Procedures"	the operational procedures of HKSCC in relation to CCASS, containing the practices, procedures and administrative requirements relating to the operations and functions of CCASS, as from time to time in force
"CCASS Participant"	a CCASS Clearing Participant, a CCASS Custodian Participant or a CCASS Investor Participant
"Circular 67"	Circular on Issues Concerning Regulating Overseas Listing of Subsidiaries of Domestic Listed Companies (Zheng Jian Fa [2004] No.67) (《關於規範境內上市公司所屬企業到境外上市 有關問題的通知》) (證監發[2004]67號) promulgated by the CSRC on July 21, 2004
"Companies Ordinance"	the Companies Ordinance (Chapter 622 of the Laws of Hong Kong), as amended or supplemented from time to time
"Companies (Winding Up and Miscellaneous Provisions) Ordinance" or "Companies (WUMP) Ordinance"	the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Chapter 32 of the Laws of Hong Kong), as amended or supplemented from time to time
"Company"	Frontage Holdings Corporation, a company incorporated under the laws of the Cayman Islands with limited liability on April 16, 2018
"Concord"	Croley Martel Holdings, Inc. a company incorporated under the laws of Delaware, United States, a subsidiary of the Company, and the holding company of Concord Biosciences, LLC, and Concord Holdings, LLC

"Controlling Shareholder(s)"	has the meaning given to it in the Listing Rules and, unless the context requires otherwise, refers to Hangzhou Tigermed and Hong Kong Tigermed
"CSRC"	China Securities Regulatory Commission (中國證券監督管理 委員會)
"Director(s)"	the director(s) of the Company
"Frontage Labs"	Frontage Laboratories, Inc., a company incorporated under the laws of Pennsylvania, United States on April 21, 2004 and a subsidiary of the Company
"Frontage Shanghai"	Frontage Laboratories (Shanghai) Co., Ltd. (方達醫藥技術 (上海)有限公司), a company established in the PRC on August 2, 2005 and a subsidiary of the Company
"Frontage Suzhou"	Frontage Laboratories (Suzhou) Co, Ltd., a company established in the PRC on January 7, 2014, and an associate of the Company
"Frontida"	Frontida Biopharm, Inc., a company incorporated under the laws of Pennsylvania
"Frost and Sullivan"	Frost & Sullivan (Beijing) Inc., Shanghai Branch Co., the industry consultant
"FY" or "financial year"	financial year ended or ending December 31
"Global Offering"	the Hong Kong Public Offering and the International Offering
"GREEN Application Form(s)"	the application form(s) to be completed by the HK eIPO White Form Service Provider
"Group", "we", "our" or "us"	the Company and its subsidiaries
"Hangzhou Tigermed"	Hangzhou Tigermed Consulting Co., Ltd. (杭州泰格醫藥科技股份有限公司), a company established in the PRC on December 15, 2004 with its shares being listed on ChiNext market of the Shenzhen Stock Exchange with stock code 300347, which is one of the Controlling Shareholders
"Hebei Frontage"	Hebei Chenchang Frontage Pharmaceutical Technology Co., Ltd., a company established in the PRC on October 19, 2017 and an associate of the Company

"HK eIPO White Form"	the application for Hong Kong Offer Shares to be issued in the applicant's own name by submitting applications online through the designated website of HK eIPO White Form at <b>www.hkeipo.hk</b>
"HK eIPO White Form Service Provider"	the HK eIPO White Form service provider designated by our Company, as specified on the designated website at <b>www.hkeipo.hk</b>
"HK\$" or "Hong Kong dollars"	Hong Kong dollars, the lawful currency of Hong Kong
"HKSCC"	Hong Kong Securities Clearing Company Limited, a wholly-owned subsidiary of Hong Kong Exchanges and Clearing Limited
"HKSCC Nominees"	HKSCC Nominees Limited, a wholly-owned subsidiary of HKSCC, in its capacity as nominee for HKSCC (or any successor thereto) as operator of CCASS and any successor, replacement or assign of HKSCC Nominees Limited as nominee for the operator of CCASS
"Hong Kong"	the Hong Kong Special Administrative Region of the PRC
"Hong Kong Offer Shares"	the 50,192,000 Shares initially being offered by the Company pursuant to the Hong Kong Public Offering (subject to reallocation as described in "Structure of the Global Offering")
"Hong Kong Public Offering"	the offer of the Hong Kong Offer Shares to the public in Hong Kong for subscription at the Offer Price, on and subject to the terms and conditions set out in this prospectus and the Application Forms, as further described in " <i>Structure of the Global Offering</i> "
"Hong Kong Share Registrar"	Tricor Investor Services Limited
"Hong Kong Tigermed"	Hongkong Tigermed Co., Limited, a company incorporated under the laws of Hong Kong with limited liability on September 14, 2011 and which is a wholly-owned subsidiary of Hangzhou Tigermed and one of the Controlling Shareholders
"Hong Kong Underwriters"	the underwriters listed in "Underwriting — Hong Kong Underwriters", being the underwriters of the Hong Kong Public Offering

"Hong Kong Underwriting Agreement"	the underwriting agreement dated May 16, 2019 relating to the Hong Kong Public Offering entered into among the Company, the Controlling Shareholders, the Joint Sponsors, Merrill Lynch (Asia Pacific) Limited and the Hong Kong Underwriters, as further described in "Underwriting"
"IFRS"	International Financial Reporting Standards
"independent third party"	any party who is not connected (within the meaning of the Listing Rules) with the Company and its connected persons, so far as the Directors are aware after having made reasonable enquiries
"International Offer Shares"	the 451,718,000 Shares initially being offered by the Company pursuant to the International Offering pursuant to the International Offering (subject to reallocation as described in <i>"Structure of the Global Offering"</i> ) together with, where relevant, up to an additional 75,286,000 Shares which may be issued by the Company pursuant to any exercise of the Over-allotment Option
"International Offering"	the offer of the International Offer Shares (a) in the United States solely to QIBs pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the U.S. Securities Act or (b) outside the United States in offshore transactions in reliance on Regulation S, for subscription or purchase (as the case may be) at the Offer Price, in each case on and subject to the terms and conditions of the International Underwriting Agreement, as further described in "Structure of the Global Offering"
"International Underwriters"	the underwriters named in the International Underwriting Agreement, being the underwriters of the International Offering
"International Underwriting Agreement"	the underwriting agreement relating to the International Offering to be entered into among the Company, the Controlling Shareholders, the Joint Global Coordinators and the International Underwriters on or about the Price Determination Date, as further described in "Underwriting"
"Joint Bookrunners"	Merrill Lynch (Asia Pacific) Limited, Goldman Sachs (Asia) L.L.C., CLSA Limited and Haitong International Securities Company Limited
"Joint Global Coordinators"	Merrill Lynch (Asia Pacific) Limited, Goldman Sachs (Asia) L.L.C., CLSA Limited and Haitong International Securities Company Limited

"Joint Sponsors"	Merrill Lynch Far East Limited and Goldman Sachs (Asia) L.L.C.
"Latest Practicable Date"	May 7, 2019, being the latest practicable date for the purpose of ascertaining certain information contained in this prospectus prior to its publication
"Listing"	the listing of the Shares on the Main Board of the Stock Exchange
"Listing Committee"	the listing committee of the Stock Exchange
"Listing Date"	the date, expected to be on or about May 30, 2019, on which the Shares are first listed and from which dealings in the Shares are permitted to take place on the Main Board of the Stock Exchange
"Listing Rules"	the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited, as amended or supplemented from time to time
"Maximum Offer Price"	HK\$3.20 per Offer Share, being the maximum subscription price in the Offer Price Range
"Memorandum" or "Memorandum of Association"	the amended and restated memorandum of association of the Company adopted by a special resolution on May 11, 2019, as amended from time to time, a summary of which is set out in "Appendix IV — Summary of the Constitution of the Company and Cayman Islands Company Law"
"Memorandum and Articles of Association"	the Memorandum and the Articles
"Minimum Offer Price"	HK\$2.55 per Offer Share, being the minimum subscription price in the Offer Price Range
"Offer Price"	the final offer price per Offer Share (exclusive of brokerage of 1.00%, SFC transaction levy of 0.0027% and Stock Exchange trading fee of 0.005%) of not more than HK\$3.20 and expected to be not less than HK\$2.55, such price to be determined by agreement between the Joint Global Coordinators (on behalf of the Underwriters) and the Company on or before the Price Determination Date
"Offer Price Range"	HK\$2.55 to HK\$3.20 per Offer Share

"Offer Shares"	the Hong Kong Offer Shares and the International Offer Shares, together with, where relevant, any additional Shares which may be issued by the Company pursuant to any exercise of the Over-allotment Option
"Over-allotment Option"	the option expected to be granted by the Company under the International Underwriting Agreement to the International Underwriters, exercisable by the Joint Global Coordinators (on behalf of the International Underwriters), pursuant to which the Company may be required to issue up to an additional 75,286,000 Shares (representing not more than approximately 15% of the number of Offer Shares initially being offered under the Global Offering) at the Offer Price, to cover over-allocations in the International Offering, if any, as further described in "Structure of the Global Offering"
"PRC" or "China"	the People's Republic of China, but for the purposes of this prospectus only, except where the context requires, references in this prospectus to PRC or China exclude Hong Kong, Macau and Taiwan
"Pre-IPO Investment(s)"	the investment(s) in the Group undertaken by the Pre-IPO Investors prior to the Global Offering, the details of which are set out in the section headed " <i>History, Reorganisation and</i> <i>Corporate Structure</i> "
"Pre-IPO Investor(s)"	the investors as set out in the table in the section headed "History, Reorganisation and Corporate Structure — Pre-IPO Investments — Principal terms of the Pre-IPO Investments"
"Pre-IPO Share Incentive Plans"	the 2008 Share Incentive Plan and the 2015 Share Incentive Plan
"Price Determination Date"	the date, expected to be on or about May 23, 2019, on which the Offer Price will be determined and, in any event, not later than May 29, 2019
"QIB"	a qualified institutional buyer within the meaning of the Rule 144A
"Regulation S"	Regulation S under the U.S. Securities Act
"Relevant Persons"	the Joint Global Coordinators, the Joint Sponsors, the Joint Bookrunners, the Underwriters, the Controlling Shareholders, any of their or the Company's respective directors, officers, agents, or representatives or advisers or any other person involved in the Global Offering

"Reorganisation"	the reorganisation of the Group in preparation for the Listing, details of which are set out in "History, Reorganisation and Corporate Structure — The Reorganisation"
"RMB"	Renminbi, the lawful currency of the PRC
"Rule 144A"	Rule 144A under the U.S. Securities Act
"SAFE"	State Administration for Foreign Exchange of the PRC
"SFC"	the Securities and Futures Commission of Hong Kong
"SFO"	the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong), as amended or supplemented from time to time
"Shareholder(s)"	holder(s) of Shares
"Shares"	ordinary shares with nominal value US\$0.00001 each in the share capital of the Company
"Stabilising Manager"	Merrill Lynch (Asia Pacific) Limited through its affiliates
"Stock Borrowing Agreement"	the stock borrowing agreement which may be entered into on or about the Price Determination Date between the Stabilising Manager (or its affiliate) and Hong Kong Tigermed
"Stock Exchange" or "Hong Kong Stock Exchange"	The Stock Exchange of Hong Kong Limited
"Takeovers Code"	the Hong Kong Code on Takeovers and Mergers
"Tigermed Group"	Hangzhou Tigermed and its subsidiaries (excluding the Group)
"Tigermed-Xinze"	Tiger-Xinze Medical Technology (Jiaxing) Co., Ltd., a company established in the PRC on December 25, 2013 and an associate of the Company
"Track Record Period"	the three years ended December 31, 2016, 2017 and 2018
"Underwriters"	the Hong Kong Underwriters and the International Underwriters
"Underwriting Agreements"	the Hong Kong Underwriting Agreement and the International Underwriting Agreement
"US" or "United States"	the United States of America, its territories and possessions, any state of the United States and the District of Columbia

## **DEFINITIONS AND GLOSSARY**

"US\$" or "US dollars"	Dollars, the lawful currency of the U.S.
"U.S. Securities Act"	the United States Securities Act of 1933, as amended

In this prospectus, unless the context otherwise requires, the terms "associate", "close associate", "connected person", "core connected person", "connected transaction", "subsidiary" and "substantial shareholder" shall have the meanings given to such terms in the Listing Rules, unless the context otherwise requires.

Certain amounts and percentage figures included in this prospectus have been subject to rounding adjustments. Accordingly, figures shown as totals in certain tables may not be an arithmetic aggregation of the figures preceding them.

Unless otherwise specified, certain amounts denominated in US dollars have been translated into Hong Kong dollars at an exchange rate of US\$1.00 = HK\$7.8485, respectively, in each case for illustrative purposes only and such conversions shall not be construed as representations that amounts in US\$ were or could have been or could be converted into Hong Kong dollars and/or that amounts in Hong Kong dollars were or could have been or could be converted into US dollars at such rate or any other exchange rates.

Unless otherwise specified, all references to any shareholdings in the Company following the completion of the Global Offering assume that the Over-allotment Option is not exercised.

This glossary contains explanations of certain terms used in this prospectus in connection with the Group and its business. The terminologies and their meanings may not correspond to standard industry meanings or usage of those terms.

