

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

POST-EFFECTIVE AMENDMENT NO. 2  
TO  
FORM F-1  
REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

**APTORUM GROUP LIMITED**  
(Exact Name of Registrant as Specified in its Charter)

**Cayman Islands**

(State or Other Jurisdiction of  
Incorporation or Organization)

**2834**

(Primary Standard Industrial  
Classification Code Number)

**Not Applicable**

(I.R.S. Employer  
Identification No.)

17<sup>th</sup> Floor, Guangdong Investment Tower  
148 Connaught Road Central  
Hong Kong  
Telephone: +852 2117 6611

(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)

**Copies to:**

**Louis Taubman, Esq.**  
**Hunter Taubman Fischer & Li LLC**  
**1450 Broadway, 26th Floor**  
**New York, NY 10018**  
**Tel: 917.512.0827**  
**Fax: 212.202.6380**

**Approximate date of commencement of proposed sale to the public:** As soon as practicable after effectiveness of this registration statement.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act or Rule 12b-2 of the Securities Exchange Act of 1934.

Emerging growth company

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

**The Registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended or until the registration statement shall become effective on such date as the Securities and Exchange Commission acting pursuant to said Section 8(a) may determine.**

### **Explanatory Note**

This Post-Effective Amendment No. 2 (this “Post-Effective Amendment”) to the Registration Statement on Form F-1 (File No. 333-227198) (the “Registration Statement”), which was originally filed and declared effective by the Securities and Exchange Commission (the “SEC”) on December 3, 2018, is being filed pursuant to our undertaking to file a post-effective amendment to the Registration Statement to include any financial statements required by “Item 8.A. of Form 20-F (17 CFR 249.220f)” at the start of any delayed offering or throughout a continuous offering. We believe this undertaking was triggered after we included financial statements for the six months ended June 30, 2019 in a registration statement on Form F-1 (File No. 333-232510) that was declared effective on October 24, 2019 (the “Resale F-1”). Accordingly, this Post-Effective Amendment is being filed to include such financial statements and also includes other updates to the disclosure included in the original Registration Statement as per the disclosure included in the Resale F-1.

The Registration Statement originally covered the initial public offering of Aptorum Group Limited of up to 1,898,734 Class A Ordinary Shares at an offering price is \$15.80 per share, 51,990 Class A Ordinary Shares underlying the underwriter warrant granted to one of the underwriters of the IPO, and a resale, by the selling shareholders identified in this Post-Effective Amendment, of up to an aggregate of 1,543,245 Class A Ordinary Shares, par value 1.00 per share, (the “Offering”).

The information included in this filing updates the Registration Statement and the prospectus contained therein (the “Prospectus”). No additional securities are being registered under this Post-Effective Amendment. All applicable registration fees were paid at the time of the original filing of the Registration Statement.

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The information in this prospectus is not complete and may be changed. Neither we nor the selling shareholders may sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

**SUBJECT TO COMPLETION  
DATED NOVEMBER 12, 2019**

**PRELIMINARY PROSPECTUS**



**APTORUM GROUP LIMITED**

1,595,235 Class A Ordinary Shares

This prospectus relates to the registration of 51,990 Class A Ordinary Shares issued as a result of the exercise of the underwriters' warrants issued pursuant to the IPO (as hereinafter defined) and the resale, by the selling shareholders identified in this prospectus, of up to 1,543,245 Class A Ordinary Shares. The selling shareholders are identified in the table commencing on page 85. We will not receive any proceeds from the sale of the Class A Ordinary Shares by the selling shareholders. All net proceeds from the sale of the Class A Ordinary Shares covered by this prospectus will go to the selling shareholders. See "Use of Proceeds."

The selling shareholders may sell all or a portion of the Class A Ordinary Shares, in negotiated transactions or otherwise, and at prices and on terms that will be determined by the then prevailing market price or at negotiated prices directly or through a broker or brokers, who may act as agent or as or by a combination of such methods of sale. See "Plan of Distribution".

Our Class A Ordinary Shares are traded on The NASDAQ Global Market under the symbol "APM." On November 11, 2019, the last reported sale price of our Class A Ordinary Shares as reported on The NASDAQ Global Market was \$15.83 share.

We are an emerging growth company, as defined in the U.S. Jumpstart Our Business Startups Act of 2012, or the JOBS Act, and, as such, have elected to comply with certain reduced public company reporting requirements.

**Investing in the Class A Ordinary Shares involves a high degree of risk. See "Risk Factors" beginning on page 26 of this prospectus.**

**Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.**

The date of this prospectus is November 12, 2019

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## TABLE OF CONTENTS

	<b>Page</b>
<a href="#">Commonly Used Defined Terms</a>	ii
<a href="#">Prospectus Summary</a>	1
<a href="#">Risk Factors</a>	26
<a href="#">Special Note Regarding Forward-Looking Statements</a>	67
<a href="#">Use of Proceeds</a>	68
<a href="#">Capitalization</a>	69
<a href="#">Selected Financial Data</a>	69
<a href="#">Management's Discussion and Analysis of Financial Condition and Results of Operations</a>	72
<a href="#">Selling Shareholders</a>	84
<a href="#">Plan of Distribution</a>	87
<a href="#">Description of Share Capital</a>	89
<a href="#">Legal Matters</a>	99
<a href="#">Experts</a>	100
<a href="#">Where You Can Find More Information</a>	100
<a href="#">Indemnification For Securities Act Liabilities</a>	101
<a href="#">Enforceability of Civil Liabilities</a>	101
<a href="#">Index to Financial Statements and Consolidated Financial Statements</a>	F-1
<a href="#">Information Not Required In Prospectus</a>	II-1

**We have not authorized any person to provide you with information different from that contained in this prospectus or any related free-writing prospectus that we authorize to be distributed to you. This prospectus is not an offer to sell, nor is it seeking an offer to buy, these securities in any jurisdiction where the offer or sale is not permitted. The information in this prospectus speaks only as of the date of this prospectus unless the information specifically indicates that another date applies, regardless of the time of delivery of this prospectus or of any sale of the securities offered hereby.**

For investors outside of the United States: We have not done anything that would permit this Offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than the United States. Persons outside of the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the Offering and the distribution of this prospectus outside of the United States.

This prospectus includes statistical and other industry and market data that we obtained from industry publications and research, surveys and studies conducted by third parties. Industry publications and third-party research, surveys and studies generally indicate that their information has been obtained from sources believed to be reliable, although they do not guarantee the accuracy or completeness of such information. While we believe these industry publications and third-party research, surveys and studies are reliable, you are cautioned not to give undue weight to this information.

All references in this prospectus to “\$,” “U.S.\$,” “U.S. dollars,” “dollars,” “US\$,” and “USD” mean United States dollars unless otherwise noted. All references to the “PRC” or “China” in this prospectus refer to the People’s Republic of China. All references to “Hong Kong” or “H.K.” in this prospectus refer to Hong Kong Special Administrative Region of the People’s Republic of China. All references to the “United States,” “U.S.” or “US” refer to the United States of America.

#### **COMMONLY USED DEFINED TERMS**

- “Acticule” refers to Acticule Life Sciences Limited, an 80% owned subsidiary of Aptorum Group.
- “Aeneas” refers to AENEAS CAPITAL LIMITED, a wholly-owned subsidiary of Aeneas Group Limited, which is an indirect wholly-owned subsidiary of Jurchen Investment Corporation through Aeneas Limited. Because Mr. Huen, our CEO, holds 100% equity interest in Jurchen Investment Corporation, we refer to Aeneas as a fellow subsidiary of Aptorum Group.
- “AGL” refers to Aeneas Group Limited, a wholly-owned subsidiary of Aeneas Limited and we refer to AGL as a fellow subsidiary of Aptorum Group.
- “AL” refers to Aeneas Limited, an entity 80% owned by Jurchen Investment Corporation and we refer to AL as a fellow subsidiary of Aptorum Group.
- “AML” refers to Aptorum Medical Limited, a 94% owned-subsiary of Aptorum Group.
- “AML Clinic” refers to an outpatient medical clinic operated by AML under the name of Talem Medical.
- “APD” refers to Aptorum Pharmaceutical Development Limited, a wholly-owned subsidiary of Aptorum Group.
- “Aptorum Group,” “Company,” “we,” “Group” and “us” refer to Aptorum Group Limited, a Cayman Islands exempted company with limited liability whose principal place of business is in Hong Kong.

- “Aptorum Non-Therapeutics Group” refers to the Company’s non-therapeutics segment that encompasses: (i) the development of surgical robotics and medical devices, which is operated through Signate Life Sciences Limited and (ii) AML Clinic.
- “Aptorum Therapeutics Group” refers to the Company’s therapeutics segment that is operated through its wholly-owned subsidiary, Aptorum Therapeutics Limited, a Cayman Islands exempted company with limited liability, whose principal place of business is in Hong Kong and its indirect subsidiary companies, whose principal places of business are in Hong Kong.
- “Bond” refers to the \$15,000,000 convertible bond the Company originally issued to Peace Range (as hereinafter defined) in the Bond Offering, but which has since been repurchased by one of the Company’s wholly owned subsidiary, Aptorum Investment Holding Limited, pursuant to that certain Bond Repurchase Agreement dated April 24, 2019 between the Company, Peace Range Limited and Aptorum Investment Holding Limited.
- “Bond Offering” refers to the Company’s private offering of the Bond that closed on April 25, 2018.
- “Boustead” refers to Boustead Securities, LLC.
- “cGCP” refers to Current Good Clinical Practice as adopted by the applicable regulatory authority.
- “cGLP” refers to Current Good Laboratory Practice as adopted by the applicable regulatory authority.
- “cGMP” refers to Current Good Manufacturing Practice as adopted by the applicable regulatory authority.
- “Class A Ordinary Shares,” or “Ordinary Shares,” refers to the Company’s Class A Ordinary Shares, par value \$1.00 per share.
- “Class B Ordinary Shares” refers to the Company’s Class B Ordinary Shares, par value \$1.00 per share.
- “CMC” refers to chemical, manufacturing and control.
- “Covar” refers to Covar Pharmaceuticals Incorporated, a contract research organization engaged by the Company.
- “CROs” refers to contract research organizations.
- “EMA” refers to the European Medicines Agency.
- “EMEA” refers to Europe, the Middle East and Africa.
- “EPO” refers to the European Patent Organization or the European Patent Office operated by it.
- “European Patent” refers to patents issuable by the EPO.
- “Exchange Act” refers to the U.S. Securities Exchange Act of 1934, as amended.
- “FDA” refers to U.S. Food and Drug Administration.
- “FDCA” refers to the U.S. Federal Food, Drug and Cosmetic Act.
- “HKD” refers to Hong Kong Dollars.
- “Hong Kong” or “H.K.” refers to Hong Kong Special Administrative Region of the People’s Republic of China.
- “Hong Kong Doctors” refers to the doctors in Hong Kong under the employment of AML Clinic.

- “IND” refers to Investigational New Drugs.
- “IP” refers to intellectual property.
- “IPO” means the initial public offering by the Company of 761,419 Class A Ordinary Shares consummated on December 17, 2018.
- “Jurchen” refers to Jurchen Investment Corporation, a company wholly-owned by our CEO, Ian Huen, and a holding company of Aptorum Group.
- “Lead Projects” refers to three of the Company’s therapeutic projects ALS-1, ALS-4 and NLS-1.
- “Major Patent Jurisdictions” refers to the United States, member states of the European Patent Organization and the People’s Republic of China.
- “Nativus” refers to Nativus Life Sciences Limited, a wholly-owned subsidiary of Aptorum Group.
- “NMPA” refers to China’s National Medical Products Administration and its predecessor, the China Food and Drug Administration.
- “NDA” refers to a New Drug Application issued by the FDA.
- “Offering” refers to the resale of the Class A Ordinary Shares offered by the selling shareholders included herein.
- “PRC” and “China” refer to the People’s Republic of China.
- “Restructure” refers to the Company’s change from an investment fund with management shares and non-voting participating redeemable preference shares to a holding company with operating subsidiaries, effective as of March 1, 2017.
- “R&D” refers to research and development.
- “R&D Center” refers to an in-house pharmaceutical development center operated by APD.
- “Securities Exchange Commission,” “SEC,” “Commission” or similar terms refer to the Securities Exchange Commission.
- “Sarbanes-Oxley Act” refers to the Sarbanes-Oxley Act of 2002.
- “Securities Act” refers to the U.S. Securities Act of 1933, as amended.
- “Series A Notes” refers to Series A convertible notes, at a purchase price of \$10,000 per note, sold in the Series A Note Offering.
- “Series A Note Investors” refers to the investors who purchased Series A Notes.
- “Series A Note Offering” refers to the private offering of Series A Notes, pursuant to Regulation S or Regulation D, as promulgated under the Securities Act that closed on May 15, 2018.
- “Shares” refers to the Class A Ordinary Shares and Class B Ordinary Shares collectively.
- “Signate” refers to Signate Life Sciences Limited, a wholly-owned subsidiary of Aptorum Group.
- “UK” refers to the United Kingdom.
- “Underwriter Warrants” refers to warrants issued to the underwriters of the IPO which have now been fully exercised on a cashless basis.
- “United States,” “U.S.” and “US” refer to the United States of America.
- “Videns” refers to Videns Incorporation Limited, a wholly-owned subsidiary of Aptorum Group.
- “\$,” “U.S. \$,” “U.S. dollars,” “dollars,” “US\$” and “USD” refer to the United States dollars.

## PROSPECTUS SUMMARY

*This summary highlights information contained elsewhere in this prospectus and does not contain all of the information that you should consider in making your investment decision. Before investing in our Class A Ordinary Shares, you should carefully read the entire prospectus, including our financial statements and the related notes included elsewhere in this prospectus. You should also consider, among other things, the matters described under “Risk Factors” and “Management’s Discussion and Analysis” in each case appearing elsewhere in this prospectus. Unless otherwise stated, all references to “us,” “our,” “Aptorum,” “we,” the “Company,” the “group” and similar designations refer to Aptorum Group Limited, a Cayman Islands exempted company with limited liability.*

### Overview

We are a pharmaceutical company currently in the preclinical stage, dedicated to developing and commercializing a broad range of therapeutic and diagnostic technologies to tackle unmet medical needs. We have obtained exclusive licenses for our technologies. In addition, we are also developing certain proprietary technologies as product candidates. We are pursuing therapeutic and diagnostic projects (including projects seeking to use extracts or derivatives from natural substances to treat diseases) in neurology, infectious diseases, gastroenterology, oncology and other disease areas. We also have projects focused on surgical robotics. (See “Lead Projects and Other Projects under Development – Lead Projects”) Also, we opened a medical clinic, AML Clinic, in June 2018.

Although none of our drug or device candidates has yet been approved for testing in humans, our goal is to develop a broad range of early stage novel therapeutics and diagnostics across a wide range of disease/therapeutic areas. Key components of our strategy for achieving this goal include: (for details of our strategy, See “Our Strategy”)

- Developing therapeutic and diagnostic innovations across a wide range of disease/therapeutic areas;
- Selectively expanding our portfolio with potential products that may be able to attain orphan drug designation and/or satisfy current unmet medical needs;
- Collaborating with leading academic institutions and CROs;
- Expanding our in-house pharmaceutical development center;
- Leveraging our management’s expertise, experience and commercial networks;
- Strategically developing opportunities in Hong Kong to promote access to the PRC market; and
- Obtaining and leveraging government grants to fund project development.

We have devoted a portion of the proceeds from our IPO to three therapeutic projects (“Lead Projects”). The drug candidates being advanced as the Lead Projects are ALS-1, ALS-4 and NLS-1, described in further detail below. If the results of the remaining preclinical studies of these drug candidates are positive, we expect to be able to submit by 2020 or 2021 an Investigational New Drug Application (“IND”) for at least one of these candidates to the U.S. Food and Drug Administration (“FDA”) or an equivalent application to the regulatory authorities in one or more other jurisdictions such as the China’s National Medical Products Administration (“NMPA”) and/or the European Medicines Agency (“EMA”). Acceptance of these applications by the relevant regulatory authority would enable the Company to begin testing that drug candidate in humans in that jurisdiction. Our ability to obtain any approval of such applications is entirely dependent upon the results of our preclinical studies, none of which have yet been completed.



Our current business consists of “therapeutics” and “non-therapeutics” segments. However, our focus is on the therapeutics segments. Because of the risks, costs and extended development time required for successful drug development, we have determined to pursue projects within our non-therapeutics segments, such as AML Clinic, to provide some interim revenue and medical robots that may be brought to market and generate revenue more quickly.

*Therapeutics Segment.* In our therapeutics segment (“Aptorum Therapeutics Group”), we are currently seeking to develop various drug molecules (including projects seeking to use extracts or derivatives from natural substances to treat diseases) and certain technologies for the treatment (“therapeutics”) and diagnosis (“diagnostics”) of human disease conditions in neurology, infectious diseases, gastroenterology, oncology and other disease areas. In addition, we are seeking to identify additional prospects which may qualify for potential orphan drug designation (e.g., rare types of cancer) or which address other current unmet medical needs. Aptorum Therapeutics Group is operated through Aptorum’s wholly-owned subsidiary, Aptorum Therapeutics Limited, a Cayman Islands exempted company with limited liability, whose principal place of business is in Hong Kong and its indirect subsidiary companies (who we sometimes refer to herein as project companies), whose principal places of business are also in Hong Kong.

*Non-Therapeutics Segment.* The non-therapeutics segment (“Aptorum Non-Therapeutics Group”) encompasses two businesses: (i) the development of surgical robotics and medical devices and (ii) AML Clinic. The development of surgical robotics and medical devices business is operated through Signate Life Sciences Limited, a subsidiary of Aptorum Therapeutics Limited. The outpatient clinic is operated through our subsidiary, Aptorum Medical Limited. Effective as of March 2018, we leased office space in Central, Hong Kong as the home to AML Clinic. AML Clinic commenced operations under the name of Talem Medical in June 2018. The estimated general administrative expenses and other operating expenses of the AML Clinic is expected to be no more than USD120,000 per month. The clinic is expected to reach operating profit in 18 months from the clinic reaching its full operating capacity upon (i) the successful recruitment of a minimum of six full time physicians (AML Clinic currently has one full time physician and six part time physicians) and (ii) establishing steady patients flow via brand development. (See “Lead Projects and Other Projects under Development – Other Projects under Development – Aptorum Medical Limited - AML Clinic”)

The Company has already obtained opportunities resulting in our existing licensing agreements from various contractual relationships that we have entered into, including service/consulting agreements with some of the world’s leading specialists and clinicians in our areas of interest, with academic institutions and organizations, and with CROs. We anticipate that these relationships will generate additional licensing opportunities in the future. In addition, we have established and are continuing to expand our in-house research facilities (collectively, the “R&D Center”) to develop some of our drug and device candidates internally and to collaborate with third-party researchers.

Prior to March 2017, the Company had pursued passive healthcare related investments in early stage companies primarily in the United States. However, we have since ceased pursuing further passive investment operations and intend to exit all such portfolio investments over an appropriate timeframe to focus resources on our current business.

## **Recent Events**

### *Master Collaboration Agreement*

On April 24, 2019, we signed an agreement with Aeneas, and A\*ccelerate Technologies Pte. Ltd, the enterprise office of the Agency for Science, Technology and Research (“A\*STAR”), to co-create local deep tech startups. This agreement, which is part of A\*ccelerate’s venture co-creation (“VCC”) initiative, commits all parties to the co-creation of local startups in the healthcare and life science sector (the “Master Collaboration Agreement”).

The goal is to create a total of up to 20 deep tech ventures in Singapore will be created by this partnership over the next 5 years. These enterprises will leverage technologies co-developed by both A\*STAR’s research institutes and Aptorum Group, as well as technologies identified and collaborated on worldwide by both institutions. As part of this agreement, all parties will also actively seek expertise, and nurture entrepreneurs to accelerate the growth of its ventures through Singapore and its worldwide partnerships.

Under the Master Collaboration Agreement, the parties will set up a panel consisting of 1 nominee from A\*STAR and 1 nominee from the Company, Aeneas, or Aptorum Innovations Holding Pte Limited (“Aptorum Innovations”) (which will act as the holding company for all subsequent venture creation or joint commercialization center activities including the development of the startups), to review and approve the business plan of all suitable startups. Each startup shall have a valuation mutually agreed upon between all parties, and shall have A\*STAR and Aptorum Innovations as founding shareholders.

A\*STAR shall contribute a total of up to \$30,000,000 to any suitable startups, at their discretion. The Company will set up a healthcare and life science strategic investment fund (“Fund”) to be managed by Aeneas Capital Limited. Through the Fund, it will contribute a total of up to \$30,000,000 to any suitable startups at their discretion with a focus on (i) securing pilot customers; (ii) incorporation of the startups as companies and financial commitments of such customers; (iii) capital raising and capital market plans; (iv) recruiting and building of the startup teams; (v) equipment and infrastructure; and (vi) licensing of IP to the startups under the separate technology license agreements.

The Master Collaboration Agreement shall continue for a period of 5 years, unless otherwise terminated or extended by the parties.

### *Bond Repurchase*

On April 24, 2019, the Company's wholly-owned subsidiary, Aptorum Investment Holding Limited, repurchased convertible bonds (the "Bonds") from Peace Range Limited ("Peace Range"), a wholly owned subsidiary of Adamas Ping An Opportunities Fund LP. Our CEO, Mr. Huen, maintains voting, dispositive and investment powers over Aptorum Investment Holding Limited. The Bonds were originally issued on April 25, 2018, in the principal amount of \$15,000,000 (minus a structuring fee equal to 2% of the principal amount of the Bonds). As part of the original subscription for the Bonds, the bondholder was granted certain rights to subscribe for additional Class A Ordinary Shares of the Company, in an amount up to the principal amount of the Bonds at a price of US\$12.17 (subject to adjustment) on or before December 17, 2019 ("Subscription Right"). The total consideration of the repurchase of Bonds and the Subscription Rights was US\$13.6 million in cash, excluding accrued interest. In connection with the repurchase, various other agreements initially entered into when the Bond was originally issued to Peace Range were terminated.

### *Establishment of Smart-ACT™ Platform*

On April 24, 2019, the Company announced the establishment of Smart Pharma ("Smart Pharma"), which operates novel computational repurposed drug discovery, modeling and validation platform, referred to as the Smart-ACT™ platform. Smart Pharma is controlled by SMTPH Limited, an International Business Company incorporated in Seychelles and a wholly-owned subsidiary of Aptorum Therapeutics Limited ("SMTPH").

Smart-ACT™ stands for "Accelerated Commercialization of Therapeutics" and encompasses state-of-the-art technology in systematic screening of existing approved drug molecules against selected therapeutic targets. Specifically, the Smart-ACT™ platform comprises of a network of modules and processes that simulate the effectiveness of drug molecules against diseases for outcome prediction and selection. The Smart-ACT™ platform initially focuses on screening drug molecules for orphan diseases or for fulfillment of unmet medical needs.

To date, the Smart-ACT™ platform has completed computational screening based on structural affinity and scoring analysis of around 1,600 approved drugs against 3 therapeutic target proteins related to poor prognosis of neuroblastoma (i.e., a type of cancer that forms in certain types of nerve tissue and most frequently in the adrenal glands as well as spine, chest, abdomen or neck). Among the 1,600 drugs that have been screened, around 40 have been identified for further evaluation under wet lab validation.

We are currently evaluating the shortlisted compounds via wet lab validation to confirm their efficacy in cell-based and animal models for treating neuroblastoma. The validation is being conducted in vitro and in vivo validation in collaboration with Aptorum Group Limited to assess and validate the compounds' usage for the new indication.

Smart Pharma's current funding needs include funding for validation and assessment of candidates, operation and improvement of the platform, legal/professional services and exchanges-listing. In an effort to raise funds for the development and operation of the Smart-ACT™ platform, Smart Pharma is conducting a Smart Pharma Token ("SMPT token") offering (See "Prospectus Summary – Recent Events – Smart Pharma Token").

Until Smart Pharma becomes self-sustaining, the proceeds from the token offering, if any, will most likely be insufficient to fully fund Smart Pharma's current and future operations. In such case, it could have a material adverse effect on SMTPH's ability to fund its objectives and carry out its related business plans, and its ability to develop the Smart-ACT™ platform may be limited.

Therefore, Smart Pharma will likely require funding from Aptorum Group to subsidize and support its operations. Nonetheless, if Smart Pharma is unable to obtain adequate funding from other sources, or if the internal funding from Aptorum Group is insufficient, Smart Pharma might be required to decrease or eliminate expenditure on the Smart-ACT™ platform altogether.

### *Smart Pharma Token*

On April 24, 2019, the SMPT token was announced to be launched. The SMPT tokens are issued by Smart Pharmaceutical Limited Partnership ("SPLP"), a limited partnership registered in Seychelles, which is managed by SMTPH as its sole general partner. SMTPH is a wholly-owned subsidiary of Aptorum Therapeutics Limited. Aptorum Group Limited is not involved with the offer and sale of the SMPT token in any way, other than the potential indirect benefit it will receive as a result of its subsidiary, Smart Pharma, from drug candidates developed by the Smart-ACT™ platform.

The SMPT token is not for sale in the U.S. and is not offered, available for sale and/or otherwise transferrable to any U.S. persons; Aptorum Group Limited is not involved with the sale of the SMPT token, other than the indirect benefit it will receive as a result of its subsidiary, Smart Pharma receiving profit from the sale of such tokens.

The SMPT token is an ERC-1404 security compliant token with ERC-20 and ERC233 compliance on the Ethereum blockchain, which tokenizes rights to a portion of sales-based royalties (as described below), non-royalty sublicensing income (as described below), as well as additional cash flow (as described below) (if applicable) (collectively referred to as “Commercialization Income”), derived from the subsequent commercialization of intellectual property rights of drug candidates discovered under our Smart-ACT™ platform. SMPT token is backed by SPLP’s assets, including intellectual property rights of drug candidates created through the Smart-ACT™ platform and Commercialization Income. SPLP acts as the intellectual property holding company of Smart Pharma, and holds all title, rights and ownership interest of the intellectual property rights developed by Smart-ACT™ (“Project IP”).

Specifically, Smart Pharma has the right to commercialize the drug candidates discovered under the Smart-ACT™ platform (e.g. through direct commercialization by affiliates, sublicensing to third parties, collaboration with third parties, and assignment to others) and distribute a portion of the Commercialization Income to the token holders, as set forth below.

First, for drug candidates that are directly commercialized by Smart Pharma or its affiliates (i.e., the licensee), Smart Pharma will set aside a 3% (minimum) to 5% (maximum) of the net sales of the products (on a product-by-product basis and as determined by Smart Pharma) to SPLP for distribution to the SMPT token holders. This type of consideration is hereby known as “sales-based royalties”.

Second, for drug candidates commercialized by third parties, instead of paying the sales-based royalties discussed above, Smart Pharma (i.e., the licensee) will receive from its sublicensee on account of the grant of the sublicense (on a product-by-product basis, such consideration may include royalties, upfront fees and milestone payments). Smart Pharma will set aside 10% of the consideration it receives to SPLP for distribution to the SMPT token holders. This type of consideration is hereby known as “sublicensing income”.

Therefore, depending on how a product is commercialized, Smart Pharma will set aside either sales-based royalties or sublicensing income to SPLP for distribution to the SMPT token holders. The above percentages for sales-based royalties or sublicensing income are subject to adjustment upon further notice to SMPT token holders.

Third, at its discretion, in addition to sales-based royalties and sublicensing income, Smart Pharma may occasionally set aside other additional amounts to SPLP for distribution to SMPT token holders (such as rebates, price protection, performance bonus, other discount and incentives), as applicable on a product-by-product basis. This type of consideration is hereby known as “additional cash flow”.

Accordingly, the amount of distributions payable to token holders is not tied to any funding we may provide to Smart Pharma and any such funding will not impact the amount of distributions so payable. The amount of distributions payable is also not correlated with the number of tokens sold or the amount of proceeds, if any raised through the token offering.

Once any of the above aforementioned distribution is accrued and set aside to SPLP by Smart Pharma, SPLP is not required to immediately distribute any such distribution to the SMPT token holders, but may choose to make a distribution at any time it deems it best to do so.

Currently, as the drug efficacy validation process has just begun, SPLP does not expect to distribute any sales-based royalties, sublicensing income or additional cash flow generated by drug candidates developed by the Smart-ACT™ platform at any time for the near future, although it will be accruing same.

In the event of liquidation, dissolution or winding up of SPLP, the SMPT token holders will be entitled to certain liquidation rights. Specifically, SPLP will, after payment of its debts and obligations, distribute any “relevant assets”<sup>1</sup> of SPLP to the SMPT token holders, with equal priority pro rata among the SMPT token holders, ratably and in proportion to the full amount of the relevant assets. Given that SMPT token holders are not shareholders of SPLP, they are only entitled to collect the relevant assets but not other assets held by SPLP. Therefore, in the event of liquidation, dissolution or winding up of SPLP, the total distribution issuable to the token holders will not exceed the “relevant assets”.

There is no assurance that any or all of the SMPT tokens will be sold and SPLP can elect in their discretion not to issue any SMPT tokens for any reason.

The SMPT tokens are not offered for sale to citizens, nationals, residents (tax or otherwise), green card holders and/or companies domiciled in the following jurisdictions: (a) the United States of America; (b) Singapore; (c) Hong Kong (except for Professional Investors); (d) the People’s Republic of China; (e) Samoa, (f) Seychelles, (g) sanctioned countries under the OFAC and (h) any other jurisdiction which prohibits the possession, dissemination or communication of tokens. The SMPT token is not registered under the U.S. Securities Act and we have no intention of doing so. The SMPT tokens may not be offered or resold in the U.S. or to U.S. persons unless registered under the Securities Act or pursuant to an exemption therefrom. The SMPT tokens may not be transferred to a U.S. person, as such term is defined in Regulation S of the Securities Act, except and unless in accordance with the provisions of U.S. securities laws, particularly they must either be registered or comply with an exemption from registration. Further, hedging transactions with regard to the SMPT tokens may not be conducted unless in compliance with the Securities Act.

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<sup>1</sup> The relevant assets of SPLP shall be limited to all accrued sales-based royalties, sublicensing income and/or additional cash flow generated by the drug candidates developed by the Smart-ACT™ platform, set aside by Smart Pharma and not yet distributed to the SMPT token holders. The relevant assets are secured by way of a floating charge against the Project IP (See “Risk Factors – Risks Related to the SMPT tokens - SMPT Tokenholders’ security interest in the intellectual property rights may affect our shareholder’s interest in the Company”).

Currently, Smart Pharma has no immediate plan to register the SMPT tokens under the Securities Act or to offer the SMPT tokens in the U.S.

Since July 2019, the SMPT tokens have been listed for trading on two cryptocurrency exchange platforms, IDAX and LATOKEN.

This document shall not constitute an offer to sell or the solicitation of an offer to buy SMPT tokens.

#### *Establishment novel therapeutic platform*

On May 6, 2019, Claves Life Sciences Limited, a wholly owned subsidiary of Aptorum Group Limited announced the establishment of a novel therapeutic platform intended for the treatment of various diseases via modulation of the chemical signaling relating to gut microbiota.

#### *Hong Kong Micro Cap Exchange*

Effective Tuesday, May 28, 2019, the Company shall be added to the Morgan Stanley Capital International MSCI (“MSCI”) Hong Kong Micro Cap Index. MSCI Hong Kong Micro Cap Index is an international equity benchmark recognized by institutional investors. Inclusion of constituent companies is based on excellence of performance and potential of development. We believe that our inclusion in the MSCI Hong Kong Micro Cap Index will help expand Aptorum’s investor base and enhance its corporate image and market presence.

#### *Line of Credit*

On August 13, 2019, the Company entered into financing arrangements with Aeneas Group Limited, a related party, and Jurchen Investment Corporation, the ultimate parent of the Group, allowing the Group to access up to a total \$15.0 million in line of credit debt financing. The line of credit will mature on August 12, 2022 and the interest on the outstanding principal indebtedness will be at the rate of 8% per annum. As of the date hereof, the Company has drawn down \$0.9 million from this line of credit.

#### ***Our Strategy***

Although we plan to continue the development and improvement of a broad range of novel therapeutics and diagnostics across a wide range of disease/therapeutic areas, over the next 24-36 months we plan to concentrate on development of our Lead Projects, while also allocating some resources to develop SLS-1 and maintaining our AML Clinic.

We believe that execution of this strategy will position the Company to catalyze the development and improvement of a broad range of early-staged novel therapeutics and diagnostics across a wide range of disease/therapeutic areas. Failure to achieve positive results in at least one of the programs for a Lead Project could have a material adverse effect on the Company’s prospects and business.

To achieve this goal, we are implementing the following strategies:

- **Developing therapeutic and diagnostic innovations across a wide range of disease/therapeutic areas.** We are currently developing drug and device candidates in several disease/therapeutic areas. We believe that by diversifying our research efforts, it would increase the likelihood that at least one of our projects will achieve clinical success and therefore add value to the Company. As of date hereof, we have obtained 11 exclusively licensed technologies across the areas of neurology, infectious diseases, gastroenterology, oncology, surgical robotics and natural health. Our initial focus will be on developing our Lead Projects, but intend to continue developing our other current projects and seeking new licensing opportunities where we determine that the market potential justifies the additional commitment of our limited resources.

- **Selectively expanding our portfolio with potential products that may be able to attain orphan drug designation and/or satisfy current unmet medical needs.** We have selected innovations for development which we believe are of superior scientific quality, whilst taking into account the potential market size and demand for same, for example, taking into consideration whether the relevant product can satisfy significant unmet medical needs. In particular, Aptorum Therapeutics Limited has established a Scientific Assessment Committee, which helped us to select our current projects and which we expect will provide input from a scientific perspective towards any future opportunities for acquiring or licensing life science innovations. We intend to continue expanding our line of projects under development, and subject to our financial and other resource limitations, exploring acquisitions or licenses of additional products which may be able to attain orphan drug designations (e.g., rare types of cancer) or satisfy significant unmet medical needs and that show strong preclinical and/or early clinical data to provide promising opportunities for clinical and commercial success.
- **Collaborating with leading academic institutions and CROs.** In building and developing our product portfolio, we believe that accessing external innovation, expertise and technology through collaboration with leading academic institutions and CROs is a vital and cost-efficient strategy. We have established strong relationships with leading academic institutions around the world and expect to continue to strengthen our collaborations by, for example, seeking to provide their affiliated Principal Investigators resources through sponsorship to conduct further research in specialty fields of interest and association with personnel connected to our current project companies, in exchange for obtaining for the Company the first right to negotiate for an exclusive license to any resulting innovations. In addition, we have entered and will continue to actively source arrangements with pharmaceutical companies, in most cases in roles as CROs, to streamline the development of our projects. This may include outsourcing part of the preclinical, clinical studies and clinical supplies manufacturing to externally accredited cGLP, cGMP and cGCP standard CROs or laboratories in order to attain the required studies for submission to the regulatory authorities as part of the clinical development plan. (See “Arrangements with Other Parties”)
- **Expanding our in-house pharmaceutical development center.** We believe collaborations between the R&D Center operated by APD and the scientists engaged in work for our project companies will enhance clinical and commercial potential of the projects. In addition, APD will assist the project companies by engaging external pharmaceutical companies and/or CROs to outsource any part of the preclinical or clinical development work that cannot be performed by the R&D Center in order to obtain the resources necessary for our development process.
- **Leveraging our management’s expertise, experience and commercial networks.** We believe the combination of our management’s expertise and experience, with their academic and commercial networks make us an effective platform for advancing healthcare innovations towards clinical studies and commercialization in key global markets. We have assembled a management team with global experience and an extensive record of accomplishments in medical research, consulting and financing, and identification and acquisition of pharmaceutical and biopharmaceutical drug and device candidates. Our Head of Research and Development also has extensive experiences in drug development. We also employ key management personnel with banking and financial experience, which enhances our capability to establish the most efficient financial structure for the development of our programs.
- **Strategically developing opportunities in Hong Kong to provide access to the PRC market.** The PRC is the world’s second largest healthcare market (<https://seekingalpha.com/article/4038677-opportunities-chinas-healthcare-market>) and we plan to market our products there in the future as part of our overall growth strategy. In October 2017, the PRC government announced that the country is planning to accept trial data gathered overseas to speed up drug approvals (<https://www.reuters.com/article/us-china-pharmaceuticals/china-to-accept-overseas-trial-data-in-bid-to-speed-up-drug-approvals-idUSKBN1CE080> and <http://www.lawinfochina.com/display.aspx?id=26778&lib=law>), which is a potential boon for foreign pharmaceutical companies. We believe strategically locating our principal businesses in Hong Kong, as a Special Administrative Region of the PRC, may provide us distinctive advantages in accessing the PRC healthcare market. Two of our key collaborators, The University of Hong Kong (the “HKU”) and the Chinese University of Hong Kong (the “CUHK”) have received clinical drug trial accreditation by the NMPA for their clinical trial units/centers (<http://www.crmo.med.cuhk.edu.hk/en-us/nmpaaccreditation.aspx> and [https://www.ctc.hku.hk/assurance\\_cfda.php](https://www.ctc.hku.hk/assurance_cfda.php)).
- **Obtaining and leveraging government grants to fund project development.** The Hong Kong government pays close attention to the development of the biotechnology sector in Hong Kong and provides support and funding. We intend to aggressively seek government support from Hong Kong for our product development and to facilitate the development of some of our projects.

### ***Arrangements with Other Parties***

As mentioned above, part of our business model includes collaborating with research entities such as academic institutions and CROs, as well as highly regarded experts in their respective fields. We engage these entities and researchers either for purposes of exploring new innovations or advancing preclinical studies of our existing licensed drug candidates. Although the financial cost of these arrangements does not represent a material expense to the Company, the relationships we can access through, specifically, sponsored research arrangements (“SRAs”) with academic institutions and organizations can provide significant value for our business; for example, we may decide whether to continue development of certain early-staged projects and/or out-license a project based on the data and results from research governed by SRAs. However, as of the date hereof, we do not consider the particulars of any of our SRAs to be material to the success of our current business plans.

Our drug discovery programs are based upon licenses from universities and are mainly conducted in universities via SRAs. As for the development of our drug candidates, our R&D Center conducts part of the CMC work. However, since our current facilities are not cGMP, cGLP or cGCP qualified, we will have to rely on CROs to conduct that type of work, if and when our drug candidates reach the level of development that requires such qualification.

### ***Lead Projects and Other Projects under Development***

We are actively operating and managing the development of our drug and device candidates through various subsidiaries. Each candidate is being researched in a subsidiary with a medical/scientific area of focus related to the drug and device candidate in development. We refer to these as our “Project Companies” and their products or areas of focus as either our Lead Projects (i.e., ALS-1, ALS-4 and NLS-1) or Other Projects under Development (as defined below). The selection of a drug and device candidate is based on our estimate of the market potential for that candidate, the scientific expertise required to develop it, and our overall corporate strategy, including our ability to commit personnel and future investment to that candidate.

To pursue a number of our current projects, our Project Companies have entered into standard license agreements with various university and licensing entities customized to the nature of each project. These license agreements largely contain the same terms, as is typically seen in license agreements for an early-stage life science invention; such terms include a worldwide license with licensed field comprising indications in the intended treatment areas, having upfront payments, certain royalty rates, sublicensing royalties, as well as provisions for payments upon occurrence of development and/or regulatory milestones. Under the license agreements, the Project Company must also adhere to certain diligence obligations and may or may not be required to obtain prior consent from the licensor to sublicense the invention. The license terms of our Lead Projects are discussed in detail below.

Generally speaking, pharmaceutical development consists of preclinical and clinical phases. Our immediate efforts would be on the preclinical phase which can further sub-divided into the following stages:

**Target Identification & Selection:** The target is the naturally existing cellular or modular structure that appears to have an important role in a particular disease pathway and will be targeted by the drug that will subsequently be developed. Target validation techniques for different disease areas can be very different but typically include from in vitro and in silico methods through to the use of whole animal models.

**Lead Discovery:** Following “Target Identification & Selection,” compound screening assays are developed as part of the Lead Discovery. ‘Lead’ molecules can mean slightly different things to different researches or companies, but in this prospectus, we refer to Lead Discovery as the process of identifying one or more small molecules with the desired activity against the identified targets. Leads can be identified through one or more approaches, which can depend on the target and what, if any, previous knowledge exists.

**Lead Optimization:** In this stage of the drug discovery process, the aim is to produce a preclinical drug candidate by maintaining the desired and favorable properties in the lead compounds, while repairing or reducing deficiencies in their structures. For example, to optimize the chemical structures to improve, among others, efficacy, reduce toxicity, improve metabolism, absorption and pharmacokinetic properties.

**IND-Enabling Studies:** Includes all the essential studies such as GLP toxicology studies, pharmacology and efficacy, pharmacokinetics, in vitro metabolism, CMC studies, and the data of which are used for IND submission.

Drug and Device Candidates								
Projects	Candidate / Modality	Indication	Development Stage					
			Target Identification & Selection	Lead Discovery	Lead Optimization	IND-Enabling	Phase 1	Phase 2
<b>Videns' Series</b>								
VLS-1	Curcumin-MNP (Medical Imaging Agent for MRI Diagnosis)	Diagnosis of Alzheimer's Disease	█					
VLS-2	MITA	Treatment of Alzheimer's & Parkinson's Disease	█					
VLS-4	Imaging Agent for MRI Diagnosis	Diagnosis of Alzheimer's Disease	█					
<b>Acticle's Series</b>								
ALS-1	Small molecule	Treatment of viral infections caused by Influenza virus A	█					
ALS-2	Small molecule	Treatment of bacterial infections caused by Staphylococcus aureus including MRSA	█					
ALS-3	Small molecule	Reviving existing antibiotics to overcome drug Resistance	█					
ALS-4	Small molecule	Treatment of bacterial infections caused by Staphylococcus aureus including MRSA	█					
<b>Nativus' Series</b>								
NLS-1	Small molecule	Treatment of Endometriosis	█					
NLS-2	An extract from Chinese Yam	Relief of Menopausal Symptoms	█					
NLS-3	SAC	Treatment of and protection against retinal ischemia/reperfusion injury	█					
<b>Scipio's Series</b>								
SPLS-1	83b-1 Novel Quinoline Derivative	Treatment of Liver Cancer	█					
Projects	Candidate / Modality	Indication	Device Development					
			Lab-based Preclinical Trial	Animal Trial	IDE Application Approval	Safety/ Feasibility Clinical Study	Pretrial Clinical Study	Process of obtaining PMA
<b>Signate's Series</b>								
SLS-1	Robotic Catheter Platform for Intra-operative MRI-Guided Cardiac Catheterization	Heart Rhythm Disorders by Cardiac Electrophysiology Intervention		On-going				
<b>Other Key Projects</b>								
ALS-DDC	Drug Discovery Center + Chemical Library	Drug Discovery by identification and screening of drug molecules for various indications				Setting Up		
AML Clinic	Clinic - Talem Medical	Medical Services				Commenced operations in June 2018		

█ Lead Projects █ Candidates █ Device Candidates




\*See "Explanatory Note" and "Incorporation Of Certain Information By Reference"



Another subsidiary, Aptorum Medical Limited (“AML”)<sup>2</sup>, is our vehicle for developing our business of delivering medical services in the form of AML Clinic.

We anticipate allocating approximately 20% of our resources to develop projects other than our Lead Projects (such other projects being referred to herein as “Other Projects under Development”), with a strong focus on SLS-1 and AML Clinic. As a device candidate, SLS-1 may not need to undergo the same regulatory approval process as a drug candidate and therefore we may be able to bring it to market sooner. AML Clinic is expected to provide us with a modest amount of revenue. Even if SLS-1 achieves commercial sales, of which there can be no assurance, revenue from these products alone will not be sufficient for us to carry out all of our plans, but it will assist with name recognition and supplement our income while we develop our Lead Projects.

### Lead Projects

Drug and Device Candidates										
Projects	Candidate / Modality	Indication	Development Stage							
			Target Identification & Selection	Lead Discovery	Lead Optimization	IND-Enabling	Phase 1	Phase 2	Phase 3	
ALS-1	Small molecule	Treatment of viral infections caused by Influenza virus A								
ALS-4	Small molecule	Treatment of bacterial infections caused by Staphylococcus aureus including MRSA								
NLS-1	Small molecule	Treatment of Endometriosis								

### ALS-1: Small molecule intended for the treatment of viral infections caused by Influenza virus A

Professor Richard Kao (Inventor of ALS-1, Founder and Principal Investigator of Acticule) was the first to identify NP as an effective drug target (Nature Biotechnology. 28:600-605). We are exploring ALS-1 as a potential treatment for viral infections caused by Influenza virus A (“IVA”).

Two widely prescribed antiviral drug classes for the treatment of influenza are neuraminidase inhibitors (“NI”) and M2 protein inhibitors. Zanamivir is a second-generation neuraminidase inhibitor for the treatment of both Influenza A and B in adults and children (5 years old and above). Oseltamivir is a third-generation neuraminidase inhibitor for the treatment of Influenza A and B in individuals older than 1 year of age. Amantadine and rimantadine are M2 membrane protein inhibitors that block the M2 ion channel activity of Influenza A but have no effect on Influenza B. Given the widespread resistance to M2 inhibitors, amantadine and rimantadine are no longer recommended for the treatment of Influenza A.

It is our hypothesis that Influenza A NP is an essential protein for the proliferation of the influenza virus. ALS-1 targets NP and triggers the aggregation of NP and this prevents the aggregated NP from entering the nucleus. In a paper published by the inventor, Prof. Richard Kao, in Nature Biotechnology (28 (6): 600, 2010), ALS-1 inhibited infection of MDCK cells by the Influenza A/WSN/33, H3N2 (clinical isolate) and Vietnam/1194/04 (H5N1) viruses with an IC<sub>50</sub> (IC<sub>50</sub> is defined as the concentration of a drug which inhibits half of the maximal response of a biochemical process. In this case, inhibition of the growth of PFU = plaque-forming units is the response) of 0.069 ± 0.003 μM, 0.16 ± 0.01 μM and 0.33 ± 0.04 μM in plaque reduction assay (PRA), respectively (Figure 1A). In this study, oseltamivir (sold under the brand name Tamiflu®) was also included as a control. In this cell culture, ALS-1 outperformed oseltamivir with a lower IC<sub>50</sub> (Figure 1A). ALS-1 inhibited viral growth even when added within 6 hours after infection of the MDCK cells with the virus (Figure 1B), indicating that the antiviral activities of ALS-1 arise from post-entry and post-nuclear events, suggesting that multiple processes involving NP may be affected, although only the nuclear import process of NP can be readily observed.

<sup>2</sup> Clark Cheng, our Chief Medical Officer and an Executive Director, owns 6% of Aptorum Medical Limited as of the date hereof; Mr. Cheng is also an Executive Director of Smart Pharmaceutical Development PTE. Ltd, which is also a limited partner of Smart Pharmaceutical Limited Partner. Dr. Cheng also serves as a director of several other of our subsidiaries.

In the treatment-free control group, all mice died 7 days after inoculation. After treating with ALS-1, 50% of the mice receiving two doses of ALS-1 (100  $\mu$ l of 2.3 mg/ml ALS-1) per day for 7 days survived for more than 21 days. Three mice were sacrificed from each treated and untreated group on the 6th day after infection and their lungs tested for live virus by a plaque reduction assay. About a 10x reduction of viral load in the lungs of the ALS-1-treated mice was observed compared to the untreated control group. The animal study results suggest that ALS-1 has the potential to be developed into a useful anti-influenza therapeutic.

ALS-1 is designed to target a broad range of NP variants, a novel therapeutic target. Compared with the currently marketed antiviral drugs for which the viruses have acquired extensive resistance, ALS-1 acts on a completely different therapeutic target. ALS-1 is currently undergoing Lead Optimization to optimize its drug-like properties.

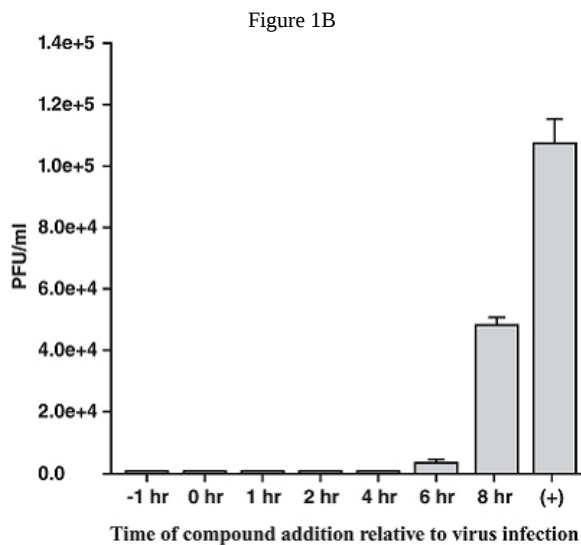
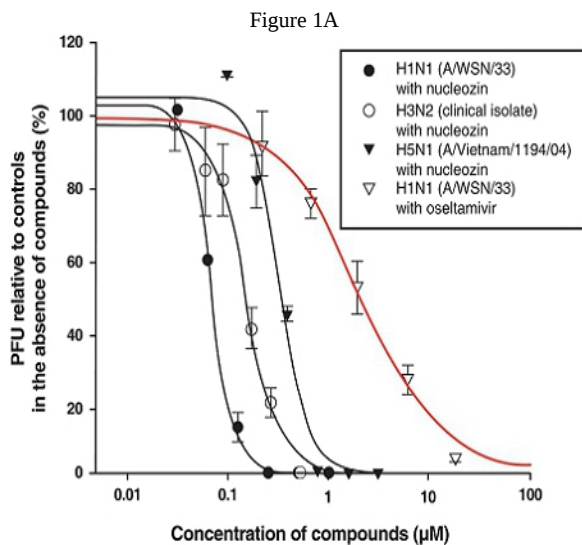


Figure 1A: ALS-1 is shown to cause a greater reduction in the number of infectious virus particles of human H1N1, H3N2 and H5N1 Influenza viruses. MDCK cells were infected with different strains of virus and antiviral activities of different treatments were determined by plaque reduction assay (PRA). Oseltamivir (curve in red) was included for comparisons of in vitro efficacies. The PRA assay was conducted in triplicate and repeated twice for confirmation. PFU = plaque-forming units, a measure of number of infectious virus particles Nucleozin = ALS-1 (Adapted from Nature Biotechnology (28 (6): 600, 2010).

Figure 1B: Efficacies of ALS-1 added at various time points. The experiments were carried out in triplicate and repeated twice for confirmation. The mean value is shown with s.d.; PFU = plaque-forming units, a measure of number of infectious virus particulates (Adapted from Nature Biotechnology (28 (6): 600,2010)).

#### Patent License

On October 18, 2017, the Company's subsidiary, Acticule, entered into an exclusive license agreement with Versitech Limited, the licensing entity of HKU, for the rights to ALS-1. Subsequently on June 7, 2018, the parties entered into a first amendment to the license agreement, and on July 10, 2019, the parties entered into a second amendment to the license agreement.

Under the exclusive license agreement, we were granted an exclusive, royalty-bearing, sublicensable license to develop, make, have made, use, sell, offer for sale and import products that are covered by the licensed patents (as described below). The territory of the license is worldwide and the field of the license is for treatment or prevention of viral infections including influenza.

We paid an upfront fee upon entering into the license agreement. We are required to pay less than 10% of the net sales of the licensed products sold by us or our affiliates as royalties, as well as a low teens percentage of sublicense royalties that we receive from our sublicensees, if any. In addition, we agreed to pay to the licensor aggregate regulatory milestones of up to US\$1 million subject to the following achievements: submission of investigational new drug application; completion of phase 1, 2 and 3 clinical trials; and submission of new drug application; grant of regulatory approval. We also agreed to pay to the licensor aggregate sales milestones of up to US\$7.8 million subject to the following achievement: first commercial sale; and annual net sales exceeding US\$100 million in one jurisdiction.

Pursuant to the license agreement, Acticule became the exclusive licensee of 1 U.S. patent, 1 European Patent, 1 PRC patent and 1 German patent. The claimed invention is described as: “Antiviral Compounds and Methods of Making and Using Thereof.”

Acticule has the right to grant sublicenses under the license agreement without prior approval from Versitech Limited and to assign the agreement to any successor to the business related to the license. In the event that Acticule makes an improvement to the licensed technologies, so long as the improvement does not incorporate any licensed patents, Acticule will be the owner of such improvement, subject to a non-exclusive royalty-free license being granted back to Versitech Limited for academic and research purposes only.

The exclusive license agreement shall be in effect until the expiration of all licensed patents. Acticule may terminate the license at any time with 6-month written notice in advance. Either party may terminate the agreement upon a material breach by other party.

#### **ALS-4: Small molecule for the treatment of bacterial infections caused by *Staphylococcus aureus* including Methicillin-resistant *Staphylococcus aureus* (“MRSA”)**

Just as certain strains of viruses, such as human immunodeficiency virus (“HIV”) and influenza have developed resistance to drugs developed to treat them, certain bacteria such as *Staphylococcus aureus*, *Mycobacterium tuberculosis* and *Pseudomonas aeruginosa* have become “superbugs”, having developed resistance to many, if not all, of the existing drugs available to treat them, rendering those treatments ineffective in many instances. MRSA is one such bacterium, a gram-positive bacterium that is genetically different from other strains of *Staphylococcus aureus*. *Staphylococcus aureus* and MRSA can cause a variety of problems ranging from skin infections and sepsis to pneumonia and bloodstream infections. It is estimated that about one out of every three people (33%) carry *Staphylococcus aureus* in their nose, usually without any illness; about two in a hundred (2%) carry MRSA (source: <https://www.cdc.gov/mrsa/tracking/index.html>). Both adults and children may carry MRSA.

Most MRSA infections occur in people who have been in hospital or other health care settings, such as nursing homes and dialysis centers (source: <https://www.mayoclinic.org/diseases-conditions/mrsa/symptoms-causes/syc-20375336>), which is known as Healthcare-Associated MRSA (“HA-MRSA”). HA-MRSA infections are typically associated with invasive procedures or devices, such as surgeries, intravenous tubing or artificial joints. Another type of MRSA infection, known as Community-Associated MRSA (“CA-MRSA”), has occurred in wider community among healthy people. It often begins as a painful skin boil and spreads by skin-to-skin contact. About 85% of serious, invasive MRSA infections are healthcare associated infections (<https://www.cdc.gov/media/pressrel/2007/r071016.htm>). The incidence of CA-MRSA varies according to population and geographic location. In the U.S., more than 94,000 people develop serious MRSA infection and about 19,000 patients die as a result each year (<https://www.cdc.gov/media/pressrel/2007/r071016.htm>). According to the US Centers for Disease Control and Prevention (“CDC”), *Staphylococcus aureus*, including MRSA, caused about 11% of healthcare-associated infections in 2011 (source: <http://www.healthcommunities.com/mrsa-infection/incidence.shtml>). Each year in the U.S., around one out of every twenty-five hospitalized patients contracts at least one infection in the hospital (N Engl J Med. 2014, 27;370(13):1198-208). In the U.S., there were over 80,000 invasive MRSA infections and 11,285 related deaths in 2011 (source: <https://edition.cnn.com/2013/06/28/us/mrsa-fast-facts/index.html>). Indeed, severe MRSA infections most commonly occur during or soon after inpatient medical care. More than 290,000 hospitalized patients are infected with *Staphylococcus aureus* and of these staphylococcal infections, approximately 126,000 are related to MRSA (source: <http://www.healthcommunities.com/mrsa-infection/incidence.shtml>).

ALS-4 is a small drug molecule which appears to target the products produced by bacterial genes that facilitate the successful colonization and survival of the bacterium in the body or that cause damage to the body’s systems. These products of bacterial genes are referred to as “virulence expression.” Targeting bacterial virulence is an alternative approach to antimicrobial therapy that offers promising opportunities to overcome the emergence and increasing prevalence of antibiotic-resistant bacteria.

Professor Richard Kao from The University of Hong Kong (who is also the Founder and Principal Investigator of Acticule and Inventor of ALS-2, ALS-3 and ALS-4) initiated a high throughput approach for screening compounds which are active against virulence expression, which resulted in the discovery of ALS-2, ALS-3 and ALS-4.

ALS-4 targets an enzyme essential for *Staphylococcus aureus* (including MRSA) survival in vivo. This enzyme is involved in the production of Staphyloxanthin, a carotenoid pigment produced by *Staphylococcus aureus* including MRSA, and is responsible for the characteristic golden color. This pigment has proven to be an important factor in promoting bacterial invasion as well as rendering the bacteria resistant to attack from reactive oxygen species (ROS) and neutrophils. In other words, pigmented bacteria have increased resistance to the host's immune defenses. ALS-4 may have particular value if it can be shown to be an effective therapy in situations where a *Staphylococcus aureus* infection is resistant to available antibiotics (i.e., where the pathogen is MRSA).

In a recent study by the inventor, Prof. Richard Kao, ALS-4 demonstrates potent activity against *Staphylococcus aureus* pigment formation in vitro, as indicated in Figure 2, with an  $IC_{50}$  ( $IC_{50}$  is defined as the concentration of a drug which inhibits half of the maximal response of a biochemical process. In this case, inhibition of the formation of the golden pigment is the response) equal to 20nM.

Figure 2

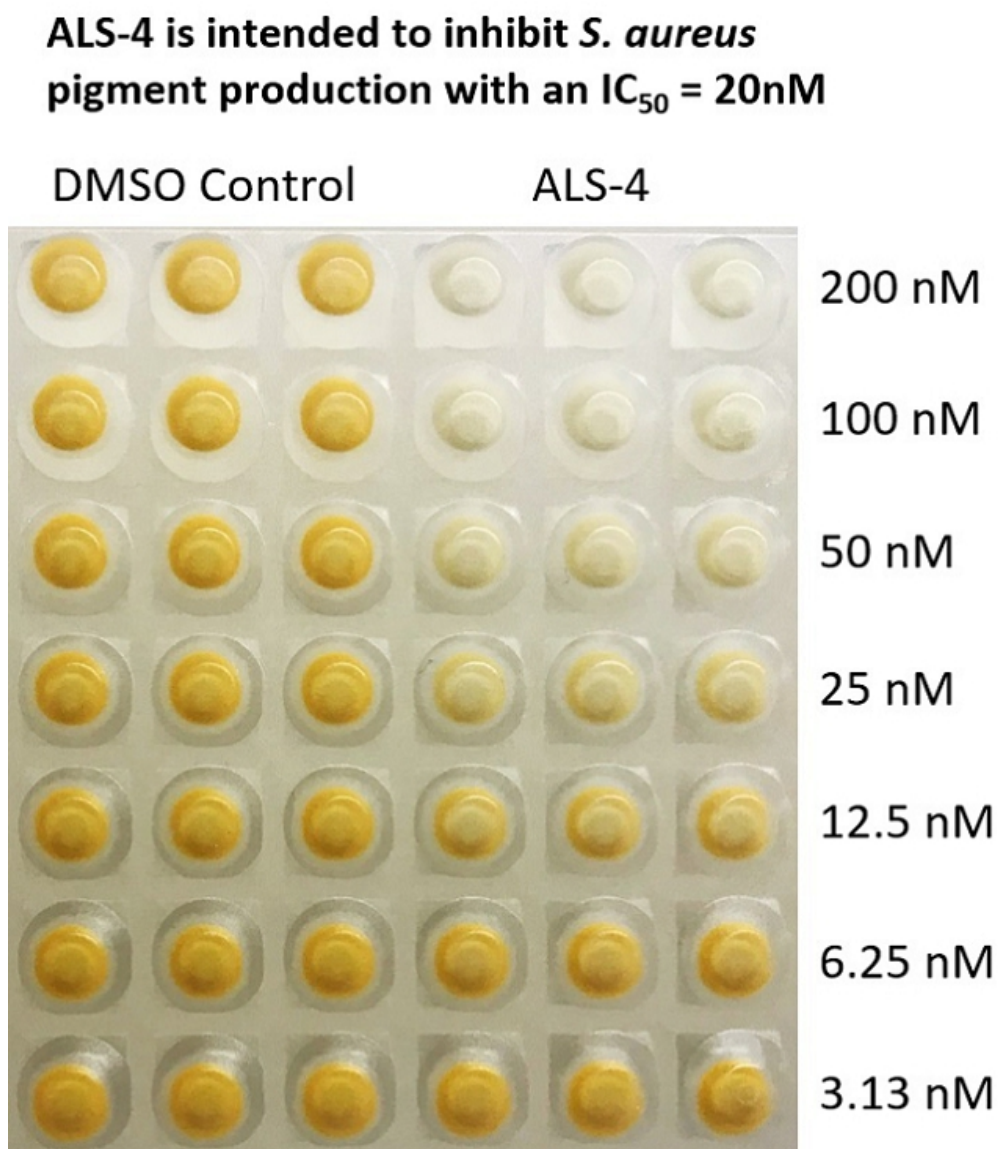


Figure 2: In vitro pigment inhibition by compound ALS-4.

(A) Inhibition of wild-type (WT) *Staphylococcus aureus* pigmentation in the presence of increasing concentrations of ALS-4.

(B) Pigment inhibition by ALS-4; the  $IC_{50}$  for pigment formation is roughly 300 nM.

All data represent mean values  $\pm$ SD.

NP16 = ALS-4

This assay was conducted in triplicate and repeated twice for confirmation

(Adapted from mBio (8(5): e01224, 2017))

By employing a systemic *Staphylococcus aureus* mouse infection model, the treatment (1mM of ALS-4 twice daily) and control groups (vehicle) were compared. In both acute treatment and delayed treatment groups, the bacterial counts in the kidneys of mice treated with compound ALS-4 were significantly lower than those of the no treatment group.

Figure 3

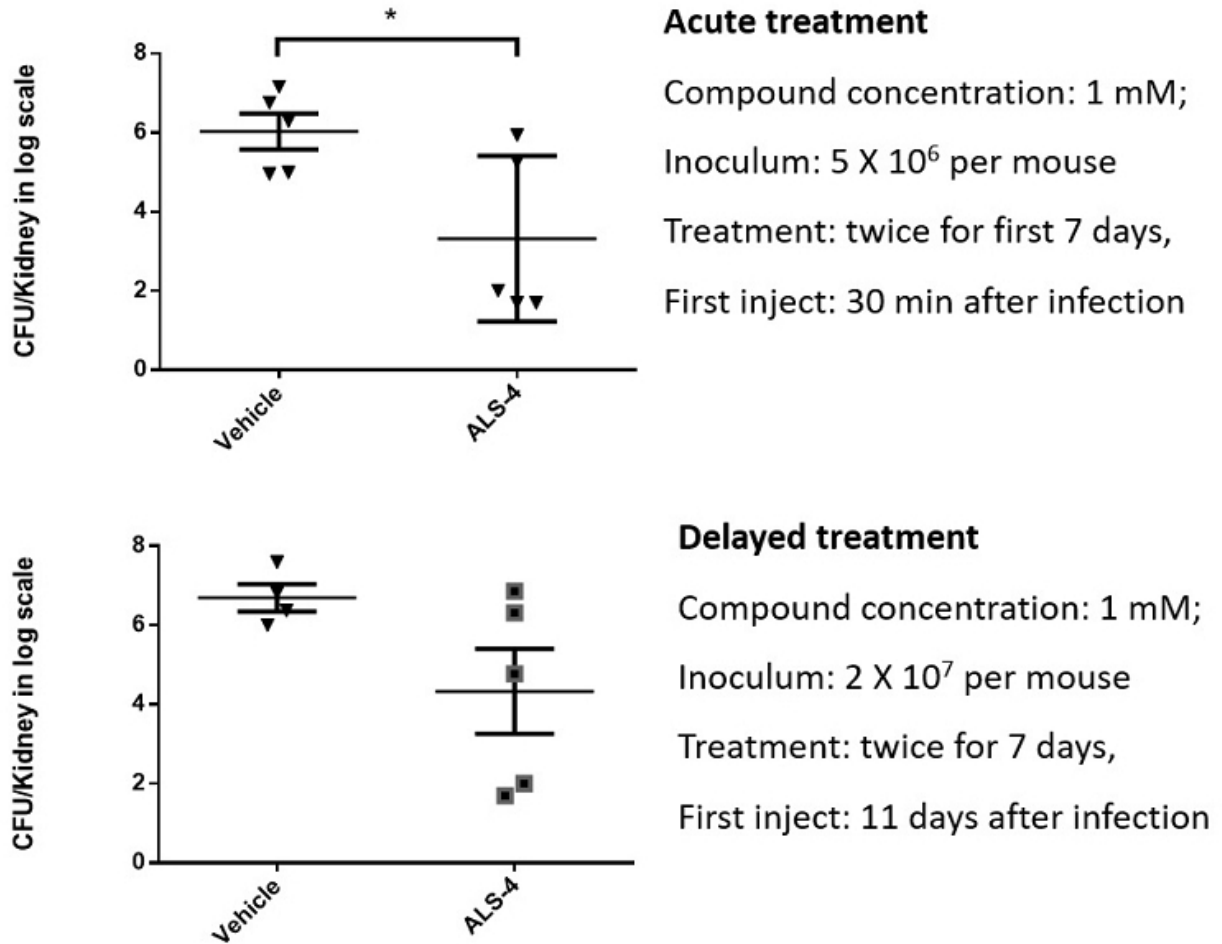


Figure 3: ALS-4 is observed to reduce bacterial load in mice

CFU = Colony Forming Unit, a unit used to estimate the number of viable bacteria in a sample

ALS-4 is currently undergoing IND enabling stage to optimize its drug-like properties.

#### Patent License

On October 18, 2017, the Company's subsidiary, Acticule, entered into an exclusive license agreement with Versitech Limited, the licensing entity of HKU, for ALS-4. Subsequently on June 7, 2018, the parties entered into a first amendment to the exclusive license agreement and on July 10, 2019, the parties entered into a second amendment to the license agreement.

On January 11, 2019, Acticule and Versitech Limited entered into a second license agreement for ALS-4, where Acticule exclusively licensed the intellectual property rights on certain HKU-owned improvements to the original licensed invention.

Under the exclusive license agreements, we were granted an exclusive, royalty-bearing, sublicensable licenses to develop, make, have made, use, sell, offer for sale and import products that are covered by the licensed patents (as described below). The territory of the licenses is worldwide and the field of the licenses is for treatment or prevention of bacterial infections caused by *Staphylococcus aureus* including MRSA and bacterial virulence.

We paid an upfront fee upon entering into the license agreements. We are required to pay less than 10% of the net sales of the licensed products sold by us or our affiliates as royalties, as well as a low teens percentage of sublicense royalties that we receive from our sublicensees, if any. In addition, we agreed to pay to the licensor aggregate regulatory milestones of up to US\$1 million subject to the following achievements: submission of investigational new drug application; completion of phase 1, 2 and 3 clinical trials; and submission of new drug application; grant of regulatory approval. We also agreed to pay to the licensor aggregate sales milestones of up to US\$7.8 million subject to the following achievement: first commercial sale; and annual net sales exceeding US\$100 million in one jurisdiction.

Pursuant to the license agreements, Acticule became the exclusive licensee of 2 pending U.S. non-provisional patent applications and 2 PCT applications. With respect to the PCT applications, we plan to enter national phase in member states of the EPO, in PRC and other jurisdictions before the deadline on January 23, 2021. The claimed inventions are described as: "Compounds Affecting Pigment Production and Methods for Treatment of Bacterial Diseases."

Acticule has the right to grant sublicenses to third parties under the license agreements without prior approval from Versitech Limited and to assign the agreements to any successor to the business related to the licenses. In the event that Acticule makes an improvement to the licensed technologies, so long as the improvement does not incorporate any licensed patents, Acticule will be the owner to such improvement, subject to a non-exclusive royalty-free license being granted back to Versitech Limited for academic and research purposes only.

The exclusive license agreements shall be in effect until the expiration of all licensed patents. Acticule may terminate the licenses at any time with 6-month written notice in advance. Either party may terminate the agreements upon a material breach by other party.

#### **NLS-1: A Derivative of Epigallocatechin-3-Gallate ("Pro-EGCG") for the treatment of Endometriosis**

NLS-1, a drug molecule derived from natural products (green tea), is currently under development for the treatment of endometriosis, a disease in which the tissue that normally lines the uterus (endometrium) grows outside the uterus. It can grow on the ovaries, fallopian tubes, bowels, or bladder. Rarely, it grows in other parts of the body. Many studies have assessed the applications of EGCG, a naturally occurring molecule extracted from green tea, for the treatment of endometriosis *in vitro* and in animal models (Hum Reprod. 2014 29(8):1677; Hum Reprod. 2013 28(1):178; Fertil Steril. 2011 96(4):1021). For example, in a mouse model, Ricci et al (Hum Reprod. 2013 28(1):178) demonstrated that EGCG brought a statistically significant reduction in the mean number and the volume of established lesions compared with the control group without treatment. The treatment diminished cell proliferation in a statistically significant manner, reduced vascular density and increased apoptosis within the lesions. EGCG induced reduction in human EEC proliferation and increased apoptosis in primary cultures. Matsuzaki and Darcha (Hum Reprod. 2014 29(8):1677) also showed that EGCG prevented the progression of fibrosis in endometriosis in an animal model.

However, the attractiveness of epigallocatechin-3-gallate as a drug candidate has been diminished by its chemical and metabolic instability (Hum Reprod. 2014 29(8):1677; Angiogenesis. 2013 16(1):59). The Company's drug candidate, NLS-1 or EGCG octaacetate, is supposed to overcome these challenges. NLS-1 is an EGCG derivative synthesized by acetylation of the reactive hydroxyl groups, which appears to prevent generation of reactive phenoxide anions and radicals for dimerization and metabolism, thereby overcoming the chemical and metabolic instability of EGCG.

Despite different hypotheses proposed for the pathogenesis of endometriosis, it is widely accepted that endometriosis is an angiogenesis-dependent disorder, and that angiogenesis plays an essential role in the growth and survival of endometriotic lesions. Endometriotic lesions require new vessel formation to deliver oxygen and nutrients that are essential to the development and progression of endometriosis. Dense vascularization is a typical pathological feature of endometriosis. Numerous peritoneal blood vessels can be observed around the endometriotic lesions during laparoscopy, and ectopic endometrium is highly vascularized under histological examination. Researchers have confirmed in animal models that angiogenesis occurs in endometriosis, by demonstrating the development of adjacent blood vessels from the surrounding vasculature into the endometriotic implants. Anti-angiogenesis therapy offers a potential novel treatment of endometriosis.

In a paper published by the inventors in *Angiogenesis* (16:59, 2013), NLS-1 brought a statistically significant reduction in the lesion size and weight compared with EGCG and the control without any treatment in an experimental endometriosis mouse model (Student t-test,  $p < 0.05$ ) (Figure 4A & B). In addition, the inhibition by NLS-1 in all of the angiogenesis parameters was statistically significantly greater than that by EGCG (Student t-test,  $p < 0.05$ ) (Figure 5A & B). In addition, NLS-1 significantly (Student t-test,  $p < 0.05$ ) reduces the lesion size in both prevention and treatment group compared with both saline and EGCG groups (Figure 6). Moreover, NLS-1 also had better bioavailability and greater antioxidation and anti-angiogenesis capacities compared with EGCG.

In addition, regarding a safety study in mice, no signs of stress to NLS-1 administration were observed during the treatment period. No significant weight change was observed over the course of the experiment. Histological examination revealed no obvious reproductive effects on ovarian follicles and endometrial glands under NLS-1 treatments (Figure 7). Also, vascularization of the ovaries and the uterus was not affected in the NLS-1 treatment group.

Figure 4

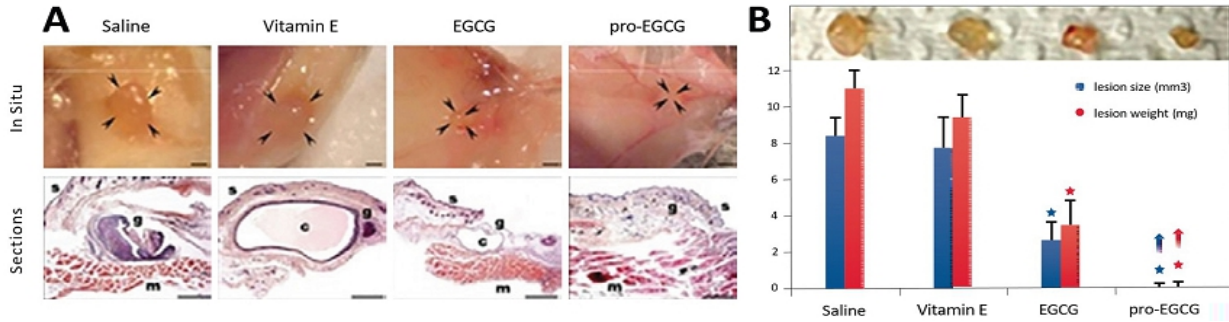


Figure 4A & B

NLS-1 (Pro-EGCG) limits the development of experimental endometriosis in mice. Upper panels show the endometrial implants developed in the right ventral abdominal wall under laparotomy. Arrows indicate the greatest length and perpendicular width of the lesions for lesion size calculation. Lower panels show the sandwich structures of outer skin and subcutaneous layers (s), middle endometriotic lesions with endometrial glands (g) and endometrial cyst-like structures (c), and inner abdominal muscle and peritoneum (m). Scale bars: 0.5 mm. b Bar charts of the lesion size and weight in different groups and representative lesion pictures are shown. Mean  $\pm$  SEM, student's t test, \* $P < 0.05$  compared with saline group;  $P < 0.05$  compared with EGCG group.

The sample size was 4 (N=4) for each group.

(Adapted from *Angiogenesis* (16:59, 2013))

Figure 5

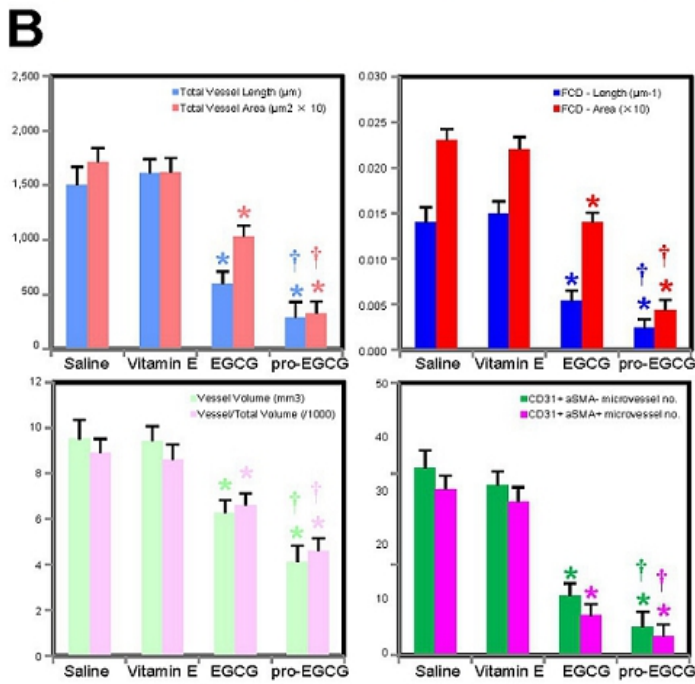
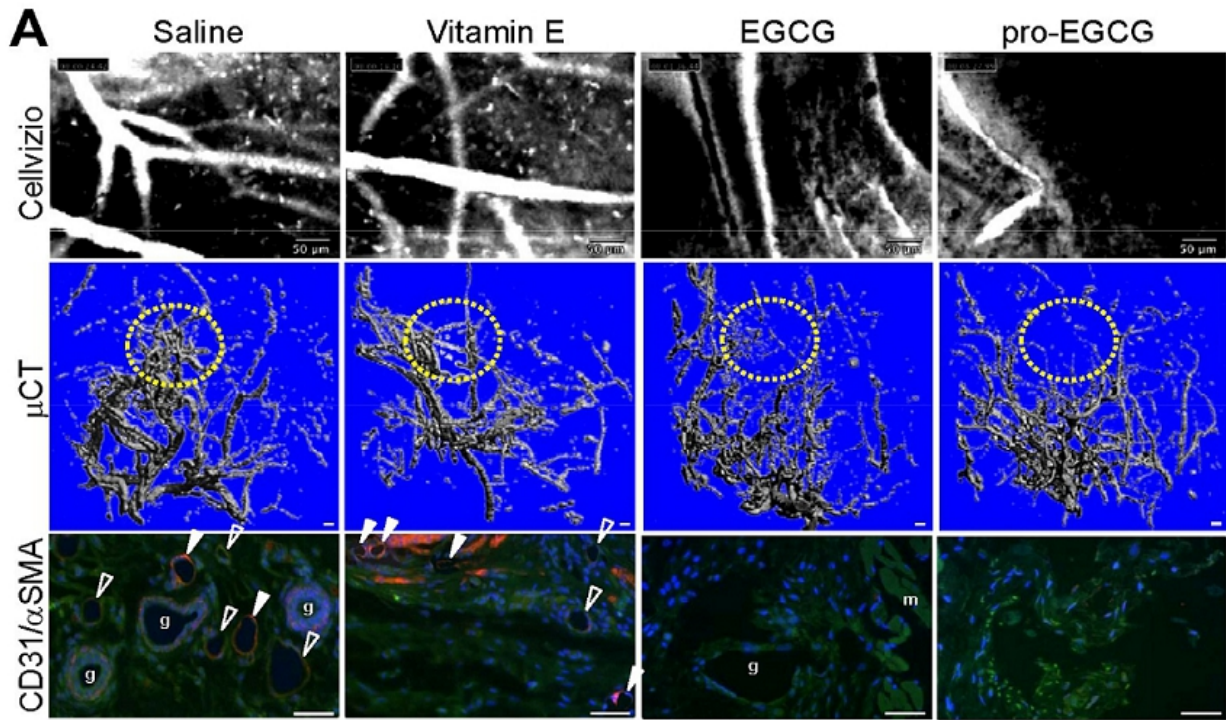


Figure 5A & B

NLS-1 inhibits the angiogenesis of experimental endometriosis in mice. Upper panels: Microvessels in the endometriotic implants were perfused with FITC-Dextran and captured by Cellvizio (white colour) (N=8). Middle panels: Microvessel architectures surrounding the lesions and within the lesions were perfused with microfil contrast medium and captured by ICT (yellow dots) (N=4). Lower panels: Microvessels in the endometriotic lesions were determined by specific antimouse antibodies CD31 for endothelial cells in red, αSMA for smooth muscles in green, and DAPI for nuclei in blue (N=4). New microvessels are CD31-positively and αSMA-negatively stained (closed arrows), old microvessels are CD31-positively and αSMA-positively stained (opened arrows). g: endometrial glands; c: endometrial cyst-like structures; m: abdominal muscle. Representative images in different groups are shown. Scale bars: 10 μm. b Bar charts of the lesion microvessel parameters in different groups are presented. Mean ± SEM, student's t test, \*P < 0.05 compared with saline group; P < 0.05 compared with EGCG group. (Adapted from *Angiogenesis* (16:59, 2013)). In addition, NLS-1 significantly (p < 0.05) reduces the lesion size in both prevention and treatment group compared with both saline and EGCG groups.



Figure 6

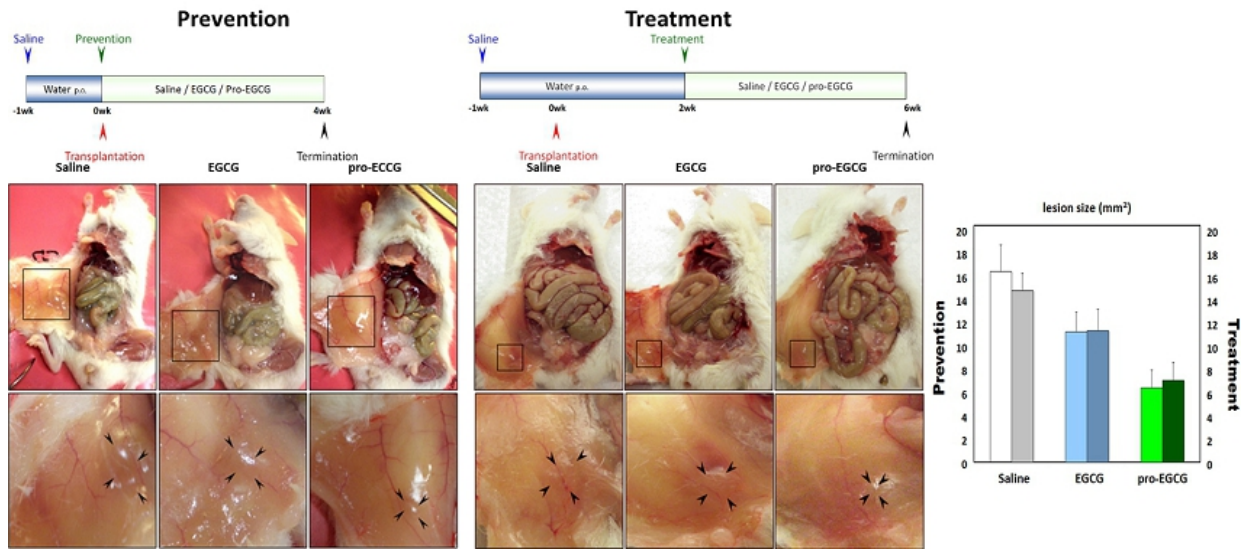


Figure 6: NLS-1 reduces the lesion size in both prevention and treatment groups

Figure 7

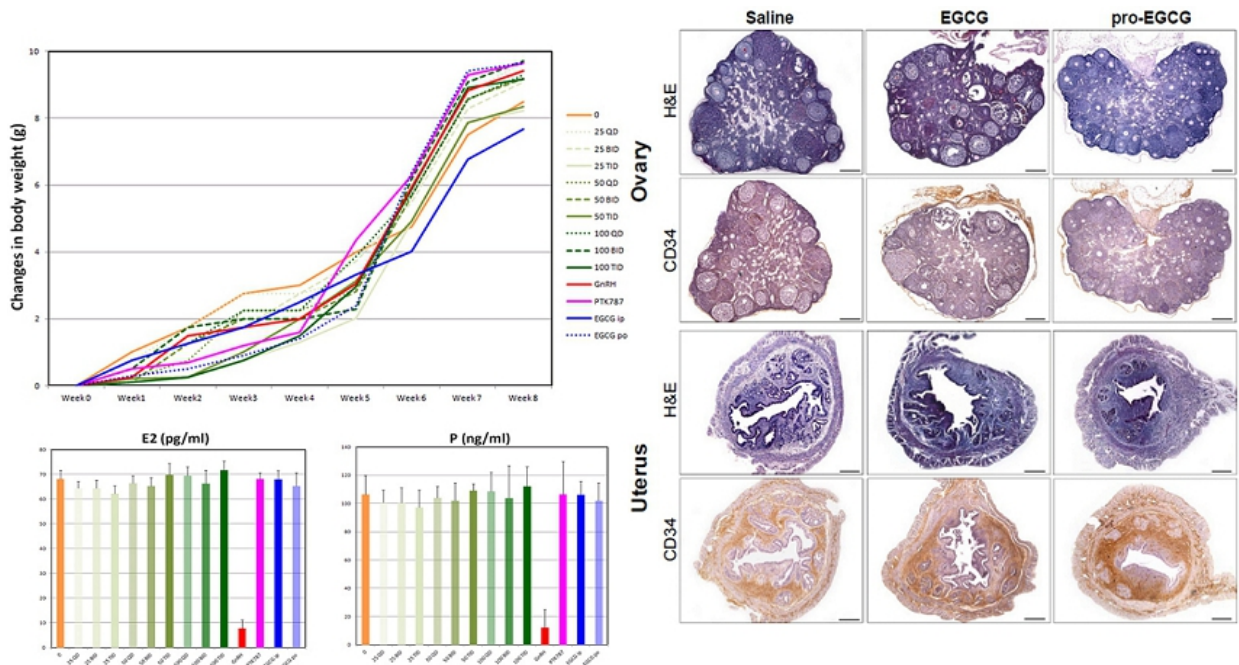


Figure 7

NLS-1 does not cause any weight loss in mice (Upper figure in the left)

NLS-1 does not reduce any estrogen and progesterone level in mice (Lower figures in the left) NLS-1 preserves normal ovarian follicles and endometrial glands. Ovarian follicles and endometrial glands were determined by H&E staining and microvessels in ovarian and endometrial stroma were determined by anti-mouse CD34 immunostaining in ovaries (upper panels in the right) and uterus (lower panels in the right). Representative images in different groups are shown. Scale bars: 0.5 mm.

N=8 was conducted for each group.

(Adapted from *Angiogenesis* (16:59, 2013)).

As a follow-up study in an animal model of endometriosis, orally administered NLS-1 reduced the lesion size significantly better than oral EGCG ( $p < 0.05-0.001$  at week 3-8, ANOVA) and other hormone-based therapy such as intramuscular GnRH analog ( $p < 0.05$  at week 4-8, ANOVA) and other synthetic anti-angiogenesis agents such as intraperitoneal PTK787 ( $p < 0.05-0.01$  at week 4-8, ANOVA), as reflected in Figure 8.

Figure 8

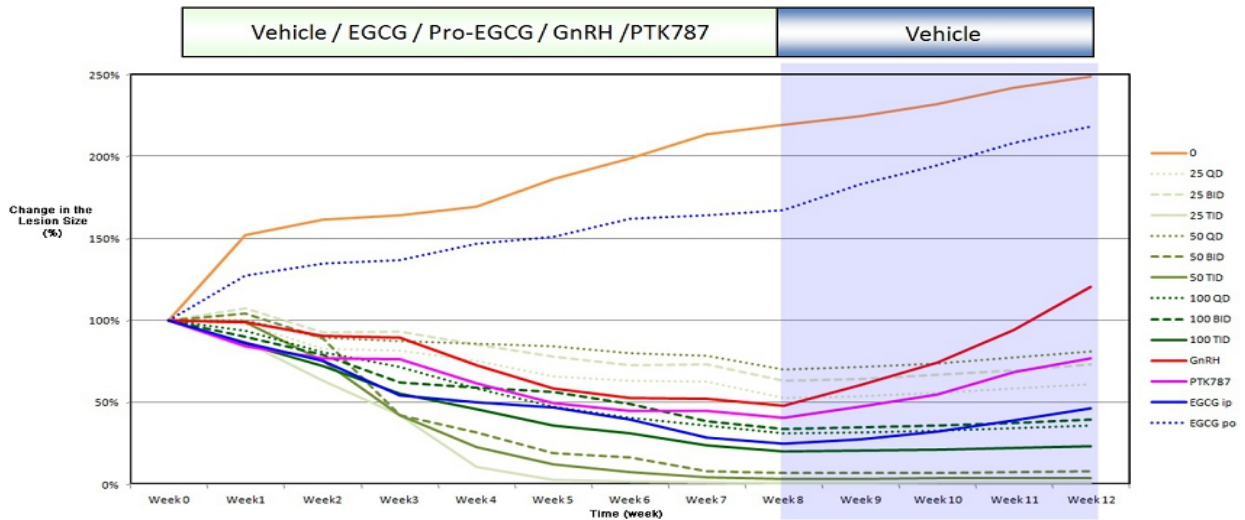


Figure 8

Comparison of the efficacy of different treatment in an experimental endometriosis model

The current approved treatment for endometriosis is hormonal therapy, which can cause severe undesirable side effects. At present, there are only a few non-hormonal therapeutics with different mechanisms than NLS-1 that are under preclinical or clinical development, such as:

- 1) BAY 1128688, which is a non-hormonal approach developed by Bayer HealthCare for endometriosis and which entered Phase 2 study in Spain in 2017 (<https://adisinsight.springer.com/drugs/800041929>); and,
- 2) Small molecules co-developed by Bayer and Evotec that have entered Phase 1 studies (Source: <https://www.businesswire.com/news/home/20180417006820/en/Evotec-Bayer-Advance-Endometriosis-Programme-Phase-Clinical>).

NLS-1 is under active development for the treatment of endometriosis. It is currently at the Lead Optimization stage to optimize its drug-like properties.

## Patent License

On July 3, 2017, the Company's subsidiary, Aptorum Therapeutics Limited, entered into an exclusive license agreement with PolyU Technology and Consultancy Limited, The Royal Institution for the Advancement of Learning/McGill University, Wayne State University, H. Lee Moffitt Cancer Center and Research Institute Inc. and CUHK (all representing the licensors) for NLS-1.

We paid an upfront fee upon entering into the license agreement. We are required to pay less than 10% of the net sales of the licensed products sold by us or our affiliates as royalties, as well as a percentage of sublicense royalties that do not exceed 30% from what we receive from our sublicensees, if any. In addition, we agreed to pay the licensor aggregate regulatory and development milestones of up to HK\$41.9 million (approximately US\$5.37 million) for the first drug product subject to the following achievements: submission of investigational new drug application; commencement of phase 1, 2 and 3 clinical trials; submission of new drug application; and grant of first, second and third regulatory approval among the FDA, EMA and NMPA. We also agreed to pay the licensor aggregate sales milestones of up to HK\$80 million (approximately US\$10.26 million) subject to the following achievements: first commercial sale; and annual net sales exceeding US\$100 million in one jurisdiction.

Further, for each of the second and third drug products, we agreed to pay aggregate regulatory development milestones of up to HK\$9 million (approximately US\$1.15 million) and aggregate sales milestone of up to HK\$40 million (approximately US\$5.13 million) subject to achievement of similar milestones for the first drug product. We have also agreed to pay certain one-time payments for non-drug product upon the commercialization and market launch of such non-drug product. In addition, following the filing of the IND, the Company has to pay an immaterial annual fee to the licensors.

Pursuant to the license agreement, Aptorum Therapeutics Limited became the exclusive licensee of 6 U.S. patents, 1 European Patent, 1 PRC patent, 1 Indian patent and 1 Japanese patent, as well as 1 pending US patent application, 1 pending PRC patent application and 1 pending Hong Kong patent application. Two technologies are claimed in the patents: "Epigallocatechin Gallate Derivatives for Inhibiting Proteasome," which is jointly owned by PolyU Technology and Consultancy Limited, The Royal Institution for the Advancement of Learning/McGill University, Wayne State University and H. Lee Moffitt Cancer Center and Research Institute Inc. and "Pro-EGCG for Use in the Treatment of Endometriosis," which is jointly owned by PolyU Technology and Consultancy Limited and CUHK. The licensors have nominated PolyU Technology and Consultancy Limited to represent them and take the lead in negotiating and managing the license.

Aptorum Therapeutics Limited has the right to grant sublicenses under the license agreement with prior consent from the licensors, and such approval shall not be unreasonably withheld. In the event that Aptorum Therapeutics Limited develops any improvements or new development, such licensee inventions are to be jointly owned by the licensors and Aptorum Therapeutics Limited, so that both owners will have the right to use any such inventions for any purpose. In such a case, the Company expects to negotiate a separate agreement with the licensors governing the terms on which the licensors may use such inventions.

In addition, Aptorum Therapeutics Limited also committed to providing HK\$3 million (US\$384,615) of research funding before July 3, 2020 to sponsor research carried out by the three principal individual inventors upon their request with respect to further R&D on the licensed technologies. The research funding shall be in the form of matching funds provided by the Innovation Technology Fund ("ITF"). The ITF is administered by the Innovation and Technology Commission of the Government of Hong Kong and encompasses a scheme where the Hong Kong government offers matching grant for joint researches to foster collaboration between private companies and public research institutions. If an ITF application is approved, the Hong Kong government will provide a grant that matches the contribution by the private company in the research projects. Since the ITF funding is merit-based and there is no guarantee that an ITF application will be granted, Aptorum Therapeutics' obligation to contribute to the research fund under the agreement will be contingent on the successful application of ITF scheme granting HK\$3 million fund that matches our proposed contribution. In the event that an ITF application related to NLS-1 is not successful, the parties have agreed to negotiate for and agree to enter into new funding terms to support the ongoing research. As of today, the inventors have not filed such ITF application.

During the term of the license agreement and for two years thereafter, Aptorum Therapeutics Limited undertakes not to develop or commercialize any product that directly competes with any marketed product that is covered by the licensed technology.

The exclusive license agreement shall be in effect until the later of (1) the expiry of the term of the last to expire licensed patent set forth in the agreement, (2) final disposition of the last of the pending patent application set forth in the agreement, and (3) ten years following the first commercial sale of the product. Either party may terminate the agreement upon a material breach by or insolvency of the other party. Further, the Licensors may terminate the agreement if the licensee commits any act or omission that could tarnish the reputation of any licensors.

#### ***Statistical Significance***

The term statistical significance is to define the probability that a measured difference between two groups (e.g. two treatment groups, treatment versus control groups) is the result of a real difference in the tested variations and not the result of chance. It means that the result of a test does not appear randomly or by chance, but because of a specific change that is tested, so it can be attributed to a specific cause.

The confidence level indicates to what percentage the test results will not commit a type 1 error, the false positive. A false positive occurs when a change in the result is due to randomness (or other noise) and not the change in variations. At a 95% confidence level ( $p = 0.05$ ), there is a 5% chance that the test results are due to a type 1 error. 95% has become the standard and usually be the minimum confidence level for the tests. To make the test more stringent, a 99% confidence level ( $p = 0.01$ ) is also commonly employed, which means that there is a 1% chance that the test results are due to a type 1 error.

In other words, a p value represents the confidence level. For example, if the p-value for a test is  $< 0.05$ , it means that there is less than 5% chance the difference between two groups is due to random error or by chance. If the p-value is  $< 0.01$ , it means that there is less than 1% chance the difference between two groups is due to random error or by chance.

We employed statistical testing to compare different treatment groups in animal studies simply for proof of concept and to aid internal decision making for further development. We do not intend to use this standard for any regulatory submission. The US FDA or other regulatory agencies may not necessarily employ the same statistical standard to assess the efficacy in clinical trials, the results of which would be submitted for regulatory approval. Although a p-value of 0.05 has become the standard, the US FDA or other regulatory agencies may also individualize their efficacy standard for different clinical programs based on the indications, the purpose of a clinical trial, among others.

#### ***FDA Application Status***

As of the date hereof, we have not submitted any applications for investigational new drugs (“IND”) to the US Food and Drug Administration (“FDA”). By 2020 or 2021, we expect to be in a position to submit at least one application for one of our drug candidates to commence trials in humans (INDs to the FDA or an equivalent application to the regulatory authorities in another jurisdiction such as the China’s National Medical Products Administration (the “NMPA”) or the European Medicines Agency (“EMA”)). However, there can be no assurance we will be able to make any such application by such time. Should we be delayed in making such filing or should such filing not be approved, our business will be adversely affected.

### **Other Projects under Development**

The following provides additional detail regarding Other Projects under Development:

#### **VLS-1: Curcumin-conjugated superparamagnetic iron oxide nanoparticles (“Curcumin-MNP”) for MRI (“magnetic resonance imaging”) imaging of amyloid beta plaques in Alzheimer’s disease (“AD”)**

VLS-1 is an MRI contrast agent, which the Company believes may enable superior imaging for identifying amyloid beta plaques in Alzheimer’s disease. VLS-1 differs from other existing contrast agents for amyloid imaging, such as Amyvid (Eli Lilly), Vizamyl (GE Healthcare) and Neuraceq (Piramal Healthcare), in the following respects: 1) utilization of a natural compound, curcumin, with a known high amyloid beta binding affinity and proven safety; 2) a nanoparticle-based system to enhance delivery efficiency to the brain; and 3) the combination of curcumin with iron oxide, known to be an effective MRI contrast agent. VLS-1 is currently at the Lead Discovery stage.

#### **VLS-2: mTOR-independent transcription factor EB activator (“MITA”) as autophagy activator for treatment of neurodegenerative diseases**

Autophagy is an endogenous cellular mechanism for clearing multiple pathological protein aggregates including tau, the presence of which is believed to account for neurodegeneration in AD and other neurodegenerative diseases. mTOR is part of a biological pathway that is a central regulator of mammalian metabolism and physiology. Inhibition of mTOR activity is associated with various side effects, such as immunosuppression. Many other molecules that activate autophagy also inhibit mTOR activity. VLS-2 is a small drug molecule that appears to activate autophagy without inhibiting mTOR function. VLS-2 is currently at the Lead Discovery stage.

#### **VLS-4: Other contrast agents for MRI diagnostics**

In addition to VLS-1, the Company is actively developing a new class of MRI contrast agents for diagnosis of neurodegenerative diseases. The design of these agents takes into consideration the physicochemical properties that need to be optimized for best imaging performance, and the novel agents are currently undergoing rigorous evaluation. VLS-4 is currently at the Lead Discovery stage.

#### **ALS-2: Small molecule for the treatment of bacterial infections caused by Staphylococcus aureus including MRSA**

ALS-2 is a next generation small molecule targeting bacterial virulence for the treatment of bacterial infections caused by Staphylococcus aureus including MRSA. In a recent paper published by the inventor, Professor Richard Kao from The University of Hong Kong (also the Founder and Principal Investigator of Acticule), in PNAS (115(310): 8003, 2018), ALS-2 suppresses the expression of multiple virulence factors in Staphylococcus aureus simultaneously. In a lethal infection mouse model, compared with the vehicle group, ALS-2 protected against Staphylococcus aureus for all the mice in the group, with significant differences between the treatment and control groups [P = 0.0057, by log-rank (Mantel-Cox) test].

ALS-2 is currently at the Lead Optimization stage to optimize its drug-like properties.

#### **ALS-3: Small molecule acting synergistically with certain existing antibiotics**

ALS-3 is a novel small molecule that is at present under investigation to combine with certain classes of existing antibiotics to overcome drug resistance. We are exploring ALS-3 for the treatment of bacterial infections including MRSA. ALS-3 is currently at the Lead Optimization stage to optimize its drug-like properties.

#### **NLS-2: An extract from Chinese Yam for relief of menopausal symptoms**

NLS-2 is an extract isolated from Chinese Yam, Dioscorea opposita Thunb. In development for the treatment of menopausal syndrome, we expect NLS-2 is to be formulated into an oral dosage form or nasal spray for administration. Each therapy cycle is expected to last for 3 months. Menopausal syndrome refers to the symptoms experienced by women during menopause, such as hot flashes, mood disorders, night sweats, depression, nervous tension and insomnia that are related to estrogen deficiency. Our research suggests that NLS-2 stimulates estradiol biosynthesis in rat ovarian granulosa cells; induces estradiol and progesterone secretion in aged rats by upregulating expressions of follicle-stimulating hormone receptor and ovarian aromatase; counteracts the progression of osteoporosis and augments bone mineral density; and improves cognitive functioning by upregulating protein expressions of brain-derived neurotrophic factor and TrkB receptors in the prefrontal cortex. Furthermore, NLS-2 does not appear to stimulate the proliferation of breast cancer and ovarian cancer cells, which suggests that it could be a more efficacious and safer alternative to hormone replacement therapy (Sci Rep. 2015 5:10179). NLS-2 is currently at the Lead Discovery stage. We are also evaluating whether the yam extract is suited for production as dietary supplement.

### **NLS-3: Extract from garlic for the treatment of and protection against retinal ischemia/reperfusion injury**

NLS-3 is based on S-Allyl L-Cysteine (“SAC”), an active organosulfur compound in aged garlic extract which has been reported to possess antioxidative activity. In macrophages and endothelium, it has been shown that SAC possesses potent antioxidative effects involving the scavenging of superoxide radicals, hydroxyl radicals and hydrogen peroxide. Central/branch retinal artery/vein occlusion, glaucoma and, possibly, age related macular degeneration (“AMD”) are conditions associated with retinal ischemia. All these diseases may lead to severe complications or after-effects. Furthermore, after retinal ischemia/reperfusion (“I/R”), large amounts of reactive oxygen species (“ROS”) are produced, which attack nearby cells and cause tissue damage. Therefore, management of retinal ischemia is vital and NLS-3 is being developed for the treatment of and protection against ischemia/reperfusion injury. NLS-3 is currently at the Lead Discovery stage.

### **SPLS-1: A quinoline derivate for liver cancer treatment**

SPLS-1, a novel quinoline derivative from Ephedra pachyclada, is at present under active investigation for the treatment of liver cancer. It is currently at the Lead Discovery stage.

### **SLS-1: Robotic Catheter Platform for Intra-operative MRI-guided Cardiac Catheterization**

SLS-1 is our robotic catheter platform for MRI-guided cardiovascular intervention for the treatment of arrhythmia. The platform consists of a magnetic resonance imaging-guided (“MRI-guided”) robotic electrophysiology (“EP”) catheter system, an MR-based positional tracking unit, and a navigation interface. This platform has the potential to offer a major step toward achievement of several clinical goals: (i) enhancing catheter manipulation and lesion ablation, which we believe will decrease the chance of arrhythmia recurrence; (ii) improving the safety of catheter navigation, thereby decreasing the rates of undesired or inadvertent tissue damage; and (iii) enhancing catheter control, thus facilitating shorter learning curves for surgeons and better treatment in more complex patient cases. Should such goals be demonstrated, patient outcomes should be improved, compensating for the cost of using MRI and reducing the overall expenditure.

To date, a product prototype has been developed. Lab-based experiments have been conducted to verify the performance of the robot towards an image-guided pulmonary vein isolation (“PVI”) task. The MR-based tracking unit has also been developed and validated in MRI scanners. The next step is to test the robotic catheterization using a dynamic heart phantom simulated with the pulsatile liquid flow. Preclinical trials can then be conducted with all the components ready. Radiofrequency ablation will be conducted in a live porcine model, prepared with arrhythmia. If all the results are positive, we will approach the US FDA or other regulatory agencies to apply for conducting clinical trials on the equipment.

SLS-1 is currently in Lab-based Phantom Trial and it will follow the regulatory pathway for approval as indicated in the table in Page 73.

### **Aptorum Medical Limited - AML Clinic**

Incorporated in August 2017, Aptorum Medical Limited is a Hong Kong-based company incorporated in Cayman Islands focused on delivering premium healthcare and clinic services. AML can draw on the expertise of many of the region’s most experienced medical practitioners, and is committed to providing a comprehensive cross-functional facility for healthcare professionals to practice evidence-based medicine and offer high-quality medical services to their patients. We also intend that AML will offer to conduct clinical trials of both the Company’s and third parties’ new drug and device products.

Effective as of March 2018, we leased office space in Central, Hong Kong, the commercial and financial heart of Hong Kong, as the home to AML Clinic. We operate the AML Clinic under the name of Talem Medical. AML Clinic commenced operation in June 2018.

The recently renovated medical center is staffed by our group of medical professionals and offers state-of-the-art facilities. Initially we expect to focus our expertise on treatment of chronic diseases resulting from modern sedentary lifestyles and an aging population.

### Implications of Being an “Emerging Growth Company”

With less than \$1.07 billion in revenue during our last fiscal year, we qualify as an “emerging growth company” under the Jumpstart our Business Startups Act of 2012, or the JOBS Act. An emerging growth company may take advantage of certain reduced reporting requirements and is relieved of certain other significant requirements that are otherwise generally applicable to public companies. In particular, as an emerging growth company we:

- are not required to obtain an attestation and report from our auditors on our management’s assessment of our internal control over financial reporting pursuant to Section 404(b) of the Sarbanes-Oxley Act of 2002;
- are not required to provide a detailed narrative disclosure discussing our compensation principles, objectives and elements and analyzing how those elements fit with our principles and objectives (commonly referred to as “compensation discussion and analysis”);
- are not required to obtain a non-binding advisory vote from our shareholders on executive compensation or golden parachute arrangements (commonly referred to as the “say-on-pay,” “say-on-frequency” and “say-on-golden-parachute” votes);
- are exempt from certain executive compensation disclosure provisions requiring a pay-for-performance graph and CEO pay ratio disclosure;
- may present only two years of audited financial statements and only two years of related Management’s Discussion & Analysis of Financial Condition and Results of Operations, or MD&A;
- are eligible to claim longer phase-in periods for the adoption of new or revised financial accounting standards under §107 of the JOBS Act; and
- are exempt from any proposed new requirements of the PCAOB rules relating to mandatory audit firm rotation and any requirement to include an auditor discussion and analysis narrative in our audit report.

We intend to take advantage of all of these reduced reporting requirements and exemptions, including the longer phase-in periods for the adoption of new or revised financial accounting standards under §107 of the JOBS Act. Our election to use the phase-in periods may make it difficult to compare our financial statements to those of non-emerging growth companies and other emerging growth companies that have opted out of the phase-in periods under §107 of the JOBS Act.

We will remain an “emerging growth company” until the earliest of (i) the last day of the first fiscal year in which our annual gross revenues exceed US\$1.07 billion, (ii) the last day of our fiscal year following the fifth anniversary of the completion of the IPO; (iii) the date that we become a “large accelerated filer” as defined in Rule 12b-2 under the Securities Exchange Act of 1934 (the “Exchange Act”), which would occur if the market value of our common shares that is held by non-affiliates exceeds \$700 million as of the last business day of our most recently completed second fiscal quarter, or (iv) the date on which we have issued more than \$1 billion in non-convertible debt during the preceding three year period.

Investors should be aware that we will be subject to the “Penny Stock” rules adopted by the Securities and Exchange Commission, which regulate broker-dealer practices in connection with transactions in Penny Stocks. These regulations may have the effect of reducing the level of trading activity, if any, in the secondary market for our stock, and investors in our Shares may find it difficult to sell their shares. Please see the disclosures under “Penny Stock Considerations” in this Prospectus for more information.

Accordingly, actual events or circumstances may differ materially from events and circumstances that are assumed in this information and you are cautioned not to give undue weight to such data.

### The Offering

Issuer:	<b>Aptorum Group Limited</b>
Securities being Offered by selling shareholders	<p>Up to 1,543,245 Class A Ordinary Shares (“<b>Resale Shares</b>”). The selling shareholders named herein may sell Resale Shares at prevailing market prices or privately negotiated prices. We will not receive any proceeds from the sales by the selling shareholders.</p> <p>Resale Shares include: (1) 119,217 Class A Ordinary Shares issued upon the automatic conversion of 10% of the Bond; (2) 1,113,322 Class A Ordinary Shares issuable upon conversion of the outstanding Bond*; (3) 67,790 Class A Ordinary Shares issued upon exercise of the Bond PA Warrants**; (4) 230,252 Class A Ordinary Shares issued upon the automatic conversion of the Series A Notes; and (5) 12,664 Class A Ordinary Shares issued upon exercise of the Series A Note PA Warrants***.</p> <p>* Pursuant to the repurchase of the Bond, which is described elsewhere in this registration statement, the conversion price of the Bond is since fixed at \$12.166. Accordingly, as of the date hereof, the outstanding Bond can be converted for up to 1,109,650 Class A Ordinary Shares.</p> <p>** Following the date of the original registration statement, the Bond PA Warrants were exercised via the cashless exercise provision, pursuant to which we issued an aggregate of 38,309 Class A Ordinary Shares to the holder.</p> <p>*** Following the date of the original registration statement, the Series A Note PA Warrants were exercised via the cashless exercise provision, pursuant to which we issued an aggregate of 9,516 Class A Ordinary Shares to the holder.</p>
Price per Share	The closing price of our Class A Ordinary Shares on November 11, 2019 was \$15.83 per share.
Class A Ordinary Shares Outstanding	6,597,362 Class A Ordinary Shares outstanding as of November 12, 2019.
Symbol	Our Class A Ordinary Shares trade on the NASDAQ Global Market under the symbol APM.
Transfer Agent	Continental Stock Transfer & Trust Company
Risk Factors	Investing in our Class A Ordinary Shares involves a high degree of risk and purchasers of our Class A Ordinary Shares may lose part or all of their investment. See “Risk Factors” for a discussion of factors you should carefully consider before deciding to invest in our Class A Ordinary Shares beginning on Page 26.
Use of Proceeds	We will not receive any proceeds from the sale of the Class A Ordinary Shares represented by the selling shareholders. All net proceeds from the sale of the Class A Ordinary Shares covered by this prospectus will go to the selling shareholders.



## RISK FACTORS

*Investing in our Class A Ordinary Shares involves a high degree of risk. You should carefully consider the following risks and all other information contained in this prospectus, including our financial statements, consolidated financial statements and the related notes, before making an investment decision regarding our securities. The risks and uncertainties described below are those significant risk factors, currently known and specific to us that we believe are relevant to an investment in our securities. If any of these risks materialize, our business, financial condition or results of operations could suffer, the price of our Class A Ordinary Shares could decline and you could lose part or all of your investment.*

### **Risks Related to the Preclinical and Clinical Development of Our Drug Candidates**

***We currently do not generate revenue from product sales and may never become profitable; unless we can raise more capital through additional financings, of which there can be no guarantee, our principal source of revenue will be from AML Clinic, which may not be substantial.***

Our ability to generate revenue and become profitable depends upon our ability to successfully complete the development of, and obtain the necessary regulatory approvals for, the drug candidates in our Lead Projects and any future drug candidates we may develop, as we do not currently have any drugs that are available for commercial sale. We expect to continue to incur losses before commercialization of our drug candidates and any future drug candidates. None of our drug candidates has been approved for marketing in the U.S., Europe, the PRC or any other jurisdictions and may never receive such approval. Our ability to generate revenue and achieve profitability is dependent on our ability to complete the development of our drug candidates and any future drug candidates we develop in our portfolio, obtain necessary regulatory approvals, and have our drugs products under development manufactured and successfully marketed, of which there can be no guarantee. Although AML Clinic commenced operations in June 2018 and we expect to receive some revenue from such operations, even at full capacity, AML Clinic may not bring enough revenue to support our operation and R&D. Thus, we may not be able to generate a profit until our drug candidates become profitable.

Even if we receive regulatory approval and marketing authorization for one or more of our drug candidates or one or more of any future drug candidates for commercial sale, a potential product may not generate revenue at all unless we are successful in:

- developing a sustainable and scalable manufacturing process for our drug candidates and any approved products, including establishing and maintaining commercially viable supply relationships with third parties;
- launching and commercializing drug candidates following regulatory approvals and marketing authorizations, either directly or with a collaborator or distributor;
- obtaining market acceptance of our drug candidates as viable treatment options;
- addressing any competing technological and market developments;
- negotiating and maintaining favorable terms in any collaboration, licensing or other arrangement into which we may enter to commercialize drug candidates for which we have obtained required approvals and marketing authorizations; and
- maintaining, protecting and expanding our portfolio of IP rights, including patents, trade secrets and know-how.

In addition, our ability to achieve and maintain profitability depends on timing and the amount of expenses we will incur. Our expenses could increase materially if we are required by the FDA, NMPA, EMA or other comparable regulatory authorities to perform studies in addition to those that we currently have anticipated. Even if our drug candidates are approved for commercial sale, we anticipate incurring significant costs associated with the commercial launch of these products.

Our ability to become and remain profitable depends on our ability to generate revenue. Even if we are able to generate revenues from AML Clinic or the sale or sublicense of any products we may develop or license, we may not become profitable on a sustainable basis or at all. Our failure to become and remain profitable would decrease the value of our Company and adversely affect the market price of our Class A Ordinary Shares, which could impair our ability to raise capital, expand our business or continue our operations.

***AML Clinic's operations may be our principal source of revenue for the foreseeable future and most likely, without additional financing, such revenue will not be sufficient for us to carry out all of our plans.***

As stated above, we have not generated any revenue and do not foresee generating any revenue from our drug candidates in the near future. Effective as of March 2018, we leased the property in Central, Hong Kong that is the home to AML Clinic, which commenced operations in June 2018.

Until our therapeutic candidates produce revenue, our principal source of revenue shall be from AML Clinic, but we cannot guarantee that it will provide the expected revenue, and even if expected revenue is realized, it will not be sufficient by itself to fund our other operations. We believe that available cash, together with the efforts from management plans and actions described elsewhere in this registration statement, should enable the Company to meet presently anticipated cash needs for at least the next 12 months after the date that the financial statements are issued and the Company has prepared the consolidated financial statements on a going concern basis. However, the Company continues to have ongoing obligations and it expects that it will require additional capital in order to execute its longer-term development plan. If the Company encounters unforeseen circumstances that place constraints on its capital resources, management will be required to take various measures to conserve liquidity, which could include, but not necessarily be limited to, deferring some of its research and seeking to dispose of marketable securities. Management cannot provide any assurance that the Company will raise additional capital if needed.

***We depend substantially on the success of the drug candidates being researched as our current Lead Projects, which are in the preclinical stage of development. The preclinical development, IND-enabling, and clinical trials of our drug candidates may not be successful. If we are unable to license or sublicense, sell or otherwise commercialize our drug candidates, or experience significant delays in doing so, our business will be materially harmed.***

Our business and the ability to generate revenue related to product sales, if ever achieved, will depend on the successful development, regulatory approval and licensing or sublicensing or other commercialization of our drug candidates or any other drug candidates we may develop. We have invested a significant amount of financial resources in the development of our drug candidates and we expect to invest in other drug candidates. The success of our drug candidates and any other potential drug candidates will depend on many factors, including but not limited to:

- successful enrollment in, and completion of, studies in animals and clinical trials;
- other parties' ability in conducting our clinical trials safely, efficiently and according to the agreed protocol;
- receipt of regulatory approvals from the FDA, NMPA, EMA and other comparable regulatory authorities for our drug candidates;
- our ability to establish commercial manufacturing capabilities by making arrangements with third-party manufacturers;
- reliance on other parties to conduct our clinical trials swiftly and effectively;
- launch of commercial sales of our drug candidates, if and when approved;

- obtaining and maintaining patents, trade secrets and other IP protection and regulatory exclusivity, as well as protecting our rights in our own IP;
- ensuring that we do not infringe, misappropriate or otherwise violate patents, trade secrets or other IP rights of other parties;
- obtaining acceptance of our drug candidates by doctors and patients;
- obtaining reimbursement from third-party payors for our drug candidates, if and when approved;
- our ability to compete with other drug candidates and drugs; and
- maintenance of an acceptable safety profile for our drug candidates following regulatory approval, if and when received.

We may not achieve regulatory approval and commercialization in a timely manner or at all. Significant delays in obtaining approval for and/or to successfully commercialize our drug candidates would materially harm our business and we may not be able to generate sufficient revenues and cash flows to continue our operations.

***We may not be successful in our efforts to identify or discover additional drug candidates. Due to our limited resources and access to capital, we must continue to prioritize development of certain drug candidates; such decisions may prove to be wrong and may adversely affect our business.***

Although we intend to explore other therapeutic opportunities in addition to the drug candidates that we are currently developing, we may fail to identify other drug candidates for a number of reasons. For example, our research methodology may be unsuccessful in identifying potential drug candidates or those we identify may be shown to have harmful side effects or other undesirable characteristics that make them unmarketable or unlikely to receive regulatory approval.

Research programs to pursue the development of our drug candidates for additional indications and to identify new drug candidates and disease targets require substantial technical, financial and human resources whether or not we ultimately are successful. Our research programs may initially show promise in identifying potential indications and/or drug candidates, yet fail to yield results for clinical development for a number of reasons, including but not limited to:

- the research methodology used may not be successful in identifying potential indications and/or drug candidates;
- potential drug candidates may, after further study, be shown to have harmful adverse effects or other characteristics that indicate they are unlikely to be effective drugs; or
- it may take greater human and financial resources to identify additional therapeutic opportunities for our drug candidates or to develop suitable potential drug candidates through internal research programs than we will possess, thereby limiting our ability to diversify and expand our drug portfolio.

Because we have limited financial and managerial resources, we have chosen to focus at present on our three Lead Projects, which may ultimately prove to be unsuccessful. As a result of this focus, we may forego or delay pursuit of opportunities with other drug candidates, or for other indications that later prove to have greater commercial potential or a greater likelihood of success. Even if we determine to pursue alternative therapeutic or diagnostic drug candidates, these other drug candidates or other potential programs may ultimately prove to be unsuccessful. In short, our resource allocation decisions may cause us to fail to capitalize on viable commercial products or profitable market opportunities.

Accordingly, there can be no assurance that we will ever be able to develop suitable potential drug candidates through internal research programs. This could materially adversely affect our future growth and prospects.

***If we encounter difficulties enrolling patients in our clinical trials, our clinical development activities could be delayed or otherwise adversely affected.***

While we have not commenced any clinical trials and do not expect to start our first clinical trials until at least 2020 or 2021, assuming we obtain approval to do so from at least one regulatory authority, of which there can be no assurance, timely completion of clinical trials in accordance with their protocols depends, among other things, on our ability to enroll a sufficient number of patients who meet the trial criteria and remain in the trial until its conclusion. We may experience difficulties enrolling and retaining appropriate patients in our clinical trials for a variety of reasons, including but not limited to:

- the size and nature of the patient population;
- patient eligibility criteria defined in the clinical protocol;
- the size of study population required for statistical analysis of the trial's primary endpoints;
- the proximity of patients to trial sites;
- the design of the trial and changes to the design of the trial;
- our ability to recruit clinical trial investigators with the appropriate competencies and experience;
- competing clinical trials for similar therapies or other new therapeutics exist and will reduce the number and types of patients available to us;
- clinicians' and patients' perceptions as to the potential advantages and side effects of the drug candidate being studied in relation to other available therapies, including any new drugs or treatments that may be approved for the indications we are investigating;
- our ability to obtain and maintain patient consents;
- patients enrolled in clinical trials may not complete a clinical trial; and
- the availability of approved therapies that are similar to our drug candidates.

Even if we are able to enroll a sufficient number of patients in our clinical trials, delays in patient enrollment may result in increased costs or may affect the timing or outcome of the planned clinical trials, which could prevent completion of these trials and adversely affect our ability to advance the development of our drug candidates.

***Clinical drug development involves a lengthy and expensive process and could fail at any stage of the process. We have limited experience in conducting clinical trials and results of earlier studies and trials may not be reproduced in future clinical trials.***

For our drug candidates, clinical testing is expensive and can take many years to complete, while failure can occur at any time during the clinical trial process. The results of studies in animals and early clinical trials of our drug candidates may not predict the results of later-stage clinical trials. Drug candidates in later stages of clinical trials may fail to show the desired safety and efficacy traits despite having progressed through studies in animals and initial clinical trials. In some instances, there can be significant variability in safety and/or efficacy results between different trials of the same drug candidate due to numerous factors, including changes in trial procedures set forth in protocols, differences in the size and type of the patient populations (including genetic differences), patient adherence to the dosing regimen and the patient dropout rate. Results in later trials may also differ from earlier trials due to a larger number of clinical trial sites and additional countries and languages involved in such trials. In addition, the design of a clinical trial can determine whether its results will support approval of a drug candidate, and flaws in the design of a clinical trial may not become apparent until the clinical trial is well advanced and significant expense has been incurred.

A number of companies in the pharmaceutical and biotechnology industries have suffered significant setbacks in advanced clinical trials due to lack of demonstrated efficacy or adverse safety profiles, notwithstanding promising results in earlier trials. Clinical trials of potential products often reveal that it is not practical or feasible to continue development efforts. Furthermore, if the trials we conduct fail to meet their primary statistical and clinical endpoints, they will not support the approval from the FDA, NMPA, EMA or other comparable regulatory authorities for our drug candidates. If this occurs, we would need to replace the failed study with new trials, which would require significant additional expense, cause substantial delays in commercialization and materially adversely affect our business, financial condition, cash flows and results of operations. (See “We are subject to risks related to the carrying out and outcome of clinical trials of medical devices”)

***If clinical trials of our drug candidates fail to demonstrate safety and efficacy to the satisfaction of the FDA, NMPA, EMA or other comparable regulatory authorities, or do not otherwise produce positive results, we may incur additional costs or experience delays in completing, or ultimately be unable to complete, the development and commercialization of our drug candidates.***

Before applying for and obtaining regulatory approval for the sale of any of our drug candidates, we must conduct extensive clinical trials to demonstrate the safety and efficacy of our drug candidates in humans. Clinical testing is expensive, difficult to design and implement, can take many years to complete and may fail. A failure of one or more of our clinical trials can occur at any stage of testing and successful interim results of a clinical trial do not necessarily predict successful final results.

We and our CROs are required to comply with current Good Clinical Practices (“cGCP”) requirements, which are regulations and guidelines enforced by the FDA, NMPA, EMA and other comparable regulatory authorities for all drugs in clinical development. Regulatory authorities enforce these cGCP through periodic inspections of trial sponsors, principal investigators and trial sites. Compliance with cGCP can be costly and if we or any of our CROs fail to comply with applicable cGCP, the clinical data generated in our clinical trials may be deemed unreliable and the FDA, NMPA, EMA or comparable regulatory authorities may require us to perform additional clinical trials before approving our marketing applications.

We may experience numerous unexpected events during, or as a result of, clinical trials that could delay or prevent our ability to receive regulatory approval or commercialize our drug candidates, including but not limited to:

- regulators, institutional review boards (“IRBs”) or ethics committees may not authorize us or our investigators to commence a clinical trial or conduct a clinical trial at a prospective trial site;
- clinical trials of our drug candidates may produce negative or inconclusive results, and we may decide, or regulators may require us, to conduct additional clinical trials or abandon drug development programs;
- the number of patients required for clinical trials of our drug candidates may be larger than we anticipate, enrollment may be insufficient or slower than we anticipate or patients may drop out at a higher rate than we anticipate;
- our contractors and investigators may fail to comply with regulatory requirements or meet their contractual obligations to us in a timely manner, or at all;
- we might have to suspend or terminate clinical trials of our drug candidates for various reasons, including a lack of clinical response or a determination that participants are being exposed to unacceptable health risks;
- regulators, IRBs or ethics committees may require that we or our investigators suspend or terminate clinical research for various reasons, including non-compliance with regulatory requirements;
- the cost of clinical trials of our drug candidates may be greater than we anticipate;
- the supply or quality of our drug candidates or other materials necessary to conduct clinical trials of our drug candidates may be insufficient or inadequate; and
- our drug candidates may cause adverse events, have undesirable side effects or other unexpected characteristics, causing us, our investigators, or regulators to suspend or terminate the trials.

If we are required to conduct additional clinical trials or other testing of our drug candidates beyond those that we currently contemplate, if we are unable to successfully complete clinical trials of our drug candidates or other testing, if the results of these trials or tests are not positive or are only modestly positive or if they raise safety concerns, we may:

- be delayed in obtaining regulatory approval for our drug candidates;
- not obtain regulatory approval at all;
- obtain approval for indications that are not as broad as intended;
- have a drug removed from the market after obtaining regulatory approval;
- be subject to additional post-marketing testing requirements;
- be subject to restrictions on how a drug is distributed or used; or
- be unable to obtain reimbursement for use of a drug.

Delays in testing or approvals may result in increases in our drug development costs. We do not know whether any clinical trials will begin as planned, will need to be restructured, or will be completed on schedule, or at all. Clinical trials may produce negative or inconclusive results. Moreover, these trials may be delayed or proceed less quickly than intended. Delays in completing our clinical trials will increase our costs, slow down our drug candidate development and approval process, and jeopardize our ability to commence product sales and generate revenues and we may not have sufficient funding to complete the testing and approval process. Any of these events may significantly harm our business, financial condition and prospects, lead to the denial of regulatory approval of our drug candidates or allow our competitors to bring drugs to market before we do, impairing our ability to commercialize our drugs if and when approved.

Significant clinical trial delays also could shorten any periods during which we have the exclusive right to commercialize our drug candidates or allow our competitors to bring products to market before we do, impair our ability to commercialize our drug candidates and may harm our business and results of operations.

***We may in the future conduct clinical trials for our drug candidates in sites outside the U.S. and the FDA may not accept data from trials conducted in such locations.***

We may in the future conduct certain of our clinical trials outside the U.S. Although the FDA may accept data from clinical trials conducted outside the U.S. for our New Drug Application (“NDA”), acceptance of this data is subject to certain conditions imposed by the FDA. There can be no assurance the FDA will accept data from any of the clinical trials we conduct outside the U.S. If the FDA does not accept the data from any of our clinical trials conducted outside the U.S., it would likely result in the need for additional clinical trials in the U.S., which would be costly and time-consuming and could delay or prevent the commercialization of any of our drug candidates.

#### **Risks Related to Obtaining Regulatory Approval for Our Drug Candidates**

***The regulatory approval processes of the FDA, NMPA, EMA and other comparable regulatory authorities are lengthy, time-consuming and inherently unpredictable, and if we are ultimately unable to obtain regulatory approval for our current drug candidates or any future drug candidates we may develop, our business will be substantially harmed.***

We cannot commercialize drug candidates without first obtaining regulatory approval to market each drug from the FDA, NMPA, EMA or comparable regulatory authorities. Before obtaining regulatory approvals for the commercial sale of any drug candidate for a target indication, we must demonstrate in studies in animals and well-controlled clinical trials, and, with respect to approval in the United States and other regulatory agencies, to the satisfaction of the FDA, NMPA, EMA or comparable regulatory authorities, that the drug candidate is safe and effective for use for that target indication and that the manufacturing facilities, processes and controls are adequate.

The time required to obtain approval from the FDA, NMPA, EMA and other comparable regulatory authorities is unpredictable but typically takes many years following the commencement of studies in animals and clinical trials and depends upon numerous factors, including the substantial discretion of the regulatory authorities.

In addition, approval policies, regulations or the type and amount of clinical data necessary to gain approval can differ among regulatory authorities and may change during the course of the development of a drug candidate. We have not obtained regulatory approval for any drug candidate. It is possible that neither our existing drug candidates nor any drug candidates we may discover or acquire for development in the future will ever obtain regulatory approval. Even if we obtain regulatory approval in one jurisdiction, we may not obtain it in other jurisdictions.

Our drug candidates could fail to receive regulatory approval from any of the FDA, NMPA, EMA or other comparable regulatory authorities for many reasons, including but not limited to:

- disagreement with regulators regarding the design or implementation of our clinical trials;
- failure to demonstrate that a drug candidate is safe and effective or safe, pure and potent for its proposed indication;
- failure of clinical trial results to meet the level of statistical significance required for approval;
- failure to demonstrate that a drug candidate's clinical and other benefits outweigh its safety risks;
- disagreement with regulators regarding our interpretation of data from studies in animals or clinical trials;
- insufficiency of data collected from clinical trials of our drug candidates to support the submission and filing of a New Drug Application ("NDA"), or other submission or to obtain marketing approval;
- the FDA, NMPA, EMA or a comparable regulatory authority's finding of deficiencies related to the manufacturing processes or facilities of third-party manufacturers with whom we contract for clinical and commercial supplies; and
- changes in approval policies or regulations that render our preclinical studies and clinical data insufficient for approval.

Any of the FDA, NMPA, EMA or other comparable regulatory authorities may require more information, including additional preclinical studies or clinical data, to support approval, which may delay or prevent approval and our commercialization plans, or we may decide to abandon the development program. If we were to obtain approval, regulatory authorities may approve any of our drug candidates for fewer or more limited indications than we request. Regulatory authorities also may grant approval contingent on the performance of costly post-marketing clinical trials, or may approve a drug candidate with a label that is not desirable for the successful commercialization of that drug candidate. In addition, if our drug candidate produces undesirable side effects or involves other safety issues, the FDA may require the establishment of a Risk Evaluation Mitigation Strategy ("REMS"), or NMPA, EMA or other comparable regulatory authorities may require the establishment of a similar strategy. Such a strategy may, for instance, restrict distribution of our drug candidates, require patient or physician education, or impose other burdensome implementation requirements on us.

***Regulatory approval may be substantially delayed or may not be obtained for one or all of our drug candidates if regulatory authorities require additional time or studies to assess the safety or efficacy of our drug candidates.***

We currently do not have any drug candidates that have gained approval for sale by the FDA, NMPA or EMA or other regulatory authorities in any other country, and we cannot guarantee that we will ever have marketable drugs. Our business is substantially dependent on our ability to complete the development of, obtain marketing approval for and successfully commercialize drug candidates in a timely manner. We cannot commercialize drug candidates without first obtaining marketing approval from the FDA, NMPA, EMA and comparable regulatory authorities. In the U.S., we hope to file INDs for the drug candidates from our Lead Projects and, subject to the approval of IND, Phase 1 clinical trials in humans. Even if we are permitted to commence such clinical trials, they may not be successful and regulators may not agree with our conclusions regarding the data generated by our clinical trials.

We may be unable to complete development of our drug candidates or initiate or complete development of any future drug candidates we may develop on our projected schedule. While we believe that our existing cash will likely enable us to complete the preclinical development of at least one of our current Lead Projects, even assuming we can complete such preclinical studies for any drug candidate by 2021, the full clinical development, manufacturing and launch of that drug candidate, will take significant additional time and likely require funding beyond the existing cash. In addition, if regulatory authorities require additional time or studies to assess the safety or efficacy of our drug candidates, we may not have or be able to obtain adequate funding to complete the necessary steps for approval for our drug candidates or any future drug candidates.

Preclinical studies in animals and clinical trials in humans to demonstrate the safety and efficacy of our drug candidates are time-consuming, expensive and take several years or more to complete. Delays in preclinical or clinical trials, regulatory approvals or rejections of applications for regulatory approval in the U.S., Europe, the PRC or other markets may result from many factors, including but not limited to:

- our inability to obtain sufficient funds required to conduct or continue a trial, including lack of funding due to unforeseen costs or other business decisions;
- regulatory reports for additional analysts, reports, data, preclinical studies and clinical trials;
- failure to reach agreement with, or inability to comply with conditions imposed by the FDA, NMPA, EMA or other regulators regarding the scope or design of our clinical trials;
- regulatory questions regarding interpretations of data and results and the emergence of new information regarding our drug candidates or other products;
- delay or failure in obtaining authorization to commence a clinical trial or inability to comply with conditions imposed by a regulatory authority regarding the scope or design of a clinical trial;
- withdrawal of clinical trial sites from our clinical trials as a result of changing standards of care or the ineligibility of a site to participate in our clinical trials;
- unfavorable or inconclusive results of clinical trials and supportive non-clinical studies, including unfavorable results regarding effectiveness of drug candidates during clinical trials;
- difficulty in maintaining contact with patients during or after treatment, resulting in incomplete data;
- our inability to obtain approval from IRBs or ethics committees to conduct clinical trials at their respective sites;
- our inability to enroll and retain a sufficient number of patients who meet the inclusion and exclusion criteria in a clinical trial;
- our inability to conduct a clinical trial in accordance with regulatory requirements or our clinical protocols;



- clinical sites and investigators deviating from trial protocol, failing to conduct the trial in accordance with regulatory requirements, withdrawing from or dropping out of a trial, or becoming ineligible to participate in a trial;
- failure of our clinical trial managers to satisfy their contractual duties or meet expected deadlines;
- manufacturing issues, including problems with manufacturing or timely obtaining from third parties sufficient quantities of a drug candidate for use in a clinical trial;
- ambiguous or negative interim results, or results that are inconsistent with earlier results;
- feedback from the FDA, NMPA, EMA, an IRB, data safety monitoring boards, or comparable entities, or results from earlier stage or concurrent studies in animals and clinical trials, regarding our drug candidates, including which might require modification of a trial protocol;
- unacceptable risk-benefit profile or unforeseen safety issues or adverse side effects; and
- a decision by the FDA, NMPA, EMA, an IRB, comparable entities, or the Company, or recommendation by a data safety monitoring board or comparable regulatory entity, to suspend or terminate clinical trials at any time for safety issues or for any other reason.

Changes in regulatory requirements and guidance may also occur, and we may need to amend clinical trial protocols submitted to applicable regulatory authorities to reflect these changes. Amendments may require us to resubmit clinical trial protocols to IRBs or ethics committees for re-examination, which may increase the costs or time required to complete a clinical trial.

If we experience delays in the completion of, or the termination of, a clinical trial, of any of our drug candidates, the commercial prospects of our drug candidates will be harmed, and our ability to generate product sales revenues from any of those drug candidates will be delayed. In addition, any delay in completing our clinical trials will increase our costs, slow down our drug candidate development and approval process, and jeopardize our ability to commence product sales and generate revenues. Any of these occurrences may harm our business, financial condition and prospects significantly. In addition, many of the factors that cause, or lead to, a delay in the commencement or completion of clinical trials may also ultimately lead to the denial of regulatory approval of our drug candidates.

If we are required to conduct additional clinical trials or other studies with respect to any of our drug candidates beyond those that we initially contemplated, if we are unable to successfully complete our clinical trials or other studies or if the results of these studies are not positive or are only modestly positive, we may be delayed in obtaining regulatory approval for that drug candidate, we may not be able to obtain regulatory approval at all or we may obtain approval for indications that are not as broad as intended. Our product development costs will also increase if we experience delays in testing or approvals, and we may not have sufficient funding to complete the testing and approval process. Significant clinical trial delays could allow our competitors to bring their products to market before we do and impair our ability to commercialize our drugs, if and when approved. If any of this occurs, our business will be materially harmed.

***Our drug candidates may cause undesirable adverse events or have other properties that could delay or prevent their regulatory approval, limit the commercial profile of an approved label, or result in significant negative consequences following any regulatory approval.***

Undesirable adverse events caused by our drug candidates or any future drug candidates we may develop could cause us or regulatory authorities to interrupt, delay or halt clinical trials and could result in a more restrictive label or the delay or denial of regulatory approval by the FDA, NMPA, EMA or other comparable regulatory authorities. Results of our potential clinical trials could reveal a high and unacceptable severity or prevalence of adverse effects. In such event, our trials could be suspended or terminated and the FDA, NMPA, EMA or other comparable regulatory authorities could order us to cease further development of, or deny approval of, our drug candidates for any or all target indications. Drug-related adverse events could also affect patient recruitment or the ability of enrolled subjects to complete the trial, could result in potential product liability claims and may harm our reputation, business, financial condition and business prospects significantly.

Additionally, if any of our current or future drug candidates receives regulatory approval, and we or others later identify undesirable side effects caused by such drugs, a number of potentially significant negative consequences could result, including but not limited to:

- suspending the marketing of the drug;
- having regulatory authorities withdraw approvals of the drug;
- adding warnings on the label;
- developing a REMS for the drug or, if a REMS is already in place, incorporating additional requirements under the REMS, or to develop a similar strategy as required by a comparable regulatory authority;
- conducting post-market studies;
- being sued and held liable for harm caused to subjects or patients; and
- damage to our reputation.

Any of these events could prevent us from achieving or maintaining market acceptance of the particular drug candidate, if approved, and could significantly harm our business, results of operations and prospects.

***Even if we receive regulatory approval for our drug candidates, we will be subject to ongoing regulatory obligations and continued regulatory review, which may result in significant additional expense and we may be subject to penalties if we fail to comply with regulatory requirements or experience unanticipated problems with our drug candidates.***

If our drug candidates or any future drug candidates we develop are approved, they will be subject to ongoing regulatory requirements for manufacturing, labeling, packaging, storage, advertising, promotion, sampling, record-keeping, conduct of post-marketing studies, and submission of safety, efficacy, and other post-market information, including both federal and state requirements in the United States and requirements of comparable regulatory authorities outside of the United States.

Manufacturers and manufacturers' facilities are required to comply with extensive requirements from the FDA, NMPA, EMA and comparable regulatory authorities, including, in the United States, ensuring that quality control and manufacturing procedures conform to cGMP regulations. As such, our contract manufacturers will be subject to continual review and inspections to assess compliance with cGMP and adherence to commitments made in any NDA, other marketing application, and previous responses to inspection observations. Accordingly, we and others with whom we work must continue to expend time, money and effort in all areas of regulatory compliance, including manufacturing, production and quality control.

Any regulatory approvals that we receive for our drug candidates may be subject to limitations on the approved indicated uses for which the drug may be marketed or to the conditions of approval, or contain requirements for potentially costly post-marketing testing, including Phase 4 clinical trials and surveillance to monitor the safety and efficacy of the drug candidate. The regulatory authorities may also require risk management plans or programs as a condition of approval of our drug candidates (such as REMS of the FDA and risk-management plan of the EMA), which could entail requirements for long-term patient follow-up, a medication guide, physician communication plans or additional elements to ensure safe use, such as restricted distribution methods, patient registries and other risk minimization tools. In addition, if the FDA, NMPA, EMA or a comparable regulatory authority approves our drug candidates, we will have to comply with requirements including, for example, submissions of safety and other post-marketing information and reports, registration, as well as continued compliance with cGCP and cGMP, for any clinical trials that we conduct post-approval.

The FDA may impose consent decrees or withdraw approval if compliance with regulatory requirements and standards is not maintained or if problems occur after the drug reaches the market. Later discovery of previously unknown problems with our drug candidates, including adverse events of unanticipated severity or frequency, or with our third-party manufacturers or manufacturing processes, or failure to comply with regulatory requirements, may result in revisions to the approved labeling to add new safety information; imposition of post-market studies or clinical studies to assess new safety risks; or imposition of distribution restrictions or other restrictions under a REMS program. Other potential consequences include, among other things:

- restrictions on the marketing or manufacturing of our drug candidates, withdrawal of the product from the market, or voluntary or mandatory product recalls;
- fines, untitled or warning letters, or holds on clinical trials;
- refusal by the FDA to approve pending applications or supplements to approved applications filed by us or suspension or revocation of license approvals;
- product seizure or detention, or refusal to permit the import or export of our drug candidates; and
- injunctions or the imposition of civil or criminal penalties.

The FDA strictly regulates marketing, labeling, advertising and promotion of products that are placed on the market. Companies may promote drugs only for the approved indications and in accordance with the provisions of the approved label and may not promote drugs for any off-label use, such as uses that are not described in the product's labeling and that differ from those approved by the regulatory authorities. However, physicians may prescribe drug products for off-label uses and such off-label uses are common across some medical specialties. Thus, they may, unbeknownst to us, use our product for an "off label" indication for a specific treatment recipient. The FDA, NMPA, EMA and other regulatory authorities actively enforce the laws and regulations prohibiting the promotion of off-label uses, and if we are found to be out of compliance with the requirements and restrictions imposed on us under those laws and restrictions, we may be subject to significant liability, including civil and administrative remedies as well as criminal sanctions, and the off-label use of our products may increase the risk of product liability claims. In addition, management's attention could be diverted from our business operations and our reputation could be damaged.

The policies of the FDA, NMPA, EMA and other regulatory authorities may change and we cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative action, either in the United States or abroad. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may lose any regulatory approval that we may have obtained and we may not achieve or sustain profitability.

***We may be subject to government regulations for dietary supplements***

The Company may develop some of the molecules under development in formulations intended as dietary supplements. The FDA regulates dietary supplements and drugs under different regulatory schemes, and the Company's dietary supplement formulations will also be subject to other government regulation, including regulation by the Centers for Medicare & Medicaid Services, or CMS, other divisions of the U.S. Department of Health and Human Services, state and local governments and the foreign equivalents of the FDA and these other agencies.

For example, the FDA regulates the research, development, preclinical and clinical testing, safety, effectiveness, record keeping, reporting, labeling, storage processing, formulation, safety, manufacturing, packaging, labeling, advertising and distribution import and export of pharmaceutical products under various regulatory provisions. If any dietary supplements we develop are tested or marketed abroad, they will also be subject to extensive regulation by foreign governments, whether or not we have obtained FDA approval for a given product and its uses. Such foreign regulation may be equally or more demanding than corresponding U.S. regulation.

In addition, the regulatory policies of the agencies in the U.S. or other countries may change and additional government regulations may be issued that could prevent, limit, or delay regulatory approval of our dietary supplement candidates, or impose more stringent product labeling and post-marketing testing and other requirements.

### ***Risks Related to Commercialization of Our Drug Candidates***

***Even if any of our drug candidates receive regulatory approval, it may fail to achieve the degree of market acceptance by physicians, patients, third-party payors and others in the medical community necessary for commercial success.***

After we complete clinical trials and receive regulatory approval for any of our drug candidates, which may not happen for some time, we recognize that such candidate(s) may ultimately fail to gain sufficient market acceptance by physicians, patients, third-party payors and others in the medical community. We may not be able to achieve or maintain market acceptance of our products over time if new products or technology are introduced that are more favorably received than our products, are more cost effective or render our drug obsolete. We will face competition with respect to our drug candidates from other pharmaceutical companies developing products in the same disease/therapeutic area and specialty pharmaceutical and biotechnology companies worldwide. Many of the companies against which we may be competing have significantly greater financial resources and expertise in research and development, manufacturing, animal testing, conducting clinical trials, obtaining regulatory approvals and marketing approval for drugs than we do. Physicians, patients and third-party payors may prefer other novel products to ours, which means that we may not generate significant sales revenues for that product and that product may not become profitable. The degree of market acceptance of our drug candidates, if approved for commercial sale, will depend on a number of factors, including but not limited to:

- clinical indications for which our drug candidates are approved;
- physicians, hospitals, and patients considering our drug candidates as a safe and effective treatment;
- the potential and perceived advantages of our drug candidates over alternative treatments;
- the prevalence and severity of any side effects;
- product labeling or product insert requirements of the FDA, NMPA, EMA or other comparable regulatory authorities;
- limitations or warnings contained in the labeling approved by the FDA, NMPA, EMA or other comparable regulatory authorities;
- the timing of market introduction of our drug candidates as well as competitive drugs;
- the cost of treatment in relation to alternative treatments and their relative benefits;
- the availability of adequate coverage, reimbursement and pricing by third-party payors and government authorities;
- lack of experience and financial and other limitations on our ability to create and sustain effective sales and marketing efforts or ineffectiveness of our sales and marketing partners; and
- changes in legislative and regulatory requirements that could prevent or delay regulatory approval of our drug candidates, restrict or regulate post-approval activities and affect our ability to profitably sell any drug candidates for which we obtain regulatory approval.

## Risks Related to Our IP

***A significant portion of our IP portfolio currently includes pending patent applications that have not yet been issued as granted patents and if the pending patent applications covering our product candidates fail to be issued, our business will be adversely affected. If we or our licensors are unable to obtain and maintain patent protection for our technology and drugs, our competitors could develop and commercialize technology and drugs similar or identical to ours, and our ability to successfully commercialize our technology and drugs may be adversely affected.***

Our success depends largely on our ability to obtain and maintain patent protection and other forms of IP rights for the composition of matter, method of use and/or method of manufacture for each of our drug candidates. Failure to obtain, maintain protection, enforce or extend adequate patent and other IP rights could materially adversely affect our ability to develop and market one or more of our drug candidates. We also rely on trade secrets and know-how to develop and maintain our proprietary and IP position for each of our drug candidates. Any failure to protect our trade secrets and know-how with respect to any specific drug and device candidate could adversely affect the market potential of that potential product.

As of the date hereof, the Company has, through its licenses, obtained rights to patents and patent applications covering some or all its drug and device candidates that have been filed in major jurisdictions such as the United States, member states of the European Patent Organization (the “EPO”) and the PRC (collectively, “Major Patent Jurisdictions”), as well as in other countries.

As of the date hereof, we are the exclusive licensee of 13 U.S. patents and 6 pending U.S. non-provisional applications, as well as corresponding patents and patent applications internationally. In addition, we are the exclusive licensee of 2 international patent applications under the Patent Cooperation Treaty (the “PCT”) which we have filed and/or plan to file nationally in member states of the EPO, PRC and other jurisdictions before the expiration of the time limits for entry of national stage application. We have also filed a number of provisional applications to establish earlier filing dates for certain of our other ongoing researches, the specifics of which are currently proprietary and confidential. To the extent we do not seek or obtain patent protection in a particular jurisdiction, we may not have commercial incentive to seek marketing authorization in such jurisdiction. Nonetheless, other parties might enter those markets with generic versions or copies of our products and received regulatory approval without having significantly invested in their own research and development costs compared to the Company’s investment.

With respect to issued patents in certain jurisdictions, for example in the U.S. and under the EPO, we may be entitled to obtain a patent term extension to extend the patent expiration date provided we meet the applicable requirements for obtaining such patent term extensions. We have sought to support our proprietary position by working with our licensors in filing patent applications in the names of the licensors in the United States and through the PCT, related to the Lead Projects and certain other drug candidates. In the future, we intend to file patent applications on supplemental or improvement IP derived from the licensed technologies, where those IP would be solely or jointly owned by the Company pursuant to the terms of respective license agreements. Filing patents covering multiple technologies in multiple countries is time-consuming and expensive, and we may not have the resources file and prosecute all necessary or desirable patent applications in a timely manner. It is also possible that we will fail to identify patentable aspects of our research and development output before it is too late to obtain patent protection.

We cannot be certain that patents will be issued or granted with respect to patent applications that are currently pending, or that issued or granted patents will not later be found to be invalid or unenforceable.

The patent position of biotechnology and pharmaceutical companies is generally uncertain because it involves complex legal and factual considerations. The standards applied by the EPO, the U.S. Patent and Trademark Office, or USPTO, and foreign patent offices in granting patents are not always applied uniformly or predictably. For example, there is no uniform worldwide policy regarding patentable subject matter or the scope of claims allowable in biotechnology and pharmaceutical patents. Consequently, patents may not issue from our pending patent applications and even if they do issue, such patents may not issue in a form that effectively prevents others from commercializing competing products. As such, we do not know the degree of future protection that we will have on our proprietary products and technology.

Additionally, the issuance of a patent is not conclusive as to its inventorship, scope, validity or enforceability, and our patents may be challenged in the courts or patent offices in the United States and abroad. Even if patents do successfully issue and even if such patents cover our drug candidates, other parties may initiate, for patents filed before March 16, 2013 (i.e., the enactment of the America Invents Act), interference or re-examination proceedings, for patents filed on or after March 16, 2013, post-grant review, *inter partes* review, nullification or derivation proceedings, in court or before patent offices, or similar proceedings challenging the validity, enforceability or scope of such patents, which may result in the patent claims being narrowed or invalidated. Successful defense of its patents can constitute a material factor in a company’s expenses. According to an August 2017 article published by Bloomberg News (<https://www.bna.com/cost-patent-infringement-n73014463011/>), depending on the value at stake, the American Intellectual Property Law Association’s “2017 Report of the Economic Survey” reported the average cost of a patent litigation in 2017 to be \$1.7 million.

In addition, the fact that the Company has exclusive rights to prevent others from using a patented invention does not necessarily mean that the Company itself will have the unrestricted right to use that invention. Other parties may obtain ownership or licenses to patents or other IP rights that cover the manufacture, use or sale of our current or future products (or elements thereof). This may enable such other parties to enforce their patents or IP rights against us, and may, as a result, affect the commercialization of our products or exploitation of our own technology. We endeavor to identify early patents and patent applications which may block development of a product or technology and minimize this risk by conducting prior art searches before and during the projects. However, relevant documents may be overlooked, yet-to-be published or missed, which may in turn impact on the freedom to commercialize the relevant asset. In such cases, we may not be in a position to develop or commercialize products or drug candidates unless we successfully pursue litigation to nullify or invalidate the other IP rights concerned, or enter into a license agreement with the IP right holder, if available on commercially reasonable terms.

***If we are unable to obtain and maintain the appropriate scope for our patents, our competitors could develop and commercialize technology and drugs similar or identical to ours, and our ability to successfully commercialize our technology and drugs may be adversely affected.***

We may not obtain sufficient claim scope in those patents to prevent another party from competing successfully with our drug and device candidates. Even if our patent applications issue as patents, they may not issue in a form that will provide us with any meaningful protection, prevent competitors from competing with us or otherwise provide us with any competitive advantage. Our competitors may be able to circumvent our patents by developing similar or alternative technology or drug and device candidates in a non-infringing manner. The issuance of a patent is not conclusive as to its scope, validity or enforceability, and our patents may be challenged in the courts or patent offices in the United States and abroad. Such challenges may result in patent claims being narrowed, invalidated or held unenforceable, which could limit our ability to stop or prevent us from stopping others from using or commercializing similar or identical technology and drug and device candidates, or limit the duration of the patent protection of our technology and drug and device candidates. Given the amount of time required for the development, testing and regulatory review of new drug and device candidates, patents protecting such candidates might expire before or shortly after such candidates are commercialized. As a result, our patent portfolio may not provide us with sufficient rights to exclude others from commercializing drug and device candidates similar or identical to ours.

Further, the issuance, scope, validity, enforceability and commercial value of our and our current or future licensors' or collaboration partners' patent rights are highly uncertain. Our and our licensors' pending and future patent applications may not result in patents being issued which protect our technology or products, in whole or in part, or which effectively prevent others from commercializing competitive technologies and products.

***We may not be able to protect and enforce our IP rights throughout the world.***

Our commercial success will depend, in part, on our ability to maintain IP protection for our drug candidates in which we seek to develop and commercialize. While we rely primarily upon a combination of patents, trademarks, trade secrets and other contractual obligations to protect the IP related to our brands, products and other proprietary technologies, these legal means may afford only limited protection.

Filing and prosecuting patents on drug candidates and defending the validity of the same (if challenged) in all countries throughout the world could be prohibitively expensive for us, and our IP rights in countries outside the Major Patent Jurisdictions can be less extensive than those in the Major Patent Jurisdictions. In addition, the laws of some countries in the rest of the world such as India do not protect IP rights to the same extent as laws in the Major Patent Jurisdictions. Consequently, we may not be able to prevent other parties from practicing our inventions in the rest of the world. Competitors may use our technology in jurisdictions where we have not or not yet obtained patent protection to develop their own drugs and further, may export otherwise infringing drugs to non-U.S. jurisdictions where we have patent protection.

Our, our licensors' or collaboration partners' patent applications cannot be enforced against other parties practicing the technology claimed in such applications unless and until a patent issues from such applications, and then only to the extent the issued claims cover the technology. In addition, patents and other IP rights also will not protect our technology, drug candidates if another party, including our competitors, design around our protected technology, drug candidates without infringing, misappropriating or otherwise violating our patents or other IP rights.

Moreover, currently and as our R&D continues to progress, some of our patents and patent applications are or may be co-owned with another party. Some of our licenses already provide that future-developed technologies (and any resulting patents) will be co-owned with the licensors and other patents for technologies we may acquire or develop with other parties may also be jointly owned. If we are unable to obtain an exclusive license to any such co-owners' interest in such patents or patent applications, such co-owners may be able to license their rights to other persons, including our competitors, and our competitors could market competing products and technology, and we will be unable to transfer or grant exclusive rights to potential purchasers or development partners of such co-owned technologies. In addition, we may need the cooperation of any such co-owners of our patents in order to enforce such patents against other parties, and such cooperation may not be provided to us. Any of the foregoing could limit the revenue we might generate from our patents or patent applications and thus have a material adverse effect on our competitive position, business, financial conditions, results of operations, and prospects.

Because patent applications are confidential for a period of time after filing, and some remain so until issued, we cannot be certain that we or our licensors or collaborators were or will be the first to file any patent application related to a drug or device candidate. Furthermore, in the United States, if patent applications of other parties have an effective filing date before March 16, 2013, an interference proceeding can be initiated by such other party to determine who was the first to invent any of the subject matter covered by the patent claims of our applications. If patent applications of other parties have an effective filing date on or after March 16, 2013, in the United States a derivation proceeding can be initiated by such other parties to determine whether our invention was derived from theirs.

Even where we have a valid and enforceable patent, we may not be able to exclude others from practicing our invention where the other party can show that they used the invention in commerce before our filing date or the other party benefits from a compulsory license. In addition, we may be subject to other challenges regarding our exclusive ownership of our IP. If another party were successful in challenging our exclusive ownership of any of our IP, we may lose our right to use such IP, such other party may be able to license such IP to other parties, including our competitors, and our competitors could market competing products and technology. Any of the foregoing could have a material adverse effect on our competitive position, business, financial conditions, results of operations, and prospects.

Many companies have encountered significant problems in protecting and defending IP rights in jurisdictions outside Major Patent Jurisdictions. The legal systems of some countries do not favor the enforcement of patents, trade secrets and other IP, which could make it difficult in those jurisdictions for us to stop the infringement or misappropriation of our patents or other IP rights, or the marketing of competing drugs in violation of our proprietary rights generally.

To date, we have not sought to enforce any issued patents in any jurisdictions. Proceedings to enforce our patent and other IP rights in any jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business.

Furthermore, such proceedings could put our patents at risk of being invalidated, held unenforceable, or interpreted narrowly, could put our patent applications at risk of not issuing, and could provoke other parties to assert claims of infringement or misappropriation against us. We may not prevail in any lawsuits that we initiate in jurisdictions where opposition proceedings are available and the damages or other remedies awarded, if any, may not be commercially meaningful. The requirements for patentability may differ in certain countries, particularly developing countries. Certain countries in Europe, the PRC, and developing countries including India, have compulsory licensing laws under which a patent owner may be compelled to grant licenses to other parties. In those countries, we and our licensors may have limited remedies if patents are infringed or if we or our licensors are compelled to grant a license to another party, which could materially diminish the value of those patents. This could limit our potential revenue opportunities. Accordingly, our efforts to enforce our IP rights around the world may be inadequate to obtain a significant commercial advantage from the IP that we develop.

***We may become involved in lawsuits to protect or enforce our IP, which could be expensive, time-consuming and unsuccessful. Our patent rights relating to our drug and device candidates could be found invalid or unenforceable if challenged in court or before the USPTO or comparable non-U.S. authority.***

Competitors may infringe our patent rights or misappropriate or otherwise violate our IP rights. To counter infringement or unauthorized use, litigation may be necessary in the future to enforce or defend our IP rights, to protect our trade secrets or determine the validity and scope of our own IP rights or the proprietary rights of others. This can be expensive and time-consuming. Any claim that we assert against perceived infringers could also provoke these parties to assert counterclaims against us alleging that we infringe their IP rights. Many of our current and potential competitors have the ability to dedicate substantially greater resources to enforce and/or defend their IP rights than we can. Accordingly, despite our efforts, we may not be able to prevent other parties from infringing upon or misappropriating our IP. Litigation could result in substantial costs and diversion of management resources, which could harm our business and financial results. In addition, in an infringement proceeding, a court may decide that patent rights or other IP rights owned by us are invalid or unenforceable, or may refuse to stop the other party from using the technology at issue on the grounds that our patent rights or other IP rights do not cover the technology in question. An adverse result in any litigation proceeding could put our patent, as well as any patents that may issue in the future from our pending patent applications, at risk of being invalidated, held unenforceable or interpreted narrowly. Furthermore, because of the substantial amount of discovery required in connection with IP litigation, there is risk that some of our confidential information could be compromised by disclosure during this type of litigation.

If we initiate legal proceedings against another party to enforce our patent, or any patents that may be issued in the future from our patent applications, that relates to one of our drug and device candidates, the defendant could counterclaim that such patent rights are invalid or unenforceable. In patent litigation in the United States, defendant counterclaims alleging invalidity or unenforceability are commonplace, and there are numerous grounds upon which another party can assert invalidity or unenforceability of a patent. Parties may also raise similar claims before administrative bodies in the United States or abroad, even outside the context of litigation. Such mechanisms include *ex parte* re-examination, *inter partes* review, post-grant review, derivation and equivalent proceedings in non-U.S. jurisdictions, such as opposition proceedings. Such proceedings could result in revocation or amendment to our patents in such a way that they no longer cover and protect our drug and device candidates. With respect to the validity of our patents, for example, there may be invalidating prior art of which we, our patent counsel, and the patent examiner were unaware during prosecution. If a defendant were to prevail on a legal assertion of invalidity and/or unenforceability, we would lose at least part, and perhaps all, of the patent protection on our drug and device candidates. Such a loss of patent protection could have a material adverse impact on our business.

We may not be able to prevent misappropriation of our trade secrets or confidential information, particularly in countries where the laws may not protect those rights as fully as in the United States. Furthermore, because of the substantial amount of discovery required in connection with IP litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation.

***We may be subject to claims challenging the inventorship of our patents and other IP.***

Although we are not currently experiencing any claims challenging the inventorship of our patents or ownership of our IP, we may in the future be subject to claims that former employees, collaborators or other parties have an interest in our patents or other IP as inventors or co-inventors. For example, we may have inventorship disputes arise from conflicting obligations of consultants or others who are involved in developing our drug and device candidates and who have not clearly contracted to transfer or assign any rights they may have to the Company. In addition, for our licensed patents, although a majority of our licensors have procured assignment forms and records from inventors to affirm their ownership in the licensed IP, another party or former employee or collaborator of our licensors not named in the patents may challenge the inventorship of claim an ownership interest in one or more of our or our licensors' patents. Litigation may be necessary to defend against these and other claims challenging inventorship. If we fail in defending any such claims, in addition to paying monetary damages, we may lose rights such as exclusive ownership of, or right to use, our patent rights or other IP. Such an outcome could have a material adverse effect on our business. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management and other employees.



***If we are sued for infringing IP rights of other parties, such litigation could be costly and time-consuming and could prevent or delay us from developing or commercializing our drug candidates, the outcome of which would be uncertain and could have a material adverse effect on the success of our business.***

Our commercial success depends in part on our avoiding infringement of the patents and other IP rights of other parties. There is a substantial amount of litigation involving patent and other IP rights in the biotechnology and pharmaceutical industries. Numerous issued patents, provisional patents and pending patent applications, which are owned by other parties, exist in the fields in which we are developing drug candidates. As the biotechnology and pharmaceutical industries expand and more patents are issued, the risk increases that our drug candidates may give rise to claims of infringement of the patent rights of others.

Other parties may assert that we are employing their proprietary technology without authorization. There may be other patents of which we are currently unaware with claims to materials, formulations, methods of manufacture or methods for treatment related to the use or manufacture of our drug candidates. Because patent applications can take many years to issue, there may be currently pending patent applications or provisional patents which may later result in issued patents that our drug candidates may infringe. In addition, other parties may obtain patents in the future and claim that use of our technology infringes upon these patents. If any other patents were held by a court of competent jurisdiction to cover the manufacturing process of any of our drug candidates, any molecules formed during the manufacturing process or any final drug itself, the holders of any such patents may be able to prevent us from commercializing such drug candidate unless we obtain a license under the applicable patents, or until such patents expire or they are finally determined to be held invalid or unenforceable. Similarly, if any other patent were held by a court of competent jurisdiction to cover aspects of our formulations, processes for manufacture or methods of use, including combination therapy or patient selection methods, the holders of any such patent may be able to block our ability to develop and commercialize the applicable drug candidate unless we obtain a license, limit our uses, or until such patent expires, or is finally determined to be held invalid or unenforceable. In either case, such a license may not be available on commercially reasonable terms or at all.

Other parties who bring successful claims against us for infringement of their IP rights may obtain injunctive or other equitable relief, which could prevent us from developing and commercializing one or more of our drug candidates. Defense of these claims, regardless of their merits, would involve substantial litigation expense and be a substantial diversion of employee resources from our business. In the event of a successful claim of infringement or misappropriation against us, we may have to pay substantial damages, including treble damages and attorneys' fees in the case of willful infringement, obtain one or more licenses from other parties, pay royalties or redesign our infringing drug candidates, which may be impossible or require substantial time and monetary expenditure. In the event of an adverse result in any such litigation, or even in the absence of litigation, we may need to obtain licenses from other parties to advance our research or allow commercialization of our drug candidates. Any required license may not be available at all, or may not be available on commercially reasonable terms. In the event that we are unable to obtain such a license, we would be unable to further develop and commercialize one or more of our drug candidates, which could harm our business significantly. We may also elect to enter into license agreements in order to settle patent infringement claims or resolve disputes prior to litigation, and any such license agreements may require us to pay royalties and other fees that could significantly reduce our profitability for any product related to that patent and thus harm our business.

Even if resolved in our favor, litigation or other legal proceedings relating to IP claims may cause us to incur significant expenses, and could distract our technical personnel, management personnel, or both from their normal responsibilities. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments, and if securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the market price of our Class A Ordinary Shares. Such litigation or proceedings could substantially increase our operating losses and reduce the resources available for development activities or any future sales, marketing or distribution activities. We may not have sufficient financial or other resources to adequately conduct such litigation or proceedings. Some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their greater financial resources. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could have a material adverse effect on our ability to compete in the marketplace.

***There may be patent applications pending of which we are not aware, but which cover similar products to the ones we are attempting to license or develop, which may result in lost time and money, as well as litigation.***

It is possible that we have failed to identify relevant outstanding patents or applications. For example, U.S. applications filed before November 29, 2000 and certain U.S. applications filed after that date that will not be filed outside the United States remain confidential until patents are issued. Patent applications filed in the United States after November 29, 2000 and generally filed elsewhere are published approximately 18 months after the earliest filing for which priority is claimed, with such earliest filing date being commonly referred to as the priority date. Therefore, patent applications covering our products could have been filed by others without our knowledge. Additionally, pending patent applications which have been published can, subject to certain limitations, be later amended in a manner that could cover our products or the use of our products. Holders of any such unanticipated patents or patent applications may actively bring infringement claims against us, with the same potential litigation consequences as alluded to elsewhere in this registration statement, of which this prospectus forms a part. Any of these events could require us to divert substantial financial and management resources that we would otherwise be able to devote to our business.

***Obtaining and maintaining our patent protection depends on compliance with various procedural, document submission, fee payment, and other requirements imposed by governmental patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements.***

Periodic maintenance fees on any issued patent are due to be paid to the USPTO and other patent agencies in several stages over the lifetime of the patent. The USPTO and various non-U.S. governmental patent agencies require compliance with a number of procedural, documentary, fee payment, and other similar provisions during the patent application process. Although an inadvertent lapse can in many cases be cured by payment of a late fee or by other means in accordance with the applicable rules, there are situations in which non-compliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. Non-compliance events that could result in abandonment or lapse of a patent or patent application include failure to respond to official actions within prescribed time limits, non-payment of fees, and failure to properly submit documents requesting an extension of time. In any such event, our competitors might be able to enter the market, which would have a material adverse effect on our business.

***The terms of our patents may not be sufficient to effectively protect our drug and device candidates and business.***

In most countries in which we file, including the United States, the term of an issued patent is generally 20 years from the earliest claimed filing date of a non-provisional patent application in the applicable country. Although various extensions may be available, the life of a patent and the protection it affords is limited. For example, depending upon the timing, duration and specifics of the FDA regulatory approval for our drug candidates, one or more of our U.S. patents, if issued, might be eligible for limited patent term restoration under the Drug Price Competition and Patent Term Restoration Act of 1984, referred to as the Hatch-Waxman Amendments. The Hatch-Waxman Amendments permit a patent term extension of up to five years as compensation for patent term lost during drug development and the FDA regulatory review process. Patent term extensions, however, cannot extend the remaining term of a patent beyond a total of 14 years from the date of drug approval by the FDA, and only one patent can be extended for a particular drug. The application for patent term extension is subject to approval by the USPTO, in conjunction with the FDA. We may not be granted an extension because of, for example, failing to apply within applicable deadlines, failing to apply prior to expiration of relevant patents or otherwise failing to satisfy applicable requirements. Moreover, the applicable time period or the scope of patent protection afforded could be less than we request. If we are unable to obtain a patent term extension for a given patent or the term of any such extension is less than we request, the period during which we will have the right to exclusively market our drug will be that of the originally issued patents themselves.

Even if patents covering one of our drug candidates are obtained, thereby giving us a period of exclusivity for manufacturing and marketing that drug, we will not be able to assert such patent rights upon the expiration of the issued patents against potential competitors who may begin marketing generic copies of our medications, and our business and results of operations may be adversely affected.

***Changes in patent law in the United States could diminish the value of patents in general, thereby impairing our ability to protect our drug and device candidates.***

The United States has recently enacted and is currently implementing wide-ranging patent reform legislation. Recent U.S. Supreme Court rulings have narrowed the scope of patent protection available in certain circumstances and weakened the rights of patent owners in certain situations. In addition to increasing uncertainty with regard to our ability to obtain patents in the future, this combination of events has created uncertainty with respect to the value of patents once obtained, if any. Depending on decisions by the U.S. Congress, the federal courts and the USPTO, the laws and regulations governing patents in the United States could change in unpredictable ways that would weaken our ability to obtain new patents, or to enforce our existing patents and patents that we might obtain in the future. For example, in a recent case, *Assoc. for Molecular Pathology v. Myriad Genetics, Inc.*, the U.S. Supreme Court held that certain claims to naturally-occurring substances are not patentable. Although we do not believe that any of the patents owned or licensed by us will be found invalid based on this decision, future decisions by the courts, the U.S. Congress or the USPTO may impact the value of our patent rights. There could be similar changes in the laws of foreign jurisdictions that may impact the value of our patent rights or our other IP rights.

In addition, recent patent reform legislation in the U.S., including the Leahy-Smith America Invents Act, or the America Invents Act, could increase those uncertainties and costs. The America Invents Act was signed into law on September 16, 2011, and many of the substantive changes became effective on March 16, 2013. The America Invents Act reforms U.S. patent law in part by changing the U.S. patent system from a “first to invent” system to a “first inventor to file” system, expanding the definition of prior art, and developing a post-grant review system, thus changing the U.S. patent law in a way that may weaken our ability to obtain patent protection in the U.S. for those applications filed after March 16, 2013. Further, the America Invents Act created new procedures to challenge the validity of issued patents in the U.S., including post-grant review and *inter partes* review proceedings, which some other parties have been using to cause the cancellation of selected or all claims of issued patents of competitors. For a patent with an effective filing date of March 16, 2013 or later, a petition for post-grant review can be filed by another party in a nine-month window from issuance of the patent. A petition for *inter partes* review can be filed immediately following the issuance of a patent if the patent has an effective filing date prior to March 16, 2013. A petition for *inter partes* review can be filed after the nine-month-period for filing a post-grant review petition has expired for a patent with an effective filing date of March 16, 2013 or later. Post-grant review proceedings can be brought on any ground of invalidity, whereas *inter partes* review proceedings can only raise an invalidity challenge based on published prior art and patents. These adversarial actions at the USPTO review patent claims without the presumption of validity afforded to U.S. patents in lawsuits in U.S. federal courts, and use a lower burden of proof than used in litigation in U.S. federal courts. Therefore, it is generally considered easier for a competitor or other party to have a U.S. patent invalidated in a USPTO post-grant review or *inter partes* review proceeding than invalidated in a litigation in a U.S. federal court. If any of our patents are challenged by another party in such a USPTO proceeding, there is no guarantee that we or our licensors or collaborators will be successful in defending the patent, which would result in our loss of the challenged patent right.

***If we are unable to protect the confidentiality of our trade secrets, our business and competitive position would be harmed.***

In addition to our issued patents, provisional patent, and pending patent applications, we expect to rely on trade secrets, including unpatented know-how, technology and other proprietary information, to maintain our competitive position and protect our drug and device candidates. We seek to protect these trade secrets, in part, by entering into non-disclosure and confidentiality agreements with parties that have access to them, such as our employees, corporate collaborators, outside scientific collaborators, sponsored researchers, contract manufacturers, consultants, advisors and other parties. We also enter into confidentiality and invention or patent assignment agreements with our employees and consultants. However, any of these parties may breach such agreements and disclose our proprietary information, and we may not be able to obtain adequate remedies for such breaches. Enforcing a claim that a party illegally disclosed or misappropriated a trade secret can be difficult, expensive and time-consuming, and the outcome is unpredictable. If trade secrets which are material to our business were to be obtained by a competitor, our competitive position would be harmed.

***We may be subject to claims that our employees have wrongfully used or disclosed alleged trade secrets of their former employers.***

Although we try to ensure that our employees do not use the proprietary information or know-how of others in their work for us, we may be subject to claims that we or these employees have used or disclosed IP, including trade secrets or other proprietary information, of any such employee's former employer. In addition, while we typically require our employees, consultants and contractors who may be involved in the development of IP to execute agreements assigning such IP to us, we may be unsuccessful in executing such an agreement with each party who in fact develops IP that we regard as our own, which may result in claims by or against us related to the ownership of such IP. We are not aware of any threatened or pending claims that any of our projects involve misappropriated IP or other proprietary information, but in the future litigation may be necessary to defend against such claims. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable IP rights. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management.

***We may be unable to execute on the optimal development plan for one or more of our existing product candidates if we are unable to obtain or maintain necessary rights for some aspect of the developing technology through acquisitions or licenses.***

Our existing programs currently use or may in the future use additional technologies subject to proprietary rights held by others, such as particular compositions or methods of manufacture, treatment or use. The licensing and acquisition of IP rights is a competitive area, and more established companies may pursue strategies to license or acquire such IP rights that we may consider necessary or useful. These established companies may have a competitive advantage over us due to their size, cash resources and greater capabilities in clinical development and commercialization.

In addition, companies that perceive us to be a competitor may be unwilling to assign or license rights to us. We also may be unable to license or acquire IP rights on terms that would allow us to make an appropriate return on our investment. If we are unable to successfully obtain or maintain licenses or other rights from other parties to use IP of those parties, our business, financial condition and prospects for growth could suffer.

***If we fail to comply with our obligations in the agreements under which we license IP rights from other parties or otherwise experience disruptions to our business relationships with our licensors, we could be required to pay monetary damages or could lose license rights that are important to our business.***

Many of our projects (including our Lead Projects) are based on IP which we have licensed from other parties. Certain of these license agreements impose diligence, development or commercialization obligations on us, such as obligations to pay royalties on net product sales of our drug and device candidates once commercialized by us, to pay a percentage of sublicensing revenues if the licensed product is sublicensed, to make other specified milestone and/or annual payments relating to our drug candidates or to pay license maintenance and other fees, as well as obligations to pursue commercialization with due diligence. Specifically, a number of our license agreements also require us to meet development timelines in order to maintain the related license(s). In spite of our efforts, our licensors might conclude that we have materially breached our obligations under such license agreements and might therefore seek to terminate the license agreements. If one of our licensors, despite our efforts, were to be successful in terminating its agreement with us, we would not be able to continue to develop, manufacture or market any drug candidate under that license agreements, and we could face claims for monetary damages or other penalties under that agreement. Such an occurrence would diminish or eliminate the value of that project to our Company, even if we are able to negotiate new or reinstated agreements, which may have less favorable terms. Depending on the importance of the IP and the related project, any such development could have a material adverse effect on our competitive position, business, financial conditions, results of operations, and prospects.

Moreover, disputes may arise regarding intellectual property subject to a licensing agreement, including:

- the scope of rights granted under the license agreement and other interpretation-related issues;
- the extent to which our technology and processes infringe on intellectual property of the licensor that is not subject to the licensing agreement;
- the sublicensing of patent and other rights under our collaborative development relationships;
- our diligence obligations under the license agreement and what activities satisfy those diligence obligations;
- the inventorship and ownership of inventions and know-how resulting from the joint creation or use of intellectual property by our licensors and us and our partners; and
- the priority of invention of patented technology.

In addition, the agreements under which we currently license intellectual property or technology from other parties are complex, and certain provisions in such agreements may be susceptible to multiple interpretations. The resolution of any contract interpretation disagreement that may arise could narrow what we believe to be the scope of our rights to the relevant intellectual property or technology, or increase what we believe to be our financial or other obligations under the relevant agreement, either of which (depending on the importance of the IP and the related project) could have a material adverse effect on our business, financial condition, results of operations, and prospects. Moreover, if disputes over intellectual property that we have licensed prevent or impair our ability to maintain our current licensing arrangement for a project on commercially acceptable terms, we may be unable to successfully develop and commercialize the affected drug or device candidates, which could have a material adverse effect on our business, financial conditions, results of operations, and prospects.

***We may not have complete control of the preparation, filing and prosecution of patent applications, or to maintain patents, licensed by us from other parties.***

The Company has in-licensed, and expects in the future to in-license patents owned or controlled by others for our use as part of our development plans. We also may out-license or sublicense patents which we own or control in collaborations with others for development and commercialization of our products. In either case, the continuing right to control the preparation, filing and prosecution of patent applications, or to maintain the patents, covering technology under development is a matter for negotiation and we may not always be the party that obtains such control, in which case we will be reliant on our licensors, collaboration partners or sublicensees for determining strategies with respect to those patents. For our existing licenses, while we have an understanding with most of the licensors who maintain control over patent prosecution and we have jointly appointed and engaged patent agents nominated by us under one or more of our licenses, we cannot guarantee that such licensors or collaborators will always accept prosecution strategies proposed by us and/or our patent agents. Therefore, these patents and applications may not be prosecuted and enforced in a manner consistent with the best interests of our business. If our current or future licensors or collaboration partners fail to establish, maintain or protect such patents and other IP rights, such rights may be reduced or eliminated. If our licensors or joint development partners are not fully cooperative or disagree with us as to the prosecution, maintenance or enforcement of any patent rights, such patent rights could be compromised.

#### **Risks Related to Our Reliance on Unrelated Parties**

***We rely on unrelated parties to conduct discovery and further improvement of our innovations and licensed technologies, as well as our preclinical studies and clinical trials. If these unrelated parties do not successfully carry out their contractual duties or meet expected deadlines, we may not be able to obtain regulatory approval for or commercialize our drug candidates, and our business could be substantially harmed.***

We have relied upon and plan to continue to rely upon CROs and collaborating institutions to monitor and manage data for our ongoing preclinical studies and programs. We rely on these parties for execution of preclinical studies and clinical trials, and control only certain aspects of their activities. Nevertheless, we are responsible for ensuring that each of our studies is conducted in accordance with the applicable protocol, legal, and regulatory requirements and scientific standards, and our reliance on the CROs and collaborating institutions does not relieve us of our regulatory responsibilities. If CROs, collaborating institutions or clinical investigators do not successfully carry out their contractual duties or obligations or meet expected deadlines, development of our product candidates could be delayed and our business could be adversely affected.

In addition, our CROs and collaborating institutions, are subject to numerous environmental, health and safety laws and regulations, including those governing laboratory procedures and the handling, use, storage, treatment and disposal of hazardous materials and waste. In the event of contamination or injury resulting from our use of hazardous materials, we might be held liable for any resulting damages, and any liability could exceed our resources. We could also be subject to civil or criminal fines and penalties, and significant associated costs.

***If the Company obtains approval of an IND for one of our drug candidates and moves into human clinical trials requiring significantly larger quantities of the candidate to be tested, we expect to rely on unrelated parties to manufacture supplies of that candidate. If those unrelated parties fail to provide us with sufficient quantities of clinical supply on that candidate or fail to do so at acceptable quality levels or prices, or fail to maintain required cGMP licenses, we may not be able to manufacture that candidate in sufficient quantities to conduct the necessary human trials. Should the failure by the CRO occur in anticipation of or after marketing approval of that candidate, we may be unable to generate as much revenue as rapidly (and such revenue may not be as profitable) as we had anticipated.***

The manufacture of many drug products, particularly in commercial quantities, can be complex and may require significant expertise and capital investment, particularly if the development of advanced manufacturing techniques and process controls are required. If we obtain approval of an IND for any of our drug candidates, of which there can be no assurance, we intend to contract with outside contractors to manufacture clinical supplies and process our drug candidates. We have not yet had our drug candidates to be manufactured or processed on a commercial scale and may not be able to do so for any of our drug candidates.

As we expect to engage contract manufacturers, the Company will be exposed to the following risks:

- we might be unable to identify manufacturers on acceptable terms or at all because the FDA, NMPA, EMA or other comparable regulatory authorities must approve any manufacturers we determine to use and any potential manufacturer may be unable to satisfy federal, state or international regulatory standards;
- although we would be choosing manufacturers with the type of experience most suitable for our drug candidates, it is possible that our contract manufacturers may not be able to execute unique manufacturing procedures and other logistical support requirements we have developed and they might require a significant amount of support from us to implement and maintain the infrastructure and processes required to manufacture our particular drug candidates;
- our contract manufacturers might be unable to reproduce the quantity and quality of the drugs we need to meet our clinical and commercial needs within the time frames when we require those drugs;
- our contract manufacturers may breach their contracts with us, including by not performing as agreed or not devoting sufficient resources to our drug candidates, or they may not remain in the contract manufacturing business for the time required to supply our clinical trials or to successfully produce, store and distribute our products;
- even if initially accepted by regulatory authorities, a manufacturer remains subject to ongoing periodic unannounced inspection by regulatory authorities to ensure strict compliance with cGMP and other government regulations, and our contract manufacturers may fail to comply with these regulations and requirements, resulting in rescission of cGMP licenses and our inability to continue using their services, requiring us to find a replacement manufacturer;
- depending on the terms of our agreement with a manufacturer, we may not own, or may have to share, the IP rights to any improvements made by the manufacturer in the manufacturing process for our drug candidates; and
- our contract manufacturers may have unacceptable or inconsistent product quality success rates and yields.

Each of these risks could delay or prevent the completion of our clinical trials or the approval of any of our drug candidates by the FDA, NMPA, EMA or other comparable regulatory authorities, result in higher costs or adversely impact commercialization of our drug candidates.

We are also responsible for quality control by our manufacturers. We intend to rely on those unrelated-party manufactures to perform certain quality assurance tests on our drug candidates prior to delivery to patients. If these tests are not appropriately done and test data are not reliable, patients could be put at risk of serious harm and the FDA, NMPA, EMA or other comparable regulatory authorities could place significant restrictions on our Company until deficiencies are remedied.

Manufacturers of drug products often encounter difficulties in production, particularly in scaling up or out, validating the production process, and assuring high reliability of the manufacturing process (including the absence of contamination). These problems include logistics and shipping, difficulties with production costs and yields, quality control, including stability of the product, product testing, operator error, availability of qualified personnel, as well as compliance with strictly enforced federal, state and non-U.S. regulations. Furthermore, if contaminants are discovered in our supply of our drug candidates or in the manufacturing facilities, such manufacturing facilities may need to be closed for an extended period of time to investigate and remedy the contamination. It is possible that stability failures or other issues relating to the manufacture of our drug candidates may occur in the future. Additionally, our manufacturers may experience manufacturing difficulties due to resource constraints, or as a result of labor disputes or unstable political environments. If our manufacturers were to encounter any of these difficulties, or otherwise fail to comply with their contractual obligations, our ability to provide our drug candidate to patients in clinical trials would be jeopardized. Any delay or interruption in the manufacturing of clinical trial supplies could delay the completion of clinical trials, increase the costs associated with maintaining clinical trial programs and, depending upon the period of delay, require us to begin new clinical trials with additional costs or terminate clinical trials completely.

***Review of changes in the manufacturing process of our drug candidates could cause delays resulting from the need for additional regulatory approvals.***

Changes in a process or procedure for manufacturing one of our drug candidates, including a change in the location where the drug candidate is manufactured or a change of a contract manufacturer, could require prior review by the FDA, NMPA, EMA or other comparable regulatory authorities and approval of the manufacturing process and procedures in accordance with the FDA, NMPA or EMA's regulations, or comparable requirements. This review may be costly and time-consuming and could delay or prevent the launch of a product. The new facility will also be subject to pre-approval inspection. In addition, we would have to demonstrate that the product made at the new facility is equivalent to the product made at the former facility by physical and chemical methods, which are costly and time-consuming. It is also possible that the FDA, NMPA, EMA or other comparable regulatory authorities may require clinical testing as a way to prove equivalency, which would result in additional costs and delay.

#### **Risks Related to AML Clinic**

***Failure to comply with all laws and regulations applicable to the business of AML Clinic could have a material, adverse impact on the Company's business.***

Operation of AML Clinic subjects the Company to a variety of Hong Kong laws and regulations specific to companies and professionals in the business of delivering medical care. We and our employees will be subject to licensing and professional qualifications that do not apply to our other businesses. Breach of any of these laws, regulations or licensing requirements could subject the Company to significant fines and other penalties and possibly damage the Company's reputation, which could have a material adverse effect on the Company's business.

## **Risks Related to Our Device Candidates**

### ***We are subject to risks related to obtaining regulatory approval for device candidates.***

The Company's device candidates (including those being developed under SLS-1), are likely to be regulated as medical devices. Medical devices are subject to extensive regulations, supervised by regulatory authorities around the world, including the FDA, NMPA and applicable national authorities in relevant European countries. The regulatory framework related to medical devices covers research, development, design, manufacturing, safety, reporting, testing, labeling, packaging, storage, installation, servicing, marketing, sales and distribution. The Company is and may also be, in addition to these industry-specific regulations, subject to numerous other ongoing regulatory obligations, such as data protection, environmental, health and safety laws and restrictions. The costs of compliance with applicable regulations, requirements or guidelines could be substantial. Furthermore, the regulatory environment has generally become more stringent and extensive over time. Failure to comply with these regulations could result in sanctions including fines, injunctions, civil penalties, denial of applications for marketing approval of the Company's products, delays, suspension or withdrawal of approvals, license revocation, seizures or recalls of products, operating restrictions, partial suspension or total shutdown of production and criminal prosecutions, any of which could significantly increase the Company's costs, delay the development and commercialization of its device candidates.

### ***We are subject to risks related to the carrying out and outcome of clinical trials of medical devices.***

The Company may sponsor studies on human participants in clinical studies of its device candidates. Such clinical studies are performed to support regulatory approvals for market access or to generate evidence relating to clinical benefits and cost benefits of using such device candidates. Clinical studies are costly and time consuming and associated with risks such as finding trial sites, recruitment of suitable patients, the actual cost per patient exceeding budget and inadequacies in the execution of the trials. There is also a risk of delays in the performance of clinical studies, which can occur for a variety of reasons. For example, delays in obtaining regulatory approval to commence a trial, reaching agreements on acceptable terms with prospective contract research organizations ("CROs") and clinical investigational sites, obtaining institutional review board approval at each site, difficulties in patient enrolment, patients failing to complete a trial or return for follow-up, adding new sites or obtaining sufficient supplies of products or clinical sites dropping out of a trial. If delays persist, there is a risk that studies eventually are suspended or terminated if the delays occur due to circumstances that a sponsor of a clinical trial has difficulties controlling, or is unable to control, or if the measures required for conducting the studies further are deemed too costly or extensive in relation to the scopes and goals of the studies.

There are many factors which may affect patient enrollment. Amongst these are the size and nature of the patient population, the proximity of patients to clinical sites, the eligibility criteria for the trial, the design of the clinical study and competing clinical studies. Furthermore, clinicians' and patients' perceptions as to the potential advantages of the product being studied in relation to other available therapies, including any new products that may be approved for the indications the company is investigating. Clinical studies may also be suspended or terminated if participating subjects are exposed to unacceptable health risks or undesired side-effects.

Furthermore, there is a risk that clinical studies may not demonstrate the required clinical benefit for the prospective indication the trial is aimed at. Failure in premarketing clinical studies could lead to market clearance or approvals not being obtained which could delay or jeopardize the Company's ability to develop, market and sell the device candidates being studied. At any stage of the development, the Company may discontinue device candidate based on review of available preclinical and clinical data, the estimated costs of continued development, market considerations and other factors. Furthermore, with respect to the clinical studies of device candidates conducted by CROs and others, the Company may have less control over their timing or outcome.



## Risks Related to Our Industry, Business and Operation

*If we do not comply with laws regulating the protection of the environment and health and human safety, our business could be adversely affected.*

Our research, development and clinic operations involve the use of hazardous materials, chemicals and various radioactive compounds/radiation and AML Clinic may create medical waste and radiation. Our R&D Center may maintain quantities of various flammable and toxic chemicals in our facilities that are required for our research, development and manufacturing activities. We are subject to local laws and regulations governing the use, manufacture, storage, handling and disposal of these hazardous materials and of medical waste at the jurisdictions where we operate our clinic and research facilities, which are currently limited to Hong Kong. We believe our procedures for storing, handling and disposing of these materials comply with the relevant guidelines and laws of the jurisdictions in which our facilities are located. Although we believe that our safety procedures for handling and disposing of these materials comply with the standards mandated by applicable regulations, the risk of accidental contamination or injury from these materials cannot be eliminated. If an accident occurs, we could be held liable for resulting damages, which could be substantial. We are also subject to numerous environmental, health and workplace safety laws and regulations, including those governing laboratory procedures, exposure to blood-borne pathogens and the handling of biohazardous materials and medical waste.

Although we maintain workers' compensation insurance to cover us for costs and expenses we may incur due to injuries to our employees resulting from the use of these materials, this insurance may not provide adequate coverage against potential liabilities. We do not maintain insurance for environmental liability or toxic tort claims that may be asserted against us in connection with our storage or disposal of biological, hazardous or radioactive materials. Additional federal, state and local laws and regulations affecting our operations may be adopted in the future. We may incur substantial costs to comply with, and substantial fines or penalties, if we violate any of these laws or regulations.

*Our future success depends on our ability to retain our Chief Executive Officer, our scientific and clinical advisors, and other key executives and to attract, retain and motivate qualified personnel.*

We are highly dependent on Ian Huen, our Chief Executive Officer, as well as, other principal members of our management teams, scientific teams as well as scientific and clinical advisors. Although we have formal employment agreements, which we refer to as appointment letters, with all of our executive officers, these agreements do not prevent our executives from terminating their employment with us at any time, subject to applicable notice periods. Nevertheless, the loss of the services of any of these persons could impede the achievement of our research, development and commercialization objectives.

To induce valuable employees to remain at our Company, in addition to salary and cash incentives, we plan to provide share incentive grants that vest over time. The value to employees of these equity grants that vest over time may be significantly affected by movements in the price of our Class A Ordinary Shares that are beyond our control, and may at any time be insufficient to counteract more lucrative offers from other companies. Although we have appointment letters with our key employees, any of our employees could resign at any time, with 1-month to 3-months prior written notice or with payment in lieu of notice.

Recruiting and retaining qualified officers, scientific, clinical, sales and marketing personnel or consultants will also be critical to our success. In addition, we rely on consultants and advisors, including scientific and clinical advisors, to assist us in formulating our discovery and preclinical studies development and commercialization strategy. The loss of the services of our executive officers or other key employees and consultants could impede the achievement of our research, development and commercialization objectives and seriously harm our ability to successfully implement our business strategy.

Furthermore, replacing executive officers and key employees or consultants may be difficult and may take an extended period of time, because of the limited number of individuals in our industry with the breadth of skills and experience required to successfully develop, gain regulatory approval of and commercialize drug and device candidates. Competition to hire from this limited pool is intense, and we may be unable to hire, train, retain or motivate these key personnel or consultants on acceptable terms given the competition among numerous pharmaceutical and biotechnology companies for similar personnel.

We also experience competition for the hiring of scientific and clinical personnel from universities and research institutions. Our consultants and advisors may be employed by employers other than us and may have commitments under consulting or advisory contracts with other entities that may limit their availability to us. If we are unable to continue to attract and retain high quality personnel, our ability to pursue our growth strategy will be limited.

***We will need to increase the size and capabilities of our organization, and we may experience difficulties in managing our growth.***

As of the date hereof, we have 41 employees, including 39 full-time employees and 2 part-time employees. Of these, 14 are engaged in full-time research and development and laboratory operations, 20 are engaged in general and administrative functions, 5 are full-time employees engaged in the clinic operation and 2 part-time employees are engaged in sponsored research and development, laboratory operations and legal clerical support. As of the date of hereof, 41 of our employees are located in Hong Kong. In addition, we have engaged and may continue to engage 35 independent contracted consultants and advisors to assist us with our operations. As our development and commercialization plans and strategies develop, and as we have transitioned into operating as a public company, we will need to establish and maintain effective disclosure and financial controls and make changes in our corporate governance practices. We will need to add a significant number of additional managerial, operational, sales, marketing, financial and other personnel with the appropriate public company experience and technical knowledge and we may not successfully recruit and maintain such personnel. Future growth will impose significant added responsibilities on members of management, including:

- identifying, recruiting, integrating, maintaining and motivating additional employees;
- managing our internal development efforts effectively, including clinical, the FDA or other comparable regulatory authority review process for our drug and device candidates, while complying with our contractual obligations to contractors and others; and
- improving our operational, financial and management controls, reporting systems and procedures.

Our future financial performance and our ability to commercialize our drug candidates will depend, in part, on our ability to effectively manage our future growth, and our management may also have to divert a disproportionate amount of its attention away from day-to-day activities in order to devote a substantial amount of time to managing these growth activities.

We currently rely, and for the foreseeable future will continue to rely, in substantial part on certain independent organizations, advisors and consultants for significant input in selecting and evaluating new products to pursue. These independent organizations, advisors and consultants may not continue to be available to us on a timely basis when needed, and in such case, we may not have the ability to find qualified replacements. In addition, if we are unable to effectively manage our outsourced activities, or if the quality or accuracy of the services provided by consultants is compromised for any reason, our clinical trials may be extended, delayed or terminated, and we may not be able to obtain regulatory approval of our drug candidates or otherwise advance our business. Furthermore, we may not be able to manage our existing consultants or find other competent outside contractors and consultants on economically reasonable terms, if at all.

If we are not able to effectively expand our organization by hiring new employees and expanding our groups of consultants and contractors, we may not be able to successfully implement the tasks necessary to further develop and commercialize our drug and device candidates and, accordingly, may not achieve our research, development and commercialization goals.

***We intend to seek additional collaborations, strategic alliances or acquisitions or enter into royalty-seeking or sublicensing arrangements in the future, but we may not realize the benefits of these arrangements.***

We intend to form or seek strategic alliances, create joint ventures or collaborations, acquire complimentary products, IP rights, technology or businesses or enter into additional licensing arrangements with unrelated parties that we determine may complement or augment our development and commercialization efforts with respect to our drug and device candidates. Any of these relationships may require us to incur non-recurring and other charges, increase our near and long-term expenditures, issue securities that dilute our existing shareholders, or disrupt our management and business.

We will face significant competition in seeking appropriate strategic partners and the negotiation process is likely to be time-consuming, costly and complex. Moreover, we may not be successful in our efforts to establish a strategic partnership or another alternative arrangement for any of our drug and device candidates because their state of development may be deemed to be too early for collaborative effort and others may not view our drug and device candidates as having the requisite potential to demonstrate safety and efficacy. If and when we enter into an agreement with a collaboration partner or sublicensee for development and commercialization of a drug or device candidate, we can expect to relinquish some or all of the control over the future success of that drug and device candidate to the unrelated-party.

Further, even if we enter into a collaboration involving any of our drug and device candidates, the arrangement will be subject to numerous risks, which may include the following:

- the collaborators will likely have significant discretion in determining the efforts and resources that they will apply to a collaboration;
- the collaborator may ultimately choose not pursue development and commercialization of our drug candidates or may elect not to continue or renew development or commercialization programs, based on clinical trial results, changes in their strategic focus due to the acquisition of competitive drugs, availability of funding, or other external factors, such as a business combination that diverts resources or creates competing priorities;
- the collaborator may delay clinical trials, provide insufficient funding for a clinical trial, stop a clinical trial, abandon a drug or device candidate, repeat or conduct new clinical trials, or require a new formulation of a drug or device candidate for clinical testing;
- the collaborator could independently develop, or develop with unrelated parties, drugs that compete directly or indirectly with our drugs or drug and device candidates;
- the collaborator with marketing and distribution rights to one or more drugs may not commit sufficient resources to their marketing and distribution;
- the collaborator may not properly maintain or defend our IP rights or may use our IP or proprietary information in a way that gives rise to actual or threatened litigation that could jeopardize or invalidate our IP or proprietary information or expose us to potential liability;
- disputes may arise between us and the collaborator that cause the delay or termination of the research, development or commercialization of our drug and device candidates, or that result in costly litigation or arbitration that diverts management attention and resources;
- the collaboration may be terminated and, if terminated, may result the Company needing additional capital to pursue further development or commercialization of the applicable drug and device candidates;
- the collaborator may own or co-own IP covering our drugs that results from our collaborating with them, and in such cases, we would not have the exclusive right to commercialize such IP;
- the collaboration may result in increased operating expenses or the assumption of indebtedness or contingent liabilities; and
- the collaboration arrangement may result in the loss of key personnel and uncertainties in our ability to maintain key business relationships.

As a result, if we enter into collaboration agreements and strategic partnerships or license our drugs, we may not be able to realize the benefit of such transactions, which could delay our timelines or otherwise adversely affect our business. Following a strategic transaction or license, we may not achieve the revenue or specific net income that justifies such transaction. If we are unable to reach agreements with a suitable collaborator on a timely basis, on acceptable terms, or at all, we may have to curtail the development of a drug or device candidate, reduce or delay its development program or one or more of our other development programs, delay its potential commercialization or reduce the scope of any sales or marketing activities, or increase our expenditures and undertake development or commercialization activities at our own expense.

If we fail to enter into collaborations, we may seek to fund and undertake development or commercialization activities on our own, but we may not have sufficient funds or expertise to undertake the necessary development and commercialization activities. In such a case, we may not be able to further develop our drug and device candidates or bring them to market and generate product sales revenue, which would harm our business prospects, financial condition and results of operations.

***Our employees, independent contractors, consultants, commercial partners and vendors may engage in misconduct or other improper activities, including non-compliance with regulatory standards and requirements.***

We are exposed to the risk of fraud, misconduct or other illegal activity by our employees, independent contractors, consultants, commercial partners and vendors. Misconduct by these parties could include intentional, reckless and negligent conduct that fails to: comply with the laws of the FDA and other similar non-U.S. regulatory authorities; provide true, complete and accurate information to the FDA and other similar non-U.S. regulatory authorities; comply with manufacturing standards we have established; comply with healthcare fraud and abuse laws in the United States and similar non-U.S. fraudulent misconduct laws; or report financial information or data accurately or to disclose unauthorized activities to us. If we obtain the FDA approval for any of our drug and device candidates and begin commercializing those drugs in the United States, our potential exposure under U.S. laws will increase significantly and our costs associated with compliance with such laws are also likely to increase. These laws may impact, among other things, our current activities with principal investigators of our sponsored researches and research patients and our use of information obtained in the course of patient recruitment for clinical trials, as well as proposed and future sales, marketing and education programs. In particular, the promotion, sales and marketing of healthcare items and services, as well as certain business arrangements in the healthcare industry, are subject to extensive laws designed to prevent fraud, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, structuring and commission(s), certain customer incentive programs and other business arrangements generally.

It is not always possible to identify and deter misconduct by employees and other parties, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses, or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to comply with these laws or regulations. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business, including the imposition of significant fines or other sanctions.

***Our disclosure controls and procedures may not prevent or detect all errors or acts of fraud.***

Our disclosure controls and procedures are designed to reasonably assure that information required to be disclosed by us in reports we file or submit under the Exchange Act is accumulated and communicated to management, and recorded, processed, summarized and reported within the time periods specified in the rules and forms of the SEC.

We believe that any disclosure controls and procedures, or internal controls and procedures, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met.

These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people or by an unauthorized override of the controls. Accordingly, because of the inherent limitations in our control system, misstatements due to error or fraud may occur and not be detected, which would likely cause investors to lose confidence in our reported financial information. This could in turn limit our access to capital markets, harm our results of operations, and lead to a decline in the trading price of our Class A Ordinary Shares. Additionally, ineffective internal control over financial reporting could expose us to increased risk of fraud or misuse of corporate assets and subject us to potential delisting from the stock exchange on which we list, regulatory investigations and civil or criminal sanctions. We may also be required to restate our financial statements from prior periods.

***If we fail to establish and maintain proper internal financial reporting controls, our ability to produce accurate financial statements or comply with applicable regulations could be impaired.***

Pursuant to Section 404 of the Sarbanes-Oxley Act, we are required to file a report by our management on our internal control over financial reporting, including an attestation report on internal control over financial reporting issued by our independent registered public accounting firm. However, while we remain an emerging growth company, we will not be required to include an attestation report on internal control over financial reporting issued by our independent registered public accounting firm and due to a transition period established by rules of the SEC for newly public companies, we are not required to include a report of management's assessment regarding internal control over financial reporting in this registration statement, of which this prospectus forms a part. The presence of material weaknesses in internal control over financial reporting could result in financial statement errors which, in turn, could lead to errors in our financial reports and/or delays in our financial reporting, which could require us to restate our operating results. In connection with the audit of our financial statements for the period January 1, 2017 through February 28, 2017, the period March 1, 2017 through December 31, 2017 and the year ended December 31, 2018, we and our independent registered public accounting firm identified one material weakness in our internal control over financial reporting, as defined in the standards established by the Public Company Accounting Oversight Board of the United States, as of December 31, 2018. The material weakness identified was the lack of dedicated resources to take responsibility for the finance and accounting functions and the preparation of financial statements in compliance with generally accepted accounting principles in the United States, or U.S. GAAP.

We have already taken some steps and have continued to implement measures to remediate the material weakness identified, including but not limited to providing trainings to staff, changing to a new and well-established accounting system, and continuing to monitor the internal control over financial reporting. However, we cannot assure you that we will not identify additional material weaknesses or significant deficiencies in the future.

Due to the material weakness in our internal controls over financial reporting, we conclude that our internal controls over financial reporting are ineffective and therefore investors may lose confidence in our operating results, the price of the Class A Ordinary Shares could decline and we may be subject to litigation or regulatory enforcement actions. In addition, if we are unable to meet the requirements of Section 404 of the Sarbanes-Oxley Act, the Class A Ordinary Shares may not be able to remain listed on the NASDAQ Global Market.

***We may market our products, if approved, globally; if we do, we will be subject to the risk of doing business internationally.***

We operate and expect to operate in various countries, and we may not be able to market our products in, or develop new products successfully for, these markets. We may also encounter other risks of doing business internationally including but not limited to:

- unexpected changes in, or impositions of, legislative or regulatory requirements;
- efforts to develop an international sales, marketing and distribution organization may increase our expenses, divert our management's attention from the acquisition or development of drug candidates or cause us to forgo profitable licensing opportunities in these geographies;
- the occurrence of economic weakness, including inflation or political instability;
- the effects of applicable non-U.S. tax structures and potentially adverse tax consequences;
- differences in protection of our IP rights including patent rights of other parties;
- the burden of complying with a variety of foreign laws including difficulties in effective enforcement of contractual provisions;
- delays resulting from difficulty in obtaining export licenses, tariffs and other barriers and restrictions, potentially longer payment cycles, greater difficulty in accounts receivable collection and potentially adverse tax treatment; and
- production shortages resulting from any events affecting raw material supply or manufacturing capabilities abroad.

In addition, we are subject to general geopolitical risks in foreign countries where we operate, such as political and economic instability and changes in diplomatic and trade relationships, which could affect, among other things, customers' inventory levels and consumer purchasing, which could cause our results to fluctuate and our net sales to decline. The occurrence of any one or more of these risks of doing business internationally, individually or in the aggregate, could materially and adversely affect our business and results of operations.

***If we engage in future acquisitions or strategic partnerships, this may increase our capital requirements, dilute our shareholders, cause us to incur debt or assume contingent liabilities, and subject us to other risks.***

We may evaluate various acquisitions and strategic partnerships, including licensing or acquiring complementary products, IP rights, technology or businesses. Any potential acquisition or strategic partnership may entail numerous risks, including, but not limited to:

- increase in operating expenses and cash requirements;
- the assumption of additional indebtedness or contingent liabilities;
- the issuance of our equity securities;
- assimilation of operations, IP and products of an acquired company, including difficulties associated with integrating new personnel;
- the diversion of our management's attention from our existing product programs and initiatives in pursuing such a strategic merger or acquisition;
- retention of key employees, the loss of key personnel, and uncertainties in our ability to maintain key business relationships;
- risks and uncertainties associated with the other party to such a transaction, including the prospects of that party and their existing drugs or drug and device candidates and regulatory approvals; and
- our inability to generate revenue from acquired technology and/or products sufficient to meet our objectives in undertaking the acquisition or even to offset the associated acquisition and maintenance costs.

In addition, if we undertake acquisitions, we may issue dilutive securities, assume or incur debt obligations, incur large one-time expenses and acquire intangible assets that could result in significant future amortization expense. Moreover, we may not be able to locate suitable acquisition opportunities and this inability could impair our ability to grow or obtain access to technology or products that may be important to the development of our business.

***If we fail to comply with the U.S. Foreign Corrupt Practices Act ("FCPA"), or other anti-bribery laws, our reputation may be harmed and we could be subject to penalties and significant expenses that have a material adverse effect on our business, financial condition and results of operations.***

We are subject to the FCPA. The FCPA generally prohibits us from making improper payments to non-U.S. officials for the purpose of obtaining or retaining business. We are also subject to the anti-bribery laws of other jurisdictions, particularly the PRC. As our business expands, the applicability of the FCPA and other anti-bribery laws to our operations will increase. Our procedures and controls to monitor anti-bribery compliance may fail to protect us from reckless or criminal acts committed by our employees or agents. If we, due to either our own deliberate or inadvertent acts or those of others, fail to comply with applicable anti-bribery laws, our reputation could be harmed and we could incur criminal or civil penalties, other sanctions and/or significant expenses, which could have a material adverse effect on our business, including our financial condition, results of operations, cash flows and prospects.

***If we commence clinical trials of one of our drug or device candidates, and product liability lawsuits are brought against us, we may incur substantial liabilities and the commercialization of such drug or device candidates may be affected.***

If any of our drug or device candidates enter clinical trials, we will face an inherent risk of product liability suits and will face an even greater risk if we obtain approval to commercialize any drugs. For example, we may be sued if our drug candidates cause or are perceived to cause injury or are found to be otherwise unsuitable during clinical testing, manufacturing, marketing or sale. Any such product liability claims may include allegations of defects in manufacturing, defects in design, a failure to warn of dangers inherent in the drug, negligence, strict liability or a breach of warranties. Claims could also be asserted under state consumer protection acts. If we cannot successfully defend ourselves against product liability claims, we may incur substantial liabilities or be required to limit commercialization of our drug candidates. Even successful defense would require significant financial and management resources. Regardless of the merits or eventual outcome, liability claims may result in:

- decreased demand for our drugs;
- injury to our reputation;
- withdrawal of clinical trial participants and inability to continue clinical trials;
- initiation of investigations by regulators;
- costs to defend the related litigation;
- a diversion of management's time and our resources;
- substantial monetary awards to trial participants or patients;
- product recalls, withdrawals or labeling, marketing or promotional restrictions;
- loss of revenue;
- exhaustion of any available insurance and our capital resources;
- the inability to commercialize any drug candidate; and
- a decline in the price of our Class A Ordinary Shares.

We shall seek to obtain the appropriate insurance once our candidates are ready for clinical trial. However, our inability to obtain sufficient product liability insurance at an acceptable cost to protect against potential product liability claims could prevent or inhibit the commercialization of drugs we develop, alone or with collaborators. We currently do not have in place product liability insurance and although we plan to have in place such insurance as and when the products are ready for commercialization, as well as insurance covering clinical trials, the amount of such insurance coverage may not be adequate, we may be unable to maintain such insurance, or we may not be able to obtain additional or replacement insurance at a reasonable cost, if at all. Our insurance policies may also have various exclusions, and we may be subject to a product liability claim for which we have no coverage. We may have to pay any amounts awarded by a court or negotiated in a settlement that exceed our coverage limitations or that are not covered by our insurance, and we may not have, or be able to obtain, sufficient capital to pay such amounts. Even if our agreements with any future corporate collaborators entitle us to indemnification against losses, such indemnification may not be available or adequate should any claim arise.

Additionally, we may be sued if the products that we commercialize, market or sell cause or are perceived to cause injury or are found to be otherwise unsuitable, and may result in:

- decreased demand for those products;
- damage to our reputation;
- costs incurred related to product recalls;
- limiting our opportunities to enter into future commercial partnership; and
- a decline in the price of our Class A Ordinary Shares.

***Our insurance coverage may be inadequate to protect us against losses.***

We currently maintain property insurance for our office premises (including one unit of server and accessories). We hold employer's liability insurance generally covering death or work-related injury of employees; we maintain "Office Care Plan Insurance" for those persons working in our offices and "Medical Plan" for our employee. We hold public liability insurance covering certain incidents involving unrelated parties that occur on or in the premises of the Company. We do have directors and officers liability insurance. We do not have key-man life insurance on any of our senior management or key personnel, or business interruption insurance. Our insurance coverage may be insufficient to cover any claim for product liability, damage to our fixed assets or employee injuries. If any claims for damage are brought against us, or if we experience any business disruption, litigation or natural disaster, we might incur substantial costs and diversion of resources.

***Fluctuations in exchange rates could result in foreign currency exchange losses***

Our operations and equity are funded in U.S. dollars and we currently incur the majority of our expenses in U.S. dollars or in H.K. dollars. H.K. dollar is currently pegged to the U.S. dollar; however, we cannot guarantee that such peg will continue to be in place in the future. Our exposure to foreign exchange risk primarily relates to the limited cash denominated in currencies other than the functional currencies of each entity and limited revenue contracts dominated in H.K. dollars in certain Hong Kong operating entities. We do not believe that we currently have any significant direct foreign exchange risk and have not hedged exposures denominated in foreign currencies or any other derivative financial instruments.

If we are exposed to foreign currency exchange risk as our results of operations, cash flows maybe subject to fluctuations in foreign currency exchange rates. For example, if a significant portion of our clinical trial activities may be conducted outside of the United States, and associated costs may be incurred in the local currency of the country in which the trial is being conducted, which costs could be subject to fluctuations in currency exchange rates. We currently do not engage in hedging transactions to protect against uncertainty in future exchange rates between particular foreign currencies and the U.S. dollar. A decline in the value of the U.S. dollar against currencies in countries in which we conduct clinical trials could have a negative impact on our research and development costs. Foreign currency fluctuations are unpredictable and may adversely affect our financial condition, results of operations and cash flows.

***Our investments are subject to risks that could result in losses.***

We had unrestricted cash of \$4.47 million, \$12.01 million and \$16.25 million as of June 30, 2019, December 31, 2018 and December 31, 2017, respectively. We may invest our cash in a variety of financial instruments. All of these investments are subject to credit, liquidity, market and interest rate risk. Such risks, including the failure or severe financial distress of the financial institutions that hold our cash, cash equivalents and investments, may result in a loss of liquidity, impairment to our investments, realization of substantial future losses, or a complete loss of the investments in the long-term, which may have a material adverse effect on our business, results of operations, liquidity and financial condition. While we believe our cash position does not expose us to excessive risk, future investments may be subject to adverse changes in market value.



***We are exposed to risks associated with our computer hardware, network security and data storage.***

Similar to all other computer network users, our computer network system is vulnerable to attack of computer virus, worms, trojan horses, hackers or other similar computer network disruptive problems. Any failure in safeguarding our computer network system from these disruptive problems may cause breakdown of our computer network system and leakage of confidential information of the Company. Any failure in the protection of our computer network system from external threat may disrupt our operation and may damage our reputation for any breach of confidentiality to our customers, which in turn may adversely affect our business operation and performance. In the event that our confidential information is stolen and misused, we may become exposed to potential risks of losses from litigation and possible liability.

In addition, we are highly dependent on our IT infrastructure to store research data and information and manage our business operations. We do not backup all data on a real-time basis and the effectiveness of our business operations may be materially affected by any failure in our IT infrastructure. If our communications and IT systems do not function properly, or if there is any partial or complete failure of our systems, we could suffer financial losses, business disruption or damage to our reputation.

***Business disruptions could seriously harm our future revenue and financial condition and increase our costs and expenses.***

Our operations, and those of our research institution collaborators, CROs, suppliers and other contractors and consultants, could be subject to earthquakes, power shortages, telecommunications failures, damage from computer viruses, material computer system failures, water shortages, floods, hurricanes, typhoons, fires, extreme weather conditions, medical epidemics and other natural or man-made disasters or business interruptions. In addition, we partially rely on our research institution collaborators for conducting research and development of our drug candidates, and they may be affected by government shutdowns or withdrawn funding. The occurrence of any of these business disruptions could seriously harm our operations and financial condition and increase our costs and expenses. We rely on contract manufacturers to produce and process our drug candidates. Our ability to obtain clinical supplies of our drug candidates could be disrupted if the operations of these suppliers are affected by a man-made or natural disaster or other business interruption. A large portion of our contract manufacturer's operations is located in a single facility. Damage or extended periods of interruption to our corporate or our contract manufacturer's development or research facilities due to fire, natural disaster, power loss, communications failure, unauthorized entry or other events could cause us to cease or delay development of some or all of our drug candidates.

***Although we do not currently conduct any business in the PRC, we may in the future; in doing so we would be exposed to various risks related to doing business in the PRC.***

Although we currently do not conduct any business in the PRC, we are the exclusive licensee to certain PRC patents directed to our drug candidates such as ALS-1, NLS-1, NLS-2 and SPLS-1, and we intend to file application for certain products in the PRC. The pharmaceutical industry in the PRC is subject to comprehensive government regulation and supervision, encompassing the approval, registration, manufacturing, packaging, licensing and marketing of new drugs. In recent years, the regulatory framework in the PRC regarding the pharmaceutical industry has undergone significant changes, and we expect that it will continue to undergo significant changes. Any such changes or amendments may result in increased compliance costs on our business or cause delays in or prevent the successful development or commercialization of our drug candidates in the PRC and reduce the current benefits that we believe are available to us from developing and manufacturing drugs in the PRC. Chinese authorities have become increasingly vigilant in enforcing laws in the pharmaceutical industry and any failure by us or our partners to maintain compliance with applicable laws and regulations or obtain and maintain required licenses and permits may result in the suspension or termination of our business activities in the PRC. We believe our strategy and approach is aligned with the PRC government's policies, but we cannot ensure that our strategy and approach will continue to be aligned.

If in the future, we commence business or operation in the PRC, changes in the political and economic policies of the PRC government may materially and adversely affect our business, financial condition and results of operations and may result in our inability to sustain our growth and expansion strategies. Once we start doing business in the PRC, our financial condition and results of operation in the PRC could be materially and adversely affected by government control over capital investments or changes in tax regulations that are applicable to us, and consequently have a material adverse effect on our businesses, financial condition and results of operations.

***The SEC could take the position that we are an “investment company” subject to the extensive requirements of the Investment Company Act of 1940. Such a characterization and the associated compliance requirements could have a material adverse effect on our business, financial condition, and results of operations.***

Our business had historically included passive healthcare related investments in early stage companies primarily in the United States. Although we are in the process of liquidating those securities that remain in our portfolio, we still hold some such investments and these are included as assets of our Company on a consolidated basis. As part of the Restructure, we resolved to exit such portfolio investments over an appropriate timeframe and focus our resources on our current business. Since the date of the Restructure, we have not held ourselves out as an investment company and we do not believe we are an “investment company” under the Investment Company Act of 1940. If the SEC or a court, however, were to disagree with us, we could be required to register as an investment company. This would subject us to disclosure and accounting rules geared toward investment companies, rather than operating companies, which may limit our ability to borrow money, issue options, issue multiple classes of stock and debt, and engage in transactions with affiliates, and may require us to undertake significant costs and expenses to meet the disclosure and regulatory requirements to which we would be subject as a registered investment company.

***If we are classified as a passive foreign investment company for U.S. federal income tax purposes, United States holders of our Class A Ordinary Shares may be subject to adverse United States federal income tax consequences.***

A non-U.S. corporation will be a passive foreign investment company (“PFIC”) for U.S. federal income tax purposes, for such year, if either

- At least 75% of its gross income for such year is passive income; or
- The average percentage of our assets (determined at the end of each quarter) during such year which produce passive income or which are held for the production of passive income is at least 50%.

Passive income generally includes dividends, interests, rents and royalties (other than rents or royalties derived from the active conduct of a trade or business) and gains from the disposition of passive assets.

A separate determination must be made after the close of each taxable year as to whether a non-U.S. corporation is a PFIC for that year. For purposes of the PFIC analysis, in general, a non-U.S. corporation is deemed to own its pro rata share of the gross income and assets of any entity in which it is considered to own at least 25% of the equity by value. Based on the current and anticipated value of our assets, we believe we were a PFIC for U.S. federal income tax purposes for our taxable year ending December 31, 2017, and we may be a PFIC for U.S. federal income tax purposes for our current taxable year ending December 31, 2018.

In determining whether we are a PFIC, cash is considered by the U.S. Internal Revenue Service (“IRS”) to be a passive asset. During our taxable year ending December 31, 2018, we believe that the amount of restricted and unrestricted cash we had on hand was greater than 50% of our total assets. The composition of our assets during the current taxable year may cause us to continue to be classified as a PFIC. The determination of whether we will be a PFIC for our current taxable year or a future year may depend in part upon how quickly we spend our liquid assets, and on the value of our goodwill and other unbooked intangibles not reflected on our balance sheet, which may depend upon the market value of our Class A Ordinary Shares from time to time. Further, while we will endeavor to use a classification methodology and valuation approach that is reasonable, the IRS may challenge our classification or valuation of our goodwill and other unbooked intangibles for purposes of determining whether we are a PFIC in the current or one or more future taxable years.

If we are a PFIC for any taxable year during which a U.S. Holder owns our Class A Ordinary Shares, certain adverse U.S. federal income tax consequences could apply to such U.S. Holder. A U.S. Holder may be able to make certain tax elections that would lessen the adverse impact of PFIC status; however, in order to make such elections the U.S. holder will usually have to have been provided information about the company by us, and there is no assurance that the company will provide such information.

For a more detailed discussion of the application of the PFIC rules to us and the consequences to U.S. holders if we were determined to be a PFIC.

## Risks Related to Our Corporate Structure

### *Our CEO has control over key decision making as a result of his control of a majority of our voting shares.*

Our Founder, CEO, and our Executive Director, Mr. Ian Huen, and his affiliates, over which he is deemed to have control and/or have substantial influence, has voting rights with respect to an aggregate of 17,836,077 Shares, on an as converted basis (1,774,608 Class A Ordinary Shares and 16,061,469 Class B Ordinary Shares), representing approximately 70% of the voting power of our outstanding Shares as of the date hereof; through his relationship with Aptorum Investment Holding Limited, which is wholly owned by the Company and holds the Bond, Mr. Huen also has the power to vote the shares underlying the Bond when and if they are issued. As a result, Mr. Huen has the ability to control the outcome of matters submitted to our shareholders for approval, including the election of directors and any merger, consolidation, or sale of all or substantially all of our assets. In addition, Mr. Huen has the ability to control the management and affairs of our company as a result of his position as our CEO and his ability to control the election of our directors. Additionally, in the event that Mr. Huen controls our company at the time of his death, control may be transferred to a person or entity that he designates as his successor. As a board member and officer, Mr. Huen owes a fiduciary duty to our shareholders and must act in good faith in a manner he reasonably believes to be in the best interests of our shareholders. As a shareholder, even a controlling shareholder, Mr. Huen is entitled to vote his shares, and shares over which he has voting control as a result of voting agreements, in his own interests, which may not always be in the interests of our shareholders generally.

### *Our Class B Ordinary Shares have stronger voting power than our Class A Ordinary Shares and certain existing shareholders have substantial influence over our Company and their interests may not be aligned with the interests of our other shareholders.*

We have a dual-class voting structure consisting of Class A Ordinary Shares and Class B Ordinary Shares. Under this structure, holders of Class A Ordinary Shares are entitled to one vote per share, and holders of Class B Ordinary Shares are entitled to ten votes per share, which can cause the holders of Class B Ordinary Shares to have an unbalanced, higher concentration of voting power. Our management team as a group beneficially owns over 18 million Class B Ordinary Shares representing 80% voting power. As a result, until such time as their collective voting power is below 50%, our management team as a group of controlling shareholders have substantial influence over our business, including decisions regarding mergers, consolidations and the sale of all or substantially all of our assets, election of directors and other significant corporate actions. They may take actions that are not in the best interests of us or our other shareholders. These corporate actions may be taken even if they are opposed by our other shareholders. Further, concentration of ownership of our Class B Ordinary Shares may discourage, prevent or delay the consummation of change of control transactions that shareholders may consider favorable, including transactions in which shareholders might otherwise receive a premium for their shares. Future issuances of Class B Ordinary Shares may also be dilutive to the holders of Class A Ordinary Shares. As a result, the market price of our Class A Ordinary Shares could be adversely affected.

Shareholders who hold shares of Class B Ordinary Shares, including our executive officers and their affiliates, hold approximately 97% of the voting power of our outstanding Shares. Because of the ten-to-one voting ratio between our Class B Ordinary Shares and Class A Ordinary Shares, the holders of our Class B Ordinary Shares will collectively continue to control a majority of the combined voting power of our Shares and therefore be able to control all matters submitted to our shareholders for approval, so long as the Class B Ordinary Shares represent at least 9.1% of all outstanding shares of our Shares. This concentrated control will limit your ability to influence corporate matters for the foreseeable future.

Future transfers by holders of Class B Ordinary Shares will generally result in those shares converting to Class A Ordinary Shares, subject to limited exceptions, such as certain transfers effected for estate planning purposes. The conversion of Class B Ordinary Shares to Class A Ordinary Shares will have the effect, over time, of increasing the relative voting power of those holders of Class B Ordinary Shares who retain their shares in the long term. If, for example, Mr. Huen retains a significant portion of his holdings of Class B Ordinary Share for an extended period of time, he could, in the future, continue to control a majority of the combined voting power of our Class A Ordinary Shares and Class B Ordinary Shares.

***As a “controlled company” under the rules of the NASDAQ Global Market, we may choose to exempt our company from certain corporate governance requirements that could have an adverse effect on our public shareholders.***

Our directors and officers beneficially own a majority of the voting power of our outstanding Class A Ordinary Shares. Under the Rule 4350(c) of the NASDAQ Global Market, a company of which more than 50% of the voting power is held by an individual, group or another company is a “controlled company” and may elect **not** to comply with certain corporate governance requirements, including the requirement that a majority of our directors be independent, as defined in the NASDAQ Global Market Rules, and the requirement that our compensation and nominating and corporate governance committees consist entirely of independent directors. Although we do not intend to rely on the “controlled company” exemption under the Nasdaq listing rules, we could elect to rely on this exemption in the future. If we elect to rely on the “controlled company” exemption, a majority of the members of our board of directors might not be independent directors and our nominating and corporate governance and compensation committees might not consist entirely of independent directors. Accordingly, during any time while we remain a controlled company relying on the exemption and during any transition period following a time when we are no longer a controlled company, you would not have the same protections afforded to shareholders of companies that are subject to all of the NASDAQ Global Market corporate governance requirements. Our status as a controlled company could cause our Class A Ordinary Share to look less attractive to certain investors or otherwise harm our trading price.

#### **Risks Related to our Securities**

***Shares eligible for future sale may adversely affect the market price of our Class A Ordinary Shares on NASDAQ or other stock markets, as the future sale of a substantial amount of outstanding Class A Ordinary Shares in the public marketplace could reduce the price of our Class A Ordinary Shares.***

The market price of our Class A Ordinary Shares could decline as a result of sales of substantial amounts of our Class A Ordinary Shares in the public market, or the perception that these sales could occur. In addition, these factors could make it more difficult for us to raise funds through future offerings of our Class A Ordinary Shares. An aggregate of 6,597,362 Class A Ordinary Shares are outstanding as of the date of this prospectus. We are including 1,543,245 Resale Shares in this prospectus, all of which, once sold by the selling shareholders pursuant to this prospectus upon and after its effectiveness, will be freely tradable. All of the Class A Ordinary Shares sold in our initial public offering are freely transferable without restriction or further registration under the Securities Act. The remaining Class A Ordinary Shares will be “restricted securities” as defined in Rule 144. These Class A Ordinary Shares may be sold without registration under the Securities Act to the extent permitted by Rule 144 or other exemptions under the Securities Act.

***A sale or perceived sale of a substantial number of our Class A Ordinary Shares may cause the price of our Class A Ordinary Shares to decline.***

If our shareholders sell substantial amounts of our Class A Ordinary Shares in the public market, the market price of our Class A Ordinary Shares could fall. Moreover, the perceived risk of this potential dilution could cause shareholders to attempt to sell their shares and investors to short our Class A Ordinary Shares. These sales also may make it more difficult for us to sell equity or equity-related securities in the future at a time and price that we deem reasonable or appropriate.

***Issuances by us of additional securities, whether in traditional or token format, could affect ownership and voting rights over us. In addition, the issuance of preferred shares, or options or warrants to purchase those preferred shares, could negatively impact the value of the Shares as the result of preferential dividend rights, conversion rights, redemption rights and liquidation provisions granted to the stockholders of such preferred shares.***

From time to time, we may issue in public or private sales additional securities to third party investors. Such securities may provide holders with ownership and voting rights that could provide the holders thereof with substantial influence over our business. Any preferred shares that may be issued shall have such rights, preferences, privileges and restrictions as may be designated from time-to-time by our board, including preferential dividend rights, voting rights, conversion rights, redemption rights and liquidation provisions. There cannot be any assurance that we will not issue preferred securities with rights and preferences that are more beneficial than those provided to our Shares.

***We have not paid dividends in the past and do not expect to pay dividends in the future, and any return on investment may be limited to the value of our shares.***

We have never paid any cash dividends on our Class A Ordinary Shares and do not anticipate paying any cash dividends on our Class A Ordinary Shares in the foreseeable future, and any return on investment may be limited to the value of our Class A Ordinary Shares. We plan to retain any future earnings to finance growth.

Our dividend policy is subject to the discretion of our Board of Directors and will depend on, among other things, our earnings, financial condition, capital requirements and other factors. There is no assurance that our Board of Directors will declare dividends even if we are profitable. Under Cayman Islands law, dividends may be declared and paid only out of funds legally available therefor, namely out of either profit or our share premium account, and provided further that a dividend may not be paid if this would result in our Company being unable to pay its debts as they fall due in the ordinary course of business and the realizable value of assets of our Company will not be less than the sum of our total liabilities, other than deferred taxes as shown on our books of account, and our capital.

***You will experience immediate and substantial dilution as a result of this Offering and may experience additional dilution in the future.***

You may experience dilution to the extent that Class A Ordinary Shares are to be issued upon exercise of the Bond holder's voluntary conversion of the balance of the Bond. Additionally, in the event that those warrants or options we may grant to our officers, directors and employees are ultimately exercised, you will sustain future dilution. We may also acquire or license other technology or finance strategic alliances by issuing equity, which may result in additional dilution to our shareholders.

***Raising additional capital may cause dilution to our shareholders, restrict our operations or require us to relinquish rights to our technology or drug and device candidates.***

We may seek additional funding through a combination of equity offerings, debt financings, collaborations, licensing arrangements, strategic alliances and marketing or distribution arrangements. To the extent that we raise additional capital through the sale of equity or convertible debt securities, your ownership interest will be diluted, and the terms may include liquidation or other preferences that adversely affect your rights as a holder of our Class A Ordinary Shares. The incurrence of additional indebtedness or the issuance of certain equity securities could result in increased fixed payment obligations, and could also result in certain additional restrictive covenants, such as limitations on our ability to incur additional debt or issue additional equity, limitations on our ability to acquire or license IP rights and other operating restrictions that could adversely impact our ability to conduct our business. In addition, issuance of additional equity securities, or the possibility of such issuance, may cause the market price of our Class A Ordinary Shares to decline. In the event that we enter into collaborations or licensing arrangements to raise capital, we may be required to accept unfavorable terms, including relinquishing or licensing to another party on unfavorable terms our rights to technology or drug and device candidates that we otherwise would seek to develop or commercialize ourselves or potentially reserve for future potential arrangements when we might be able to achieve more favorable terms.

***Resales of our Class A Ordinary Shares in the public market by the selling shareholders may cause the market price of our Class A Ordinary Shares to decline.***

Sales of Resale Shares could result in resales of our Class A Ordinary Shares by our current shareholders concerned about the potential dilution of their holdings. In turn, these resales could have the effect of depressing the market price for our Class A Ordinary Shares.

*Since we are a Cayman Islands exempted company, the rights of our shareholders may be more limited than those of shareholders of a company organized in the United States.*

Our corporate affairs are governed by our Second Amended and Restated Memorandum and Articles of Association (as may be amended from time to time) (“Memorandum and Articles”), the Companies Law (2018 Revision) of the Cayman Islands (the “Companies Law”) and the common law of the Cayman Islands. The rights of shareholders to take action against the directors, actions by minority shareholders and the fiduciary responsibilities of our directors are to a large extent governed by the common law of the Cayman Islands. This common law is derived in part from comparatively limited judicial precedent in the Cayman Islands as well as from English common law, which has persuasive, but not binding, authority on a court in the Cayman Islands. Under the laws of some jurisdictions in the United States, majority and controlling shareholders generally have certain fiduciary responsibilities to the minority shareholders. Shareholder action must be taken in good faith, and actions by controlling shareholders which are obviously unreasonable may be declared null and void. Cayman Islands law protecting the interests of minority shareholders may not be as protective in all circumstances as the law protecting minority shareholders in some U.S. jurisdictions. In addition, the circumstances in which a shareholder of a Cayman Islands company may sue the company derivatively, and the procedures and defenses that may be available to the company, may result in the rights of shareholders of a Cayman Islands company being more limited than those of shareholders of a company organized in the United States. Accordingly, shareholders may have fewer alternatives available to them if they believe that corporate wrongdoing has occurred. The Cayman Islands courts are also unlikely to recognize or enforce judgments from U.S. courts based on certain liability provisions of U.S. securities laws that are penal in nature. There is no statutory recognition in the Cayman Islands of judgments obtained in the United States, although the courts of the Cayman Islands will generally recognize and enforce non-penal judgment of a foreign court of competent jurisdiction for a liquidated sum without retrial on its merits which is not obtained in a manner contrary to public policy in the Cayman Islands and in respect of which there are no concurrent proceedings in the Cayman Islands. This means, even if shareholders were to sue us successfully, they may not be able to recover anything to make up for the losses suffered.

Furthermore, our directors have the power to take certain actions without shareholder approval which would require shareholder approval under the laws of most U.S. jurisdictions. For example, the directors of a Cayman Islands company, without shareholder approval, may implement a sale of any assets, property, part of the business, or securities of the Company.

While Cayman Islands law allows a dissenting shareholder to express the shareholder’s view that a court sanctioned reorganization of a Cayman Islands company would not provide fair value for the shareholder’s shares, Cayman Islands statutory law does not specifically provide for shareholder appraisal rights on a merger or consolidation of a company. This may make it more difficult for you to assess the value of any consideration you may receive in a merger or consolidation or to require that the acquirer gives you additional consideration if you believe the consideration offered is insufficient. However, Cayman Islands’ statutory law does provide a mechanism for a dissenting shareholder in a merger or consolidation to apply to the Grand Court for a determination of the fair value of the dissenter’s shares, if it is not possible for the Company and the dissenter to agree a fair price within the time limits prescribed.

Shareholders of Cayman Islands exempted companies, such as our Company, have no general rights under Cayman Islands’ law to inspect corporate records and accounts or to obtain copies of lists of shareholders. Our directors have discretion under our Memorandum and Articles to determine whether or not, and under what conditions, our corporate records may be inspected by our shareholders, but are not obliged to make them available to our shareholders. This may make it more difficult for you to obtain the information needed to establish any facts necessary for a shareholder motion or to solicit proxies from other shareholders in connection with a proxy contest.

Lastly, under the law of the Cayman Islands, there is little statutory law for the protection of minority shareholders. The principal protection under statutory law is that shareholders may bring an action to enforce the constituent documents of the corporation, our Memorandum and Articles. Shareholders are entitled to have the affairs of the company conducted in accordance with the general law and the memorandum and articles of association.

There are common law rights for the protection of shareholders that may be invoked, largely dependent on English company law, since the common law of the Cayman Islands for business companies is limited. Under the general rule pursuant to English company law known as the rule in *Foss v. Harbottle*, a court will generally refuse to interfere with the management of a company at the insistence of a minority of its shareholders who express dissatisfaction with the conduct of the company’s affairs by the majority or the board of directors. However, every shareholder is entitled to have the affairs of the company conducted properly according to law and the constituent documents of the company. As such, if those who control the company have persistently disregarded the requirements of company law or the provisions of the company’s memorandum and articles of association, then the courts will grant relief. Generally, the areas in which the courts will intervene are the following: (1) an act complained of which is outside the scope of the authorized business or is illegal or not capable of ratification by the majority; (2) acts that constitute fraud on the minority where the wrongdoers control the company; (3) acts that infringe on the personal rights of the shareholders, such as the right to vote; and (4) where the company has not complied with provisions requiring approval of a special or extraordinary majority of shareholders, which are more limited than the rights afforded minority shareholders under the laws of many states in the United States subject to limited exceptions, under Cayman Islands Law a minority shareholder may not bring a derivative action against directors. Our Cayman Islands’ counsel has advised us that they are aware of one recent as yet unreported derivative action having been brought in a Cayman Islands’ court. Class actions are not recognized in the Cayman Islands, but groups of shareholders with identical interests may bring representative proceedings, which are similar.

As a result, you may be limited in your ability to protect your interests if you are harmed in a manner that would otherwise enable you to sue in a United States federal court. In addition, shareholders of Cayman Islands companies may not have standing to initiate a shareholder derivative action in U.S. federal courts.

As a result of all of the above, shareholders of our Company may have more difficulty in protecting their interests in the face of actions taken by management, members of the board of directors or controlling shareholders than they would have as shareholders of a public U.S. company.

***You may face difficulties in protecting your interests, and your ability to protect your rights through the U.S. federal courts may be limited because we are incorporated under Cayman Islands law, we currently conduct substantially all of our operations outside the United States and some of our directors and executive officers reside outside the United States.***

We are incorporated in the Cayman Islands and currently conduct substantially all of our operations outside the United States through our subsidiaries. Some of our directors and executive officers reside outside the United States and a substantial portion of their assets are located outside of the United States. As a result, it may be difficult or impossible for you to bring an action against us or against these individuals in the Cayman Islands or in Hong Kong, in the event that you believe that your rights have been infringed under the securities laws of the United States or otherwise. Even if you are successful in bringing an action of this kind, the laws of the Cayman Islands and Hong Kong may render you unable to enforce a judgment against our assets or the assets of our directors and officers. There is no statutory recognition in the Cayman Islands of judgments obtained in the United States or Hong Kong, although the courts of the Cayman Islands will generally recognize and enforce a non-penal judgment of a foreign court of competent jurisdiction without retrial on the merits if such judgment is final, for a liquidated sum, not in the nature of taxes, a fine or penalty, is not inconsistent with a Cayman Islands' judgment in respect of the same matters, and was not obtained in a manner which is contrary to public policy. In addition, a Cayman Islands court may stay proceedings if concurrent proceedings are being brought elsewhere.

***We are an emerging growth company within the meaning of the Securities Act and will take advantage of certain reduced reporting requirements.***

We are an "emerging growth company," as defined in the JOBS Act and take advantage of certain exemptions from various requirements applicable to other public companies that are not emerging growth companies including, most significantly, not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act for so long as we are an emerging growth company. As a result, if we elect not to comply with such auditor attestation requirements, our investors may not have access to certain information they may deem important.

The JOBS Act also provides that an emerging growth company does not need to comply with any new or revised financial accounting standards until such date that a private company is otherwise required to comply with such new or revised accounting standards. The Company has elected to use the extended transition period for complying with new or revised accounting standard under Section 102(b)(2) of the Jobs Act, that allows the Company to delay the adoption of new or revised accounting standards that have different effective dates for public and private companies until those standards apply to private companies.

## Risks Related to this Offering and our Series A Notes and Bond

***If we are unable to comply with the restrictions and covenants in the indenture governing the Bond, there could be a default under the terms of these agreements, which could cause repayment of our debt to be accelerated.***

If we are unable to comply with the restrictions and covenants in the indenture governing the Bond, or our current or future debt and other agreements, there could be a default under the terms of these agreements. In the event of a default under these agreements, the holders of the debt could terminate their commitments to lend to us, accelerate the debt and declare all amounts borrowed due and payable or terminate the agreements, as the case may be.

Furthermore, some of our debt agreements may contain cross-acceleration or cross-default provisions. As a result, our default under one debt agreement may cause the acceleration of debt or result in a default under our other debt agreements. If any of these events occur, we cannot assure you that our assets and cash flow would be sufficient to repay in full all of our indebtedness, or that we would be able to find alternative financing. Even if we could obtain alternative financing, we cannot assure you that it would be on terms that are favorable or acceptable to us.

***We may not be able to maintain an active, liquid and orderly trading market for our Class A Ordinary Shares and our stock price may be volatile.***

Prior to the IPO, our Class A Ordinary Shares were not traded on any market and we may not be able to maintain an active, liquid and orderly trading market for our Class A Ordinary Shares. Active, liquid and orderly trading markets usually result in less price volatility and more efficiency in carrying out investors' purchase and sale orders. The market price of our Class A Ordinary Shares could vary significantly as a result of a number of factors, some of which are beyond our control. In the event of a drop in the market price of our Class A Ordinary Shares, you could lose a substantial part or all of your investment in our shares.

The following factors could affect our share price:

- our operating and financial performance;
- quarterly variations in the rate of growth of our financial indicators, such as net income per share, net income and revenues;
- the public reaction to our press releases, our other public announcements and our filings with the SEC;
- strategic actions by our competitors;
- changes in revenue or earnings estimates, or changes in recommendations or withdrawal of research coverage, by equity research analysts;
- speculation in the press or investment community;
- the failure of research analysts to cover our securities;
- sales of our Class A Ordinary Shares by us or other shareholders, or the perception that such sales may occur;
- changes in accounting principles, policies, guidance, interpretations or standards;
- additions or departures of key management personnel;
- actions by our shareholders;
- domestic and international economic, legal and regulatory factors unrelated to our performance; and
- the realization of any risks describes under this "Risk Factors" section.

The stock markets in general have experienced extreme volatility that has often been unrelated to the operating performance of particular companies. These broad market fluctuations may adversely affect the trading price of our Class A Ordinary Shares. Securities class action litigation has often been instituted against companies following periods of volatility in the overall market and in the market price of a company's securities. Such litigation, if instituted against us, could result in very substantial costs, divert our management's attention and resources and harm our business, operating results and financial condition.



## **Risks Related to the SMPT tokens**

***There is no assurance that purchasers of the SMPT tokens will receive a return on their investment.***

Each Token will entitle its holder (each, a “Tokenholder”) to receive certain sales-based royalties, sublicensing income or additional cash flow generated by drug candidates developed by the Smart-ACT™ platform (the “Token Distribution”) (See “Prospectus Summary – Recent Events – Smart Pharma Token”).

As identified in the aforementioned risk factors, a pharmaceutical company’s ability to generate revenue and achieve profitability is dependent on its ability to complete the development of drug candidates and any future drug candidates one develops in its portfolio, obtain necessary regulatory approvals, and have our drugs products under development manufactured and successfully marketed, of which there can be no guarantee. Furthermore, the research methodology used may be unsuccessful in identifying potential drug candidates, or those drug candidates identified may have harmful side effects or other undesirable characteristics that make them unmarketable or unlikely to receive regulatory approval (See “Risk Factors – Risks Related to the Preclinical and Clinical Development of Our Drug Candidates - We currently do not generate revenue from product sales and may never become profitable; unless we can raise more capital through additional financings, of which there can be no guarantee, our principal source of revenue will be from AML Clinic, which may not be substantial” and “We may not be successful in our efforts to identify or discover additional drug candidates. Due to our limited resources and access to capital, we must continue to the prioritize development of certain drug candidates; such decisions may prove to be wrong and may adversely affect our business”).

Therefore, we cannot guarantee that any drug candidates currently and subsequently developed by SMTPH using the Smart-ACT™ platform will generate any revenue that would derive any sales-based royalties, sublicensing income or additional cash flow for distribution to Tokenholders.

Accordingly, there is no assurance that purchasers of SMPT tokens will realize any return on their investments or that their entire investments will not be lost.

***SMPT Tokenholders’ security interest in the intellectual property rights may affect our shareholder’s interest in the Company.***

SPLP acts as the intellectual property holding company of Smart Pharma, and holds all title, rights and ownership interest of the intellectual property rights developed by Smart-ACT™ (“Project IP”). The SMPT tokens are secured by way of a floating charge against the Project IP to guarantee the distribution of accrued sales-based royalties, sublicensing income or additional cash flow generated by drug candidates developed by the Smart-ACT™ platform (See “Prospectus Summary – Recent Events – Smart Pharma Token”).

Therefore, regardless of the number of the SMPT tokens sold and the amount of proceeds raised from the token sales, Tokenholders will only be eligible to receive a Token Distribution if any sales-based royalties, sublicensing income or additional cash flow is generated by drug candidates developed by the Smart-ACT™ platform, as and when SPLP declares the distribution.

Because the Token Distribution is secured by a security interest in such intellectual property rights, if and when SPLP defaults in its distribution obligations to the Tokenholders, or in the event of liquidation, dissolution or winding up of SPLP, the floating charge may crystallize into a fixed charge over the charged assets (i.e., the Project IP owned by SPLP), while a receiver may be appointed by the Tokenholders to sell off the Project IP. If this were to occur, the disposal of the Project IP by an appointed receiver may trigger a breach of any commercialization agreements between Smart Pharma and third parties with respect to the repurposed drug project, which may in turn affect our business, revenue and reputation.

*The distributions to SMPT Tokenholders are not correlated with the number of SMPT tokens sold or net proceeds raised through the SMPT token sales.*

SMTPH intends to use all of the proceeds raised from the SMPT token sales towards the development and operation of the Smart-ACT™ platform. If the issuance of the SMPT tokens does not result in substantial proceeds, it could have a material adverse effect on SMTPH's ability to fund these objectives and carry out its related business plans, its ability to develop the Smart-ACT™ platform may be limited.

Aptorum Group anticipates that the net proceeds from the sales of the SMPT tokens will not be sufficient to fully fund Smart Pharma's current and future operations until it becomes self-sustaining. Smart Pharma's current funding needs include funding for validation and assessment of candidates, operation and improvement of the platform, legal/professional services and exchanges-listing.

Therefore, Smart Pharma will likely require funding from Aptorum Group or other sources to subsidize and support its operations. The presence and level of funding support from Aptorum Group or other sources will not affect the aggregate distribution entitled by the Tokenholders, as the aggregate distribution is dependent on the ability for Smart-ACT™ to develop drug candidates that can generate sales-based royalties, sublicensing income or additional cash flow and the extent of commercial success of such candidate.

Therefore, the distributions to SMPT Tokenholders would not necessarily be correlated with the number of SMPT tokens sold or the net proceeds raised through the SMPT token sales. The dollar value of the aggregate distributions will not be affected by proceeds from the SMPT token sales, regardless of whether the proceeds greatly exceed or are significantly lower than the actual costs for funding Smart Pharma's current and future operations.

#### **SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS**

This prospectus, including the sections titled "Prospectus Summary," "Risk Factors," and "Management's Discussion and Analysis of Financial Condition and Results of Operations" contains forward-looking statements that are based on our management's belief and assumptions and on information currently available to our management. Although we believe that the expectations reflected in these forward-looking statements are reasonable, these statements relate to future events or our future financial performance, and involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied by these forward-looking statements. Forward-looking statements in this prospectus include, but are not limited to, statements about:

- the initiation, timing, progress and results of our preclinical and clinical trials, and our research and development programs;
- our ability to advance our drug candidates into, and successfully complete, clinical trials;
- our ability to identify and develop new drug and device candidates;
- our reliance on the success of our drug candidates currently undergoing preclinical development; in particular, our Lead Project candidates;
- the timing or likelihood of regulatory filings and approvals;
- the commercialization of our drug and device candidates, if approved;
- our ability to develop sales and marketing capabilities;
- the pricing and reimbursement of our drug candidates, if approved;
- the implementation of our business model, strategic plans for our business and technology;
- the scope of protection we are able to establish and maintain for IP rights covering our drug and device candidates and technology;
- our ability to operate our business without infringing the IP rights and proprietary technology of other parties;

- costs associated with defending IP infringement, product liability and other claims;
- regulatory development in the U.S., Europe and PRC and other jurisdictions;
- estimates of our expenses, future revenues, capital requirements and our needs for additional financing;
- the potential benefits of strategic collaboration agreements and our ability to enter into strategic arrangements;
- our ability to maintain and establish collaborations or obtain additional grant funding; the rate and degree of market acceptance of our drug and device candidates;
- developments relating to our competitors and industry, including competing therapies;
- our ability to effectively manage our anticipated growth;
- our ability to attract and retain qualified employees and key personnel;
- our expectations regarding the period during which we qualify as an emerging growth company under the JOBS Act;
- statements regarding future revenue, hiring plans, expenses, capital expenditures, capital requirements and share performance;
- the future trading price of our Class A Ordinary Shares and impact of securities analysts' reports on these prices; and
- other risks and uncertainties, including those listed under the caption "Risk Factors."

In some cases, you can identify forward-looking statements by terminology such as "may," "will," "should," "expects," "intends," "plans," "anticipates," "believes," "estimates," "predicts," "potential," "continue" or the negative of these terms or other comparable terminologies. These statements are only predictions. You should not place undue reliance on forward-looking statements because they involve known and unknown risks, uncertainties and other factors, which are, in some cases, beyond our control and which could materially affect results. Factors that may cause actual results to differ materially from current expectations include, among other things, those listed under "Risk Factors" and elsewhere in this prospectus. If one or more of these risks or uncertainties occur, or if our underlying assumptions prove to be incorrect, actual events or results may vary significantly from those implied or projected by the forward-looking statements. No forward-looking statement is a guarantee of future performance. You should read this prospectus and the documents that we reference in this prospectus and have filed with the SEC as exhibits to the registration statement, of which this prospectus is a part, completely and with the understanding that our actual future results may be materially different from any future results expressed or implied by these forward-looking statements.

The forward-looking statements in this prospectus represent our views as of the date of this prospectus. We anticipate that subsequent events and developments will cause our views to change. However, while we may elect to update these forward-looking statements at some point in the future, we have no current intention of doing so except to the extent required by applicable law. You should therefore not rely on these forward-looking statements as representing our views as of any date subsequent to the date of this prospectus.

This prospectus contains market data and industry forecasts that were obtained from industry publications. These data involve a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. While we believe the market position, market opportunity and market size information included in this prospectus is generally reliable, such information is inherently imprecise.

#### **USE OF PROCEEDS**

We will not receive any proceeds from the sale of the Class A Ordinary Shares by the selling shareholder of Class A Ordinary Shares registered pursuant to the Registration Statement. All net proceeds from the sale of the Class A Ordinary Shares will go to the selling shareholder.

## CAPITALIZATION

The table below sets forth our capitalization and indebtedness as of June 30, 2019:

- on an actual basis (column 1); and
- on a pro forma basis as adjusted basis, to give effect to the issuance of 22,437,754 Class A Ordinary Shares issuable upon conversion of the Class B Ordinary Shares; (See “Description of Share Capital”) (column 2).
- The table does not include any shares underlying the outstanding options.

This table should be read in conjunction with “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and our financial statements, consolidated financial statements and related notes included elsewhere in this prospectus.

	June 30, 2019	
	1	2
	Actual	Pro Forma
	US\$	US\$
<b>Equity</b>		
Class A Ordinary Shares	6,597,362	29,035,116
Class B Ordinary Shares	22,437,754	-
Additional paid-in capital	23,857,814	23,857,814
Accumulated other comprehensive income	7,345	7,345
Accumulated deficit	(27,957,689)	(27,957,689)
Non-controlling interests	(920,298)	(920,298)
<b>Total equity</b>	<b>24,022,288</b>	<b>24,022,288</b>
<b>Total capitalization</b>	<b>24,022,288</b>	<b>24,022,288</b>

The information above is illustrative only.

## SELECTED FINANCIAL DATA

The following summary consolidated balance sheets (successor basis) as of December 31, 2018 and 2017, consolidated statements of operations and comprehensive loss (successor basis) for the year ended December 31, 2018 and the period March 1, 2017 through December 31, 2017, as well as the statement of operations (predecessor basis) for the period January 1, 2017 through February 28, 2017, have been derived from our audited financial statements included elsewhere in this prospectus. The related consolidated balance sheet (successor basis) as of June 30, 2019, consolidated statements of operations and comprehensive loss for the six months ended June 30, 2019 and 2018 have been derived from our unaudited financial statements included elsewhere in this prospectus. You should read this data together with our audited consolidated financial statements and related notes appearing elsewhere in this prospectus and the information under the captions “Capitalization” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations.” Our historical results are not necessarily indicative of our future results. Our consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the United States, or U.S. GAAP.

You should not view our historical results as an indicator of our future performance.

The following table presents our summary consolidated statements of operations and comprehensive loss (successor basis) for the six months ended June 30, 2019 and 2018, the year ended December 31, 2018 and the period March 1, 2017 through December 31, 2017.

Selected Consolidated Statements of Operations and Comprehensive Loss (Successor Basis)  
(In U.S. Dollars, except number of shares)

	Six months ended June 30, 2019 <u>(Unaudited)</u>	Six months ended June 30, 2018 <u>(Unaudited)</u>	Year Ended December 31, 2018 <u></u>	March 1, 2017 through December 31, 2017 <u></u>
Revenue:				
Healthcare services income	\$ 239,792	\$ 26,662	\$ 383,450	\$ -
Expenses:				
Cost of healthcare services	(371,218)	(22,749)	(318,011)	-
Research and development expenses	(2,714,217)	(1,342,179)	(3,101,432)	(2,560,323)
General and administrative fees	(3,232,916)	(2,238,025)	(4,919,626)	(1,480,093)
Legal and professional fees	(2,008,774)	(1,063,032)	(1,811,770)	(1,395,490)
Other operating expenses	(120,788)	(235,413)	(560,709)	(257,177)
Total expenses	<u>(8,447,913)</u>	<u>(4,901,398)</u>	<u>(10,711,548)</u>	<u>(5,693,083)</u>
Other (loss) income:				
Gain on investments in marketable securities, net	315,977	-	501,522	3,912,500
Gain on non-marketable investments	1,147,199	-	-	-
Gain (loss) on investments in derivatives, net	310,195	(359,844)	(974,444)	(827,501)
Realized gain on use of digital currencies	12,334	-	-	-
Changes in fair value of warrant liabilities	(866,300)	-	124,726	-
Gain on extinguishment of convertible debts	1,198,490	-	-	-
Interest (expense) income, net	(3,678,566)	(301,362)	(4,458,191)	44,269
Dividend income	-	-	-	2,308
Sundry income	128,444	-	-	-
Total other (loss) income, net	<u>(1,432,227)</u>	<u>(661,206)</u>	<u>(4,806,387)</u>	<u>3,131,576</u>
<b>Net loss</b>	<u>(9,640,348)</u>	<u>(5,535,942)</u>	<u>(15,134,485)</u>	<u>(2,561,507)</u>
Less: net loss attributable to non-controlling interests	<u>(551,877)</u>	<u>(47,570)</u>	<u>(302,762)</u>	<u>(14,045)</u>
<b>Net loss attributable to Aptorum Group Limited</b>	<u>\$ (9,088,471)</u>	<u>\$ (5,488,372)</u>	<u>\$ (14,831,723)</u>	<u>\$ (2,547,462)</u>
Net loss per share – basic and diluted*	\$ (0.31)	\$ (0.20)	\$ (0.53)	\$ (0.09)
Weighted-average shares outstanding – basic and diluted	<u>28,978,151</u>	<u>27,864,135</u>	<u>27,909,788</u>	<u>26,963,435</u>
<b>Net loss</b>	\$ (9,640,348)	\$ (5,535,942)	\$ (15,134,485)	\$ (2,561,507)
<b>Other comprehensive income (loss)</b>				
Unrealized loss on investments in available-for-sale securities	-	(178,027)	(1,122,251)	(367,782)
Exchange differences on translation of foreign operations	2,000	167	5,345	-
Other comprehensive income (loss)	<u>2,000</u>	<u>(177,860)</u>	<u>(1,116,906)</u>	<u>(367,782)</u>
<b>Comprehensive loss</b>	<u>(9,638,348)</u>	<u>(5,713,802)</u>	<u>(16,251,391)</u>	<u>(2,929,289)</u>
Less: comprehensive loss attributable to non-controlling interests	<u>(551,877)</u>	<u>(47,570)</u>	<u>(302,762)</u>	<u>(14,045)</u>
<b>Comprehensive loss attributable to the shareholders of Aptorum Group Limited</b>	<u>\$ (9,086,471)</u>	<u>\$ (5,666,232)</u>	<u>\$ (15,948,629)</u>	<u>\$ (2,915,244)</u>

\* The shares and per share data are presented at a weighted average basis to reflect the nominal share issuance.

The following table presents our summary statements of operations (predecessor basis) for the period January 1, 2017 through February 28, 2017.

Selected Statement of Operations (Predecessor Basis)  
(In U.S. Dollars)

	<b>January 1, 2017 through February 28, 2017</b>
Investment income:	
Interest income	\$ 3,011
Total investment income	<u>3,011</u>
Expenses	
General and administrative fees	17,516
Management fees	108,958
Legal and professional fees	98,646
Other operating expenses	1,907
Total expenses	<u>227,027</u>
<b>Net investment loss</b>	<b><u>\$ (224,016)</u></b>
Realized and unrealized losses	
Net realized losses on investments in unaffiliated issuers	\$ (15,327)
Net change in unrealized depreciation on investments	(386,741)
Net realized and unrealized losses	<u>(402,068)</u>
<b>Net decrease in net assets resulting from operations</b>	<b><u>\$ (626,084)</u></b>

The following table presents our summary consolidated balance sheets (successor basis) as of June 30, 2019, December 31, 2018 and December 31, 2017.

	<b>As of June 30, 2019</b>	<b>As of December 31, 2018</b>	<b>As of December 31, 2017</b>
	(Unaudited)		
Cash, restricted cash and marketable securities	\$ 6,135,837	\$ 27,121,576	\$ 18,698,455
Total current assets	7,742,644	28,722,941	20,283,399
Total assets	<u>24,740,370</u>	<u>45,074,640</u>	<u>31,559,982</u>
Total current liabilities	597,141	12,184,865	1,330,734
Total liabilities	718,082	12,328,738	1,330,734
Total equity attributable to the shareholders of Aptorum Group Limited	24,942,586	33,114,435	30,243,293
Non-controlling interests	(920,298)	(368,533)	(14,045)
Total equity	24,022,288	32,745,902	30,229,248
Total liabilities and equity	<u>\$ 24,740,370</u>	<u>\$ 45,074,640</u>	<u>\$ 31,559,982</u>

## MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

*You should read the following discussion and analysis of our financial condition and results of operations together with the section titled "Selected Financial Data" and the financial statements, consolidated financial statements and related notes included elsewhere in this prospectus. This discussion contains forward-looking statements based upon current expectations that involve risks and uncertainties. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of various factors, including those discussed in the section titled "Risk Factors" and in other parts of this prospectus. Our financial statements and consolidated financial statements have been prepared in accordance with U.S. GAAP.*

### Overview

We are a pharmaceutical company currently in the preclinical stage, dedicated to developing and commercializing a broad range of therapeutic and diagnostic technologies to tackle unmet medical needs. We have obtained exclusive licenses for our technologies. In addition, we are also developing certain proprietary technologies as product candidates. We are pursuing therapeutic and diagnostic projects (including projects seeking to use extracts or derivatives from natural substances to treat diseases) in neurology, infectious diseases, gastroenterology, oncology and other disease areas. We also have projects focused on surgical robotics. (See "Lead Projects and Other Projects under Development") Also, we opened a medical clinic, AML Clinic, in June 2018.

Although none of our drug or device candidates has yet been approved for testing in humans, our goal is to develop a broad range of early stage novel therapeutics and diagnostics across a wide range of disease/therapeutic areas. Key components of our strategy for achieving this goal include: (for details of our strategy, See "Our Strategy")

- Developing therapeutic and diagnostic innovations across a wide range of disease/therapeutic areas;
- Selectively expanding our portfolio with potential products that may be able to attain orphan drug designation and/or satisfy current unmet medical needs;
- Collaborating with leading academic institutions and CROs;
- Expanding our in-house pharmaceutical development center;
- Leveraging our management's expertise, experience and commercial networks;
- Strategically developing opportunities in Hong Kong to promote access to the PRC market; and
- Obtaining and leveraging government grants to fund project development.

We have begun to devote a significant percentage of our resources, including a substantial portion of the proceeds to three therapeutic projects ("Lead Projects"). The drug candidates being advanced as the Lead Projects are ALS-1, ALS-4 and NLS-1, described in further detail below. If the results of the remaining preclinical studies of these drug candidates are positive, we expect to be able to submit by 2020 or 2021 an Investigational New Drug Application ("IND") for at least one of these candidates to the U.S. Food and Drug Administration ("FDA") or an equivalent application to the regulatory authorities in one or more other jurisdictions such as the China's National Medical Products Administration ("NMPA") and/or the European Medicines Agency ("EMA"). Acceptance of these applications by the relevant regulatory authority would enable the Company to begin testing that drug candidate in humans in that jurisdiction. Our ability to obtain any approval of such applications is entirely dependent upon the results of our preclinical studies, none of which have yet been completed.

Our current business consists of "therapeutics" and "non-therapeutics" segments. However, our focus is on the therapeutics segments. Because of the risks, costs and extended development time required for successful drug development, we have determined to pursue projects within our non-therapeutics segments, such as AML Clinic, to provide some interim revenue and medical robots that may be brought to market and generate revenue more quickly.

**Therapeutics Segment.** In our therapeutics segment (“Aptorum Therapeutics Group”), we are currently seeking to develop various drug molecules (including projects seeking to use extracts or derivatives from natural substances to treat diseases) and certain technologies for the treatment (“therapeutics”) and diagnosis (“diagnostics”) of human disease conditions in neurology, infectious diseases, gastroenterology, oncology and other disease areas. In addition, we are seeking to identify additional prospects which may qualify for potential orphan drug designation (e.g., rare types of cancer) or which address other current unmet medical needs. Aptorum Therapeutics Group is operated through Aptorum’s wholly-owned subsidiary, Aptorum Therapeutics Limited, a Cayman Islands exempted company with limited liability, whose principal place of business is in Hong Kong and its indirect subsidiary companies (who we sometimes refer to herein as project companies), whose principal places of business are also in Hong Kong.

**Non-Therapeutics Segment.** The non-therapeutics segment (“Aptorum Non-Therapeutics Group”) encompasses two businesses: (i) the development of surgical robotics and medical devices and (ii) AML Clinic. The development of surgical robotics and medical devices business is operated through Signate Life Sciences Limited, a subsidiary of Aptorum Therapeutics Limited. The outpatient clinic is operated through our subsidiary, Aptorum Medical Limited. Effective as of March 2018, we leased office space in Central, Hong Kong as the home to our medical clinic (“AML Clinic”). AML Clinic commenced operations under the name of Talem Medical in June 2018. The estimated general administrative expenses and other operating expenses of AML Clinic is expected to be no more than USD120,000 per month. The clinic is expected to reach operating profit in 18 months from the clinic reaching its full operating capacity upon (i) the successful recruitment of a minimum of six full time physicians (AML Clinic currently has one full time physician and six part time physicians) and (ii) establishing steady patients flow via brand development. (See “Lead Projects and Other Projects under Development – Other Projects under Development – Aptorum Medical Limited - AML Clinic”)

The Company has already obtained opportunities resulting in our existing licensing agreements from various contractual relationships that we have entered into, including service/consulting agreements with some of the world’s leading specialists and clinicians in our areas of interest, with academic institutions and organizations, and with CROs. We anticipate that these relationships will generate additional licensing opportunities in the future. In addition, we have established and are continuing to expand our in-house research facilities (collectively, the “R&D Center”) to develop some of our drug and device candidates internally and to collaborate with third-party researchers.

Prior to March 2017, the Company had pursued passive healthcare related investments in early stage companies primarily in the United States. However, we have since ceased pursuing further passive investment operations and intend to exit all such portfolio investments over an appropriate timeframe to focus resources on our current business.

### **Critical Accounting Policies, Estimates and Assumptions**

#### **Basis of presentation**

The consolidated financial statements are prepared in accordance with U.S. GAAP. Before March 1, 2017, the Company was an investment company under U.S. GAAP for the purposes of financial reporting. U.S. GAAP for an investment company requires investments to be recorded at estimated fair value and the unrealized gains and/or losses in an investment’s fair value are recognized on a current basis in the statements of operations. In addition, the Company did not consolidate its subsidiaries, since they were operating companies and not investment companies. Such entities were fair valued in accordance with ASC Topic 946 (“ASC 946”) and ASC Topic 820 (“ASC 820”).

As of March 1, 2017, after the change of business purpose, legal form and substantive activities, the Company’s status changed to an operating company from an investment company since it no longer met the criteria to qualify as an investment company under the ASC 946. The Company discontinued applying the guidance in ASC 946 and began to account for the change in status prospectively by accounting for its investments in accordance with other U.S. GAAP topics. The consolidated financial statements include the financial statements of the Company and its subsidiaries. All significant intercompany transactions and balances have been eliminated in consolidation.



### Principles of consolidation

The consolidated financial statements of the Group are presented on the accrual basis of accounting in accordance with U.S. GAAP and include the accounts of the Company, its direct and indirect wholly and majority owned subsidiaries and a variable interest entity. All material intercompany balances and transactions have been eliminated in preparation of the consolidated financial statements. Non-controlling interests represent the equity interest that is not owned by the Group.

### Use of estimates

The preparation of the consolidated financial statements on successor basis in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of increases and decreases in net assets from operations as well as income and expenses during the reporting period. Significant accounting estimates reflected in the Group's consolidated financial statements include valuing equity securities, fair value of investments in securities, convertible debts and finance lease, the useful lives of intangible assets and property, plant and equipment, impairment of long-lived assets, valuation allowance for deferred tax assets, and collectability of receivables. Actual results could differ from those estimates.

### Foreign currency translation and transaction

USD is the reporting currency. The functional currency of subsidiaries in the Cayman Islands is USD, the functional currency of subsidiaries in Hong Kong is Hong Kong Dollars ("HKD"), the functional currency of a subsidiary in Macao is Macanese Pataca ("MOP") and the functional currency of a subsidiary in the United Kingdom is Great British Pound ("GBP"). An entity's functional currency is the currency of the primary economic environment in which it operates, normally that is the currency of the environment in which it primarily generates and expends cash. The management considered various indicators, such as cash flows, market expenses, financing and inter-company transactions and arrangements in determining the Group's functional currency.

In the consolidated financial statements, the financial information of the Company and its subsidiaries, which use HKD, MOP and GBP as their functional currency, has been translated into USD. Assets and liabilities are translated from each subsidiary's functional currency at the exchange rates on the balance sheet date, equity amounts are translated at historical exchange rates, and revenues, expenses, gains, and losses are translated using the average rate for the year. Translation adjustments are reported as cumulative translation adjustments and are shown as a separate component of other comprehensive income or loss in the statement of operations and comprehensive loss.

### Fair value measurement

Fair value is defined as the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. When determining the fair value measurements for assets and liabilities required or permitted to be recorded at fair value, the Group considers the principal or most advantageous market in which it would transact its business, and it considers assumptions that market participants would use when pricing the asset or liability.

As a basis for considering such assumptions, a three-tier fair value hierarchy prioritizes the inputs utilized in measuring fair value as follows:

- Level 1 applies to assets or liabilities for which there are quoted prices in active markets for identical assets or liabilities.
- Level 2 applies to assets or liabilities for which there are inputs other than quoted prices included within Level 1 that are observable for the asset or liability such as quoted prices for similar assets or liabilities in active markets; quoted prices for identical assets or liabilities in markets with insufficient volume or infrequent transactions (less active markets); or model-derived valuations in which significant inputs are observable or can be derived principally from, or corroborated by, observable market data.
- Level 3 applies to assets or liabilities for which there are unobservable inputs to the valuation methodology that are significant to the measurement of the fair value of the assets or liabilities.

### Impairment of long-lived assets

The Group reviews its long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may no longer be recoverable. When these events occur, the Group measures impairment by comparing the carrying value of the long-lived assets to the estimated undiscounted future cash flows expected to result from the use of the assets and their eventual disposition. If the sum of the expected undiscounted cash flow is less than the carrying amount of the assets, the Group would recognize an impairment loss, which is the excess of carrying amount over the fair value of the assets, using the expected future discounted cash flows.

### Convertible debts

The Group determines the appropriate accounting treatment of its convertible debts in accordance with the terms in relation to the conversion feature, call and put option, beneficial conversion feature ("BCF") and settlement feature. On December 17, 2018, the Group concluded that the contingency of BCF was effectively resolved upon the completion of the IPO and recognized BCF according to the agreement.

Convertible debts are subsequently measured at amortized cost, using the effective interest rate method. Amortized cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the effective interest rate. The effective interest rate amortization is included in interest expense in the condensed consolidated statements of operations.

Amortized cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the effective interest rate. The effective interest rate amortization is included in finance costs in the condensed consolidated statements of operations.

The repurchasing of convertible debts is considered an extinguishment and the difference between the repurchasing price of debt, the net carrying amount of the extinguished debt and the intrinsic value of BCF is recognized in the condensed consolidated statement of operations. The intrinsic value of BCF at the extinguishment date decrease to additional paid-in capital. On April 24, 2019, the Group repurchased its convertible debts at \$13.6 million with carrying amount of \$13.5 million and the intrinsic value of BCF is \$1.3 million with a gain on extinguishment of convertible debts of \$1.2 million.

### Revenue recognition

Revenue is recognized when (or as) the Company satisfies performance obligations by transferring a promised goods or services to a customer. Revenue is measured at the transaction price which is based on the amount of consideration that the Company expects to receive in exchange for transferring the promised goods or services to the customer. Contracts with customers are comprised of invoices and written contracts. Revenue from healthcare services is measured upon the provision of the relevant services.

### Income taxes

The Group accounts for income taxes under the asset and liability method. Under this method, deferred income taxes are determined based on differences between the financial carrying amounts of existing assets and liabilities and their tax bases. Income taxes are provided for in accordance with the laws of the relevant taxing authorities.

A valuation allowance is provided for deferred tax assets if it is more likely than not that these items will either expire before the Group is able to realize their benefits, or that future deductibility is uncertain. Valuation allowances are established, when necessary, to reduce deferred tax assets to the amount expected to be realized.

## RESULTS OF OPERATION (SUCCESSOR BASIS)

### Explanatory Note

After the Restructure, the results of operations and cash flows of the Group for period beginning March 1, 2017 and subsequent balance sheet dates are referred to herein as “Successor” consolidated financial information.

Financial statements and information are presented for the year ended December 31, 2018 (Successor) and the ten months ended December 31, 2017 (Successor), which may not be comparable with amounts shown in each year/period.

The following table summarizes our results of operations for the six months ended June 30, 2019 and 2018, the year ended December 31, 2018 and the period March 1, 2017 to December 31, 2017.

	Six months ended June 30, 2019 (Unaudited)	Six months ended June 30, 2018 (Unaudited)	Year Ended December 31, 2018	March 1, 2017 through December 31, 2017
Revenue:				
Healthcare services income	\$ 239,792	\$ 26,662	\$ 383,450	\$ -
Expenses:				
Cost of healthcare services	(371,218)	(22,749)	(318,011)	-
Research and development expenses	(2,714,217)	(1,342,179)	(3,101,432)	(2,560,323)
General and administrative fees	(3,232,916)	(2,238,025)	(4,919,626)	(1,480,093)
Legal and professional fees	(2,008,774)	(1,063,032)	(1,811,770)	(1,395,490)
Other operating expenses	(120,788)	(235,413)	(560,709)	(257,177)
Total expenses	<u>(8,447,913)</u>	<u>(4,901,398)</u>	<u>(10,711,548)</u>	<u>(5,693,083)</u>
Other (loss) income:				
Gain on investments in marketable securities, net	315,977	-	501,522	3,912,500
Gain on non-marketable investments	1,147,199	-	-	-
Gain (loss) on investments in derivatives, net	310,195	(359,844)	(974,444)	(827,501)
Realized gain on use of digital currencies	12,334	-	-	-
Changes in fair value of warrant liabilities	(866,300)	-	124,726	-
Gain on extinguishment of convertible debts	1,198,490	-	-	-
Interest (expense) income, net	(3,678,566)	(301,362)	(4,458,191)	44,269
Dividend income	-	-	-	2,308
Sundry income	128,444	-	-	-
Total other (loss) income, net	<u>(1,432,227)</u>	<u>(661,206)</u>	<u>(4,806,387)</u>	<u>3,131,576</u>
<b>Net loss</b>	<u>\$ (9,640,348)</u>	<u>\$ (5,535,942)</u>	<u>\$ (15,134,485)</u>	<u>\$ (2,561,507)</u>

### Revenue

Healthcare services income was \$239,792, \$26,662 and \$383,450 for the six months ended June 30, 2019 and 2018, and the year ended December 31, 2018, respectively, which related to the service income derived from the AML Clinic. We had no healthcare services income for the period March 1, 2017 to December 31, 2017.

### Research and development expenses

Research and development expenses comprised of costs incurred related to research and development activities, including payroll expenses to our research and development staff, sponsored research programs with various universities and research institutions and costs in acquiring IP rights which did not meet the criteria of capitalization under the U.S. GAAP. We currently maintain a system to keep track of costs spent by each project. The following table sets forth a summary of our research and development expenses for the six months ended June 30, 2019 and 2018, the year ended December 31, 2018 and the period March 1, 2017 to December 31, 2017. The increase in research and development expenses was primarily due to the incurred expenses for new sponsored research entered into with Universities in the current period, and the full operation of research and development was started in the second half of 2018 which led to depreciation and increase in payroll expenses since second half of 2018.

	Six months ended June 30, 2019 <u>(Unaudited)</u>	Six months ended June 30, 2018 <u>(Unaudited)</u>	Year Ended December 31, 2018	March 1, 2017 through December 31, 2017
Research and Development Expenses:				
Payroll expenses	\$ 810,166	\$ 575,968	\$ 1,363,740	\$ 95,078
Sponsored research	844,575	306,822	796,943	1,327,247
Amortization and depreciation	384,782	160,502	437,453	58,903
Consultation	544,722	192,107	298,315	92,129
General R&D expense	122,472	106,780	174,981	186,910
Research grant	7,500	-	30,000	800,056
<b>Total Research and Development Expenses</b>	<b>\$ 2,714,217</b>	<b>\$ 1,342,179</b>	<b>\$ 3,101,432</b>	<b>\$ 2,560,323</b>

### General and administrative fees

The following table sets forth a summary of our general and administrative expenses for the six months ended June 30, 2019 and 2018, the year ended December 31, 2018 and the period March 1, 2017 to December 31, 2017. The increase in general and administration fees was mainly due to the increased headcount in the Group to support the business development, and the higher amounts of insurance expense incurred after the Company listed its securities on NASDAQ.

	Six months ended June 30, 2019 <u>(Unaudited)</u>	Six months ended June 30, 2018 <u>(Unaudited)</u>	Year Ended December 31, 2018	March 1, 2017 through December 31, 2017
General and Administrative Fees:				
Administrative fees	\$ -	\$ 384,615	\$ 448,718	\$ 640,932
Payroll expenses	1,604,933	1,060,950	2,510,331	306,967
Rent and rates	285,037	296,074	681,502	49,518
Travelling expenses	431,287	126,286	414,696	175,671
Amortization and depreciation	200,919	48,765	244,839	344
Insurance	341,614	88,649	199,698	23,412
Recruitment expenses	1,316	29,665	50,476	125,535
Other expenses	367,810	203,021	369,366	157,714
<b>Total General and Administrative Fees</b>	<b>\$ 3,232,916</b>	<b>\$ 2,238,025</b>	<b>\$ 4,919,626</b>	<b>\$ 1,480,093</b>

### Management fees/Administrative fees

AENEAS CAPITAL LIMITED, formerly known as APTUS CAPITAL LIMITED, a related company of the Group/Company, provided management and administrative services to the Group and incurred pre-determined management fees. For the six months ended June 30, 2018, the year ended December 31, 2018 and the period March 1, 2017 to December 31, 2017, the administrative fees of \$384,615, \$448,718 and \$640,932, respectively, has been reclassified to general and administrative fees due to the Restructure and since the Company has become a pharmaceutical company, so the management fees are no longer determined by net asset value since then. The services were terminated in July 2018.

### Legal and professional fees

For the six months ended June 30, 2019 and 2018, the year ended December 31, 2018 and the period March 1, 2017 to December 31, 2017, the legal and professional fees were \$2,008,774, \$1,063,032, \$1,811,770 and \$1,395,490, respectively. The increase in legal and professional fees was mainly due to the increasing need for consultancy services on various projects.

### Other operating expenses

The following table sets forth a summary of our other operating expenses for the six months ended June 30, 2019 and 2018, the year ended December 31, 2018 and the period March 1, 2017 to December 31, 2017. The increase in other operating expenses in 2018 was mainly due to more corporate events held to promote the Company and business expansion.

	Six months ended June 30, 2019 <u>(Unaudited)</u>	Six months ended June 30, 2018 <u>(Unaudited)</u>	Year Ended December 31, 2018 <u></u>	March 1, 2017 through December 31, 2017 <u></u>
Other Operating Expenses:				
Event and meeting expenses	\$ 52,507	\$ 131,926	\$ 385,483	\$ 83,288
Commission expenses	1,759	-	1,517	55,726
Other expenses	66,522	103,487	173,709	118,163
Total Other Operating Expenses	<u>120,788</u>	<u>235,413</u>	<u>560,709</u>	<u>257,177</u>

### Other (loss) income

The following table sets forth a summary of our other (loss) income for the six months ended June 30, 2019 and 2018, the year ended December 31, 2018 and the period March 1, 2017 to December 31, 2017.

	Six months ended June 30, 2019 <u>(Unaudited)</u>	Six months ended June 30, 2018 <u>(Unaudited)</u>	Year Ended December 31, 2018 <u></u>	March 1, 2017 through December 31, 2017 <u></u>
Other (loss) income:				
Gain on investments in marketable securities, net	\$ 315,977	\$ -	\$ 501,522	\$ 3,912,500
Gain on non-marketable investment	1,147,199	-	-	-
Gain (loss) on investments in derivatives, net	310,195	(359,844)	(974,444)	(827,501)
Realized gain on use of digital currencies	12,334	-	-	-
Changes in fair value of warrant liabilities	(866,300)	-	124,726	-
Gain on extinguishment of convertible debts	1,198,490	-	-	-
Interest (expense) income, net	(3,678,566)	(301,362)	(4,458,191)	44,269
Dividend income	-	-	-	2,308
Sundry income	128,444	-	-	-
Total other (loss) income	<u>(1,432,227)</u>	<u>(661,206)</u>	<u>(4,806,387)</u>	<u>3,131,576</u>

### Net loss attributable to Aptorum Group Limited

For the six months ended June 30, 2019 and 2018, the year ended December 31, 2018 and the period March 1, 2017 to December 31, 2017, net loss attributable to Aptorum Group Limited (excluding net loss attributable to non-controlling interests) was \$9,088,471, \$5,488,372, \$14,831,723 and \$2,547,462, respectively.

## RESULTS OF OPERATION (PREDECESSOR BASIS)

### *Explanatory Note*

Before March 1, 2017, Aptorum Group Limited was incorporated as an exempted company with limited liability in the Cayman Islands and operated as an open ended investment company, which would own and oversee the management, operations and investments of its subsidiaries. On February 21, 2017, a special resolution was passed at a directors' meeting, and on March 1, 2017, a resolution also was passed at a shareholders' meeting. According to which, the Company changed from an investment fund with management shares and non-voting participating redeemable preference shares to a holding company with operating subsidiaries (the "Restructure"). After the Restructure, the Company has become a Hong Kong based pharmaceutical company currently in the preclinical stage. The results of operations and cash flows of the Company for the periods ended on or prior to February 28, 2017, and its financial position as of balance sheet date on or prior to February 28, 2017 are referred to as "Predecessor" financial information.

Financial statements and information are presented for the two months ended February 28, 2017 (Predecessor).

### *General and administrative fees*

For the period January 1, 2017 to February 28, 2017, the general and administrative fees were \$17,516 which are miscellaneous expenses.

### *Management fees*

AENEAS CAPTIAL LIMITED, formerly known as APTUS CAPITAL LIMITED, a related company of the Group/Company, provided management and administrative services to the Group and incurred pre-determined management fees. For the period January 1, 2017 to February 28, 2017, AENEAS CAPITAL LIMITED was entitled to receive a management fee which was equal to 2.5% per annum of the net asset value of the Company.

### *Legal and professional fees*

For the period January 1, 2017 to February 28, 2017, the legal and professional fees were \$98,646.

### *Other operating expenses*

For the period January 1, 2017 to February 28, 2017, other operating expenses were \$1,907.

### *Other income*

The Company met the assessment of an investment company under the Financial Accounting Standards Board (the "FASB") Accounting Standards Codification Topic 946 ("ASC 946") and was an investment company under U.S. GAAP for the purposes of financial reporting for the period January 1, 2017 to February 28, 2017, which the interest income was \$3,011.

### *Realized and unrealized losses on investments*

Realized and unrealized losses on investments mainly consist of net realized loss on investments in unaffiliated issuers and net unrealized depreciation on investments in unaffiliated issuers. For the period January 1, 2017 to February 28, 2017, the realized and unrealized losses were \$402,068.

### *Net decrease in net assets resulting from operations*

For the period January 1, 2017 to February 28, 2017, the net decrease in net assets resulting from operations was \$626,084.

## LIQUIDITY AND CAPITAL RESOURCES

The Company reported a net loss of \$9,640,348 and net operation cash outflow of \$7,335,009 for the six months ended June 30, 2019, respectively. In addition, the Company had an accumulated deficit of \$27,957,689 as of June 30, 2019. The Company's operating results for future periods are subject to numerous uncertainties and it is uncertain if the Company will be able to reduce or eliminate its net losses for the foreseeable future. If management is not able to generate significant revenues from its product candidates currently in development, the Company may not be able to achieve profitability.

The Company's principal sources of liquidity have been cash and marketable securities. As of the date of issuance of the consolidated financial statements, the Company has approximately \$3 million of cash and marketable securities. In addition, based upon the current market price of the Company's marketable securities, it anticipates it can liquidate such marketable securities for greater than its carrying amount, if necessary. On August 13, 2019, the Company entered into financing arrangements with Aeneas Group Limited, a related party, and Jurchen Investment Corporation, the ultimate parent of the Group, allowing the Group to access up to a total \$15.0 million in line of credit debt financing.

The Company believes that available cash and marketable securities, together with signed loan facilities, should enable the Company to meet presently anticipated cash needs for at least the next 12 months after the date that the financial statements are issued and the Company has prepared the consolidated financial statements on a going concern basis. If the Company encounters unforeseen circumstances that place constraints on its capital resources, management will be required to take various measures to conserve liquidity, which could include, but not necessarily be limited to, deferring some of its research and seeking to dispose of marketable securities.

## CONTRACTUAL OBLIGATIONS

The following table sets forth our contractual obligations as of June 30, 2019.

	Payment Due by Period		
	Total	One to three years	Three to five years
	US\$	US\$	US\$
Operating lease commitments	1,399,332	1,399,332	-

### *Operating lease commitments*

We have several operating leases, primarily for offices. Our principal executive offices are located in Hong Kong; we also have offices in London and Jersey City. Payments under operating leases are expensed on a straight-line basis over the periods of the respective leases, and the terms of the leases do not contain rent escalation, contingent rent, and renewal or purchase options. The aggregate future minimum payment under these non-cancelable operating leases are summarized in the table above.

## CONTINGENT PAYMENT OBLIGATIONS

The Group has additional contingency payment obligations under each of the license agreements, such as milestone payments, royalties, research and development funding, if certain condition or milestone is met.

Milestone payments are to be made upon achievements of certain conditions, such as Investigational New Drugs (“IND”) filing or U.S. Food and Drug Administration (“FDA”) approval, first commercial sale of the licensed products, or other achievements. The aggregate amount of the milestone payments that the Group are required to pay up to different achievements of conditions and milestones for all the license agreements signed as of June 30, 2019 are below:

	<b>Amount</b>
<b>Drug molecules: up to the conditions and milestones of</b>	
Preclinical to IND filing	\$ 372,564
From entering phase 1 to before first commercial sale	24,216,410
First commercial sale	15,656,410
Net sales amount more than certain threshold in a year	75,769,231
Subtotal	<u>116,014,615</u>
<b>Surgical robotics and medical devices: up to the conditions and milestones of</b>	
Before FDA approval	270,000
FDA approval obtained	200,000
Subtotal	<u>470,000</u>
<b>Total</b>	<b><u>\$ 116,484,615</u></b>

For the six months ended June 30, 2019 and 2018, the year ended December 31, 2018 and the period March 1, 2017 through December 31, 2017, the Group incurred \$nil, \$nil, \$30,000 and \$nil milestone payments, respectively. For the six months ended June 30, 2019 and 2018, the year ended December 31, 2018 and the period March 1, 2017 through December 31, 2017, the Group did not incur any royalties or research and development funding, respectively. As of June 30, 2019, no other milestone payments had been triggered under any of the existing license agreements.

#### CONDENSED SUMMARY OF OUR CASH FLOWS (SUCCESSOR BASIS)

	<b>Six months ended June 30, 2019 (Unaudited)</b>	<b>Six months ended June 30, 2018 (Unaudited)</b>	<b>Year Ended December 31, 2018</b>	<b>March 1, 2017 through December 31, 2017</b>
Net cash used in operating activities	\$ (7,335,009)	\$ (6,315,706)	\$ (10,035,531)	\$ (5,782,695)
Net cash provided by (used in) investing activities	(678,566)	(2,779,328)	(6,061,987)	12,802,718
Net cash (used in) provided by financing activities	(13,626,922)	15,296,425	25,478,949	9,082,001
Net (decrease) increase in cash and restricted cash	<u>(21,640,497)</u>	<u>6,201,391</u>	<u>9,381,431</u>	<u>16,102,024</u>

#### *Operating activities*

Net cash used in operating activities amounted to \$7.3 million for the six months ended June 30, 2019. During the period, the Group had net loss of \$9.6 million. Meanwhile, the Group had gain on extinguishment of convertible debts of \$1.2 million, gain on non-marketable investments of \$1.1 million, and interest expense and accretion of convertible debts of \$3.7 million.

Net cash used in operating activities amounted to \$6.3 million for the six months ended June 30, 2018. During the period, the Group had net loss of \$5.5 million. Meanwhile, the Group had an increase of long-term prepayments of \$1.6 million, an increase of accounts payable and accrued expenses of \$0.2 million, loss on investments in derivatives of \$0.4 million and amortization and depreciation expenses of \$0.2 million.

Net cash used in operating activities amounted to \$10.0 million for the year ended December 31, 2018. During the year, the Group had net loss of \$15.1 million. Meanwhile, the Group had interest expense and accretion of convertible debts of \$4.6 million.

Net cash used in operating activities amounted to \$5.8 million for the period March 1, 2017 to December 31, 2017. During the period, the Group had net loss of \$2.6 million. Meanwhile, the Group had gain on investments in marketable securities of \$3.9 million, loss on investments in derivatives of \$0.8 million and an increase of other receivables and prepayments of \$0.3 million.



### *Investing activities*

Net cash provided by investing activities amounted to \$0.7 million for the six months ended June 30, 2019. During the period, the Group had purchases of property, plant and equipment of \$0.7 million, proceeds from sale of marketable securities of \$0.8 million, net loan to a third party of \$0.6 million.

Net cash used in investing activities amounted to \$2.8 million for the six months ended June 30, 2018. During the period, the Group had purchases of property, plant and equipment of \$2.5 million and purchases of intangible assets of \$0.2 million.

Net cash used in investing activities amounted to \$6.1 million for the year ended December 31, 2018. During the year, the Group had purchases of property, plant and equipment of \$5.6 million and purchases of intangible assets of \$0.4 million.

Net cash provided by investing activities amounted to \$12.8 million for the period March 1, 2017 to December 31, 2017. During the period, the Group had proceeds from sales of investment securities of \$16.0 million, purchases of intangible assets of \$1.0 million and purchases of equipment of \$2.1 million.

### *Financing activities*

Net cash used in financing activities amounted to \$13.6 million for the six months ended June 30, 2019. During the period, the Group had repurchased of convertible debts of \$13.6 million.

Net cash provided by financing activities amounted to \$15.3 million for the six months ended June 30, 2018. During the period, the Group had proceeds from issuance of convertible debts of \$16.1 million and payments for debt issuance costs of \$0.9 million.

Net cash provided by financing activities amounted to \$25.5 million for the year ended December 31, 2018. During the year, the Group had proceeds from issuance of convertible debts of \$16.1 million, proceeds from issuance of shares of \$11.1 million, payments of debt issuance costs of \$1.1 million and payments of initial public offering costs of \$0.5 million.

Net cash provided by financing activities amounted to \$9.1 million for the period March 1, 2017 to December 31, 2017. During the period, the Group had proceeds from issuance of shares of \$8.6 million and proceeds from issuance of convertible debts of \$0.5 million.

## **CONDENSED SUMMARY OF OUR CASH FLOWS (PREDECESSOR BASIS)**

### *Operating activities*

Net cash used in operating activities amounted to \$0.3 million for the period January 1, 2017 to February 28, 2017. During the period, the Company had net decrease in net assets resulting from operations of \$0.6 million and unrealized depreciation on investments of \$0.4 million.

### *Investing activities*

No cash flow from investing activities for the period January 1, 2017 to February 28, 2017.

### *Financing activities*

Net cash flow from financing activities was nil for the period January 1, 2017 to February 28, 2017.

## **CAPITAL EXPENDITURES**

Our capital expenditures were \$0.7 million, \$2.8 million, \$6.0 million and 3.1 million for the six months ended June 30, 2019 and 2018, the year ended December 31, 2018 and the period March 1, 2017 to December 31, 2017, respectively. We did not incur capital expenditures for the period January 1, 2017 to February 28, 2017. These capital expenditures were incurred primarily for investments in facilities, leasehold improvements, equipment and technology.

## RECENT ACCOUNTING PRONOUNCEMENTS

### Recently adopted accounting pronouncements

In May 2014, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2014-09, Revenue from Contracts with Customers (Topic 606) (“ASU 2014-09”), which was subsequently modified in August 2015 by ASU 2015-14, Revenue from Contracts with Customers: Deferral of the Effective Date. We adopted this standard effective January 1, 2019 using the modified retrospective approach, in which case the cumulative effect of applying the standard would be recognized at the date of initial application. The adoption does not have a material impact to the condensed consolidated financial statements.

In January 2016, the FASB issued Accounting Standards Update No. 2016-01 (ASU 2016-01) “Financial Instruments-Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities,” which amends various aspects of the recognition, measurement, presentation, and disclosure of financial instruments. We adopted ASU 2016-01 as of January 1, 2019 using the modified retrospective method for our marketable equity securities and the prospective method for our non-marketable equity securities. The following table summarizes the changes to our condensed consolidated balance sheet for the adoption of ASU 2016-01:

	<u>December 31,</u> <u>2018</u>	<u>Adjustment due</u> <u>to ASU 2016-01</u>	<u>January 1,</u> <u>2019</u>
Accumulated deficit	\$ (17,379,185)	\$ (1,490,033)	\$ (18,869,218)
Accumulated other comprehensive loss	\$ (1,484,688)	\$ 1,490,033	\$ 5,345

We have elected to use the measurement alternative for our non-marketable equity securities, defined as cost adjusted for changes from observable transactions for identical or similar investments of the same issuer, less impairment. The adoption of ASU 2016-01 increases the volatility of our other income (expense), net, as a result of the unrealized gain or loss from the remeasurement of our equity securities.

### Recently issued accounting standards which have not yet been adopted

In February 2016, the FASB issued ASU 2016-02, Leases (“ASU 2016-02”), which requires a lessee to recognize a right-of-use asset and a lease liability for operating leases, initially measured at the present value of the future lease payments, in the balance sheet. ASU 2016-02 also requires a lessee to recognize a single lease cost, calculated so that the cost of the lease is allocated over the lease term, generally on a straight-line basis. This new guidance is effective for fiscal years beginning after December 15, 2019. Early adoption is permitted. The Company is currently evaluating the potential effects of adopting the provisions of ASU 2016-02 on its consolidated financial statements.

In August 2018, the FASB issued ASU No. 2018-13, Disclosure Framework – Changes to the Disclosure Requirements for Fair Value Measurement, which amends ASC 820, Fair Value Measurement. This ASU modifies the disclosure requirements for fair value measurements by removing, modifying, or adding certain disclosures. The effective date is the first quarter of fiscal year 2021, with early adoption permitted for the removed disclosures and delayed adoption until fiscal year 2021 permitted for the new disclosures. The removed and modified disclosures will be adopted on a retrospective basis and the new disclosures will be adopted on a prospective basis. The adoption will not have a material effect on the Company’s financial statements.

In June 2016, the FASB issued ASU 2016-13, Financial Instruments—Credit Losses (“ASU 2016-13”). Subsequently, the FASB issued ASU 2019-05, Financial Instruments- Credit Losses (Topic 326): Targeted Transition Relief. The amendments in ASU 2016-13 update guidance on reporting credit losses for financial assets. These amendments affect loans, debt securities, accounts receivables, net investments in leases, off balance sheet credit exposures, reinsurance receivables, and any other financial assets not excluded from the scope that have the contractual right to receive cash. The amendments are effective for fiscal years beginning after December 15, 2020, and interim periods within those fiscal years. The Company is currently evaluating the impact on its financial statements of adopting this guidance.

The Group does not believe other recently issued but not yet effective accounting standards, if currently adopted, would have a material effect on the consolidated financial position, statements of operations and cash flows.

## RESEARCH AND DEVELOPMENT

As of June 30, 2019, the Company has obtained 11 exclusively licensed technologies in neurology, infectious diseases, gastroenterology, oncology, surgical robotics and natural health and is in the process of developing two “in-house” projects in the neurology area. For the six months ended June 30, 2019 and 2018, the year ended December 31, 2018 and the period March 1, 2017 to December 31, 2017, the Group incurred \$2,714,217, \$1,342,179, \$3,101,432 and \$2,560,323, respectively, on research and development expenses. We did not incur research and development expenses for the period January 1, 2017 to February 28, 2017.

## OFF-BALANCE SHEET ARRANGEMENTS

As at June 30, 2019, the Company did not have any off-balance sheet debt, nor do we have any transactions, arrangements or relationships with any special purpose entities.

## SELLING SHAREHOLDERS

We are registering for resale our Class A Ordinary Shares issued or issuable upon conversion and/or exercise of the Series A Note, Bond, Series A Note PA Warrants and Bond PA Warrants identified below (the “Resale Shares”). The securities listed herein were issued in accordance with the exemption from the registration provisions of the Securities Act of 1933, as amended, provided by Section 4(a)(2) of such Act for issuances not involving any public offering and Rule 506 of Regulation D promulgated thereunder. We are registering the shares to permit the selling shareholders and their pledgees, donees, transferees and other successors-in-interest that receive their shares from a selling shareholder as a gift, partnership distribution or other non-sale related transfer after the date of this prospectus to resell the shares when and as they deem appropriate in the manner described in the “Plan of Distribution.” As of the date hereof, there are 6,597,362 Class A Ordinary Shares issued and outstanding.

The following table sets forth:

- the name of the selling shareholders;
- the number of our Class A Ordinary Shares that the selling shareholders beneficially owned prior to the Offering for resale of the shares under this prospectus;
- the maximum number of our Class A Ordinary Shares that may be offered for resale for the account of the selling shareholders under this prospectus; and
- the number and percentage of our Class A Ordinary Shares beneficially owned by the selling shareholders after the Offering of the shares (assuming all of the offered shares are sold by the selling shareholders), is based on 6,597,362 Class A Ordinary Shares outstanding as of the date hereof; as stated previously, these figures do not include the Class A Ordinary Shares underlying the Option Plan, and assumes the Class B Ordinary Shares are not converted.

We have not had a material relationship with any of the selling shareholders within the last three years and except as noted in the footnotes below, all of the selling shareholders named below received their securities in connection with the Series A Note Offering or the Bond Offering.

China Renaissance also acted as a placement agent for the Bond Offering. For such services, China Renaissance received a cash success fee of \$150,000.

None of the selling shareholders is a broker dealer or an affiliate of a broker dealer. None of the selling shareholders has any agreement or understanding to distribute any of the shares being registered.

Each Selling Shareholder may offer for sale all or part of the shares from time to time. The table below assumes that the selling shareholders will sell all of the shares offered for resale. A Selling Shareholder is under no obligation, however, to sell any shares pursuant to this prospectus.

The address for all selling shareholders is 17<sup>th</sup> Floor, Guangdong Investment Tower, 148 Connaught Road Central, Hong Kong.

<b>Name of Selling Shareholder</b>	<b>Class A Ordinary Shares Beneficially Owned Prior to Offering<sup>(1)</sup></b>	<b>Maximum Number of Class A Ordinary Shares to be Sold<sup>(2)</sup></b>	<b>Number of Class A Ordinary Shares Owned After Offering<sup>(3)</sup></b>	<b>Percentage Ownership After Offering<sup>(4)</sup></b>
Bik-Chun Pauline Chan <sup>(5)</sup>	2,877	2,877	0	*
Lam Chan	4,316	4,316	0	*
She Sam Chan <sup>(6)</sup>	28,534	2,877	25,657	*
Tat Ming Chan	1,438	1,438	0	*
Kin Wai Chan <sup>(7)</sup>	28,534	2,877	25,657	*
Wai Yan Philip Chiu <sup>(8)</sup>	2,877	2,877	0	*
Kai Lai Chow	60,431	60,431	0	*
Ellie Ngai <sup>(9)</sup>	5,755	5,755	0	*
Evangeline Lung	2,877	2,877	0	*
Tak Jim Fong	2,877	2,877	0	*
Ka Yen Hung	2,877	2,877	0	*
KHE Holdings Limited <sup>(10)</sup>	285,347	28,776	256,571	3.89%
Pik Shan Kong	2,877	2,877	0	*
Yuk Tong Lee	14,388	14,388	0	*
Leorich Management Limited <sup>(11)</sup>	14,388	14,388	0	*
Sai Yan Patrick Ma	2,877	2,877	0	*
Chung Tong Vincent Mok <sup>(12)</sup>	2,877	2,877	0	*
Kum Yuen Gilbert Ng	5,755	5,755	0	*
Chun Mo Ngan	2,877	2,877	0	*
Sharmie Wing San Wong	2,014	2,014	0	*
Chin Yau Siah	2,877	2,877	0	*
Wing Yee So	5,755	5,755	0	*
Martin Pak Wai	5,755	5,755	0	*
Ka Wai Wong <sup>(13)</sup>	6,906	6,906	0	*
Yuk Hwa Teresa Wong	2,877	2,877	0	*
Iron Grid Ltd. <sup>(14)</sup>	102,036	102,036	0	*
Man Wai Vivian Ng	1,438	1,438	0	*
Hung Cheung Tsui	2,877	2,877	0	*
Kinger Lau	1,870	1,870	0	*
Wei Shin Liu	1,438	1,438	0	*
Wai Keung Li	2,215	2,215	0	*
Kwok Wai Ng	2,877	2,877	0	*
Siu Man Simon Ng	2,877	2,877	0	*
Aptorum Investment Holding Limited <sup>(15)</sup>	1,232,539	1,232,539	0	*

\* Represents beneficial ownership of less than one percent of our outstanding shares (assuming all of the offered shares are sold by the selling shareholders).

(1) For the purpose of this selling shareholder table only, the Offering refers to the resale of the Class A Ordinary Shares by each selling shareholder listed above. Unless otherwise noted, the selling shareholders became one of our shareholders pursuant to the Series A Note Offering or the Bond Offering. Accordingly, prior to the closing of our initial public offering, the selling shareholders only owned the Series A Notes, Class A Ordinary Shares underlying the Series A Notes, the Bond and Class A Ordinary Shares underlying the Bond, as to Iron Grid, the Series A Note PA Warrants and Bond PA Warrants and the Class A Ordinary Shares underlying all such placement agent warrants, as applicable, as well as any other shares such shareholder owned other than pursuant to any such transaction. (See “Description of Share Capital”).

- (2) This number represents all of the Resale Shares that the selling shareholder shall receive pursuant to the Series A Note Offering or the Bond Offering, as applicable, all of which we agreed to register. As of the date hereof, an aggregate of 119,443 of these shares have already been deposited in the selling shareholder's custodian account and/or sold into the market.
- (3) Since we do not have the ability to control how many, if any, of their shares each of the selling shareholders will sell, we have assumed that the selling shareholders will sell all of the shares offered herein for purposes of determining how many shares they will own after the Offering and their percentage of ownership following the Offering.
- (4) All percentages have been rounded up to the nearest one hundredth of one percent.
- (5) The shareholder is the mother-in-law of Dr. Jason Chan, a scientific assessment committee member of the Company.
- (6) The shareholder is the father of Dr. Jason Chan, a scientific assessment committee member of the Company; the shareholdings include 25,657 shares the shareholder previously received from the Company in a private transaction.
- (7) The shareholdings include 25,657 shares the shareholders previously received from the Company in a private transaction.
- (8) The shareholder is a senior advisor of the Company.
- (9) The shareholder is the mother of Dr. Clark Cheng, the Chief Medical Officer and a Director of the Company.
- (10) The person having voting, dispositive or investment powers over KHE Holdings Limited is Yu Kuen Ying Denny and Choi Myung Sung Teresa, family members to Dr. Yu. Dr. Yu is a member of our Scientific Assessment Committee. The address for KHE Holdings Limited is Room 1310, 13/F., AXA Centre, 151 Gloucester Road, Wanchai, Hong Kong. Shareholdings include 256,571 Class A Ordinary Shares the shareholder previously received from the Company in a private transaction.
- (11) The person having voting, dispositive or investment powers over Leorich Management Limited is Yeung Yui Chi, Eugene. The address for Leorich Management Limited is Vistra Corporate Services Centre, Wickhams Cay II, Road Town, Tortola, VG1110, British Virgin Islands.
- (12) The shareholder is a senior advisor of the Company.
- (13) The shareholder is a principal investigator of certain SRAs of the Company.
- (14) William King, CEO of Iron Grid Ltd., a Wyoming corporation ("Iron Grid"), has voting, dispositive or investment powers over Iron Grid, Ltd, which was assigned certain Series A Note, the Series A Notes PA Warrants and the Bond PA Warrants prior to the commencement of the IPO. The assignments are non-recourse. The address for Iron Grid is P.O. Box 75201, San Clemente, CA 92673. Shareholdings include 21,582 Class A Ordinary Shares issued upon the automatic conversion of the Series A Note and the remainder of which represents the number of Class A Ordinary Shares that were originally issuable upon the exercise of the Series A Note PA Warrants and Bond PA Warrants, all of which were initially issued to Boustead and all of which have now been exercised via the cashless exercise provision of such warrants, which resulted in the issuance of an aggregate of 47,825 Class A Ordinary Shares to Iron Grid.  
  
Boustead served as our placement agent and was an investor in the Series A Note Offering and Bond Offering and was one of our underwriters in the IPO. Boustead was issued the warrants registered herein in exchange for services provided to us pursuant to an engagement agreement dated August 24, 2017, as amended on May 11, 2018. Pursuant to the engagement agreement with Boustead, as amended, Boustead received the following compensation for acting as a placement agent in the Series A Note Offering and the Bond Offering: (x) for the Series A Note Offering: (i) a cash success fee of \$68,516 and (ii) the Series A Note PA Warrants; and (y) for the Bond Offering: (i) a cash success fee of \$600,000 and (ii) the Bond PA Warrants. Boustead also purchased \$150,000 Series A Notes in the Series A Note Offering.
- (15) The person having voting, dispositive or investment powers over Aptorum Investment Holding Limited is Ian Huen, our CEO. The address for Aptorum Investment Holding Limited is Floor 4, Willow House, Cricket Square, Grand Cayman, Cayman Island. Shareholdings include the number of shares issuable pursuant to full conversion of the Bond based on the current conversion price of \$12.166. Accordingly, as of the date hereof, the outstanding Bond can be converted for up to 1,109,650 Class A Ordinary Shares. Aptorum Investment Holding Limited. repurchased the Bond from Peace Range Limited on April 24, 2019; the number listed herein represents full conversion of the Bond based upon the initial terms of the Bond. (See "Recent Events – Bond Repurchase").

## PLAN OF DISTRIBUTION

The selling shareholders and any of their pledgees, donees, transferees, assignees and successors-in-interest may, from time to time, sell any or all of their Resale Shares at prevailing market prices or privately negotiated prices.

The selling shareholders may use any one or more of the following methods when selling Resale Shares:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits investors;
- block trades in which the broker-dealer will attempt to sell the Class A Ordinary Shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- to cover short sales made after the date that this registration statement is declared effective by the SEC;
- broker-dealers may agree with the selling shareholders to sell a specified number of such Resale Shares at a stipulated price per share;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- a combination of any such methods of sale; and
- any other method permitted pursuant to applicable law.

The selling shareholders may also sell Resale Shares under Rule 144 under the Securities Act, if all of the conditions in Rule 144(i)(2) are satisfied at the time of the proposed sale, rather than under this prospectus.

In connection with the sale of the Resale Shares or interests therein, the selling shareholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the Resale Shares in the course of hedging the positions they assume. The selling shareholders may also sell the Resale Shares short and deliver these securities to close out their short positions, or loan or pledge the Resale Shares to broker-dealers that in turn may sell these securities. The selling shareholders may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of Resale Shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

Broker-dealers engaged by the selling shareholders may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the selling shareholders (or, if any broker-dealer acts as agent for the purchaser of shares, from the purchaser) in amounts to be negotiated. The selling shareholders do not expect these commissions and discounts to exceed what is customary in the types of transactions involved.

The selling shareholders may from time to time pledge or grant a security interest in some or all of the Resale Shares owned by them and, if they default in the performance of their secured obligations, the amendment or supplement to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act of 1933 will be filed amending the list of selling shareholders to include the pledgee, transferee or other successors in interest as selling shareholders under this prospectus and the pledgees or secured parties may offer and sell Resale Shares from time to time under the supplement or amendment to this prospectus.

The selling shareholders also may transfer the Resale Shares in other circumstances, in which case the transferees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

The selling shareholders and any broker-dealers or agents that are involved in selling the Resale Shares may be deemed to be “underwriters” within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the Resale Shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. Discounts, concessions, commissions and similar selling expenses, if any, that can be attributed to the sale of Resale Shares will be paid by the selling shareholder and/or the purchasers. Each selling shareholder has represented and warranted to the Company that it acquired the securities subject to this registration statement in the ordinary course of such selling shareholder’s business and, at the time of its purchase of such securities such selling shareholder had no agreements or understandings, directly or indirectly, with any person to distribute any such securities.

Boustead is a registered broker dealer and Financial Industry Regulatory Authority (“FINRA”) member firm. Boustead served as placement agent for our Series A Note Offering, which was completed on May 15, 2018 and as one of the placement agents for our Bond Offering, which was completed on April 6, 2018.

Pursuant to the engagement agreement with Boustead, as amended, we paid Boustead a cash fee of \$68,516 and issued them the Series A Note PA Warrants for their placement agent services for the Series A Note Offering. In addition, we paid Boustead a cash fee of \$600,000 and the Bond PA Warrants for their placement agent services for the Bond Offering. The Resale Shares issuable upon exercise of Boustead’s placement agent warrants are transferable within Boustead or to its assigns or designees, at the discretion of Boustead, and in accordance with the Securities Act of 1933, as amended. Prior to the commencement of the IPO, Boustead assigned its Series A Note PA Warrants and Bond PA Warrants to a non-affiliate; the assignment is non-recourse. Boustead also participated in the Series A Note Offering as an investor with a purchase of Series A Notes in the amount of \$150,000.

Boustead was one of the underwriters in the IPO. Boustead does not have an underwriting agreement with the selling shareholders and no selling shareholder is required to execute transactions through Boustead. Further, other than any existing brokerage relationship as customers with Boustead, no selling shareholder has any pre-arranged agreement, written or otherwise, with Boustead to sell their securities through Boustead.

FINRA Rule 5110 requires FINRA member firms (unless an exemption applies) to satisfy the filing requirements of Rule 5110 in connection with the resale, on behalf of selling shareholders, of the securities on a principal or agency basis. NASD Notice to Members 88-101 states that in the event a selling shareholder intends to sell any of the shares registered for resale in this prospectus through a member of FINRA participating in a distribution of our securities, such member is responsible for insuring that a timely filing, if required, is first made with the Corporate Finance Department of FINRA and disclosing to FINRA the following:

- it intends to take possession of the registered securities or to facilitate the transfer of such certificates;
- the complete details of how the selling shareholders’ shares are and will be held, including location of the particular accounts;
- whether the member firm or any direct or indirect affiliates thereof have entered into, will facilitate or otherwise participate in any type of payment transaction with the selling shareholders, including details regarding any such transactions; and
- in the event any of the securities offered by the selling shareholders are sold, transferred, assigned or hypothecated by any selling shareholder in a transaction that directly or indirectly involves a member firm of FINRA or any affiliates thereof, that prior to or at the time of said transaction the member firm will timely file all relevant documents with respect to such transaction(s) with the Corporate Finance Department of FINRA for review.

We have advised each selling shareholder that it may not use shares registered on this registration statement to cover short sales of Resale Shares made prior to the date on which this registration statement shall have been declared effective by the SEC. If a selling shareholder uses this prospectus for any sale of the Resale Shares, it will be subject to the prospectus delivery requirements of the Securities Act. The selling shareholders will be responsible to comply with the applicable provisions of the Securities Act and Exchange Act, and the rules and regulations thereunder promulgated, including, without limitation, Regulation M, as applicable to such selling shareholders in connection with resales of their respective Resale Shares under this registration statement.

We are required to pay all fees and expenses incident to the registration of the Resale Shares, but the Company will not receive any proceeds from the sale of the Resale Shares. The Company has agreed to indemnify the selling shareholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

## DESCRIPTION OF SHARE CAPITAL

We are a Cayman Islands exempted company with limited liability and our affairs are governed by our Memorandum and Articles, the Companies Law, the common law of the Cayman Islands, our corporate governance documents and rules and regulations of the stock exchange on which are shares are traded.

As of the date hereof, the authorized share capital of the Company is \$100,000,000, consisting of 60,000,000 Class A Ordinary Shares, par value \$1.00 each and 40,000,000 Class B Ordinary Shares, par value \$1.00 each. As of the date hereof, 6,597,362 Class A Ordinary Shares and 22,437,754 Class B Ordinary Shares are issued and outstanding. All of our issued and outstanding Class A Ordinary Shares and Class B Ordinary Shares are fully paid.

### **Shares**

The following are summaries of material provisions of our Memorandum and Articles, corporate governance policies and the Companies Law insofar as they relate to the material terms of our Class A Ordinary Shares and Class B Ordinary Shares.

### **Objects of Our Company**

Under our Memorandum and Articles, the objects of our Company are unrestricted and we have the full power and authority to carry out any object not prohibited by the law of the Cayman Islands.

### **Share Capital**

Our authorized share capital is divided into Class A Ordinary Shares and Class B Ordinary Shares. Holders of our Class A Ordinary Shares and Class B Ordinary Shares will have the same rights except for voting rights and conversion rights.

The holders of Class A Ordinary Shares are entitled to one vote for each such share held and shall be entitled to notice of any shareholders' meeting, and, subject to the terms of Memorandum and Articles, to vote thereat. The Class A Ordinary Shares are not redeemable at the option of the holder and are not convertible into shares of any other class.

The holders of Class B Ordinary Shares shall have the right to ten votes for each such share held, and shall be entitled to notice of any shareholders' meeting and, subject to the terms of the Memorandum and Articles, to vote thereat. The Class B Ordinary Shares are not redeemable at the option of the holder but are convertible into Class A Ordinary Shares at any time after issue at the option of the holder on a one to one basis.

### **Dividends**

The holders of our Class A Ordinary Shares and Class B Ordinary Shares are entitled to such dividends as may be declared by our Board of Directors subject to the Companies Law and to our Memorandum and Articles.

### **Voting Rights**

In respect of all matters subject to a shareholders' vote, each Class B Ordinary Share is entitled to ten votes, and each Class A Ordinary Share is entitled to one vote, voting together as one class. Voting at any shareholders' meeting is by show of hands unless a poll is demanded by the chairman or persons holding certain amounts of shares as set forth in the Memorandum and Articles. Actions that may be taken at a general meeting also may be taken by a unanimous resolution of the shareholders in writing.



No business shall be transacted at any general meeting unless a quorum of members is present at the time when the meeting proceeds to business; two members present in person or by proxy, one of whom shall be the holder of the majority of the shares in the Company, shall be a quorum provided always that if the Company has one member of record the quorum shall be that one member present in person or by proxy. An ordinary resolution to be passed at a general meeting requires the affirmative vote of a simple majority of the votes cast, while a special resolution requires the affirmative vote of at least two-thirds of votes cast at a general meeting. A special resolution will be required for important matters.

A special resolution of members is required to change the name of the Company, approve a merger, wind up the Company, amend the Memorandum and Articles and reduce the share capital.

### ***Conversion***

Class A Ordinary Shares are not convertible. Each Class B Ordinary Share shall be convertible, at the option of the holder thereof, into such number of fully paid and non-assessable Class A Ordinary Shares on the basis that one Class B Ordinary Share shall be converted into one Class A Ordinary Share (being a 1:1 ratio and hereafter referred to as the “**Conversion Rate**”), subject to adjustment.

### ***Transfer of Shares***

Subject to the restrictions set out below, any of our shareholders may transfer all or any of his, its or her Class A Ordinary Shares or Class B Ordinary Shares by an instrument of transfer in the usual or common form or any other form approved by our Board of Directors or in a form prescribed by the stock exchange on which our shares are then listed.

Our Board of Directors may, in its sole discretion, decline to register any transfer of any Class A Ordinary Shares or Class B Ordinary Shares whether or not it is fully paid up to the total consideration paid for such shares. Our directors may also decline to register any transfer of any Class A Ordinary Shares or Class B Ordinary Shares if (a) the instrument of transfer is not accompanied by the certificate covering the shares to which it relates or any other evidence as our Board of Directors may reasonably require to prove the title of the transferor to, or his/her right to transfer the shares; or (b) the instrument of transfer is in respect of more than one class of shares.

If our directors refuse to register a transfer, they shall, within two months after the date on which the instrument of transfer was lodged, send to the transferee notice of such refusal.

The registration of transfers may be suspended and the register closed at such times and for such periods as our Board of Directors may from time to time determine, provided, however, that the registration of transfers shall not be suspended nor the register closed for more than 30 days in any year.

### ***Winding-Up/Liquidation***

On a return of capital on winding up or otherwise (other than on conversion, redemption or purchase of shares), a liquidator may be appointed to determine how to distribute the assets among the holders of the Class A Ordinary Shares and Class B Ordinary Shares. If our assets available for distribution are insufficient to repay all of the paid-up capital, the assets will be distributed so that the losses are borne by our shareholders proportionately; a similar basis will be employed if the assets are more than sufficient to repay the whole of the capital at the commencement of the winding up.

### ***Calls on Shares and Forfeiture of Shares***

Our Board of Directors may from time to time make calls upon shareholders for any amounts unpaid on their Class A Ordinary Shares or Class B Ordinary Shares in a notice served to such shareholders at least 14 days prior to the specified time and place of payment. The shares that have been called upon and remain unpaid on the specified time are subject to forfeiture.

### ***Redemption of Shares***

We may issue shares on terms that are subject to redemption, at our option or at the option of the holders, on such terms and in such manner as may be determined by our Board of Directors.

### ***Variations of Rights of Shares***

All or any of the special rights attached to any class of shares may, be varied with the resolution of at least two thirds of the issued shares of that class or a resolution passed at a general meeting of the holders of the shares of that class present in person or by proxy or with the consent in writing of the holders of at least two-thirds of the issued shares of that class.

### ***Inspection of Books and Records***

Directors shall from time to time determine whether and to what extent and at what times and places and under what conditions or regulations the accounts and books of the Company or any of them shall be open to the inspection of members not being Directors and no member (not being a Director) shall have any right of inspecting any account or book or document of the Company except as conferred by Companies Law or authorized by the Directors or by the Company in a general meeting. However, the Directors shall from time to time cause to be prepared and to be laid before the Company in a general meeting, profit and loss accounts, balance sheets, group accounts (if any) and such other reports and accounts as may be required by Companies Law. (See "Where You Can Find More Information")

### ***Issuance of Additional Shares***

Our Memorandum and Articles authorize our Board of Directors to issue additional Class A Ordinary Shares or Class B Ordinary Shares from time to time as our Board of Directors shall determine, to the extent there are available authorized but unissued shares.

Our Memorandum and Articles also authorizes our Board of Directors to establish from time to time one or more series of preferred shares and to determine, subject to compliance with the variation of rights of shares provision in the Memorandum and Articles, with respect to any series of preferred shares, the terms and rights of that series, including:

- the designation of the series;
- the number of shares of the series;
- the dividend rights, dividend rates, conversion rights, voting rights; and
- the rights and terms of redemption and liquidation preferences.

Our Board of Directors may, issue preferred shares without action by our shareholders to the extent there are authorized but unissued shares available. Issuance of additional shares may dilute the voting power of holders of Class A Ordinary Shares and Class B Ordinary Shares. However, our Memorandum of Association provides for authorized share capital comprising Class A Ordinary Shares and Class B Ordinary Shares and to the extent the rights attached to any class may be varied, the Company must comply with the provisions in the Memorandum and Articles relating to variations to rights of shares.

### ***Anti-Takeover Provisions***

Some provisions of our Memorandum and Articles may discourage, delay or prevent a change of control of our Company or management that shareholders may consider favorable, including provisions that:

- authorize our Board of Directors to issue preferred shares in one or more series and to designate the price, rights, preferences, privileges and restrictions of such preferred shares without any further vote or action by our shareholders (subject to variation of rights of shares provisions in our Memorandum and Articles); and
- limit the ability of shareholders to requisition and convene general meetings of shareholders. Our Memorandum and Articles allow our shareholders holding shares representing in aggregate not less than ten percent of our paid up share capital (as to the total consideration paid for such shares) in issue to requisition an extraordinary general meeting of our shareholders, in which case our directors are obliged to call such meeting and to put the resolutions so requisitioned to a vote at such meeting.

However, under Cayman Islands law, our directors may only exercise the rights and powers granted to them under our Memorandum and Articles for a proper purpose and for what they believe in good faith to be in the best interests of our Company.

### ***General Meetings of Shareholders and Shareholder Proposals***

Our shareholders' general meetings may be held in such place within or outside the Cayman Islands as our Board of Directors considers appropriate.

As a Cayman Islands exempted company, we are not obliged by the Companies Law to call shareholders' annual general meetings. However, our Memorandum and Articles provide that we shall hold a general meeting in each year as our annual general meeting other than the year in which the Memorandum and Articles were adopted at such time and place as determined by the directors. The directors may, whenever they think fit, convene an extraordinary general meeting.

Shareholders' annual general meetings and any other general meetings of our shareholders may be convened by a majority of our Board of Directors. Our Board of Directors shall give not less than seven days' written notice of a shareholders' meeting to those persons whose names appear as members in our register of members on the date the notice is given (or on any other date determined by our directors to be the record date for such meeting) and who are entitled to vote at the meeting.

Cayman Islands law provides shareholders with only limited rights to requisition a general meeting, and does not provide shareholders with any right to put any proposal before a general meeting. However, these rights may be provided in a company's articles of association. Our Memorandum and Articles allow our shareholders holding shares representing in aggregate not less than ten percent of our paid up share capital (as to the total consideration paid for such shares) in issue to requisition an extraordinary general meeting of our shareholders, in which case our directors are obliged to call such meeting and to put the resolutions so requisitioned to a vote at such meeting; otherwise, our Memorandum and Articles do not provide our shareholders with any right to put any proposals before annual general meetings or extraordinary general meetings not called by such shareholders.

### ***Exempted Company***

We are an exempted company with limited liability under the Companies Law. The Companies Law distinguishes between ordinary resident companies and exempted companies. A Cayman Islands exempted company:

- is a company that conducts its business mainly outside of the Cayman Islands;
- is exempted from certain requirements of the Companies Law, including the filing an annual return of its shareholders with the Registrar of Companies or the Immigration Board;
- does not have to make its register of members open for inspection;
- does not have to hold an annual general meeting;

- may issue negotiable or bearer shares or shares with no par value (subject to the provisions of the Companies Law);
- may obtain an undertaking against the imposition of any future taxation (such undertakings are usually given for 20 years in the first instance); and
- may register by way of continuation in another jurisdiction and be deregistered in the Cayman Islands.

“Limited liability” means that the liability of each shareholder is limited to the amount unpaid by the shareholder on the shares of the company (except in exceptional circumstances, such as involving fraud, the establishment of an agency relationship or an illegal or improper purpose or other circumstances in which a court may be prepared to pierce or lift the corporate veil).

#### **Register of Members**

Under Cayman Islands law, we must keep a register of members and there should be entered therein:

- the names and addresses of the members, a statement of the shares held by each member, and of the amount paid or agreed to be considered as paid, on the shares of each member;
- the date on which the name of any person was entered on the register as a member; and
- the date on which any person ceased to be a member.

Under Cayman Islands law, the register of members of our Company is prima facie evidence of the matters set out therein (i.e. the register of members will raise a presumption of fact on the matters referred to above unless rebutted) and a member registered in the register of members is deemed as a matter of Cayman Islands law to have legal title to the shares as set against its name in the register of members. Once our register of members has been updated, the shareholders recorded in the register of members are deemed to have legal title to the shares set against their name.

If the name of any person is incorrectly entered in, or omitted from, our register of members, or if there is any default or unnecessary delay in entering on the register the fact of any person having ceased to be a member of our Company, the person or member aggrieved (or any member of our Company or our Company itself) may apply to the Cayman Islands Grand Court for an order that the register be rectified, and the Court may either refuse such application or it may, if satisfied of the justice of the case, make an order for the rectification of the register.

#### **Indemnification of Directors and Executive Officers and Limitation of Liability**

Cayman Islands law does not limit the extent to which a company’s memorandum and articles of association may provide for indemnification of officers and directors, except to the extent any such provision may be held by the Cayman Islands courts to be contrary to public policy, such as to provide indemnification against civil fraud or the consequences of committing a crime. Our Memorandum and Articles require us to indemnify our officers and directors for actions, proceedings, claims, losses, damages, costs, liabilities and expenses (“Indemnified Losses”) incurred in their capacities as such unless such Indemnified Losses arise from dishonesty of such directors or officers. This standard of conduct is generally the same as permitted under the Delaware General Corporation Law for a Delaware corporation.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers or persons controlling us under the foregoing provisions, we have been informed that in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

#### **Convertible Bond**

As of the date hereof, we have a \$13,500,000 Bond outstanding. Pursuant to the conversion terms of the Bond, we issued an aggregate of 119,217 shares of Class A Ordinary Shares to the original Bond holder after the IPO closed. The following are summaries of material terms of the Subscription Agreement for the Bond and the Bond itself; such summaries do not purport to be a complete description of the terms, the Subscription Agreement or any transactions contemplated by the Subscription Agreement and you are urged to read the agreements in their entirety.

### *Conversion*

Upon the closing of the IPO, 10% of the then-outstanding Principal Amount automatically converted into 119,217 Class A Ordinary Shares. The holders of the Bond also maintain the right to convert the balance of the Bond until the earlier of: (i) the date falling 12 calendar months after the Maturity Date or the Extended Maturity Date (as such terms are defined in the Bond), as the case may be (both days inclusive); and (ii) the date falling 12 calendar months after the closing of the IPO.

On April 25, 2019, one of our subsidiaries repurchased \$13,500,000 Bond outstanding. The holders of the Bond have the right to convert the balance of the Bond at any time up to seven days prior to the Maturity Date or the Extended Maturity Date (as such terms are defined in the Bond), as the case may be (both days inclusive) at a fixed conversion price of \$12.166.

### *Interest*

The Bond accrue interest at the rate of 8% per annum, payable semi-annually in arrears in equal instalments of \$10,000 per Calculation Amount (as defined below) on the date falling on the 6th calendar month following the Issue Date and the date falling on the 12th calendar month following the Issue Date, and if the Maturity Date is extended to the Extended Maturity Date, on the date falling on the 18th calendar month following the Issue Date.

Interest in respect of any Bond shall be calculated per \$250,000 in principal amount of the Bond (the "Calculation Amount"). The amount of interest payable per Calculation Amount for any period shall, save as provided above in relation to equal instalments, be equal to the product of 8% per annum, the Calculation Amount and the day-count fraction (as determined in accordance with the formula set forth in Schedule 1 to the Subscription Agreement) for the relevant period, rounding the resulting figure to the nearest cent (\$0.005 being rounded upward).

The interest rate shall increase upon the occurrence of an event of default, as set forth in Schedule 1 to the Subscription Agreement (the "Default Interest Rate").

### *Event of Default*

Upon the occurrence of an event of default, the holder of the Bond may give us and Jurchen notice that the Bond are, and they shall immediately become, due and repayable at their principal amount together with interest, at the Default Interest Rate.

Events of default include non-payment of any sums due under the Bond, failure to deliver any shares due under the Bond, breach of our covenants, representations and warranties, breach of our obligations under other liabilities or indebtedness, enforcement proceedings, our insolvency, if the holders of the Bond cease to have adequate control over the Debt Service Reserve Account and if the guarantee or security rights are not enforceable. The Subscription Agreements allows for some cure periods and/or notice prior to declaring the Bond due.

### *Negative Covenants*

The Subscription Agreement contains certain negative covenants, including our inability to incur certain liabilities before and after the closing of this Offering without the Bond holders' prior written consent, limits on our ability to issue equity securities and limits on certain corporate actions.

### *Voting Rights*

Pursuant to the Subscription Agreement, Jurchen agreed to exercise its voting rights in our Company to have one board observer or one Non-Executive Director nominated by Peace Range to be appointed to our Board of Directors in the future.

### ***Bond PA Warrants***

As of the date hereof, all of the Bond PA Warrants have been exercised via the cashless exercise provision included in such warrants, pursuant to which we issued an aggregate of 38,309 Class A Ordinary Shares.

### ***Series A Note PA Warrants***

As of the date hereof, all of the Series A Note PA Warrants have been exercised via the cashless exercise provision included in such warrants, pursuant to which we issued an aggregate of 9,516 Class A Ordinary Shares.

### ***Underwriter's Warrants***

Based on the final amount of the initial public offering, we issued Boustead warrants to purchase 38,071 Class A Ordinary Shares at an exercise price of \$18.96 per share (the "Underwriter Warrants"). As of the date hereof, all of the Underwriter Warrants have been exercised via the cashless exercise provision of such warrants, pursuant to which we issued Boustead an aggregate of 12,268 Class A Ordinary Shares.

The warrants were deemed compensation by FINRA and were therefore subject to a 180-day lock-up pursuant to Rule 5110(g)(1) of FINRA, which has now expired. In addition, the warrants provide for registration rights upon request, in certain cases. The piggyback registration right provided will not be greater than seven years from the effective date of the IPO in compliance with FINRA Rule 5110(f)(2)(G)(v). We will bear all fees and expenses attendant to registering the securities issuable on exercise of the warrants other than underwriting commissions incurred and payable by the holders.

### ***Differences in Corporate Law***

The Companies Law is modeled after that of English law but does not follow many recent English law statutory enactments. In addition, the Companies Law differs from laws applicable to United States corporations and their shareholders. Set forth below is a summary of some of the significant differences between the provisions of the Companies Law applicable to us and the laws applicable to companies incorporated in the State of Delaware.

***Mergers and Similar Arrangements.*** The Companies Law permits mergers and consolidations between Cayman Islands companies and between Cayman Islands companies and non-Cayman Islands companies. For these purposes, a "merger" means the merging of two or more constituent companies and the vesting of their undertaking, property and liabilities in one of such companies as the surviving company, and a "consolidation" means the combination of two or more constituent companies into a consolidated company and the vesting of the undertaking, property and liabilities of such companies to the consolidated company.

In order to effect a merger or consolidation, the directors of each constituent company must approve a written plan of merger or consolidation, which must then be authorized by a special resolution of the shareholders of each constituent company, and such other authorization, if any, as may be specified in such constituent company's articles of association.

The plan of merger or consolidation must be filed with the Registrar of Companies of the Cayman Islands together with a declaration as to: the solvency of the consolidated or surviving company, the merger or consolidation being bona fide and not intended to defraud creditors, no petition or other proceeding, order or resolution to wind up the Company, no receiver, administrator or similar having been appointed over assets or property and no scheme or other arrangement having been entered into with creditors; a list of the assets and liabilities of each constituent company and an undertaking that a copy of the certificate of merger or consolidation will be given to the members and creditors of each constituent company; and that notification of the merger and consolidation will be published in the Cayman Islands Gazette. The non-surviving constituent company must have resigned from any fiduciary office held or will do so and each constituent company having complied with any applicable regulatory laws. Dissenting shareholders have the right to be paid the fair value of their shares if they follow the required procedures under the Companies Law subject to certain exceptions. The fair value of the shares will be determined by the Cayman Islands court if it cannot be agreed among the parties. Court approval is not required for a merger or consolidation effected in compliance with these statutory procedures.

In addition, there are statutory provisions that facilitate the reconstruction and amalgamation of companies, provided that the arrangement is approved by a majority in number of each class of shareholders and creditors with whom the arrangement is to be made, and who must in addition represent three-fourths in value of each such class of shareholders or creditors, as the case may be, that are present and voting either in person or by proxy at a meeting, or meetings, convened for that purpose. The convening of the meetings and subsequently the arrangement must be sanctioned by the Grand Court of the Cayman Islands.

While a dissenting shareholder has the right to express to the court the view that the transaction ought not to be approved, the court can be expected to approve the arrangement if it determines that:

- the statutory provisions as to the required majority vote have been met;
- the shareholders have been fairly represented at the meeting in question;
- the arrangement is such that an intelligent and honest man of that class acting in respect of his interest would reasonably approve; and
- the arrangement is not one that would more properly be sanctioned under some other provision of the Companies Law or that would amount to a “fraud on the minority.”

When a take-over offer is made and accepted by holders of not less than 90% of the shares within four months, the offer, or may, within a two-month period commencing on the expiration of such four months period, require the holders of the remaining shares to transfer such shares on the terms of the offer. An objection can be made to the Grand Court of the Cayman Islands but this is unlikely to succeed unless there is evidence of fraud, bad faith or collusion.

If the arrangement and reconstruction is thus approved, the dissenting shareholder would have no rights comparable to appraisal rights, which would otherwise ordinarily be available to dissenting shareholders of United States corporations, providing rights to receive payment in cash for the judicially determined value of the shares.

**Shareholders’ Suits.** In principle, we will normally be the proper plaintiff to sue for a wrong done to us as a company and as a general rule a derivative action may not be brought by a minority shareholder. However, based on English authorities, which would in all likelihood be of persuasive authority in the Cayman Islands, there are exceptions to the foregoing principle, including when:

- a company acts or proposes to act illegally or ultra vires and is therefore incapable of ratification by the shareholders;
- the act complained of, although not ultra vires, could only be duly effected if authorized by more than a simple majority vote that has not been obtained; and
- those who control the company are perpetrating a “fraud on the minority.”

**Indemnification of Directors and Executive Officers and Limitation of Liability.** The Companies Law does not limit the extent to which a company’s memorandum and articles of association may provide for indemnification of officers and directors, except to the extent any such provision may be held by the Cayman Islands courts to be contrary to public policy, such as to provide indemnification against civil fraud or the consequences of committing a crime. As stated above, our Memorandum and Articles permit indemnification of officers and directors for actions, proceedings, claims, losses, damages, costs, liabilities and expenses (“Indemnified Losses”) incurred in their capacities as such unless such losses or damages arise from dishonesty of such directors or officers. This standard of conduct is generally the same as permitted under the Delaware General Corporation Law for a Delaware corporation. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers or persons controlling us under the foregoing provisions, we have been informed that in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

**Directors' Fiduciary Duties.** Under Delaware corporate law, a director of a Delaware corporation has a fiduciary duty to the corporation and its shareholders. This duty has two components: the duty of care and the duty of loyalty. The duty of care requires that a director act in good faith, with the care that an ordinarily prudent person would exercise under similar circumstances. Under this duty, a director must inform himself of, and disclose to shareholders, all material information reasonably available regarding a significant transaction. The duty of loyalty requires that a director acts in a manner he reasonably believes to be in the best interests of the corporation. He must not use his corporate position for personal gain or advantage. This duty prohibits self-dealing by a director and mandates that the best interest of the corporation and its shareholders take precedence over any interest possessed by a director, officer or controlling shareholder and not shared by the shareholders generally. In general, actions of a director are presumed to have been made on an informed basis, in good faith and in the honest belief that the action taken was in the best interests of the corporation. However, this presumption may be rebutted by evidence of a breach of one of the fiduciary duties. Should such evidence be presented concerning a transaction by a director, the director must prove the procedural fairness of the transaction, and that the transaction was of fair value to the corporation. As a matter of Cayman Islands law, a director of a Cayman Islands company is in the position of a fiduciary with respect to the company and therefore it is considered that he or she owes the following duties to the company: a duty to act bona fide in the best interests of the company, a duty not to make a profit based on his or her position as director (unless the company permits him or her to do so) and a duty not to put himself or herself in a position where the interests of the company conflict with his or her personal interest or his or her duty to a third-party. Our Memorandum and Articles do not disqualify a director from acting or from contacting with the Company as a vendor, purchaser or otherwise provided that it does not adversely affect his or her performance of duties or responsibilities and the nature of the interest is disclosed at the meeting at which the contract or arrangement is considered (if not previously disclosed), and having disclosed such interest the director is not counted in the quorum and must refrain from voting on the contract or arrangement. A director of a Cayman Islands company also owes to the company a duty to exercise the powers for the purpose for which they were given and the duty to act with skill and care. It was previously considered that a director need not exhibit in the performance of his or her duties a greater degree of skill than may reasonably be expected from a person of his or her knowledge and experience. However, courts are moving towards an objective standard with regard to the required skill and care and these authorities are likely to be followed in the Cayman Islands.

**Shareholder Action by Written Consent.** Under the Delaware General Corporation Law, a corporation may eliminate the right of shareholders to act by written consent by amendment to its certificate of incorporation. Cayman Islands law and our Memorandum and Articles provide that shareholders may approve corporate matters by way of a unanimous written resolution signed by or on behalf of each shareholder who would have been entitled to vote on such matter at a general meeting without a meeting being held.

**Shareholder Proposals.** Under the Delaware General Corporation Law, a shareholder has the right to put any proposal before the annual meeting of shareholders, provided it complies with the notice provisions in the governing documents. A special meeting may be called by the board of directors or any other person authorized to do so in the governing documents, but shareholders may be precluded from calling special meetings. The Companies Law provides shareholders with only limited rights to requisition a general meeting and does not provide shareholders with any right to put any proposal before a general meeting. However, these rights may be provided in articles of association. Our Memorandum and Articles allow our shareholders holding not less than 1/10 of all voting power of our (paid up) share capital in issue to requisition a shareholder's meeting. Other than this right to requisition a shareholders' meeting, our Memorandum and Articles do not provide our shareholders other rights to put proposal before a meeting. As an exempted Cayman Islands company, we are not obliged by law to call shareholders' annual general meetings although our Memorandum and Articles provide for same.

**Cumulative Voting.** Under the Delaware General Corporation Law, cumulative voting for elections of directors is not permitted unless the corporation's certificate of incorporation specifically provides for it. Cumulative voting potentially facilitates the representation of minority shareholders on a board of directors since it permits the minority shareholder to cast all the votes to which the shareholder is entitled on a single director, which increases the shareholder's voting power with respect to electing such director. There are no prohibitions in relation to cumulative voting under the Companies Law but our Memorandum and Articles do not provide for cumulative voting.

**Removal of Directors.** Under the Delaware General Corporation Law, a director of a corporation with a may be removed with the approval of a majority of the outstanding shares entitled to vote, unless the certificate of incorporation provides otherwise. Under our Memorandum and Articles, directors may be removed with or without cause, by the directors or by an ordinary resolution of our shareholders.



**Transactions with Interested Shareholders.** The Delaware General Corporation Law contains a business combination statute applicable to Delaware corporations whereby, unless the corporation has specifically elected not to be governed by such statute by amendment to its certificate of incorporation, it is prohibited from engaging in certain business combinations with an “interested shareholder” for three years following the date that such person becomes an interested shareholder. An interested shareholder generally is a person or a group who or which owns or owned 15% or more of the target’s outstanding voting share within the past three years. This has the effect of limiting the ability of a potential acquirer to make a two-tiered bid for the target in which all shareholders would not be treated equally. The statute does not apply if, among other things, prior to the date on which such shareholder becomes an interested shareholder, the board of directors approves either the business combination or the transaction which resulted in the person becoming an interested shareholder. This encourages any potential acquirer of a Delaware corporation to negotiate the terms of any acquisition transaction with the target’s board of directors. The Cayman Islands has no comparable statute. As a result, we cannot avail ourselves of the types of protections afforded by the Delaware business combination statute. However, although Cayman Islands law does not regulate transactions between a company and its significant shareholders, it does provide that such transactions must be entered into bona fide in the best interests of the company and for a proper corporate purpose and not with the effect of constituting a fraud on the minority shareholders. Our Memorandum and Articles, as well as our Code of Business Conduct and Ethics that applies to our officers, directors and employees outlines how to handle these types of transactions and other potential conflicts of interest.

**Dissolution; Winding up.** Under the Delaware General Corporation Law, unless the board of directors approves the proposal to dissolve, dissolution must be approved by shareholders holding 100% of the total voting power of the corporation. Only if the dissolution is initiated by the board of directors may it be approved by a simple majority of the corporation’s outstanding shares. Delaware law allows a Delaware corporation to include in its certificate of incorporation a supermajority voting requirement in connection with dissolutions initiated by the board. Under the Companies Law, a company may be wound up by either an order of the courts of the Cayman Islands or by a special resolution of its members or, if the company is unable to pay its debts as they fall due, by an ordinary resolution of its members. The court has authority to order winding up in a number of specified circumstances including where it is, in the opinion of the court, just and equitable to do so. Under the Companies Law a company may be dissolved, liquidated or wound up by a special resolution of our shareholders; however, under our Memorandum and Articles, only our Directors have power to present a winding up petition in the name of the Company and/or to apply for the appointment of provisional liquidators in respect of the Company.

**Variation of Rights of Shares.** Under the Delaware General Corporation Law, a corporation may vary the rights of a class of shares with the approval of a majority of the outstanding shares of such class, unless the certificate of incorporation provides otherwise. Under the Companies Law and our Memorandum and Articles, if our share capital is divided into more than one class of shares, we may vary the rights attached to any class with the written consent of the holders of two-thirds 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.

**Amendment of Governing Documents.** Under the Delaware General Corporation Law, a corporation’s governing documents may be amended with the approval of a majority of the outstanding shares entitled to vote, unless the certificate of incorporation provides otherwise. As permitted by the Companies Law, each of our Memorandum of Association and Articles of Association may only be amended with a special resolution of our shareholders.

**Rights of Non-resident or Foreign Shareholders.** There are no limitations imposed by our Memorandum and Articles on the rights of non-resident or foreign shareholders to hold or exercise voting rights on our shares. In addition, there are no provisions in our Memorandum and Articles governing the ownership threshold above which shareholder ownership must be disclosed.

## **Rule 144**

### ***Shares Held for Six Months***

In general, under Rule 144 as currently in effect, and subject to the terms of any lock-up agreement, commencing 90 days after the closing of the IPO, a person (or persons whose shares are aggregated), including an affiliate, who has beneficially owned our Class A Ordinary Shares for six months or more, including the holding period of any prior owner other than one of our affiliates (i.e., commencing when the shares were acquired from our Company or from an affiliate of our Company as restricted securities), is entitled to sell our shares, subject to the availability of current public information about us. In the case of an affiliate shareholder, the right to sell is also subject to the fulfillment of certain additional conditions, including manner of sale provisions and notice requirements, and to a volume limitation that limits the number of shares to be sold thereby, within any three-month period, to the greater of:

- 1% of the number of Class A Ordinary Shares then outstanding; or
- the average weekly trading volume of our Class A Ordinary Shares on the NASDAQ Global Market during the four calendar weeks preceding the filing of a notice on Form 144 with respect to the sale.

The six-month holding period of Rule 144 does not apply to sales of unrestricted securities. Accordingly, persons who hold unrestricted securities may sell them under the requirements of Rule 144 described above without regard to the six-month holding period, even if they were considered our affiliates at the time of the sale or at any time during the 90 days preceding such date.

### ***Shares Held by Non-Affiliates for One Year***

Under Rule 144 as currently in effect, a person (or persons whose shares are aggregated) who is not considered to have been one of our affiliates at any time during the 90 days preceding a sale and who has beneficially owned the shares proposed to be sold for at least one year, including the holding period of any prior owner other than one of our affiliates, is entitled to sell his, her or its shares under Rule 144 without complying with the provisions relating to the availability of current public information or with any other conditions under Rule 144. Therefore, unless subject to a lock-up agreement or otherwise restricted, such shares may be sold immediately upon the closing of the IPO.

### ***Registration Rights***

Pursuant to the terms of the Bond, we agreed to register the Class A Ordinary Shares underlying the Bond in this registration statement. We also agreed to register the Class A Ordinary Shares underlying the Bond PA Warrants in this registration statement.

### ***Piggyback Registration Rights***

Pursuant to the terms of the Series A Note Offering, the Series A Note Investors received piggyback registration rights with respect to the Class A Ordinary Shares underlying the Series A Notes (the "Conversion Shares") that entitle the Series A Note Investors to request their securities be included in a future Securities Act registration statement that is filed after the IPO. If so requested, the Company will include in such future registration statement, all Conversion Shares on a pro rata basis based upon the total number of Conversion Shares with respect to which the Company has received written requests for inclusion within fifteen (15) business days after the applicable holder's receipt of the Company's notice that it is filing such a registration statement. The piggyback registration rights described herein, also apply to the Class A Ordinary Shares underlying the warrants issued to the placement agent in the Series A Note Offering. However, we decided to include the Class A Ordinary Shares underlying the Series A Notes and the Series A Note PA Warrants in this registration statement.

## **LEGAL MATTERS**

The validity of the Class A Ordinary Shares being offered by this prospectus and other legal matters concerning the Resale Shares relating to Cayman Islands law will be passed upon for us by Campbells. Certain legal matters in connection with the Resale Shares with respect to the United States federal securities law and New York law will be passed upon for us by Hunter Taubman Fischer & Li LLC, New York, New York.

## EXPERTS

The financial statements included in this Prospectus and Registration Statement for the year ended December 31, 2018 have been included in reliance on the report of Marcum Bernstein & Pinchuk LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

## WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form F-1 under the Securities Act relating to this Offering of our Class A Ordinary Shares. This prospectus does not contain all of the information contained in the registration statement. The rules and regulations of the SEC allow us to omit certain information from this prospectus that is included in the registration statement. Statements made in this prospectus concerning the contents of any contract, agreement or other document are summaries of all material information about the documents summarized, but are not complete descriptions of all terms of these documents. If we filed any of these documents as an exhibit to the registration statement, you may read the document itself for a complete description of its terms.

You may read and copy the registration statement, including the related exhibits and schedules, and any document we file with the SEC without charge at the SEC's public reference room at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. You may also obtain copies of the documents at prescribed rates by writing to the Public Reference Section of the SEC at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the public reference room. The SEC also maintains an Internet website that contains reports and other information regarding issuers that file electronically with the SEC. Our filings with the SEC are also available to the public through the SEC's website at <http://www.sec.gov>.

We are subject to the information reporting requirements of the Exchange Act that are applicable to foreign private issuers, and under those requirements file reports with the SEC. Those other reports or other information may be inspected without charge at the locations described above. As a foreign private issuer, we will be exempt from the rules under the Exchange Act related to the furnishing and content of proxy statements, and our officers, directors and principal shareholders will be exempt from the reporting and short-swing profit recovery provisions contained in Section 16 of the Exchange Act. In addition, we will not be required under the Exchange Act to file annual, quarterly and current reports and financial statements with the SEC as frequently or as promptly as U.S. companies whose securities are registered under the Exchange Act. However, we will file with the SEC, within 120 days after the end of each fiscal year, or such applicable time as required by the SEC, an annual report on Form 20-F containing financial statements audited by an independent registered public accounting firm, and will submit to the SEC, on Form 6-K, unaudited quarterly financial information for the first three quarters of each fiscal year.

We maintain a corporate website at [www.aporumgroup.com](http://www.aporumgroup.com). Information contained on, or that can be accessed through, our website does not constitute a part of this prospectus.

## INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to "incorporate by reference" information into this document. This means that we can disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is considered to be a part of this document, except for any information superseded by information that is included directly in this document.

This prospectus incorporates by reference the documents listed below:

- (1) our Annual Report on [Form 20-F](#) for the fiscal year ended December 31, 2018, filed with the SEC on April 15, 2019;
- (2) the amendment to our Annual Report on [Form 20-F/A](#) for the fiscal year ended December 31, 2018, filed with the SEC on April 22, 2019;

- (3) the financial information included in the Report on [Form 6-K](#) filed with the SEC dated on April 15, 2019;
- (4) Exhibit 99.1 and 99.3 to the Report on [Form 6-K](#) filed with the SEC on September 9, 2019; and,
- (5) Exhibit 99.1 to the Report on [Form 6-K](#) filed with the SEC on October 25, 2019; and,
- (6) the description of our Shares contained in our Registration Statement on [Form 8-A](#) filed with the SEC on December 14, 2018, including any amendments and reports filed for the purpose of updating such description.

We will provide a copy of the documents we incorporate by reference, at no cost, to any person who receives this prospectus. To request a copy of any or all of these documents, you should write or telephone us at 17th Floor, Guangdong Investment Tower, 148 Connaught Road Central, Hong Kong, Attention: Sabrina Khan, Chief Financial Officer, +852 2117 6611. Additionally, copies of the documents incorporated herein by reference may be accessed at our website at [www.aporumgroup.com](http://www.aporumgroup.com). The reference to our website address does not constitute incorporation by reference of the information contained on or accessible through our website, and you should not consider the contents of our website in making an investment decision with respect to our Class A Ordinary Shares.

#### **INDEMNIFICATION FOR SECURITIES ACT LIABILITIES**

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers and controlling persons pursuant to the foregoing provisions, or otherwise, we have been informed that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable.

#### **ENFORCEABILITY OF CIVIL LIABILITIES**

We are incorporated under the laws of the Cayman Islands as an exempted company with limited liability. We incorporated in the Cayman Islands because of certain benefits associated with being a Cayman Islands corporation, such as political and economic stability, an effective judicial system, a favorable tax system, the absence of foreign exchange control or currency restrictions and the availability of professional and support services. However, the Cayman Islands have a less developed body of securities laws that provide significantly less protection to investors as compared to the securities laws of the United States. In addition, Cayman Islands companies may not have standing to sue before the federal courts of the United States.

All of our assets are located in Hong Kong. In addition, some of our directors and officers are residents of jurisdictions other than the United States and all or a substantial portion of their assets are located outside the United States. As a result, it may be difficult for investors to effect service of process within the United States upon us or our directors and officers, or to enforce against us or them judgments obtained in United States courts, including judgments predicated upon the civil liability provisions of the securities laws of the United States or any state in the United States.

According to our local Cayman Islands' counsel, there is uncertainty with regard to Cayman Islands law relating to whether a judgment obtained from the United States or Hong Kong courts under civil liability provisions of the securities laws will be determined by the courts of the Cayman Islands as penal or punitive in nature. If such a determination is made, the courts of the Cayman Islands will not recognize or enforce the judgment against a Cayman Islands' company. The courts of the Cayman Islands in the past determined that disgorgement proceedings brought at the instance of the Securities and Exchange Commission are penal or punitive in nature and such judgments would not be enforceable in the Cayman Islands. Other civil liability provisions of the securities laws may be characterized as remedial, and therefore enforceable but the Cayman Islands' Courts have not yet ruled in this regard. Our Cayman Islands' counsel has further advised us that a final and conclusive judgment in the federal or state courts of the United States under which a sum of money is payable other than a sum payable in respect of taxes, fines, penalties or similar charges, may be subject to enforcement proceedings as a debt in the courts of the Cayman Islands.

As of the date hereof, no treaty or other form of reciprocity exists between the Cayman Islands and Hong Kong governing the recognition and enforcement of judgments.

Cayman Islands' counsel further advised that although there is no statutory enforcement in the Cayman Islands of judgments obtained in the United States or Hong Kong, a judgment obtained in such jurisdictions will be recognized and enforced in the courts of the Cayman Islands at common law, without any re-examination of the merits of the underlying dispute, by an action commenced on the foreign judgment debt in the Grand Court of the Cayman Islands, provided such judgment (1) is given by a foreign court of competent jurisdiction, (2) imposes on the judgment debtor a liability to pay a liquidated sum for which the judgment has been given, (3) is final, (4) is not in respect of taxes, a fine or a penalty, and (5) was not obtained in a manner and is of a kind the enforcement of which is contrary to natural justice or the public policy of the Cayman Islands.

**APTORUM GROUP LIMITED**  
**Financial Statements**

**Table of Contents**

<a href="#">Report of Independent Registered Public Accounting Firm</a>	F-2
<a href="#">Consolidated Balance Sheets (Successor Basis) as of December 31, 2018 and 2017</a>	F-3
<a href="#">Consolidated Statements of Operations and Comprehensive Loss (Successor Basis) for the year ended December 31, 2018 and the period March 1, 2017 through December 31, 2017</a>	F-4
<a href="#">Statement of Operations (Predecessor Basis) for the period January 1, 2017 through February 28, 2017</a>	F-5
<a href="#">Consolidated Statements of Equity (Successor Basis) for the year ended December 31, 2018 and the period March 1, 2017 through December 31, 2017</a>	F-6
<a href="#">Statement of Changes in Net Assets (Predecessor Basis) for the period January 1, 2017 through February 28, 2017</a>	F-7
<a href="#">Consolidated Statements of Cash Flows (Successor Basis) for the year ended December 31, 2018 and the period March 1, 2017 through December 31, 2017</a>	F-8
<a href="#">Statement of Cash Flows (Predecessor Basis) for period January 1, 2017 through February 28, 2017</a>	F-9
<a href="#">Notes to Consolidated Financial Statements</a>	F-10



## REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors of  
Aptorum Group Limited

### Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets (successor basis) of Aptorum Group Limited (the “Company”) as of December 31, 2018 and 2017, the related consolidated statements (successor basis) of operations and comprehensive loss, equity and cash flows for the year ended December 31, 2018 and the period March 1, 2017 through December 31, 2017, and the statements (predecessor basis) of operations, changes in net assets, and cash flows for the period January 1, 2017 through February 28, 2017, and the related notes (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for the year ended December 31, 2018, the period March 1, 2017 through December 31, 2017 and the period January 1, 2017 through February 28, 2017, in conformity with accounting principles generally accepted in the United States of America.

### Basis for Opinion

These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (“PCAOB”) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

We have served as the Company’s auditor since 2017.

New York, New York  
April 15, 2019



NEW YORK OFFICE ● 7 Penn Plaza ● Suite 830 ● New York, New York ● 10001  
Phone 646.442.4845 ● Fax 646.349.5200 ● [www.marcumbp.com](http://www.marcumbp.com)

**APTORUM GROUP LIMITED**  
**CONSOLIDATED BALANCE SHEETS (SUCCESSOR BASIS)**  
**December 31, 2018 and 2017**  
**(Stated in U.S. Dollars)**

	<b>December 31,</b>	<b>December 31,</b>
	<b>2018</b>	<b>2017</b>
<b>ASSETS</b>		
<b>Current assets:</b>		
Cash	\$ 12,006,624	\$ 16,245,807
Restricted cash	14,100,614	480,000
Accounts receivable	2,827	-
Inventories	30,642	-
Marketable securities, at fair value	1,014,338	1,972,648
Investments in derivatives	115,721	1,095,122
Amounts due from related parties	169,051	-
Due from brokers	818,968	179,492
Other receivables and prepayments	464,156	310,330
<b>Total current assets</b>	<b>28,722,941</b>	<b>20,283,399</b>
Property, plant and equipment, net	4,260,602	346,587
Non-marketable investments	7,094,712	7,394,713
Intangible assets, net	1,409,540	1,472,707
Amounts due from related parties	50,000	304,820
Long-term deposits	3,417,178	1,757,756
Other non-current asset	119,667	-
<b>Total Assets</b>	<b>\$ 45,074,640</b>	<b>\$ 31,559,982</b>
<b>LIABILITIES AND EQUITY</b>		
<b>LIABILITIES</b>		
<b>Current liabilities:</b>		
Amounts due to related parties	\$ 33,417	\$ 197,386
Accounts payable and accrued expenses	1,247,147	653,348
Finance lease payable, current portion	43,877	-
Warrant liabilities	753,118	-
Convertible debts	10,107,306	480,000
<b>Total current liabilities</b>	<b>12,184,865</b>	<b>1,330,734</b>
Finance lease payable, non-current portion	143,873	-
<b>Total Liabilities</b>	<b>\$ 12,328,738</b>	<b>\$ 1,330,734</b>
<b>Commitments and contingencies</b>	<b>-</b>	<b>-</b>
<b>EQUITY</b>		
Class A Ordinary Shares (\$1.00 par value; 60,000,000 shares authorized, 6,537,269 shares issued and outstanding at December 31, 2018 and 5,426,381 shares issued and outstanding at December 31, 2017, respectively)	\$ 6,537,269	\$ 5,426,381
Class B Ordinary Shares (\$1.00 par value; 40,000,000 shares authorized, 22,437,754 shares issued and outstanding as at December 31, 2018 and 2017)	22,437,754	22,437,754
Additional paid-in capital	23,003,285	5,294,402
Accumulated other comprehensive loss	(1,484,688)	(367,782)
Accumulated deficit	(17,379,185)	(2,547,462)
<b>Total equity attributable to the shareholders of Aptorum Group Limited</b>	<b>33,114,435</b>	<b>30,243,293</b>
Non-controlling interests	(368,533)	(14,045)
<b>Total equity</b>	<b>32,745,902</b>	<b>30,229,248</b>
<b>Total Liabilities and Equity</b>	<b>\$ 45,074,640</b>	<b>\$ 31,559,982</b>

See accompanying notes to the consolidated financial statements.

**APTORUM GROUP LIMITED**  
**CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS**  
**(SUCCESSOR BASIS)**  
**For Year Ended December 31, 2018 and the Period March 1, 2017 through December 31, 2017**  
**(Stated in U.S. Dollars)**

	<u>Year Ended December 31, 2018</u>	<u>March 1, 2017 through December 31, 2017</u>
<b>Revenue</b>		
Healthcare service income	\$ 383,450	\$ -
<b>Operating expenses</b>		
Cost of healthcare service	(318,011)	-
Research and development expenses	(3,101,432)	(2,560,323)
General and administrative fees	(4,919,626)	(1,480,093)
Legal and professional fees	(1,811,770)	(1,395,490)
Other operating expenses	(560,709)	(257,177)
Total expenses	<u>(10,711,548)</u>	<u>(5,693,083)</u>
<b>Other (loss) income</b>		
Gain on investments in marketable securities, net	501,522	3,912,500
Loss on investments in derivatives, net	(974,444)	(827,501)
Changes in fair value of warrant liabilities	124,726	-
Interest (expense) income, net	(4,458,191)	44,269
Dividend income	-	2,308
Total other (loss) income, net	<u>(4,806,387)</u>	<u>3,131,576</u>
<b>Net loss</b>	<u>(15,134,485)</u>	<u>(2,561,507)</u>
Less: net loss attributable to non-controlling interests	<u>(302,762)</u>	<u>(14,045)</u>
<b>Net loss attributable to Aptorum Group Limited</b>	<u>\$ (14,831,723)</u>	<u>\$ (2,547,462)</u>
Net loss per share – basic and diluted	\$ (0.53)	\$ (0.09)
Weighted-average shares outstanding – basic and diluted	<u>27,909,788</u>	<u>26,963,435</u>
<b>Net loss</b>	<u>\$ (15,134,485)</u>	<u>\$ (2,561,507)</u>
<b>Other Comprehensive loss</b>		
Unrealized loss on investments in available-for-sale securities	(1,122,251)	(367,782)
Exchange differences on translation of foreign operations	5,345	-
Other Comprehensive loss	<u>(1,116,906)</u>	<u>(367,782)</u>
<b>Comprehensive loss</b>	<u>(16,251,391)</u>	<u>(2,929,289)</u>
Less: comprehensive loss attributable to non-controlling interests	<u>(302,762)</u>	<u>(14,045)</u>
<b>Comprehensive loss attributable to the shareholders of Aptorum Group Limited</b>	<u>(15,948,629)</u>	<u>(2,915,244)</u>

See accompanying notes to the consolidated financial statements.



**APTORUM GROUP LIMITED**  
**STATEMENT OF OPERATIONS (PREDECESSOR BASIS)**  
**For the Period January 1, 2017 through February 28, 2017**  
**(Stated in U.S. Dollars)**

	<b>January 1, 2017 through February 28, 2017</b>
<b>Investment income</b>	
Dividend income from unaffiliated issuers	\$ -
Interest income	3,011
<b>Total investment income</b>	<u>3,011</u>
<b>Expenses</b>	
General and administrative fees	17,516
Management fees	108,958
Legal and professional fees	98,646
Other operating expenses	1,907
<b>Total expenses</b>	<u>227,027</u>
<b>Net investment loss</b>	<u>\$ (224,016)</u>
<b>Realized and unrealized losses</b>	
Net realized losses on investments in unaffiliated issuers	\$ (15,327)
Net change in unrealized depreciation on investments	
Aptorum Therapeutics - related party	(98,434)
Unaffiliated issuers	(288,307)
<b>Net realized and unrealized losses</b>	<u>(402,068)</u>
<b>Net decrease in net assets resulting from operations</b>	<u>\$ (626,084)</u>

See accompanying notes to the consolidated financial statements.

**APTORUM GROUP LIMITED**  
**CONSOLIDATED STATEMENTS OF EQUITY (SUCCESSOR BASIS)**  
For Year Ended December 31, 2018 and the Period March 1, 2017 through December 31, 2017  
(Stated in U.S. Dollars)

Net assets to allocate to equity at February 28, 2017											\$ 24,488,662
	Ordinary shares		Class A Ordinary Shares		Class B Ordinary Shares		Additional Paid-in Capital	Accumulated deficit	Accumulated other comprehensive loss	Non-controlling interests	Total
	Shares	Amount	Shares	Amount	Shares	Amount	Amount	Amount	Amount	Amount	Amount
<b>Balance, March 1, 2017</b>	25,657,110	\$ 25,657,110	-	\$ -	-	\$ -	\$ (1,168,448)	\$ -	\$ -	\$ -	\$ 24,488,662
Proceeds from issuance of shares	2,207,025	2,207,025	-	-	-	-	6,394,976	-	-	-	8,602,001
Converted from ordinary shares	(27,864,135)	(27,864,135)	5,426,381	5,426,381	22,437,754	22,437,754	-	-	-	-	-
Unrealized loss on investments in available-for-sale securities	-	-	-	-	-	-	-	-	(367,782)	-	(367,782)
Gain on disposal of entity under common control	-	-	-	-	-	-	67,874	-	-	-	67,874
Net loss	-	-	-	-	-	-	-	(2,547,462)	-	(14,045)	(2,561,507)
<b>Balance, December 31, 2017</b>	-	\$ -	5,426,381	\$ 5,426,381	22,437,754	\$ 22,437,754	\$ 5,294,402	\$ (2,547,462)	\$ (367,782)	\$ (14,045)	\$ 30,229,248
Issuance of initial public offering of ordinary shares on December 17, 2018 at \$15.8 per share, net of underwriting discount and offering expenses	-	-	761,419	761,419	-	-	9,536,631	-	-	-	10,298,050
Proceeds from non-controlling interest	-	-	-	-	-	-	51,727	-	-	(51,726)	1
Converted from convertible debts	-	-	349,469	349,469	-	-	2,683,839	-	-	-	3,033,308
Unrealized loss on investments in available-for-sale securities	-	-	-	-	-	-	-	-	(1,122,251)	-	(1,122,251)
Exchange difference on translation of foreign operation	-	-	-	-	-	-	-	-	5,345	-	5,345
Beneficial conversion feature	-	-	-	-	-	-	5,436,686	-	-	-	5,436,686
Net loss	-	-	-	-	-	-	-	(14,831,723)	-	(302,762)	(15,134,485)
<b>Balance, December 31, 2018</b>	-	\$ -	6,537,269	\$ 6,537,269	22,437,754	\$ 22,437,754	\$ 23,003,285	\$ (17,379,185)	\$ (1,484,688)	\$ (368,533)	\$ 32,745,902

See accompanying notes to the consolidated financial statements.

**APTORUM GROUP LIMITED**  
**STATEMENT OF CHANGES IN NET ASSETS (PREDECESSOR BASIS)**  
**For the Period January 1, 2017 through February 28, 2017**  
**(Stated in U.S. Dollars)**

	<b>January 1, 2017 through February 28, 2017</b>
<b>Operations</b>	
Net investment losses	\$ (224,016)
Net realized losses	(15,327)
Net change in unrealized depreciation	(386,741)
Net decrease in net assets resulting from operations	(626,084)
<b>Distributions to shareholders</b>	
Equalization payable	9,663
Return of capital	(9,663)
Total distributions	-
<b>Total decrease in net assets</b>	<b>(626,084)</b>
<b>Net assets</b>	
Beginning of period	25,114,746
End of period	<b>\$ 24,488,662</b>

See accompanying notes to the consolidated financial statements.

**APTORUM GROUP LIMITED**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS (SUCCESSOR BASIS)**  
**For Year Ended December 31, 2018 and the Period March 1, 2017 through December 31, 2017**  
**(Stated in U.S. Dollars)**

	<b>Year Ended December 31, 2018</b>	<b>March 1, 2017 through December 31, 2017</b>
<b>Cash flows from operating activities</b>		
<b>Net loss</b>	\$ (15,134,485)	\$ (2,561,507)
Adjustments to reconcile net loss to net cash used in operating activities		
Amortization and depreciation	682,292	58,903
Gain on investments in marketable securities, net	(501,522)	(3,912,500)
Loss on investments in derivatives, net	974,444	827,501
Changes in fair value of warrant liabilities	(124,726)	-
Interest income	(108,512)	-
Interest expense and accretion of convertible debts	4,559,714	-
Accretion of capital lease obligation	6,989	-
<b>Changes in operating assets and liabilities:</b>		
Accounts receivable	(2,827)	-
Inventories	(30,642)	-
Other receivables and prepayments	(45,911)	(303,925)
Other non-current asset	(179,500)	-
Long-term deposits	(111,951)	(20,092)
Due from brokers	751	(54,158)
Due from related parties	(79,204)	-
Due to related parties	1,004	-
Accounts payable and accrued expenses	58,555	183,083
<b>Net cash used in operating activities</b>	<b>(10,035,531)</b>	<b>(5,782,695)</b>
<b>Cash flows from investing activities</b>		
Advances to/payments received from related parties	-	(186,898)
Purchases of intangible assets	(417,794)	(968,730)
Purchases of property, plant and equipment	(5,646,505)	(2,090,721)
Proceeds from sales of investment securities	2,312	16,049,067
Disbursement of a loan to a third party	(3,000,000)	-
Repayment of a loan from a third party	3,000,000	-
<b>Net cash (used in) provided by investing activities</b>	<b>(6,061,987)</b>	<b>12,802,718</b>
<b>Cash flows from financing activities</b>		
Proceeds from issuance of convertible debts	16,120,400	480,000
Proceeds from issuance of shares	11,054,319	8,602,001
Payments of initial public offering costs	(538,122)	-
Payments for debt issuance costs	(1,099,316)	-
Payment of finance lease obligations	(58,332)	-
<b>Net cash provided by financing activities</b>	<b>25,478,949</b>	<b>9,082,001</b>
Net increase in cash and restricted cash	9,381,431	16,102,024
Cash and restricted cash – Beginning of period	16,725,807	623,783
Cash and restricted cash – End of period	<b>26,107,238</b>	<b>\$ 16,725,807</b>
<b>Supplemental disclosures of cash flow information</b>		
Interest paid	\$ 606,989	\$ -
Income taxes paid	\$ -	\$ -
Proceeds in broker accounts	\$ 640,227	\$ -
<b>Non-cash investing and financing activities:</b>		
Net settlement of related party balances	\$ 164,973	\$ -
Equipment acquired through finance lease	\$ 239,093	\$ -
Conversion of convertible debts	\$ 3,033,308	\$ -
<b>Reconciliation of cash and restricted cash</b>		
Cash	\$ 12,006,624	\$ 16,245,807
Restricted cash	14,100,614	480,000
Total cash and restricted cash shown in the consolidated statements of cash flows	<b>\$ 26,107,238</b>	<b>\$ 16,725,807</b>

See accompanying notes to the consolidated financial statements.

**APTORUM GROUP LIMITED**  
**STATEMENT OF CASH FLOWS (PREDECESSOR BASIS)**  
**For the Period January 1, 2017 through February 28, 2017**  
**(Stated in U.S. Dollars)**

	<b>January 1, 2017 through February 28, 2017</b>
<b>Cash flows from operating activities</b>	
<b>Net decrease in net assets resulting from operations</b>	\$ (626,084)
Adjustments to reconcile net decrease in net assets resulting from operations to net cash used in operating activities:	
Net change in unrealized depreciation on investments	386,741
Net realized loss on sales of investments in unaffiliated issuers	15,327
Proceeds from sales of investment securities	28,425
Increase in interest receivable	(5,099)
Increase in due from brokers	(28,438)
Decrease in other receivable and prepayments	2,520
Increase in accounts payable and accrued expenses	13,778
Decrease in management fees payable - related party	(58,830)
<b>Net cash used in operating activities</b>	<b>(271,660)</b>
<b>Net decrease in cash</b>	<b>(271,660)</b>
Cash - Beginning of period	301,643
Cash - End of period	<b>\$ 29,983</b>
<b>Supplemental disclosures of cash flow information</b>	
Interest paid	\$ -
Income taxes paid	\$ -

See accompanying notes to the consolidated financial statements.

**APTORUM GROUP LIMITED**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**(Stated in U.S. Dollars)**

**1. ORGANIZATION**

The consolidated financial statements include the financial statements the Aptorum Group Limited (the “Company”) and its subsidiaries. The Company and its subsidiaries are hereinafter collectively referred to as the “Group”.

The Company, formerly known as APTUS Holdings Limited and STRIKER ASIA OPPORTUNITIES FUND CORPORATION, is a company incorporated on September 13, 2010 under the laws of the Cayman Islands with limited liability.

Before March 1, 2017, the Company was incorporated as an exempted open-ended investment company with limited liability in the Cayman Islands, which would own and oversee the management, operations and investments of its subsidiaries. The Company was managed by AENEAS CAPITAL LIMITED, formerly known as APTUS CAPITAL LIMITED or Guardian Capital Management Limited (the “Manager”), with its objective to generate long-term capital appreciation by acquiring, holding and/or investing in, by itself or through one or more of its subsidiaries or other investment vehicles, a wide range of investments, assets and/or rights, with a focus on the healthcare industry. Since March 1, 2017, the Manager enters into a new Management Agreement with the Company to manage certain investment and reinvestment.

On February 21, 2017, a special resolution was passed at the directors’ meeting and on March 1, 2017, a resolution was passed at the shareholders’ meeting. According to which, the Company changed from an investment fund with management shares and non-voting participating redeemable preference shares to a holding company with operating subsidiaries (the “Restructure”).

On March 3, 2017, an ordinary resolution passed at the extraordinary general meeting of the Company and approved by the Cayman Islands Government General Registry changed the name of the Company from STRIKER ASIA OPPORTUNITIES FUND CORPORATION to APTUS Holdings Limited.

On October 13, 2017, a special resolution passed at the extraordinary general meeting of the Company, and on October 19, 2017 it was approved by the Cayman Islands Government General Registry changing the name of the Company from APTUS Holdings Limited to Aptorum Group Limited.

After the Restructure as on March 1, 2017, the Company has become a Hong Kong based pharmaceutical company currently in the preclinical stage. The Company researches and develops life science and biopharmaceutical products within its wholly-owned subsidiary, Aptorum Therapeutics Limited, formerly known as APTUS Therapeutics Limited (“Aptorum Therapeutics”) and its indirect subsidiary companies (collectively, “Aptorum Therapeutics Group”).

**APTORUM GROUP LIMITED**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
(Stated in U.S. Dollars)

Below summarizes the list of the subsidiaries consolidated as of December 31, 2018:

<b>Name</b>	<b>Incorporation date</b>	<b>Ownership</b>	<b>Place of incorporation</b>	<b>Principle activities</b>
Aptorum Therapeutics Limited	June 30, 2016	100%	Cayman Islands	Research and development of life science and biopharmaceutical products
APTUS MANAGEMENT LIMITED	May 16, 2017	100%	Hong Kong	Provision of management services to its holding company and fellow subsidiaries
Aptus Therapeutics (Hong Kong) Limited	June 30, 2016	100%	Hong Kong	Research and development of life science and biopharmaceutical products
APTUS BIOTECHNOLOGY (MACAO) LIMITED	June 6, 2016	99%	Macao	Inactive
Videns Incorporation Limited (Formerly named Videns Biosciences Limited and VIDENS CORPORATION)	March 2, 2017	100%	Cayman Islands	Research and development of life science and biopharmaceutical products
mTOR (Hong Kong) Limited	November 4, 2016	90%	Hong Kong	Research and development of life science and biopharmaceutical products
Videns Incorporation (Hong Kong) Limited	July 3, 2017	100%	Hong Kong	Inactive
Nativus Life Sciences Limited	July 7, 2017	100%	Cayman Islands	Research and development of life science and biopharmaceutical products
Scipio Life Sciences Limited	July 19, 2017	100%	Cayman Islands	Research and development of life science and biopharmaceutical products
Claves Life Sciences Limited	August 2, 2017	100%	Cayman Islands	Research and development of life science and biopharmaceutical products
Nativus Life Sciences (Hong Kong) Limited	August 8, 2017	100%	Hong Kong	Inactive
Scipio Life Sciences (Hong Kong) Limited	August 10, 2017	100%	Hong Kong	Inactive
Signate Life Sciences (Hong Kong) Limited	August 10, 2017	100%	Hong Kong	Inactive
Claves Life Sciences (Hong Kong) Limited	August 22, 2017	100%	Hong Kong	Inactive
Aptorum Pharmaceutical Development Limited	August 28, 2017	100%	Cayman Islands	Research and development of life science and biopharmaceutical products
Aptorum Medical Limited	August 28, 2017	95%	Cayman Islands	Provision of medical clinic services
Signate Life Sciences Limited	August 28, 2017	100%	Cayman Islands	Research and development of life science and biopharmaceutical products
Acticule Life Sciences Limited	June 30, 2017	80%	Cayman Islands	Research and development of life science and biopharmaceutical products
Acticule Life Sciences (Hong Kong) Limited	July 27, 2017	100%	Hong Kong	Inactive
Forum Property Holding Limited	March 6, 2018	100%	Cayman Islands	Inactive
APTORUM INTERNATIONAL LIMITED	March 26, 2018	100%	United Kingdom	Inactive
Lanither Life Sciences Limited	April 4, 2018	80%	Cayman Islands	Inactive
Lanither Life Sciences (Hong Kong) Limited	May 25, 2018	100%	Hong Kong	Inactive

Initial public offering

On December 17, 2018, the Group completed an initial public offering (the “IPO” or “Offering”) with new issuance of 761,419 ordinary shares at \$15.80 for total offering size of approximately \$12.0 million before deducting commissions and expenses. The net proceeds from the IPO was approximately \$10.3 million, net off underwriting discount approximately \$1.2 million, including warrant issued \$0.2 million, and offering costs approximately \$0.5 million. The ordinary shares began trading on the NASDAQ Global Market on December 17, 2018 under the ticker symbol “APM”.

**APTORUM GROUP LIMITED**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**(Stated in U.S. Dollars)**

Deferred offering costs

Deferred offering costs consist principally of legal, printing and registration costs in connection with the Group's IPO. Such costs are deferred until the closing of the Offering, at which time the deferred costs are offset against the offering proceeds. Deferred offering costs as of December 31, 2018 and 2017 amounted to \$nil on the consolidated balance sheets. At the completion of the IPO, US\$1,732,229 offering costs was charged to additional paid-in capital.

**2. LIQUIDITY**

The Company reported a net loss of \$15,134,485 and net operation cash outflow of \$10,035,531 for the year ended December 31, 2018, respectively. In addition, the Company had an accumulated deficit of \$17,379,185 as of December 31, 2018. The Company's operating results for future periods are subject to numerous uncertainties and it is uncertain if the Company will be able to reduce or eliminate its net losses for the foreseeable future. If management is not able to generate significant revenues from its product candidates currently in development, the Company may not be able to achieve profitability.

The Company's principal sources of liquidity have been cash and marketable securities. As of the date of issuance of the consolidated financial statements, the Company has approximately \$7 million of unrestricted cash. In addition, based upon the current market price of the Company's marketable securities, it anticipates it can liquidate such marketable securities for greater than its carrying amount, if necessary. In addition, the Company will need to maintain its operating costs at a level which will not exceed such aforementioned sources of funds in order to continue as a going concern for a period within one year after the issuance of its consolidated financial statements.

The Company believes that available cash, together with the efforts from aforementioned management plan and actions, should enable the Company to meet presently anticipated cash needs for at least the next 12 months after the date that the financial statements are issued and the Company has prepared the consolidated financial statements on a going concern basis. However, the Company continues to have ongoing obligations and it expects that it will require additional capital in order to execute its longer-term development plan. If the Company encounters unforeseen circumstances that place constraints on its capital resources, management will be required to take various measures to conserve liquidity, which could include, but not necessarily be limited to, deferring some of its research and seeking to dispose of marketable securities. Management cannot provide any assurance that the Company will raise additional capital if needed.



**APTORUM GROUP LIMITED**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**(Stated in U.S. Dollars)**

**3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

Basis of presentation

The consolidated financial statements are prepared in accordance with U.S. GAAP. Before March 1, 2017, the Company was an investment company under U.S. GAAP for the purposes of financial reporting. U.S. GAAP for an investment company requires investments to be recorded at estimated fair value and the unrealized gains and/or losses in an investment's fair value are recognized on a current basis in the statements of operations. In addition, the Company did not consolidate its subsidiaries, since they were operating companies and not investment companies. Such entities were fair valued in accordance with ASC Topic 946 ("ASC 946") and ASC Topic 820 ("ASC 820").

As of March 1, 2017, after the change of business purpose, legal form and substantive activities, the Company's status changed to an operating company from an investment company since it no longer met the criteria to qualify as an investment company under the ASC 946. The Company discontinued applying the guidance in ASC 946 and began to account for the change in status prospectively by accounting for its investments in accordance with other U.S. GAAP topics.

This change in status and the accounting policies affect the comparability of the financial statements. As such, for the period January 1, 2017 through February 28, 2017, statements of operations, changes in net assets, and cash flows have been presented on the predecessor basis of accounting as an investment company, and on the basis of accounting as an operating company since March 1, 2017. The consolidated balance sheets as of December 31, 2018 and 2017 have been presented on the successor basis.

Principles of consolidation

The consolidated financial statements of the Group are presented on the accrual basis of accounting in accordance with U.S. GAAP and include the accounts of the Company, its direct and indirect wholly and majority owned subsidiaries and a variable interest entity. All material intercompany balances and transactions have been eliminated in preparation of the consolidated financial statements. Non-controlling interests represent the equity interest that is not owned by the Group.

Use of estimates

The preparation of the consolidated financial statements on successor basis in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of increases and decreases in net assets from operations as well as income and expenses during the reporting period. Significant accounting estimates reflected in the Group's consolidated financial statements include valuation of warrants, fair value of investments in securities, convertible debts and finance lease, the useful lives of intangible assets and property, plant and equipment, impairment of long-lived assets, valuation allowance for deferred tax assets, and collectability of receivables. Actual results could differ from those estimates.

**APTORUM GROUP LIMITED**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**(Stated in U.S. Dollars)**

Foreign currency translation and transaction

USD is the reporting currency. The functional currency of subsidiaries in the Cayman Islands is USD, the functional currency of subsidiaries in Hong Kong is Hong Kong Dollars (“HKD”), the functional currency of a subsidiary in Macao is Macanese Pataca (“MOP”) and the functional currency of a subsidiary in the United Kingdom is Great British Pound (“GBP”). An entity’s functional currency is the currency of the primary economic environment in which it operates, normally that is the currency of the environment in which it primarily generates and expends cash. The management considered various indicators, such as cash flows, market expenses, financing and inter-company transactions and arrangements in determining the Group’s functional currency.

In the consolidated financial statements, the financial information of the Company and its subsidiaries, which use HKD, MOP and GBP as their functional currency, has been translated into USD. Assets and liabilities are translated from each subsidiary’s functional currency at the exchange rates on the balance sheet dates, equity amounts are translated at historical exchange rates, and revenues, expenses, gains, and losses are translated using the average exchange rates for the year. Translation adjustments are reported as cumulative translation adjustments and are shown as a separate component of other comprehensive income or loss in the statements of operations and comprehensive loss.

Cash

Cash consists of cash on hand and bank deposits and cash denominated in foreign currencies, which is unrestricted as to withdrawal and use.

Restricted Cash

Restricted cash relates to cash deposited into the escrow account from investors for the purpose of the subscription of convertible debts.

Inventories

Inventories are stated at lower of cost or net realizable value. Cost is determined using the weighted average method.

Where there is evidence that the utility of inventories, in their disposal in the ordinary course of business, will be less than cost, whether due to physical deterioration, obsolescence, changes in price levels, or other causes, the inventories are written down to net realizable value.

Accounts receivable

Accounts receivable are stated at the original amount less an allowance for doubtful receivables, if any, based on a review of all outstanding amounts at period end. An allowance is also made when there is objective evidence that the Group will not be able to collect all amounts due according to the original terms of the receivables. The Group analyzes the aging of the customer accounts, historical and current economic trends and the age of the receivables when evaluating the adequacy of the allowance for doubtful accounts.

Marketable Securities

Marketable Securities are accounted for as trading securities or available-for-sale securities based on the trading purpose, which are measured at fair value. Gains or losses from changes in fair value of trading securities are recorded through earnings. Gains or losses from changes in the fair value of available-for-sale securities are recorded in accumulated other comprehensive income, until the investment is sold or otherwise disposed of, or until the investment is determined to be other-than-temporarily impaired, at which time the cumulative gain or loss previously reported in equity is included in income. The specific identification method is used to determine the realized gain or loss on investments sold or otherwise disposed.

**APTORUM GROUP LIMITED**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**(Stated in U.S. Dollars)**

The Group measures the investments in marketable securities at fair value based on quoted market prices. Gains from the marketable securities amounting to \$501,522 and \$3,912,500, respectively, were recognized in the consolidated statements of operations and comprehensive loss for the year ended December 31, 2018 and the period March 1, 2017 to December 31, 2017. The Group recognized the unrealized loss on investments in available-for-sale securities amounting to \$1,122,251 and \$367,782, respectively, for the year ended December 31, 2018 and the period March 1, 2017 to December 31, 2017.

For the year ended December 31, 2018, the Group disposed the available-for-sale securities with sales proceeds of \$637,582 received and recognized a gain of \$501,522 in the consolidated statements of operations.

During the period March 1, 2017 to December 31, 2017, the Group disposed the trading securities and available-for-sale securities, with sales proceeds of \$15,738,517 and \$310,550 received, and recognized a gain of \$3,917,046 and a loss of \$4,546 on the consolidated statements of operations.

Investments in derivatives

Investments in derivatives consisted of warrants, which are measured at fair value, with gains or losses from changes in fair value recorded through earnings. The fair value of these warrants have been determined using the Black-Scholes pricing mode. The Black-Scholes pricing model provides for assumptions regarding volatility, call and put features and risk-free interest rates within the total period to maturity.

For the year ended December 31, 2018 and the period March 1, 2017 to December 31, 2017, the Group disposed of warrants with proceeds of \$4,957 and \$nil received, respectively. Loss on the warrants amounted to \$974,444 and \$827,501, respectively, was recognized in the consolidated statements of operations for the year ended December 31, 2018 and the period March 1, 2017 to December 31, 2017.

Non-marketable investments

Non-marketable investments are comprising of investments in non-redeemable preferred shares of privately-held companies accounted for under the cost method and are not required to be consolidated under the variable interest or voting models. Non-marketable investments are classified as non-current assets on the consolidated balance sheets as those investments do not have stated contractual maturity dates. Non-marketable equity investments are measured at purchase cost with appropriate consideration given to impairment.

The Group periodically review the equity investments for impairment. The Group considers impairment indicators such as negative changes in industry and market conditions, financial performance, business prospects, and other relevant events and factors. If any impairment is considered other-than-temporary, the fair value of the securities is below the carrying amount, the Group will write down the securities to fair value. As of December 31, 2018 and 2017, the Group believes no impairment charge is necessary.

As of December 31, 2018 and 2017, investments accounted for under the cost method had a carrying value of \$7,094,712 and \$7,394,713 respectively.

Fair value measurement

Fair value is defined as the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. When determining the fair value measurements for assets and liabilities required or permitted to be recorded at fair value, the Group considers the principal or most advantageous market in which it would transact its business, and it considers assumptions that market participants would use when pricing the asset or liability.

**APTORUM GROUP LIMITED**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**(Stated in U.S. Dollars)**

As a basis for considering such assumptions, a three-tier fair value hierarchy prioritizes the inputs utilized in measuring fair value as follows:

- Level 1 applies to assets or liabilities for which there are quoted prices in active markets for identical assets or liabilities.
- Level 2 applies to assets or liabilities for which there are inputs other than quoted prices included within Level 1 that are observable for the asset or liability such as quoted prices for similar assets or liabilities in active markets; quoted prices for identical assets or liabilities in markets with insufficient volume or infrequent transactions (less active markets); or model-derived valuations in which significant inputs are observable or can be derived principally from, or corroborated by, observable market data.
- Level 3 applies to assets or liabilities for which there are unobservable inputs to the valuation methodology that are significant to the measurement of the fair value of the assets or liabilities.

The hierarchy requires the Group to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. A financial instrument's categorization within the fair value hierarchy is based upon the lowest level of input that is significant to the fair value measurement. The Group has estimated the fair value amounts of its financial instruments using the available market information and valuation methodologies considered to be appropriate and has determined that the carrying value of the Group's cash, restricted cash, due from brokers, other receivables and prepayments, amounts due from/to related parties, and accounts payable and accrued expenses as of December 31, 2018 and 2017 approximate fair value due to the short-term nature of these assets and liabilities.

Property, plant and equipment

Property, plant and equipment is stated at cost less accumulated depreciation. Cost represents the purchase price of the asset and other costs incurred to bring the asset into its existing use. Maintenance, repairs and betterments, including replacement of minor items, are charged to expense; major additions to physical properties are capitalized.

Depreciation of property, plant and equipment is provided using the straight-line method over their estimated useful lives:

Building	29 years
Computer equipment	3 years
Furniture, fixture, and office and medical equipment	5 years
Leasehold improvements	Shorter of the remaining lease terms or 5 years
Laboratory equipment	5 years
Motor vehicle	5 years

Upon sale or disposal, the applicable amounts of asset cost and accumulated depreciation are removed from the accounts and the net amount less proceeds from disposal is charged or credited to income.

Other non-current asset

Other non-current asset represents laboratory supplies that can be used for more than one year. Cost represents the purchase price of the supplies.

Amortization of other non-current asset is provided using the straight-line method over their estimated useful lives. The amortization expenses for the year ended December 31, 2018 is \$59,833.

**APTORUM GROUP LIMITED**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**(Stated in U.S. Dollars)**

Intangible assets

Indefinite-lived intangible assets are tested for impairment at least annually and are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Indefinite-lived intangible assets are impaired if their estimated fair values are less than their carrying values.

Finite-lived intangible assets are initially recorded at fair value when acquired, in which the finite intangible assets are amortized over their estimated useful life, which is the period over which the assets are expected to contribute directly or indirectly to the future cash flows of the Group. These intangible assets are tested for impairment at the time of a triggering event, if one were to occur. Finite-lived intangible assets may be impaired when the estimated undiscounted future cash flows generated from the assets are less than their carrying amounts.

The Group may rely on a qualitative assessment when performing its intangible asset impairment test. Otherwise, the impairment evaluation is performed at the lowest level of identifiable cash flows independent of other assets.

The Group's intangible assets mainly consist of computer software, exclusive rights in prepaid patented and unpatented licenses. The prepaid patented licenses are for clinical purpose or further development into other products. Prepaid unpatented license is for further development, once the associated research and development efforts are completed, the prepaid unpatented license will be reclassified as a finite-lived asset and is amortized over its useful life. The estimated useful life of the exclusive rights in using patents is generally the remaining patent life from the acquisition date to expiration date under the law, which is 17 to 20 years, the Group will reassess the remaining patent life on annual basis, and the Group will assess the intangible assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may no longer be recoverable.

Impairment of long-lived assets

The Group reviews its long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may no longer be recoverable. When these events occur, the Group measures impairment by comparing the carrying value of the long-lived assets to the estimated undiscounted future cash flows expected to result from the use of the assets and their eventual disposition. If the sum of the expected undiscounted cash flow is less than the carrying amount of the assets, the Group would recognize an impairment loss, which is the excess of carrying amount over the fair value of the assets, using the expected future discounted cash flows.

Convertible debts

The Group determines the appropriate accounting treatment of its convertible debts in accordance with the terms in relation to the conversion feature, call and put option, beneficial conversion feature ("BCF") and settlement feature. After considering the impact of such features, the Group concludes that, as of December 31, 2017, the convertible debts contained a contingent beneficial conversion, which shall not be recognized in earnings until the contingency is resolved, and therefore accounts for such instrument as a liability in its entirety.

Convertible debts were subsequently measured at amortized cost, using the effective interest rate method. Amortized cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the effective interest rate. The effective interest rate amortization is included in interest expense in the consolidated statements of operations.

Amortized cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the effective interest rate. The effective interest rate amortization is included in finance costs in the condensed consolidated statements of operations.

**APTORUM GROUP LIMITED**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**(Stated in U.S. Dollars)**

Management concluded that the contingency was effectively resolved upon the completion of the IPO on December 17, 2018 so that part of the convertible debts were converted automatically accordingly. The BCF derecognized upon automatic conversion was recorded as interest expense with a corresponding increase to additional paid-in capital. The remaining BCF was recorded as debt discount, which was amortized through the maturity of the convertible debts, with a corresponding increase to additional paid-in capital.

Finance lease

Leases that transfer substantially all the rewards and risks of ownership of assets to the Group, other than legal title, are accounted for as finance leases. At the inception of a finance lease, the cost of the leased asset is capitalized at the present value of the minimum lease payments and recorded together with the obligation, excluding the interest element, to reflect the purchase and financing. Assets held under capitalized finance leases are included in property, plant and equipment, and depreciated over the shorter of the lease terms and the estimated useful lives of the assets. The interest expenses of such leases are charged to the consolidated statements of operations so as to provide a constant periodic rate of charge over the lease terms.

Warrant liabilities

For warrants that are not indexed to the Group's shares, the Group records the fair value of the issued warrants as liabilities at each balance sheet date and records changes in the estimated fair value as a non-cash gain or loss in the consolidated statements of operations and comprehensive loss. The warrant liabilities are recognized in the consolidated balance sheets at the fair value (level 3). The fair value of these warrants have been determined using the Black-Scholes pricing mode. The Black-Scholes pricing model provides for assumptions regarding volatility, call and put features and risk-free interest rates within the total period to maturity.

Revenue recognition

Dividend income is recorded on the ex-dividend date, and interest income is recorded on an accrual basis.

Healthcare service income is recognized when persuasive evidence of the services is rendered, the services price is fixed or determinable and collectability of the receivable is reasonably assured.

Cost of healthcare service

Cost of healthcare service rendered represents cost in relation to the medical services provided including the cost of pharmaceutical supplies and medicine.

Research and development expenses

Research and development costs are expensed as incurred. Research and development expenses are comprised of costs incurred in performing research and development activities, including amortization of the patent license, depreciation of laboratory equipment, external costs of outside vendors engaged to conduct preclinical development activities and trials.

**APTORUM GROUP LIMITED**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**(Stated in U.S. Dollars)**

Income taxes

The Group accounts for income taxes under the asset and liability method. Under this method, deferred income taxes are determined based on differences between the financial carrying amounts of existing assets and liabilities and their tax bases. Income taxes are provided for in accordance with the laws of the relevant taxing authorities.

A valuation allowance is provided for deferred tax assets if it is more likely than not that these items will either expire before the Group is able to realize their benefits, or that future deductibility is uncertain. Valuation allowances are established, when necessary, to reduce deferred tax assets to the amount expected to be realized.

Uncertain tax positions

The Group accounts for uncertainty in income taxes using a two-step approach to recognizing and measuring uncertain tax positions. The first step is to evaluate the tax position for recognition by determining if the weight of available evidence indicates that it is more likely than not that the position will be sustained on audit, including resolution of related appeals or litigation processes, if any. The second step is to measure the tax benefit as the largest amount that is more than 50% likely of being realized upon settlement. Interest and penalties related to uncertain tax positions are recognized and recorded as necessary in the provision for income taxes. The Group recognizes interest on non-payment of income taxes and penalties associated with tax positions when a tax position does not meet more likely than not thresholds be sustained under examination. The tax returns of the Group's Hong Kong subsidiaries and variable interest entity ("VIE") are subject to examination by the relevant tax authorities. According to the Hong Kong Inland Revenue Department, the statute of limitation is six years if any company chargeable with tax has not been assessed or has been assessed at less than the proper amount, the statute of limitation is extended to ten years if the underpayment of taxes is due to fraud or willful evasion. According to United Kingdom's policy, trading losses are available to be carried forward indefinitely. The Group did not have any material interest or penalties associated with tax positions for the year ended December 31, 2018 and the period March 1, 2017 through December 31, 2017, and did not have any significant unrecognized uncertain tax positions as of December 31, 2018 and 2017. The Group does not believe that its assessment regarding unrecognized tax benefits will materially change over the next twelve months.

Comprehensive income or loss

U.S. GAAP generally requires that recognized revenue, expenses, gains and losses be included in net income or loss. Although certain changes in assets and liabilities are reported as separate components of the equity section of the consolidated balance sheets, such items, along with net income, are components of comprehensive income or loss. The components of other comprehensive income or loss consist of unrealized gain or loss on available-for-sale short-term investments and exchange differences on translation of foreign operations.

Loss per share

Basic loss per share is computed by dividing net loss attributable to ordinary shareholders by the weighted average number of ordinary shares outstanding during the period. Diluted loss per share reflects the potential dilution that could occur if securities or other contracts to issue ordinary shares were exercised or converted into ordinary shares. Potential dilutive securities are excluded from the calculation of diluted loss per share in loss periods as their effect would be anti-dilutive.

**APTORUM GROUP LIMITED**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**(Stated in U.S. Dollars)**

Recently issued accounting standards

In May 2014, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2014-09, Revenue from Contracts with Customers (Topic 606) (“ASU 2014-09”), which was subsequently modified in August 2015 by ASU 2015-14, Revenue from Contracts with Customers: Deferral of the Effective Date. This guidance will be effective for fiscal years (and interim reporting periods within those years) beginning after December 15, 2017. The core principle of ASU 2014-09 is that companies should recognize revenue when the transfer of promised goods or services to customers occurs in an amount that reflects what the company expects to receive. It requires additional disclosures to describe the nature, amount, timing and uncertainty of revenue and cash flows from contracts with customers. In 2016, the FASB issued additional ASUs that clarify the implementation guidance on principal versus agent considerations (ASU 2016-08), on identifying performance obligations and licensing (ASU 2016-10), and on narrow-scope improvements and practical expedients (ASU 2016-12) as well as on the revenue recognition criteria and other technical corrections (ASU 2016-20). In 2017, the FASB issued Accounting Standards Update (ASU) 2017-05, Other Income—Gains and Losses from the Derecognition of Nonfinancial Assets (Subtopic 610-20), which was originally issued in ASU 2014-09. The amendments in this Update require that an entity to initially measure a retained non-controlling interest in a nonfinancial asset at fair value consistent with a how a retained non-controlling interest in a business is measured.

Under Topic 606, an entity recognizes revenue when the consultation service was completed, the control of the medicine was delivered to the patients and the appointment of the laboratory test was made, in an amount that reflects the consideration which the entity expects to receive in exchange for those goods or services. It also impacts certain other areas, such as the accounting for costs to obtain or fulfill a contract. The standard also requires disclosure of the nature, amount, timing, and uncertainty of revenue and cash flows arising from contracts with customers.

The Group is an “emerging growth company” as defined in the Jumpstart Our Business Startups Act of 2010 (the “JOBS Act”). Under the JOBS Act, emerging growth companies (“EGCs”) can delay adopting new or revised accounting standards issued subsequent to the enactment of the JOBS Act until such time as those standards apply to private companies. Management has adopted this standard effective January 1, 2019 using the modified-retrospective approach, in which case the cumulative effect of applying the standard would be recognized at the date of initial application. The Group also estimates there will not be a material impact to the beginning balance of retained earnings.

In January 2016, the FASB issued ASU No. 2016-01, Financial Instruments—Overall: Recognition and Measurement of Financial Assets and Financial Liabilities (ASU 2016-01), which requires equity investments to be measured at fair value through net income. Equity investments that are accounted for under the equity method are not impacted. ASU 2016-01 provides that equity investments without readily determinable fair values can be valued at cost minus impairment using a simplified impairment assessment that utilizes qualitative assessments. ASU 2016-01 requires separate presentation of the financial assets and liabilities by category and form. ASU 2016-01 should be applied prospectively and will be effective for fiscal years beginning after December 15, 2017, and for interim periods within those fiscal years. As an EGC, the Group chose to delay the adoption of the update for one year. The Group adopted the new standard on January 1, 2019. The most significant impact to the consolidated financial statements relates to the recognition and measurement of equity investments at fair value in the consolidated statements of operations. The management has elected to use the measurement alternative, defined as cost, less impairments, adjusted by observable price changes. The management anticipates that the adoption of ASU 2016-01 will increase the volatility of the other (loss) income, net, as a result of the remeasurement of the equity securities upon the occurrence of observable price changes and impairments.

In February 2016, the FASB issued ASU 2016-02, Leases (“ASU 2016-02”), which requires a lessee to recognize a right-of-use asset and a lease liability for operating leases, initially measured at the present value of the future lease payments, in the balance sheet. ASU 2016-02 also requires a lessee to recognize a single lease cost, calculated so that the cost of the lease is allocated over the lease term, generally on a straight-line basis. This new guidance is effective for fiscal years beginning after December 15, 2019. Early adoption is permitted. The Group is currently evaluating the potential effects of adopting the provisions of ASU 2016-02 on its consolidated financial statements.



**APTORUM GROUP LIMITED**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**(Stated in U.S. Dollars)**

In August 2018, the FASB issued ASU No. 2018-13, Disclosure Framework – Changes to the Disclosure Requirements for Fair Value Measurement, which amends ASC 820, Fair Value Measurement. This ASU modifies the disclosure requirements for fair value measurements by removing, modifying, or adding certain disclosures. The effective date is the first quarter of fiscal year 2021, with early adoption permitted for the removed disclosures and delayed adoption until fiscal year 2021 permitted for the new disclosures. The removed and modified disclosures will be adopted on a retrospective basis and the new disclosures will be adopted on a prospective basis. The adoption will not have a material effect on the Group’s financial statements.

The Group does not believe other recently issued but not yet effective accounting standards, if currently adopted, would have a material effect on the consolidated financial position, statements of operations and cash flows.

**4. CHANGE IN STATUS**

Prior to the March 1, 2017 change in status as an investment company, the Company recorded its investments at fair value and recorded the changes in the fair value as unrealized gain or loss. In addition, the Company recorded its direct and indirect wholly and majority owned subsidiaries at fair value since they were operating companies not providing services to the Company and not investment companies.

Upon the effective date of the change in status, the fair value accounting as an investment company was no longer applicable to the Company, rather the Company began presenting such subsidiaries on a consolidated basis. The investments in unaffiliated issuers are measured at fair value or cost, less impairment. The Company’s initial carrying value of the net assets of the investments in subsidiaries was the fair value on the effective date of the change in status determined as follows:

Fair value of subsidiaries as of the effective date of the change in status on March 1, 2017	\$	757,647
Total net assets of the combined properties		
Intangible assets, net	\$	194,146
Cash		593,800
Prepayments		256
An amount due to a related party		(28,717)
Accounts payable and accrued expenses		(207,692)
Increase to the initial carrying value of the net assets on the effective date of the change in status on March 1, 2017	\$	<u>205,854</u>

**5. VARIABLE INTEREST ENTITY**

On July 28, 2017, the Group, through one of its subsidiaries, Aptorum Therapeutics Limited, entered into a convertible loan agreement (the “Agreement”) with Acticule Life Sciences Limited (“Acticule”), at interest rate of 0% but no amount or maturity limits.

Acticule was incorporated by an individual on June 30, 2017, with paid-in capital of \$1. Acticule mainly engaged in research and development of life science and biopharmaceutical products. From July 28, 2017 to December 22, 2017, Acticule has drawn down the loan in aggregate amount of \$1,000,000. Other than that, Acticule has not obtained any financial support for its business operation.

After evaluation of the design of Acticule as the basis for determining its variability in applying the variable interest entity model, the Group believes that Acticule was a VIE, and the Group is the primary beneficiary, due to the Group has the power to ultimately direct the activities and significantly affect its economic performance, as well as the obligation to absorb losses or the right to receive benefit from Acticule that could potentially be significant to Acticule. Therefore, the financial statement of Acticule was consolidated by the Group since the first loan drawn down to Acticule on July 28, 2017.

**APTORUM GROUP LIMITED**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
(Stated in U.S. Dollars)

On December 22, 2017, Acticule accepted the election made by the Group to convert the entire loan of \$1,000,000 into shares in Acticule. After the conversion, the Group held approximately 100% equity interest of Acticule, which ceased to be a VIE but consolidated by the Group under the voting interest entity model thereafter.

From July 28, 2017 to December 22, 2017, Acticule was consolidated under the VIE model, and its operating expense and net loss are listed below:

	<b>July 28, 2017 through December 22, 2017</b>
Total expense	\$ 559,850
Net loss	\$ 559,850

**6. FAIR VALUE MEASUREMENT**

The following table provides the assets and liabilities carried at fair value measured on a recurring basis as of December 31, 2018 and 2017:

<b>December 31, 2018</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Total</b>
<b>Current Assets</b>				
Marketable securities – Available-for-sale securities				
Common stocks	\$ 813,728	\$ 200,610	\$ -	\$ 1,014,338
Investments in derivatives				
Warrants	-	-	115,721	115,721
<b>Total assets at fair value</b>	<b>\$ 813,728</b>	<b>\$ 200,610</b>	<b>\$ 115,721</b>	<b>\$ 1,130,059</b>
<b>December 31, 2017</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Total</b>
<b>Current Assets</b>				
Marketable securities – Available-for-sale securities				
Common stocks	\$ -	\$ 1,972,648	\$ -	\$ 1,972,648
Investments in derivatives				
Warrants	24,182	-	1,070,940	1,095,122
<b>Total assets at fair value</b>	<b>\$ 24,182</b>	<b>\$ 1,972,648</b>	<b>\$ 1,070,940</b>	<b>\$ 3,067,770</b>

The following is a reconciliation of Level 3 assets during the year ended December 31, 2018:

	<b>Warrants</b>
<b>Balance at January 1, 2018</b>	<b>\$ 1,070,940</b>
Change in unrealized depreciation	(955,219)
<b>Balance at December 31, 2018</b>	<b>\$ 115,721</b>
Net change in unrealized depreciation relating to investments still held at December 31, 2018	(955,219)

**APTORUM GROUP LIMITED**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
(Stated in U.S. Dollars)

The following is a reconciliation of Level 3 assets for the period February 28, 2017 through December 31, 2017:

	<b>Aptorum Therapeutics-- related party</b>	<b>Common Stocks</b>	<b>Preferred Stocks</b>	<b>Warrants</b>	<b>Convertible Notes</b>	<b>Total</b>
<b>Balance at February 28, 2017</b>	<b>\$ 757,647</b>	<b>\$ 7,920,000</b>	<b>\$ 4,314,998</b>	<b>\$ 1,907,470</b>	<b>\$ 3,082,020</b>	<b>\$ 17,982,135</b>
Transfer out of Level 3 due to change in status – consolidated subsidiary (a)	(757,647)	-	-	-	-	(757,647)
Transfer out of fair value leveling since recorded as cost method (b)	-	(7,920,000)	(4,314,998)	-	-	(12,234,998)
<b>Balance at March 1, 2017</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,907,470</b>	<b>\$ 3,082,020</b>	<b>\$ 4,989,490</b>
Reclassification between different investment type (c)	-	-	3,079,715	-	(3,079,715)	-
Transfer out of fair value leveling since recorded as cost method (c)	-	-	(3,079,715)	-	-	(3,079,715)
Change in unrealized depreciation	-	-	-	(836,530)	(2,305)	(838,835)
<b>Balance at December 31, 2017</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,070,940</b>	<b>\$ -</b>	<b>\$ 1,070,940</b>
Net change in unrealized depreciation relating to investments still held at December 31, 2017	-	-	-	(836,530)	-	(836,530)

- a. Upon the effective date of the change in status, March 1, 2017, the subsidiaries were no longer recognized at fair value and were instead consolidated when preparing the financial statements.
- b. The equity investments of common stock and preferred stock were non-marketable investments under cost method upon change in status. Subsequently, Athenex Inc. was listed on the NASDAQ stock exchange on June 14, 2017 and common stock with an amount of \$7,920,000 has been transferred to common stock in Level 1 with amount of \$7,920,000, which was subsequently sold in December 2017 with a gain from the marketable securities of \$3,722,234 recognized.
- c. On March 9, 2017, the convertible promissory notes (including its accrued interest, totally \$520,822) of Centrexion Therapeutics Corporation was converted into preferred stock (Series C) of the same company. On May 25, 2017, the convertible promissory notes (including its accrued interest, totaling \$2,558,893) of Alzheon Inc. was converted into preferred stock (Series B) of the same company. The preferred stocks are considered non-marketable investments and were therefore reclassified out of the fair value hierarchy to be reported under cost method.

**APTORUM GROUP LIMITED**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
(Stated in U.S. Dollars)

The following table presents the quantitative information about the Group's Level 3 fair value measurements of investment as of December 31, 2018 and 2017, which utilized significant unobservable internally-developed inputs:

<b>December 31, 2018</b>	<b>Valuation technique</b>	<b>Unobservable input</b>	<b>Range (weighted average)</b>	<b>Sensitivity of fair value to input</b>
Warrants	Black-Scholes Model	Estimated time to exit Historical Volatility	12-30 months 73% - 188%	10% increase (decrease) in volatility would result in increase (decrease) in fair value by \$19,691

<b>December 31, 2017</b>	<b>Valuation technique</b>	<b>Unobservable input</b>	<b>Range (weighted average)</b>	<b>Sensitivity of fair value to input</b>
Warrants	Black-Scholes Model	Estimated time to exit Historical Volatility	24-42 months 97% - 136%	10% increase (decrease) in volatility would result in increase (decrease) in fair value by \$122,664

Warrants

As of December 31, 2018 and 2017, the volume of the Group's derivative activities based on their notional amount and number of contracts, categorized by primary underlying risk, are as follows:

<b>Primary underlying risk</b>	<b>Long Exposure</b>			
	<b>December 31, 2018</b>		<b>December 31, 2017</b>	
	<b>Notional Amounts</b>	<b>Number of Contracts</b>	<b>Notional Amounts</b>	<b>Number of Contracts</b>
<b>Equity Price</b>				
Warrants	\$ 218,270	2,257,682	\$ 2,261,530	2,338,290

The following table identifies the fair value amounts of derivative instruments included in the consolidated balance sheets as derivative contracts, categorized by primary underlying risk, at December 31, 2018 and 2017. The following table also identifies the net gain and loss amounts included in the consolidated statement of operations as net unrealized gain from derivative contracts, categorized by primary underlying risk, for the year ended December 31, 2018 and the period March 1, 2017 through December 31, 2017:

<b>Primary underlying risk</b>	<b>Year ended December 31, 2018</b>			
	<b>Derivative assets</b>	<b>Derivative liabilities</b>	<b>Realized loss</b>	<b>Unrealized loss</b>
<b>Equity Price</b>				
Warrants	\$ 115,721	\$ -	\$ (19,225)	\$ (955,219)

<b>Primary underlying risk</b>	<b>March 1, 2017 through December 31, 2017</b>			
	<b>Derivative assets</b>	<b>Derivative liabilities</b>	<b>Realized loss</b>	<b>Unrealized loss</b>
<b>Equity Price</b>				
Warrants	\$ 1,095,122	\$ -	\$ (7,094)	\$ (820,407)

**APTORUM GROUP LIMITED**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
(Stated in U.S. Dollars)

**7. OTHER RECEIVABLES AND PREPAYMENTS**

Other receivables and prepayments as of December 31, 2018 and 2017 consisted of:

	<b>December 31, 2018</b>	<b>December 31, 2017</b>
Prepaid insurance	\$ 147,864	\$ 107,842
Prepaid service fee	75,224	91,002
Rental deposits	8,576	61,333
Prepaid rental expenses	46,948	11,910
Prepaid research and development expenses	41,614	-
Other receivables	109,435	16,186
Others	34,495	22,057
	<u>\$ 464,156</u>	<u>\$ 310,330</u>

**8. PROPERTY, PLANT AND EQUIPMENT, NET**

Property, plant and equipment as of December 31, 2018 and 2017 consisted of:

	<b>December 31, 2018</b>	<b>December 31, 2017</b>
Building	\$ 1,488,396	\$ -
Computer equipment	64,911	14,057
Furniture, fixture, and office and medical equipment	262,819	-
Leasehold improvements	664,713	-
Laboratory equipment	2,045,034	339,000
Motor vehicle	239,093	-
	<u>4,764,966</u>	<u>353,057</u>
Less: accumulated depreciation	504,364	6,470
Property, plant and equipment, net	<u>\$ 4,260,602</u>	<u>\$ 346,587</u>

Depreciation expenses for property, plant and equipment amounted to \$497,908 and \$6,470 for the year ended December 31, 2018 and the period March 1, 2017 through December 31, 2017, respectively.

**APTORUM GROUP LIMITED**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
(Stated in U.S. Dollars)

**9. INTANGIBLE ASSETS, NET**

	<b>December 31, 2018</b>	<b>December 31, 2017</b>
Gross carrying amount		
Prepaid unpatented license	\$ 200,000	\$ 200,000
Prepaid patented licenses	1,322,820	1,322,820
Computer software	61,384	2,320
	<u>1,584,204</u>	<u>1,525,140</u>
Less: accumulated amortization		
Prepaid patented licenses	155,026	52,433
Computer software	19,638	-
	<u>174,664</u>	<u>52,433</u>
Intangible assets, net		
Prepaid unpatented license	200,000	200,000
Prepaid patented licenses	1,167,794	1,270,387
Computer software	41,746	2,320
Intangible assets, net	<u>\$ 1,409,540</u>	<u>\$ 1,472,707</u>

As of December 31, 2018 and 2017, the Group has capitalized seven of the exclusive licenses which includes seven patented and one unpatented technologies in the areas of neurology, infectious diseases, gastroenterology, oncology, surgical robotics and natural health. Pursuant to the license agreements, the Group paid upfront payments and became the exclusive licensee to prosecute certain patents developed or licensed under the applicable agreements.

The Group recognized the prepaid unpatented license to reflect the fair value of the subsidiaries as of the date of the change in status from an investment company. The Group capitalizes the prepaid patented license for the exclusive rights with completed filing of patents in certain jurisdictions (e.g., the United States of America and Europe) and alternative future uses.

Prepaid unpatented license is indefinite-lived intangible assets which are tested for impairment annually. Prepaid patented licenses and computer software are finite-lived intangible assets which are amortized over their estimated useful life. Amortization expenses for finite-lived intangible assets amounted to \$124,551 and \$52,433 for the year ended December 31, 2018 and the period March 1, 2017 through December 31, 2017, respectively. The Group wrote off the cost and the related amortization of \$2,320 after the expiration of the computer software for the year ended December 31, 2018.

The Group expects amortization expense related to its finite-lived intangible assets for the next five years and thereafter to be as follows as of December 31, 2018:

<b>For the years ending December 31,</b>	<b>Amount</b>
2019	\$ 133,095
2020	111,588
2021	104,842
2022	102,593
2023	102,593
Thereafter	654,829
Total	<u>\$ 1,209,540</u>

**APTORUM GROUP LIMITED**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
(Stated in U.S. Dollars)

**10. LONG-TERM DEPOSITS**

Long-term deposits as of December 31, 2018 and 2017 consisted of:

	<b>December 31, 2018</b>	<b>December 31, 2017</b>
Rental deposits	\$ 132,043	\$ 20,092
Prepayments for equipment	3,285,135	1,737,664
	<b>\$ 3,417,178</b>	<b>\$ 1,757,756</b>

**11. ACCOUNTS PAYABLE AND ACCRUED EXPENSES**

Accounts payable and accrued expenses as of December 31, 2018 and 2017 consisted of:

	<b>December 31, 2018</b>	<b>December 31, 2017</b>
License agreements payable	\$ -	\$ 356,410
Healthcare consultation service payable	40,139	-
Professional fees payable	178,117	154,429
Research and development expenses payable	398,899	104,013
Interest payable	223,802	-
Payables for leasehold improvement and equipment	73,864	-
Salary payable	183,065	-
Deferred rent	58,810	-
Others	90,451	38,496
	<b>\$ 1,247,147</b>	<b>\$ 653,348</b>

**12. INCOME TAXES**

The Company and its subsidiaries file tax returns separately.

Income taxes

Cayman Islands: under the current laws of the Cayman Islands, the Company and its subsidiaries in the Cayman Islands are not subject to taxes on their income and capital gains.

Hong Kong: in accordance with the relevant tax laws and regulations of Hong Kong, a company registered in Hong Kong is subject to income taxes within Hong Kong at the applicable tax rate on taxable income. In March 2018, the Hong Kong Government introduced a two-tiered profit tax rate regime by enacting the Inland Revenue (Amendment) (No.3) Ordinance 2018 (the "Ordinance"). Under the two-tiered profits tax rate regime, the first \$2 million of assessable profits of qualifying corporations is taxed at 8.25% and the remaining assessable profits at 16.5%. The Ordinance is effective from the year of assessment 2018-2019. According to the policy, if no election has been made, the whole of the taxpaying entity's assessable profits will be chargeable to Profits Tax at the rate of 16.5% or 15%, as applicable. Because the preferential tax treatment is not elected by the Group, all the subsidiaries registered in Hong Kong are subject to income tax at a rate of 16.5%. The subsidiaries registered in Hong Kong did not have assessable profits that were derived Hong Kong during the year ended December 31, 2018 and the period March 1, 2017 through December 31, 2017. Therefore, no Hong Kong profit tax has been provided for in the periods presented.

Macao: Taxpayers in Macao are divided into Group A and Group B, Group A taxpayers are companies that have maintained proper accounting books and records, with capital of MOP1,000,000 and above or average assessed annual taxable profits in the past three years of more than MOP500,000, those who do not meet the criteria of Group A taxpayers are assigned to Group B. Group B taxpayers are assessed by the Macao Finance Bureau on a deemed profit basis, and Group B taxpayers are unable to carry forward tax losses. The capital of the subsidiary in Macao is MOP100,000 and it is assigned to Group B taxpayer. The tax loss of subsidiary in Macao cannot be utilized.

**APTORUM GROUP LIMITED**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**(Stated in U.S. Dollars)**

United Kingdom: in accordance with the relevant tax laws and regulations of United Kingdom, a company registered in the United Kingdom is subject to income taxes within United Kingdom at the applicable tax rate on taxable income. All the United Kingdom subsidiaries that are not entitled to any tax holiday were subject to income tax at a rate of 19%. The subsidiary in United Kingdom did not have assessable profits that were derived United Kingdom during the year ended December 31, 2018 and the period March 1, 2017 through December 31, 2017. Therefore, no United Kingdom profit tax has been provided for in the periods presented.

The components of the provision for income taxes expenses are:

	<b>Year ended December 31, 2018</b>	<b>March 1, 2017 through December 31, 2017</b>
Current	\$ -	\$ -
Deferred	-	-
<b>Total income taxes expense</b>	<b>\$ -</b>	<b>\$ -</b>

The reconciliation of income taxes expenses computed at the Hong Kong statutory tax rate applicable to income tax expense is as follows:

	<b>Year ended December 31, 2018</b>	<b>March 1, 2017 through December 31, 2017</b>
Net loss before tax	\$ (15,134,485)	\$ (2,561,507)
Provision for income taxes at Hong Kong statutory income tax rate (16.5%)	(2,497,190)	(422,649)
Impact of different tax rates in other jurisdictions	(3,066)	-
Non-taxable income	(95,018)	-
Non-deductible expenses	540,893	-
Prior year tax effect	-	(576,970)
Change in valuation allowance	2,054,381	999,619
<b>Effective income tax expense</b>	<b>\$ -</b>	<b>\$ -</b>



**APTORUM GROUP LIMITED**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
(Stated in U.S. Dollars)

Deferred tax asset, net

Deferred tax assets and deferred tax liabilities reflect the tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purpose and the tax bases used for income tax purpose. The following represents the tax effect of each major type of temporary difference.

	<b>December 31, 2018</b>	<b>December 31, 2017</b>
Deferred tax asset:		
Tax loss carry forward	\$ 3,499,428	\$ 1,249,900
Deferred tax liability:		
Depreciation and amortization	(445,428)	(250,281)
Net deferred tax assets before valuation allowance	3,054,000	999,619
Valuation allowance	(3,054,000)	(999,619)
Deferred tax asset, net	\$ -	\$ -

As of December 31, 2018 and 2017, the Group had net operating loss carry-forwards of \$21,191,279 and \$7,575,154, respectively, including its Hong Kong and United Kingdom operations, which are available to reduce future taxable income; and all of these losses can be carried forward indefinitely.

Valuation allowance was provided against deferred tax assets in entities where it was determined, it was more likely than not that the benefits of the deferred tax assets will not be realized. The Group had deferred tax assets which consisted of tax loss carry forward, which can be carried forward to offset future taxable income. The Group maintains a full valuation allowance on its net deferred tax assets. The management determines it is more likely than not that all of its deferred tax assets will not be utilized. The valuation allowance increased by \$2,054,381 and \$999,619, respectively, for the year ended December 31, 2018 and the period March 1, 2017 through December 31, 2017.

During the preparation of the Group's financial statements for the year ended December 31, 2018, the Group made adjustments to the previously issued consolidated financial statements included in Form F-1 filed with the SEC related to: 1) deferred tax assets and valuation allowance; and 2) deferred tax liabilities, due to that the Cayman Islands subsidiaries which are registered as non-Hong Kong companies in Hong Kong may subject to income taxes within Hong Kong at the applicable tax rate on taxable income. The Company evaluated the materiality of this adjustment and concluded that its impact was not material on its financial statements taken as a whole and did not affect the March 1, 2017 and December 31, 2017 balance sheets, statements of operations, stockholder's equity and cash flows for the periods ended March 1, 2017 and December 31, 2017. The Company elected to adjust the balances in the following tables.

The reconciliation of income taxes expenses computed at the Hong Kong statutory tax rate applicable to income tax expense is as follows:

	<b>March 1, 2017 through December 31, 2017</b>		
	<b>As previously reported</b>	<b>Adjustments</b>	<b>As adjusted</b>
	(audited)		
Net loss before tax	(2,561,507)	-	(2,561,507)
Provision for income taxes at Hong Kong statutory income tax rate (16.5%)	(422,649)	-	(422,649)
Previous year tax effect	-	(576,970)	(576,970)
Impact of different tax rates in other jurisdictions	393,217	(393,217)	-
Changes in valuation allowance	29,432	970,187	999,619
Effective income tax expense	-	-	-

**APTORUM GROUP LIMITED**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
(Stated in U.S. Dollars)

Deferred tax asset, net

	December 31, 2017		
	As previously reported (audited)	Adjustments	As adjusted
Deferred tax asset:			
Tax loss carry forward	29,432	1,220,468	1,249,900
Deferred tax liability			
Depreciation and amortization	-	(250,281)	(250,281)
Net deferred tax assets before valuation allowance	29,432	970,187	999,619
Valuation allowance	(29,432)	(970,187)	(999,619)
Deferred tax asset, net	-	-	-

**13. RELATED PARTY BALANCES AND TRANSACTIONS**

The following is a list of a director and related parties to which the Group has transactions with:

- (a) Ian Huen, the Chief Executive Officer and Executive Director of the Group;
- (b) AENEAS CAPITAL LIMITED, an entity controlled by Darren Lui, the Executive Director of the Group;
- (c) Aeneas Limited, formerly known as Aptus Financial Holdings Limited, an entity controlled by Ian Huen;
- (d) Aeneas Group Limited, formerly known as Aptus Asia Financial Holdings Limited, an entity controlled by Ian Huen.
- (e) Aeneas Management Limited, an entity controlled by Ian Huen.
- (f) Jurchen Investment Corporation, the holding company and an entity controlled by Ian Huen.
- (g) Clark Cheng, the Executive Director of the Group
- (h) Sabrina Khan, the Chief Financial Officer of the Group

Amounts due from related parties

Amounts due from related parties consisted of the following as of December 31, 2018 and 2017:

	December 31, 2018	December 31, 2017
<b>Current</b>		
AENEAS CAPITAL LIMITED	\$ 169,051	\$ -
<b>Non-current</b>		
AENEAS CAPITAL LIMITED	-	106,942
Aeneas Limited	-	190,427
Aeneas Group Limited	-	7,451
Jurchen Investment Corporation	50,000	-
Total	\$ 50,000	\$ 304,820

**APTORUM GROUP LIMITED**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
(Stated in U.S. Dollars)

Amounts due to related parties

Amounts due to related parties consisted of the following as of December 31, 2018 and 2017:

	<b>December 31, 2018</b>	<b>December 31, 2017</b>
AENEAS CAPITAL LIMITED	\$ -	\$ 197,386
Ian Huen	2,545	-
Clark Cheng	8,893	-
Sabrina Khan	21,979	-
<b>Total</b>	<b>\$ 33,417</b>	<b>\$ 197,386</b>

Related party transactions

Related party transactions consisted of the following for the year ended December 31, 2018 and the period March 1, 2017 through December 31, 2017:

	<b>Year ended December 31, 2018</b>	<b>March 1, 2017 through December 31, 2017</b>
A borrowing from a related party (Note 1)		
- Ian Huen	\$ -	\$ 6,410
Payments on behalf of the Group (Note 2)		
- AENEAS CAPITAL LIMITED	\$ -	\$ 64,038
- Aeneas Management Limited	\$ 156,961	\$ -
Expense reimbursement (Note 2)		
- AENEAS CAPITAL LIMITED	\$ 7,331	\$ 66,881
- Aeneas Management Limited	\$ 156,961	\$ -
Payments on behalf of related parties (Note 3)		
- AENEAS CAPITAL LIMITED	\$ 22,934	\$ 109,025
- Aeneas Limited	\$ -	\$ 132,074
- Aeneas Group Limited	\$ -	\$ 1,853
Repayments from related parties (Note 3)		
- AENEAS CAPITAL LIMITED	\$ 132,128	\$ -
- Aeneas Limited	\$ 190,427	\$ -
- Aeneas Group Limited	\$ 7,451	\$ -
Management and administrative fees (Note 4)		
- AENEAS CAPITAL LIMITED	\$ 448,718	\$ 640,932
Settlement of Management fees (Note 4)		
- AENEAS CAPITAL LIMITED	\$ 705,128	\$ -
Rental expense (Note 5)		
- Jurchen Investment Corporation	\$ 207,841	\$ -
Settlement of rental expense (Note 5)		
- Jurchen Investment Corporation	\$ 207,841	\$ -
Payment for rental deposit (Note 5)		
- Jurchen Investment Corporation	\$ 50,000	\$ -

Note 1: The non-interest-bearing loan was borrowed from management for operation purpose and the loan was due on demand.

**APTORUM GROUP LIMITED**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**(Stated in U.S. Dollars)**

Note 2: AENEAS CAPITAL LIMITED has paid the audit fee and legal fee on behalf of the Group and received the expense reimbursement. Some of the amounts were repaid during the periods. The balances were non-interest bearing.

Aeneas Management Limited has paid the operation fee on behalf of the Group and received the expense reimbursement. The balances were non-interest bearing.

Note 3: The Group has paid the expenses on behalf of AENEAS CAPITAL LIMITED, Aeneas Limited and Aeneas Group Limited, and the balances were non-interest bearing. There was no further payment on behalf transactions since April 2018.

Note 4: AENEAS CAPITAL LIMITED provides certain management and administrative services to the Group. For the year ended December 31, 2018 and the period March 1, 2017 through December 31, 2017, AENEAS CAPITAL LIMITED was entitled to receive a fixed amount of administrative fees of HKD500,000 (approximately \$64,103) per calendar month. On July 31, 2018, the agreement was mutually agreed to be terminated.

Note 5: Jurchen Investment Corporation entered into a sub-tenancy agreement with a subsidiary of the Group for the rental arrangement of an office in Hong Kong. For the period February 1, 2018 through January 31, 2021, Jurchen Investment Corporation was entitled to receive a fixed amount of rental fee of HK\$130,000 (approximately USD16,667) per calendar month.

On November 11, 2017, the Group sold 100% of the ownership of Aeneas Limited and its subsidiary, Aeneas Group Limited, to Jurchen Investment Corporation for cash proceeds of \$1. The Group recognized a gain on disposal of entity under common control of \$67,874, net of net liabilities of Aeneas Limited and its subsidiary of \$67,874 in consolidated statement of equity.

On April 3, 2018, Aptorum Medical Limited issued 526 shares to Clark Cheng, decreasing the equity interest of the Company from 100% to 95%.

In April 2018, the Group, AENEAS CAPITAL LIMITED, Aeneas Management Limited and Aeneas Group Limited entered into a net settlement agreement to offset the amounts due from related parties against the amounts due to related parties. Thereby, the Group is released from obligation for a total amount of \$164,973, netting off receivables of total amount of \$197,878 and collected remaining balance of \$32,905.

**APTORUM GROUP LIMITED**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**(Stated in U.S. Dollars)**

**14. CONVERTIBLE DEBTS**

**Convertible promissory notes**

As of December 31, 2017, the Group issued an aggregated amount of \$480,000 of convertible promissory notes (the “Notes”). The Notes will be redeemed by the Group on the earlier of (i) the twelve months anniversary of the issuance date; and (ii) the date that the Group redeems the Notes if it has not consummated the IPO within twelve months of the issuance date. Interest on the Notes is accrued at a rate of 1% per annum and shall be compounded annually. The Notes are convertible into the Class A Ordinary Shares of the Company at a price of 56% discount to the actual price per Class A Ordinary Share to be issued in the IPO at the time that the Group consummates an initial closing of the IPO. The Group concludes that the convertible debts contained a contingent beneficial conversion, which shall not be recognized in earnings until the contingency is resolved.

One of the underwriters in this Offering, Boustead, also served as a placement agent for the Notes and received (i) a cash success fee of \$68,516 and (ii) warrants to purchase 12,663 Class A Ordinary Shares, at an exercise price of \$6.95 per share, subject to adjustment (the “Series A Note PA Warrants”). The Bond PA Warrants are exercisable on a cashless basis. For the year ended December 31, 2018, \$130,935 was recorded as expense for the warrants after the completion of the performance obligation, which is the success of IPO.

In 2018, the Group has additionally issued \$1,120,400 of convertible promissory notes under the same terms above and \$1,600,400 of convertible promissory notes were issued accumulatively, and an unamortized debt issuance costs and discounts of \$22,935 was remaining before the IPO. For the year ended December 31, 2018, the interest accretion and the contractual interest coupon of the Notes was \$26,380 and \$8,802, respectively.

In accordance with Accounting Standards Codification (“ASC”) 470-20-30-8, the Group should record a charge equal to the lower amount of either i) the Intrinsic Value of the BCF or ii) the proceeds realized upon the issuance of the Notes. The Group completed its IPO on December 17, 2018. Pursuant to the terms of the Notes, all of the outstanding principal amount of the Notes was automatically converted into 230,252 Class A Ordinary Shares. The intrinsic value of the BCF was determined to be \$1,600,400. The Group concluded that the contingency was effectively resolved upon the automatic conversion, and recorded a one-time charge to interest expense of \$1,600,400 with a corresponding increase to additional paid-in capital.

**Convertible bonds**

On April 6, 2018, the Group has entered into a subscription agreement (the “Bond Subscription Agreement”) with Peace Range Limited (“Peace Range”). Pursuant to the Bond Subscription Agreement, the Group issued Peace Range a \$15,000,000 convertible bond (the “Bond” and the “Bond Offering”), minus a structuring fee equal to 2% of the principal amount of the Bond, on April 25, 2018. The Group also agreed to pay certain expenses, up to an aggregate limit of \$250,000, incurred by Peace Range in connection with the Bond Offering. The Bond earns interest at the rate of 8% per annum, payable semi-annually. The payment of the Bond is guaranteed by the holding company, Jurchen Investment Corporation. In addition, the repayment of the principal of the Bond and interest payables is secured by a fund the Group set aside in a debt service reserve account, with the funds in the debt service reserve account to be released in an amount pro rata to the principal amount of the Bond being converted. The Bond shall mature on the twelfth calendar month following the issuance date, or with prior written consent of the holders of the Bond, the business day falling six calendar months thereafter. 10% of the principal amount of the Bond shall be automatically converted into our Class A Ordinary Shares upon the closing of the IPO and the rest of the Bond is convertible at the option of the holder commencing on the closing of the IPO until the earlier of the date falling 12 calendar months after the maturity of the Bond and the date falling 12 calendar months after the closing of the IPO, at a price offered at the IPO with a discount ranging from 19% to 22% depending on the date of the IPO occurred. The Group closed the Bond Offering on April 25, 2018 and issued a Bond to Peace Range pursuant to the Bond Subscription Agreement. The contingent beneficial conversion is contained in convertible bonds, which shall not be recognized in earnings until the contingency event, initial closing of the IPO, is resolved. The Group has determined that the conversion feature embedded in the convertible loan should not be bifurcated, and therefore, accounted as a liability in its entirety before the IPO.

**APTORUM GROUP LIMITED**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**(Stated in U.S. Dollars)**

One of the underwriters in this Offering, Boustead, also served as a placement agent for the Bond Offering and received (i) a cash success fee of \$600,000 and (ii) warrants to purchase 67,790 Class A Ordinary Shares, at an exercise price of \$12.17 per share, subject to adjustment (the "Bond PA Warrants"). The Bond PA Warrants are exercisable on a cashless basis. For the year ended December 31, 2018, \$528,762 was recorded as expense for the warrants after the completion of the performance obligation, which is the success of IPO. China Renaissance also served as a placement agent for the Bond Offering; for such services, China Renaissance received a cash success fee of \$150,000.

The Group completed its IPO on December 17, 2018. Pursuant to the terms of the Bond, 10% of the outstanding principal amount of the Bond was automatically converted into 119,217 Class A Ordinary Shares. Upon the automatic conversion, the contingency was effectively resolved, and the value of the 10% of the BCF of \$383,629 was recorded as additional interest expense with a corresponding increase to additional paid-in capital. The remaining BCF of \$3,452,657 was recorded as debt discount, which was amortized through the maturity of the convertible debts, with a corresponding increase to additional paid-in capital. For the year ended December 31, 2018, the interest accretion of the BCF was \$374,707.

As of December 31, 2018, the remaining principal amount of the Bond was \$13,500,000 and the remaining unamortized debt issuance costs and discounts was \$314,744. The aggregate effective interest rate on the Bond is approximately 16.65% per annum. For the year ended December 31, 2018, the interest accretion and the contractual interest coupon of the Bond was \$691,099 and \$815,000, respectively.

The following lists the components of the ending balance of convertible debts as of December 31, 2018 and 2017, respectively:

	<u>December 31, 2018</u>	<u>December 31, 2017</u>
Gross convertible debts	\$ 13,500,000	\$ 480,000
Less: Discount on issuance cost	314,744	-
Discount on BCF	3,077,950	-
Convertible debts, net	<u>\$ 10,107,306</u>	<u>\$ 480,000</u>

**15. FINANCE LEASE**

On May 14, 2018, the Group leased a vehicle for its operation with a lease term of 54 months, and the lease was classified as a finance lease. The following lists the components of the net present value of capital leases obligation:

	<u>December 31, 2018</u>
Gross capital lease obligation	\$ 210,891
Less: Discount on capital lease obligation	23,141
	<u>187,750</u>
Less: Current portion of capital lease obligation	43,877
Net present value of capital lease obligation, net of current portion	<u>\$ 143,873</u>

The present value of the net minimum payments on capital lease as of December 31, 2018 is as follows:

	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>Total</u>
Minimum lease payments	\$ 53,844	\$ 53,845	\$ 53,845	\$ 49,357	\$ 210,891
Less: Amortization of discount	9,967	7,290	4,449	1,435	23,141
Capital lease obligation	<u>\$ 43,877</u>	<u>\$ 46,555</u>	<u>\$ 49,396</u>	<u>\$ 47,922</u>	<u>\$ 187,750</u>

**APTORUM GROUP LIMITED**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
(Stated in U.S. Dollars)

**16. ORDINARY SHARES**

According to the Restructuring Plan, the ten management shares of par value of \$0.01 have been cancelled, and the 256,571 issued participating shares of par value of \$0.01 have been compulsorily redeemed and 4,743,419 unissued participating shares of par value of \$0.01 each have been cancelled. Meanwhile, the Company has an authorized share capital consisting of 100,000,000 ordinary shares (the "Ordinary Shares"), par value \$1.00 per share, and 25,657,110 shares was issued to the original investors.

During the period March 1, 2017 through October 13, 2017, 2,207,025 of the Company's Ordinary Shares were issued at a price of \$3.90 per share.

On October 13, 2017, a resolution was passed at a general meeting of the Company that: (i) 72,135,865 of authorized but unissued Ordinary Shares of the Company were replaced with 54,573,620 Class A ordinary shares (the "Class A Ordinary Shares") of par value of \$1.00 per share and 17,562,245 Class B ordinary shares (the "Class B Ordinary Shares") of par value of \$1.00 per share, respectively; (ii) 24,930,839 issued Ordinary Shares, which were issued to three shareholders, were converted into 2,493,085 Class A Ordinary Shares of par value of \$1.00 per share and 22,437,754 Class B Ordinary Shares of par value of \$1.00 per share; and (iii) 2,933,296 issued Ordinary Shares, which were issued to 24 shareholders, were converted into 2,933,296 Class A Ordinary Shares of par value of \$1.00 per share.

On December 17, 2018, the Group consummated its IPO of 761,419 Class A Ordinary Shares. The shares were sold at a price of \$15.80 per share, generating gross proceeds to the Group of approximately \$12,030,420. At the completion of the IPO, \$1,732,229 offering costs was charged to additional paid-in capital. Following the consummation of the IPO and automatic conversion of the Notes and the Bonds (see Note 14), there were an aggregate of 6,537,269 Class A Ordinary Shares issued and outstanding as of December 31, 2018.

Holders of Class A Ordinary Shares and Class B Ordinary Shares have the same rights except for the following: (i) each Class A Ordinary Share is entitled to one vote while each Class B Ordinary Share is entitled to ten votes; and (ii) each Class B Ordinary Share is convertible into one Class A Ordinary Share at any time while Class A Ordinary Shares are not convertible under any circumstances.

Share option plan

A total of 5,500,000 Class A Ordinary Shares (subject to subsequent adjustments described more fully below) may be issued pursuant to awards under the 2017 Omnibus Incentive Plan (the "2017 Share Option Plan"). Subsequent adjustments include that on each January 1, starting with January 1, 2020, an additional number of shares equal to the lesser of (i) 2% of the outstanding number of Class A Ordinary Shares (on a fully diluted basis) on the immediate preceding December 31, and (ii) such lower number of Class A Ordinary Shares as may be determined by the board of directors, subject in all cases to adjustments as provided in Section 10 of the 2017 Share Option Plan. Awards will be made pursuant to agreements and may be subject to vesting and other restrictions as determined by the board of directors. As of December 31, 2018, 5,500,000 shares were available for future grant under the 2017 Share Option Plan.

**17. NON-CONTROLLING INTEREST**

As of December 31, 2018, non-controlling interest related to the 1% equity interest in APTUS BIOTECHNOLOGY (MACAO) LIMITED, 10% equity interest in mTOR (Hong Kong) Limited, 5% equity interest in Aptorum Medical Limited, 20% equity interest in Acticule, and 20% equity interest in the Lanither Life Sciences Limited in the consolidated balance sheets was deficit of \$368,533 in total.

As of December 31, 2017, non-controlling interest related to the 1% equity interest in APTUS BIOTECHNOLOGY (MACAO) LIMITED and 10% equity interest in mTOR (Hong Kong) Limited in the consolidated balance sheets was deficit of \$14,045 in total.

**18. WARRANTS**

On November 30, 2018 and December 17, 2018, the Company entered into several agreements with underwriter. In return for the underwriter's services, the Company issued an aggregate of 80,453 and 38,071 warrants to purchase the same number of the Company's ordinary shares, for the convertible debts and the IPO, respectively. The shares were fully vested upon the IPO completion date and the fair value of the warrants was \$659,697 and \$218,147, respectively, which was calculated using the Black-Scholes pricing model, with the following weighted-average assumptions.

	<b>December 31, 2018</b>	<b>As of the date of issuance</b>
Expected volatility	58.18%	65.70%
Risk-free interest rate	2.820%-2.822%	2.820%-2.822%
Expected term from grant date (in years)	2.43	2.50
Dividend rate	-	-
Fair value	\$ 4.60-9.48	\$ 5.73-10.34

Expected Volatility

The expected volatility used for the year ended December 31, 2018 is based upon the Company's peer group trading history.

**APTORUM GROUP LIMITED**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**(Stated in U.S. Dollars)**

Risk-Free Interest Rate

The risk-free interest rate assumption is based on U.S. Treasury instruments with a term consistent with the contractual term of the warrants issued for the year ended December 31, 2018.

Expected Term

The expected term of the warrants issued during the year ended December 31, 2018, represents the remaining contractual term of the warrants.

Dividend Yield

The Company has never declared or paid any cash dividends and does not plan to pay cash dividends in the foreseeable future, and therefore, used an expected dividend yield of zero in the valuation model.

The movement of the warrants for the year ended December 31, 2018 is as following:

	<b>Warrants</b>	<b>Weighted Average Exercise Price</b>	<b>Weighted Average Remaining Contractual Term in Years</b>
Outstanding, January 1, 2018	-	\$ -	-
Granted	118,524	\$ 13.79	2.50
Outstanding, December 31, 2018	118,524	\$ 13.79	2.43

The Group analyzed the warrants issued in the IPO and the convertible debts in accordance with ASC Topic 815 “Derivatives and Hedging”. In accordance with ASC Topic 815, the Group determined that the warrants should not be considered index to its own stock, as the strike price of the warrants is dominated in a currency (USD) other than the primary economy environment currency of the Group (HKD). As a result, the warrants does not meet the scope exception of ASC Topic 815, therefore, should be accounted for as derivative liabilities and measure at fair value with changes in fair value be recorded in earnings in each reporting period.



**APTORUM GROUP LIMITED**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
(Stated in U.S. Dollars)

**19. NET LOSS PER SHARE**

The following table sets forth the computation of basic and diluted loss per share:

	<b>Year ended December 31, 2018</b>	<b>March 1, 2017 through December 31, 2017</b>
Numerator:		
Net loss attributable to Aptorum Group Limited	\$ (14,831,723)	\$ (2,547,462)
Denominator:		
Basic and diluted weighted average common shares outstanding	27,909,788	26,963,435
Basic and diluted loss per share	\$ (0.53)	\$ (0.09)

Basic loss per share is computed by dividing net loss attributable to ordinary shareholders by the weighted average number of ordinary shares outstanding during the period. Diluted loss per share reflects the potential dilution that could occur if securities or other contracts to issue ordinary shares were exercised or converted into ordinary shares. Potential dilutive securities are excluded from the calculation of diluted loss per share in loss periods as their effect would be anti-dilutive.

**20. PRINCIPAL RISK**

**MARKET RISK**

Market risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market variables such as interest rate, foreign exchange rates and equity prices.

The maximum risk resulting from financial instruments equals their fair value.

**(a) Interest rate risk**

Interest rate risk arises from the possibility that changes in interest rates will affect future cash flows or the fair values of financial instruments.

*Interest rate risk sensitivity analysis*

The Group's cash held with the Cash Custodian and the Custodian are exposed to interest rate risk. However, Management considers the risk to be minimal as they are short-term with terms less than one month.

**(b) Currency risk**

Currency risk is the risk that the value of financial assets or liabilities will fluctuate due to changes in foreign exchange rates.

*Currency risk sensitivity analysis*

At December 31, 2018 and 2017, the Group has no significant foreign currency risk because its business is principally conducted in Hong Kong and most of the transactions are denominated in Hong Kong dollar. Since the Hong Kong dollar is pegged to the United States dollar, the Group's exposure to foreign currency risk in respect of the balances denominated in Hong Kong dollars is considered to be minimal.

**APTORUM GROUP LIMITED**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**(Stated in U.S. Dollars)**

***(c) Equity price risk***

Equity price risk is the risk of unfavorable changes in the fair values of equities or equity-linked derivatives as the result of changes in the levels of equity indices and the value of individual shares. The Group has been exposed to price risk on all of its equities investments and equities-linked derivatives.

Management's best estimate of the effect on net assets and profit due to a reasonably possible change of relevant benchmarks, with all other variables held constant is as follows. In practice, the actual trading results may differ from the sensitivity analysis below and the difference could be material.

**LIQUIDITY RISK**

Liquidity risk is the risk that the Group will encounter difficulty in raising funds to meet commitments associated with financial assets and liabilities. Liquidity risk may result from an inability to sell a financial asset quickly at an amount close to its fair value.

The Group invests in private equities which are generally unquoted and not readily marketable. The Group manages its liquidity risk by setting investment limits on unlisted securities that cannot be readily disposed of. Investment of the Group's assets in unquoted securities may restrict the ability of the Group to dispose of its investment at a price and time it wishes to do so.

**CREDIT RISK**

Financial assets which potentially subject the Group to concentrations of credit risk consist principally of bank deposits and balances, and assets held with the Custodian/Prime Broker.

The Custodian/Prime Broker provides the clearing and depository operations for the Group's security transactions. The Custodian/Prime Broker also provides loans and financing to the Group and assets held by the Custodian/Prime Brokers will be charged as a continuing security for the payment and discharge of all liabilities of the Group.

The Group is exposed to credit risk on the cash held with the Custodian/Prime Broker amounting to \$112,746 and \$122,127, respectively, as of December 31, 2018 and 2017. The credit rating ascribed by Standard and Poor's to Credit Suisse as of December 31, 2018 and 2017 was A.

Furthermore, the Group takes on exposure to credit risk on cash and restricted cash balances held with HSBC, DBS Bank Ltd, Hong Kong Branch, Industrial and Commercial Bank of China (Macao) Limited, Bank of China (Hong Kong) Limited and Mitsubishi UFJ Financial Group for the purposes of payments of Group expenses.

All transactions in listed securities are settled or paid for upon delivery using approved and reputable brokers. The risk of default is considered minimal, as delivery of securities sold is only made when the broker has received payment. Payment is made on a purchase when the securities have been received by the broker. The trade will fail if either party fails to meet its obligation. The Group limits its exposure to credit risk by transacting all of its securities and contractual commitment activities with broker-dealers, banks and regulated exchanges with high credit ratings and that the Group considers to be well established.

**APTORUM GROUP LIMITED**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
(Stated in U.S. Dollars)

**CONCENTRATION RISK**

The table below analyses the Group's concentration of equity price risk by country and region, and industry:

	<b>December 31, 2018</b>	<b>December 31, 2017</b>
<b><i>Country and Region</i></b>		
United States of America	\$ 8,224,771	\$ 10,462,483
Total	<u>\$ 8,224,771</u>	<u>\$ 10,462,483</u>
<b><i>Industry</i></b>		
Pharmaceutical and biotechnology	\$ 8,224,285	\$ 10,443,175
Healthcare	486	19,308
Total	<u>\$ 8,224,771</u>	<u>\$ 10,462,483</u>

**INVESTMENTS IN DERIVATIVES RISK**

Warrants

Since warrants have a limited life, as the expiration date of a warrant approaches, the time value of a warrant will decline. In addition, if the stock underlying the warrant declines in price, the intrinsic value of an "in the money" warrant will decline. Further, if the price of the stock underlying the warrant does not exceed the strike price of the warrant on the expiration date, the warrant will expire worthless. As a result, there is the potential for the Group to lose its entire investment in a warrant. The Group is exposed to counterparty risk from the potential failure of an issuer to settle its exercised warrants. The maximum risk of loss from counterparty risk to the Group is the fair value of the contracts and the purchase price of the warrants.

**21. COMMITMENTS AND CONTINGENCIES**

**Lease Commitments**

The total future minimum lease payments under the non-cancellable operating leases with respect to the offices and the laboratory as of December 31, 2018 are as follows:

<b>For the years ending December 31,</b>	<b>Amount</b>
2019	\$ 600,978
2020	626,277
2021	397,842
2022	75,174
2023 and thereafter	-
Total	<u>\$ 1,700,271</u>

Rental expenses for the year ended December 31, 2018 and the period March 1, 2017 through December 31, 2017 were \$591,546, and \$49,518, respectively.

**Contingent Payment Obligations**

The Group has entered into agreements with independent third parties for purchasing office and laboratory equipment. As of December 31, 2018, the Group had non-cancellable purchase commitments of \$487,930.

The Group has additional contingency payment obligations under each of the license agreements, such as milestone payments, royalties, research and development funding, if certain condition or milestone is met.

**APTORUM GROUP LIMITED**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**  
**(Stated in U.S. Dollars)**

Milestone payments are to be made upon achievements of certain conditions, such as Investigational New Drugs (“IND”) filing or U.S. Food and Drug Administration (“FDA”) approval, first commercial sale of the licensed products, or other achievements. The aggregate amount of the milestone payments that the Group are required to pay up to different achievements of conditions and milestones for all the license agreements signed as of December 31, 2018 are below:

	<b>Amount</b>
<b>Drug molecules: up to the conditions and milestones of</b>	
Preclinical to IND filing	\$ 372,564
From entering phase 1 to before first commercial sale	24,216,410
First commercial sale	15,656,410
Net sales amount more than certain threshold in a year	75,769,231
Subtotal	116,014,615
<b>Surgical robotics and medical devices: up to the conditions and milestones of</b>	
Before FDA approval	270,000
FDA approval obtained	200,000
Subtotal	470,000
Total	\$ 116,484,615

For the year ended December 31, 2018 and the period March 1, 2017 through December 31, 2017, the Group incurred \$30,000 and \$nil milestone payments, respectively. For the year ended December 31, 2018 and the period March 1, 2017 through December 31, 2017, the Group did not incur any royalties or research and development funding, respectively. As of December 31, 2018, no other milestone payments had been triggered under any of the existing license agreements.

## 22. SEGMENT REPORTING

The Group’s chief operating decision maker, the Chief Executive Officer, reviews the consolidated results when making decisions about allocating resources and accessing performance of the Group as a whole and hence, the Group has only one reportable segment. The Group does not distinguish between markets or segments for the purpose of internal reporting. The Group’s long-lived assets are substantially all located in Hong Kong and substantially all of the Group’s expense is derived from within Hong Kong. Therefore, no geographical segments are presented.

## 23. SUBSEQUENT EVENTS

The Group has evaluated subsequent events through the date of issuance of the consolidated financial statements, and except for the following events with material financial impact on the Group’s consolidated financial statements, no other subsequent event is identified that would have required adjustment or disclosure in the consolidated financial statements.

On March 15, 2019, the Company granted 215,795 share options to employees, external consultants and advisors of the Group in accordance to the 2017 Share Option Plan with an exercise price of \$12.91.

On March 29, 2019, Aptorum Medical Limited issued 112 shares to a director of the Company, decreasing the equity interest of the Company from 95% to 94%.

**APTORUM GROUP LIMITED**  
**Financial Statements**

**Table of Contents**

<a href="#">Condensed Consolidated Balance Sheets as of June 30, 2019 (Unaudited) and December 31, 2018</a>	F-42
<a href="#">Condensed Consolidated Statements of Operations and Comprehensive Loss for the six months ended June 30, 2019 and 2018 (Unaudited)</a>	F-43
<a href="#">Condensed Consolidated Statements of Changes in Equity for the six months ended June 30, 2019 and 2018 (Unaudited)</a>	F-44
<a href="#">Condensed Consolidated Statements of Cash Flows for the six months ended June 30, 2019 and 2018 (Unaudited)</a>	F-45
<a href="#">Notes to Condensed Consolidated Financial Statements (Unaudited)</a>	F-46

**APTORUM GROUP LIMITED**  
**CONDENSED CONSOLIDATED BALANCE SHEETS**  
**June 30, 2019 and December 31, 2018**  
(Stated in U.S. Dollars)

	<b>As of June 30, 2019</b>	<b>As of December 31, 2018</b>
	<u>(Unaudited)</u>	<u></u>
<b>ASSETS</b>		
<b>Current assets:</b>		
Cash	\$ 4,466,741	\$ 12,006,624
Restricted cash	-	14,100,614
Digital currencies	117,482	-
Accounts receivable	8,367	2,827
Inventories	33,911	30,642
Marketable securities, at fair value	1,669,096	1,014,338
Investments in derivatives	425,916	115,721
Amounts due from related parties	-	169,051
Due from brokers	109,134	818,968
Other receivables and prepayments	911,997	464,156
<b>Total current assets</b>	<u>7,742,644</u>	<u>28,722,941</u>
Property, plant and equipment, net	5,777,657	4,260,602
Non-marketable investments	7,112,180	7,094,712
Intangible assets, net	1,347,594	1,409,540
Amounts due from related parties	50,000	50,000
Long-term prepayments	2,048,570	3,417,178
Loan receivable	571,975	-
Other non-current asset	89,750	119,667
<b>Total Assets</b>	<u>\$ 24,740,370</u>	<u>\$ 45,074,640</u>
<b>LIABILITIES AND EQUITY</b>		
<b>LIABILITIES</b>		
<b>Current liabilities:</b>		
Amounts due to related parties	\$ 3,512	\$ 33,417
Accounts payable and accrued expenses	548,433	1,247,147
Finance lease payable, current portion	45,196	43,877
Warrant liabilities	-	753,118
Convertible debts	-	10,107,306
<b>Total current liabilities</b>	<u>597,141</u>	<u>12,184,865</u>
Finance lease payable, non-current portion	<u>120,941</u>	<u>143,873</u>
<b>Total Liabilities</b>	<u>\$ 718,082</u>	<u>\$ 12,328,738</u>
Commitments and contingencies	-	-
<b>EQUITY</b>		
Class A Ordinary Shares (\$1.00 par value; 60,000,000 shares authorized, 6,597,362 shares issued and outstanding as at June 30, 2019 and 6,537,269 shares issued and outstanding as at December 31, 2018, respectively)	\$ 6,597,362	\$ 6,537,269
Class B Ordinary Shares (\$1.00 par value; 40,000,000 shares authorized, 22,437,754 shares issued and outstanding as at June 30, 2019 and December 31, 2018)	22,437,754	22,437,754
Additional paid-in capital	23,857,814	23,003,285
Accumulated other comprehensive income (loss)	7,345	(1,484,688)
Accumulated deficit	(27,957,689)	(17,379,185)
<b>Total equity attributable to the shareholders of Aptorum Group Limited</b>	<u>24,942,586</u>	<u>33,114,435</u>
Non-controlling interests	(920,298)	(368,533)
<b>Total equity</b>	<u>24,022,288</u>	<u>32,745,902</u>
<b>Total Liabilities and Equity</b>	<u>\$ 24,740,370</u>	<u>\$ 45,074,640</u>

See accompanying notes to the condensed consolidated financial statements.

**APTORUM GROUP LIMITED**  
**CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS**  
For the six months ended June 30, 2019 and 2018  
(Stated in U.S. Dollars)

	For the six months ended June 30,	
	2019 (Unaudited)	2018 (Unaudited)
<b>Revenue</b>		
Healthcare services income	\$ 239,792	\$ 26,662
<b>Operating expenses</b>		
Costs of healthcare services	(371,218)	(22,749)
Research and development expenses	(2,714,217)	(1,342,179)
General and administrative fees	(3,232,916)	(2,238,025)
Legal and professional fees	(2,008,774)	(1,063,032)
Other operating expenses	(120,788)	(235,413)
Total operating expenses	<u>(8,447,913)</u>	<u>(4,901,398)</u>
<b>Other loss</b>		
Gain on investments in marketable securities, net	315,977	-
Gain on non-marketable investment	1,147,199	-
Gain (loss) on investments in derivatives, net	310,195	(359,844)
Realized gain on use of digital currencies	12,334	-
Changes in fair value of warrant liabilities	(866,300)	-
Gain on extinguishment of convertible debts	1,198,490	-
Interest expense, net	(3,678,566)	(301,362)
Sundry income	128,444	-
Total other loss, net	<u>(1,432,227)</u>	<u>(661,206)</u>
<b>Net loss</b>	<u>\$ (9,640,348)</u>	<u>\$ (5,535,942)</u>
Less: net loss attributable to non-controlling interests	(551,877)	(47,570)
<b>Net loss attributable to Aptorum Group Limited</b>	<u>\$ (9,088,471)</u>	<u>\$ (5,488,372)</u>
Net loss per share – basic and diluted	\$ (0.31)	\$ (0.20)
Weighted-average shares outstanding – basic and diluted	<u>28,978,151</u>	<u>27,864,135</u>
<b>Net loss</b>	<u>\$ (9,640,348)</u>	<u>\$ (5,535,942)</u>
<b>Other Comprehensive income (loss)</b>		
Unrealized loss on investments in available-for-sale securities	-	(178,027)
Exchange differences on translation of foreign operations	2,000	167
Other Comprehensive income (loss)	<u>2,000</u>	<u>(177,860)</u>
<b>Comprehensive loss</b>	<u>(9,638,348)</u>	<u>(5,713,802)</u>
Less: comprehensive loss attributable to non-controlling interests	(551,877)	(47,570)
<b>Comprehensive loss attributable to the shareholders of Aptorum Group Limited</b>	<u>(9,086,471)</u>	<u>(5,666,232)</u>

See accompanying notes to the condensed consolidated financial statements.

**APTORUM GROUP LIMITED**  
**CONDENSED CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY**  
For the six months ended June 30, 2019 and 2018  
(Stated in U.S. Dollars)

	Class A Ordinary Shares		Class B Ordinary Shares		Additional Paid-in Capital	Accumulated deficit	Accumulated other comprehensive income (loss)	Non-controlling interests	Total
	Shares	Amount	Shares	Amount					
<b>Balance, December 31, 2018</b>	6,537,269	\$ 6,537,269	22,437,754	\$ 22,437,754	\$ 23,003,285	\$ (17,379,185)	\$ (1,484,688)	\$ (368,533)	\$ 32,745,902
Adjustment to opening balance of equity	-	-	-	-	-	(1,490,033)	1,490,033	-	-
<b>Balance, January 1, 2019</b>	6,537,269	6,537,269	22,437,754	22,437,754	23,003,285	(18,869,218)	5,345	(368,533)	32,745,902
Issuance of share to non-controlling interest	-	-	-	-	(112)	-	-	112	-
Net loss	-	-	-	-	-	(9,088,471)	-	(551,877)	(9,640,348)
Reacquisition of convertible bonds	-	-	-	-	(1,298,490)	-	-	-	(1,298,490)
Share-based compensation	-	-	-	-	593,806	-	-	-	593,806
Exercise of warrants	60,093	60,093	-	-	1,559,325	-	-	-	1,619,418
Exchange difference on translation of foreign operations	-	-	-	-	-	-	2,000	-	2,000
<b>Balance, June 30, 2019 (Unaudited)</b>	<u>6,597,362</u>	<u>\$ 6,597,362</u>	<u>\$ 22,437,754</u>	<u>\$ 22,437,754</u>	<u>\$ 23,857,814</u>	<u>\$ (27,957,689)</u>	<u>\$ 7,345</u>	<u>\$ (920,298)</u>	<u>\$ 24,022,288</u>
<b>Balance, January 1, 2018</b>	5,426,381	\$ 5,426,381	22,437,754	\$ 22,437,754	\$ 5,294,402	\$ (2,547,462)	\$ (367,782)	\$ (14,045)	\$ 30,229,248
Proceeds from non-controlling interest	-	-	-	-	51,727	-	-	(51,726)	1
Net loss	-	-	-	-	-	(5,488,372)	-	(47,570)	(5,535,942)
Unrealized loss on investments in available-for-sale securities	-	-	-	-	-	-	(178,027)	-	(178,027)
Exchange difference on translation of foreign operations	-	-	-	-	-	-	167	-	167
<b>Balance, June 30, 2018 (Unaudited)</b>	<u>5,426,381</u>	<u>\$ 5,426,381</u>	<u>\$ 22,437,754</u>	<u>\$ 22,437,754</u>	<u>\$ 5,346,129</u>	<u>\$ (8,035,834)</u>	<u>\$ (545,642)</u>	<u>\$ (113,341)</u>	<u>\$ 24,515,447</u>

See accompanying notes to the condensed consolidated financial statements.



**APTORUM GROUP LIMITED**  
**CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS**  
For the six months ended June 30, 2019 and 2018  
(Stated in U.S. Dollars)

	Six months ended June 30, 2019 <u>(Unaudited)</u>	Six months ended June 30, 2018 <u>(Unaudited)</u>
<b>Cash flows from operating activities</b>		
<b>Net loss</b>	\$ (9,640,348)	\$ (5,535,942)
Adjustments to reconcile net loss to net cash used in operating activities:		
Amortization and depreciation	585,701	209,267
Share-based compensation	593,806	-
Gain on investments in marketable securities, net	(315,977)	-
Gain on non-marketable investment	(1,147,199)	-
(Gain) loss on investments in derivatives, net	(310,195)	359,844
Changes in fair value of warrant liabilities	866,300	-
Realized gain on use of digital currencies	(12,334)	-
Utilization of digital currencies	94,852	-
Gain on extinguishment of convertible debts	(1,198,490)	-
Interest income	(61,791)	(105,118)
Interest expense and accretion of convertible debts	3,735,027	405,430
Accretion of capital lease obligation	5,309	1,050
<b>Changes in operating assets and liabilities:</b>		
Accounts receivable	(5,540)	(9,835)
Inventories	(3,269)	(3,741)
Other receivables and prepayments	(386,069)	(8,492)
Other non-current asset	-	(179,500)
Long-term prepayments	55,429	(1,631,105)
Due from brokers	709,834	(258)
Due from related parties	169,051	-
Due to related parties	(29,905)	17,612
Accounts payable and accrued expenses	(1,039,201)	165,082
<b>Net cash used in operating activities</b>	<u>(7,335,009)</u>	<u>(6,315,706)</u>
<b>Cash flows from investing activities</b>		
Disbursement of a loan to a third party	(1,400,000)	(3,000,000)
Repayment of a loan from a third party	828,025	3,000,000
Purchases of intangible assets	(10,743)	(237,289)
Purchases of property, plant and equipment	(686,798)	(2,542,039)
Proceeds from sale of marketable securities	790,950	-
Purchase of digital currencies	(200,000)	-
<b>Net cash provided by (used in) investing activities</b>	<u>(678,566)</u>	<u>(2,779,328)</u>
<b>Cash flows from financing activities</b>		
Payment for settlement of convertible debts	(13,600,000)	-
Payment of finance lease obligations	(26,922)	(31,409)
Advances to/payments received from related parties	-	107,434
Proceeds from issuance of convertible debts	-	16,120,400
Payments for debt issuance costs	-	(900,000)
<b>Net cash (used in) provided by financing activities</b>	<u>(13,626,922)</u>	<u>15,296,425</u>
Net (decrease) increase in cash and restricted cash	(21,640,497)	6,201,391
Cash and restricted cash- Beginning of period	26,107,238	16,725,807
Cash and restricted cash - End of period	<u>\$ 4,466,741</u>	<u>\$ 22,927,198</u>
<b>Supplemental disclosures of cash flow information</b>		
Interest paid	\$ 557,333	\$ 1,050
Income taxes paid	\$ -	\$ -
<b>Non-cash investing and financing activities:</b>		
Net settlement of related party balances	\$ -	\$ 164,976
<b>Reconciliation of cash and restricted cash</b>		
Cash	\$ 4,466,741	\$ 6,727,200
Restricted cash	-	16,199,998
Total cash and restricted cash shown on the consolidated statements of cash flows	<u>\$ 4,466,741</u>	<u>\$ 22,927,198</u>

See accompanying notes to the condensed consolidated financial statements.

**APTORUM GROUP LIMITED**  
**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)**  
**(Stated in U.S. Dollars)**

**1. ORGANIZATION**

The Company, formally known as APTUS Holdings Limited and STRIKER ASIA OPPORTUNITIES FUND CORPORATION, is a company incorporated on September 13, 2010 under the laws of the Cayman Islands with limited liability.

The condensed consolidated financial statements include the financial statements of Aptorum Group Limited (the Company”) and its subsidiaries. The Company and its subsidiaries are hereinafter collectively referred to as the “Group”.

On March 1, 2017, the Company changed from an investment fund with management shares and non-voting participating redeemable preference shares to a holding company with operating subsidiaries. After that, the Company has become a biopharmaceutical company currently in the preclinical stage. The Company researches and develops life science and biopharmaceutical products within its wholly-owned subsidiary, Aptorum Therapeutics Limited, formerly known as APTUS Therapeutics Limited (“Aptorum Therapeutics”) and its indirect subsidiary companies (collectively, “Aptorum Therapeutics Group”).

Below summarizes the list of the subsidiaries consolidated as of June 30, 2019:

<b>Name</b>	<b>Incorporation date</b>	<b>Ownership</b>	<b>Place of incorporation</b>	<b>Principle activities</b>
Aptorum Therapeutics Limited	June 30, 2016	100%	Cayman Islands	Research and development of life science and biopharmaceutical products
APTUS MANAGEMENT LIMITED	May 16, 2017	100%	Hong Kong	Provision of management services to its holding company and fellow subsidiaries
Aptorum Medical Limited	August 28, 2017	94%	Cayman Islands	Provision of medical clinic services
Aptorum Innovations Holding Limited	April 15, 2019	100%	Cayman Islands	Investment holding company
Aptorum Innovations Holding Pte. Ltd.	June 5, 2019	100%	Singapore	Research and development of life science and biopharmaceutical products
Aptorum Investment Holding Limited	March 29, 2019	100%	Cayman Islands	Investment holding company
Aptorum Group LLC	August 14, 2019	100%	Nevada	Provision of public relation services to its holding company
Aptus Therapeutics (Hong Kong) Limited	June 30, 2016	100%	Hong Kong	Research and development of life science and biopharmaceutical products
APTUS BIOTECHNOLOGY (MACAO) LIMITED*	June 6, 2016	99%	Macao	Inactive
APTORUM INTERNATIONAL LIMITED	March 26, 2018	100%	United Kingdom	Inactive
Aptorum Pharmaceutical Development Limited	August 28, 2017	100%	Cayman Islands	Research and development of life science and biopharmaceutical products
Smart Pharmaceutical Development Limited (Formerly known as “Forum Property Holding Limited”)	March 6, 2018	100%	Cayman Islands	Inactive

**APTORUM GROUP LIMITED**  
**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)**  
**(Stated in U.S. Dollars)**

<b>Name</b>	<b>Incorporation date</b>	<b>Ownership</b>	<b>Place of incorporation</b>	<b>Principle activities</b>
Videns Incorporation Limited (Formerly named Videns Biosciences Limited and VIDENS CORPORATION)	March 2, 2017	100%	Cayman Islands	Research and development of life science and biopharmaceutical products
mTOR (Hong Kong) Limited	November 4, 2016	90%	Hong Kong	Research and development of life science and biopharmaceutical products
Videns Incorporation (Hong Kong) Limited	July 3, 2017	100%	Hong Kong	Inactive
Nativus Life Sciences Limited	July 7, 2017	100%	Cayman Islands	Research and development of life science and biopharmaceutical products
Nativus Life Sciences (Hong Kong) Limited	August 8, 2017	100%	Hong Kong	Inactive
Scipio Life Sciences Limited	July 19, 2017	100%	Cayman Islands	Research and development of life science and biopharmaceutical products
Scipio Life Sciences (Hong Kong) Limited	August 10, 2017	100%	Hong Kong	Inactive
Claves Life Sciences Limited	August 2, 2017	100%	Cayman Islands	Research and development of life science and biopharmaceutical products
Claves Life Sciences (Hong Kong) Limited	August 22, 2017	100%	Hong Kong	Inactive
Signate Life Sciences Limited	August 28, 2017	100%	Cayman Islands	Research and development of life science and biopharmaceutical products
Signate Life Sciences (Hong Kong) Limited	August 10, 2017	100%	Hong Kong	Inactive
Acticule Life Sciences Limited	June 30, 2017	80%	Cayman Islands	Research and development of life science and biopharmaceutical products
Acticule Life Sciences (Hong Kong) Limited	July 27, 2017	80%	Hong Kong	Inactive
Lanither Life Sciences Limited	April 4, 2018	80%	Cayman Islands	Inactive
Lanither Life Sciences (Hong Kong) Limited	May 25, 2018	80%	Hong Kong	Inactive
SMTPH Limited	April 18, 2019	100%	Seychelles	Investment holding company
Smart Pharmaceutical Research Limited	April 24, 2019	100%	Samoa	Pharmaceutical research and analysis
Smart Pharmaceutical Development Pte. Ltd.	May 10, 2019	100%	Singapore	Research and development of life science and biopharmaceutical products
Smart Pharmaceutical Limited Partnership	June 7, 2019	100%	Seychelles	Issuance of asset backed securities

\* The subsidiary was deregistered on August 20, 2019.

Initial public offering

On December 17, 2018, the Group completed an initial public offering (the “IPO” or “Offering”) with new issuance of 761,419 ordinary shares at \$15.80 per share for total offering size of approximately \$12.0 million before deducting commissions and expenses. The net proceeds from the IPO was approximately \$10.3 million, net of an underwriting discount of approximately \$1.2 million, including \$0.2 million warrant issued, and offering costs of approximately \$0.5 million. The Class A Ordinary Shares began trading on the NASDAQ Global Market on December 17, 2018 under the ticker symbol “APM”.

Deferred offering costs

Deferred offering costs consist principally of legal, printing and registration costs in connection with the Group’s IPO. Such costs are deferred until the closing of the Offering, at which time the deferred costs are offset against the offering proceeds. Deferred offering costs as of December 31, 2018 and 2017 amounted to \$nil on the consolidated balance sheets. At the completion of the IPO, US\$1,732,229 offering costs was charged to additional paid-in capital.

**APTORUM GROUP LIMITED**  
**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)**  
**(Stated in U.S. Dollars)**

**2. LIQUIDITY**

The Company reported a net loss of \$9,640,348 and net operation cash outflow of \$7,335,009 for the six months ended June 30, 2019, respectively. In addition, the Company had an accumulated deficit of \$27,957,689 as of June 30, 2019. The Company's operating results for future periods are subject to numerous uncertainties and it is uncertain if the Company will be able to reduce or eliminate its net losses for the foreseeable future. If management is not able to generate significant revenues from its product candidates currently in development, the Company may not be able to achieve profitability.

The Company's principal sources of liquidity have been cash and marketable securities. As of the date of issuance of the consolidated financial statements, the Company has approximately \$3 million of cash and marketable securities. In addition, based upon the current market price of the Company's marketable securities, it anticipates it can liquidate such marketable securities, if necessary. On August 13, 2019, the Company entered into financing arrangements with Aeneas Group Limited, a related party, and Jurchen Investment Corporation, the ultimate parent of the Group, allowing the Group to access up to a total \$15.0 million in line of credit debt financing. (See Note 17)

The Company believes that available cash and marketable securities, together with signed loan facilities, should enable the Company to meet presently anticipated cash needs for at least the next 12 months after the date that the financial statements are issued and the Company has prepared the consolidated financial statements on a going concern basis. If the Company encounters unforeseen circumstances that place constraints on its capital resources, management will be required to take various measures to conserve liquidity, which could include, but not necessarily be limited to, deferring some of its research and seeking to dispose of marketable securities.

**3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

Principles of consolidation

The condensed consolidated financial statements of the Group are presented on the accrual basis of accounting in accordance with U.S. GAAP and include the accounts of the Company, its direct and indirect wholly and majority owned subsidiaries. All material intercompany balances and transactions have been eliminated in preparation of the condensed consolidated financial statements. Non-controlling interests represent the equity interest that is not owned by the Group.

Use of estimates

The preparation of the condensed consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of increases and decreases in net assets from operations as well as income and expenses during the reporting period. Significant accounting estimates reflected in the Group's condensed consolidated financial statements include valuing equity securities, fair value of investments in securities, convertible debts and finance lease, the useful lives of intangible assets and property, plant and equipment, impairment of long-lived assets, valuation allowance for deferred tax assets, and collectability of receivables. Actual results could differ from those estimates.

**APTORUM GROUP LIMITED**  
**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)**  
**(Stated in U.S. Dollars)**

Digital currencies

Digital currencies are included in current assets in the accompanying condensed consolidated balance sheets. Digital currencies purchased are recorded at cost.

Digital currencies held are accounted for as intangible assets with indefinite useful lives. An intangible asset with an indefinite useful life is not amortized but assessed for impairment annually, or more frequently, when events or changes in circumstances occur indicating that it is more likely than not that the indefinite-lived asset is impaired. Impairment exists when the carrying amount exceeds its fair value, which is measured using the quoted price of the digital currency at the time its fair value is being measured. In testing for impairment, the Company has the option to first perform a qualitative assessment to determine whether it is more likely than not that an impairment exists. If it is determined that it is not more likely than not that an impairment exists, a quantitative impairment test is not necessary. If the Company concludes otherwise, it is required to perform a quantitative impairment test. To the extent an impairment loss is recognized, the loss establishes the new cost basis of the asset. Subsequent reversal of impairment losses is not permitted.

Purchases of digital currencies by the Group are included within investing activities in the accompanying condensed consolidated statements of cash flows. The utilization of digital currencies in exchange of services are included within operating activities in the accompanying condensed consolidated statements of cash flows and any realized gains or losses from such use are included in other income (expense) in the condensed consolidated statements of operations. The Company accounts for its gains or losses in accordance with the first in first out (FIFO) method.

Marketable Securities

Marketable Securities are publicly traded stocks measured at fair value and classified within Level 1 and 2 in the fair value hierarchy because the Group uses quoted prices for identical assets in active markets or inputs that are based upon quoted prices for similar instruments in active markets.

Gain on investments in marketable securities, net, amounting to \$315,977 and \$nil, respectively, were recognized in the condensed consolidated statements of operations for the six months ended June 30, 2019 and 2018.

During the six months ended June 30, 2019, the Group disposed of marketable securities, with sales proceeds of \$790,950 received and recorded in due from brokers, and recognized a realized gain of \$627,014 in the condensed consolidated statements of operations, respectively. No disposal was recorded during the period from January 1, 2018 to June 30, 2018.

Investments in Derivatives

Investments in derivatives consisted of warrants, which are measured at fair value, with gains or losses from changes in fair value recorded through earnings. The fair value of these warrants have been determined using the Black-Scholes pricing mode. The Black-Scholes pricing model provides for assumptions regarding volatility, call and put features and risk-free interest rates within the total period to maturity.

No disposal was recorded during the six months ended June 30, 2019 and 2018. Unrealized gain on the investments in derivatives amounted to \$310,195 was recognized in the condensed consolidated statements of operations for the six months ended June 30, 2019. Unrealized loss on the investments in derivatives amounted to \$359,844 was recognized in the condensed consolidated statements of operations for the six months ended June 30, 2018.

Non-marketable investments

Non-marketable investments are comprising of investments in non-redeemable preferred shares of privately-held companies are not required to be consolidated under the variable interest or voting models. Non-marketable investments are classified as non-current assets on the condensed consolidated balance sheets as those investments do not have stated contractual maturity dates.

Effective January 1, 2019, the non-marketable equity securities not accounted for under the equity method are either carried at fair value or under the measurement alternative upon the adoption of ASU 2016-01. Under the measurement alternative, the carrying value is measured at cost, less any impairment, plus or minus changes resulting from observable price changes in orderly transactions for identical or similar investments of the same issuer. Adjustments are determined primarily based on a market approach as of the transaction date.

**APTORUM GROUP LIMITED**  
**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)**  
**(Stated in U.S. Dollars)**

Convertible debts

The Group determines the appropriate accounting treatment of its convertible debts in accordance with the terms in relation to the conversion feature, call and put option, beneficial conversion feature (“BCF”) and settlement feature. On December 17, 2018, the Group concluded that the contingency of BCF was effectively resolved upon the completion of the IPO and recognized BCF according to the agreement.

The repurchasing of convertible debts is considered an extinguishment and the difference between the repurchasing price of debt, the net carrying amount of the extinguished debt and the intrinsic value of BCF is recognized in the condensed consolidated statements of operations. The intrinsic value of BCF of \$1.3 million at the extinguishment date was recorded as a reduction of additional paid-in capital. On April 24, 2019, the Group repurchased its convertible debts at \$13.6 million with carrying amount of \$13.5 million and the intrinsic value of BCF is \$1.3 million with a gain on extinguishment on convertible debts of \$1.2 million.

Revenue recognition

Revenue is recognized when (or as) the Company satisfies performance obligations by transferring a promised goods or services to a customer. Revenue is measured at the transaction price which is based on the amount of consideration that the Company expects to receive in exchange for transferring the promised goods or services to the customer. Contracts with customers are comprised of invoices and written contracts. Revenue from healthcare services is measured upon the provision of the relevant services.

Recently adopted accounting pronouncements

In May 2014, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2014-09, Revenue from Contracts with Customers (Topic 606) (“ASU 2014-09”), which was subsequently modified in August 2015 by ASU 2015-14, Revenue from Contracts with Customers: Deferral of the Effective Date. We adopted this standard effective January 1, 2019 using the modified retrospective approach, in which case the cumulative effect of applying the standard would be recognized at the date of initial application. The adoption does not have a material impact to the condensed consolidated financial statements.

In January 2016, the FASB issued Accounting Standards Update No. 2016-01 (ASU 2016-01) “Financial Instruments—Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities,” which amends various aspects of the recognition, measurement, presentation, and disclosure of financial instruments. We adopted ASU 2016-01 as of January 1, 2019 using the modified retrospective method for our marketable equity securities and the prospective method for our non-marketable equity securities. The following table summarizes the changes to our condensed consolidated balance sheet for the adoption of ASU 2016-01:

	December 31, 2018	Adjustment due to ASU 2016-01	January 1, 2019
Accumulated deficit	\$ (17,379,185)	\$ (1,490,033)	\$ (18,869,218)
Accumulated other comprehensive loss	\$ (1,484,688)	\$ 1,490,033	\$ 5,345

We have elected to use the measurement alternative for our non-marketable equity securities, defined as cost adjusted for changes from observable transactions for identical or similar investments of the same issuer, less impairment. The adoption of ASU 2016-01 increases the volatility of our other income (expense), net, as a result of the unrealized gain or loss from the remeasurement of our equity securities.

Recently issued accounting standards which have not yet been adopted

In June 2016, the FASB issued ASU 2016-13, Financial Instruments—Credit Losses (“ASU 2016-13”). Subsequently, the FASB issued ASU 2019-05, Financial Instruments—Credit Losses (Topic 326): Targeted Transition Relief. The amendments in ASU 2016-13 update guidance on reporting credit losses for financial assets. These amendments affect loans, debt securities, accounts receivables, net investments in leases, off balance sheet credit exposures, reinsurance receivables, and any other financial assets not excluded from the scope that have the contractual right to receive cash. The amendments are effective for fiscal years beginning after December 15, 2020, and interim periods within those fiscal years. The Company is currently evaluating the impact on its financial statements of adopting this guidance.

**APTORUM GROUP LIMITED**  
**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)**  
(Stated in U.S. Dollars)

**4. REVENUE**

The Company adopted ASC 606 using the modified retrospective method as applied to customer contracts that were not completed as of January 1, 2019. As a result, financial information for reporting periods beginning after January 1, 2019 are presented under ASC 606, while comparative financial information has not been adjusted and continues to be reported in accordance with the Company's historical accounting policy for revenue recognition prior to the adoption of ASC 606.

For the six months ended June 30, 2019, all revenue is come from provision of healthcare services in Hong Kong.

**5. FAIR VALUE MEASUREMENT**

The following table provides the assets and liabilities carried at fair value measured on a recurring basis as of June 30, 2019 and December 31, 2018:

<b>June 30, 2019</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Total</b>
Current Assets				
Marketable securities				
Common stocks	\$ 379,110	\$ 1,289,986	\$ -	\$ 1,669,096
Investments in derivatives				
Warrants	-	-	425,916	425,916
Total assets at fair value	<u>\$ 379,110</u>	<u>\$ 1,289,986</u>	<u>\$ 425,916</u>	<u>\$ 2,095,012</u>
<b>December 31, 2018</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Total</b>
Current Assets				
Marketable securities – Available-for-sale securities				
Common stocks	\$ 813,728	\$ 200,610	\$ -	\$ 1,014,338
Investments in derivatives				
Warrants	-	-	115,721	115,721
Total assets at fair value	<u>\$ 813,728</u>	<u>\$ 200,610</u>	<u>\$ 115,721</u>	<u>\$ 1,130,059</u>

The following is a reconciliation of Level 3 assets for the six months ended June 30, 2019:

	<b>Warrants</b>
<b>Balance at January 1, 2019</b>	<u>\$ 115,721</u>
Change in unrealized appreciation	310,195
<b>Balance at June 30, 2019</b>	<u>\$ 425,916</u>
Net change in unrealized appreciation relating to investments still held at June 30, 2019	310,195

The following is a reconciliation of Level 3 assets for the six months ended June 30, 2018

	<b>Warrants</b>
<b>Balance at January 1, 2018</b>	<u>\$ 1,070,940</u>
Change in unrealized depreciation	(359,836)
<b>Balance at June 30, 2018</b>	<u>\$ 711,104</u>
Net change in unrealized depreciation relating to investments still held at June 30, 2018	(359,836)

**APTORUM GROUP LIMITED**  
**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)**  
(Stated in U.S. Dollars)

The following table presents the quantitative information about the Group's Level 3 fair value measurements of investment as of June 30, 2019 and December 31, 2018, which utilized significant unobservable internally-developed inputs:

<b>June 30, 2019</b>	<b>Valuation technique</b>	<b>Unobservable input</b>	<b>Range (weighted average)</b>	<b>Sensitivity of fair value to input</b>
Warrants	Black-Scholes Model	Estimated time to exit Historical Volatility	6-24 months 75% - 350%	10% increase (decrease) in volatility would result in increase (decrease) in fair value by \$8,157

<b>December 31, 2018</b>	<b>Valuation technique</b>	<b>Unobservable input</b>	<b>Range (weighted average)</b>	<b>Sensitivity of fair value to input</b>
Warrants	Black-Scholes Model	Estimated time to exit Historical Volatility	12-30 months 73% - 188%	10% increase (decrease) in volatility would result in increase (decrease) in fair value by \$19,691

Warrants

As of June 30, 2019 and December 31, 2018, the volume of the Group's derivative activities based on their notional amount and number of contracts, categorized by primary underlying risk, are as follows:

<b>Primary underlying risk</b>	<b>Long Exposure</b>			
	<b>June 30, 2019</b>		<b>December 31, 2018</b>	
	Notional Amounts	Number of Warrants	Notional Amounts	Number of Warrants
<b>Equity Price</b>				
Warrants	\$ 481,794	2,257,682	\$ 218,270	2,257,682

The following table identifies the fair value amounts of derivative instruments included in the statement of financial condition as derivative contracts, categorized by primary underlying risk, at June 30, 2019 and December 31, 2018. The following table also identifies the net gain and loss amounts included in the statements of operations as net unrealized gain from derivative contracts, categorized by primary underlying risk, for the six months ended June 30, 2019 and 2018:

<b>Primary underlying risk</b>	<b>June 30, 2019</b>		<b>December 31, 2018</b>	
	Derivative assets	Derivative liabilities	Derivative assets	Derivative liabilities
<b>Equity Price</b>				
Warrants	\$ 425,916	\$ -	\$ 115,721	\$ -

<b>Primary underlying risk</b>	<b>For the six months ended June 30,</b>			
	<b>2019</b>		<b>2018</b>	
	Realized gain (loss)	Unrealized gain (loss)	Realized gain (loss)	Unrealized gain (loss)
<b>Equity Price</b>				
Warrants	\$ -	\$ 310,195	\$ -	\$ (359,844)

Non-marketable equity securities remeasured during the six months ended June 30, 2019 are classified within Level 3 in the fair value hierarchy because we estimate the value based on valuation methods using the observable transaction price at the transaction date and other unobservable inputs including volatility, rights, and obligations of the securities we hold.



**APTORUM GROUP LIMITED**  
**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)**  
(Stated in U.S. Dollars)

The following is a summary of unrealized gains and losses recorded in other income (expense), net, and included as adjustments to the carrying value of non-marketable investments held as of June 30, 2019:

	<b>For the six months ended June 30, 2019</b>
Upward adjustments	\$ 1,017,468
Total unrealized gain for non-marketable investments	<u>\$ 1,017,468</u>

The following table summarizes the total carrying value of our non-marketable investments held as of June 30, 2019 including cumulative unrealized upward and downward adjustments made to the initial cost basis of the investments:

	<b>June 30, 2019</b>
Initial cost basis	\$ 6,094,712
Upward adjustments	1,017,468
Total carrying value at the end of the period	<u>\$ 7,112,180</u>

**6. OTHER RECEIVABLES AND PREPAYMENTS**

Other receivables and prepayments as of June 30, 2019 and December 31, 2018 consisted of:

	<b>June 30, 2019 (Unaudited)</b>	<b>December 31, 2018</b>
Prepaid insurance	\$ 192,011	\$ 147,864
Prepaid service fee	100,871	75,224
Rental deposits	8,575	8,576
Prepaid rental expenses	48,345	46,948
Prepaid research and development expenses	417,413	41,614
Other receivables	119,735	109,435
Others	25,047	34,495
	<u>\$ 911,997</u>	<u>\$ 464,156</u>

**7. DIGITAL CURRENCIES**

The following table presents additional information about digital currencies:

	<b>June 30, 2019 (Unaudited)</b>	<b>December 31, 2018</b>
<b>Beginning balance</b>	\$ -	\$ -
Purchase of digital currencies	200,000	-
Utilization of digital currencies	(94,852)	-
Realized gain on use of digital currencies	12,334	-
<b>Ending balance</b>	<u>\$ 117,482</u>	<u>\$ -</u>

**8. PROPERTY, PLANT AND EQUIPMENT, NET**

Property, plant and equipment as of June 30, 2019 and December 31, 2018 consisted of:

	<b>June 30, 2019 (Unaudited)</b>	<b>December 31, 2018</b>
Building	\$ 1,488,396	\$ 1,488,396
Computer equipment	73,611	64,911
Furniture, fixture, and office and medical equipment	268,653	262,819
Leasehold improvements	665,546	664,713
Laboratory equipment	4,029,640	2,045,034
Motor vehicle	239,093	239,093
	<u>6,764,939</u>	<u>4,764,966</u>
Less: accumulated depreciation	987,282	504,364
Property, plant and equipment, net	<u>\$ 5,777,657</u>	<u>\$ 4,260,602</u>

Depreciation expenses for property, plant and equipment amounted to \$482,925 and \$124,245 for the six months ended June 30, 2019 and 2018, respectively.

**APTORUM GROUP LIMITED**  
**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)**  
(Stated in U.S. Dollars)

**9. LONG-TERM PREPAYMENTS**

Long-term prepayments as of June 30, 2019 and December 31, 2018 consisted of:

	<b>June 30, 2019</b>	<b>December 31, 2018</b>
	<b>(Unaudited)</b>	
Rental deposits	\$ 132,043	\$ 132,043
Prepayments for equipment	1,916,527	3,285,135
	<b>\$ 2,048,570</b>	<b>\$ 3,417,178</b>

**10. ACCOUNTS PAYABLE AND ACCRUED EXPENSES**

Accounts payable and accrued expenses as of June 30, 2019 and December 31, 2018 consisted of:

	<b>June 30, 2019</b>	<b>December 31, 2018</b>
	<b>(Unaudited)</b>	
Healthcare consultation service payable	\$ 29,870	\$ 40,139
Professional fees payable	58,630	178,117
Research and development expenses payable	162,319	398,899
Interest payable	8,802	223,802
Payables for leasehold improvement and equipment	26,779	73,864
Salaries payable	154,589	183,065
Deferred rent	55,856	58,810
Others	51,588	90,451
	<b>\$ 548,433</b>	<b>\$ 1,247,147</b>

**11. INCOME TAXES**

The Company and its subsidiaries file tax returns separately.

Income taxes

Cayman Islands: under the current laws of the Cayman Islands, the Company and its subsidiaries in the Cayman Islands are not subject to taxes on their income and capital gains.

Hong Kong: in accordance with the relevant tax laws and regulations of Hong Kong, a company registered in Hong Kong is subject to income taxes within Hong Kong at the applicable tax rate on taxable income. All the Hong Kong subsidiaries that are not entitled to any tax holiday were subject to income tax at a rate of 16.5%. The subsidiaries of the Group in Hong Kong did not have assessable profits that were derived Hong Kong during the six months ended June 30, 2019 and 2018. Therefore, no Hong Kong profit tax has been provided for in the periods presented.

United Kingdom: in accordance with the relevant tax laws and regulations of United Kingdom, a company registered in the United Kingdom is subject to income taxes within the United Kingdom at the applicable tax rate on taxable income. All the United Kingdom subsidiaries that are not entitled to any tax holiday were subject to income tax at a rate of 19%. The subsidiary of the Group in the United Kingdom did not have assessable profits that were derived from the United Kingdom during the six months ended June 30, 2019 and 2018. Therefore, no United Kingdom profit tax has been provided for in the periods presented.

On a semi-annually basis, the Group evaluates the realizability of deferred tax assets by jurisdiction and assesses the need for a valuation allowance. In assessing the realizability of deferred tax assets, the Company considers historical profitability, evaluation of scheduled reversals of deferred tax liabilities, projected future taxable income and tax-planning strategies. Valuation allowances have been provided on deferred tax assets where, based on all available evidence, it was considered more likely than not that some portion or all of the recorded deferred tax assets will not be realized in future periods. After consideration of all positive and negative evidence, the Company believes that as of June 30, 2019, it is more likely than not the deferred tax assets will not be realized.

**APTORUM GROUP LIMITED**  
**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)**  
**(Stated in U.S. Dollars)**

**12. RELATED PARTY BALANCES AND TRANSACTIONS**

The following is a list of a director and related parties to which the Group has transactions with:

- (a) Ian Huen, the Chief Executive Officer and Executive Director of the Group;
- (b) Darren Lui, the Executive Director of the Group;
- (c) Aenco Limited, an entity controlled by Ian Huen;
- (d) AENEAS CAPITAL LIMITED, an entity controlled by Ian Huen;
- (e) Aeneas Management Limited, an entity controlled by Ian Huen.
- (f) Jurchen Investment Corporation, the holding company and an entity controlled by Ian Huen.
- (g) Clark Cheng, the Executive Director of the Group
- (h) Sabrina Khan, the Chief Financial Officer of the Group

Amounts due from related parties

Amounts due from related parties consisted of the following as of June 30, 2019 and December 31, 2018:

	<b>June 30, 2019</b>	<b>December 31, 2018</b>
	<b>(Unaudited)</b>	
<b>Current</b>		
AENEAS CAPITAL LIMITED	\$ -	\$ 169,051
<b>Non-current</b>		
Jurchen Investment Corporation	50,000	50,000
<b>Total</b>	<b>\$ 50,000</b>	<b>\$ 50,000</b>

Amounts due to related parties

Amounts due to related parties consisted of the following as of June 30, 2019 and December 31, 2018:

	<b>June 30, 2019</b>	<b>December 31, 2018</b>
	<b>(Unaudited)</b>	
Ian Huen	\$ -	\$ 2,545
Darren Lui	2,732	-
Clark Cheng	-	8,893
Sabrina Khan	780	21,979
<b>Total</b>	<b>\$ 3,512</b>	<b>\$ 33,417</b>

**APTORUM GROUP LIMITED**  
**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)**  
(Stated in U.S. Dollars)

Related party transactions

Related party transactions consisted of the following for the six months ended June 30, 2019 and 2018:

	For the six months ended June 30,	
	2019 (Unaudited)	2018 (Unaudited)
Payments on behalf of the Group (Note I)		
- AENEAS CAPITAL LIMITED (d)	\$ 5,057	\$ -
- Aeneas Management Limited (e)	5,372	8,064
Expense reimbursement (Note I)		
- AENEAS CAPITAL LIMITED (d)	\$ 5,057	\$ 7,331
- Aeneas Management Limited (e)	5,372	8,064
Payments on behalf of related parties (Note II)		
- AENEAS CAPITAL LIMITED (d)	\$ -	\$ 22,933
Repayments from related parties (Note II)		
- AENEAS CAPITAL LIMITED (d)	\$ 169,051	\$ 330,005
Consultant, management and administrative fees (Note III)		
- AENEAS CAPITAL LIMITED (d)	\$ -	\$ 384,615
- Aenco Limited (c)	415,385	-
- Aeneas Management Limited (e)	347,692	-
Settlement of consultant, management and administrative fees (Note III)		
- Aenco Limited (c)	\$ 415,385	\$ -
- Aeneas Management Limited (e)	347,692	-
Rental expense (Note IV)		
- Jurchen Investment Corporation (f)	\$ 113,572	\$ 94,304
Settlement of rental expense (Note IV)		
- Jurchen Investment Corporation (f)	\$ 113,572	\$ 94,304

**APTORUM GROUP LIMITED**  
**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)**  
**(Stated in U.S. Dollars)**

Note I: AENEAS CAPITAL LIMITED has paid the audit fee and legal fee on behalf of the Group and received the expense reimbursement. The balances were non-interest bearing.

Aeneas Management Limited has paid the operation fee on behalf of the Group and received the expense reimbursement. The balances were non-interest bearing.

Note II: The Group has paid the expenses on behalf of AENEAS CAPITAL LIMITED, of which the whole amounts were non-interest bearing. There was no further payment on behalf transactions since April 2018.

Note III: AENEAS CAPITAL LIMITED provided certain management and administrative services to the Group. For the six months ended June 30, 2018, AENEAS CAPITAL LIMITED was entitled to receive a fixed amount of administrative fees of HKD500,000 (approximately \$64,103) per calendar month. On July 31, 2018, the agreement was mutually agreed to be terminated.

Aenco Limited provided certain information technology services to the Group. For the six months ended June 30, 2019, Aenco Limited was entitled to receive a fixed amount of services fees of HKD540,000 (approximately \$69,231) per calendar month. The agreement will expire on December 31, 2019.

Aeneas Management Limited provided certain documentation and administrative services to the Group. For the six months ended June 30, 2019, Aenco Limited was entitled to receive a fixed amount of services fees of HKD452,000 (approximately \$57,949) per calendar month. The agreement will expire on December 31, 2019.

Note IV: Jurchen Investment Corporation entered into a sub-tenancy agreement with a subsidiary of the Group for the rental arrangement of an office in Hong Kong. For the period February 1, 2018 through January 31, 2021, Jurchen Investment Corporation was entitled to receive a fixed amount of rental fee of HKD130,000 (approximately \$16,667) per calendar month.

On April 3, 2018, Aptorum Medical Limited issued 526 shares to Clark Cheng, decreasing the equity interest of the Company from 100% to 95%. On April 1, 2019, Aptorum Medical Limited further issued 112 shares to Clark Cheng in according to the appointment agreement, decreasing the equity interest of the Company from 95% to 94%.

In April 2018, the Group, AENEAS CAPITAL LIMITED, Aeneas Management Limited and Aeneas Group Limited entered into a net settlement agreement to offset the amount due from related parties against the amount due to related parties. Thereby, the Group is released from obligation for a total amount of \$164,973, netting off receivables of total amount of \$197,878 and collected remaining balance of \$32,905.

### **13. CONVERTIBLE DEBTS**

#### **Convertible bonds**

On April 6, 2018, the Group entered into a subscription agreement (the "Bond Subscription Agreement") with Peace Range Limited ("Peace Range"). Pursuant to the Bond Subscription Agreement, the Group issued Peace Range a \$15,000,000 convertible bond (the "Bond" and the "Bond Offering") on April 25, 2018.

The Group completed its IPO on December 17, 2018. Pursuant to the terms of the Bond, 10% of the outstanding principal amount of the Bond was automatically converted into 119,217 Class A Ordinary Shares. Upon the automatic conversion, the contingency was effectively resolved, and the value of the 10% of the BCF of \$383,629 was recorded as additional interest expense with a corresponding increase to additional paid-in capital. The remaining BCF of \$3,452,657 was recorded as debt discount, which was amortized through the maturity of the convertible debts, with a corresponding increase to additional paid-in capital. For the year ended December 31, 2018, the interest amortization of the BCF was \$374,707.

**APTORUM GROUP LIMITED**  
**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)**  
**(Stated in U.S. Dollars)**

The following lists the components of the ending balance of convertible debts as of June 30, 2019 and December 31, 2018, respectively:

	<b>June 30, 2019</b>	<b>December 31, 2018</b>
	(Unaudited)	
Gross convertible debts	\$ -	\$ 13,500,000
Less: Discount on issuance cost	-	314,744
Discount on BCF	-	3,077,950
Convertible debts, net	<u>\$ -</u>	<u>\$ 10,107,306</u>

For the six months ended June 30, 2019 and 2018, the amortization of BCF and interest accretion of convertible debts were \$3,392,694 and \$186,763 respectively. The contractual interest for the six months ended June 30, 2019 and 2018 were \$342,333 and \$218,667 respectively

The repurchasing of convertible debts is considered an extinguishment and the difference between the repurchasing price of debt, and the net carrying amount of the extinguished debt and the intrinsic value of BCF is recognized on the condensed consolidated statements of operations. The intrinsic value of BCF at the extinguishment date decrease to additional paid-in capital. On April 24, 2019, the Group repurchased its convertible debts at \$13.6 million with carrying amount of \$13.5 million and the intrinsic value of BCF is \$1.3 million with a gain on extinguishment on convertible debts of \$1.2 million.

**14. SHARE BASED COMPENSATION EXPENSES**

Share option plan

A total of 5,500,000 Class A Ordinary Shares (subject to subsequent adjustments described more fully below) may be issued pursuant to awards under the 2017 Omnibus Incentive Plan (the "2017 Share Option Plan"). Subsequent adjustments include that on each January 1, starting with January 1, 2020, an additional number of shares equal to the lesser of (i) 2% of the outstanding number of Class A Ordinary Shares (on a fully diluted basis) on the immediate preceding December 31, and (ii) such lower number of Class A Ordinary Shares as may be determined by the board of directors, subject in all cases to adjustments as provided in Section 10 of the 2017 Share Option Plan. Awards will be made pursuant to agreements and may be subject to vesting and other restrictions as determined by the board of directors.

On March 15, 2019, the Company granted 218,610 share options to directors, employees, external consultants and advisors of the Group in accordance to the 2017 Share Option Plan with an exercise price of \$12.91.

A summary of the option activity as of June 30, 2019 and changes during the period is presented below:

Options granted to employees

	Number of share options	Weighted average exercise price \$	Remaining contractual term in years
Outstanding, January 1, 2019	-	-	-
Granted	218,610	12.91	12.31
Outstanding, June 30, 2019	218,610	12.91	12.01
Exercisable, June 30, 2019	-	-	-

**APTORUM GROUP LIMITED**  
**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)**  
**(Stated in U.S. Dollars)**

Intrinsic value is calculated as the amount by which the current market value of a share of common stock exceeds the exercise price multiplied by the number of option. The aggregate intrinsic value of options outstanding as of June 30, 2019 was approximately \$2,669,000.

The fair value of each stock option award is estimated on the date of grant using the Black-Scholes option pricing model under the following assumptions.

	<b>Date of grant</b>
Expected volatility	95.02%-95.15%
Risk-free interest rate	2.46%-2.49%
Expected term from grant date (in years)	6.29-7.29
Dividend rate	-
Dilution factor	0.9962
Fair value	\$10.10-10.52

In connection with the grant of share options to employees and non-employees, the Group recorded share-based compensation charges of \$435,967 and \$157,839, respectively.

## 15. WARRANTS

On November 30, 2018 and December 17, 2018, the Company entered into several agreements with underwriter. In return for the underwriter's services, the Company issued an aggregate of 80,453 and 38,071 warrants to purchase the same number of the Company's ordinary shares, for the convertible debts and the IPO, respectively. The shares were fully vested upon the IPO completion date and the fair value of the warrants was \$659,697 and \$218,147, respectively, which was calculated using the Black-Scholes pricing model, with the following weighted-average assumptions.

The Group analyzed the warrants issued in the IPO and the convertible debts in accordance with ASC Topic 815 "Derivatives and Hedging". In accordance with ASC Topic 815, the Group determined that the warrants should not be considered index to its own stock, as the strike price of the warrants is dominated in a currency (USD) other than the primary economy environment currency of the Group (HKD). As a result, the warrants do not meet the scope exception of ASC Topic 815, therefore, should be accounted for as derivative liabilities and measure at fair value with changes in fair value be recorded in earnings in each reporting period.

All warrants were exercised on June 19, 2019 on a cashless basis. \$866,300 loss in changes in fair value of warrant liabilities was recorded in condensed consolidated statements of operations.

	<b>June 30, 2019</b>	<b>December 31, 2018</b>
Expected volatility	-%	58.18%
Risk-free interest rate	-	2.820%-2.822%
Expected term from grant date (in years)	-	2.43
Dividend rate	-	-
Fair value	\$ -	\$4.60-9.48

### Expected Volatility

The expected volatility used for the year ended December 31, 2018 is based upon the Company's peer group trading history.

### Risk-Free Interest Rate

The risk-free interest rate assumption is based on U.S. Treasury instruments with a term consistent with the contractual term of the warrants issued for the year ended December 31, 2018.

### Expected Term

The expected term of the warrants issued during the year ended December 31, 2018, represents the remaining contractual term of the warrants.

### Dividend Yield

The Company has never declared or paid any cash dividends and does not plan to pay cash dividends in the foreseeable future, and therefore, used an expected dividend yield of zero in the valuation model.

**APTORUM GROUP LIMITED**  
**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)**  
(Stated in U.S. Dollars)

The movement of the warrants for the six months ended June 30, 2019 is as follows:

	Warrants	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term in Years
Outstanding, January 1, 2019	118,524	\$ 13.79	2.43
Exercised	118,524	\$ 13.79	1.96
Outstanding, June 30, 2019	<u>-</u>	<u>\$ -</u>	<u>-</u>

**16. NET LOSS PER SHARE**

The following table sets forth the computation of basic and diluted loss per share:

	For the six months ended June 30,	
	2019 (Unaudited)	2018 (Unaudited)
Numerator:		
Net loss attributable to Aptorum Group Limited	<u>\$ (9,088,471)</u>	<u>\$ (5,488,372)</u>
Denominator:		
Basic and diluted weighted average common shares outstanding	<u>28,978,151</u>	<u>27,864,135</u>
Basic and diluted loss per share	<u>\$ (0.31)</u>	<u>\$ (0.20)</u>

Basic loss per share is computed by dividing net loss attributable to ordinary shareholders by the weighted average number of ordinary shares outstanding during the period. Diluted earnings per share reflects the potential dilution that could occur if securities or other contracts to issue ordinary shares were exercised or converted into ordinary shares. Potential dilutive securities are excluded from the calculation of diluted EPS in loss periods as their effect would be anti-dilutive.

**17. SUBSEQUENT EVENTS**

The Group has evaluated subsequent events through the date of issuance of the condensed consolidated financial statements, and except for the following events with material financial impact on the Group's condensed consolidated financial statements, no other subsequent event is identified that would have required adjustment or disclosure in the condensed consolidated financial statements.

On August 13, 2019, the Group entered into financing arrangements with Aeneas Group Limited, a related party, and Jurchen Investment Corporation, the ultimate parent of the Group, allowing the Group to access up to a total \$15.0 million in line of credit debt financing. The line of credit will mature on August 12, 2022 and the interest on the outstanding principal indebtedness will be at the rate of 8% per annum. As of the date of issuance of the condensed consolidated financial statements, the Company has drawn down \$0.4 million from this line of credit.

In July 2019, Smart Pharmaceutical Limited Partnership, ("SPLP"), a wholly owned subsidiary of the Group, transferred 100,000,000 Smart Pharma Token ("SMPT token") to Aenco Solutions Limited, a related party, in exchange of the service to deal with the token offering.

The SMPT token tokenizes rights to a portion of sales-based royalties, non-royalty sublicensing income and additional cash flow, derived from the subsequent commercialization of intellectual property rights of drug candidates discovered under our Smart-ACT™ platform. SMPT token is backed by SPLP's assets, including intellectual property rights of drug candidates created through the Smart-ACT™ platform and commercialization income. SPLP acts as the intellectual property holding company of Smart Pharma, and holds all title, rights and ownership interest of the intellectual property rights developed by Smart-ACT™. As of June 30, 2019 and through the date of issuance of the condensed consolidated financial statements, SPLP has no substantial assets and liabilities.



## PART II

### INFORMATION NOT REQUIRED IN PROSPECTUS

#### Item 6. Indemnification of Directors, Officers and Employees.

Cayman Islands law does not limit the extent to which a company's memorandum and articles of association may provide for indemnification of officers and directors, except to the extent any such provision may be held by the Cayman Islands courts to be contrary to public policy, such as to provide indemnification against civil fraud or the consequences of committing a crime. Our Memorandum and Articles permit indemnification of officers and directors for losses, damages, costs and expenses incurred in their capacities as such unless such losses or damages arise from dishonesty of such directors or officers. This standard of conduct is generally the same as permitted under the Delaware General Corporation Law for a Delaware corporation.

Insofar as indemnification for liabilities arising under the Securities Act of 1933, as amended, or the Securities Act, may be permitted to our directors, officers or persons controlling us under the foregoing provisions, we have been informed that in the opinion of the Securities and Exchange Commission, or the SEC, such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

#### Item 7. Recent Sales of Unregistered Securities.

During the past three years, we have issued the following securities. We believe that each of the following issuances was exempt from registration under Section 4(a)(2) of the Securities Act regarding transactions not involving a public offering and/or Regulation S promulgated thereunder regarding offshore offers and sales.

On April 6, 2018, we entered into subscription agreement with one investor pursuant to which we issued a \$15,000,000 8% convertible bond that matures in April 2019 (the "Bond"). All of the Class A Ordinary Shares underlying the Bond are registered in our Registration Statement on Form F-1 (File No.: 333-227198) that was declared effective on December 3, 2018.

On May 15, 2018, we closed a private financing pursuant to a note purchase agreement with the Series A Note Investors who purchased an aggregate of approximately \$1.6 million of convertible notes, at a purchase price of \$10,000 per note convertible into our Class A Ordinary Shares at a conversion price of \$6.95 per share, which represents a 56% discount to this offering price the Series A Notes. Boustead, who was an underwriter of the IPO, together with other affiliates of the Company, purchased Series A Notes in the aggregate amount of \$150,000. We refer to the private placement transaction as the "Series A Note Offering." The Series A Note Investors entered into a lock-up agreement, pursuant to which they agreed not to sell or otherwise transfer or dispose of the Series A Note or the Class A Ordinary Shares underlying the Series A Notes during the six-month period commencing on the effective date of the Registration Statement and the date of our Class A Ordinary Shares commenced trading on a national securities exchange, which has now expired. The Series A Notes automatically converted into 230,252 Class A Ordinary Shares at the closing of the IPO. As a result, the investors in the IPO experienced immediate dilution when the Series A Notes were automatically converted. The issuance and sale of Series A Notes, Note PA Warrants and the underlying Class A Ordinary Shares to the investors and the placement agent in the Series A Note Offering was made in reliance on an exemption from registration contained in either Regulation D or Regulation S of the Securities. The securities sold in the Series A Note Offering may be offered or sold only pursuant to an effective registration statement or pursuant to an available exemption from the registration requirements of the Securities Act. All of the Class A Ordinary Shares underlying the Series A Notes and Note PA Warrants are registered in the Registration Statement.

On June 18, 2019, we issued 12,268 Class A Ordinary Shares to Boustead as a result of their cashless exercise of the Underwriter Warrants.

On June 20, 2019, we issued 38,309 and 9,516 Class A Ordinary Shares pursuant to the cashless exercise of all of the Bond PA Warrants and Series A Note PA Warrants, respectively.

## Item 8. Exhibits and Financial Statement Schedules.

### (a) Exhibits

The exhibits of the registration statement are listed in the Exhibit Index to this registration statement and are incorporated herein by reference.

### (b) Financial Statement Schedules

Schedules have been omitted because the information required to be set forth therein is not applicable or is shown in the financial statements or consolidated financial statements or the notes thereto.

## Item 9. Undertakings.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

The undersigned registrant hereby undertakes:

(1) That, for the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(2) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(a) To include any prospectus required by section 10(a)(3) of the Securities Act;

(b) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) (§230.424(b) of this chapter) if, in the aggregate, the changes in volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(c) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) To file a post-effective amendment to the registration statement to include any financial statements required by "Item 8.A. of Form 20-F (17 CFR 249.220f)" at the start of any delayed offering or throughout a continuous offering. Financial statements and information otherwise required by Section 10(a)(3) of the Securities Act need not be furnished, provided that the registrant includes in the prospectus, by means of a post-effective amendment, financial statements required pursuant to this paragraph (a)(4) and other information necessary to ensure that all other information in the prospectus is at least as current as the date of those financial statements.

(5) That for purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4), or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(6) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

## SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form F-1 and has duly caused this Post-Effective Amendment No. 2 on Form F-1 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of New York, State of New York, on November 12, 2019.

Aptorum Group Limited

By: /s/ Ian Huen  
Name: Ian Huen  
Title: Chief Executive Officer and Executive Director

Pursuant to the requirements of the Securities Act of 1933, as amended, this Post-Effective Amendment No. 2 on Form F-1 has been signed by the following persons in the capacities set forth below on November 12, 2019.

/s/ Ian Huen Chief Executive Officer (principal executive officer) and Executive Director  
Name: Ian Huen

/s/ Sabrina Khan Chief Financial Officer  
Name: Sabrina Khan (principal financial officer and principal accounting officer)

/s/ Darren Lui President and Executive Director  
Name: Darren Lui

/s/ Clark Cheng Chief Medical Officer and Executive Director  
Name: Clark Cheng

/s/ Douglas Arner Director  
Name: Douglas Arner

/s/ Charles Bathurst Director  
Name: Charles Bathurst

/s/ Mirko Scherer Director  
Name: Mirko Scherer

/s/ Justin Wu Director  
Name: Justin Wu

**SIGNATURE OF AUTHORIZED REPRESENTATIVE IN THE UNITED STATES**

Pursuant to the requirements of the Securities Act of 1933, the Registrant's duly authorized representative has signed this Post-Effective Amendment No. 2 on Form F-1 in the City of New York, State of New York, on November 12, 2019.

By: /s/ Louis Taubman  
Name: Louis Taubman  
Title: Authorized Representative in the United States

## EXHIBIT INDEX

(a) *Exhibits.* The following exhibits are included herein or incorporated herein by reference:

The following documents are filed as part of this registration statement:

<b>Exhibit No.</b>	<b>Description</b>
3.1	<a href="#"><u>Second Amended and Restated Memorandum and Articles of Association of Aptorum Group Limited *</u></a>
4.1	<a href="#"><u>Specimen Ordinary Share Certificate*</u></a>
4.2	<a href="#"><u>Form of Series A Convertible Promissory Note*</u></a>
4.3	<a href="#"><u>Form of Series A Convertible Promissory Note Placement Agent Warrant, dated May 15, 2018+++</u></a>
4.4	<a href="#"><u>Form of Bond Placement Agent Warrant, dated April 6, 2018+++</u></a>
5.1	<a href="#"><u>Opinion of Cayman Islands counsel of Aptorum Group Limited, as to the validity of the Shares and tax matters<sup>###</sup></u></a>
10.1	<a href="#"><u>Appointment Letter between the Company and Ian Huen (Founder, Chief Executive Officer &amp; Executive Director), dated September 25, 2017*</u></a>
10.2	<a href="#"><u>Employment Letter between the Company and Sabrina Khan (Chief Financial Officer), dated September 1, 2017*</u></a>
10.3	<a href="#"><u>Addendum to Employment Letter between Company and Sabrina Khan (Chief Financial Officer) dated April 24, 2018*</u></a>
10.4	<a href="#"><u>Appointment Letter between the Company and Darren Lui (Chief Business Officer, President &amp; Director), dated September 25, 2017*</u></a>
10.5	<a href="#"><u>Employment Letter between the Company and Clark Cheng (Chief Medical Officer &amp; Director), dated August 31, 2017*</u></a>
10.6	<a href="#"><u>Addendum to Appointment Letter between the Company and Clark Cheng (Chief Medical Officer &amp; Director), dated September 25, 2017*</u></a>
10.7	<a href="#"><u>Second Addendum to Appointment Letter between the Company and Clark Cheng (Chief Medical Officer &amp; Director), dated October 30, 2017*</u></a>
10.8	<a href="#"><u>Third Addendum to Appointment Letter between the Company and Clark Cheng (Chief Medical Officer &amp; Director), dated January 2, 2018*</u></a>
10.9	Reserved.
10.10	<a href="#"><u>Appointment letter between the Company and Keith Chan (former Chief Scientific Officer) (Terminated March 13, 2019)*</u></a>
10.11	<a href="#"><u>Appointment Letter between the Company and Charles Bathurst (Independent Non-Executive Director), dated September 18, 2017*</u></a>
10.12	<a href="#"><u>Appointment Letter between the Company and Mirko Scherer (Independent Non-Executive Director), dated September 24, 2017*</u></a>
10.13	<a href="#"><u>Employment Agreement between the Company and Justin Wu (Independent Non-Executive Director), dated September 18, 2017*</u></a>
10.14	<a href="#"><u>Employment Agreement between the Company and Douglas Arner (Independent Non-Executive Director), dated February 13, 2018*</u></a>
10.15	<a href="#"><u>Management Agreement between the Company and Guardian Capital Management Limited, dated March 1, 2017*</u></a>

Exhibit No.	Description
10.16	<a href="#">Consulting Agreement between the Company and GloboAsia, LLC (includes provisions for the appointment of Keith Chan as Chief Scientific Officer) dated August 18, 2017* (Terminated March 13, 2019)</a>
10.17	<a href="#">Management Agreement between the Company and APTUS CAPITAL LIMITED, dated October 26, 2010*</a>
10.18	<a href="#">First Addendum to the Management Agreement between the Company and APTUS CAPITAL LIMITED, dated February 10, 2012*</a>
10.19	<a href="#">Second Addendum to the Management Agreement between the Company and APTUS CAPITAL LIMITED, December 9, 2016*</a>
10.20	<a href="#">Subscription Agreement between the Company and Peace Range Limited, dated April 6, 2018 *</a>
10.21	<a href="#">Share Charge Agreement between the Company, Jurchen Investment Corporation and Peace Range Limited, dated April 25, 2018* (Terminated March 12, 2019)</a>
10.22	<a href="#">Deed of Guarantee of Jurchen Investment Corporation, acknowledged by Peace Range Limited, dated April 25, 2018*</a>
10.23	<a href="#">Charge Account Agreement between the Company and Peace Range Limited, dated April 25, 2018*</a>
10.24	<a href="#">Bond Certificate between the Company and Peace Range Limited, dated April 25, 2018*</a>
10.25	<a href="#">Escrow Agreement between the Company and Peace Range Limited, dated April 25, 2018* (Terminated February 22, 2019)</a>
10.26	<a href="#">2017 Share Option Plan*</a>
10.27	<a href="#">Form of Securities Purchase Agreement for the Series A Convertible Promissory Notes, dated May 15, 2018*</a>
10.28	<a href="#">Lock-up Agreement for Series A Convertible Promissory Notes, dated May 15, 2018*</a>
10.29	<a href="#">Service Agreement Between Covar Pharmaceuticals Incorporated and Videns Incorporation Limited*</a>
10.30	<a href="#">Consulting Agreement between the Company and GloboAsia, LLC (includes provisions for the appointment of Keith Chan as member of the Scientific Advisory Board) dated March 13, 2019**</a>
10.31	<a href="#">Exclusive License agreement for NLS-1 dated July 3, 2017**</a>
10.32	<a href="#">Addendum to License Agreement for NLS-1 dated February 9, 2018*</a>
10.33	<a href="#">Exclusive License agreement for ALS-1 dated October 18, 2017**</a>
10.34	<a href="#">First Amendment to the Exclusive Patent License Agreement dated June 7, 2018*</a>
10.35	<a href="#">Second Amendment to the Exclusive Patent License Agreement dated July 10, 2019*****</a>
10.36	<a href="#">Exclusive License agreement for ALS-1 dated October 18, 2017**</a>
10.37	<a href="#">First Amendment to the Exclusive Patent License Agreement dated June 7, 2018**</a>
10.38	<a href="#">Exclusive Patent License Agreement for ALS-4 dated January 11, 2019*****</a>
10.39	<a href="#">Employment Agreement with Dr. Lee dated March 13, 2019++</a>
10.40	<a href="#">Employment Agreement with Dr. Ng, dated March 13, 2019++</a>
10.41	<a href="#">Master Collaboration Agreement by and between the Company, A*ccelerate Technologies Pte. Ltd, and Aeneas Capital Limited dated April 24, 2019+</a>
10.42	<a href="#">Bond Repurchase Agreement dated April 24, 2019+</a>
10.43	<a href="#">Master Service Agreement between Covar Pharmaceuticals Incorporated and Aptorum Therapeutics Limited dated May 15, 2019.++++</a>
10.44	<a href="#">Form of Line of Credit Agreement++++</a>
10.45	<a href="#">Form of Promissory Note++++</a>
21.1	<a href="#">List of Subsidiaries##</a>
23.1	<a href="#">Consent of Marcum Bernstein &amp; Pinchuk LLP##</a>
23.2	<a href="#">Consent of Cayman Islands counsel of Aptorum Group Limited (included in Exhibit 5.1)</a>
99.1	<a href="#">Code of Business Ethics *</a>
101.INS	XBRL Instance Document **
101.SCH	XBRL Taxonomy Extension Schema Document **
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document **
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document **
101.LAB	XBRL Taxonomy Extension Label Linkbase Document **
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document **
#	Portions of the exhibit have been omitted pursuant to a request for confidential treatment under Rule 24b-2 of the Securities Exchange Act of 1934, as amended, and the agreement with the omitted portions has been separately filed with the Securities and Exchange Commission.
##	Filed herewith.
*****	Certain information has been excluded from this exhibit because it both (i) is not material and (ii) would likely cause competitive harm to the Registrant if publicly disclosed; this exhibit is incorporated by reference to our Registration Statement filed on Form F-1 filed on September 27, 2019.
****	Incorporated by reference to our Annual Report Filed on Form 20-F on April 15, 2019. Portions of the exhibit have been omitted in reliance on the confidential treatment provisions available pursuant to revised paragraph 4(a) of Instructions as to Exhibits of Form 20-F.
**	Incorporated by reference to our Annual Report Filed on Form 20-F on April 15, 2019.
*	Incorporated by reference to our Registration Statement Filed on Form F-1 on September 5, 2018.
++++	Incorporated by reference to our Registration Statement Filed on Form F-1 on July 2, 2019.
++++	Incorporated by reference to our Current Report on Form 6-K filed on August 14, 2019.
+++	Incorporated by reference to our Registration Statement Filed on Form F-1 on November 15, 2018.
++	Incorporated by reference to our Current Report on Form 6-K filed on April 1, 2019.
+	Incorporated by reference to our Current Report on Form 6-K filed on April 24, 2019.



Floor 4, Willow House, Cricket Square  
Grand Cayman  
KY1-9010  
Cayman Islands

**By Email**

Aptorum Group Limited  
Floor 4, Willow House,  
Cricket Square,  
Grand Cayman, KY1-9010  
Cayman Islands

**D** +1 345 914 5845  
**T** +1 345 949 2648  
**F** +1 345 949 8613  
**E** [dmagee@campbellslegal.com](mailto:dmagee@campbellslegal.com)

[campbellslegal.com](http://campbellslegal.com)

Our Ref: RCS/DPM/12574-17506  
Your Ref:

CAYMAN | BVI | HONG KONG

12 November 2019

Dear Sirs

**Aptorum Group Limited – Listing of Class A Ordinary Shares**

We have acted as Cayman Islands legal advisers to Aptorum Group Ltd. (the “**Company**”), a Cayman Islands exempted company, in connection with the Company’s Post-Effective Amendment No. 2 to registration statement on Form F-1, including all amendments or supplements thereto (the “**Amendment No. 2 to Registration Statement**”), filed with the Securities and Exchange Commission under the U.S. Securities Act of 1933, as amended to date (the “**Act**”), relating the resale by certain holders of the Company of 1,543,245 Class A Ordinary Shares (the “**Resale Shares**”) and up to 51,990 Class A Ordinary Shares to be issued to one of the underwriters in the IPO pursuant to the Underwriting Agreement and Underwriter Warrant (“**Underwriter Shares**”) and together with the Resale Shares the “**Registered Securities**”). We are furnishing this opinion as Exhibits 5.1 and 23.2 to the Registration Statement.

**1 Assumptions**

- 1.1 The following opinions are given only as to, and based on, circumstances and matters of fact existing and known to us on the date of this opinion letter. These opinions only relate to the laws of the Cayman Islands which are in force on the date of this opinion letter. In giving these opinions we have relied (without further verification) upon the completeness and accuracy of the Resolutions, the Shareholder Resolutions and the Certificate of Good Standing (each as defined below). We have also relied upon the following assumptions, which we have not independently verified:
- 1.2 Copies of documents, conformed copies or drafts of documents provided to us are true and complete copies of, or in the final forms of, the originals, and translations of documents provided to us are complete and accurate;
- 1.3 All signatures, initials and seals are genuine;
- 1.4 There is nothing under any law (other than the laws of the Cayman Islands) which would or might affect the opinions expressed herein;

- 1.5 The Underwriter Shares to be offered and issued by the Company pursuant to the Underwriting Agreement, the Underwriter Warrant, the Registration Statement, Amendment No. 1 to Registration Statement and Amendment No. 2 to Registration Statement (“**Underwriter Documents**”) will be issued by the Company against payment in full, in accordance with the Underwriter Documents and be duly registered in the Company’s register of members
- 1.6 The Resale Shares to be offered and issued by the Company pursuant to the Registration Statement and Amendment No. 1 to Registration Statement and Amendment No. 2 to Registration Statement (“**Resale Documents**”) will be issued by the Company against payment in full, in accordance with the Resale Documents and be duly registered in the Company’s register of members;
- 1.7 The A&R Memorandum and Articles (as defined below) remain in full force and effect and are unamended;
- 1.8 The Resolutions and the Shareholder Resolutions were duly passed in the manner prescribed in the A&R Memorandum and Articles and the resolutions contained in the Resolutions and the Shareholder Resolutions are in full force and effect at the date hereof and have not been amended, varied or revoked in any respect;
- 1.9 The authorised shares of the Company as set out in the A&R Memorandum and Articles have not been amended; and
- 1.10 The minute book and corporate records of the Company as maintained at its registered office in the Cayman Islands are complete and accurate in all material respects, and all minutes and resolutions filed therein represent a complete and accurate record of all meetings of the shareholders and directors (or any committee thereof) (duly convened in accordance with the then effective Memorandum and Articles of Association of the Company) and all resolutions passed at the meetings, or passed by written consent as the case may be.

## 2 Documents Reviewed

- 2.1 We have reviewed originals, copies, drafts or conformed copies of the following documents and such other documents or instruments as we deem necessary:
- 2.2 A copy of the Post Effective Amendment No. 1 to registration statement on Form F-1 including (amendments and supplements) (“**Amendment No. 1 to Registration Statement**”);
- 2.3 A copy of Amendment No. 2 to Registration Statement;
- 2.4 A copy of the registration statement on Form F-1 (including all amendments or supplements) filed in relation to the initial public offering of Class A Ordinary Shares in the Company (“**Registration Statement**”).
- 2.5 A copy of the certificate of incorporation issued by the Registrar of Companies in the Cayman Islands on 13 September 2010;
- 2.6 A copy of the Company’s certificate of incorporation on change of name issued by the Registrar of Companies in the Cayman Islands on 3 March 2017;



- 2.7 A copy of the certificate of incorporation of change of name issued by the Registrar of Companies in the Cayman Islands dated 19 October 2017;
- 2.8 A copy of the statutory registers of directors and officers, members, mortgages and charges of the Company as maintained at its registered office in the Cayman Islands, certified as true by Campbells Corporate Services Limited on 12 November 2019;
- 2.9 A copy of the second amended and restated Memorandum and Articles of Association of the Company adopted by the Shareholder Resolutions on 13 October 2017 and filed with the Registrar of Companies (the “**A&R Memorandum and Articles**”);
- 2.10 Certificate of Good Standing in respect of the Company issued by the Registrar of Companies in the Cayman Islands dated 7 November 2019 (the “**Certificate of Good Standing**”);
- 2.11 A copy of the underwriting agreement dated 14 December 2018 entered into among Boustead Securities, LLC, China Renaissance Securities (Hong Kong) Limited, AMTD Global Markets Limited (collectively, the “**Underwriters**”) and the Company setting out the terms upon which the Underwriters would provide services to the Company;
- 2.12 A copy of the warrant to purchase Class A Ordinary Shares dated 14 December 2018 issued by the Company to Boustead Securities, LLC (“**Underwriter Warrant**”);
- 2.13 Copies of the written resolutions of the board of directors of the Company dated 27 November 2018, 30 May 2018, 27 March 2018, 3 April 2018, 9 October 2017, 17 September 2017, 18 April 2019 and 12 November 2019 (together, the “**Resolutions**”);
- 2.14 A copy of the shareholder resolutions of the Company dated 3 October 2017 (the “**Shareholder Resolutions**”); and
- 2.15 The records of proceedings of the Company on file with, and available for inspection on 18 April 2019, at the Grand Court of the Cayman Islands.

### **3 Opinion**

Based upon the foregoing and subject to the qualifications set out below and having regard to such legal considerations as we deem relevant, we are of the opinion that:

- 3.1 The Company has been duly incorporated as an exempted company with limited liability and is validly existing and in good standing under the laws of the Cayman Islands.
- 3.2 The issue and allotment of the Registered Securities has been duly authorised, and when allotted, issued and paid for as contemplated in the Resale Documents or the Underwriting Documents as applicable, the Registered Securities will be legally issued and allotted, fully paid and non-assessable. As a matter of Cayman Islands law, a share is only issued when it has been entered in the register of members (shareholders).
- 3.4 The authorised share capital of the Company is US\$100,000,000.00 divided into 60,000,000 Class A Ordinary Shares with a nominal or par value of US\$1.00 each and 40,000,000 Class B Ordinary Shares with a nominal or par value of US\$1.00 each.
- 3.5 The statements under the caption “Taxation” in the prospectus forming part of the Registration Statement, to the extent that they constitute statements of Cayman Islands law, are accurate in all material respects and that such statements constitute our opinion.

**4 Qualifications**

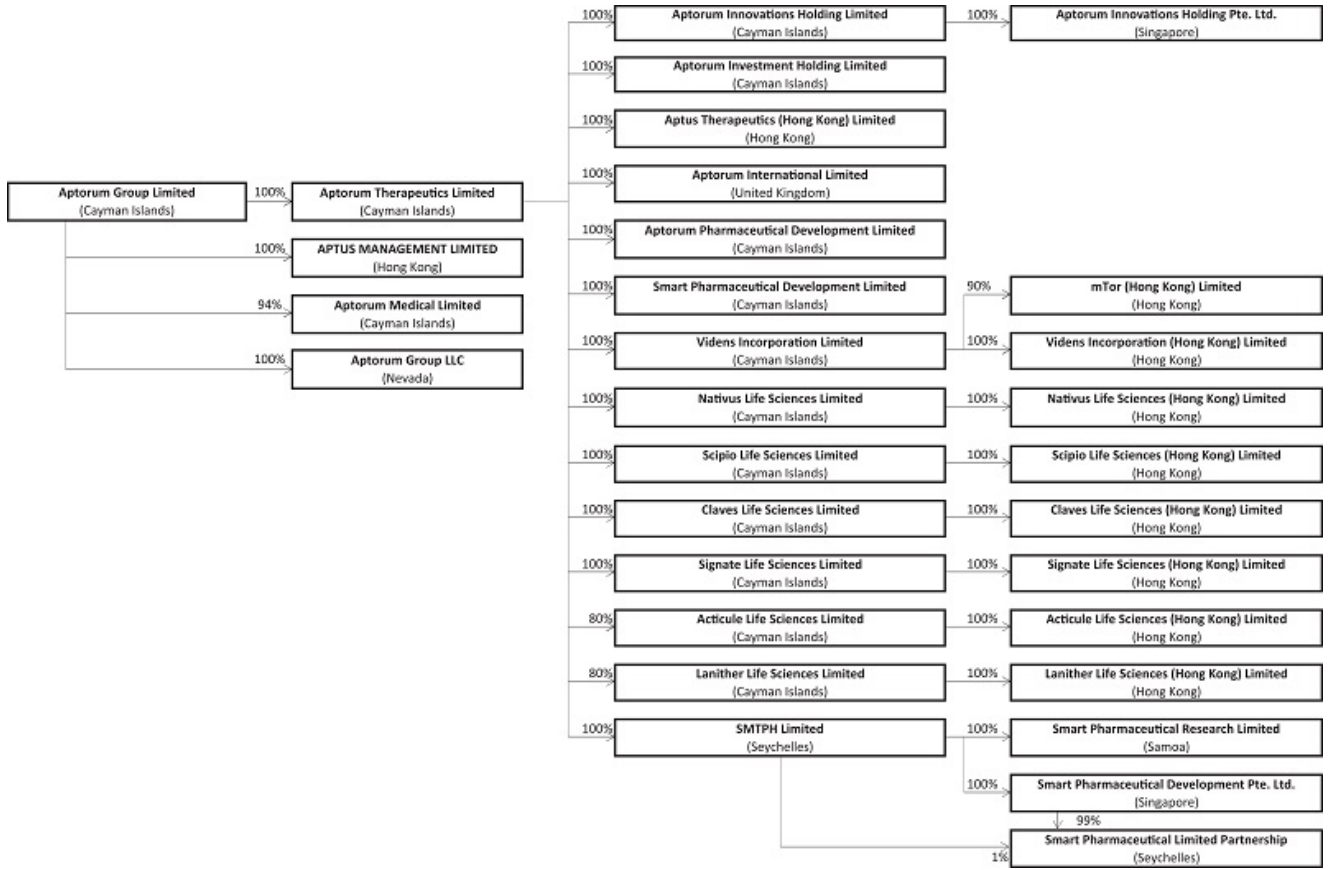
- 4.1 We make no comment with respect to any representations and warranties which may be made by or with respect to the Company in any of the documents or instruments cited in this opinion or otherwise with respect to the commercial terms of the transactions the subject of this opinion.
- 4.2 In this opinion, the phrase “non-assessable” means, with respect to the Registered Securities, that a shareholder shall not, solely by virtue of its status as a shareholder, be liable for additional assessments or calls on the Registered Securities by the Company or its creditors (except in exceptional circumstances, such as involving fraud, the establishment of an agency relationship or an illegal or improper purpose or other circumstance in which a court may be prepared to pierce or lift the corporate veil).
- 4.3 To maintain the Company in good standing under the laws of the Cayman Islands, annual filing fees must be paid and returns made to the Registrar of Companies within the time frame prescribed by law.
- 4.4 We hereby consent to filing of this opinion as an exhibit to the Amendment No. 1 to Registration Statement and to the reference to our name under the heading “Enforcement of Civil Liabilities” and “Legal matters” and elsewhere in the Amendment No. 1 to Registration Statement. In giving our consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Commission thereunder, with respect to any part of the Amendment No. 1 to Registration Statement, including this opinion and an exhibit or otherwise.

Yours faithfully

/s/

**Campbells**

List of Subsidiaries





INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM'S CONSENT

We consent to the inclusion in this Registration Statement of Aptorum Group Limited (the "Company") on Form F-1 Post-Effective Amendment No. 2 (File No. 333-227198) of our report dated April 15, 2019, with respect to our audits of the consolidated balance sheets (successor basis) of the Company as of December 31, 2018 and 2017, the related consolidated statements (successor basis) of operations and comprehensive loss, equity and cash flows for the year ended December 31, 2018 and the period March 1, 2017 through December 31, 2017, and the statements (predecessor basis) of operations, changes in net assets and cash flows for the period January 1, 2017 through February 28, 2017, which report appears in the Prospectus, which is part of this Registration Statement. We also consent to the reference to our Firm under the heading "Experts" in such Prospectus.

/s/ Marcum Bernstein & Pinchuk LLP

Marcum Bernstein & Pinchuk LLP  
New York, New York  
November 12, 2019