**As filed with the Securities and Exchange Commission on September 25, 2020**

**Registration No. 333-248743**

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

**PRE-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** | **2834** | **Not Applicable** |
|---|---|---|
| *(State or Other Jurisdiction of Incorporation or Organization)* | *(Primary Standard Industrial Classification Code Number)* | *(I.R.S. Employer Identification No.)* |

17 Hanover Square
London W1S 1BN, United Kingdom
Telephone: +44 20 80929299
*(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)*

***Copies to:***

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**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. ☐

**CALCULATION OF REGISTRATION FEE**

| Title of Each Class of Securities to be Registered | Proposed Maximum Aggregate Offering Price[(1)] | Amount of Registration Fee |
|---|---|---|
| Class A Ordinary Shares, par value $1.00 per share[(2)] | 15,000,000 | 1,947 |
| Warrants to purchase Class A Ordinary Shares | - | -[(3)] |
| Class A Ordinary Shares issuable upon exercise of Warrants[(2)] | 15,000,000 | 1,947 |
| Pre-funded warrants to purchase Class A Ordinary Shares | [(4)] | - |
| Class A Ordinary Shares issuable upon exercise of the pre-funded warrants | [(4)] | - |
| Placement Agent warrants[(5)] | - | -[(3)] |
| Class A Ordinary Shares issuable upon exercise of the Placement Agent warrants[(5)] | 1,312,500 | 171 |
| Total | $ 31,312,500 | $ 4,065[(6)] |

(1) Estimated solely for the purpose of determining the amount of registration fee in accordance with Rule 457(c) under the Securities Act of 1933, as amended.
(2) In accordance with Rule 416(a), the Registrant is also registering an indeterminate number of additional Class A Ordinary Shares that shall be issuable pursuant to Rule 416 to prevent dilution resulting from share splits, share dividends or similar transactions.
(3) No fee required pursuant to Rule 457(g).
(4) The proposed maximum aggregate offering price of the Class A Ordinary Shares will be reduced on a dollar-for-dollar basis based on the offering price of any pre-funded warrants sold in the offering, and the proposed maximum aggregate offering price of the pre-funded warrants to be sold in the offering will be reduced on a dollar-for-dollar basis based on the offering price of any Class A Ordinary Shares sold in the offering. Accordingly, the proposed maximum aggregate offering price of the Class A Ordinary Shares and pre-funded warrants (including the Class A Ordinary Shares issuable upon exercise of the pre-funded warrants), if any, is $15,000,000.
(5) Represents warrants issuable to H.C. Wainwright & Co., LLC (the "Placement Agent's Warrants") to purchase a number of Class A Ordinary Shares equal to 7.0% of the number of Class A Ordinary Shares and Pre-funded warrants being offered at an exercise price equal to 125% of the combined public offering price of the Class A Ordinary Shares and related warrant.
(6) A filing fee of $1,947.00 has previously been paid.

**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 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**

We are filing this Amendment No. 2 to our registration statement on Form F-1, initially filed on September 11, 2020 and as amended on September 24, 2020 (File No. 333-248743) (the "Registration Statement") as to: (i) respond to additional SEC comments regarding our closing date and immediate use of proceeds, which are now further described in this amendment; (ii) file Exhibits 1.1, 4.2, 4.4, 4.5, 5.1, 5.2, 10.44, 10.45, 23.1, 23.2 and 23.3; and (iii) to correct the following typo regarding our line of credit with AGL and Jurchen: the original filing stated that "As of the date hereof, the Company has drawn down approximately $0.4 million from the Line of Credit," but it has actually drawn approximately $3.0 million from the Line of Credit as of today.

We are not registering any additional securities in this amendment. All applicable registration fees were previously paid.

**The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell and is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.**

**SUBJECT TO COMPLETION, DATED SEPTEMBER 25, 2020**

**PRELIMINARY PROSPECTUS**

**APTORUM GROUP LIMITED**
**September 25, 2020**

**Up to 9,202,453 Class A Ordinary Shares and Warrants to Purchase up to 9,202,453 Class A Ordinary Shares**
**or**
**Up to 9,202,453 Pre-Funded Warrants to Purchase Class A Ordinary Shares and Warrants to Purchase up to 9,202,453 Class A Ordinary Shares**
**(and 18,404,906 Class A Ordinary Shares Issuable Upon Exercise of the Pre-Funded Warrants and Warrants)**

We are offering in a best-efforts offering up to 9,202,453 Class A Ordinary Shares and warrants to purchase up to 9,202,453 Class A Ordinary Shares, or up to 9,202,453 pre-funded warrants to purchase up to 9,202,453 Class A Ordinary Shares and warrants to purchase up to 9,202,453 Class A Ordinary Shares, (the "Offering") of Aptorum Group Limited (referred to herein as "we", "us", "our", "Registrant", or the "Company"), at an assumed combined public offering price of $1.63 per share and related warrant. Each Class A Ordinary Share is being sold together with one warrant to purchase one Class A Ordinary Share. Each warrant will have an exercise price per share equal to 100% of the of the combined public offering price per Class A Ordinary Share and related warrant in this offering, will be immediately exercisable and will expire on the fifth anniversary of the original issuance date. The Class A Ordinary Shares and warrants are immediately separable and will be issued separately, but will be purchased together in this offering.

We are also offering to certain purchasers whose purchase of Class A Ordinary Shares in this offering would otherwise result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding Class A Ordinary Shares immediately following the consummation of this offering, the opportunity to purchase, if such purchasers so choose, pre-funded warrants in lieu of Class A Ordinary Shares that would otherwise result in any such purchaser's beneficial ownership exceeding 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding Class A Ordinary Shares. Each pre-funded warrant will be exercisable for one Class A Ordinary Share and related warrant and will be exercisable at any time after its original issuance until exercised in full. The purchase price of each pre-funded warrant will be equal to the price at which a Class A Ordinary Share is sold to the public in this offering, minus $0.01, and the exercise price of each pre-funded warrant will be $0.01 per share. The pre-funded warrant and warrants will be issued separately, but will be purchased together in this offering. This offering also relates to the Class A Ordinary Shares issuable upon exercise of any pre-funded warrants sold in this offering. For each pre-funded warrant we sell, the number of Class A Ordinary Shares we are offering will be decreased on a one-for-one basis.

Our Class A Ordinary Shares are traded on The NASDAQ Global Market under the symbol "APM" and the Professional Compartment of Euronext in Paris under the Euronext ticker symbol "APM." On September 21, 2020, the last reported sale price of our Class A Ordinary Shares as reported on The NASDAQ Global Market was $1.63 per share. There is no established public trading market for the warrants or pre-funded warrants, and we do not expect a market to develop. We do not intend to apply for listing of the warrants or pre-funded warrants on any securities exchange or other nationally recognized trading system. Without an active trading market, the liquidity of the warrants and pre-funded warrants will be limited.

The combined public offering price per share and related warrant is an assumed price only. The actual combined public offering price per share and related warrant will be determined between us, the placement agent and purchasers based on market conditions at the time of pricing, and may be at a discount to the current market price of our Class A ordinary Shares. Therefore, the recent market price used throughout this prospectus may not be indicative of the actual public offering price. The assumed price is based on the closing price of our Class A Ordinary Shares as of September 21, 2020 and is used so that we can provide certain disclosures, which require a calculation based on the offering price.

Because there is no minimum offering amount required as a condition to closing this offering, we may sell fewer than all of the securities offered hereby, which may significantly reduce the amount of proceeds received by us, and investors in this offering will not receive a refund in the event that we do not sell an amount of securities sufficient to pursue the business goals outlined in this prospectus. In addition, because there is no escrow account and no minimum offering amount in this offering, investors could be in a position where they have invested in our company, but we are unable to fulfill our objectives due to a lack of interest in this offering. Also, any proceeds from the sale of securities offered by us will be available for our immediate use, despite uncertainty about whether we would be able to use such funds to effectively implement our business plan. See "Risk Factors" for more information. We expect to close the offering on September 29, 2020 but the offering will be terminated by October 10, 2020, provided that the closing of the offering has not occurred by such date, and may not be extended.

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 our securities involves a high degree of risk. See "Risk Factors" beginning on page 16 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.**

| | Per Class A Ordinary Share and related Warrant | Per Pre-Funded Warrant and related Warrant | Total |
|---|---|---|---|
| Public offering price | $ [●] | $ [●] | $ [●] |
| Placement Agent's fees(1) | $ [●] | $ [●] | $ [●] |
| Proceeds, before expenses, to us(2) | $ [●] | $ [●] | $ [●] |

(1) We have agreed to reimburse H.C. Wainwright & Co., LLC (the "Placement Agent") for certain of its offering-related expenses, including a cash fee of 7.0% and a management fee of 1.0% of the gross proceeds raised in this offering. In addition, we have agreed to issue to the Placement Agent warrants to purchase up to a number of Class A Ordinary Shares equal to 7.0% of the number of Class A Ordinary Shares and pre-funded warrants being offered at an exercise price equal to 125% of the public offering price of Class A Ordinary Shares (the "Placement Agent's Warrants"). See "Plan of Distribution" for additional information and a description of the compensation payable to the Placement Agent.

(2) We estimate the total expenses of this offering payable by us, excluding the Placement Agent's fees, will be approximately $[●].

We engaged H.C. Wainwright & Co., LLC ("Wainwright" or the "Placement Agent") as our exclusive placement agent to use its reasonable best efforts to solicit offers to purchase our securities in this offering. The Placement Agent has no obligation to buy any of the securities from us or to arrange for the purchase or sale of any specific number or dollar amount of the securities. Because there is no minimum offering amount required as a condition to closing in this offering the actual public offering amount, the placement agent's fee, and proceeds to us, if any, are not presently determinable and may be substantially less than the total maximum offering amounts set forth above and throughout this prospectus. We have agreed to pay the placement agent the placement agent fees set forth in the table above and to provide certain other compensation to the placement agent. See "Plan of Distribution" beginning on page 143 of this prospectus for more information regarding these arrangements.

We anticipate that delivery of the securities against payment will be made on or about [●], 2020.

**H.C. Wainwright & Co.**

The date of this prospectus is September 25, 2020

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**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 “UK” in this prospectus refer to the United Kingdom. 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

- "505(b)(2) Application" refers to an application for which one or more of the investigations relied upon by the applicant for approval "were not conducted by or for the applicant and for which the applicant has not obtained a right of reference or use from the person by or for whom the investigations were conducted" (21 U.S.C. 355(b)(2)).

- "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 76.8% owned by Jurchen Investment Corporation and we refer to AL as a fellow subsidiary of Aptorum Group.

- "AML" refers to Aptorum Medical Limited, a 93% owned-subsidiary of Aptorum Group.

- "AML Clinic" refers to an outpatient medical clinic operated by AML under the name of Talem Medical.

- "Annual Reports" refer collectively, to our annual report on Form 20-F and Form 20-F/A for the year ended December 31, 2018, filed with the SEC on April 15, 2019 and April 22, 2019, respectively, and our annual report on Form 20-F for the year ended December 31, 2019, filed with the SEC on April 29, 2020.

- "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 the United Kingdom.

- "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, (ii) AML Clinic and (iii) the sales of natural supplements through Nativus Life Sciences Limited.

- "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 the United Kingdom, Singapore and 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 subsidiaries, Aptorum Investment Holding Limited, pursuant to that certain Bond Repurchase Agreement dated April 24, 2019 between the Company, Peace Range and Aptorum Investment Holding Limited, and which has matured and been redeemed on October 25, 2019.

- "Bond Offering" refers to the Company's private offering of the Bond that closed on April 25, 2018.

- "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" 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.
- "CTA" refers to Clinical Trial Application.
- "EEA" refers to the European Economic Area.
- "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.
- "EU" refers to the European Union.
- "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.
- "Fiscal year" refers to the period from January 31 of each calendar year to December 31 of the following calendar year.
- "HC Wainwright" refers to H.C Wainwright & Co., LLC.
- "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 two of the Company's therapeutic projects ALS-4 and SACT-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.
- "Ordinary Shares" refers to the Class A Ordinary Shares and Class B Ordinary Shares collectively.
- "PRC" and "China" refer to the People's Republic of China.
- "Registered Direct Offering" means the registered direct offering by the Company of 1,351,350 Class A Ordinary Shares and warrants to purchase up to 1,351,350 Class A Ordinary Share consummated on February 28, 2020.
- "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 a pharmaceutical development center located at Hong Kong Science and Technology Park.
- "Securities Exchange Commission," "SEC," "Commission" or similar terms refer to the United States Securities and 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 $10,000 per note, sold in the Series A Note Offering.
- "Series A Note Investors" refers to the investors who purchased Series A Notes.
- "Series A Note Offering" refers to the private offering of Series A Notes, pursuant to Regulation S or Regulation D, as promulgated under the Securities Act that closed on May 15, 2018.
- "Signate" refers to Signate Life Sciences Limited, a wholly-owned subsidiary of Aptorum Group.
- "UK" refers to the United Kingdom.
- "United States," "U.S." and "US" refer to the United States of America.
- "Videns" refers to Videns Incorporation Limited, a wholly-owned subsidiary of Aptorum Group.
- "$," "U.S. $," "U.S. dollars," "dollars," "US$" and "USD" refer to the United States dollars.

## INDUSTRY AND MARKET DATA

This prospectus includes information with respect to market and industry conditions and market share from third-party sources or based upon estimates using such sources when available. We have not, directly or indirectly, sponsored or participated in the publication of any of such materials. We believe that such information and estimates are reasonable and reliable. We also assume the information extracted from publications of third-party sources has been accurately reproduced. We understand that the Company would be liable for the information included in this prospectus if any part of the information was incorrect, misleading or imprecise to a material extent.

## 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 securities, you should carefully read the entire prospectus, including our financial statements and the related notes and management's discussion and analysis incorporated herein by reference. You should also consider, among other things, the matters described under "Risk Factors" 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 dedicated to the discovery, development and commercializing of therapeutic assets to treat diseases with unmet medical needs, particularly infectious diseases and cancers (including orphan oncology indications). The pipeline of Aptorum is also enriched through the establishment of drug discovery platforms that enable the discovery of new therapeutics assets through, e.g. systematic screening of existing approved drug molecules, and microbiome-based research platform for treatments of metabolic diseases.

In addition to the above main focus, we are also pursuing therapeutic and diagnostic projects in neurology, gastroenterology, metabolic disorders, women's health and other disease areas. We also have projects focused on surgical robotics and natural supplement for women undergoing menopause and experiencing related symptoms. Also, we opened a medical clinic, AML Clinic, in June 2018.

Although none of our drug or device candidates have 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:

- Developing therapeutic and diagnostic innovations across a wide range of disease/therapeutic areas;
- Selectively expanding our portfolio with potential products from our drug discovery platforms 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 pharmaceutical development capabilities;
- Leveraging our management's expertise, experience and commercial networks;
- Obtaining and leveraging government grants to fund project development.

We have begun to devote a significant percentage of our resources, which will include a substantial portion of the proceeds from this Offering, to the development of two drug candidates ("Lead Projects"). The drug candidates being advanced as the Lead Projects are ALS-4 and SACT-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 in the fourth quarter of 2020, subject to regulatory review, 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"), the European Medicines Agency ("EMA") and/or Health Canada. 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.

Based on our evaluation of preliminary data and our consideration of a number of factors including substantial unmet needs, benefits over existing therapies, potential market size, competition in market, the Company decides how to prioritize its resources among projects. Overall, our rationale for selecting Lead Projects is not based on any mechanical formula or rigid selection criteria, but instead focused on a combination of the factors and individual attributes of the Lead Projects themselves.

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, as well as medical robots and natural supplements 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 and certain technologies for the treatment ("therapeutics") and diagnosis ("diagnostics") of human disease conditions to tackle unmet needs, in particular, our Lead Projects target infectious disease and cancer (including orphan oncology indications). In addition to our main areas of focus above, we are also pursuing therapeutic projects in neurology, gastroenterology, metabolic disorders, women's health and other disease areas, as well as the development of natural supplements for women undergoing menopause and experiencing related symptoms. 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 whose subsidiaries (who we sometimes refer to herein as project companies) are based in the United Kingdom, Singapore and Hong Kong.

*Non-Therapeutics Segment*. The non-therapeutics segment ("Aptorum Non-Therapeutics Group") encompasses three businesses: (i) the development of surgical robotics and medical devices, (ii) AML Clinic and (iii) sales of natural supplements. 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 clinic is currently generating revenue. The sale of natural supplements is operated through Nativus Life Sciences Limited ("Nativus"), a subsidiary of Aptorum Therapeutics Limited. As part of the commercialization, the Group, through Nativus, entered into a regional distribution and marketing agreement with Multipak Limited, a Hong Kong based group that operates household brands, including the Luk Yu® tea bag and other health related products. Through Multipak, the Group will be able to increase the accessibility of the product to a large consumer base regionally. The production of Aptorum Group's dioscorea opposita bioactive nutraceutical tablets has commenced production in Canada and will be marketed under the brand name NativusWell®.

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.

On April 24, 2019, the Company signed an agreement with Aeneas Capital Limited, and A*ccelerate Technologies Pte. Ltd, the enterprise office of the Agency for Science, Technology and Research ("A*STAR"), (collectively, the "Parties") 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"). Through this agreement, we partnered with A*Star to explore suitable opportunities, if identified, to set up tech ventures in Singapore over the next 5 years. A*STAR shall contribute a total of up to $30,000,000 to any suitable startups, at their discretion. The Company and Aeneas Capital Limited 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 Technology License Agreements. The Master Collaboration Agreement shall continue for a period of 5 years, unless otherwise terminated or extended by the Parties.

**Aptorum's Lead Projects**

Based on our evaluation of preliminary data and our consideration of a number of factors including substantial unmet needs, benefits over existing therapies, potential market size, competition in market, the Company have decided to prioritize our resources in developing our two Lead Projects, namely, ALS-4 and SACT-1, among all our projects under development. Overall, our rationale for selecting Lead Projects was not based on any mechanical formula or rigid selection criteria, but instead focused on a combination of the factors and individual attributes of the Lead Projects themselves.

→ Lead Projects

| Projects | Candidate / Modality | Indication | Computational Discovery | *In Vitro* Validation | Existing PhI/II Clinical Safety Data[1] | *In Vivo* Validation | IND Preparation & Submission | PhII/III w/ Limited Population[2] |
|---|---|---|---|---|---|---|---|---|
| SACT's Series | | | | | | | | |
| **SACT-1** | Repurposed Drug Molecule | Neuroblastoma | → | → | → | → | | |

| Projects | Candidate / Modality | Indication | Development Stage | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Target Identification & Selection | Lead Discovery | Lead Optimization | IND-Enabling | Phase 1 | Phase 2 | Phase 3 |
| Acticule's Series | | | | | | | | | |
| **ALS-4** | Small molecule | Treatment of bacterial infections caused by Staphylococcus aureus including MRSA | → | → | → | → | | | |

**For the definition of different stages of development, such as Target Identification & Selection, Lead Discovery, Lead Optimization, etc., please refer to page 75.**

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

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 1, 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 20 nM.

Figure 1

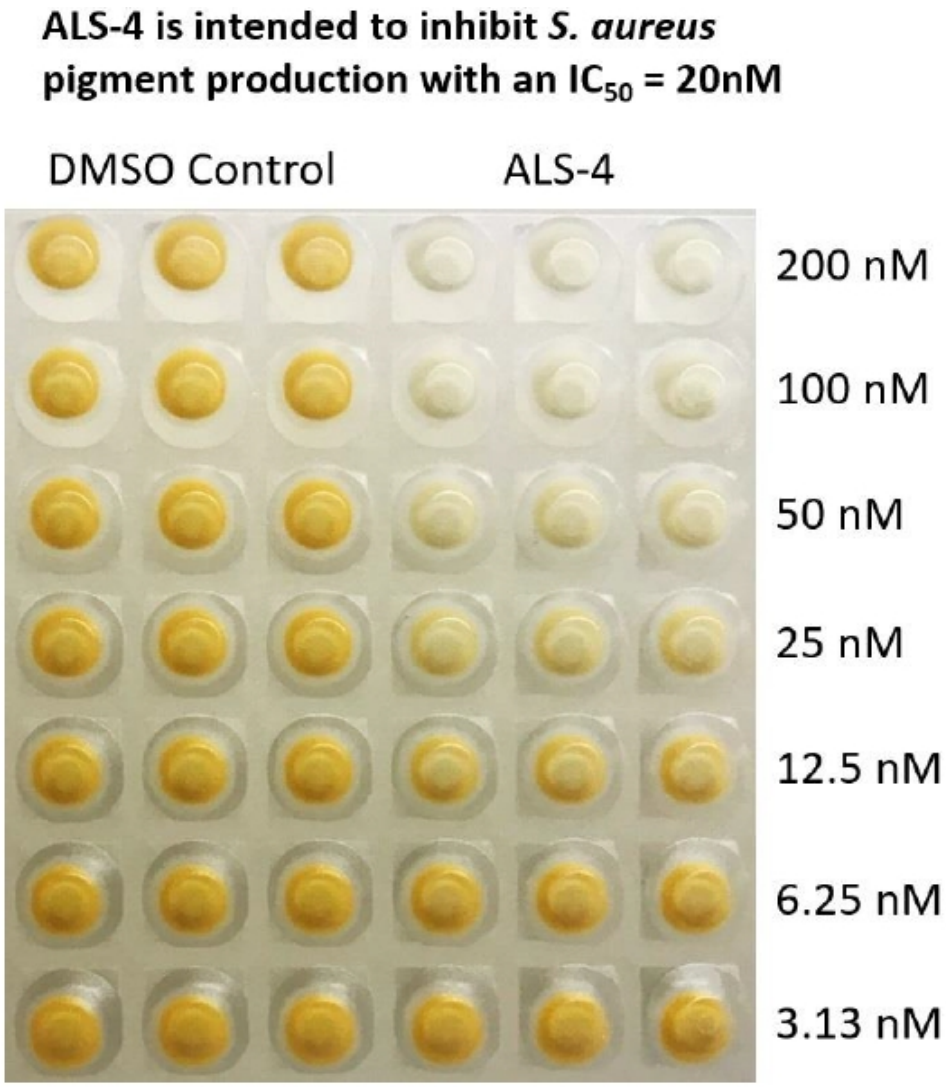



Figure 1: In vitro pigment inhibition by compound ALS-4.
(A) Inhibition of wild-type (WT) Staphylococcus aureus pigmentation in the presence of increasing concentrations of ALS-4.
(B) Pigment inhibition by ALS-4; the $IC_{50}$ for pigment formation is roughly 300 nM.
All data represent mean values ± 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 rat infection model, the treatment (10mg/kg of ALS-4 twice daily) and control groups (vehicle) were compared. In the lethal dose model, all the animals died by day 4 in the control group. On the contrary, the ALS-4 treated group showed >50% survival until the end of the study (Day 7), which is determined to be statistically significant compared with the control (p = 0.0102 by a Log-rank (Mantel-Cox) test.

(Mantel-Cox) test

In the delayed treatment model, ALS-4 brought a statistically significant reduction in bacterial count (99.5%) compared with the control (p = 0.0126 by an unpaired student's t-test).

Figure 2

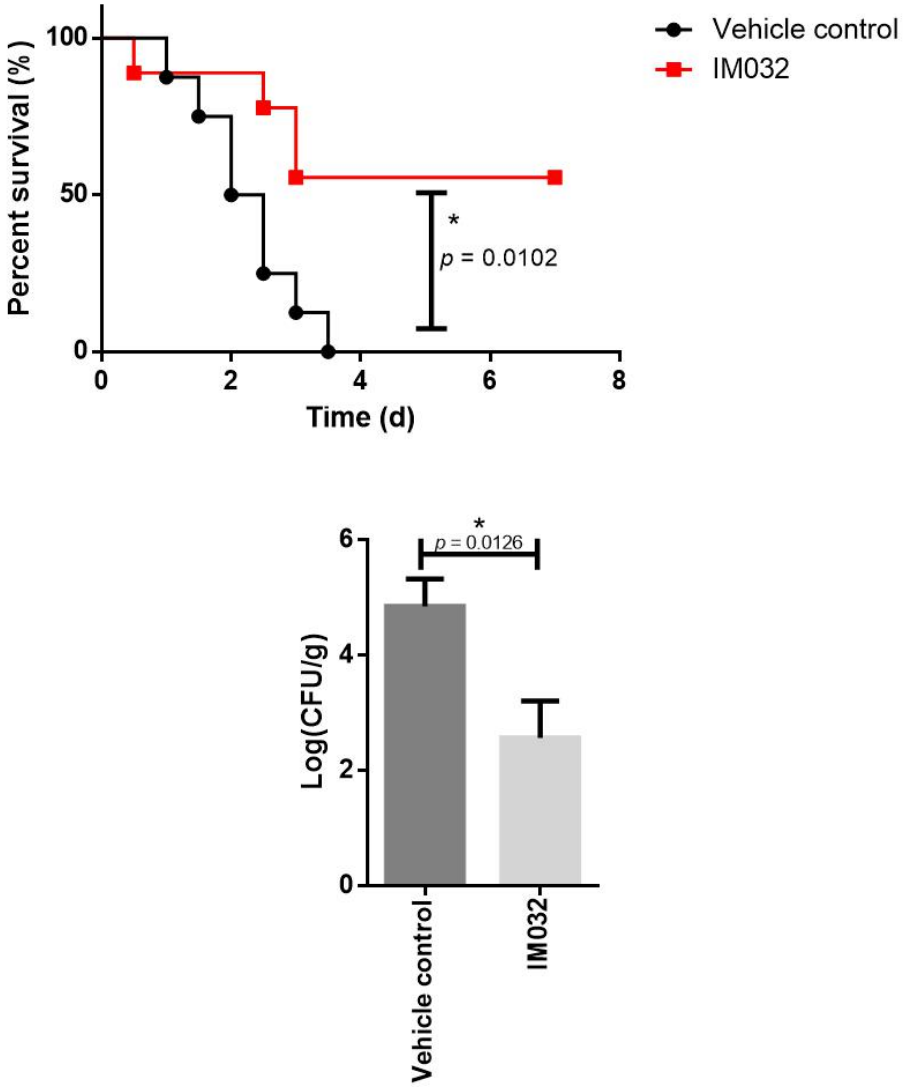



Figure 2: ALS-4 is observed to reduce bacterial load in mice

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

ALS-4 is currently undergoing CTA enabling stage to prepare for regulatory submission in Canada for a Phase 1 clinical trial. The development of ALS-4 candidate has been progressing well and the first series of GLP toxicology studies have been completed through an appointed contract research organization (CRO) based in Canada. In particular, ALS-4 candidate did not show any mutagenicity in the in vitro Ames tests. ALS-4 development is on our proposed track and we target the related regulatory submission for a Phase 1 clinical trial in the second half year of 2020 in Canada.

**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 (now expired). Prior to the expiration of the PCT applications, we filed national phase applications in member states of the EPO, in PRC and 11 other jurisdictions. 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 (please refer to the patent expiration dates under "Item 4. Information on the Company – B. Business Overview – Intellectual Property"). 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.

**SACT-1: A Repurposed Drug for the Treatment of Neuroblastoma**

Drug repurposing is a strategy for identifying new indications for approved or investigational drugs that are outside the scope of the original medical uses. It is often viewed as a lower-cost method for drug commercialization, as it is based on already-approved drugs (which has been proven to be safe for human use by the respective governing regulatory agency) and explores new target indications. (Ashburn, T. T. & Thor, K. B. Drug repositioning: identifying and developing new uses for existing drugs. Nat. Rev. Drug Discov. 3, 673–683, 2004).

One of the advantages of drug repurposing is a lower development risk due to safety and toxicity, as well as other properties related to water solubility, absorption, distribution and metabolism, as the safety and CMC profiles of marketed drugs are usually well-established. Due to the same reason, the development time is also shortened because there is no need to repeat the whole spectrum of the safety assessment. As a result, the drug repurposing approach appears to be attractive due to its superior risk management, smaller capital investment and quicker financial return. (Sudeep Pushpakom, et. al. Drug repurposing: progress, challenges and recommendations. Nat. Rev. Drug Discov. 18, 41-58, 2019)

The cost of bringing a repurposed drug is estimated to be around US$300 million, which is only one-tenth of the development cost for a new drug. (Nosengo, N. Can you teach old drugs new tricks? Nature. 534, 314-316, 2016).

In summary, drug repurposing offers the following advantages:

- Well-established safety profiles: The development risk for new indications can be substantially reduced by applying existing drugs that are approved or have been shown to be safe in large scale late-stage trials. Since safety accounts for approximately 30% of drug failures in clinical trials, this is a key advantage that repositioned drugs can harness to great effect. (Key benefits of drug repositioning. (n.d.). Retrieved from http://www.totalbiopharma.com/2012/07/04/4-key-benefits-drug-repositioning/)

- Time-saving: As repositioned drugs can rely on existing data, including efficacy and toxicity studies, the process is usually faster than de novo development. Developing a new chemical entity (NCE) can take 10 to 17 years, depending on indications. (Roin, B. N. Solving the Problem of New Uses, 2013). For a drug repositioning company, the development process from compound identification to launch can be around 3 to 8 years. (Walker, N. (2017, December 07). Accelerating Drug Development Through Repurposing, Repositioning and Rescue. Retrieved from https://www.pharmoutsourcing.com/Featured-Articles/345076-Accelerating-Drug-Development-Through-Repurposing-Repositioning-and-Rescue/)

- Cost-saving: Along with time-saving, money-saving is also a key benefit. With a single compound to enter clinical trials costing around US$10 to $20 million, the cost of identifying a repositioning candidate that already has phase 1 data could be as low as US$2 to $3 million. (http://www.totalbiopharma.com/2012/07/04/4-key-benefits-drug-repositioning/)

- Potential for out-licensing: Pharmaceutical companies are said to be exploring new models to out-license some of their clinical drug candidates that may have been shelved for pure business reasons unrelated to safety or efficacy, even though they have met their endpoints and have proven themselves to be safe. If such drugs were to be repositioned, the pharmaceutical company increases the attractiveness of these drugs and gives itself more options to find interested buyers. (http://www.totalbiopharma.com/2012/07/04/4-key-benefits-drug-repositioning/)

- Lower failure rate: According to BCC Research, approval rates for repurposed drugs are close to 30%, which is greater than the approval rate for new drug applications. ( Front Oncol. 2017; 7: 273)

One of the major limitations of the current drug repurposing and repositioning practice is that there is a lack of a systematic way to identify and reinvestigate drugs that are approved and/or have failed approval.

SACT-1 is the first repurposed drug candidate to be developed under the Smart-ACT® drug discovery platform. SACT-1 is one of the Company's proprietary technologies. Our first targeted indication is neuroblastoma. Neuroblastoma is a rare form of cancer, and classified as an orphan disease, that forms in certain types of nerve tissue and most frequently in the adrenal glands as well as spine, chest, abdomen or neck, predominantly in children, especially for those aged 5 years and below. For the high-risk group, which is close to 20% (Annu Rev Med. 2015; 66: 49–63.) of total new patient population per year, the 5-year survival rate of this condition is around 40-50% as observed by the American Cancer Society (https://www.cancer.org/cancer/neuroblastoma/detection-diagnosis-staging/survival-rates.html). The current high drug treatment cost for high risk patients can average USD200,000 per regimen (all 6 cycles) (https://www.cadth.ca/sites/default/files/pcodr/Reviews2019/10154DinutuximabNeuroblastoma_fnEGR_NOREDACT-ABBREV_Post_26Mar2019_final.pdf ). In addition, most pediatric patients often do not tolerate or survive the relevant chemotherapy stage which, subject to further clinical studies, may be positively addressed by the SACT-1 candidate due to the potential synergistic effects when applied with standard chemotherapy.

In our recent studies, SACT-1 has been shown to be effective against numerous neuroblastoma cell lines, of which 2 are MYCN-amplified cells, which represent the high-risk neuroblastoma patient group. In addition, by using a bliss score as a quantitative measure of the extent of drug interaction, Aptorum Group has seen a high and robust synergism between SACT-1 and traditional chemotherapy in vitro (Figure 3), indicating a potential efficacy enhancement/dose reduction of the chemotherapy.

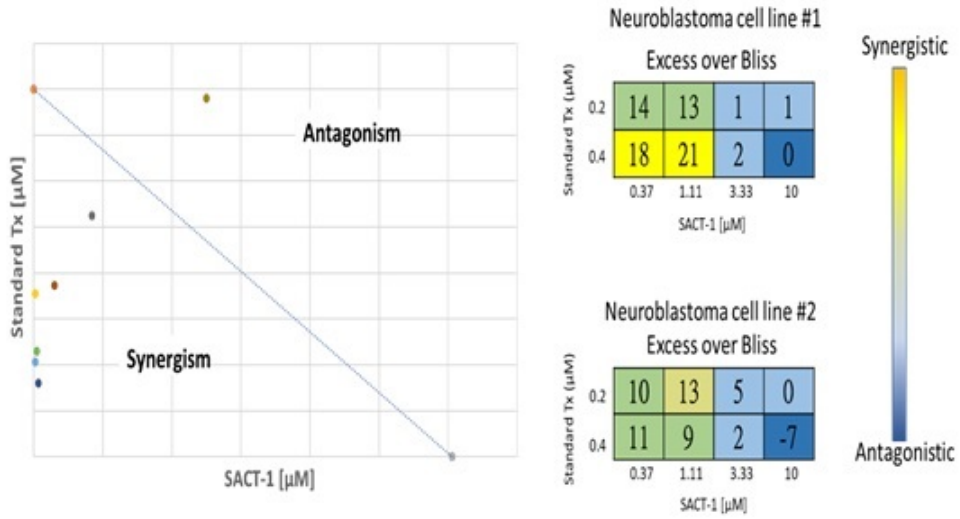



Figure 3 synergism between SACT-1 and traditional chemotherapy in vitro

In addition, in our recent study, the maximum tolerable dose of SACT-1 in a rodent model was determined to be higher than 400mg/kg. Compared with the MTD of standard chemotherapy such as paclitaxel (20-30mg/kg) (Clin Cancer Res. 5(11):3632-8) and cisplatin (6mg/kg) (BMC Cancer 17: 684 (2017)), the safety profile of SACT-1 appears to be very impressive. Based on our internal observations of pre-existing information from approved products, (subject to FDA's approval and on a case-by-case basis, a 505(b)(2) Application can rely in part on existing information from approved products (such as the FDA's previous findings on safety and efficacy) or products in literature (such as data available). However, typically speaking, the applicant is nonetheless required to carry out a Phase 1 bridging study to compare the Reference Listed Drug and reference the established safety and efficacy information), SACT-1 also exhibits a well-established safety profile: at 150mg/day, the death rate was 0% in prior clinical studies with no dosage related adverse events (Table 1). In addition, the pharmacokinetic profile of SACT-1 has also been reported (Table 2).

Table 1: Safety Profiles of SACT-1 in Human Clinical Trials

| SACT-1 | 25mg/day (N=93) | 75mg/day (N=95) | 150mg/day (N=91) |
|---|---|---|---|
| Median treatment duration, weeks | 101 | 100 | 100 |
| Adverse events (AE) | | | |
| Any grade 2-4 AE at least possibly related to SP055 | 20% | 20% | 21% |
| AEs leading to discontinuation | 9% | 12% | 14% |
| Any serious AE | 13% | 14% | 10% |
| Deaths | 0% | 2% | 0% |

Table 2: The pharmacokinetic Profile of SACT-1 in Humans

| SCAT-1 pharmacokinetic parameter in humans | (N=19) |
|---|---|
| $t_{max}$, h | 5 |
| $C_{max}$, ng/ml | ~300 |
| $AUC_{last}$, ng·h/ml | ~10,000 |
| $AUC_{inf}$, ng·h/ml | ~11,000 |
| $t_{1/2,term}$, h | ~48 |

We are currently developing a pediatric formulation of SACT-1 to better address the needs of neuroblastoma patients who are exclusively children younger than 5. SACT-1 is undergoing preparation for IND submission and is on track for regulatory application to target to commence phase 1b/2a clinical trials under the US FDA's 505(b)(2) pathway.

***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.

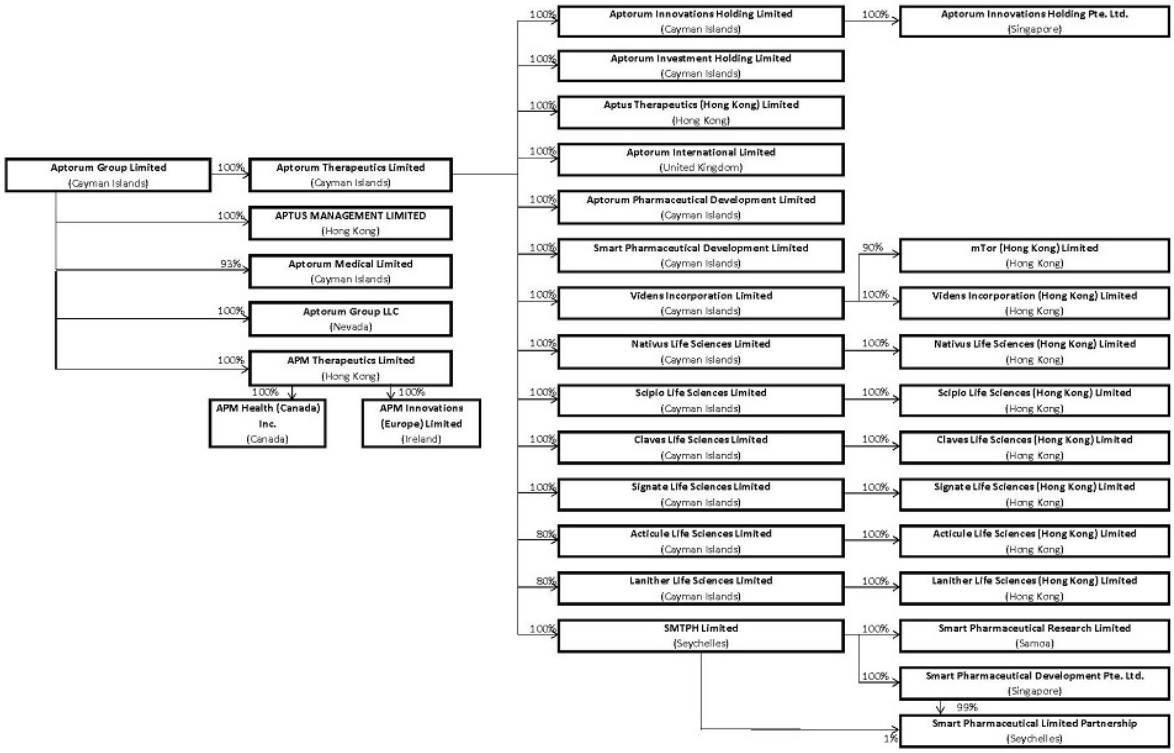
We employed statistical testing to compare different treatment groups in animal studies simply for proof of concept and to aid internal decision making for further development. We do not intend to use this standard for any regulatory submission. The US FDA or other regulatory agencies may not necessarily 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 of this prospectus, we have not submitted any applications for investigational new drugs ("IND") to the US Food and Drug Administration ("FDA"). In the fourth quarter of 2020, subject to regulatory review, 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.

***Our Structure***

The following diagram illustrates our corporate structure as of the date of this prospectus. For more details regarding our corporate history and current structure, please refer to "Corporate History and Background" appearing on page 87 of this prospectus.



***Controlled Company***

As long as our officers and directors, either individually or in the aggregate, own at least 50% of the voting power of our Company, we will be a "controlled company" as defined under NASDAQ Marketplace Rules. However, even if we qualify as a "controlled company," we do not intend to rely on the controlled company exemptions provided under NASDAQ Marketplace Rules. To that extent, we have set up the Audit Committee, the Compensation Committee, and the Nominating and Corporate Governance Committee, all of which consist solely of independent directors and adopted a charter for each committee. For so long as we are a controlled company under that definition, we are permitted however to elect to rely, and may rely, on certain exemptions from corporate governance rules, including:

- an exemption from the rule that a majority of our board of directors must be independent directors;
- an exemption from the rule that the compensation of our chief executive officer must be determined or recommended solely by independent directors; and
- an exemption from the rule that our director nominees must be selected or recommended solely by independent directors.

As a result, you will not have the same protection afforded to shareholders of companies that are subject to these corporate governance requirements.

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. (See "Risk Factors – Risks Related to Our Corporate Structure – ***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."***)

***Risks Associated with Our Business***

Investing in our securities involves risks. You should carefully consider the risks described in "Risk Factors" beginning on page 16 of this prospectus before making a decision to purchase our securities. If any of these risks actually occurs, our business, financial condition or results of operations would likely be materially adversely affected. In such case, the trading price of our Class A Ordinary Shares would likely decline, and you may lose all or part of your investment.

***Recent Events***

On August 27, 2020, we entered into certain warrant exchange agreements (the "Purchaser Exchange Agreements") with two non-affiliated purchasers to purchase our Class A Ordinary Shares (the "Purchaser Warrant Exchange"); the purchasers were two of the purchasers in the Registered Direct Offering. Pursuant to the Purchaser Exchange Agreements, the Company and the purchasers agreed that in consideration for exchanging in full all of the Purchaser Exchange Warrants held by the purchasers, the Company will exchange one (1) Class A Ordinary Share for each one (1) Purchaser Exchange Warrant ("Purchaser Exchange Share"). To the extent a purchaser would otherwise beneficially own in excess of any beneficial ownership limitation applicable to such holder after giving effect to the Purchaser Warrant Exchange, the Company shall only issue such number of Class A Ordinary Shares to the purchaser that would not cause such purchaser to exceed the beneficial ownership limitation with the balance to be held in abeyance until written notice from the purchaser that the balance (or portion thereof) may be issued in compliance with the beneficial ownership limitation, which abeyance shall be evidenced through the existing warrant from the Registered Direct Offering, which shall be deemed prepaid thereafter, and exercised pursuant to a notice of exercise in the February 2020 Warrants (as defined below).

On July 24, 2020, our Class A Ordinary Shares began to trade on the Professional Compartment of the regulated market of Euronext Paris under the symbol "APM" and will be denominated in Euros on Euronext Paris.

On February 25, 2020, we entered into certain securities purchase agreement (the "Purchase Agreement") to effect the Registered Direct Offering, with certain non-affiliated institutional investors and Jurchen Investment Corporation, the ultimate parent of the Group, pursuant to which we agreed to sell total 1,351,350 Class A Ordinary Shares (the "Shares") and warrants ("February 2020 Warrants") to purchase 1,351,350 of the Shares, for gross proceeds of approximately $10 million. The February 2020 Warrants are exercisable immediately following the date of issuance for a period of seven years at an initial exercise price of $7.40. The purchase price for each Share and the corresponding Warrant was $7.40. The Shares and February 2020 Warrants were issued on February 28, 2020. Additionally, we issued 43,243 warrants to the placement agent on terms substantially the same as the February 2020 Warrants except that the exercise price of the warrants issued to the Placement Agent was initially $8.88. As a result of the Purchaser Warrant Exchange, the exercise prices of the February 2020 Warrants, including those issued to the Placement Agent, were reduced to a nominal amount pursuant to the anti-dilution provisions in such warrants.

On January 30, 2020, the World Health Organization declared the coronavirus outbreak a "Public Health Emergency of International Concern" and on March 10, 2020, declared it to be a pandemic. Actions taken around the world to help mitigate the spread of the coronavirus include restrictions on travel, and quarantines in certain areas, and forced closures for certain types of public places and businesses. The coronavirus and actions taken to mitigate it have had and are expected to continue to have an adverse impact on the economies and financial markets of many countries, including the geographical area in which the Company operates. While the closures and limitations on movement, domestically and internationally, are expected to be temporary, if the outbreak continues on its current trajectory the duration of the supply chain disruption could reduce the availability, or result in delays, of materials or supplies to and from the Group, which in turn could materially interrupt the Group's business operations. Given the speed and frequency of the continuously evolving developments with respect to this pandemic, the Group cannot reasonably estimate the magnitude of the impact to its consolidated results of operations. Additionally, it is reasonably possible that estimates made in the financial statements have been, or will be, materially and adversely impacted in the near term as a result of these conditions, including losses on investments; impairment losses related to long-lived assets and current obligations.

On January 14, 2020, we entered into a regional distribution agreement with Multipak Limited for the commercialization of our natural supplements for women undergoing menopause and experiencing related symptoms. The dioscorea opposita bioactive nutraceutical tablets has commenced production in Canada and will be marketed under the brand name NativusWell®.

***Our Securities***

Our authorized share capital is divided into Class A Ordinary Shares and Class B Ordinary Shares. Holders of Class A Ordinary Shares and Class B Ordinary Shares have the same rights except for voting and conversion rights. In respect of matters requiring a shareholder vote, each Class A Ordinary Share will be entitled to one vote and each Class B Ordinary Share will be entitled to ten votes. Due to the Class B Ordinary Share's voting power, the holders of Class B Ordinary shares currently and may continue to have a concentration of voting power, which limits the holders of Class A Ordinary Shares' ability to influence corporate matters. (See "Risk Factors – Risks Related to our securities – ***Our Class B Ordinary Shares have greater 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.")*** Each Class B Ordinary Share is convertible into one Class A Ordinary Share at any time by the holder thereof. Class A Ordinary Shares are not convertible into Class B Ordinary Shares under any circumstances. (See "Description of Share Capital")

***Corporate Information***

Our principal executive office is located at 17 Hanover Square, London W1S 1BN, United Kingdom. Our telephone number is +44 20 80929299.

Our website is www.aptorumgroup.com. **The information on our website is not part of this prospectus.**

***Implications of Being an Emerging Growth Company***

We are an "emerging growth company," as defined in the Jumpstart Our Business Startups Act (the "JOBS Act"), and we are eligible to take advantage of certain exemptions from various reporting and financial disclosure requirements that are applicable to other public companies, that are not emerging growth companies, including, but not limited to, (1) not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act, (2) reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and (3) exemptions from the requirements of holding a non-binding advisory vote on executive compensation and shareholder approval of any golden parachute payments not previously approved. We intend to take advantage of these exemptions.

In addition, Section 107 of the JOBS Act also provides that an emerging growth company can take advantage of the extended transition period provided in Section 7(a)(2)(B) of the Securities Act, for complying with new or revised accounting standards. As a result, an emerging growth company can delay the adoption of certain accounting standards until those standards would otherwise apply to private companies.

We could remain an emerging growth company for up to five years, or until the earliest of (1) the last day of the first fiscal year in which our annual gross revenues exceed $1.07 billion, (2) the date that we become a "large accelerated filer" as defined in Rule 12b-2 under the Exchange Act, which would occur if the market value of our Ordinary Shares that is held by non-affiliates exceeds $700 million as of the last business day of our most recently completed second fiscal quarter and we have been publicly reporting for at least 12 months, or (3) the date on which we have issued more than $1 billion in non-convertible debt during the preceding three-year period.

***Implications of Being a Foreign Private Issuer***

We are also considered a "foreign private issuer." In our capacity as a foreign private issuer, we are exempted from certain rules under the U.S. Securities Exchange Act of 1934, as amended ("Exchange Act"), that impose certain disclosure obligations and procedural requirements for proxy solicitations under Section 14 of the Exchange Act. In addition, our officers, directors and principal shareholders are exempt from the reporting and "short-swing" profit recovery provisions of Section 16 of the Exchange Act and the rules under the Exchange Act with respect to their purchases and sales of our Class A Ordinary Shares. Moreover, we are not required to file periodic reports and financial statements with the U.S. Securities and Exchange Commission ("SEC"), as frequently or as promptly as U.S. companies whose securities are registered under the Exchange Act. In addition, we are not required to comply with Regulation FD, which restricts the selective disclosure of material information.

We may take advantage of these exemptions until such time as we are no longer a foreign private issuer. We would cease to be a foreign private issuer at such time when more than 50% of our outstanding voting securities are held by U.S. residents and any of the following three circumstances applies: (1) the majority of our executive officers or directors are U.S. citizens or residents; (2) more than 50% of our assets are located in the United States; or (3) our business is administered principally in the United States.

We have taken advantage of certain reduced reporting and other requirements in this prospectus. Accordingly, the information contained herein may be different than the information you receive from other public companies in which you hold equity securities.

***Notes on Prospectus Presentation***

Numerical figures included in this prospectus have been subject to rounding adjustments. Accordingly, numerical figures shown as totals in various tables may not be arithmetic aggregations of the figures that precede them. Certain market data and other statistical information contained in this prospectus is based on information from independent industry organizations, publications, surveys and forecasts. Some market data and statistical information contained in this prospectus are also based on management's estimates and calculations, which are derived from our review and interpretation of the independent sources listed above, our internal research and our knowledge of pharmaceutical industry. While we believe such information is reliable, we have not independently verified any third-party information and our internal data has not been verified by any independent source.

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: | **Aptorum Group Limited** |
| Class A Ordinary Shares being offered by us | Up to 9,202,453 Class A Ordinary Shares and related warrants. |
| Assumed combined public price per share and related warrant | $1.63 (the last reported sale price of our Class A Ordinary Shares on The NASDAQ Global Market on September 21, 2020). |
| Warrants offered by us | Warrants to purchase up to 9,202,453 Class A Ordinary Shares. Each Class A Ordinary Share is being sold together with one warrant to purchase one Class A Ordinary Share. Each warrant will have an exercise price per share equal to 100% of the of the combined public offering price per Class A Ordinary Share and related warrant in this offering, will be immediately exercisable and will expire on the fifth anniversary of the original issuance date. The Class A Ordinary Shares and warrants are immediately separable and will be issued separately, but will be purchased together in this offering. This prospectus also relates to the offering of the Class A Ordinary Share issuable upon exercise of the warrants. |
| Pre-funded Warrants being offered by us | We are also offering to certain purchasers whose purchase of Class A Ordinary Shares in this offering would otherwise result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding Class A Ordinary Shares immediately following the consummation of this offering, the opportunity to purchase, if such purchasers so choose, pre-funded warrants in lieu of Class A Ordinary Shares that would otherwise result in any such purchaser's beneficial ownership exceeding 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding Class A Ordinary Shares. The exercise price of each pre-funded warrant will equal $0.01 per share. Each pre-funded warrant will be exercisable upon issuance and will not expire prior to exercise. For each pre-funded warrant we sell, the number of Class A Ordinary Shares we are offering will be decreased on a one-for-one basis. This prospectus also relates to the offering of the Class A Ordinary Shares issuable upon exercise of the pre-funded warrants. |
| Class A Ordinary Shares outstanding prior to this Offering (1) | 8,491,526 |
| Class A Ordinary Shares outstanding immediately following the consummation of this Offering | 17,693,979, assuming we only sell Class A Ordinary Shares and assuming no exercise of the warrants. |
| Trading Symbol | Our Class A Ordinary Shares trade on the NASDAQ Global Market under the symbol APM. There is no established public trading market for the warrants or pre-funded warrants, and we do not expect a market to develop. We do not intend to apply for listing of the warrants or the pre-funded warrants on any securities exchange or other nationally recognized trading system. Without an active trading market, the liquidity of the warrants and the pre-funded warrants will be limited. |

| | |
|---|---|
| Transfer Agent | Continental Stock Transfer & Trust Company |
| Risk Factors | Investing in our securities involves a high degree of risk and purchasers of our securities 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 securities beginning on Page 16. |
| Use of Proceeds | Assuming all of the Class A Ordinary Shares and Pre-Funded Warrants are sold, we estimate that we will receive net proceeds from this Offering of up to $13.5 million, based on an assumed initial offering price of $1.63, after deducting placement agent commissions and estimated offering expenses. We currently intend to use the net proceeds we receive from this Offering for general corporate purposes. See "Use of Proceeds" for additional information. |

(1) The number of shares to be outstanding before this offering is based on 8,491,526 Class A Ordinary Shares and 22,437,754 Class B Ordinary Shares outstanding as of September 23, 2020 and excludes:

- 926,840 Class A Ordinary Shares issuable upon the exercise of share options outstanding; and
- 854,053 Class A Ordinary Shares underlying outstanding warrants.

Except as otherwise indicated, all information in this prospectus assumes:

- that the assumed combined public offering price is $1.63 per Class A Ordinary Share and related warrant;
- no exercise of 854,053 outstanding warrants;
- no exercise of the warrants issuable pursuant to this offering;
- no exercise of the Pre-Funded Warrants;
- no exercise of the Placement Agent's Warrants;
- no exercise of the 926,840 Class A Ordinary Shares issuable upon the exercise of share options outstanding.

## RISK FACTORS

*Investing in our securities 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 have received 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, Health Canada 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 is from AML Clinic, but we it is not 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, CTA-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 may 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, Health Canada 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.

***Preclinical development is a long, expensive and uncertain process, and we may terminate one or more of our current preclinical development programs.***

Traditionally, drug discovery and development is a time-consuming, costly and high-risk business. On average, the cost of launching a new drug is estimated to approach US$2.6 billion and can take around 12 years to make it to the market (4 key benefits of drug repositioning. (n.d.). Retrieved from http://www.totalbiopharma.com/2012/07/04/4-key-benefits-drug-repositioning/). Despite the huge expenditures, only approximately 1 in 1,000 potential drugs is graduated to human clinical trials after pre-clinical testing in the United States, (Norman, G. A. Drugs, Devices, and the FDA: Part 1. JACC: Basic to Translational Science, 1(3), 170-179, 2016) and nearly 86.2% of drug candidates entering phase 1 trials fails to achieve drug approval. (Wong C. H., Siah K. W. & Lo A. W. (2019, April), "Estimation of clinical trial success rates and related parameters," retrieved from https://academic.oup.com/biostatistics/article/20/2/273/4817524). Even after a drug is commercialized, there are just too many factors affecting the sales of pharmaceutical products, including unmet need/burden of disease (68.2%), clinical efficacy (47.3%), comparator choice (36.4%), safety profile (36.4%), and price (35.5%) (Sendyona, S., Odeyemi, I., & Maman, K. "Perceptions and factors affecting pharmaceutical market access: Results from a literature review and survey of stakeholders in different settings" Journal of Market Access & Health Policy, 4(1), 31660, 2016). In the end, on average, only 20% of approved new drugs generate revenues that exceed the average R&D investment. (Rosenblatt, M. (2014, December 19) "The Real Cost of "High-Priced" Drugs," retrieved from https://hbr.org/2014/11/the-real-cost-of-high-priced-drugs). We may determine that certain preclinical product candidates or programs do not have sufficient potential to warrant the allocation of resources toward them. Accordingly, we may elect to terminate our programs for and, in certain cases, our licenses to, such product candidates or programs. If we terminate a preclinical program in which we have invested significant resources, we will have expended resources on a program that will not provide a full return on our investment and missed the opportunity to have allocated those resources to potentially more productive uses.

***Management has discretion to terminate the development of any of our projects at any time.***

In light of the costs, both in time and expense, as well as the preclinical results and general business considerations, management may decide not to continue developing a particular preclinical program without announcement. Management will always base its decision on what it believes to be the most efficient use of the Company's resources to provide the most value to its shareholders. As a result, investors may not always be aware of the termination of a previously announced study or trial. The Company will continue to provide update on its active preclinical projects in its SEC filings and/or press releases, as appropriate.

***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 two 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, 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, Health Canada 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, Health Canada 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, Health Canada 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, Health Canada 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, Health Canada 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, Health Canada 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, Health Canada 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, Health Canada 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, Health Canada 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, Health Canada 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, Health Canada 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, Health Canada 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, Health Canada 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, Health Canada 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, 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, Health Canada 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, Health Canada, 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, Health Canada, 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, Health Canada 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, Health Canada 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, Health Canada 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, Health Canada 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, Health Canada 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, Health Canada 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 unable to successfully pursue the 505(b)(2) pathway for the pediatric formulation of SACT-1 to treat neuroblastoma as planned, which would materially impact our likelihood of obtaining FDA approval.***

A 505(b)(2) application that relies for approval on the FDA's finding of safety and/or effectiveness for one or more listed drugs must establish that such reliance is scientifically appropriate, and must submit data necessary to support any aspects of the proposed drug product that represent modifications to the listed drug(s). We must establish a bridge between our proposed drug product and each listed drug upon which we propose to rely, to demonstrate that such reliance is scientifically justified. Determining and reaching agreement with the FDA regarding exactly what additional or "bridging" data will be needed to support the proposed modification to the listed drug can present challenges and is a fact-specific determination that must be made on a case-by-case basis. If we are unable to establish to the FDA's satisfaction that our reliance on the listed drug is scientifically appropriate, and that we have sufficiently addressed the safety and effectiveness implications of our proposed modifications, we may be unable to utilize this regulatory pathway.

If the FDA does not allow us to pursue the 505(b)(2) regulatory pathway for our product candidates as anticipated, we may need to conduct additional clinical trials, provide additional data and information and meet additional standards for regulatory approval. If this were to occur, the time and financial resources required to obtain FDA approval for our product candidates would likely substantially increase. Moreover, the inability to pursue the 505(b)(2) regulatory pathway could result in new competitive products reaching the market faster than our product candidates, which could materially adversely impact our competitive position and prospects. Even if we are allowed to pursue the 505(b)(2) regulatory pathway for a product candidate, we cannot assure you that we will receive the requisite or timely approvals for commercialization of such product candidate. Any failure to obtain regulatory approval of our product candidates would significantly limit our ability to generate revenues, and any failure to obtain such approval for all of the indications and labeling claims we deem desirable could reduce our potential revenues.

***If we or our third-party suppliers fail to comply with the FDA's good manufacturing practice regulations or fail to adequately, timely, or sufficiently respond to an FDA Form 483 or subsequent Warning Letter, this could impair our ability to market our products in a cost-effective and timely manner and could result in FDA enforcement action.***

We and our third-party suppliers are required to comply with the FDA's Current Good Manufacturing Practices (cGMP) which covers the methods and documentation of the design, testing, production, control, quality assurance, labeling, packaging, sterilization, storage and shipping of our products. The FDA audits compliance with the cGMP and related regulations through periodic announced and unannounced inspections of manufacturing and other facilities. The FDA may conduct these inspections or audits at any time. If, during the inspection, FDA identifies issues which, in FDA's judgment, may constitute violations of the Federal Food, Drug, and Cosmetic Act or FDA's regulations, the FDA inspector may issue an FDA Form 483 listing these observations.

Note that if an entity does not address observations found in an FDA Form 483 to FDA's satisfaction, the FDA could take enforcement action, including any of the following sanctions:

- untitled letters, warning letters, fines, injunctions, consent decrees and civil penalties;
- customer notifications or recall, detention or seizure of our product;
- operating restrictions or partial suspension or total shutdown of production;
- refusing or delaying our requests for pre-market approval of new products;
- withdrawing pre-market approvals that have already been granted;
- refusal to grant export approval for our product; or
- criminal prosecution.

Any of the foregoing actions could have a material adverse effect on our reputation, business, financial condition and operating results.

***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, Health Canada or other comparable regulatory authorities;
- limitations or warnings contained in the labeling approved by the FDA, NMPA, EMA, Health Canada 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 of this report, 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. 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. For more information about our IP portfolio, please refer to the Intellectual Property section below.

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. (See "Our Business – Intellectual Property") 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 may in the future 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, Health Canada 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, Health Canada 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, Health Canada 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, Health Canada or other comparable regulatory authorities and approval of the manufacturing process and procedures in accordance with the FDA, NMPA EMA, or Health Canada'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, Health Canada 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 Natural Supplements**

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

From a regulatory perspective, some of the Company's non-drug candidates (including those developed under the project company Nativus), may be regulated as dietary supplements, including NativusWell® (NLS-2). For those non-drug candidates that the Company plans to develop, they are subject to extensive and rigorous domestic government regulation, including regulation by the FDA, 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 their respective foreign equivalents. The FDA regulates dietary supplements, cosmetics and drugs under different regulatory schemes.

For example, the FDA regulates the processing, formulation, safety, manufacturing, packaging, labeling, advertising and distribution of dietary supplements and cosmetics under its dietary supplement and cosmetic authority, respectively. The FDA also regulates the research, development, pre-clinical and clinical testing, manufacture, safety, effectiveness, record keeping, reporting, labeling, storage, approval, advertising, promotion, sale, distribution, import and export of pharmaceutical products under various regulatory provisions. If any drug products 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.

Government regulation substantially increases the cost and risk of researching, developing, manufacturing and selling products. Our failure to comply with these regulations could result in, by way of example, significant fines, criminal and civil liability, product seizures, recalls, withdrawals, withdrawals of approvals and exclusion and debarment from government programs. Any of these actions, including the inability of our hormone therapy drug candidates to obtain and maintain regulatory approval, would have a materially adverse effect on our business, financial condition, results of operations and prospects.

In addition, the FDA's policies may change and additional government regulations may be issued that could prevent, limit, or delay regulatory approval of our drug candidates, or impose more stringent product labeling and post-marketing testing and other requirements.

We intend to first launch and market NativusWell® (NLS-2) in Hong Kong. In Hong Kong, natural supplements are defined as "health food" products. "Health food" containing medicines are subject to the Pharmacy and Poisons Ordinance (Cap 138) and such "health food" containing Chinese medicines are regulated by the Chinese Medicine Ordinance (Cap 549), where they must meet the requirements in respect of safety, quality and efficacy before they can be registered.

For other "health food" products which cannot be classified as Chinese medicine or western medicine are regulated under the Public Health and Municipal Services Ordinance (Cap 132) as general food products. The Public Health and Municipal Services Ordinance requires the manufacturers and sellers of food to ensure that their products are fit for human consumption and comply with the requirements in respect of food safety, food standards and labelling. In addition, all prepackaged food should bear labels which correctly list out the ingredients of the food under the Food and Drugs (Composition and Labelling) Regulations (Cap 132W) under the Ordinance.

The NativusWell® (NLS-2) is made with the bioactive ingredient extracted Chinese yam powder and does not contain any western or Chinese medicine; therefore, registration is not required under the local laws for marketing in Hong Kong. We will, however, ensure the compliance of the Food and Drugs (Composition and Labelling) Regulations (Cap 132W) with by proper labelling in place.

**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 38 employees, including 35 full-time employees and 3 part-time employees. Of these, 11 are engaged in full-time research and development and laboratory operations, 20 are engaged in full-time general and administrative functions, 4 are full-time employees engaged in the clinic operation and 3 part-time employees are engaged in sponsored research and development, clinic operations, finance, and legal clerical support. As of the date of hereof, 37 of our employees are located in Asia and 1 of our employees is located in Europe. In addition, we have engaged and may continue to engage 48 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. 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 year ended December 31, 2018 and the period March 1, 2017 through December 31, 2017, 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. 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.

In 2019, we took actions to remediate the abovementioned material weakness, and we believe we have remediated the material weakness by implementing the following measures:

- provide trainings to staff regarding to the preparation of financial statements in compliance with generally accepted accounting principles in the United States;
- change to a new and well-established accounting system to enhance effectiveness and financial and system control;
- establish clear roles and responsibilities for accounting and financial reporting staff to address finance and accounting issues; and
- continue to monitor the improvement on internal control over financial reporting.

As of December 31, 2019, we determined that the aforementioned measures have remediated the material weakness. However, since we are still in the process of replenishing and building up a qualified finance and accounting team with sufficient dedicated resources, our management assessed that the deficiency related to 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, still existed as of December 31, 2019. Therefore, based on the definition of "material weakness" and "significant deficiency" in the standards established by the Public Company Accounting Oversight Board of the United States, our management concluded that the deficiency now only rises to the level of a significant deficiency. However, we cannot assure you that we will not identify additional material weaknesses or significant deficiencies in the future.

Our management concluded that our internal controls over financial reporting were effective as of December 31, 2019. However, if we fail to maintain effective internal controls over financial reporting in the future, our management and our independent registered public accounting firm may conclude that our internal control over financial reporting is not effective. 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, including the Bribery Act 2010 of the United Kingdom (UK Bribery Act"), 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 and UK Bribery Act generally prohibits us from making improper payments to non-U.S. officials for the purpose of obtaining or retaining business or other benefits. 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.

***Our business and results of operations may be negatively impacted by the UK's withdrawal from the EU.***

On June 23, 2016, the UK held a referendum in which a majority of voters approved an exit from the EU, or Brexit. After nearly three years of negotiation and political and economic uncertainty, the UK's withdrawal from the EU became effective on January 31, 2020. Under the terms of the withdrawal agreement, the UK and the EU will continue to negotiate the terms of trade and other matters during a transition period that will end on December 31, 2020.

During the Brexit transition period, the UK will continue to be subject to the laws and obligations applicable to all EU members, including laws related to trade and data privacy and the EU's pharmaceutical laws. However, future regulations that will apply in the UK following the transition period (including financial laws and regulations, tax and free trade agreements, intellectual property rights, data protection laws, supply chain logistics, environmental, health and safety laws and regulations medicine licensing and regulations, immigration laws and employment laws), have yet to be addressed. This lack of clarity on future UK laws and regulations and their interaction with the EU laws and regulations may negatively impact foreign direct investment in the UK, increase costs, depress economic activity and restrict access to capital. Brexit, including developments that occur during the Brexit transition period, may affect our results of operations in a number of ways, including increasing currency exchange risk, generating instability in the global financial markets or negatively impacting the economies of the UK and Europe. In addition, as we are headquartered in the UK, it is possible that Brexit may impact some or all of our current operations. For example, following the transition period, Brexit may impact our ability to freely move employees from our headquarters in the UK to other locations in Europe. If the UK and the EU are unable to negotiate acceptable agreements or if other EU member states pursue withdrawal, barrier-free access between the UK and other EU member states or among the EEA overall could be diminished or eliminated.

The long-term effects of Brexit will depend in part on any agreements the UK makes during the Brexit transition period to retain access to markets in the EU. Such a withdrawal from the EU is unprecedented, and it is unclear how the UK's access to the European single market for goods, capital, services and labor within the EU, or single market, and the wider commercial, legal and regulatory environment, will impact our current and future operations (including business activities conducted by third parties and contract manufacturers on our behalf).

We may also face new regulatory costs and challenges that could have an adverse effect on our operations as a result of Brexit. Depending on the terms of the UK's withdrawal from the EU, the UK could lose the benefits of global trade agreements negotiated by the EU on behalf of its member states, which may result in increased trade barriers that could make our doing business in the EU and the EEA more difficult. Since the regulatory framework in the UK covering quality, safety and efficacy of therapeutic substances, clinical trials, marketing authorization, commercial sales and distribution of therapeutic substances is derived from EU directives and regulations, Brexit could materially impact the future regulatory regime with respect to the approval of our drug candidates or any future therapeutic candidates, should we decide to seek marketing approvals for such candidates in the UK or to carry out any clinical trials in the UK for our drug candidates in support of marketing approvals by EMA in the future.

We expect that following the transition period, Brexit could lead to legal uncertainty and potentially divergent national laws and regulations as the UK determines which EU laws to replicate or replace, including those related to data privacy and the regulation of medicinal products, as described above. Any of these effects of Brexit, and others we cannot anticipate, could negatively impact our business and results of operations.

***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 $4.02 million, $5.19 million and $12.01 million as of June 30, 2020, December 31, 2019 and December 31, 2018, 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, 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. (See "Our Business –Regulation – PRC Regulations"). 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, 2018, and we may be a PFIC for U.S. federal income tax purposes for our current taxable year ending December 31, 2019.

In determining whether we are a PFIC, cash and investment are considered by the U.S. Internal Revenue Service ("IRS") to be a passive asset. During our taxable year ending December 31, 2019, we believe that the amount of restricted and unrestricted cash we had on hand and investments were 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, warrants or pre-funded warrants, certain adverse U.S. federal income tax consequences could apply to such U.S. Holder. As discussed under "Taxation – Material U.S. Federal Income Tax Considerations for U.S. Holders – Passive Foreign Investment Company Rules", 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. (See "Taxation – Material U.S. Federal Income Tax Considerations for U.S. Holders – Passive Foreign Investment Company Rules")

***Political risks associated with conducting business in Hong Kong.***

While we operate our business globally, part of our business operations is based in Hong Kong. Accordingly, our business operation and financial conditions will be affected by the political and legal developments in Hong Kong. During the period covered by the financial information incorporated by reference into and included in this prospectus, we derive substantially all of our revenue from operations in Hong Kong and, specifically, from the AML Clinic in Hong Kong operating under the name of Talem Medical. Any adverse economic, social and/or political conditions, material social unrest, strike, riot, civil disturbance or disobedience, as well as significant natural disasters, may affect the market may adversely affect the business operations of the AML Clinic. Hong Kong is a special administrative region of the PRC and the basic policies of the PRC regarding Hong Kong are reflected in the Basic Law, namely, Hong Kong's constitutional document, which provides Hong Kong with a high degree of autonomy and executive, legislative and independent judicial powers, including that of final adjudication under the principle of "one country, two systems". However, there is no assurance that there will not be any changes in the economic, political and legal environment in Hong Kong in the future. Since a substantial part of our operations is based in Hong Kong, any change of such political arrangements may pose immediate threat to the stability of the economy in Hong Kong, thereby directly and adversely affecting our results of operations and financial positions.

The Hong Kong protests that begun in 2019 are ongoing protests in Hong Kong (the "Hong Kong Protests") triggered by the introduction of the Fugitive Offenders amendment bill by the Hong Kong government. If enacted, the bill would have allowed the extradition of criminal fugitives who are wanted in territories with which Hong Kong does not currently have extradition agreements, including mainland China. This led to concerns that the bill would subject Hong Kong residents and visitors to the jurisdiction and legal system of mainland China, thereby undermining the region's autonomy and people's civil liberties. Various sectors of the Hong Kong economy have been adversely affected as the protests turned increasingly violent. Most notably, the airline, retail, and real estate sectors have seen their sales decline.

Under the Basic Law of the Hong Kong Special Administrative Region of the People's Republic of China, Hong Kong is exclusively in charge of its internal affairs and external relations, while the government of the PRC is responsible for its foreign affairs and defense. As a separate customs territory, Hong Kong maintains and develops relations with foreign states and regions. We cannot assure that the Hong Kong Protests will not affect Hong Kong's status as a Special Administrative Region of the People's Republic of China and thereby affecting its current relations with foreign states and regions.

Our revenue is susceptible to the ongoing Hong Kong Protests as well as any other incidents or factors which affect the stability of the social, economic and political conditions in Hong Kong. Any drastic events may adversely affect our business operations. Such adverse events may include changes in economic conditions and regulatory environment, social and/or political conditions, civil disturbance or disobedience, as well as significant natural disasters. Given the relatively small geographical size of Hong Kong, any of such incidents may have a widespread effect on our business operations, which could in turn adversely and materially affect our business, results of operations and financial condition.

We cannot assure that the Hong Kong Protests will end in the near future and that there will be no other political or social unrest in the near future or that there will not be other events that could lead to the disruption of the economic, political and social conditions in Hong Kong. If such events persist for a prolonged period of time or that the economic, political and social conditions in Hong Kong are to be disrupted, our overall business and results of operations may be adversely affected.

Furthermore, on June 30, 2020, the Standing Committee of the National People's Congress of the People's Republic of China passed the Law of the People's Republic of China on Safeguarding National Security in the Hong Kong Special Administrative Region (the "National Security Law"). In response to the implementation of the National Security Law, President Trump of the U.S. signed an executive order on Hong Kong Normalization on July 14, 2020 to end the preferential trading status of Hong Kong and, going forward, Hong Kong will receive the same treatment from the U.S. as China.

At the same time, the U.S. has imposed sanctions on and suspended collaborations with a number of Chinese companies and universities by including these entities in the Entity List and the Unverified List of the Bureau of Industry and Security of the U.S. Department of Commerce. Our Company has working relationships with universities in Hong Kong on R&D of some projects.

While none of our collaboration partners is currently under sanction by the U.S., it may cause significant disruptions if the universities' ability to conduct R&D is adversely affected due to difficulty in acquiring essential equipment and materials, as well as our business operations due to possible suspension of dealings with sanctioned entities.

To this date, the U.S. government has not imposed or threatened to impose any sanctions on the universities in Hong Kong. However, as U.S.-China relations continue to deteriorate, there is a possibility that sanctions could be imposed on the universities in Hong Kong in the future.

***We are subject to the risks of doing business globally.***

Our business is subject to risks associated with doing business globally. Accordingly, our business and financial results in the future could be adversely affected due to a variety of factors, including: changes in a specific country's or region's political and cultural climate or economic condition; unexpected changes in laws and regulatory requirements in local jurisdictions; difficulty of effective enforcement of contractual provisions in local jurisdictions; inadequate intellectual property protection in certain countries; enforcement of anti-corruption and anti-bribery laws; trade-protection measures, import or export licensing requirements and fines, penalties or suspension or revocation of export privileges; the effects of applicable local tax regimes and potentially adverse tax consequences; and significant adverse changes in local currency exchange rates.

***Our results of operation may be negatively affected should the 2019-nCov virus (Coronavirus) continue to spread on a wider scale.***

Our business could be adversely affected by the effects of a widespread outbreak of contagious disease, including the recent outbreak of respiratory illness caused by a novel coronavirus. Any outbreak of contagious diseases, and other adverse public health developments, particularly in China, could have a material and adverse effect on our business operations. These could include disruptions or restrictions on our ability to travel or to distribute our products, as well as temporary closures of our facilities or the facilities of our suppliers or customers.

The COVID-19 pandemic continues to rapidly evolve. The extent to which the outbreak impacts our business, preclinical studies and clinical trials will depend on future developments, which are highly uncertain and cannot be predicted with confidence, such as the ultimate geographic spread of the disease, the duration of the pandemic, travel restrictions and social distancing in various countries, business closures or business disruptions and the effectiveness of actions taken to contain and treat the disease. If we or any of the third parties with whom we engage were to experience shutdowns or other business disruptions, our ability to conduct our business in the manner and on the timelines presently planned could be materially and negatively impacted.

In addition, the trading prices for our Class A Ordinary Shares and other biopharmaceutical companies have been highly volatile as a result of the COVID-19 pandemic. As a result, we may face difficulties raising capital through sales of our securities or such sales may be on unfavorable terms.

***The outbreak of the novel coronavirus disease, COVID-19, or other pandemic, epidemic or outbreak of an infectious disease may materially and adversely impact our preclinical studies and clinical trials.***

As a result of the COVID-19 outbreak, or similar pandemics, we have and may in the future experience disruptions that could materially and adversely impact our manufacturing, preclinical development activities, preclinical studies and planned clinical trial. Potential disruptions include but are not limited to:

- delays or difficulties in enrolling patients in our clinical trials, should the relevant clinical trials be approved;
- delays or difficulties in initiating or expanding clinical trials, including delays or difficulties with clinical site initiation and recruiting clinical site investigators and clinical site staff;

- increased rates of patients withdrawing from our clinical trials following enrollment as a result of contracting COVID-19 or other health conditions or being forced to quarantine;

- diversion of healthcare resources away from the conduct of clinical trials, including the diversion of hospitals serving as our clinical trial sites and hospital staff supporting the conduct of our clinical trials;

- interruption of key clinical trial activities, such as clinical trial site data monitoring, due to limitations on travel imposed or recommended by governments, employers and others or interruption of clinical trial subject visits and study procedures, which may impact the integrity of subject data and clinical study endpoints;

- interruption or delays in the operations of the FDA or other regulatory authorities, which may impact review and approval timelines for regulatory submission and trial initiation;

- interruption or delays in our CROs and collaborators meeting expected deadlines or complying with regulatory requirements related to preclinical development activities, preclinical studies and planned clinical trials;

- delays or disruptions in preclinical experiments and investigational new drug application-enabling or clinical trial application-enabling studies due to restrictions of on-site staff and unforeseen circumstances at contract research organizations and vendors;

- interruption of, or delays in receiving, supplies of our product candidates from our contract manufacturing organizations due to staffing shortages, production slowdowns or stoppages and disruptions in delivery systems;

- limitations on our ability to recruit and hire key personnel due to our inability to meet with candidates because of travel restrictions and "shelter in place" orders;

- limitations on employee resources that would otherwise be focused on the conduct of our preclinical studies and clinical trials, including because of sickness of employees or their families or the desire of employees to avoid contact with large groups of people; and

- interruption or delays to our sourced discovery and clinical activities.

**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 18,927,211 ordinary shares, on an as converted basis (2,865,742 Class A Ordinary Shares and 16,061,469 Class B Ordinary Shares), representing approximately 70% of the voting power of our outstanding ordinary shares as of the date hereof. 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.

***The dual class structure of our ordinary shares has the effect of concentrating voting control with our CEO, directors and their affiliates.***

Each Class B Ordinary Share has ten votes per share and each Class A Ordinary Share has one vote per share. Shareholders who hold shares of Class B Ordinary Shares, including our executive officers and their affiliates who hold such shares, hold approximately 96% of the voting power of our outstanding ordinary shares as of the date hereof. Because of the ten-to-one voting ratio between our Class B and Class A Ordinary Shares, the holders of our Class B Ordinary Shares collectively will continue to control a majority of the combined voting power of our ordinary share and therefore be able to control all matters submitted to our shareholders for approval so long as the shares of Class B Ordinary Shares represent at least 9.1% of all outstanding shares of our Class A Ordinary Shares and Class B Ordinary 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 if the shares are successfully listed 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 8,491,526 Class A Ordinary Shares are outstanding as of the date of this prospectus. 4,312,941 of the Class A Ordinary Shares 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 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, 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 Ordinary 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 Ordinary 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.

***Our Class B Ordinary Shares have greater 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 96% of the voting power of our outstanding ordinary shares. Because of the ten-to-one voting ratio between our Class B 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 Ordinary 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 Ordinary Shares.

***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.

***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 or the United Kingdom, 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, the United Kingdom 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, the United Kingdom 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.

***As a foreign private issuer, we are permitted to adopt certain home country practices in relation to corporate governance matters that differ significantly from the NASDAQ Global Market corporate governance listing standards. These practices may afford less protection to shareholders than they would enjoy if we complied fully with corporate governance listing standards.***

As a foreign private issuer, we are permitted to take advantage of certain provisions in the NASDAQ Global Market listing rules that allow us to follow Cayman Islands law for certain governance matters. Certain corporate governance practices in the Cayman Islands may differ significantly from corporate governance listing standards as, except for general fiduciary duties and duties of care, Cayman Islands law has no corporate governance regime which prescribes specific corporate governance standards. We may follow Cayman Islands corporate governance practices in lieu of the corporate governance requirements of the Nasdaq Global Market in respect of the following. For instance, Cayman law does not require that we obtain shareholder approval to issue 20% or more of our outstanding Ordinary Shares in a private offering and we are not required to make our interim results available to shareholders, although as a NASDAQ listed company we do publicly file interim results for the first six months of our fiscal year. Therefore, our shareholders may be afforded less protection than they otherwise would have under corporate governance listing standards applicable to U.S. domestic issuers.

***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 the Offering**

***We will have broad discretion in how we use the proceeds, and we may use the proceeds in ways in which you and other shareholders may disagree.***

Our management will use its discretion to direct the use of the net proceeds from this offering. We intend to use the net proceeds from this offering to fund research and development of our lead product candidates, including clinical trial activities, as well as for working capital. Our management's judgments may not result in positive returns on your investment and you will not have the opportunity to evaluate the economic, financial or other information upon which our management bases its decisions.

***You will experience immediate and substantial dilution in the net tangible book value per share of the Class A Ordinary Shares you purchase.***

Because the assumed combined public price per Class A Ordinary Share and related warrant being offered is substantially higher than the net tangible book value per share of our Class A Ordinary Shares, you will suffer substantial dilution in the net tangible book value of the Class A Ordinary Shares you purchase in this offering. Assuming a combined public offering price of $1.63 per Class A Ordinary Share, if you purchase Class A Ordinary Shares in this offering, you will suffer immediate and substantial dilution of approximately $0.88 per Class A Ordinary Share and related warrant in the net tangible book value of the Class A Ordinary Shares and related warrants. (See "Dilution")

***This is a best efforts offering, no minimum number or dollar amount of securities is required to be sold, and we may not raise the amount of capital we believe is required for our business plans.***

The Placement Agent has agreed to use its reasonable best efforts to solicit offers to purchase the securities in this offering. The Placement Agent has no obligation to buy any of the securities from us or to arrange for the purchase or sale of any specific number or dollar amount of the securities. There is no required minimum number of securities that must be sold as a condition to completion of this offering. Because there is no minimum offering amount required as a condition to the closing of this offering, the actual offering amount, Placement Agent fees and proceeds to us are not presently determinable and may be substantially less than the maximum amounts set forth above. We may sell fewer than all of the securities offered hereby, which may significantly reduce the amount of proceeds received by us, and investors in this offering will not receive a refund in the event that we do not sell an amount of securities sufficient to fund research and development of our lead product candidates, including clinical trial activities. Thus, we may not raise the amount of capital we believe is required for our operations in the short-term and may need to raise additional funds, which may not be available or available on terms acceptable to us.

***Because there is no minimum required for the offering to close, investors in this offering will not receive a refund in the event that we do not sell an amount of securities sufficient to pursue the business goals outlined in this prospectus.***

We have not specified a minimum offering amount nor have or will we establish an escrow account in connection with this offering. Because there is no escrow account and no minimum offering amount, investors could be in a position where they have invested in our company, but we are unable to fulfill our objectives due to a lack of interest in this offering. Further, because there is no escrow account in operation and no minimum investment amount, any proceeds from the sale of securities offered by us will be available for our immediate use, despite uncertainty about whether we would be able to use such funds to effectively implement our business plan. Investor funds will not be returned under any circumstances whether during or after the offering.

***There is no public market for the warrants or pre-funded warrants.***

There is no established public trading market for the warrants or pre-funded warrants, and we do not expect a market to develop. In addition, we do not intend to apply to list the warrants or pre-funded warrants on any national securities exchange or other nationally recognized trading system, including the Nasdaq Capital Market. Without an active market, the liquidity of the warrants and pre-funded warrants will be limited.

***The warrants and pre-funded warrants in this offering are speculative in nature.***

The warrants and pre-funded warrants in this offering do not confer any rights of Class A Ordinary Shares ownership on their holders, but rather merely represent the right to acquire Class A Ordinary Shares at a fixed price. In addition, following this offering, the market value of the warrants and pre-funded warrants, if any, is uncertain and there can be no assurance that the market value of the warrants or pre-funded warrants will equal or exceed their imputed offering price. The warrants and pre-funded warrants will be not listed or quoted for trading on any market or exchange.

***Holders of the warrants and pre-funded warrants will not have rights of holders of our Class A Ordinary Shares until such warrants or pre-funded warrants are exercised.***

Until holders of warrants or pre-funded warrants acquire Class A Ordinary Shares upon exercise of the warrants or pre-funded warrants, holders of warrants or pre-funded warrants will have no rights with respect to the Class A Ordinary Shares underlying such securities.

## SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, including the sections titled "Prospectus Summary," "Risk Factors," and "Our Business," as well as information we incorporated herein by reference, 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 and the documents incorporated herein by reference 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.

## TRADEMARKS, SERVICE MARKS AND TRADENAMES

This prospectus contains trademarks, service marks and trade names of others, which are the property of their respective owners. Solely for convenience, the trademarks, service marks, logos and trade names referred to in this prospectus are included without the ® and ™ symbols. All trademarks, service marks and trade names appearing in this prospectus are, to our knowledge, the property of their respective owners. We do not intend our use or display of other companies' trademarks, service marks, copyrights or trade names to imply a relationship with, or endorsement or sponsorship of us by, any other companies or unrelated parties.

## USE OF PROCEEDS

Assuming all of the Class A Ordinary Shares and related warrants and/or pre-funded warrants offered in this offering are sold, we estimate that our net proceeds from this offering will be approximately $13.5 million based on an assumed combined public offering price of $1.63 per Class A Ordinary Share and related warrant. We will receive additional proceeds of approximately $15.0 million if the warrants are exercised in full for cash, if any. However, because this is a best efforts offering and there is no minimum offering amount required as a condition to the closing of this offering, the actual offering amount, Placement Agent's fees and net proceeds to us are not presently determinable and may be substantially less than the maximum amounts set forth on the cover page of this prospectus.

| | Use of net proceeds |
|---|---|
| Continued clinical development of our programs in particular for SACT1 and ALS-4 | approximately US$9.5 million |
| Further discovery and R&D collaborations with our proprietary platforms and third party institutions | approximately US$ 4.0 million |

As of the date of this prospectus, we cannot specify with certainty all of the particular uses for the net proceeds from this offering. The amounts and timing of our actual expenditures may vary significantly from our expectations depending upon numerous factors, including the progress of our research, development and commercialization efforts, the progress of our preclinical trials, and our operating costs and capital expenditures. Drug discovery and development in the pharmaceutical industry is characterized by significant risks and uncertainties inherent in the research, clinical development and regulatory approval process. These uncertainties make it difficult for us to estimate the costs to conduct our research and development and complete our preclinical trials. Accordingly, we will retain broad discretion in the allocation of the net proceeds of this Offering, and we reserve the right to change the allocation of use of these proceeds as a result of contingencies such as the progress and results of our preclinical trials and our research and development activities, the results of our commercialization efforts, competitive developments and our manufacturing requirements. In addition, when and if the opportunity arises, we may use a portion of the proceeds to license, acquire or invest in complementary businesses, products, or technologies. In order to license, acquire or invest in complementary businesses, products or technologies, we may need to curtail our development of our other projects under development, or enter into agreements allowing others to obtain rights for further development of one or more of our drug and device candidates earlier than anticipated. We currently have no commitments or agreements to acquire any such businesses, products or technologies, and we cannot determine with certainty which, if any, of the programs above might be affected should we enter into any such commitments.

The net proceeds from this offering, together with our cash and marketable securities, may not be sufficient for us to fund any of our product candidates through regulatory approval, and we may need to raise additional capital to complete the development of our product candidates. We may satisfy our future cash needs through the sale of equity securities, debt financings, working capital lines of credit, corporate collaborations or license agreements, grant funding, through interest income earned on cash balances or a combination of one or more of these sources. This expected use of net proceeds from this offering represents our intentions based upon our current plans and business conditions, which could change in the future as our plans and business conditions evolve. The amounts and timing of our actual expenditures may vary significantly depending on numerous factors, including the progress of our development, the status of and results from different preclinical and clinical trials, as well as any collaborations that we may enter into with third parties for our programs, and any unforeseen cash needs. As a result, our management will retain broad discretion over the allocation of the net proceeds. We cannot specify with certainty all of the particular uses for the net proceeds to be received upon the closing of this offering.

## DIVIDEND POLICY

We have never declared or paid cash dividends to our shareholders, and we do not intend to pay cash dividends in the foreseeable future. We intend to reinvest any earnings in developing and expanding our business. Any future determination relating to our dividend policy will be at the discretion of our Board of Directors and will depend on a number of factors, including future earnings, our financial condition, operating results, contractual restrictions, capital requirements, business prospects, our strategic goals and plans to expand our business, applicable law and other factors that our Board of Directors may deem relevant.

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.

(See "Risk Factors – 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" and "Description of Share Capital – Dividends")

## CAPITALIZATION

The table below sets forth our capitalization and indebtedness as of June 30, 2020:

- on an actual basis;
- on a pro forma basis, to give effect to the issuance of 22,437,754 Class A Ordinary Shares issuable upon conversion of the Class B Ordinary Shares; and
- on a pro forma as adjusted basis, to give effect to the issuance of 9,202,453 Class A Ordinary Shares in this Offering, each at an assumed price to the public of $1.63, after deducting placement agent commissions and estimated offering expenses, assuming that no warrants are exercised and that no pre-funded warrants are sold; (See "Description of Share Capital").
- The table does not include any shares underlying the outstanding share options and warrants.

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 incorporated herein by reference.

The information discussed in the table below is illustrative only and will be adjust based on the actual combined public offering price, the actual number of Class A Ordinary Shares sold in this offering and other terms of this offering determined at pricing.

| | June 30, 2020 | | |
|---|---|---|---|
| | Actual | Pro Forma | Pro Forma As Adjusted |
| | US$ | US$ | US$ |
| **Equity** | | | |
| Class A Ordinary Shares | 7,950,986 | 30,388,740 | 39,591,193 |
| Class B Ordinary Shares | 22,437,754 | - | - |
| Additional paid-in capital | 33,184,104 | 33,184,104 | 37,456,929 |
| Accumulated other comprehensive income | 25,618 | 25,618 | 25,618 |
| Accumulated deficit | (43,760,545) | (43,760,545) | (43,760,545) |
| Non-controlling interests | (2,315,532) | (2,315,532) | (2,315,532) |
| Total equity | 17,522,385 | 17,522,385 | 30,997,663 |
| **Total capitalization** | 17,522,385 | 17,522,385 | 30,997,663 |

## DILUTION

If you purchase Class A Ordinary Shares and related warrants in this offering, assuming no value is attributed to the Placement Agent's Warrants and warrants, you will experience dilution to the extent of the difference between the combined public price per share you pay in this offering and the net tangible book value per share of our Class A Ordinary Shares immediately after this offering. The net tangible book value of our Class A Ordinary Shares on June 30, 2020 was $16.3 million, or $0.54 per share. Net tangible book value per share is equal to the amount of consolidated total assets, less intangible assets, goodwill and consolidated total liabilities, divided by number of Ordinary Shares outstanding. Such calculation does not reflect any dilution associated with the exercise of the share options and warrants.

After giving effect to the assumed sale by us of an aggregate of 9,202,453 Class A Ordinary Shares and warrants to purchase up to 9,202,453 Class A Ordinary Shares in this offering at an assumed combined public offering price of $1.63 per share and related warrant, after deducting the placement agent commissions and estimated offering expenses payable by us and assuming no exercise of the warrants, no value is attributed to the warrant or Placement Agent's Warrants and no Pre-Funded Warrants are sold, our as adjusted net tangible book value as of June 30, 2020 would have been $39.6 million, or $0.75 per share.

This represents an immediate increase in net tangible book value of $0.22 per share to existing shareholders and an immediate dilution of $0.88 per share to new investors purchasing Class A Ordinary Shares and related warrants in this offering. The following table illustrates this per share dilution assuming no value is attributed to the Placement Agent's Warrants:

| | | |
|---|---|---|
| Assumed combined public offering price per share and related warrant | $ | 1.63 |
| Net tangible book value per share as of June 30, 2020 | $ | 0.54 |
| Increase in pro forma net tangible book value per share after giving effect to this offering | $ | 0.22 |
| As adjusted net tangible book value per share as of June 30, 2020 after giving effect to this offering | $ | 0.75 |
| Dilution per share to investors participating in this offering | $ | 0.88 |

Each $0.50 increase (decrease) in the assumed combined public offering price of $1.63 per share and related warrant would increase (decrease) our as adjusted net tangible book value after this offering by $4.2 million, or $0.11 per share, and the dilution per share to new investors by $0.39 per share, assuming that the number of Class A Ordinary Shares and related warrants offered by us, as set forth above, remains the same and after deducting the placement agent commissions and estimated offering expenses payable by us. We may also increase or decrease the number of Class A Ordinary Shares and related warrants we are offering from the number of Class A Ordinary Shares set forth above. An increase (decrease) of 500,000 Class A Ordinary Shares and related warrants in the number of Class A Ordinary Shares and related warrants offered by us from the number of Class A Ordinary Shares and related warrants set forth above would increase (decrease) our as adjusted net tangible book value after this offering by $0.7 million, or $0.01 per share, and the dilution per share to new investors by $0.01 per share, assuming that the combined public offering price remains the same and after deducting the placement agent commissions and estimated offering expenses payable by us. The information discussed above is illustrative only and will adjust based on the actual combined public offering price, the actual number of Class A Ordinary Shares and related warrants that we offer in this offering, and other terms of this offering determined at pricing.

The number of Class A Ordinary Shares reflected in the discussion and table above is based on 7,950,986 Class A Ordinary Shares and 22,437,754 Class B Ordinary Shares issued and outstanding as of June 30, 2020 and excludes outstanding share options and warrants (See "Capitalization").

## SELECTED FINANCIAL DATA

The following summary consolidated balance sheets (successor basis) as of December 31, 2019 and 2018, consolidated statements of operations and comprehensive loss (successor basis) for the year ended December 31, 2019, 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 in our Annual Reports, which are incorporated herein by reference. The related consolidated balance sheet as of June 30, 2020, consolidated statements of operations and comprehensive loss for the six months ended June 30, 2020 and 2019 have been derived from our unaudited financial statements that are incorporated herein by reference. The following summary consolidated balance sheet (successor basis) as of December 31, 2017 has been derived from our audited consolidated financial statements which is not included in this prospectus. You should read this data together with "Item 4. Information on the Company" and "Item 5. Operating and Financial Review and Prospects" and the consolidated financial statements, related notes and other financial information included in our Annual Reports, and "Management's Discussion and Analysis of Financial Condition and Results of Operations" included in our Report on Form 6-K furnished with the Commission on September 2, 2020, which are incorporated herein by reference and the information under the captions "Capitalization." 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, 2020 and 2019, the year ended December 31, 2019 and 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, 2020 (Unaudited) | Six months ended June 30, 2019 (Unaudited) | Year Ended December 31, 2019 | Year Ended December 31, 2018 | March 1, 2017 through December 31, 2017 |
|---|---|---|---|---|---|
| **Revenue** | | | | | |
| Healthcare services income | $ 327,273 | $ 239,792 | $ 535,166 | $ 383,450 | $ - |
| **Operating expenses** | | | | | |
| Cost of healthcare services | (436,171) | (371,218) | (794,545) | (318,011) | - |
| Research and development expenses | (4,315,033) | (2,714,217) | (6,939,051) | (3,101,432) | (2,560,323) |
| General and administrative fees | (2,076,634) | (3,232,916) | (7,373,425) | (4,919,626) | (1,480,093) |
| Legal and professional fees | (1,540,304) | (2,008,774) | (3,405,705) | (1,811,770) | (1,395,490) |
| Other operating expenses | (641,457) | (120,788) | (220,891) | (560,709) | (257,177) |
| Total operating expenses | (9,009,599) | (8,447,913) | (18,733,617) | (10,711,548) | (5,693,083) |
| Other income (loss) | | | | | |
| Gain (loss) on investments in marketable securities, net | 192,134 | 315,977 | (81,839) | 501,522 | 3,912,500 |
| Gain on non-marketable investments | 1,635,939 | 1,147,199 | 1,147,190 | - | - |
| (Loss) gain on investments in derivatives, net | (101,233) | 310,195 | 87,599 | (974,444) | (827,501) |
| Gain on use of digital currencies | - | 12,334 | 46,717 | - | - |
| Changes in fair value of warrant liabilities | - | (866,300) | (866,300) | 124,726 | - |
| Gain on extinguishment of convertible debts | - | 1,198,490 | 1,198,490 | - | - |
| Interest (expense) income, net | (144,226) | (3,678,566) | (3,699,672) | (4,458,191) | 44,269 |
| Sundry income | 111,398 | 128,444 | 249,328 | - | - |
| Total other income (loss), net | 1,694,012 | (1,432,227) | (1,918,487) | (4,806,387) | 3,131,576 |
| **Net loss** | (6,988,314) | (9,640,348) | (20,116,938) | (15,134,485) | (2,561,507) |
| Less: net loss attributable to non-controlling interests | (783,749) | (551,877) | (1,430,176) | (302,762) | (14,045) |
| **Net loss attributable to Aptorum Group Limited** | $ (6,204,565) | $ (9,088,471) | $ (18,686,762) | $ (14,831,723) | (2,547,462) |
| Net loss per share – basic and diluted* | $ (0.21) | $ (0.31) | $ (0.64) | $ (0.53) | (0.09) |
| Weighted-average shares outstanding – basic and diluted | 29,956,393 | 28,978,151 | 29,008,445 | 27,909,788 | 26,963,435 |
| **Net loss** | $ (6,988,314) | $ (9,640,348) | $ (20,116,938) | $ (15,134,485) | $ (2,561,507) |
| **Other comprehensive income (loss)** | | | | | |
| Unrealized loss on investments in available-for-sale securities | - | - | - | (1,122,251) | (367,782) |
| Exchange differences on translation of foreign operations | 31,170 | 2,000 | (10,897) | 5,345 | - |
| Other comprehensive income (loss) | 31,170 | 2,000 | (10,897) | (1,116,906) | (367,782) |
| **Comprehensive loss** | (6,957,144) | (9,638,348) | (20,127,835) | (16,251,391) | (2,929,289) |
| Less: comprehensive loss attributable to non-controlling interests | (783,751) | (551,877) | (1,430,176) | (302,762) | (14,045) |
| **Comprehensive loss attributable to the shareholders of Aptorum Group Limited** | $ (6,173,393) | $ (9,086,471) | $ (18,697,659) | $ (15,948,629) | $ (2,915,244) |

* 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)

| | January 1, 2017 through February 28, 2017 |
|---|---|
| Investment income: | |
| Interest income | $3,011 |
| Total investment income | 3,011 |
| Expenses | |
| General and administrative fees | 17,516 |
| Management fees | 108,958 |
| Legal and professional fees | 98,646 |
| Other operating expenses | 1,907 |
| Total expenses | 227,027 |
| **Net investment loss** | $ (224,016) |
| | |
| 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 | (402,068) |
| | |
| **Net decrease in net assets resulting from operations** | $ (626,084) |

The following table presents our summary consolidated balance sheets (successor basis) as of June 30, 2020, December 31, 2019, 2018 and 2017.

| | As of June 30, 2020 | As of December 31, 2019 | As of December 31, 2018 | As of December 31, 2017 |
|---|---|---|---|---|
| | (Unaudited) | | | |
| Cash, restricted cash and marketable securities | $ 4,426,543 | $ 6,356,284 | $ 27,121,576 | $ 18,698,455 |
| Total current assets | 6,128,019 | 8,032,881 | 28,722,941 | 20,283,399 |
| Total assets | 23,309,075 | 23,954,218 | 45,074,640 | 31,559,982 |
| Total current liabilities | 3,080,408 | 2,674,675 | 12,184,865 | 1,330,734 |
| Total liabilities | 5,786,690 | 9,102,466 | 12,328,738 | 1,330,734 |
| Total equity attributable to the shareholders of Aptorum Group Limited | 19,837,917 | 16,361,208 | 33,114,435 | 30,243,293 |
| Non-controlling interests | (2,315,532) | (1,509,456) | (368,533) | (14,045) |
| Total equity | 17,522,385 | 14,851,752 | 32,745,902 | 30,229,248 |
| Total liabilities and equity | $ 23,309,075 | $ 23,954,218 | $ 45,074,640 | $ 31,559,982 |

## QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

*For purposes of this section, reference to the "Group" means Aptorum Group Limited and all of its subsidiaries.*

***Foreign Exchange 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 June 30, 2020, December 31, 2019, 2018 and 2017, the Group has no significant foreign currency risk because most of the transactions are denominated in the United States dollars and 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.

***Credit Risk***

Financial assets which potentially subject the Group to concentrations of credit risk consist principally of bank deposits and balances.

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 Silicon Valley Bank 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.

***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.

***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.

***Inflation Risk***

In recent years, inflation has not had a material impact on our results of operations.

## OUR BUSINESS

***Overview***

We are a pharmaceutical company dedicated to the discovery, development and commercializing of therapeutic assets to treat diseases with unmet medical needs, particularly infectious diseases and cancers (including orphan oncology indications). The pipeline of Aptorum is also enriched through the establishment of drug discovery platforms that enable the discovery of new therapeutics assets through, e.g. systematic screening of existing approved drug molecules, and microbiome-based research platform for treatments of metabolic diseases.

In addition to the above main focus, we are also pursuing therapeutic and diagnostic projects in neurology, gastroenterology, metabolic disorders, women's health and other disease areas. We also have projects focused on surgical robotics and natural supplement for women undergoing menopause and experiencing related symptoms. 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 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 from our drug discovery platforms 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 pharmaceutical development capabilities;
- Leveraging our management's expertise, experience and commercial networks;
- Obtaining and leveraging government grants to fund project development.

We have devoted a portion of the proceeds from our IPO, to two therapeutic projects ("Lead Projects"). The drug candidates being advanced as the Lead Projects are ALS-4 and SACT-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 second half of 2020, subject to regulatory review, 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, as well as medical robots and natural supplements 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 and certain technologies for the treatment ("therapeutics") and diagnosis ("diagnostics") of human disease conditions to tackle unmet needs, in particular, our Lead Projects targeting infectious disease and cancer (including orphan oncology indications). In addition to our main areas of focus above, we are also pursuing therapeutic projects in neurology, gastroenterology, metabolic disorders, women's health and other disease areas, as well as the development of natural supplements for women undergoing menopause and experiencing related symptoms. 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 whose subsidiaries (who we sometimes refer to herein as project companies) are based in the United Kingdom, Singapore and Hong Kong.

*Non-Therapeutics Segment*. The non-therapeutics segment ("Aptorum Non-Therapeutics Group") encompasses three businesses: (i) the development of surgical robotics and medical devices, (ii) AML Clinic and (iii) sales of natural supplements. 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 clinic is currently generating revenue. The sale of natural supplements is operated through Nativus Life Sciences Limited ("Nativus"), a subsidiary of Aptorum Therapeutics Limited. As part of the commercialization, the Group, through Nativus, entered into a regional distribution and marketing agreement with Multipak Limited, a Hong Kong based group that operates household brands, including the Luk Yu® tea bag and other health related products. Through Multipak, the Group will be able to increase the accessibility of the product to a large consumer base regionally. The production of Aptorum Group's dioscorea opposita bioactive nutraceutical tablets has commenced production in Canada and will be marketed under the brand name NativusWell®.

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.

On April 24, 2019, the Company signed an agreement with Aeneas Capital Limited, and A*ccelerate Technologies Pte. Ltd, the enterprise office of the Agency for Science, Technology and Research ("A*STAR"), (collectively, the "Parties") 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"). Through this agreement, we partnered with A*Star to explore suitable opportunities, if identified, to set up tech ventures in Singapore over the next 5 years. A*STAR shall contribute a total of up to $30,000,000 to any suitable startups, at their discretion. The Company and Aeneas Capital Limited 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 Technology License Agreements. The Master Collaboration Agreement shall continue for a period of 5 years, unless otherwise terminated or extended by the Parties.

***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, maintaining our AML Clinic and sale of natural supplements.

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 the date of this prospectus, the Company is developing 17 projects covering therapeutic assets, diagnostic assets, natural supplements and medical device projects, in broad range of areas across infectious diseases, cancers (including rare oncology indications), neurology, gastroenterology, metabolic disorders and women's health. The 17 projects are comprised of 9 exclusively licensed projects (including Lead Project ALS-4 being exclusively licensed from the University of Hong Kong) and 8 proprietary projects developed by our scientists (including Lead Project SACT-1). Our initial focus will be on developing our Lead Projects, but intend to continue developing our other current projects and may seek 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 from our drug discovery platforms 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, particularly from our drug development platforms. 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.

- **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 pharmaceutical development capabilities.** We believe collaborations between the R&D Center and the scientists engaged in work for our project companies will enhance clinical and commercial potential of the projects. In addition, we 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.

- **Obtaining and leveraging government grants to fund project development.** Governments across the world pay close attention to the development of the biotechnology sector and provide support and funding. We intend to aggressively seek government support from the governments in the United States, the United Kingdom, Hong Kong, Singapore and elsewhere 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, Natural Supplement 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-4 and SACT-1), our natural supplement (i.e., NativusWell®) 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.

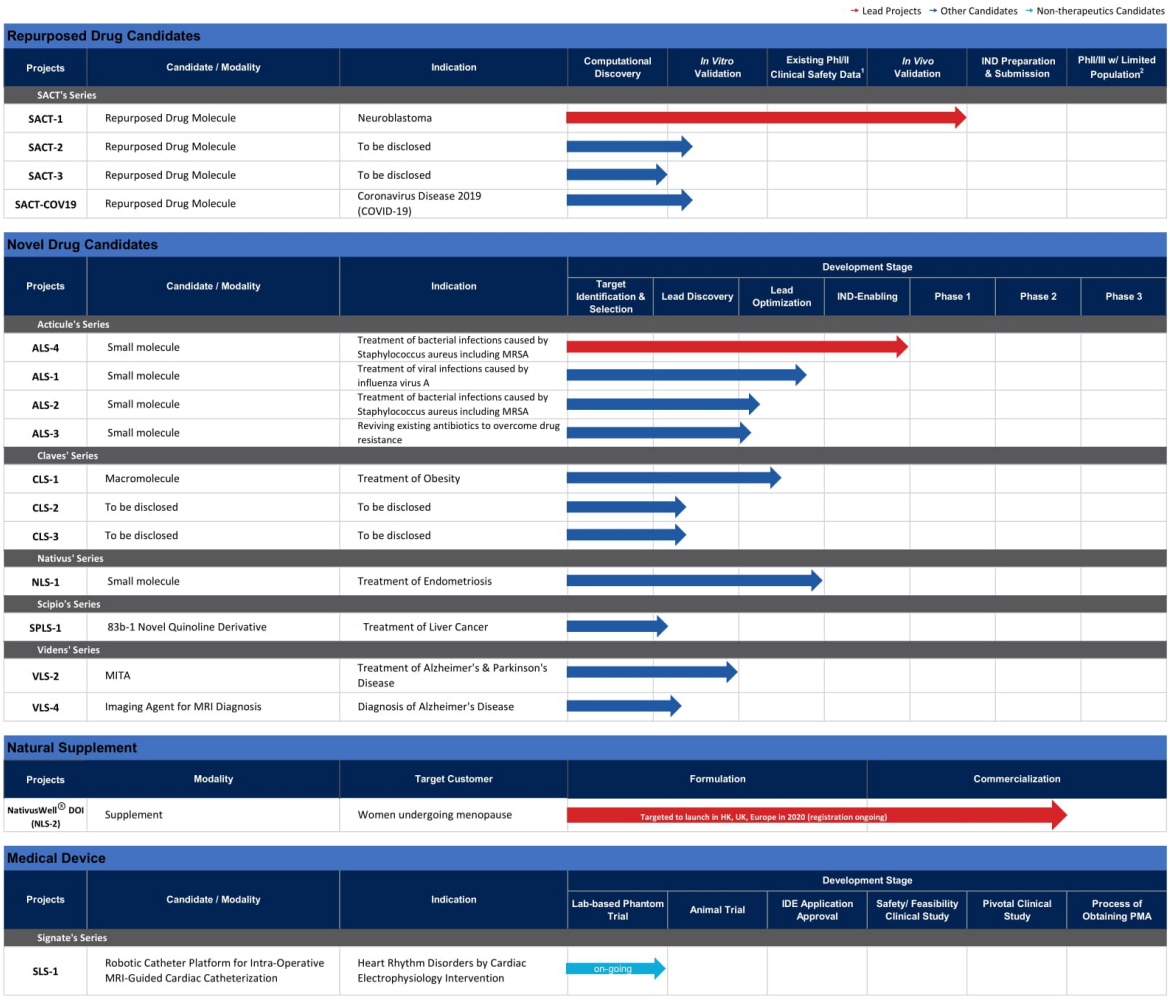
CTA-Enabling Studies: Includes all the essential studies such as GLP toxicology studies, pharmacology and efficacy, pharmacokinetics, in vitro metabolism, CMC studies, and the data of which are used for CTA submission.

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.

In vitro validation: At this stage, the efficacy and safety of a drug candidate are assessed at cellular levels.

In vivo validation: At this stage, the efficacy, safety and pharmacokinetic of a drug candidate are assessed in animal models.

IND Preparation and Submission: Preparation of a package of documents for different sections such as CMC, clinical, nonclinical, etc. and getting them reviewed, approved and final checked and followed by submission to regulatory agencies.




Another subsidiary, Aptorum Medical Limited ("AML"),[1] is our vehicle for developing our business of delivering medical services in the form of AML Clinic.

1 Clark Cheng, our Chief Medical Officer and an Executive Director, owns 7% of Aptorum Medical Limited as of the date of this prospectus.

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 NativusWell®, SLS-1 and AML Clinic. As part of the commercialization of NativusWell® natural supplement NativusWell®, we entered into a regional distribution and marketing agreement with Multipak Limited, a Hong Kong based group that operates household brands, including the Luk Yu® tea bag and other health related products. Through Multipak, the Group will be able to increase the accessibility of the product to a large consumer base regionally. The production of Aptorum Group's dioscorea opposita bioactive nutraceutical tablets has commenced production in Canada and will be marketed under the brand name NativusWell®. 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 NativusWell® and 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***

→ Lead Projects

| Projects | Candidate / Modality | Indication | Computational Discovery | *In Vitro* Validation | Existing PhI/II Clinical Safety Data[1] | *In Vivo* Validation | IND Preparation & Submission | PhII/III w/ Limited Population[2] |
|---|---|---|---|---|---|---|---|---|
| SACT's Series | | | | | | | | |
| **SACT-1** | Repurposed Drug Molecule | Neuroblastoma | → | → | → | → | | |

| Projects | Candidate / Modality | Indication | Development Stage | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Target Identification & Selection | Lead Discovery | Lead Optimization | IND-Enabling | Phase 1 | Phase 2 | Phase 3 |
| Acticule's Series | | | | | | | | | |
| **ALS-4** | Small molecule | Treatment of bacterial infections caused by Staphylococcus aureus including MRSA | → | → | → | → | | | |

After consideration of various factors, such as time and resources required for further development, potential success rate and market size, the Group decided to focus the majority of its resources on ALS-4 and SACT-1 as the current Lead Projects. The Group will continue to invest some of its resources to develop other projects, including those previously classified as Lead Projects.

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

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 1, 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 20 nM.

Figure 1

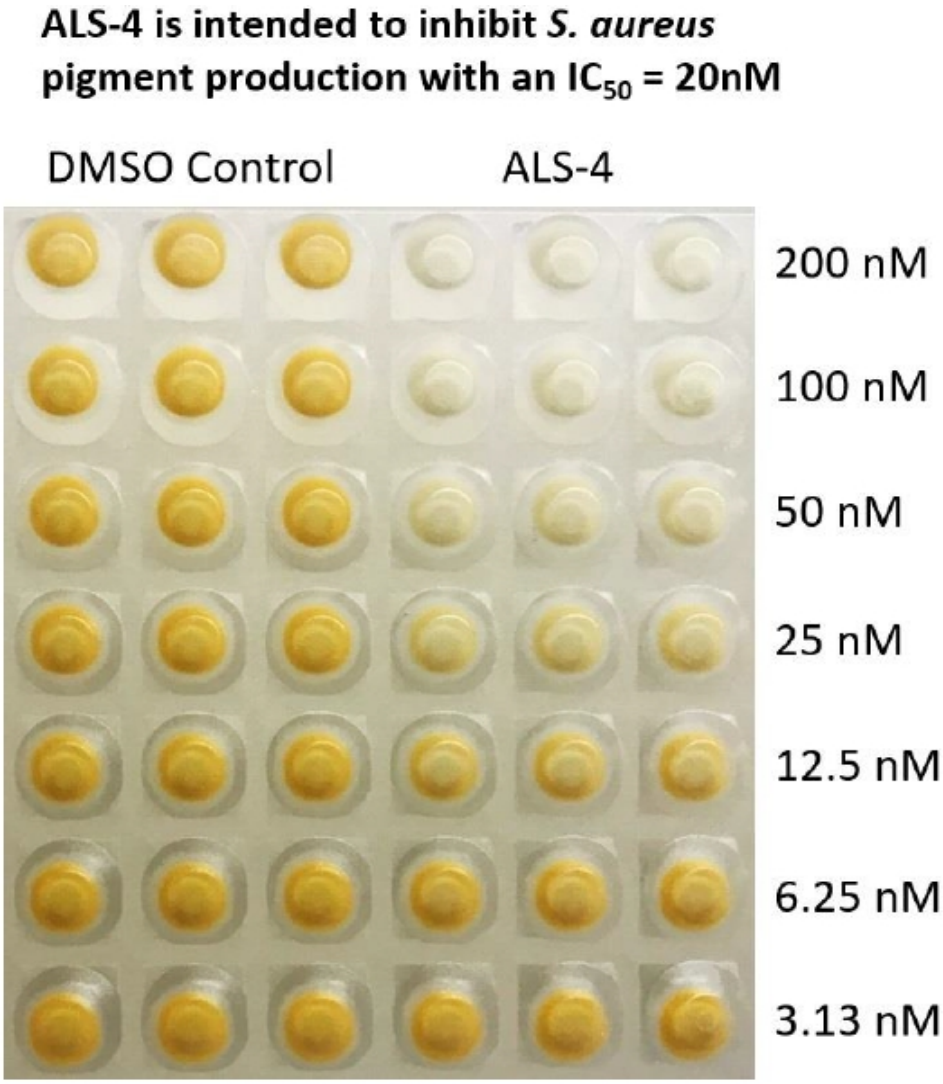



Figure 1: In vitro pigment inhibition by compound ALS-4.
(A) Inhibition of wild-type (WT) Staphylococcus aureus pigmentation in the presence of increasing concentrations of ALS-4.
(B) Pigment inhibition by ALS-4; the $IC_{50}$ for pigment formation is roughly 300 nM.
All data represent mean values ± 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 rat infection model, the treatment (10mg/kg of ALS-4 twice daily) and control groups (vehicle) were compared. In the lethal dose model, all the animals died by day 4 in the control group. On the contrary, the ALS-4 treated group showed >50% survival until the end of the study (Day 7), which is determined to be statistically significant compared with the control (p = 0.0102 by a Log-rank (Mantel-Cox) test.

(Mantel-Cox) test

In the delayed treatment model, ALS-4 brought a statistically significant reduction in bacterial count (99.5%) compared with the control (p = 0.0126 by an unpaired student's t-test).

Figure 2

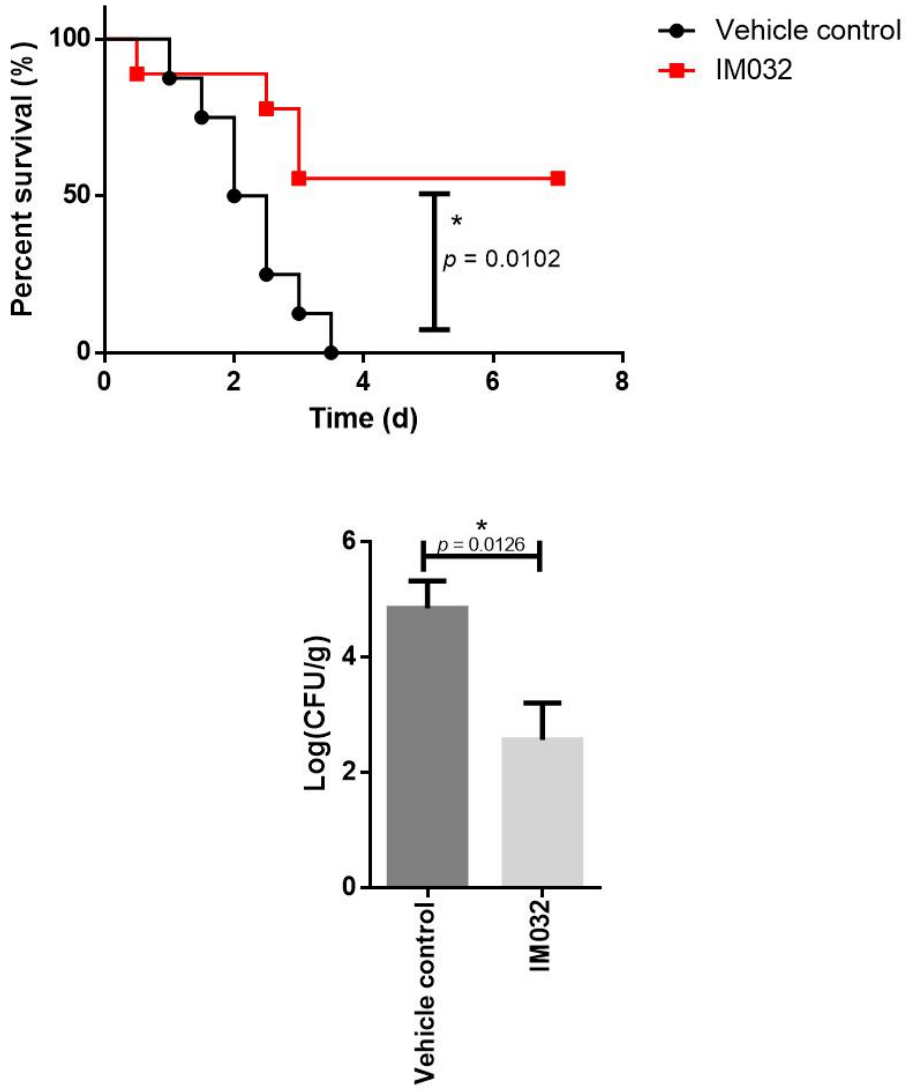



Figure 2: ALS-4 is observed to reduce bacterial load in mice

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

ALS-4 is currently undergoing CTA enabling stage to prepare for regulatory submission in Canada for a Phase 1 clinical trial. The development of ALS-4 candidate has been progressing well and the first series of GLP toxicology studies have been completed through an appointed contract research organization (CRO) based in Canada. In particular, ALS-4 candidate did not show any mutagenicity in the in vitro Ames tests. ALS-4 development is on our proposed track and we target the related regulatory submission for a Phase 1 clinical trial in the second half year of 2020 in Canada.

**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 (now expired). Prior to the expiration of the PCT applications, we filed national phase applications in member states of the EPO, in PRC and 11 other jurisdictions. 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.

**SACT-1: A Repurposed Drug for the Treatment of Neuroblastoma**

Drug repurposing is a strategy for identifying new indications for approved or investigational drugs that are outside the scope of the original medical uses. It is often viewed as a lower-cost method for drug commercialization, as it is based on already-approved drugs (which has been proven to be safe for human use by the respective governing regulatory agency) and explores new target indications. (Ashburn, T. T. & Thor, K. B. Drug repositioning: identifying and developing new uses for existing drugs. Nat. Rev. Drug Discov. 3, 673–683, 2004).

One of the advantages of drug repurposing is a lower development risk due to safety and toxicity, as well as other properties related to water solubility, absorption, distribution and metabolism, as the safety and CMC profiles of marketed drugs are usually well-established. Due to the same reason, the development time is also shortened because there is no need to repeat the whole spectrum of the safety assessment. As a result, the drug repurposing approach appears to be attractive due to its superior risk management, smaller capital investment and quicker financial return. (Sudeep Pushpakom, et. al. Drug repurposing: progress, challenges and recommendations. Nat. Rev. Drug Discov. 18, 41-58, 2019)

The cost of bringing a repurposed drug is estimated to be around US$300 million, which is only one-tenth of the development cost for a new drug. (Nosengo, N. Can you teach old drugs new tricks? Nature. 534, 314-316, 2016).

In summary, drug repurposing offers the following advantages:

- Well-established safety profiles: The development risk for new indications can be substantially reduced by applying existing drugs that are approved or have been shown to be safe in large scale late-stage trials. Since safety accounts for approximately 30% of drug failures in clinical trials, this is a key advantage that repositioned drugs can harness to great effect. (Key benefits of drug repositioning. (n.d.). Retrieved from http://www.totalbiopharma.com/2012/07/04/4-key-benefits-drug-repositioning/)

- Time-saving: As repositioned drugs can rely on existing data, including efficacy and toxicity studies, the process is usually faster than de novo development. Developing a new chemical entity (NCE) can take 10 to 17 years, depending on indications. (Roin, B. N. Solving the Problem of New Uses, 2013). For a drug repositioning company, the development process from compound identification to launch can be around 3 to 8 years. (Walker, N. (2017, December 07). Accelerating Drug Development Through Repurposing, Repositioning and Rescue. Retrieved from https://www.pharmoutsourcing.com/Featured-Articles/345076-Accelerating-Drug-Development-Through-Repurposing-Repositioning-and-Rescue/)

- Cost-saving: Along with time-saving, money-saving is also a key benefit. With a single compound to enter clinical trials costing around US$10 to $20 million, the cost of identifying a repositioning candidate that already has phase 1 data could be as low as US$2 to $3 million. (http://www.totalbiopharma.com/2012/07/04/4-key-benefits-drug-repositioning/)

- Potential for out-licensing: Pharmaceutical companies are said to be exploring new models to out-license some of their clinical drug candidates that may have been shelved for pure business reasons unrelated to safety or efficacy, even though they have met their endpoints and have proven themselves to be safe. If such drugs were to be repositioned, the pharmaceutical company increases the attractiveness of these drugs and gives itself more options to find interested buyers. (http://www.totalbiopharma.com/2012/07/04/4-key-benefits-drug-repositioning/)

- Lower failure rate: According to BCC Research, approval rates for repurposed drugs are close to 30%, which is greater than the approval rate for new drug applications. ( Front Oncol. 2017; 7: 273)

One of the major limitations of the current drug repurposing and repositioning practice is that there is a lack of a systematic way to identify and reinvestigate drugs that are approved and/or have failed approval.

SACT-1 is the first repurposed drug candidate to be developed under the Smart-ACT® drug discovery platform. SACT-1 is one of the Company's proprietary technologies. Our first targeted indication is neuroblastoma. Neuroblastoma is a rare form of cancer, and classified as an orphan disease, that forms in certain types of nerve tissue and most frequently in the adrenal glands as well as spine, chest, abdomen or neck, predominantly in children, especially for those aged 5 years and below. For the high-risk group, which is close to 20% (Annu Rev Med. 2015; 66: 49–63.) of total new patient population per year, the 5-year survival rate of this condition is around 40-50% as observed by the American Cancer Society (https://www.cancer.org/cancer/neuroblastoma/detection-diagnosis-staging/survival-rates.html). The current high drug treatment cost for high risk patients can average USD200,000 per regimen (all 6 cycles) (https://www.cadth.ca/sites/default/files/pcodr/Reviews2019/10154DinutuximabNeuroblastoma_fnEGR_NOREDACT-ABBREV_Post_26Mar2019_final.pdf ). In addition, most pediatric patients often do not tolerate or survive the relevant chemotherapy stage which, subject to further clinical studies, may be positively addressed by the SACT-1 candidate due to the potential synergistic effects when applied with standard chemotherapy.

In our recent studies, SACT-1 has been shown to be effective against numerous neuroblastoma cell lines, of which 2 are MYCN-amplified cells, which represent the high-risk neuroblastoma patient group. In addition, by using a bliss score as a quantitative measure of the extent of drug interaction, Aptorum Group has seen a high and robust synergism between SACT-1 and traditional chemotherapy in vitro (Figure 3), indicating a potential efficacy enhancement/dose reduction of the chemotherapy.

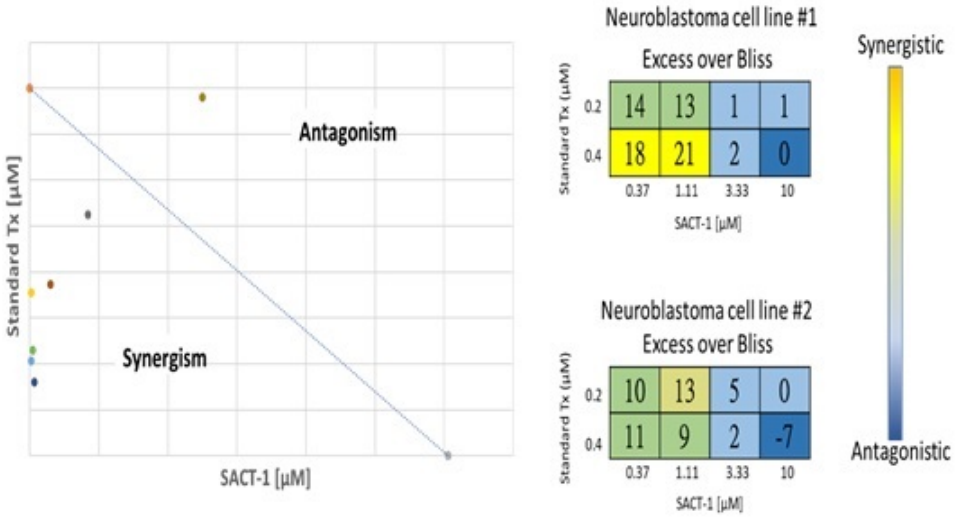



Figure 3 synergism between SACT-1 and traditional chemotherapy in vitro

In addition, in our recent study, the maximum tolerable dose of SACT-1 in a rodent model was determined to be higher than 400mg/kg. Compared with the MTD of standard chemotherapy such as paclitaxel (20-30mg/kg) (Clin Cancer Res. 5(11):3632-8) and cisplatin (6mg/kg) (BMC Cancer 17: 684 (2017)), the safety profile of SACT-1 appears to be very impressive. Based on our internal observations of pre-existing information from approved products, subject to FDA's approval and on a case-by-case basis, a 505(b)(2) Application can rely in part on existing information from approved products (such as the FDA's previous findings on safety and efficacy) or products in literature (such as data available). However, typically speaking, the applicant is nonetheless required to carry out a Phase 1 bridging study to compare the Reference Listed Drug and reference the established safety and efficacy information), SACT-1 also exhibits a well-established safety profile: at 150mg/day, the death rate was 0% in prior clinical studies with no dosage related adverse events (Table 1). In addition, the pharmacokinetic profile of SACT-1 has also been reported (Table 2).

Table 1: Safety Profiles of SACT-1 in Human Clinical Trials

| SACT-1 | 25mg/day (N=93) | 75mg/day (N=95) | 150mg/day (N=91) |
|---|---|---|---|
| Median treatment duration, weeks | 101 | 100 | 100 |
| Adverse events (AE) | | | |
| Any grade 2-4 AE at least possibly related to SP055 | 20% | 20% | 21% |
| AEs leading to discontinuation | 9% | 12% | 14% |
| Any serious AE | 13% | 14% | 10% |
| Deaths | 0% | 2% | 0% |

Table 2: The pharmacokinetic Profile of SACT-1 in Humans

| SCAT-1 pharmacokinetic parameter in humans | (N=19) |
|---|---|
| $t_{max}$, h | 5 |
| $C_{max}$, ng/ml | ~300 |
| $AUC_{last}$, ng·h/ml | ~10,000 |
| $AUC_{inf}$, ng·h/ml | ~11,000 |
| $t_{1/2,term}$, h | ~48 |

We are currently developing a pediatric formulation of SACT-1 to better address the needs of neuroblastoma patients who are exclusively children younger than 5. SACT-1 is undergoing preparation for IND submission and is on track for regulatory application to target to commence phase 1b/2a clinical trials under the US FDA's 505(b)(2) pathway.

SACT-1 is a proprietary technology not subject to any license agreement. As of the date of this prospectus, we have filed U.S. provisional application for such proprietary technology and intend to submit a non-provisional application before the expiration of the U.S. provisional application.

***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 of this prospectus, we have not submitted any applications for investigational new drugs ("IND") to the US Food and Drug Administration ("FDA"). In the fourth quarter of 2020, subject to regulatory review, 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"), the European Medicines Agency ("EMA"), or Health Canada). 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. As noted elsewhere in this prospectus, based on certain criteria, we sometimes cease work on certain projects to focus on projects we believe are more promising. We typically discontinue the development of a candidate because the expected result could not be generated, so we decided to focus our capital and efforts on our other candidates. The patents and patent applications covering the Other Projects are either owned by the Company or have been in-licensed.

**SACT-COV19: Drug repurposing for the treatment of infections caused by COVID-19**

SACT-COV19 is a drug repurposing program for the treatment of infections caused by COVID-19. We have completed initial screening under the Smart-ACT® platform to select, out of more than 2,600 small drug molecules that were previously approved for other indications, at least 3 potential candidates for further preclinical investigation against the new coronavirus disease, COVID-19. We are collaborating with Toronto based Covar Pharmaceuticals and have also entered into agreement with the University of Hong Kong and University of Oxford to conduct further preclinical investigation of the selected candidates prior to seeking approval from regulatory agencies to initiate clinical trials on suitable candidates.

Drug candidates from the SACT-COV19 program are currently undergoing in vitro validation.

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

Professor Richard Kao, the Inventor of ALS-1, was the first to identify viral nucleoproteins (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.

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 an animal study published by the inventor, Prof. Richard Kao, in Nature Biotechnology (28 (6): 600, 2010), after treating with ALS-1, 50% of the mice receiving two doses of ALS-1 (100 μl of 2.3 mg/ml ALS-1) per day for 7 days survived for more than 21 days compared with 100% mortality in the treatment-free control group within 7 days. In addition, 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.

**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.

**CLS-1: An orally administered macromolecule for the treatment of obesity based on chemical signaling of gut microbiome**

The prevalence of obesity continues to escalate globally; however, there is no current optimal therapy for this condition. For the majority of obese patients, conventional medical therapies (i.e., diet, exercise, behavioral counseling) often have a high failure rate for the long term. (Obes Surg. 2012:22(6):956-66). We believe current pharmacotherapy has limited efficacy and is associated with substantial safety issues.

Chemical signaling of gut microbiota is known to be one of the major causes of obesity. CLS-1 is an orally administered non-absorbable macromolecule that we believe modulate the metabolite excreted by gut microbiota with high affinity and specificity. In this way, we believe the absorption of this particular metabolite, which is linked to obesity, can be inhibited.

CLS-1 is undergoing Lead Optimization and is intended to be commercialized as a pharmaceutical drug.

**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.

NLS-1 acts as an anti-angiogenic to offer a potential novel treatment of endometriosis. In a paper published by the inventors in Angiogenesis (16:59, 2013), NLS-1 brought a statistically significantly 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, $p < 0.05$). In addition, the inhibition by NLS-1 in all of the angiogenesis parameters was statistically significantly greater than that by EGCG (Student t-test, $p < 0.05$). 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. Moreover, NLS-1 also had better bioavailability and greater antioxidation and anti-angiogenesis capacities compared with EGCG. 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). Regarding safety, there was 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. Also, vascularization of the ovaries and the uterus was not affected in the NLS-1 treatment group.

Lead optimization has been completed and it is currently undergoing a preparatory phase to enter CTA-enabling studies.

**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.

**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**

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.

**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 76.

**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.

***Natural supplement***

**NLS-2: DOI, a Bioactive Ingredient (DOI) in Chinese Yam for the Relief of Menopausal Symptoms as a Natural Supplement.**

NativusWell® is a natural supplement made with the bioactive ingredient extracted Chinese yam powder containing "DOI", which is Aptorum Group's non-hormonal approach intended to meet certain growing consumer nutritional trends and concerns. It is estimated that 1.2 billion women worldwide will be menopausal or postmenopausal by the year 2030[1]. The global woman's health supplement market for menopausal symptoms is projected to reach over USD$50bn by 2025 with a CAGR rate of 16.4% (2016-2025)[2]. Initially, the supplement will be commercialized and sold in Hong Kong; the Company is seeking regulatory clearance to market the product in other major jurisdictions.

As part of the commercialization, Aptorum Group, through its wholly-owned subsidiary Nativus Life Sciences Limited, entered into a regional distribution and marketing agreement with Multipak Limited, a Hong Kong based group that operates household brands, including the Luk Yu® tea bag and other health related products (the "Multipak Agreement"). Pursuant to the Multipak Agreement, Multipak is appointed as a non-exclusive distributor for the distribution and release of NativusWell®, yam powder tablets to be formulated according to proprietary technologies of Nativus and the Group in Hong Kong and China, and such other territories as agreed by both parties from time to time.

Through Multipak and other channels, Aptorum Group will be able to increase the accessibility of the product to a large consumer base regionally. The production of Aptorum Group's dioscorea opposita bioactive nutraceutical tablets has commenced production in Canada and will be marketed under the brand name NativusWell®. The Multipak Agreement has a term of one year, which shall automatically renew for four additional one-year terms, unless terminated by either party with at least 30 days prior written notice. Either party may also terminate the Multipak Agreement upon written notice to the other party if such other party commits a material breach of the terms and conditions of the agreement and it is not remedied within 30 days' notice or if the other party cannot pay its debts or becomes insolvent, or otherwise is involved in a bankruptcy or liquidation proceeding. Nativus also has the option to terminate the agreement upon written notice to Multipak upon the occurrent of certain events, including: if Multipak is later by more than 30 days in paying amounts due under the agreement, Multipak challenges the validity of any of Nativus' or the Group's intellectual property, Multipak does something that could reasonably be expected to have an adverse effect on the reputation of Nativus or the Group, or Multipak has a change in control for which Nativus did not pre-approve. During the 3-month period following any termination (the "Sell-Off Period"), Multipak may sell of it stock of products, but may not return any, nor shall Nativus have any liability for breach of warranty for such product during the Sell-Off Period. At the end of Multipak Agreement also provides for certain indemnitees of each party.

The NativusWell® tablets are natural, non-hormonal supplements containing DOI. The yam powder with DOI utilizes a non-hormonal approach that is intended to boost the general wellness of women undergoing menopause. Third party scientific studies indicate that DOI, the naturally occurring bioactive ingredient in Chinese yam, appears to stimulate estradiol biosynthesis, induce estradiol and progesterone secretion and increase bone density, thereby potentially counteracting the progression of osteoporosis[3], one of the common symptoms associated with menopause[4].

***Corporate History and Background***

Aptorum was incorporated under the laws of the Cayman Islands on September 13, 2010. Our share capital is $100,000,000.00 divided into 60,000,000 Class A Ordinary Shares with a nominal or par value of $1.00 each and 40,000,000 Class B Ordinary Shares with a nominal or par value of $1.00 each.

1 World Health Technical Report Series. Research on the Menopause in the 1990's. Geneva, Switzerland: World Health Organization; 1996.
2 https://www.grandviewresearch.com/press-release/global-isoflavones-market
3 https://www.ke.hku.hk/story/innovation/the-magic-of-chinese-yam-for-treatment-of-menopausal-syndrome; see also, Scientific Reports, 5-10179.
4 https://www.everydayhealth.com/menopause/osteoporosis-and-menopause.aspx

APTUS CAPITAL LIMITED, which has since been renamed to AENEAS CAPITAL LIMITED and which we refer to herein as Aeneas, was always under the direct ownership of Jurchen and not under the ownership chain of Aptorum Group. However, Aptus Asia Financial Holdings Limited ("AAFH"), which has since been renamed to Aeneas Group Limited, was transferred out of the Aptorum Group on November 10, 2017 to be held directly by Jurchen Investment Corporation and that subsequently, APTUS CAPITAL LIMITED was then transferred to be under AAFH.

On May 4, 2017, Mr. Huen transferred all of the ordinary shares in the Company he owned (in the amount of 22,307,596) to Jurchen, a company incorporated in the British Virgin Islands and wholly-owned by Mr. Huen. On October 13, 2017, as part of the Conversions (as defined below) the ordinary shares held by Jurchen were redesignated as 2,230,760 Class A Ordinary Shares and 20,076,836 Class B Ordinary Shares.

On February 21, 2017 the sole director of the Company and on March 1, 2017, the Company's board of directors and shareholders respectively, resolved to restructure the Company from an investment fund with management shares and non-voting participating redeemable preference shares to a holding company with operating subsidiaries, respectively (the "Restructuring Plan").

According to the Restructuring Plan, the 256,571.12 issued participating shares with par value of $0.01 ("Participating Shares") were redeemed and 4,743,418.88 unissued Participating Shares were cancelled; following such redemption and cancellation, we no longer have any Participating Shares authorized or issued. Additionally, the Company authorized a class of shares consisting of 100,000,000 ordinary shares, par value $1.00 per share ("Ordinary Shares") and issued 25,657,110 Ordinary Shares to our original investors.

During the period March 1, 2017 through October 13, 2017, an aggregate of 2,207,025 Ordinary Shares were issued at a price of approximately $3.90 per share in a private placement we described as a "Series A" offering. Each investor of the Series A offering, in addition to a subscription agreement, signed a shareholder agreement, which set forth the basic governance terms of the Company, as well as our capital structure. The shareholders agreement was terminated in October 2017.

On October 13, 2017, ordinary resolutions were passed at an extraordinary general meeting of the Company approving (the "Conversions"): (i) converting 72,135,865 of authorized but unissued Ordinary Shares into 54,573,620 authorized but unissued Class A Ordinary Shares, par value of $1.00 per share and 17,562,245 authorized but unissued Class B Ordinary Shares, par value of $1.00 per share ("Class B Ordinary Shares"), respectively; (ii) converting 24,930,839 Ordinary Shares held by three shareholders into an aggregate of 2,493,085 Class A Ordinary Shares and 22,437,754 Class B Ordinary Shares; and (iii) converting 2,933,296 Ordinary Shares held by 24 shareholders into an aggregate 2,933,296 Class A Ordinary Shares. Following these issuances, we had 27 shareholders of record.

On October 19, 2017, we changed our name from APTUS Holdings Limited to our current name, Aptorum Group Limited.

On March 23, 2018, Jurchen transferred 446,152 Class A Ordinary Shares and 4,015,367 Class B Ordinary Shares to CGY Investments Limited, a company incorporated in Hong Kong and which we deem Mr. Darren Lui controls and/or of which he has substantial influence on the disposition rights and voting rights of such shares. Following this transfer, Jurchen owns approximately 33% and 72% of our Class A Ordinary Shares and Class B Ordinary Shares, respectively.

On December 17, 2018, the Company consummated its IPO of 761,419 Class A Ordinary Shares. The Registration Statement was declared effective by the U.S. Securities and Exchange Commission on December 3, 2018 (the "Effective Date"). The shares were sold at a price of $15.80 per share, generating gross proceeds to the Company of approximately $12,030,420. Immediately following the consummation of the IPO and automatic conversion of the Notes and Bonds, there were an aggregate of 6,537,269 Class A Ordinary Shares issued and outstanding.

On February 28, 2020, the Company consummated a Registered Direct Offering of 1,351,350 Class A Ordinary Shares and warrants to purchase up to 1,351,350 Class A Ordinary Shares. The shares were sold at a price of $7.40 per share, generating gross proceeds to the Company of approximately $10 million. The warrants will be exercisable immediately following the date of issuance for a period of seven years at an initial exercise price of $7.40. Immediately following the consummation of the Registered Direct Offering, there were an aggregate of 7,948,712 Class A Ordinary Shares issued and outstanding.

Over the past three years, we have invested approximately $9.9 million towards our principal capital expenditures, which include laboratory equipment, premises, leasehold improvements, and medical and other equipment.

Please see the chart illustrating our current corporate structure, under the heading of "Our Structure" in the Prospectus Summary, included earlier in this prospectus.

**Intellectual Property**

The technologies underlying our various research and development projects are the subject of various patents and patent applications claiming, in certain instances, composition of matter and, in other instances, methods of use. Prosecution, maintenance and enforcement of these patents, as well as those on any future protectable technologies we may acquire, are and will continue to be an important part of our strategy to develop and commercialize novel medicines and medical devices, as described in more detail below. Through entering into license agreements with their owners, we have obtained exclusive rights to these patents, applications and related know-how in the U.S. and certain other countries to develop, manufacture and commercialize the products using or incorporating the protected inventions that are described in this registration statement, of which this prospectus forms a part and that are expected to contribute significant value to our business. The technologies protected by these patents may also for the basis for the development of other products.

In addition to licensed intellectual property, our scientists have been actively developing our own proprietary intellectual property. No non-provisional patent application has yet been filed in the Company's own name for the Lead Projects. We have, however, 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.

The U.S. patent system permits the filing of provisional and non-provisional patent applications (i.e., a regular patent application). A non-provisional patent application is examined by the USPTO, and can mature into a patent once the USPTO determines that the claimed invention meets the standards for patentability. On the other hand, a provisional patent application is not examined for patentability, and automatically expires 12 months after its filing date. As a result, a provisional patent application cannot mature into a patent.

Provisional applications are often used, among other things, to establish an earlier filing date for a subsequent non-provisional patent application. The term of individual patents depends upon the legal term of the patents in the countries in which they are obtained.

The effective filing date of a non-provisional patent application is used by the USPTO to determine what information is prior art when it considers the patentability of a claimed invention. If certain requirements are satisfied, a non-provisional patent application can claim the benefit of the filing date of an earlier filed provisional patent application. As a result, the filing date accorded by the provisional patent application may supersede information that otherwise could preclude the patentability of an invention.

A provisional patent application is not eligible to become an issued patent unless, among other things, we file a non-provisional patent application within 12 months of the filing date of the provisional patent application. If we do not timely file a non-provisional patent application claiming priority to said provisional application, we may lose our priority date with respect to our provisional patent applications. Further, if any (self or by others) publication of the invention is made after such priority date, and if we do not file a non-provisional application claiming priority to said provisional application, our invention may become unpatentable.

Moreover, we cannot predict whether such future patent applications will result in the issuance of patents that effectively protect any of our product candidates or will effectively prevent others from commercializing competitive products.

We do not expect to incur material expenses in the prosecution of the provisional applications or other licensed patent applications. We expect to fund the patent costs from our cash and restricted cash.

The value of our drug and device products will depend significantly on our ability to obtain and maintain patent and other proprietary protection for those products, preserve the confidentiality of our trade secrets and operate without infringing the valid and enforceable patents and proprietary rights of other parties.

As of the date hereof, we are the patentee of a number of provisional and non-provisional patent applications, both on our proprietarily developed projects and improvement to our in-licensed projects.

The following table sets forth a list of our patent rights under the exclusive licenses as of the date of this prospectus related to our Lead Project, ALS-4; on the other hand, our other Lead Project, SACT-1 is a proprietary technology not subject to any license agreement:

| Project Company / Project name | License Agreement | Licensor(s) | Licensee | Licensed / IP Rights | Patent Expiration Dates |
|---|---|---|---|---|---|
| Acticule / ALS-4 | Exclusive Patent License Agreement, dated October 18, 2017<br><br>First Amendment to Exclusive License Agreement, dated June 7, 2018<br><br>Second Amendment to Exclusive License Agreement dated July 10, 2019<br><br>Exclusive Patent License Agreement dated January 11, 2019 | Versitech Limited | Acticule Life Sciences Limited | Exclusive licensee of: 1 U.S. patent (US10471045), 4 pending U.S. applications (16/041,838, US 16/679,313, 16/867,540 and US 17/006,985), 2 pending European applications (EP18835480.7 and EP18835238.9), 2 pending PRC application (CN201880048665.6 and 201880048674.5), 17 pending applications in other foreign jurisdictions including Australia, Brazil, Canada, Chile, Eurasia, Israel, Japan, Korea, Malaysia, New Zealand, Singapore | The licensed IP rights include the granted patent in the U.S. and pending patent applications in the U.S., Europe, PRC and other foreign jurisdictions.<br><br>The U.S. patent will expire in 2038; any other patent based on the pending application, if granted, will have a 20-year patent term from 2018.<br>. |

Because of the extensive time required for clinical development and regulatory review of a drug we may develop, it is possible that, before any of our drug and device candidates can be commercialized, any related patent may expire or remain in force for only a short period following commercialization, thereby reducing any advantage of any such patent. If appropriate, the Company may seek to extend the period during which it has exclusive rights to a product by pursuing patent term extensions and marketing exclusivity periods that are available from the regulatory authorities of certain countries (including the United States) and the EPO.

Even though the Company has certain patent rights, the ability to obtain and maintain protection of biotechnology and pharmaceutical products and processes such as those we intend to develop and commercialize involves complex legal and factual questions. No consistent policy regarding the breadth of claims allowed in such patents has emerged to date in the U.S. The scope of patent protection outside the United States is even more uncertain. Changes in the patent laws or in interpretations of patent laws in the United States and other countries have diminished (and may further diminish) our ability to protect our inventions and enforce our IP rights and, more generally, could affect the value of IP.

While we have already secured rights to a number of issued patents directed to our drug candidates, we cannot predict the breadth of claims that may issue from the pending patent applications and provisional patents that we have licensed or that we have filed. Substantial scientific and commercial research has been conducted for many years in the areas in which we have focused our development efforts, which has resulted in other parties having a number of issued patents, provisional patents and pending patent applications relating to such areas. The patent examiner in any particular jurisdiction may take the view that prior issued patents and prior publications render our patent claims “obvious” and therefore unpatentable or require us to reduce the scope of the claims for which we are seeking patent protection.

In addition, patent applications in the United States and elsewhere generally are not available to the public until at least 18 months from the priority date, and the publication of discoveries in the scientific or patent literature frequently occurs substantially later than the date on which the underlying discoveries were made. Therefore, patent applications relating to drugs and devices similar to our drug and device candidates may have already been filed, which (if they result in issued patents) could restrict or prohibit our ability to commercialize our drug and device candidates.

The biotechnology and pharmaceutical industries are characterized by extensive litigation regarding patents and other IP rights. Our ability to prevent competition for our drug and device candidates and technologies will depend on our success in obtaining patents containing substantial and enforceable claims for those candidates and enforcing those claims once granted. With respect to any applications which have not yet resulted in issued patents, there can be no assurance that meaningful claims will be obtained. Even issued patents may be challenged or invalidated. If others have prepared and filed patent applications in the United States that also claim technology to which we have filed patent applications or otherwise wish to challenge our patents, we may have to participate in interferences, post-grant reviews, inter parties reviews, derivation or other proceedings in the USPTO and other patent offices to determine issues such as priority of claimed invention or validity of such patent applications as well as our own patent applications and issued patents. Patents may also be circumvented, and our competitors may be able to independently develop and commercialize similar drugs or mimic our technology, business model or strategy without infringing our patents. The rights granted under any issued patents may not provide us with proprietary protection or competitive advantages against competitors with similar technology.

We may rely, in some limited circumstances, on unpatented trade secrets and know-how to protect aspects of our technology. However, it is challenging to monitor and prevent the disclosure of trade secrets. We seek to protect our proprietary trade secrets and know-how, in part, by entering into confidentiality agreements with consultants, scientific advisors and contractors and invention assignment agreements with our employees. We also seek to preserve the integrity and confidentiality of our data and trade secrets by maintaining physical security of our premises and physical and electronic security of our information technology systems. While we have confidence in these individuals, organizations and systems, agreements or security measures may be breached, giving our competitors knowledge of our trade secrets and know-how, and we may not have adequate remedies for any such breach, in which case our business could be adversely affected. Our trade secrets will not prevent our competitors from independently discovering or developing the same know-how. Although our agreements with our consultants, contractors or collaborators require them to provide us only original work product and prohibit them from incorporating or using IP owned by others in their work for us, if they breach these obligations, disputes may arise as to the rights in any know-how or inventions that arise from their work.

Our commercial success will also depend in part on not infringing the proprietary rights of other parties. Although we seek to review the patent landscape relevant to our technologies on an ongoing basis, we may become aware of a new patent which has been issued to others with claims covering or related to aspects of one of our drug or device candidate. The issuance of such a patent could require us to alter our development plans for that candidate, redesign the candidate, obtain a license from the patent holder or cease development. Our inability to obtain a license to proprietary rights that we may require to develop or commercialize any of our drug and device candidates would have a material adverse impact on us.

**Trademarks**

As of the date of this prospectus, we own trademark registrations covering the trade names and logos of Aptorum and our subsidiaries, including but not limited to “APTORUM”, “APTORUM THERAPEUTICS,” “VIDENS LIFE SCIENCES,” “ACTICULE LIFE SCIENCES,”, “CLAVES LIFE SCIENCES”, “NATIVUS LIFE SCIENCES”, “TALEM,”, in one or more of Hong Kong, EU, the United Kingdom, and PRC. Furthermore, we are in the process of applying for registration of trademarks in the U.S., EU, the United Kingdom, and PRC.

We also own certain unregistered trademark rights.

All other trade names, trademarks and service marks of other companies appearing in this prospectus are the property of their respective holders. Solely for convenience, the trademarks and trade names in prospectus are referred to without the ® and ™ symbols, but such references should not be construed as any indicator that their respective owners will not assert, to the fullest extent under applicable law, their rights thereto. We do not intend our use or display of other companies’ trademarks and trade names to imply a relationship with, or endorsement or sponsorship of us by, any other companies.

**Important Advisors and Consultants to the Company**

In addition to Company management, the following individuals provide the Company with significant advice and insight in their respective fields:

***Scientific Advisory Board***

We restructured the Scientific Assessment Committee into a newly formed Scientific Advisory Board. The Scientific Advisory Board shall help the Company sharpen its focus on innovation and technological advancements and address critical scientific challenges in our research and development; it will provide overall advice on the scientific development of the company. As of the date hereof, we have 26 members of the Board.

In light of the Company's focus on developing treatment for infectious diseases, we have established a second scientific advisory board, i.e., the Infectious Diseases Scientific Advisory Board in April 2020. As of the date hereof, the Infectious Diseases Scientific Advisory Board have 4 members.

**DR. KEITH CHAN**

The appointment of Dr. Chan is through a Consultancy Agreement by and between the Company and GloboAsia LLC, a firm based in Rockville, Maryland ("GloboAsia"), where Dr. Chan serves as Director of International Affairs.

Dr. Chan is currently a Senior Advisor of Cornerstone Intellectual Property Foundation in Taiwan. He is also serving as an adjunct professor at the Graduate Institute of Intellectual Property, College of Commerce, National Chengchi University and adjunct professor and advisor at the Research Center for Drug Discovery, National Yang Ming University in Taipei, Taiwan.

Dr. Chan co-founded GloboMax LLC, a drug development organization, in Hanover, Maryland, in July 1997, and served as a consultant for numerous multi-national pharmaceutical and biotech firms in the U.S, Europe and Asia. GloboMax LLC was acquired by ICON, plc. in August 2003, and Dr. Chan exited the operation. Prior to that, he joined the FDA in 1995 as a Director of Division of Bioequivalence, Office of Generic Drugs, responsible for managing and approval of generic drugs in the States. Dr. Chan had worked for Ciba-Geigy Corporation in Ardsley, New York, for 15 years, and held various senior and management positions. Dr. Chan also has extensive experience in new and generic drug development in executing preclinical animal studies, bioassay development, Phases I to VI Pharmacokinetics, pharmacodynamics, bioavailability, bioequivalence studies, outside contract, regulatory submission, advanced drug delivery systems, and all phases of new drug development. In addition, he has served as Professor/adjunct Professor at the School of Pharmacy, University of Maryland at Baltimore during 1996-2009 and also as Adjunct Professor and National Board of Advisor, College of Pharmacy, University of Minnesota during 1984 - 2006. He has published more than 150 abstracts and research articles in peer-reviewed journals and delivered over 200 professional presentations. He was elected as Fellow of the American Association of Pharmaceutical Scientists ("AAPS") in 1995 for his scientific accomplishments on drug absorption in humans.

Although much of his career was based in the United States, Dr. Chan has been assisting Asian pharmaceutical and biotech companies for over 14 years. He has organized numerous workshops and conferences in the PRC, Taiwan, Hong Kong, Singapore and Korea. He lectures frequently in Asia and serves as a scientific advisor for many regulatory agencies in Asia. Over the last several years, he has successfully assisted many Asian companies in their technology transfers and licensing deals to and from the U.S., as well as with numerous regulatory submissions to the FDA.

Dr. Chan obtained his Ph.D. degree in Pharmaceutics from the University of Minnesota in January 1980.

**DR. ROBBIE MAJZNER**

In addition to serving on the Scientific Advisory Board, Dr. Majzner will provide specific scientific advice and support for certain targeted clinical development aspects of our repurposed drug candidate SACT-1.

Dr. Majzner is an Assistant Professor of Pediatrics in the Division of Hematology and Oncology at the Stanford University Medical Center. Prior to joining Stanford, he worked in the laboratory of Dr. Crystal Mackall at the National Cancer Institute. His research interests lie in the optimization of chimeric antigen receptor (CAR) T cell therapies for sarcomas and other solid tumors. Dr. Majzner received his M.D. from Harvard Medical School, and completed his pediatric residency at Columbia University and fellowship in pediatric hematology-oncology at the joint program of Johns Hopkins University and the National Cancer Institute.

***Senior Medical Advisor and CEO of Claves Life Sciences Limited***

**DR. HERMAN WEISS, M.D.**

Dr. Herman Weiss, M.D., has been appointed as our senior medical advisor and also the Chief Executive Officer and Executive Director of one of our wholly owned subsidiaries, Claves Life Sciences Limited ("Claves"). Claves is focused on microbiome-based approach to metabolic diseases. Dr. Weiss will be leading the development of Claves' business and drive Claves' microbiome-based research platform for treatments of metabolic diseases, and potentially other indications, to targeted clinical stages.

Dr. Weiss has over 20 years of experience in the medical field. He is currently a Physician at Maccabi and Meuchedet Kuppot Health System and Chairman of the Board of Directors of Todos Medical in Israel. Dr. Weiss previously held senior roles at both Juniper Pharmaceuticals, as Head of Clinical Development and Medical Affairs, and at Teva Pharmaceuticals, as Global Medical Director. He has also consulted for various medical device and biotech companies. He owns multiple patents and is the author of numerous publications in the area of women's health/gynecology. Dr. Weiss received his MBA from the George Washington University, his M.D. from the Ohio State University College of Medicine and his B.A. from Ramapo College of New Jersey.

***Senior Strategic Consultant***

**DR. KIRA SHEINERMAN**

Dr. Kira Sheinerman is the co-founder, CEO and Executive Director of DiamiR Biosciences, a molecular diagnostics company focused on developing blood-based tests for early detection and monitoring of brain health conditions. Dr. Sheinerman also serves as a Managing Director, Healthcare Investment Banking at H.C. Wainwright & Co. Previously, she was a Managing Director at Rodman & Renshaw, where she worked on financial and strategic transactions for growth biotech companies with a focus on CNS, oncology, and infectious diseases, as well as molecular diagnostics. Prior to healthcare investment banking, Dr. Sheinerman worked at the Arcus group, a life sciences strategic consulting firm. She is a board member of the Boyce Thompson Institute, an affiliate of Cornell University. Dr. Sheinerman received her Ph.D. in Biomedical Sciences from the Mount Sinai School of Medicine in New York for her work on molecular mechanisms of Alzheimer's disease. She also holds an MBA from the Honors program at the Zicklin School of Business, Baruch College, City University of New York.

***Senior Clinical Advisor of Aptorum Therapeutics Limited***

**DR. NISHANT AGRAWAL**

Dr. Agrawal, MD, has been serving as the Director of Head and Neck Surgical Oncology, and Professor of Surgery at The University of Chicago School of Medicine since October 2015. He is specialized in management of patients with benign and malignant tumors of the head and neck, and has been practicing Otolaryngology - Head and Neck Surgery, at The University of Chicago Medicine, and Center for Advanced Medicine, both in Chicago since 2009.

Dr. Agrawal's work has achieved international recognition in the field of head and neck surgical oncology, as well as head and neck cancer genetics. Under his leadership, a team of researchers completed a landmark study that examined the genome of head and neck squamous cell carcinoma. His team has published extensively in the genomic landscapes of major head and neck cancers, including esophageal squamous cell carcinoma, esophageal adenocarcinoma, medullary thyroid cancer, adenoid cystic carcinoma, and mucoepidermoid carcinoma. Dr. Agrawal then applied these findings to identify tumor DNA as a biomarker that improves cancer diagnostics in the saliva and plasma of patients with head and neck squamous cell carcinoma. His researches focus on the application of cancer genetics to design diagnostic approaches to reduce morbidity and mortality from head and neck cancer.

In addition to his clinical and research contributions, Dr. Agrawal is an accomplished educator-teaching medical students, residents, and fellows about the management of patients with head and neck cancer. Prior to joining the University of Chicago, Dr. Agrawal was an associate professor at Johns Hopkins University, where he completed his medical training in 2001, followed by internship and residency.

In addition, Dr. Agrawal was granted fellowships from the Memorial Sloan Kettering Cancer Center, New York (Head and Neck Surgical Oncology), and from Johns Hopkins University School of Medicine, Baltimore (Molecular Genetics). He holds numerous Memberships from accredited American medical associations and institutions.

Specifically, as a Senior Clinical Advisor, Dr. Agrawal supports our efforts to identify, develop and commercialize novel therapies for patients and the healthcare industry. He provides a diverse collection of academic, industrial and regulatory expertise.

**Competition**

Our industry is highly competitive and subject to rapid and significant change. While we believe that our development and commercialization experience, scientific knowledge and industry relationships provide us with competitive advantages, we face competition from pharmaceutical and biotechnology companies, including specialty pharmaceutical companies, and generic drug companies, academic institutions, government agencies and research institutions.

There are a number of large pharmaceutical and biotechnology companies that currently market and sell drugs or are pursuing the development of drugs and devices for the diagnosis and treatment of diseases for which we are developing products or technology. Moreover, a number of additional drugs are currently in clinical trials and may become competitors if and when they receive regulatory approval.

Many of our competitors have longer operating histories, better name recognition, stronger management capabilities, better supplier relationships, a larger technical staff and sales force and greater financial, technical or marketing resources than we do. Mergers and acquisitions in the pharmaceutical and biotechnology industries may result in even more resources being concentrated among a smaller number of our competitors. Our commercial opportunity could be reduced or eliminated if our competitors develop or market products or other novel therapies that are more effective, safer or less costly than our current drug candidates, or any future drug candidates we may develop, or obtain regulatory approval for their products more rapidly than we may obtain approval for our current drug candidates or any such future drug candidates. Our success will be based in part on our ability to identify, develop and manage a portfolio of drug and device candidates that are safer and more effective than competing products.

**Regulation**

Government authorities in the United States at the federal, state and local level and in other countries extensively regulate, among other things, the research and clinical development, testing, manufacture, quality control, approval, labeling, packaging, storage, record-keeping, promotion, advertising, distribution, post-approval monitoring and reporting, marketing, pricing, export and import of drug and device products ("Regulated Products"), such as those we are developing. Generally, before a new Regulated Product can be marketed, considerable data demonstrating its quality, safety and efficacy must be obtained, organized to address the requirements of and in the format specific to each regulatory authority, submitted for review and approved by the regulatory authority. This process is very lengthy and expensive, and success is uncertain.

Regulated Products are also subject to other federal, state and local statutes and regulations in the United States and other countries, as applicable. The process of obtaining regulatory approvals and the subsequent compliance with appropriate federal, state, local and foreign statutes and regulations require the expenditure of substantial time and financial resources. Failure to comply with the applicable regulatory requirements at any time during the product development process, approval process or after approval, may subject an applicant to administrative or judicial sanctions. These sanctions could include, among other actions, the regulatory authority's refusal to approve pending applications, withdrawal of an approval, clinical holds, untitled or warning letters, voluntary product recalls or withdrawals from the market, product seizures, total or partial suspension of production or distribution, injunctions, disbarment, fines, refusals of government contracts, restitution, disgorgement, or civil or criminal penalties. Any such administrative or judicial enforcement action could have a material adverse effect on us.

As AML Clinic and part of the Company's operation are located in Hong Kong, the Company is subject to various Hong Kong laws and regulation covering its business activities there, described in further detail below. Also, the Company anticipates that, if it obtains marketing approval for any of its drug and device candidates, it intends to focus its marketing and sales efforts primarily in three regions: the United States, Europe and PRC. The regulatory framework for each of these regions is described below.

***U.S. Drug Development Process***

The process of obtaining regulatory approvals and maintaining compliance with appropriate federal, state and local statutes and regulations requires the expenditure of substantial time and financial resources. Failure to comply with the applicable U.S. requirements at any time during the product development process, approval process, or after approval, may subject an applicant to administrative or judicial sanctions or lead to voluntary product recalls. Administrative or judicial sanctions could include the FDA's refusal to approve pending applications, withdrawal of an approval, a clinical hold, untitled or warning letters, product seizures, total or partial suspension of production or distribution, injunctions, fines, refusals of government contracts, restitution, disgorgement or civil or criminal penalties. The process required by the FDA before a drug may be marketed in the United States generally involves the following:

- completion of non-clinical laboratory tests, preclinical studies according to cGLP and manufacturing of clinical supplies according to cGMP;
- submission to the FDA of an IND, which must become effective before human clinical trials may begin;
- approval by an independent IRB, at each clinical site before each trial may be initiated;
- performance of adequate and well-controlled human clinical trials according to cGCP, to establish the safety and efficacy of the proposed product for its intended use;
- preparation and submission to the FDA of an NDA, for a drug;
- satisfactory completion of an FDA advisory committee review, if applicable;
- satisfactory completion of an FDA inspection of the manufacturing facility or facilities at which the product, or components thereof, are produced to assess compliance with cGMP; and
- payment of user fees and the FDA review and approval of the NDA.

Devices are subject to different forms of testing and approval, but (except for certain laboratory-developed diagnostic tests) still require satisfaction of various FDA requirements in order to be brought to market. As of the date hereof, the device candidate currently under development is SLS-1. We do not currently have a commercialization timeline for SLS-1 and cannot assure you that SLS-1 will ever be ready for commercialization.

The testing and approval process requires substantial time, effort and financial resources and we cannot be certain that any approvals for our drug candidates, or any future drug candidates we may develop, will be granted on a timely basis, if at all.

Once a drug candidate is identified for development, it enters the non-clinical testing stage. Non-clinical tests include laboratory evaluations of product chemistry, toxicity, formulation and stability, as well as preclinical studies. An IND sponsor must submit the results of the non-clinical tests, together with manufacturing information, analytical data and any available clinical data or literature, to the FDA as part of the IND prior to commencing any testing in humans. An IND sponsor must also include a protocol detailing, among other things, the objectives of the clinical trial, dosing procedures, subject selection and exclusion criteria, the parameters to be used in monitoring safety, and the effectiveness criteria to be evaluated if the initial clinical trial lends itself to an efficacy evaluation. Some non-clinical testing may continue even after the IND is submitted. The IND automatically becomes effective 30 days after receipt by the FDA, unless the FDA raises concerns or questions related to a proposed clinical trial and places the trial on a clinical hold within that 30-day time period. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before the clinical trial can begin. Clinical holds also may be imposed by the FDA at any time before or during clinical trials due to safety concerns or non-compliance, and may be imposed on all products within a certain class of products. The FDA also can impose partial clinical holds, for example, prohibiting the initiation of clinical trials for certain duration or for certain doses.

All clinical trials must be conducted under the supervision of one or more qualified investigators in accordance with cGCP regulations. These regulations include the requirement that all research subjects provide informed consent in writing before their participation in any clinical trial. Further, an IRB representing each institution participating in a clinical trial must review and approve the plan for any clinical trial before it commences at that institution, and the IRB must conduct continuing review and reapprove the study at least annually. An IRB is responsible for protecting the rights of clinical trial subjects and considers, among other things, whether the risks to individuals participating in the clinical trial are minimized and are reasonable in relation to anticipated benefits. The IRB also approves the information regarding the clinical trial and the consent form that must be provided to each clinical trial subject or his or her legal representative and must monitor the clinical trial until completed. Each new clinical protocol and any amendments to the protocol must be submitted to the FDA for review, and to the IRBs for approval. Protocol detail, among other things, includes the objectives of the clinical trial, testing procedures, sublease selection and exclusion criteria, and the parameters to be used to monitor subject safety.

Human clinical trials are typically conducted in three sequential phases that may overlap or be combined:

- **Phase 1.** Phase 1 includes the initial introduction of an investigational new drug into humans. These studies are closely monitored and may be conducted in patients, but are usually conducted in healthy volunteer subjects. These studies are designed to determine the metabolic and pharmacologic actions of the drug in humans, the side effects associated with increasing doses, and, if possible, to gain early evidence on effectiveness. During Phase 1, sufficient information about the drug's pharmacokinetics and pharmacological effects should be obtained to permit the design of well-controlled, scientifically valid, Phase 2 studies. Phase 1 studies also evaluate drug metabolism, structure-activity relationships, and the mechanism of action in humans. These studies also determine which investigational drugs are used as research tools to explore biological phenomena or disease processes. The total number of subjects included in Phase 1 studies varies with the drug, but is generally in the range of twenty to eighty.

- **Phase 2.** Phase 2 includes the early controlled clinical studies conducted to obtain some preliminary data on the effectiveness of the drug for a particular indication or indications in patients with the disease or condition. This phase of testing also helps determine the common short-term side effects and risks associated with the drug. Phase 2 studies are typically well-controlled, closely monitored, and conducted in a relatively small number of patients, usually involving several hundred people.

- **Phase 3.** Phase 3 studies are expanded controlled and uncontrolled trials. They are performed after preliminary evidence suggesting effectiveness of the drug has been obtained in Phase 2, and are intended to gather the additional information about effectiveness and safety that is needed to evaluate the overall benefit-risk relationship of the drug. Phase 3 studies are designed to provide an adequate basis for extrapolating the results to the general population and transmitting that information in the physician labeling. Phase 3 studies usually include several hundred to several thousand people.

Progress reports detailing the results of the clinical trials must be submitted at least annually to the FDA and safety reports must be submitted to the FDA and clinical investigators within 15 calendar days for serious and unexpected suspected adverse events, any clinically important increase in the rate of a serious suspected adverse reaction over that listed in the protocol or investigator's brochure, or any findings from other studies or animal or in vitro testing that suggest a significant risk in humans exposed to the drug candidate. Additionally, a sponsor must notify the FDA of any unexpected fatal or life-threatening suspected adverse reaction no later than 7 calendar days after the sponsor's receipt of the information. There is no assurance that Phase 1, Phase 2 and Phase 3 testing can be completed successfully within any specified period, or at all. The FDA or the sponsor may suspend or terminate a clinical trial at any time on various grounds, including a finding that the research subjects or patients are being exposed to an unacceptable health risk. Similarly, an IRB can suspend or terminate approval of a clinical trial at its institution if the clinical trial is not being conducted in accordance with the IRB's requirements or if the product has been associated with unexpected serious harm to subjects.

Concurrent with clinical trials, companies usually complete additional preclinical studies and must also develop additional information about the chemistry and physical characteristics of the product and finalize a process for manufacturing the product in commercial quantities in accordance with cGMP requirements. The manufacturing process must be capable of consistently producing quality batches of the product drug and, among other things, the manufacturer must develop methods for testing the identity, strength, quality and purity of the final product. Additionally, appropriate packaging must be selected and tested and stability studies must be conducted to demonstrate that the product drug does not undergo unacceptable deterioration over its shelf life.

The results of product development, non-clinical studies and clinical trials, together with other detailed information regarding the manufacturing process, analytical tests conducted on the product, proposed labeling and other relevant information, are submitted to the FDA as part of an NDA requesting approval to market the new drug. The FDA reviews all NDAs submitted within 60 days of submission to ensure that they are sufficiently complete for substantive review before it accepts them for filing. If the submission is accepted for filing, the FDA begins an in-depth substantive review.

The approval process is lengthy and difficult and the FDA may refuse to approve an NDA if the applicable regulatory criteria are not satisfied or may require additional clinical data or other data and information. Even if such data and information are submitted, the FDA may ultimately decide that the NDA does not satisfy the criteria for approval. Data obtained from clinical trials are not always conclusive, and the FDA may interpret data differently than we interpret the same data. The FDA will issue a complete response letter if the agency decides not to approve the NDA in its present form. The complete response letter usually describes all of the specific deficiencies that the FDA identified in the NDA that must be satisfactorily addressed before it can be approved. The deficiencies identified may be minor, for example, requiring labeling changes, or major, for example, requiring additional clinical trials. Additionally, the complete response letter may include recommended actions that the applicant might take to place the application in a condition for approval. If a complete response letter is issued, the applicant may either resubmit the NDA, addressing all of the deficiencies identified in the letter, or withdraw the application or request an opportunity for a hearing.

If after such review a product receives regulatory approval, the approval may be significantly limited to specific diseases and dosages or the indications for use may otherwise be limited, which could restrict the commercial value of the product. Further, the FDA may require that certain contraindications, warnings or precautions be included in the product labeling. Any products for which we receive the FDA approval would be subject to continuing regulation by the FDA, including, among other things, record-keeping requirements, reporting of adverse experiences with the product, providing the FDA with updated safety and efficacy information, product sampling and distribution requirements, complying with certain electronic records and signature requirements and complying with the FDA promotion and advertising requirements. In addition, the FDA may require post-approval studies, including Phase 4 clinical trials, to further assess a product's safety and effectiveness after NDA approval and may require testing and surveillance programs to monitor the safety of approved products that have been commercialized. The FDA also may conclude that an NDA may only be approved with a Risk Evaluation and Mitigation Strategy designed to mitigate risks through, for example, a medication guide, physician communication plan, or other elements to assure safe use, such as restricted distribution methods, patient registries and other risk minimization tools.

***Post-Approval Requirements***

Any products for which we receive the FDA approval are subject to continuing regulation by the FDA, including, among other things, record-keeping requirements, reporting of adverse experiences with the product, providing the FDA with updated safety and efficacy information, product sampling and distribution requirements, complying with certain electronic records and signature requirements and complying with the FDA promotion and advertising requirements. The FDA strictly regulates labeling, advertising, promotion and other types of information on products that are placed on the market. Products may be promoted only for the approved indications and in accordance with the provisions of the approved label. Further, manufacturers must continue to comply with cGMP requirements, which are extensive and require considerable time, resources and ongoing investment to ensure compliance. In addition, changes to the manufacturing process generally require prior the FDA approval before being implemented and other types of changes to the approved product, such as adding new indications and additional labeling claims, are also subject to further the FDA review and approval.

The FDA may withdraw a product approval if compliance with regulatory requirements is not maintained or if problems occur after the product reaches the market. Later discovery of previously unknown problems with a product may result in restrictions on the product's marketing or even complete withdrawal of the product from the market. Further, the failure to maintain compliance with regulatory requirements may result in administrative or judicial actions, such as fines, untitled or warning letters, holds on clinical trials, product seizures, product detention or refusal to permit the import or export of products, refusal to approve pending applications or supplements, restrictions on marketing or manufacturing, injunctions or consent decrees, or civil or criminal penalties, or may lead to voluntary product recalls.

***Patent Term Restoration and Marketing Exclusivity***

Because drug approval can take an extended period of time, there may be limited remaining life for the patents covering the approved drug, meaning that the company has limited time to use the patents to protect the sponsor's exclusive rights to make, use and sell that drug. In such a case, U.S. patents may be eligible for limited patent term extension under the Drug Price Competition and Patent Term Restoration Act of 1984, commonly referred to as the Hatch-Waxman Act. The Hatch-Waxman Act permits a patent restoration term of up to five years as compensation for patent term lost during product development and the FDA regulatory review process. However, patent term restoration cannot extend the remaining term of a patent beyond a total of 14 years from the product's approval date.

In addition, the FDCA provides a five-year period of non-patent marketing exclusivity within the United States to the first applicant to gain approval of an NDA for a new chemical entity. A drug is a new chemical entity if the FDA has not previously approved any other new drug containing the same active moiety, which is the molecule or ion responsible for the action of the drug substance. During the exclusivity period, the FDA may not accept for review an abbreviated new drug application ("ANDA") or a 505(b)(2) NDA submitted by another company for another version of such drug where the applicant does not own or have a legal right of reference to all the data required for approval.

In the future, if appropriate, we intend to apply for restorations of patent term and/or marketing exclusivity for some of our products; however, there can be no assurance that any such extension or exclusivity will be granted to us.

***Disclosure of Clinical Trial Information***

Sponsors of clinical trials of the FDA-regulated products, including drugs are required to register and disclose certain clinical trial information, which is publicly available at www.clinicaltrials.gov. Information related to the product, patient population, phase of investigation, study sites and investigators, and other aspects of the clinical trial is then made public as part of the registration. Sponsors are also obligated to disclose the results of their clinical trials after completion. Disclosure of the results of these trials can be delayed until the new product or new indication being studied has been approved. Competitors may use this publicly available information to gain knowledge regarding the progress of development programs.

***Pharmaceutical Coverage, Pricing and Reimbursement***

Much of the revenue generated by new Regulated Products depends on the willingness of third-party payors to reimburse the price of the product. Significant uncertainty exists as to the coverage and reimbursement status of any products for which we may obtain regulatory approval. In the United States, sales of any products for which we may receive regulatory approval for commercial sale will depend in part on the availability of coverage and reimbursement from third-party payors. Third-party payors include government authorities, managed care providers, private health insurers and other organizations. The process for determining whether a payor will provide coverage for a product may be separate from the process for setting the reimbursement rate that the payor will pay for the product. Third-party payors may limit coverage to specific products on an approved list, or formulary, which is not required to include all of the FDA-approved products for a particular indication. Moreover, a payor's decision to provide coverage for a product does not imply that an adequate reimbursement rate will be approved. Adequate third-party reimbursement may not be available to enable us to maintain price levels sufficient to realize an appropriate return on our investment in product development.

Third-party payors are increasingly challenging the price and examining the medical necessity and cost- effectiveness of medical products and services, in addition to their safety and efficacy. To obtain coverage and reimbursement for any product that might be approved for sale, we may need to conduct expensive pharmacoeconomic studies in order to demonstrate the medical necessity and cost-effectiveness of any products, in addition to the costs required to obtain regulatory approvals. Our product candidates may not be considered medically necessary or cost-effective. If third-party payors do not consider a product to be cost-effective compared to other available therapies, they may not cover the product after approval as a benefit under their plans or, if they do, the level of payment may not be sufficient to allow a company to sell its products at a profit.

The U.S. government and state legislatures have shown significant interest in implementing cost containment programs to limit the growth of government-paid health care costs, including price controls, restrictions on reimbursement and requirements for substitution of generic products for branded prescription drugs. Adoption of government controls and measures, and tightening of restrictive policies in jurisdictions with existing controls and measures, could limit payments for pharmaceuticals.

Even if favorable coverage and reimbursement status is attained for one or more products for which we receive regulatory approval, less favorable coverage policies and reimbursement rates may be implemented in the future. Unfavorable coverage or reimbursement policies regarding any of the Company's products would have a material adverse impact on the value of that product.

***Other Healthcare Laws and Compliance Requirements***

If we obtain regulatory approval of our products, we may be subject to various federal and state laws targeting fraud and abuse in the healthcare industry. These laws may impact, among other things, our proposed sales, marketing and education programs. In addition, we may be subject to patient privacy regulation by both the federal government and the states in which we conduct our business.

***Patient Protection and the Affordable Care Act***

The Affordable Care Act, enacted in March 2010, includes measures that have or will significantly change the way health care is financed in the United States by both governmental and private insurers. Among the provisions of the Affordable Care Act of greatest importance to the pharmaceutical industry are the following:

- The Medicaid Drug Rebate Program requires pharmaceutical manufacturers to enter into and have in effect a national rebate agreement with the Secretary of the Department of Health and Human Services as a condition for states to receive federal matching funds for the manufacturer's outpatient drugs furnished to Medicaid patients. The Affordable Care Act increased pharmaceutical manufacturers' rebate liability on most branded prescription drugs from 15.1% of the average manufacturer price to 23.1% of the average manufacturer price, added a new rebate calculation for line extensions of solid oral dosage forms of branded products, and modified the statutory definition of average manufacturer price. The Affordable Care Act also expanded the universe of Medicaid utilization subject to drug rebates by requiring pharmaceutical manufacturers to pay rebates on Medicaid managed care utilization and expanding the population potentially eligible for Medicaid drug benefits.

- In order for a pharmaceutical product to receive federal reimbursement under the Medicare Part B and Medicaid programs or to be sold directly to U.S. government agencies, the manufacturer must extend discounts to entities eligible to participate in the 340B drug pricing program. The Affordable Care Act expanded the types of entities eligible to receive discounted 340B pricing.

- The Affordable Care Act imposed a requirement on manufacturers of branded drugs to provide a 50% discount off the negotiated price of branded drugs dispensed to Medicare Part D patients in the coverage gap (i.e., the "donut hole").

- The Affordable Care Act imposed an annual, non-deductible fee on any entity that manufactures or imports certain branded prescription drugs, apportioned among these entities according to their market share in certain government healthcare programs, although this fee does not apply to sales of certain products approved exclusively for orphan indications.

In addition to these provisions, the Affordable Care Act established a number of bodies whose work may have a future impact on the market for certain pharmaceutical products. These include the Patient-Centered Outcomes Research Institute, established to oversee, identify priorities in, and conduct comparative clinical effectiveness research, the Independent Payment Advisory Board, which has authority to recommend certain changes to the Medicare program to reduce expenditures by the program, and the Center for Medicare and Medicaid Innovation within the Centers for Medicare and Medicaid Services, to test innovative payment and service delivery models to lower Medicare and Medicaid spending.

These and other laws may result in additional reductions in healthcare funding, which could have a material adverse effect on customers for our product candidates, if we gain approval for any of them. Although we cannot predict the full effect on our business of the implementation of existing legislation or the enactment of additional legislation pursuant to healthcare and other legislative reform, we believe that legislation or regulations that would reduce reimbursement for, or restrict coverage of, our products could adversely affect how much or under what circumstances healthcare providers will use our product candidates if we gain approval for any of them.

***U.S. Medical Device Regulatory Approval Process***

Medical Devices are subject to different forms of testing and approval, and require satisfaction of various FDA requirements including the Food, Drug and Cosmetic Act (FDCA) in order to be brought to market.

The two primary types of FDA marketing authorization applicable to a medical device are premarket notification, also called 510(k) clearance, and premarket approval. The type of marketing authorization is generally linked to the classification of the device. The FDA classifies medical devices into one of three classes — Class I, Class II or Class III — based on the degree of risk the FDA determines to be associated with a device and the level of regulatory control deemed necessary to ensure the device's safety and effectiveness. Devices requiring fewer controls because they are deemed to pose lower risk are placed in Class I or II. Class I devices are deemed to pose the least risk and are subject only to general controls applicable to all devices, such as requirements for device labeling, premarket notification, and adherence to the FDA's Good Manufacturing Practices. Class II devices are intermediate risk devices that are subject to general controls and may also be subject to special controls such as performance standards, product-specific guidance documents, special labeling requirements, patient registries, or post-market surveillance. Class III devices are those for which insufficient information exists to assure safety and effectiveness solely through general controls or if the device is a life-sustaining, life-supporting or a device of substantial importance in preventing impairment of human health, or which presents a potential, unreasonable risk of illness or injury and special controls are not adequate to assure safety and effectiveness.

Most Class I devices and some Class II devices are exempted by regulation from the 510(k) clearance requirement and can be marketed without prior authorization from the FDA. Most Class II devices (and certain Class I devices that are not exempt) are eligible for marketing through the 510(k) clearance pathway. By contrast, devices placed in Class III generally require premarket approval or 510(k) de novo clearance prior to commercial marketing. The premarket approval process is more stringent, time-consuming, and expensive than the 510(k) clearance process. However, the 510(k) clearance process has also become increasingly stringent and expensive.

510(k) Clearance Pathway. When a 510(k) clearance is required, a premarket notification must be submitted to the FDA demonstrating that a proposed device is "substantially equivalent" to a previously cleared and legally marketed 510(k) device or a device that was in commercial distribution before May 28, 1976 for which the FDA has not yet called for the submission of a premarket approval application, which is commonly known as the "predicate device." A device is substantially equivalent if, with respect to the predicate device, it has the same intended use and has either (i) the same technological characteristics or (ii) different technological characteristics and the information submitted demonstrates that the device is as safe and effective as a legally marked device and does not raise different questions of safety or effectiveness. By law, the FDA is required to clear or deny a 510(k) premarket notification within 90 days of submission of the application. As a practical matter, clearance often takes significantly longer. The FDA may require further information, including clinical data, to make a determination regarding substantial equivalence. If the FDA determines that the device, or its intended use, is not substantially equivalent to a previously-cleared device or use, the FDA will issue a not substantially equivalent decision. This means the device cannot be cleared through the 510k process and will require marketing authorization through the premarket approval pathway.

Premarket Approval Pathway. A premarket approval application must be submitted to the FDA if the device cannot be cleared through the 510(k) process. The premarket approval application process is much more demanding than the 510(k) premarket notification process and requires the payment of significant user fees. A premarket approval application must be supported by valid scientific evidence, which typically requires extensive data, including but not limited to technical, preclinical, clinical trials, manufacturing and labeling to demonstrate to the FDA's satisfaction reasonable evidence of safety and effectiveness of the device. The FDA has 45 days from its receipt of a premarket approval application to determine whether the application will be accepted for filing based on the FDA's threshold determination that it is sufficiently complete to permit substantive review. After the FDA determines that the application is sufficiently complete to permit a substantive review, the FDA will accept the application and begin its in-depth review. The FDA has 180 days to review an "accepted" premarket approval application, although this process typically takes significantly longer and may require several years to complete. During this review period, the FDA may request additional information or clarification of the information already provided. Also, an advisory panel of experts from outside the FDA may be convened to review and evaluate the application and provide recommendations to the FDA as to the approvability of the device. In addition, the FDA will conduct a preapproval inspection of the manufacturing facility to ensure compliance with quality system regulations. The FDA may delay, limit or deny approval of a premarket approval application for many reasons, including:

- failure of the applicant to demonstrate that there is reasonable assurance that the medical device is safe or effective under the conditions of use prescribed, recommended or suggested in the proposed labeling;

- insufficient data from the preclinical studies and clinical trials;

- the manufacturing processes, methods, controls or facilities used for the manufacture, processing, packing or installation of the device do not meet applicable requirements. If the FDA evaluations of both the premarket approval application and the manufacturing facilities are favorable, the FDA will either issue an approval order or an approvable letter, which usually contains a number of conditions that must be met in order to secure final approval of the premarket approval application. If the FDA's evaluation of the premarket approval application or manufacturing facilities is not favorable, the FDA will deny approval of the premarket approval application or issue a not approvable letter. A not approvable letter will outline the deficiencies in the application and, where practical, will identify what is necessary to make the premarket approval application. The FDA may also determine that additional clinical trials are necessary, in which case the premarket approval application may be delayed for several months or years while the trials are conducted and then the data submitted in an amendment to the premarket approval application. Once granted, a premarket approval application may be withdrawn by the FDA if compliance with post approval requirements, conditions of approval or other regulatory standards is not maintained or problems are identified following initial marketing.

Clinical Trials. Clinical trials are almost always required to support premarket approval and are sometimes required for 510(k) clearance. In the United States, these trials generally require submission of an application for an Investigational Device Exemption, or IDE, to the FDA. The IDE application must be supported by appropriate data, such as animal and laboratory testing results, showing it is safe to test the device in humans and that the testing protocol is scientifically sound. The FDA must approve the IDE in advance of trials for a specific number of patients unless the product is deemed a non-significant risk device eligible for more abbreviated IDE requirements or the clinical investigation is exempt from the IDE regulations. Clinical trials for significant risk devices may not begin until the IDE application is approved by the FDA and the appropriate institutional review boards, or IRBs, at the clinical trial sites. The applicant, the FDA or the IRB at each site at which a clinical trial is being performed may suspend a clinical trial at any time for various reasons, including a belief that the risks to study subjects outweigh the benefits. Even if a trial is completed, the results of clinical testing may not demonstrate the safety and efficacy of the device, may be equivocal or may otherwise not be sufficient to obtain approval or clearance of the product.

Both the 510(k) and premarket approval processes can be expensive and lengthy and require the payment of significant fees, unless an exemption applies. The FDA's 510(k) clearance process usually takes from approximately three to 12 months, but may take longer. The process of obtaining a premarket approval is much more costly and uncertain than the 510(k) clearance process and generally takes from approximately one to five years, or longer, from the time the application is submitted to the FDA until an approval is obtained. The process of obtaining regulatory clearances or approvals to market a medical device can be costly and time consuming, and the applicant may not be able to obtain these clearances or approvals on a timely basis, if at all.

As of the date hereof, our sole device candidate currently under development is SLS-1, which is a platform for the dexterous manipulation of cardiovascular robotic surgical catheter, conventionally classified as a cardiovascular steerable catheter, in the MRI environment. We do not currently have a commercialization timeline for SLS-1 and cannot assure you that SLS-1 will ever be ready for commercialization. If we are ready to seek regulatory approval for the SLS-1 device in the U.S., we expect that the FDA will classify it as a Class II non-exempted device requiring premarket clearance under Section 510(k) of the FDCA. If our device cannot clear through the 510(k) process, we will need to obtain marketing authorization through the premarket approval pathway, which will be more costly, lengthy and uncertain.

**Canadian Regulation**

In Canada, our pharmaceutical product candidates and our research and development activities are primarily regulated by the *Food and Drugs Act* and the rules and regulations thereunder, which are enforced by Health Canada. Health Canada regulates, among other things, the research, development, testing, manufacture, packaging, storage, recordkeeping, labeling, advertising, promotion, distribution, post-approval monitoring, marketing and import and export of pharmaceutical products. Drug approval laws require licensing of manufacturing facilities, carefully controlled research and testing of products, government review and approval of experimental results prior to giving approval to sell drug products. Regulators also typically require that rigorous and specific standards such as Good Manufacturing Practices, Good Laboratory Practices, or GLP, and Good Clinical Practices, or GCP, are followed in the manufacture, testing and clinical development, respectively, of any drug product. The processes for obtaining regulatory approvals in Canada, along with subsequent compliance with applicable statutes and regulations, require the expenditure of substantial time and financial resources.

The principal steps required for drug approval in Canada is as follows:

***Preclinical Toxicology Studies***

Non-clinical studies are conducted *in vitro* and in animals to evaluate pharmacokinetics, metabolism and possible toxic effects to provide evidence of the safety of the drug candidate prior to its administration to humans in clinical studies and throughout development. Such studies are conducted in accordance with applicable laws and GLP.

***Initiation of Human Testing***

In Canada, the process of conducting clinical trials with a new drug cannot begin until we have submitted a Clinical Trial Application, or CTA, and the required number of days has lapsed without objection from Health Canada. Similar regulations apply in Canada to a CTA as to an IND in the United States. Once approved, two key factors influencing the rate of progression of clinical trials are the rate at which patients can be enrolled to participate in the research program and whether effective treatments are currently available for the disease that the drug is intended to treat. Patient enrollment is largely dependent upon the incidence and severity of the disease, the treatments available and the potential side effects of the drug to be tested and any restrictions for enrollment that may be imposed by regulatory agencies.

***Clinical Trials***

Similar regulations apply in Canada regarding clinical trials as in the United States. In Canada, Research Ethics Boards, or REBs, instead of IRBs, are used to review and approve clinical trial plans. Clinical trials involve the administration of an investigational new drug to human subjects under the supervision of qualified investigators in accordance with current Good Clinical Practices, or cGCP, requirements, which include review and approval by REBs. Clinical trials are conducted under protocols detailing, among other things, the objectives of the trial, the trial procedures, the parameters to be used in monitoring safety and the efficacy criteria to be evaluated and a statistical analysis plan. Human clinical trials are typically conducted in three sequential phases, as discussed above in the context of government regulation in the United States.

The manufacture of investigational drugs for the conduct of human clinical trials is subject to current Good Manufacturing Practice, or cGMP, requirements. Investigational drugs and active pharmaceutical ingredients imported into Canada are also subject to regulation by Health Canada relating to their labeling and distribution. Progress reports detailing the results of the clinical trials must be submitted at least annually to Health Canada and the applicable REBs, and more frequently if serious adverse events occur. Phase 1, Phase 2 and Phase 3 clinical trials may not be completed successfully within any specified period, or at all. Furthermore, in Canada, Health Canada or the sponsor may suspend or terminate a clinical trial at any time on various grounds, including a finding that the research subjects are being exposed to an unacceptable health risk. Similarly, an REB can suspend or terminate approval of a clinical trial at its institution if the clinical trial is not being conducted in accordance with the REB's requirements or if the drug has been associated with unexpected serious harm to subjects. Additionally, some clinical trials are overseen by an independent group of qualified experts organized by the clinical trial sponsor, known as a data safety monitoring board or committee. This group regularly reviews accumulated data and advises the study sponsor regarding the continuing safety of trial subjects, potential trial subjects and the continuing validity and scientific merit of the clinical trial. We may also suspend or terminate a clinical trial based on evolving business objectives or competitive climate.

***New Drug Application***

Upon successful completion of Phase 3 clinical trials, in Canada the company sponsoring a new drug then assembles all the preclinical and clinical data and other testing relating to the product's pharmacology, chemistry, manufacture, and controls, and submits it to Health Canada as part of a New Drug Submission, or NDS. The NDS is then reviewed by Health Canada for approval to market the drug.

As part of the approval process, Health Canada will inspect the facility or the facilities at which the drug is manufactured. Health Canada will not approve the product unless compliance with cGMP—a quality system regulating manufacturing—is satisfactory and the NDS contains data that provide substantial evidence that the drug is safe and effective in the indication studied. In addition, before approving an NDS, Health Canada will typically inspect one or more clinical sites to assure compliance with GCP.

The testing and approval process for an NDS requires substantial time, effort and financial resources, and may take several years to complete. Data obtained from preclinical and clinical testing are not always conclusive and may be susceptible to varying interpretations, which could delay, limit or prevent regulatory approval. Health Canada may not grant approval of an NDS on a timely basis, or at all. In Canada, NDSs are subject to user fees and these fees are typically increased annually to reflect inflation.

Even if Health Canada approves a product candidate, the relevant authority may limit the approved indications for use of the product candidate, require that contraindications, warnings or precautions be included in the product labeling, including a black box warning, require that post-approval studies, including Phase 4 clinical trials, be conducted to further assess a drug's safety after approval, require testing and surveillance programs to monitor the product after commercialization, or impose other conditions, including distribution restrictions or other risk management mechanisms.

Health Canada may prevent or limit further marketing of a product based on the results of post-marketing studies or surveillance programs. After approval, some types of changes to the approved product, such as adding new indications, manufacturing changes, and additional labeling claims, are subject to further testing requirements, notification, and regulatory authority review and approval. Further, should new safety information arise, additional testing, product labeling or regulatory notification may be required.

**European Union Regulation**

***Regulation in the European Union***

The process governing approval of medicinal products in the EU generally follows the same lines as in the United States. It entails satisfactory completion of pharmaceutical development, non-clinical studies and adequate and well-controlled clinical trials to establish the safety and efficacy of the medicinal product for each proposed indication. It also requires the submission to relevant competent authorities for clinical trials authorization and to the European Medicines Authority, or EMA, for a marketing authorization application, or MAA, and granting of a marketing authorization by these authorities before the product can be marketed and sold in the EU.

***Clinical Trial Approval***

Pursuant to the currently applicable Clinical Trials Directive 2001/20/EC and the Directive 2005/28/EC on cGCP, a system for the approval of clinical trials in the EU (the equivalent of the IND process in the United States) has been implemented through national legislation of the EU member states. Under this system, an applicant must obtain approval from the competent national authority of an EU member state in which the clinical trial is to be conducted or in multiple EU member states if the clinical trial is to be conducted in a number of EU member states. Furthermore, the applicant may only start a clinical trial at a specific study site after the independent ethics committee has issued a favorable opinion. The clinical trial application, or CTA, must be accompanied by an investigational medicinal product dossier with supporting information prescribed by Directive 2001/20/EC and Directive 2005/28/EC and corresponding national laws of the EU member states and further detailed in applicable guidance documents.

In April 2014, the EU adopted a new Clinical Trials Regulation (EU) No 536/2014, which is set to replace the current Clinical Trials Directive 2001/20/EC. It is expected that the new Clinical Trials Regulation will apply in 2019. It will overhaul the current system of approvals for clinical trials in the EU. Specifically, the new regulation, which will be directly applicable in all EU member states, aims at simplifying and streamlining the approval of clinical trials in the EU. For instance, the new Clinical Trials Regulation provides for a streamlined application procedure using a single entry point and strictly defined deadlines for the assessment of clinical trial applications.

***Marketing Authorization***

To obtain a marketing authorization for a product under the EU regulatory system (the equivalent of the NDA process in the United States), an applicant must submit an MAA, either under a centralized procedure administered by the EMA or one of the procedures administered by competent authorities in EU member states (decentralized procedure, national procedure, or mutual recognition procedure). A marketing authorization may be granted only to an applicant established in the EU. Regulation (EC) No. 1901/2006 provides that prior to obtaining a marketing authorization in the EU, an applicant must demonstrate compliance with all measures included in an EMA-approved Pediatric Investigation Plan, or PIP, covering all subsets of the pediatric population, unless the EMA has granted a product-specific waiver, class waiver, or a deferral for one or more of the measures included in the PIP.

The centralized procedure provides for the grant of a single marketing authorization by the European Commission that is valid for all EU member states. Pursuant to Regulation (EC) No. 726/2004, the centralized procedure is compulsory for specific products, including for medicines produced by certain biotechnological processes, products designated as orphan medicinal products, advanced therapy products and products with a new active substance indicated for the treatment of certain diseases, including products for the treatment of cancer. For products with a new active substance indicated for the treatment of other diseases and products that are highly innovative or for which a centralized process is in the interest of patients, the centralized procedure may be optional.

Under the centralized procedure, the Committee for Medicinal Products for Human Use, or the CHMP, established by the EMA is responsible for conducting the assessment of a product to define its risk/benefit profile. Under the centralized procedure, the maximum timeframe for the evaluation of an MAA is 210 days, excluding clock stops when additional information or written or oral explanation is to be provided by the applicant in response to questions of the CHMP. Accelerated evaluation may be granted by the CHMP in exceptional cases, when a medicinal product is of major interest from the point of view of public health and, in particular, from the viewpoint of therapeutic innovation.

If the CHMP accepts such a request, the time limit of 210 days will be reduced to 150 days, but it is possible that the CHMP may revert to the standard time limit for the centralized procedure if it determines that it is no longer appropriate to conduct an accelerated assessment.

***Periods of Authorization and Renewals***

A marketing authorization is valid for five years, in principle, and it may be renewed after five years on the basis of a reevaluation of the risk benefit balance by the EMA or by the competent authority of the authorizing Member State. To that end, the marketing authorization holder must provide the EMA or the competent authority with a consolidated version of the file in respect of quality, safety and efficacy, including all variations introduced since the marketing authorization was granted, at least six months before the marketing authorization ceases to be valid. Once renewed, the marketing authorization is valid for an unlimited period, unless the European Commission or the competent authority decides, on justified grounds relating to pharmacovigilance, to proceed with one additional five-year renewal period. Any authorization that is not followed by the placement of the drug on the EU market (in the case of the centralized procedure) or on the market of the authorizing Member State within three years after authorization ceases to be valid.

***Regulatory Requirements after Marketing Authorization***

Following approval, the holder of the marketing authorization is required to comply with a range of requirements applicable to the manufacturing, marketing, promotion and sale of the medicinal product. These include compliance with the EU's stringent pharmacovigilance or safety reporting rules, pursuant to which post-authorization studies and additional monitoring obligations can be imposed. In addition, the manufacturing of authorized products, for which a separate manufacturer's license is mandatory, must also be conducted in strict compliance with the EMA's cGMP requirements and comparable requirements of other regulatory bodies in the EU, which mandate the methods, facilities and controls used in manufacturing, processing and packing of drugs to assure their safety and identity. Finally, the marketing and promotion of authorized products, including industry-sponsored continuing medical education and advertising directed toward the prescribers of drugs and/or the general public, are strictly regulated in the EU under Directive 2001/83EC, as amended.

***Orphan Drug Designation and Exclusivity***

Regulation (EC) No. 141/2000 and Regulation (EC) No. 847/2000 provide that a product can be designated as an orphan drug by the European Commission if its sponsor can establish: that the product is intended for the diagnosis, prevention or treatment of (1) a life-threatening or chronically debilitating condition affecting not more than five in ten thousand persons in the EU when the application is made, or (2) a life-threatening, seriously debilitating or serious and chronic condition in the EU and that without incentives it is unlikely that the marketing of the drug in the EU would generate sufficient return to justify the necessary investment. For either of these conditions, the applicant must demonstrate that there exists no satisfactory method of diagnosis, prevention, or treatment of the condition in question that has been authorized in the EU or, if such method exists, the drug has to be of significant benefit compared to products available for the condition.

An orphan drug designation provides a number of benefits, including fee reductions, regulatory assistance and the possibility to apply for a centralized EU marketing authorization. Marketing authorization for an orphan drug leads to a ten-year period of market exclusivity. During this market exclusivity period, neither the EMA nor the European Commission or the EU member states can accept an application or grant a marketing authorization for a "similar medicinal product." A "similar medicinal product" is defined as a medicinal product containing a similar active substance or substances as contained in an authorized orphan medicinal product, and which is intended for the same therapeutic indication. The market exclusivity period for the authorized therapeutic indication may, however, be reduced to six years if, at the end of the fifth year, it is established that the product no longer meets the criteria for orphan drug designation because, for example, the product is sufficiently profitable not to justify market exclusivity.

***European Medical Device Regulatory Approval Process***

As in the United States, there is a separate regulatory framework for approval of medical devices. If the Company determines to commercialize SLS-1 or another medical device, it will become subject to all of the requirements for approval required by those regulations.

**PRC Regulation**

In order to protect our potential market in the PRC, we have obtained an exclusive license of certain PRC patents directed to certain of the drug candidates that we are developing and are currently seeking approval of additional patent and other IP filings in the PRC. We do not otherwise conduct business in the PRC. Seeking IP approval in the PRC subjects us to some of the rules and practices of the PRC government. Since the Company intends eventually to market its products in the PRC, at least some of our drug candidates may become subject to regulatory approval and marketing authorization in the PRC.

**Hong Kong Regulation**

The operations of AML Clinic in Hong Kong are subject to certain general laws and regulations in relation to clinic medical professionals, trade description and safety of consumer goods, medical advertisement and importation, exportation, dealing in and sale of pharmaceutical products and drugs.

***Medical Clinics Ordinance***

The Medical Clinics Ordinance provides for the registration, control and inspection of medical clinics. It requires a medical clinic to be registered, with name and address and other prescribed particulars. "Medical clinic" means any premises used or intended to be used for the medical diagnosis or treatment of persons suffering from, or believed to be suffering from, any disease, injury or disability of mind or body, with specific exceptions, including private consulting rooms used exclusively by registered medical practitioners in the course of their practice on their own account and not bearing any title or description which includes the word "clinic" or "polyclinic" in the English language.

The application of registration may be refused if:

(i) the income derived or to be derived from the establishment or operation of the clinic is not, or will not be, applied solely towards the promotion of the objects of the clinic; or

(ii) any portion of such income, except payment of remuneration to employed registered medical practitioners, nurses and menial servants, will be paid by way of dividend, bonus or otherwise howsoever by way of profit to the applicant himself, or to any persons properly so employed, or to any other persons howsoever.

We do not believe that the Medical Clinic Ordinance is applicable to the business of our Company and its subsidiaries, having considered, among others, the following:

(iii) the legislative intent behind the Medical Clinics Ordinance was to provide for registration of non-profit making clinics;

(iv) the Food and Health Bureau of Hong Kong published a consultation document, "Regulation of Private Healthcare Facilities" in 2014 which specifically states that the Medical Clinics Ordinance and the Code of Practice For Clinics Registered Under The Medical Clinics Ordinance (Chapter 343 of the Laws of Hong Kong) set out the regulatory framework for non-profit-making medical clinics and that other private healthcare facilities, such as ambulatory medical centers and clinics operated by medical groups or individual medical practitioners, are not subject to direct statutory control beyond the regulation of an individual's professional practice; and

(v) our business is one which makes and intends to continue making profit as a listed entity. The payment of bonuses to some of our Hong Kong Doctors is clearly a reflection of the profit-making nature of our business.

Hence, we do not believe that AML Clinic is required to be registered under the Medical Clinics Ordinance.

***Waste Disposal Ordinance***

The Waste Disposal Ordinance (Chapter 354 of the Laws of Hong Kong) ("WDO") and the Waste Disposal (Clinical Waste) (General) Regulation (Chapter 354O of the Laws of Hong Kong) (the "WDR") provide for, among others, the control and regulation of the production, storage, collection and disposal of clinical waste.

Under the WDO, clinical waste means waste consisting of any substance, matter or thing generated in connection with:

- a dental, medical, nursing or veterinary practice;
- any other practice, or establishment (howsoever described), that provides medical care and services for the sick, injured, infirm or those who require medical treatment;
- dental, medical, nursing, veterinary, pathological or pharmaceutical research; or
- a dental, medical, veterinary or pathological laboratory practice,

and which consists wholly or partly of any of the materials specified in one or more of the groups listed below:

- used or contaminated sharps;
- laboratory waste;
- human and animal tissues;
- infectious materials;
- dressings; and
- such other wastes as specified by the Director of the Environmental Protection Department ("EPD") of Hong Kong.

Given the medical services provided by AML Clinic and the research works in our R&D Center may produce used or contaminated sharps such as syringes and needles as well as dressings, we are subject to WDO, WDR and the Code of Practice.

***Public Health and Municipal Services Ordinance***

We intend to first launch and market NativusWell® (NLS-2) in Hong Kong. In Hong Kong, natural supplements are defined as "health food" products. "Health food" containing medicines are subject to the Pharmacy and Poisons Ordinance (Cap 138) and such "health food" containing Chinese medicines are regulated by the Chinese Medicine Ordinance (Cap 549), where they must meet the requirements in respect of safety, quality and efficacy before they can be registered.

For other "health food" products which cannot be classified as Chinese medicine or western medicine are regulated under the Public Health and Municipal Services Ordinance (Cap 132) as general food products. The Public Health and Municipal Services Ordinance requires the manufacturers and sellers of food to ensure that their products are fit for human consumption and comply with the requirements in respect of food safety, food standards and labelling. In addition, all prepackaged food should bear labels which correctly list out the ingredients of the food under the Food and Drugs (Composition and Labelling) Regulations (Cap 132W) under the Ordinance.

The NativusWell® (NLS-2) is made with the bioactive ingredient extracted Chinese yam powder and does not contain any western or Chinese medicine; therefore, registration is not required under the local laws for marketing in Hong Kong. We will, however, ensure the compliance of the Food and Drugs (Composition and Labelling) Regulations (Cap 132W) with by proper labelling in place.

**Rest of the World Regulation**

For other countries in the world, the requirements governing the conduct of clinical trials, medical product licensing, pricing and reimbursement vary from country to country. In all cases if clinical trials are required, they must be conducted in accordance with cGCP requirements and the applicable regulatory requirements and the ethical principles having their origin in the Declaration of Helsinki.

If we fail to comply with applicable foreign regulatory requirements, we may be subject to, among other things, fines, suspension or withdrawal of regulatory approvals, product recalls, seizure of products, operating restrictions and criminal prosecution.

**Employees**

As of the date hereof, we have 38 employees, including 35 full-time employees and 3 part-time employees. Of these, 11 are engaged in full-time research and development and laboratory operations, 20 are engaged in full-time general and administrative functions, 4 are full-time employees engaged in the clinic operation and 3 part-time employees are engaged in sponsored research and development, clinic operations, finance, and legal clerical support. As of the date of hereof, 37 of our employees are located in Asia and 1 of our employees is located in Europe. In addition, we have engaged and may continue to engage 48 independent contracted consultants and advisors to assist us with our operations. None of our employees are represented by a labor union or covered by a collective bargaining agreement. We have never experienced any employment related work stoppages, and we consider our relations with our employees to be good.

**Facilities**

We have several operating leases for offices, laboratories and clinic. Our offices are located in London, New York and Hong Kong.

Our office space in London consists of approximately 172 square feet under a lease that commenced in August 2019, expires in March 2020 and has a rent of $2,715 per month, and renewed in April 2020, expires in November 2020 and has a rent of $3,313 per month. Our office space in New York consists of approximately 95 square feet under a lease that commenced in February 2020, which will automatically renew until 1 month's notice for termination, and has a rent of $1,844 per month. Our facilities in Hong Kong consists of: (i) 638 square feet lab space under a lease that commenced in December 2017 and expires in December 2020, that carries a monthly rent of $2,127 and which is used for the center for R&D (the "previous R&D Center"); (ii) 851 square feet office space under a lease that commenced in December 2017 and expires in December 2020 that carries a monthly rent of $2,509, (the "HKSTP Office Space"); (iii) 2,021 square feet lab space that commenced in March 2020 and expires in March 2023, that carries a monthly rent of $6,348 (the "new R&D Center"); and (iv) 3,173 square feet space under a lease that commenced in March 2018 and expires in March 2022 (the "AML Lease", which is home to AML Clinic). The previous R&D Center will be expected to be terminated in the fourth quarter of 2020.

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.

We believe our current facilities are sufficient to meet our needs.

**Legal Proceedings**

From time to time we may become involved in legal proceedings or be subject to claims arising in the ordinary course of our business. We are not presently a party to any legal proceedings that, if determined adversely to us, would individually or taken together have a material adverse effect on our business, results of operations, financial condition or cash flows. Regardless of the outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources and other factors.

## MANAGEMENT

### Directors and Executive Officers

Below is a list of our directors and executive officers, as of the date of this prospectus, and a brief account of the business experience of each of them. The business address for the directors and officers of Aptorum Group Limited is 17 Hanover Square, London W1S 1BN, United Kingdom.

On October 10, 2019, Mr. Lui resigned from his position as Chief Business Officer.

| Name | Age | Position |
|---|---|---|
| *Executive Officers* | | |
| Ian Huen | 40 | Founder, Chief Executive Officer and Executive Director |
| Darren Lui | 39 | President and Executive Director |
| Clark Cheng | 40 | Chief Medical Officer and Executive Director |
| Sabrina Khan | 39 | Chief Financial Officer |
| Thomas Lee | 47 | Head of Research and Development |
| Angel Ng | 39 | Chief Operating Officer |
| *Non-Management Directors* | | |
| Charles Bathurst | 65 | Independent Non-Executive Director and Chair of Audit Committee |
| Mirko Scherer | 52 | Independent Non-Executive Director |
| Justin Wu | 50 | Independent Non-Executive Director and Chair of Compensation Committee |
| Douglas Arner | 51 | Independent Non-Executive Director and Chair of Nominating and Corporate Governance Committee |

***Executive Officers***

**MR. IAN HUEN, Founder, Chief Executive Officer and Executive Director**

Mr. Ian Huen is the Founder, Chief Executive Officer and Executive Director of Aptorum Group Limited. Mr. Huen is also Co-Founder of a Hong Kong company, AENEAS CAPITAL LIMITED, a licensed corporation regulated by the Hong Kong Securities & Futures Commission as a Type 9 Asset Manager, since 2005. He has over 17 years of global asset management experience and previously covered the U.S. healthcare sector as an equity research analyst at Janus Henderson Group plc (formerly known as Janus Capital). Mr. Huen was the financial advisor in the sale of Seng Heng Bank Limited (Macau) to Industrial and Commercial Bank of China in 2007 and was appointed as the vice president of the Board of General Meeting in Industrial and Commercial Bank of China (Macau) Capital Limited in March 2007 for a term of 12 years until March 2019.

As a trustee board member of the Dr. Stanley Ho Medical Development Foundation, Mr. Huen facilitates advisory, development funding, access to research resources across Asia and continues to establish relationships with leading academic institutions to propel innovations in healthcare.

Mr. Huen graduated from Princeton University with an A.B. degree in Economics in June 2001, earned a MA in Comparative and Public History from CUHK in June 2016. Mr. Huen is also a Chartered Financial Analyst (“CFA”).

**MR. DARREN LUI**, **President and Executive Director**

Mr. Darren Lui is the President and an Executive Director of Aptorum Group Limited. Mr. Lui is also an Executive Director and Co-Founder of AENEAS CAPITAL LIMITED, a licensed corporation regulated by the Hong Kong Securities & Futures Commission as a Type 9 Asset Manager.

Mr. Lui was previously the founder, director and responsible officer of Varengold Capital Securities Limited and Varengold Capital Asset Management Limited in Hong Kong, with subsidiaries operating brokerage, asset management, and investment businesses in Asia established since January 2015.

Prior to this, he was a Director within the Fixed Income Group of Barclays Capital, where he spent over nine years from September 2005 to February 2014 developing and establishing their London, Singapore and New York structuring teams. From September 2002 to August 2005 he was qualified as a Chartered Accountant with Ernst & Young LLP (London), specializing in capital markets advisory.

Mr. Lui graduated with First-Class Honors from Imperial College, London with a BSc degree in Biochemistry in June 2002. He is a Chartered Accountant (ICAS), a CFA, and an Associate of Chartered Institute of Securities & Investments (UK).

**DR. CLARK CHENG, Chief Medical Officer and Executive Director, Aptorum Group Limited**

**Executive Director, Aptorum Medical Limited**

Dr. Clark Cheng is the Chief Medical Officer and Executive Director of Aptorum Group Limited; he is also an executive director of AML; Dr. Cheng also serves as a director of several other of our subsidiaries. Prior to this appointment, Dr. Cheng served as the Operations Director since 2009 of Raffles Medical Group, and the company's Deputy General Manager since 2011, representing an expanded role in the region. During his employment with Raffles Medical Group, he practiced as a full-time medical administrator to overlook Raffles Medical Hong Kong operations and supported its development in the PRC.

Dr. Cheng received his medical training at the University College London, UK, in 2005 and completed his foundation year training at The Royal Free Hospital in 2007. Pursuing his career in surgery, he obtained his membership of the Royal College of Surgeons of Edinburgh in 2009 and commenced his training in Orthopaedics where he practiced as Specialist Registrar at the National University Hospital, Singapore, with special interest in Traumatology of the lower limbs. In 2011, he also obtained his Master in Business & Administration with distinction from Tippie College of Business, University of Iowa, US.

Dr. Cheng is an active member of the Singapore Chamber of Commerce, and appears regularly as a guest speaker for The Open University of Hong Kong, The Airport Authority Hong Kong and other corporate events.

**MISS SABRINA KHAN, Chief Financial Officer**

Miss Sabrina Khan is the Chief Financial Officer of Aptorum Group Limited. She leads the Company's financial strategy and operations, as well as Investor Relations. She has extensive experience working at KPMG (Hong Kong) and Ernst & Young LLP (Hong Kong). She was a regional financial controller in Asia for St. James's Place Wealth Management (Hong Kong), which St. James's Place Wealth Management Group (LON: STJ) is a FTSE100 company. Prior to that, she served as the senior finance manager of Neo Derm Group, a leading medical aesthetic group in Asia, in charge of its finance-related matters and expansion in the PRC. From August 2009 to May 2013, she served as the senior finance manager of Global Cord Blood Corporation (formerly known as China Cord Blood Corporation (NYSE: CO)), which was previously a subsidiary of Golden Meditech Holdings Limited (HK: 801), where she played an important role with the NYSE listing filings, investor relations and post IPO reporting. During her employment with Global Cord Blood Corporation, she was actively involved in the issuance of convertible bonds to Kohlberg Kravis Roberts and various merger and acquisition projects, facilitated and liaised with investment banks on due diligence, deal structuring, and also involved in commercial negotiation with respect to major contract terms.

Miss Khan qualified as certified public accountant and graduated with a BBA (Hons) in Accounting & Finance at The University of Hong Kong in 2003. She was qualified as an Advanced China Certified Taxation Consultant in 2015.

**DR. THOMAS LEE, Head of Research and Development**

Dr. Thomas Lee is the Head of Research & Development of Aptorum Group Limited. He served as Chief Executive Officer and Chief Scientific Officer of Aptorum Therapeutics Limited, a wholly-owned therapeutics subsidiary of Aptorum Group Limited from January 2018 to March 2019. Prior to that, Dr. Lee served as an Assistant Professor in the School of Pharmacy, Faculty of Medicine, The Chinese University of Hong Kong from August 2013 to January 2018. Dr. Lee's key area of research involves drug delivery with specialties including: formulation development of poorly soluble compounds, oral delivery, Nanotechnology, and similar fields.

Prior to academia, Dr. Lee accumulated big-pharma experience from the decade he spent at two multinational pharmaceutical companies in the U.S. From November 2008 to July 2013, Dr. Lee worked at Celgene Corporation as a Senior Scientist of the Formulations Research & Development. From June 2003 to November 2008, Dr. Lee worked at Novartis Pharmaceuticals Corporation, as a Principal Scientist.

Dr. Lee graduated with B.Pharm. (Hons) Degree from The Chinese University of Hong Kong in December 1995, and received his Ph.D. in Pharmaceutical Sciences (Drug Delivery) from the University of Wisconsin-Madison in the U.S in May 2003.

**DR. ANGEL NG, Chief Operating Officer**

Dr. Angel Ng is the Chief Operating Officer of Aptorum Group Limited. She served as the Chief Operating Officer ("COO") of Aptorum Therapeutics Limited, a wholly-owned therapeutics subsidiary of Aptorum Group Limited from September 2017 to March 2019. During this time, Dr. Ng led Aptorum Therapeutics Limited and its subsidiaries' operations and business strategies. Dr. Ng has extensive experience in project management with Innovation and Technology government funds and academic institutions.

Since September 2016, Dr. Ng works as a Research Officer cum Project Manager at The University of Hong Kong ("HKU") in project management for various research projects including government funded project of novel medical device. During this time, Dr. Ng led the research team towards cadaveric trial for a novel soft robotics medical device and coordinated all research related agreements. During December 2014 to September 2015, Dr. Ng served as Project Manager at Hong Kong Science & Technology Parks Corporation ("HKSTP"), where she worked on technology transfer and commercialization for research and development projects through partnerships between local universities and the worldwide network and expertise of the Oxford University commercial arm. Dr. Ng also worked for The Chinese University of Hong Kong ("CUHK") as Project Manager from September 2007 to January 2009. She managed a HK$60M government funded R & D project with a team of specialists in CUHK where she kept close liaison with industry and government authorities. Dr. Ng was in the precision chemical machining industry from 2003 to 2007, where she managed the manufacturing team and business operations in PRC.

Dr. Ng serves as a Director of Tecford Trading & Technology Company Limited since December 2017. Dr. Ng graduated with a B.Sc (Hons) from Department of Chemistry at HKU in December 2002, received her M.Sc in Composite Materials from Imperial College London in November 2003 and obtained her Ph.D. in Mechanical Engineering from HKU in December 2015.

***Independent Non-Executive Directors***

**MR. CHARLES BATHURST**

Mr. Bathurst is an Independent Non-Executive Director of Aptorum Group Limited. He has over 41 years' experience of management and senior executive roles primarily in financial services. In 2011, he set up his own independent consultancy service, Summerhill Advisors Limited, advising on management structure, business development, financial reporting, internal audit controls and compliance to both emerging and multinational companies. Today he holds Non-Executive and Advisory board positions on fast-growing companies in healthcare, technology and financial services.

Prior to establishing Summerhill, he served as a Director for J.O. Hambro Investment Management from September 2008 to August 2011, where he oversaw the restructuring and commercialization a range of in-house investment funds. He was appointed to the management board and supervised reporting teams including Business development, accounting teams, regulatory reporting teams and internal controls.

From April 2004 to March 2008, Mr. Bathurst served in multiple roles at Old Mutual Asset Managers (UK), including being a member of the senior management team and head of international sales. Duties included business development, launching new investment funds, recruitment, establishing and supervision of regulatory and financial reporting teams, as well as ensuring compliance with funds' regulatory requirements and corporate governance standards.

Prior to this, Mr. Bathurst was an advisor to Lion Capital Advisors Limited from April 2003 to March 2004, and from June 2002 to March 2003 business development reporting to the board of management of LCF Rothschild Asset Management Limited.

From April 1995 to March 2002, Mr. Bathurst joined a newly formed alternative investment management team at Credit Agricole Asset Management, establishing the London Branch as the Managing Director in 1998. He was responsible for the recruitment and development strategy for marketing, sales, investment, financial reporting, compliance and regulatory controls and investor relations.

Between the period of September 1989 and December 1994, Mr. Bathurst worked for GNI, the largest futures and options execution and clearing broker on the London International Financial Futures Exchange, where he focused on marketing to European and Middle East financial institutions. In 1991, he joined a new management team to launch a series of specialist investment funds while serving as the Head of Sales and Product Development.

Mr. Bathurst graduated from the Royal Military Academy Sandhurst in November 1974 and commissioned into the British Army serving in the UK and Germany.

**DR. MIRKO SCHERER**

Dr. Mirko Scherer is an Independent Non-Executive Director of Aptorum Group Limited. Dr. Scherer has been serving as the Chief Executive Officer at CoFeS China (formerly known as "TVM Capital China") in Hong Kong since March 2015. CoFeS China focuses on cross-border activities in the life science industry between China and the West. CoFeS China acts as a bridge between China and the West, assisting Chinese investors and pharmaceutical companies accessing western innovations, while collaborating with innovative life science companies from the West to enter the fast-growing China market.

Dr. Mirko Scherer has served on the Board of the Frankfurt Stock Exchange from 2005 to 2007 and has been a board member of the Stichting Preferente Aandelen QIAGEN since 2004. From August 2016 through July 2018, Dr. Scherer served as a Non-Executive board member of Quantapore Inc. and from April 2015 through September 2017, he was a director of China BioPharma Capital I, (GP).

Dr. Scherer is an experienced biotechnology executive and has led numerous financing M&A and licensing transactions, in both public and private markets, in Europe and the U.S. for over 20 years. He consulted MPM Capital for the period between July 2012 and December 2014. Dr. Scherer was also a co-founder and partner of KI Kapital from November 2008 to February 2014, a company which was specialized in providing consultation in life science industry.

Prior to working in the venture capital industry, Dr. Scherer co-founded GPC Biotech (Munich and Princeton, NJ) and served as the Chief Financial Officer from October 1997 to December 2007. GPC Biotech engaged in numerous pharmaceutical alliances with companies such as Sanofi Aventis, Boehringer Ingelheim, Altana (now part of Takeda), Yakult, and Pharmion (now part of Celgene). Over the past 20 years, Dr. Scherer has established an extensive network in the U.S., European, and China's biotechnology and venture capital industry. Prior to his time at GPC Biotech, Dr. Scherer worked as a consultant from May 1993 to June 1994 at the Boston Consulting Group.

Dr. Scherer earned a Doctorate in Finance from the European Business School in Oestrich-Winkel/Germany in 1998, a MBA from Harvard Business School in June 1996, and a degree in Business Administration from the University of Mannheim/Germany in February 1993.

**DR. JUSTIN WU**

Dr. Justin Wu is an Independent Non-Executive Director of Aptorum Group Limited. He also has been serving as the Chief Operating Officer of CUHK Medical Centre since August 2018. He served as the Associate Dean (Development) of the Faculty of Medicine at CUHK from July 2014 to June 2018 and the Associate Dean (Clinical) of the Faculty of Medicine at CUHK from December 2012 to July 2014, and has been serving a Professor in the Department of Medicine and Therapeutics since 2009, also the Director of the S. H. Ho Center for Digestive Health, a research center specializing in functional gastrointestinal diseases, reflux and motility disorders, and digestive endoscopy. Active in research publications and assessments, Dr. Wu served as the International Associate Editor of American Journal of Gastroenterology ("AJG"), and Managing Editor of Journal of Gastroenterology and Hepatology ("JGH"). He is also the Secretary General of the Asian Neurogastroenterology and Motility Association ("ANMA"), and Secretary General of the Asia Pacific Association of Gastroenterology ("APAGE").

Dr. Wu has won a number of awards including the Emerging Leader in Gastroenterology Award by the JGH Foundation, and the Vice Chancellor's Exemplary Teaching Award at CUHK. Aside from his expertise in gastroenterology, Dr. Wu has an extensive interest in the development of Integrative Medicine in Hong Kong. He is the Founding Director of the Hong Kong Institute of Integrative Medicine, working closely with the School of Chinese Medicine to develop an integrative model at an international level. The institute aims at maximizing the strength of Western and Chinese medicine to provide a safe and effective integrative treatment to patients.

Dr. Wu served as a consultant and an advisory board member for Takeda Pharmaceutical, AstraZeneca, Menarini, Reckitt Benckiser and Abbott Laboratory. He earned his Bachelor of Medicine and Bachelor of Surgery Degree (1993), and his Doctor of Medicine Degree (2000) from CUHK. Additionally, he attained Fellowships of the Royal College of Physicians of Edinburgh and London in 2007 and 2012 respectively, Fellowship of the Hong Kong College of Physicians in 2002, Fellowship of the Hong Kong Academy of Medicine in 2002, and has been an American Gastroenterological Association Fellow since 2012.

**PROFESSOR DOUGLAS ARNER**

Professor Douglas W. Arner is an Independent Non-Executive Director of Aptorum Group Limited. He is the Kerry Holdings Professor in Law at the University of Hong Kong and one of the world's leading experts on financial regulation, particularly the intersection between law, finance and technology. At HKU, he is Faculty Director of the Faculty of Law's LLM in Compliance and Regulation, LLM in Corporate and Financial Law and Law, Innovation, Technology and Entrepreneurship (LITE) Programmes. He is a Senior Visiting Fellow of Melbourne Law School, University of Melbourne, and an Executive Committee Member of the Asia Pacific Structured Finance Association. He led the development of the world's largest massive open online course (MOOC): Introduction to FinTech, launched on edX in May 2018, now with over 35,000 learners spanning every country in the world. From 2006 to 2011, he was the Director of HKU's Asian Institute of International Financial Law, which he co-founded in 1999, and from 2012 to 2018, he led a major research project on Hong Kong's future as a leading international financial center. He was an inaugural member of the Hong Kong Financial Services Development Council, of which he was a member from 2013-2019. Douglas served as Head of the HKU Department of Law from 2011 to 2014 and as Co-Director of the Duke University-HKU Asia-America Institute in Transnational Law from 2005 to 2016. He has published fifteen books and more than 150 articles, chapters and reports on international financial law and regulation, including most recently Reconceptualising Global Finance and its Regulation (Cambridge 2016) (with Ross Buckley and Emilios Avgouleas). The RegTech Book (forthcoming 2019, with Janos Barberis and Ross Buckley). His recent papers are available on SSRN at https://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=524849, where he is among the top 150 authors in the world by total downloads.

Douglas has served as a consultant with, among others, the World Bank, Asian Development Bank, APEC, Alliance for Financial Inclusion, and European Bank for Reconstruction and Development, and has lectured, co-organized conferences and seminars and been involved with financial sector reform projects around the world. He has been a visiting professor or fellow at Duke, Harvard, the Hong Kong Institute for Monetary Research, IDC Herzliya, McGill, Melbourne, National University of Singapore, University of New South Wales, Shanghai University of Finance and Economics, and Zurich, among others. Since March 1, 2018, Professor Arner is the Senior Regulatory & Strategic Advisor of AENEAS CAPITAL LIMITED, a licensed corporation regulated by the Hong Kong Securities & Futures Commission as a Type 9 Asset Manager.

He holds a BA from Drury College (where he studied literature, economics and political science) in 1992, a JD (cum laude) from Southern Methodist University in 1995, an LLM (with distinction) in banking and finance law from the University of London (Queen Mary College) in 1996, and a PhD from the University of London in 2005.

**Corporate Governance**

As long as our officers and directors, either individually or in the aggregate, own at least 50% of the voting power of our Company, we will be a "controlled company" as defined under NASDAQ Marketplace Rules (specifically, as defined in Rule 5615(c)). We have no current intention to rely on the controlled company exemptions afforded to a controlled company under the NASDAQ Marketplace Rules.

*Composition of Our Board of Directors*

Our Board of Directors currently consists of seven members, all of whom were elected pursuant to our current Memorandum and Articles. Our nominating and corporate governance committee and board of directors will consider a broad range of factors relating to the qualifications and background of nominees, which may include diversity and is not limited to race, gender or national origin. We have no formal policy regarding board diversity. Our nominating and corporate governance committee's and board of directors' priority in selecting board members is identification of persons who will further the interests of our shareholders through his or her established record of professional accomplishment, the ability to contribute positively to the collaborative culture among board members, knowledge of our business, understanding of the competitive landscape and professional and personal experiences and expertise relevant to our growth strategy.

There is no Cayman Islands law requirement that a director must hold office for a certain term and stand for re-election unless the resolutions appointing the director impose a term on the appointment. The Memorandum and Articles provide that our directors will be elected annually to serve a term of one year, or until his or her earlier resignation or removal. We do not have any age limit requirements relating to our director's term of office.

Our Memorandum and Articles also provide that our directors may be removed by the directors or ordinary resolution of the shareholders, and that any vacancy on our Board of Directors, including a vacancy resulting from an enlargement of our Board of Directors (which shall not exceed any maximum number stated therein), may be filled by ordinary resolution or by vote of a majority of our directors then in office.

*Director Independence*

Our Board of Directors has determined that Justin Wu, Mirko Scherer, Douglas Arner and Charles Bathurst are independent, as determined in accordance with the rules of the NASDAQ Global Market. In making such independence determination, our Board of Directors considered the relationships that each such non-employee director has with us and all other facts and circumstances that the board of directors deemed relevant in determining their independence, including the beneficial ownership of our share capital by each non-employee director and the transactions involving them described in the section titled "Transactions with Related Persons." We believe that the composition and functioning of our Board of Directors and each of our committees comply with all applicable requirements of the NASDAQ Global Market and the rules and regulations of the SEC. There are no family relationships among any of our directors or executive officers.

*Board's Role in Risk Oversight*

Our Board of Directors oversees the management of risks inherent in the operation of our business and the implementation of our business strategies. Our Board of Directors performs this oversight role by using several different levels of review. In connection with its reviews of our operations and corporate functions, our Board of Directors addresses the primary risks associated with those operations and corporate functions. In addition, our Board of Directors reviews the risks associated with our business strategies periodically throughout the year as part of its consideration of undertaking any such business strategies.

Each of our board committees also oversees the management of our risk that falls within the committee's areas of responsibility. In performing this function, each committee has full access to management, as well as the ability to engage advisors. Our Chief Financial Officer reports to the audit committee and is responsible for identifying, evaluating and implementing risk management controls and methodologies to address any identified risks. In connection with its risk management role, our audit committee meets privately with representatives from our independent registered public accounting firm and our Chief Financial Officer. The audit committee oversees the operation of our risk management program, including the identification of the primary risks associated with our business and periodic updates to such risks, and reports to our Board of Directors regarding these activities.

*Board Committees*

Our Board of Directors has established an audit committee, a compensation committee and a nominating and corporate governance committee, each of which operates pursuant to a separate charter adopted by our Board of Directors. The composition and functioning of all of our committees will comply with all applicable requirements of the Sarbanes-Oxley Act, the Dodd-Frank Wall Street Reform and Consumer Protection Act, the NASDAQ Global Market and SEC rules and regulations. Our Board of Directors may establish other committees from time to time.

*Audit Committee*

Charles Bathurst, Douglas Arner and Justin Wu currently serve on the audit committee, which is chaired by Charles Bathurst. Our Board of Directors has determined that each member of the audit committee is "independent" for audit committee purposes as that term is defined in the rules of the SEC and the applicable rules of the NASDAQ Global Market. The audit committee's responsibilities include:

- selecting and appointing our independent registered public accounting firm, and approving the audit and permitted non-audit services to be provided by our independent registered public accounting firm;
- evaluating the performance and independence of our independent registered public accounting firm;
- monitoring the integrity of our financial statements and our compliance with legal and regulatory requirements as they relate to our financial statements or accounting matters;
- reviewing the adequacy and effectiveness of our accounting and internal control policies and procedures;
- establishing procedures for the receipt, retention and treatment of accounting-related complaints and concerns;
- reviewing and discussing with the independent registered public accounting firm the results of our year-end audit, and recommending to our Board of Directors, based upon such review and discussions, whether our financial statements shall be included in our Annual Report on Form 20-F;
- reviewing all related party transactions for potential conflict of interest situations and approving all such transactions; and
- reviewing the type and presentation of information to be included in our earnings press releases, as well as financial information and earnings guidance provided by us to analysts and rating agencies.

*Audit Committee Financial Expert*

We have one financial expert as of the date hereof. Our Board of Directors has determined that Mr. Charles Bathurst, Chair of our audit committee, qualifies as an "audit committee financial expert" as defined in the SEC rules and satisfies the financial sophistication requirements of The NASDAQ Global Market.

*Compensation Committee*

Charles Bathurst, Douglas Arner and Justin Wu currently serve on the compensation committee, which is chaired by Justin Wu. Our Board of Directors has determined that each member of the compensation committee is "independent" as that term is defined in the applicable rules of the NASDAQ Global Market. The compensation committee's responsibilities include:

- reviewing the goals and objectives of our executive compensation plans, as well as our executive compensation plans in light of such goals and objectives;
- evaluating the performance of our executive officers in light of the goals and objectives of our executive compensation plans and recommending to our Board of Directors with respect to the compensation of our executive officers;
- reviewing the goals and objectives of our general compensation plans and other employee benefit plans as well as our general compensation plans and other employee benefit plans in light of such goals and objectives;
- retaining and approving the compensation of any compensation advisors;
- reviewing all equity-compensation plans to be submitted for shareholder approval under the NASDAQ listing rules, and reviewing and approving all equity-compensation plans that are exempt from such shareholder approval requirement;
- evaluating the appropriate level of compensation for board and board committee service by non-employee directors; and
- reviewing and approving description of executive compensation included in our Annual Report on Form 20-F.

*Nominating and Corporate Governance Committee*

Charles Bathurst, Douglas Arner and Justin Wu currently serve on the nominating and corporate governance committee, which is chaired by Professor Arner. Our Board of Directors has determined that each member of the nominating and corporate governance committee is "independent" as that term is defined in the applicable rules of the NASDAQ Global Market. The nominating and corporate governance committee's responsibilities include:

- assisting our Board of Directors in identifying prospective director nominees and recommending nominees for election by the shareholders or appointment by our Board of Directors;
- advising the board of directors periodically with respect to significant developments in the law and practice of corporate governance as well as our compliance with applicable laws and regulations, and making recommendations to our Board of Directors on all matters of corporate governance and on any corrective action to be taken;
- overseeing the evaluation of our Board of Directors; and
- recommending members for each board committee of our Board of Directors.

*Scientific Advisory Board*

We restructured the Scientific Assessment Committee into a newly formed Scientific Advisory Board. The Scientific Advisory Board shall help the Company sharpen its focus on innovation and technological advancements and address critical scientific challenges in our research and development; it will provide overall advise on the scientific development of the company. As of the date hereof, we have 26 members of the Board.

In light of the Company's focus on developing treatment for infectious diseases, we have established a second scientific advisory board, i.e., the Infectious Diseases Scientific Advisory Board in April 2020. As of the date hereof, the Infectious Diseases Scientific Advisory Board have 4 members.

*Code of Business Conduct and Ethics*

Our board has adopted a code of business conduct and ethics that applies to our directors, officers and employees. A copy of this code is available on our website: www.aptorumgroup.com. We intend to disclose on our website or in a current report on Form 6-K, any amendments to the Code of Business Conduct and Ethics and any waivers of the Code of Business Conduct and Ethics that apply to our principal executive officer, principal financial officer, principal accounting officer, controller, or persons performing similar functions.

*Duties of Directors*

Under Cayman Islands law, our directors have a duty to act honestly, in good faith and with a view to our best interests. Our directors also have a duty to exercise the care, diligence and skills that a reasonably prudent person would exercise in comparable circumstances. (See "Description of Share Capital – Differences in Corporate Law") In fulfilling their duty of care to us, our directors must ensure compliance with our Memorandum and Articles. We have the right to seek damages if a duty owed by our directors is breached.

The functions and powers of our Board of Directors include, among others:

- appointing officers and determining the term of office of the officers;
- authorizing the payment of donations to religious, charitable, public or other bodies, clubs, funds or associations as deemed advisable;
- exercising the borrowing powers of the company and mortgaging the property of the company;
- executing checks, promissory notes and other negotiable instruments on behalf of the company; and
- maintaining or registering a register of mortgages, charges or other encumbrances of the company.

*Interested Transactions*

So long as it does not adversely affect such person's performance of duties or responsibilities to the Company and so long as it is not in direct competition with the Company and the Company's business, no director or officer shall be disqualified by his office from contracting and/or dealing with the Company as vendor, purchaser or otherwise; nor shall any such contract or any contract or arrangement entered into by or on behalf of the Company in which any director or officer shall be in any way interested be or be liable to be avoided; nor shall any director or officer so contracting or being so interested be liable to account to the Company for any profit realized by any such contract or arrangement by reason of such director or officer holding that office or the fiduciary relationship thereby established. However, any such transaction that would reasonably be likely to affect a director status as an "Independent Director," or that would constitute a "related party transaction" pursuant to the laws or rules promulgated by the SEC or the stock exchange on which our shares are then listed, shall require the review and approval of the Audit Committee. The nature of the director's interest must be disclosed by him at the meeting of the directors at which the contract or arrangement is considered if his interest then exists, or in any other case, at the first meeting of the directors after the acquisition of his interest. A director, having disclosed his interest as aforesaid, shall not be counted in the quorum and shall refrain from voting as a director in respect of any contract or arrangement in which he is as interested as aforesaid.

A director must promptly disclose the interest to all other directors after becoming aware of the fact that he or she is interested in a transaction we have entered into or are to enter into. A general notice or disclosure to the board or otherwise contained in the minutes of a meeting or a written resolution of the board or any committee of the board that a director is a shareholder, director, officer or trustee of any specified firm or company and is to be regarded as interested in any transaction with such firm or company will be sufficient disclosure, and, after such general notice, it will not be necessary to give special notice relating to any particular transaction.

*Qualification*

The shareholding qualification for directors may be fixed by the Company in general meeting, and unless and until so fixed no qualification shall be required.

**Compensation of Executive Officers and Directors**

The following table sets forth all cash compensation paid by us, as well as certain other compensation paid or accrued, in fiscal 2019 to each of the following named executive officers. The total amount was $2.7 million in 2019. A total 91,477 options were awarded to directors and executive officers in 2019. This amount does not include business travel, relocation, professional and business association dues and expenses reimbursed to such persons, and other benefits commonly reimbursed or paid by companies in our industry. In addition to the compensation included in the table below, which covers the fiscal year ended December 31, 2019, we issued an aggregate of 378,193 options to the persons included in the table below since January 1, 2020 through the date of this prospectus.

The base salary of Mr. Huen and Dr. Cheng shall remain unchanged in 2020, and the base salary of Mr. Lui has been adjusted to US$6,667 per month with effect from January 10, 2020 due to his resignation as Chief Business Officer. The Company entered into a consulting agreement with CGY Investment Limited effective on January 10, 2020, with a monthly service fee of HK$104,000 (approximately US$13,333 per month). CGY is 50% held by Seng Fun Yee (Mr. Lui's spouse), 25% held by Mandy Lui (Mr. Lui's sister) and 25% held by Adrian Lui (Mr. Lui's brother). Mr. Lui controls and/or has substantial influence on the disposition and voting rights of the shares held by his spouse, but no such control over the shares held by his sister or brother. Hence, for the purposes of this filing and disclosure, 50% of the consulting service fee and share options will be deemed as Mr. Lui's compensation.

| Name and Principal Position | Fiscal Year | Salary ($)[1] | Bonus ($) | Option Awards ($) | Non-Equity Incentive Plan Compensation ($)[10] | Change in Pension Value and Nonqualified Deferred Compensation Earnings ($) | All Other Compensation ($) | Total ($) |
|---|---|---|---|---|---|---|---|---|
| **Ian Huen[2] (CEO)** | **2019** | 288,000 | 24,000 | 148,275 | 129,791 | 2,308 | - | 592,374 |
| **Darren Lui[3] (CBO, President)** | **2019** | 240,000 | 20,000 | 148,275 | 129,791 | 2,308 | - | 540,374 |
| **Clark Cheng[4] (CMO)** | **2019** | 279,295 | 23,275 | 148,275 | 129,791 | 2,308 | 112(6) | 583,056 |
| **Sabrina Khan[5] (CFO)** | **2019** | 196,000 | 65,333 | 70,040 | 61,310 | 2,308 | - | 394,991 |
| **Thomas Lee [7] (Head of R&D)** | **2019** | 168,000 | 18,667 | 148,275 | 129,791 | 2,308 | - | 467,041 |
| **Angel Ng [8] (COO)** | **2019** | 72,000 | 8,000 | 11,440 | 10,012 | 2,308 | - | 103,760 |
| **Dr. Keith Chan[9]** | **2019** | 30,000 | - | - | - | - | - | 30,000 |

(1) The Appointment Letters provide salaries in HKD; for purposes of this table, we used a conversion ratio of HKD7.80 to USD1.00 to determine the salary in USD.

(2) Mr. Huen is the founder and was appointed as the Chief Executive Officer of Aptorum Group on October 1, 2017. Before that, he was a director of the Company.

(3) Mr. Lui was appointed as the Chief Business Officer and President of Aptorum Group on October 1, 2017 and resigned as Chief Business Officer on October 10, 2019.

(4) Dr. Cheng was appointed as the Chief Medical Officer of Aptorum Group on January 2, 2018.

(5) Miss Khan was appointed as the Chief Financial Officer of Aptorum Group on October 16, 2017.

(6) Pursuant to Dr. Cheng's appointment letter, Dr. Cheng received a share bonus of 526 ordinary shares of AML, representing 5% of AML's issued and outstanding ordinary shares (the "Share Bonus") in 2018. Based on the Company's financial position and Dr. Cheng's performance, on each anniversary of Dr. Cheng's employment commencement date, the Share Bonus is eligible to increase by 1% of AML's then issued and outstanding ordinary share count per year up to a maximum additional amount of 5% of AML's then issued and outstanding ordinary share count by the 5th anniversary from his employment commencement date. As of the date of this prospectus, Dr. Cheng received a total of 753 ordinary shares of AML, representing 7% of AML's issued and outstanding ordinary shares; during fiscal 2019, Dr. Cheng received 112 ordinary shares of AML, the cash value of which is USD112.

(7) Dr. Lee was appointed as the Head of Research & Development of Aptorum Group on April 1, 2019. Before that, he was the Chief Executive Officer and Chief Scientific Officer of Aptorum Therapeutics Limited, a wholly-owned therapeutics subsidiary of Aptorum Group Limited from January 2018 to March 2019, for which he received an aggregate of $56,000 for the period from January 1, 2019 to March 31, 2019. This table only includes the compensation paid or payable to Dr. Lee for the period from April 1, 2019 to December 31, 2019.

(8) Dr. Ng was appointed as the Chief Operating Officer of Aptorum Group on April 1, 2019. Before that, she was the Chief Operating Officer of Aptorum Therapeutics Limited, a wholly-owned therapeutics subsidiary of Aptorum Group Limited from September 2017 to March 2019, for which she received an aggregate of $24,000 for the period from January 1, 2019 to March 31, 2019. This table only includes the compensation paid or payable to Dr. Ng for the period from April 1, 2019 to December 31, 2019.

(9) As described elsewhere in this prospectus, we were party to a consulting agreement dated August 18, 2017 with GloboAsia, LLC, for which Dr. Chan serves as the Director of International Affairs. All fees payable to Dr. Chan for services provided to us as Chief Scientific Officer were paid to GloboAsia, LLC, pursuant to the consulting agreement and appointment letter with Dr. Chan. Following Dr. Chan's resignation in March 2019, the consulting agreement was terminated effective as of March 31, 2019. No other compensation was paid or payable to Dr. Chan for the period from April 1, 2019 to December 31, 2019.

(10) Represents deferred bonuses provided to directors and executive officers, which will be vested after 1-2 year vesting period.

*Compensation of Non-executive Directors*

The following table sets forth information for the fiscal year ended December 31, 2019 regarding the compensation of our non-executive directors who at December 31, 2019, were not also named executive officers. A total 8,044 options were awarded to non-executive directors in 2019. In addition to the compensation included in the table below, which covers the fiscal year ended December 31, 2019, we issued an aggregate of 45,504 options to the persons included in the table below since January 1, 2020 through the date of this prospectus.

| Name | Fees Earned or Paid in Cash ($) | Stock Awards ($) | Option Awards ($) | Non-Equity Incentive Plan Compensation ($) | Non-qualified Deferred Compensation Earnings ($) | All Other Compensation ($) | Total ($) |
|---|---|---|---|---|---|---|---|
| **Charles Bathurst [1]** | **48,000[2]** | **-** | **14,832** | **12,987** | **-** | **-** | **75,819** |
| **Mirko Scherer [3]** | **30,000** | **-** | **14,832** | **12,987** | **-** | **-** | **57,819** |
| **Justin Wu [4]** | **30,000** | **-** | **14,832** | **12,987** | **-** | **-** | **57,819** |
| **Douglas Arner [5]** | **30,000** | **-** | **14,832** | **12,987** | **-** | **-** | **57,819** |

(1) Mr. Bathurst was appointed as one of our directors as of October 2017 and pursuant to his appointment letter, is entitled to receive $48,000 annually for his combined services as a director and a committee member.

(2) Mr. Bathurst's appointment Letter provides his salary in GBP. For purposes of this table, we used a conversion ratio of GBP0.75 to USD1.00 to determine his salary in USD; however, the ultimate amount paid is based on the actual rate as of the relevant pay day at the end of each month.

(3) Dr. Scherer was appointed as one of our directors as of October 2017 and pursuant to his appointment letter, is entitled to receive $30,000 annually for his services as a director.

(4) Dr. Wu was appointed as one of our directors as of October 2017 and pursuant to his appointment letter, is entitled to receive $30,000 annually for his combined services as a director and a committee member.

(5) Professor Arner's appointment as one of our directors became effective as of April 1, 2018. Pursuant to his appointment letter, Professor Arner is entitled to receive $30,000 annually for his combined services as a director and a committee member.

*2017 Share Option Plan*

On October 13, 2017, we adopted the 2017 Share Option Plan (the "Option Plan"). Under the Option Plan, up to an aggregate of 5,500,000 Class A Ordinary Shares (subject to subsequent adjustments described more fully below) may be issued pursuant to awards under the 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 (A) 2% of the outstanding number of Class A Ordinary Shares (on a fully diluted basis) on the immediate preceding December 31, and (B) 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 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.

We adopted the Option Plan to provide additional incentives to selected directors, officers, employees and consultants, and enable our Company to obtain and retain the services of these individuals. The Option Plan will enable us to grant options, restricted shares or other awards to our directors, employees and consultants. 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 the date of this prospectus, we have granted options that can be exercised for an aggregate of 931,264 Class A Ordinary Shares. Additionally, pursuant to his appointment letter, on each anniversary of his appointment, Dr. Majzner shall be granted an option to purchase that number of Class A Ordinary Shares with a value of no less than $20,000. 218,222 options were granted on March 15, 2019. One-half of each option grant vests on January 1, 2020 and the other half vests on January 1, 2021. The exercise price is $12.91 per share, which was based on the closing price of the shares traded on the NASDAQ stock exchange on the trading day preceding the grant date. 536,777 options were granted on March 16, 2020. Nearly one-half of each option grant vests on January 1, 2021 and the remaining vests on January 1, 2022. The exercise price is US$2.99 per share, which was based on the average closing price of the shares traded on the NASDAQ stock exchange for the five trading days immediately preceding the grant date. 148,792 options were granted on June 1, 2020. Nearly one-half of each option grant vests on December 1, 2020 and the remaining vests on January 1, 2021. The exercise price is US$3.11 per share, which was based on the average closing price of the shares traded on the NASDAQ stock exchange for the five trading days immediately preceding the grant date. 27,473 options were granted on August 10, 2020 to Dr. Weiss, which will be vested on August 10, 2021. The exercise price is $3.64 per share, which was based on the average closing price of the shares traded on the NASDAQ stock exchange for the five trading days immediately preceding the grant date.

*Limitation on Liability and Other Indemnification Matters*

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. 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 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.

## TRANSACTIONS WITH RELATED PERSONS

The following discussion is a brief summary of certain material arrangements, agreements and transactions we have with related parties since January 1, 2016, other than the compensation and shareholding arrangements we describe in "Management" and "Principal Shareholders." We also engage in other transactions with related parties that we do not perceive as material.

### Line of Credit

On August 13, 2019 (the "Effective Date"), Aptorum Therapeutics Limited ("ATL"), entered into two separate Promissory Notes and Line of Credit Agreements (the "Agreements") with AGL and Jurchen. The AGL Agreement and Jurchen Agreement provide ATL with a line of credit up to twelve million dollars ($12,000,000) and three million dollars ($3,000,000), respectively (collectively, the "Line of Credit"), representing the maximum aggregate amount of the advances of funds from the Line of Credit that may be outstanding at any time under the Line of Credit (the "Principal Indebtedness"). ATL may draw down from the Line of Credit at any time through the day immediately preceding the third anniversary of the Effective Date (the "Maturity Date"). Interest will be payable on the outstanding Principal Indebtedness at the rate of eight percent (8%) per annum, payable semi-annually in arrears on February 12 and August 12 in each year. ATL may pre-pay in whole or in part, the Principal Indebtedness of the Line of Credit, and all interest accrued at any time prior to the Maturity Date, without penalty. Under the Agreements, in addition to certain standard covenants, we are also not permitted, without the prior written consent of AGL and Jurchen to (i) liquidate, dissolve or wind-up our business and affairs; (ii) effect any merger or consolidation transaction; (iii) sell, lease, transfer, license or otherwise dispose, in a single transaction or series of related transactions, all or substantially all of our assets; or (iv) consent to any of the foregoing. The Agreements are subject to standard events of default, which if not cured within the agreed upon cure period, permits AGL or Jurchen, as applicable, to declare the outstanding Principal Indebtedness immediately due and payable, to exercise any other remedy provided for in the Agreements or any other right available to AGL or Jurchen as provided at law or in equity. Jurchen and AGL also maintain the right to set-off during the term of the Agreements. As of the date hereof, the Company has drawn down approximately $3.0 million from the Line of Credit.

### Sales and Purchases of Securities

***Share Issuances***

During the period of March 2017 through December 2017, we issued an aggregate of 2,207,025 Ordinary Share at a purchase price of approximately $3.90 per share, in a private placement we described as a "Series A" offering. Each investor of the Series A offering, in addition to a subscription agreement, signed a shareholder agreement, which set forth the basic governance terms of the Company, as well as our capital structure. The shareholders agreement was terminated in October 2017.

On October 13, 2017, ordinary resolutions were passed at an extraordinary general meeting of the Company approving: (i) converting 72,135,865 of authorized but unissued Ordinary Shares into 54,573,620 authorized but unissued Class A ordinary shares, par value of $1.00 per share ("Class A Ordinary Shares") and 17,562,245 authorized but unissued Class B ordinary shares, par value of $1.00 per share ("Class B Ordinary Shares"), respectively; (ii) converting 24,930,839 Ordinary Shares held by three shareholders into an aggregate of 2,493,085 Class A Ordinary Shares and 22,437,754 Class B Ordinary Shares; and (iii) converting 2,933,296 Ordinary Shares held by 24 shareholders into an aggregate 2,933,296 Class A Ordinary Shares. Following these issuances, we had 27 shareholders of record.

KHE Holdings Limited, which is owned by Dr. Kenny Yu's family, purchased $200,000 Series A Notes in our private Note offering, which closed on May 15, 2018; such notes automatically converted into 28,776 Class A Ordinary Shares upon the closing of the IPO.

A total of 5,504 shares were purchased in the IPO by related persons.

**Share Transfer: Change in direct substantial shareholders of the Company**

On May 4, 2017, Mr. Huen transferred all of the ordinary shares in the Company he owned (in the amount of 22,307,596) to Jurchen, a company incorporated in the British Virgin Islands and wholly-owned by Mr. Huen. On October 13, 2017, the ordinary shares held by Jurchen were redesignated as 2,230,760 Class A Ordinary Shares and 20,076,836 Class B Ordinary Shares.

On March 23, 2018, Jurchen transferred 446,152 Class A Ordinary Shares and 4,015,367 Class B Ordinary Shares to CGY Investments Limited, a company incorporated in Hong Kong and which we deem Mr. Darren Lui controls and/or of which he has substantial influence on the disposition rights and voting rights of such shares. Following this transfer, Jurchen owned approximately 33% and 72% of our Class A Ordinary Shares and Class B Ordinary Shares, respectively.

**Consulting Arrangements**

GloboAsia, LLC

We entered into a consulting agreement with GloboAsia effective as of August 18, 2017 (the "2017 GA Agreement"); GloboAsia is not associated or affiliated with any FINRA members. However, the 2017 GA Agreement was terminated when Dr. Chan resigned from his position as our Chief Scientific Officer in March 2019. Dr. Chan serves as the Director of International Affairs of GloboAsia.

Effective as of April 1, 2019, GloboAsia, through Dr. Chan, shall serve as a member on our Scientific Advisory Board. To formalize such service, we entered into that certain consulting agreement with GloboAsia dated March 13, 2019 (the "2019 GA Agreement"). Pursuant to the 2019 GA Agreement, GloboAsia provides advisory and management services to us and as a member of the Scientific Advisory Board, they provide advice to us regarding research and development, the scientific merit of licenses or products and other related scientific issues. We agreed to pay GloboAsia an hourly rate of USD300 for work actually performed. The initial term of 2019 GA Agreement is until December 31, 2020 and shall thereafter be automatically renewed for successive one-year terms, unless earlier terminated by either party upon three months' notice prior to the end of the then applicable term; either party may also terminate the agreement upon 2 months written notice and the Company may terminate the agreement if Dr. Chan is no longer with GloboAsia or if GloboAsia commits any act of fraud or dishonesty.

Aeneas Limited and its subsidiaries ("Aeneas Group")

a. In March 2017, we entered into a new Management Agreement with Aeneas Capital Limited (the "2017 Agreement"), pursuant to which Aeneas Capital Limited will provide certain management and administrative functions, as well as investment functions related to the Company, IP acquisitions and other investor relations services (the "Services"). In consideration for the Services, we agreed to pay Aeneas HK$500,000 per month (approximately US$64,103 per month), payable on the last day of each month. The 2017 Agreement was terminated in July 2018. Prior to the termination, we paid Aeneas an aggregate of $1.1 million pursuant to the terms of the 2017 Agreement.

b. On April 24, 2019, the Company signed an agreement with Aeneas Capital Limited, and A*ccelerate Technologies Pte. Ltd, the enterprise office of the Agency for Science, Technology and Research ("A*STAR"), (collectively, the "Parties") 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"). Through this agreement, we partnered with A*Star to explore suitable opportunities, if identified, to set up tech ventures in Singapore over the next 5 years. A*STAR shall contribute a total of up to $30,000,000 to any suitable startups, at their discretion. The Company and Aeneas Capital Limited 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 Technology License Agreements. The Master Collaboration Agreement shall continue for a period of 5 years, unless otherwise terminated or extended by the Parties.

c. On January 1, 2019, Aptus Management Limited (one of our wholly-owned subsidiaries) ("Aptus Management") entered into an Administrative consultant Services Agreement with Aeneas Management Limited (a subsidiary of Aeneas Limited). Pursuant to this agreement, Aeneas shall provide certain business and financial services to Aptus Management Limited; Aeneas shall be paid a monthly service fee of HK$452,000 per month (approximately US$57,949 per month), payable by the 25th day of each month during the term of the agreement, which was until December 31, 2019. Either party was able to terminate the agreement by providing 3-months written notice to the other party. On December 16, 2019, the parties agreed to renew the agreement under the same terms, but with an expiration date of December 31, 2020. The agreement was terminated on April 30, 2020.

d. On January 1, 2019, Aenco Limited ("Aenco") (a subsidiary of AGL) and Aptus Management entered into a Secondment Agreement. Pursuant to this agreement, Aenco shall assign certain of its employees to Aptus Management from time to time to assist Aptus Management with information technology development and maintenance activities for Aptus Management's affiliates; such employees shall be integrated into Aptus Management's organization only to the extent necessary to carry out such employees specific duties for Aptus Management. Aptus Management shall pay all salary and benefits up to HK$540,000 per month (approximately US$69,231 per month); Aenco shall be responsible for the costs associated with any employee relocation required as a result of this agreement. The agreement was originally set to terminate on December 31, 2019, although either party may terminate the agreement upon giving the other party 3-months written notice. On December 16, 2019 the parties agreed to renew the agreement under the same terms, but with an expiration date of December 31, 2020. On January 29, 2020, both parties agreed to replace the agreement no later than April 30, 2020.

On April 1, 2020, the agreement was replaced and superseded with a New Secondment Agreement. Pursuant to this New Secondment Agreement, Aenco shall assign certain of its employees to Aptus Management from time to time to assist Aptus Management with information technology application development and maintenance activities for Aptus Management's affiliates; such employees shall be integrated into Aptus Management's organization only to the extent necessary to carry out such employees specific duties for Aptus Management. Aptus Management shall pay all salary and benefits up to HK$700,000 per month (approximately US$89,744 per month); Aenco shall be responsible for the costs associated with any employee relocation required as a result of this agreement. The agreement shall terminate on December 31, 2020, although either party may terminate the agreement upon giving the other party 3-months written notice.

e. On 30 April 2020, Aptorum Therapeutics Limited entered into a contract research agreement with Aeneas Technology (Hong Kong) Limited ("Aeneas Technology"). Pursuant to this agreement, Aeneas Technology shall perform the research in accordance with the terms and conditions of this agreement. Aptorum Therapeutics Limited shall pay a research fee of HK$963,760 per month (approximately US$123,559 per month). The agreement shall terminate on 30 September 2021, although Aptorum Therapeutics Limited may terminate the agreement upon giving 30 days prior written notice.

f. In July 2019, Smart Pharmaceutical Limited Partnership, ("SPLP"), a wholly owned subsidiary of the Group, transferred 100,000,000 Smart Pharma Tokens ("SMPT token") to Aenco Solutions Limited, a related party, in exchange of the service to deal with the token creation, offering and 5-years consultancy service. The 100,000,000 SMPT tokens were equivalents to $300,000.

Aeneas Capital Limited is wholly-owned by Aeneas Group Limited ("AGL"), which in turn is wholly-owned by Aeneas Limited ("AL"). AL is 76.8% owned by Jurchen, which is wholly-owned by Mr. Huen, our CEO. Professor Arner, one of our directors, is a Senior Regulatory and Strategic Advisor for AGL. Under his agreement with AGL dated March 12, 2018, Professor Arner shall, among other services, advise the board of AGL with its management, execution of business, and regulatory initiatives of AGL and AL, assist AGL with access to expert networks as appropriate and required. Professor Arner's compensation thereunder is HK$234,000 per year (approximately US$30,000 per year) and Professor Arner is entitled to participate in AGL's share option plans.

In addition, AGL was one of the selected dealers for our IPO.

CGY Investment Limited

We entered into a consulting agreement with CGY Investment Limited ("CGY") effective on January 10, 2020. Pursuant to this agreement, CGY shall provide certain consultancy, advisory, and management services to the Group on potential investment projects related to health care or R&D platform; CGY shall be paid a monthly service fee of HK$104,000 per month (approximately US$13,333 per month), during the term of the agreement, which is remain in effect unless it is terminated. The agreement may be terminated by either party providing 1-months written notice to the other party.

CGY is 50% held by Seng Fun Yee (Mr. Lui's spouse), 25% held by Mandy Lui (Mr. Lui's sister) and 25% held by Adrian Lui (Mr. Lui's brother). Mr. Lui, President and Executive Director of the Group, controls and/or has substantial influence on the disposition and voting rights of the shares held by his spouse, but no such control over the shares held by his sister or brother. Hence, 50% of the consulting service fee will be deemed as Mr. Lui's compensation.

**Appointment Letters**

We have entered into Appointment Letters with each of our executive officers. The terms of the Appointment Letters for each of our executive officers are consistent with each other, except with regard to the individual's compensation, term of employment and duties and responsibilities, the latter of which coincides with the standard functions normally associated with the given position. Below, we set forth the specific compensation and term of employment terms of each of our executive officer's appointment letter, as in effect as of the date hereof:

- Ian Huen - Chief Executive Officer and Executive Director- US$24,000 (HKD187,200) per month payable in an equivalent amount of thirteen (13) months per calendar year with no set term of employment.

- Darren Lui - President and Executive Director- Mr. Lui's base salary was adjusted from $US$20,000 (HKD156,000) per month to US$6,667 per month, effective as of January 10, 2020 due to his resignation as Chief Business Officer. The Company entered into a consulting agreement with CGY Investment Limited, which is 50% held by Seng Fun Yee (Mr. Lui's spouse), effective on January 10, 2020, with a monthly service fee of HK$104,000 (approximately US$13,333 per month).

- Dr. Clark Cheng - Chief Medical Officer and Executive Director- US$23,275 (HKD181,542) per month payable in twelve (12) instalments per calendar year with no set term of employment. Dr. Cheng is also entitled to receive a share bonus of 5% of Aptorum Medical Limited's ordinary shares upon commencement of employment, which shall be increased by 1% annually up to a maximum additional amount of 5% of issued ordinary share capital of Aptorum Medial Limited. The Board also determined to issue Dr. Cheng a discretionary cash bonus equal to one-month of his base salary.

- Sabrina Khan - Chief Financial Officer- US$16,333 (HKD127,400) per month payable in an equivalent amount of twelve (12) months per calendar year with no set term of employment.

- Dr. Thomas Lee Wai Yip – Head of Research & Development - US$18,667 (HKD145,600) per month payable in an equivalent amount of thirteen (13) months per calendar year with no set term of employment.

- Dr. Angel Siu Yan Ng – Chief Operating Officer – US$8,000 (HKD 62,400) per month payable in an equivalent amount of thirteen (13) months per calendar year with no set term of employment.

Remaining material terms of the appointment agreements are described below.

We may terminate employment for cause, at any time, without advance notice or remuneration, for certain acts of the executive officer, such as conviction or plea of guilty to a felony or any crime involving moral turpitude, negligent or dishonest acts to our detriment, or misconduct or a failure to perform agreed duties. We may also terminate an executive officer's employment without cause upon three-month advance written notice. In such case of termination by us, we will provide severance payments to the executive officer as expressly required by applicable law of the jurisdiction where the executive officer is based. The executive officer may resign at any time with three-month advance written notice.

Each executive officer has agreed to hold, both during and after the termination or expiration of his or her Appointment Letter, in strict confidence and not to use, except as required in the performance of his or her duties in connection with the employment or pursuant to applicable law, any of our confidential information or trade secrets, any confidential information or trade secrets of our clients or prospective clients, or the confidential or proprietary information of any third-party received by us and for which we have confidential obligations.

In addition, each executive officer has agreed to be bound by non-solicitation and non-compete restrictions during the term of his or her employment and typically for one year following the last date of employment. Specifically, each executive officer has agreed not to (i) solicit or entice away from the Company, any person, firm, company or organization that is or shall have been at any time within 12 months prior to termination of employee a customer, client, identified prospective customer or client of the Company or in the habit of dealing with the Company; (ii) employ, solicit or entice away from the Company any person who is or shall have been on the date of or within 12 months prior to termination of employment an employee of the Company; or (iii) assume employment with or provide services to, or otherwise engage in income generating activities with any of our competitors, or engage, whether as principal, partner, licensor or otherwise, any of our competitors, without our express consent.

Some of our Appointment Letters also provide for the executive officer to participate in our mandatory provident fund, which is similar to a pension fund.

**Leased Facilities**

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. In May 2020, Jurchen Investment Corporation and the Group mutually agreed to early terminate the rental agreement and returned the office on May 31, 2020.

**Other Relationships**

As stated elsewhere in this prospectus, Dr. Cheng serves as our Chief Medical Officer and one of our Executive Directors, who is also an Executive Director of Aptorum Medical. Dr. Cheng is also the guarantor on the AML Lease.

Our Senior Strategic Consultant, Dr. Kira Sheinerman is the Managing Director, Healthcare Investment Banking of HC Wainwright, the placement agent in this Offering.

**The Bond Offering**

On April 6, 2018, we entered into a subscription agreement (the "Bond Subscription Agreement") with Peace Range Limited ("Peace Range"), a company incorporated under the laws of the British Virgin Islands and wholly-owned special purpose vehicle of Adamas Ping An Opportunities Fund L.P. Adamas Ping An Opportunities Fund L.P. is the third fund from Adamas Asset Management (HK) Limited ("Adamas") and the first fund from the joint venture between Adamas and Yun Sheng Capital Company Limited, a subsidiary of Ping An Insurance (Group) Company of China, Limited and is advised by Ping An Capital Company Limited. Pursuant to the Bond Subscription Agreement, we 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. We 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 closing of the transaction contemplated by the Bond Subscription Agreement and the issuance of the Bond are subject to standard closing conditions, which may be satisfied or waived by the impacted party. The Bond earns interest at the rate of 8% per annum, payable semi-annually. The payment of the Bond is guaranteed by our holding company, Jurchen Investment Corporation ("Jurchen"), a company wholly-owned by our CEO, Ian Huen (See "Transactions with Related Persons"), pursuant to a deed of guarantee (the "Guarantee"). In addition, the repayment of the principal of the Bond and interest payables is secured by a fund we 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 automatically converted into our Class A Ordinary Shares following the IPO; 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. We closed the Bond Offering on April 25, 2018 and issued a Bond to Peace Range pursuant to the Bond Subscription Agreement. Pursuant to the aforementioned conversion rights, we issued an aggregate of 119,217 shares of Class A Ordinary Shares to the Bond holder after the IPO closed. Following the IPO and pursuant to the terms of the related agreements, the shares Jurchen previously submitted to be held in escrow to guarantee the payment of the Bond were released to Jurchen and the related share charge agreement and escrow agreement were terminated.

On April 24, 2019, one of our wholly owned subsidiaries, Aptorum Investment Holding Ltd., repurchased the Bonds from Peace Range. According to the amended and restated terms and conditions of the Bonds, the Bondholder was granted certain rights to subscribe for additional 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 7 days prior to the maturity date ("Subscription Right"). The total consideration of the repurchase of Bonds and the Subscription Rights was US$13.6 million in cash, excluding accrued interest. The Bond matured and was redeemed on October 25, 2019.

One of the underwriters in the IPO 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. China Renaissance Securities (HK) Limited ("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. Prior to the commencement the IPO, Boustead assigned all such securities to a non-affiliate; the assignment is non-recourse. As of the date hereof, there are no outstanding Bond PA Warrants.

**The Series A Note Offering**

On May 15, 2018, we closed a private financing with certain investors (the "Series A Note Investors") who purchased an aggregate of $1,600,400 Series A convertible notes, at a purchase price of $10,000 per note (the "Series A Notes"), pursuant to a note purchase agreement. Some of the Series A Note Investors are either affiliates of the Company or "related persons," as such term is defined in Item 404 of Regulation S-K (See "Transactions with Related Persons"). We refer to this 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 the Series A Notes or the Class A Ordinary Shares underlying the Series A Notes during the six-month period commencing on the date our Class A Ordinary Shares commence trading on NASDAQ Global Market, which has now expired. The Series A Notes automatically converted into 230,252 Class A Ordinary Shares at the closing of the IPO and at the commencement of trading our Class A Ordinary Shares on NASDAQ Global Market at a conversion price equal to a 56% discount to the actual price per Class A Ordinary Share ("Conversion Price"). Accordingly, the Series A Notes converted into, and we issued an aggregate of 230,252 shares of Class A Ordinary Shares after the IPO closed.

On May 15, 2018, we closed a private financing with certain investors (the "Series A Note Investors") who purchased an aggregate of approximately $1,600,400 Series A convertible notes, at a purchase price of $10,000 per note (the "Series A Notes"), pursuant to a note purchase agreement. Some of the Series A Note Investors are either affiliates of the Company or "related persons" as such term is defined in Item 404 of Regulation S-K (See "Transactions with Related Persons"). We refer to this 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 the Series A Notes or the Class A Ordinary Shares underlying the Series A Notes during the six-month period commencing on the date our Class A Ordinary Shares commence trading on NASDAQ Global Market. The Series A Notes automatically converted into Class A Ordinary Shares at the closing of the IPO at a conversion price equal to a 56% discount to the actual price per Class A Ordinary Share ("Conversion Price"). Accordingly, the Series A Notes converted into, and we issued an aggregate of 230,252 shares of Class A Ordinary Shares after the IPO closed.

One of the underwriters in the IPO also served as a placement agent for the Series A Note Offering 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 Series A Note PA Warrants are also exercisable on a cashless basis, at the holder's discretion. As of the date hereof, there are no outstanding Series A Note PA Warrants.

**Registered Direct Offering**

On February 28, 2020, we closed a Registered Direct Offering with certain non-affiliated institutional investors (the "Non-affiliated Purchasers") and Jurchen Investment Corporation, our largest shareholder and wholly owned by Mr. Ian Huen, our Chief Executive Officer (the "Affiliated Purchaser" collectively with the Non-affiliated Purchasers, the "Purchasers"). The Purchasers purchased an aggregate of 1,351,350 Class A Ordinary Shares and warrants ("February 2020 Warrants") to purchase 1,351,350 Class A Ordinary Shares (the "Offering"), for gross proceeds of approximately $10 million. The February 2020 Warrants will be exercisable immediately following the date of issuance for a period of seven years at an initial exercise price of $7.40. The purchase price for each Share and the corresponding Warrant is $7.40.

We agreed that we would not issue any Class A Ordinary Shares (or Class A Ordinary Share Equivalents (as defined in the purchase agreement entered on February 25, 2020)) for 45 days following the closing of the Registered Direct Offering subject to certain customary exceptions, including, without limitation, issuances of restricted securities to consultants or employees of the Company, share option grants and issuances pursuant to existing outstanding securities and issuance in connection with strategic acquisition.

We agreed from the date of the purchase agreement until the date that is the later of (i) the 12 month anniversary of the closing date or (ii) one or more subsequent issuance by the Company or any of its subsidiaries of ordinary share equivalent having aggregate gross proceeds of at least $20,000,000, the Purchasers shall have the right to participate in the subsequent financing up to an amount equal to 50% of the Subsequent Financing (the "Participation Maximum") on the same terms, conditions and price provided for in the Subsequent Financing.

We also agreed certain most favored nation treatment of the all the Purchasers pursuant to which each Purchaser will have the opportunity to automatically have the same benefit if the terms and conditions with respect to this Purchase Agreement or any securities offered therein the Company offered to the other Purchasers are more favorable.

**Placement Agents**

In connection with the Purchaser Warrant Exchange, we paid the Placement Agent $212,500 in fees ($25,000 of which was for non-accountable expenses and $50,000 of which was for legal and other fees).

**Employment Agreements**

See "Appointment Letters" above.

## SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth information with respect to the beneficial ownership, within the meaning of Rule 13d-3 under the Exchange Act, of our Ordinary Shares as of September 23, 2020.

- each of our directors and executive officers who beneficially own our Ordinary Shares; and
- each person known to us to own beneficially more than 5.0% of our Ordinary Shares.

Beneficial ownership includes voting or investment power with respect to the securities. Except as indicated below, and subject to applicable community property laws, the persons named in the table have sole voting and investment power with respect to all Ordinary Shares shown as beneficially owned by them. Percentage of beneficial ownership owned before the Offering of each listed person is based on 8,491,526 Class A Ordinary Shares and 22,437,754 Class B Ordinary Shares outstanding as of the date of this prospectus. The percentage of beneficial ownership owned after the Offering is based on [●] Class A Ordinary Shares and 22,437,754 Class B ordinary Shares outstanding after we close on the maximum offering amount.

Information with respect to beneficial ownership has been furnished by each director, officer or beneficial owner of 5% or more of our Ordinary Shares. Beneficial ownership is determined in accordance with the rules of the SEC and generally requires that such person have voting or investment power with respect to securities. In computing the number of Ordinary Shares beneficially owned by a person listed below and the percentage ownership of such person, Ordinary Shares underlying options, warrants or convertible securities held by each such person that are exercisable or convertible within 60 days of the date of this prospectus are deemed outstanding, but are not deemed outstanding for computing the percentage ownership of any other person. Except as otherwise indicated in the footnotes to this table, or as required by applicable community property laws, all persons listed have sole voting and investment power for all Ordinary Shares shown as beneficially owned by them. As of the date of the prospectus, we have 3 shareholders of record holding beneficial ownership of 5% or more, none of which are located in the United States.

Unless otherwise indicated, the business address of each of the individuals is 17 Hanover Square, London W1S 1BN, United Kingdom.

| Name and Address of Beneficial Owner | Class A Ordinary Shares Beneficially Owned | Class B Ordinary Shares Beneficially Owned | Percentage of Total Class A and Class B Ordinary Shares[(1)] | Percentage of Total Voting Power Before the Offering[(2)] | Percentage of Total Voting Power After the Offering[(2)] |
|---|---|---|---|---|---|
| Ian Huen[(3)] | 2,865,742 | 16,061,469 | 61.20% | 70.20% | [ ]% |
| Darren Lui[(4)] | 260,809 | 2,141,333 | 7.77% | 9.31% | [ ]% |
| Clark Cheng[(5)] | * | - | * | * | [ ]% |
| Sabrina Khan[(6)] | * | - | * | * | [ ]% |
| Thomas Lee Wai Yip[(7)] | * | - | * | * | [ ]% |
| Angel Ng Siu Yan[(8)] | * | - | * | * | [ ]% |
| Charles Bathurst[(9)] | * | - | * | * | [ ]% |
| Mirko Scherer[(10)] | * | - | * | * | [ ]% |
| Justin Wu[(11)] | 207,566 | - | 0.67% | 0.09% | [ ]% |
| Douglas Arner[(12)] | * | - | * | * | [ ]% |
| All directors and executive officers as a group (10 persons) | 3,334,117 | 18,202,802 | 69.63% | 79.60% | [ ]% |
| *5% Beneficial Owner* | | | | | |
| Jurchen Investment Corporation[(3)] | 2,855,688 | 16,061,469 | 61.16% | 70.20% | [ ]% |
| Sui Fong Isabel Huen Ng[(13)] | 211,986 | 1,907,870 | 6.85% | 8.28% | [ ]% |
| CGY Investments Limited[(14)] | 471,809 | 4,015,367 | 14.51% | 17.45% | [ ]% |

* Less than 1%.

(1) For each person and group included in this column, percentage ownership is calculated by dividing the number of Class A Ordinary Shares and Class B Ordinary Shares beneficially owned by such person or group, including shares that such person or group has the right to acquire within 60 days after the date of this prospectus, by the sum of total Class A Ordinary Shares and Class B Ordinary Shares. Following the IPO, each Class B Ordinary Share can be converted at any time on a one-for-one basis into Class A Ordinary Shares at the discretion of the holder.

(2) For each person and group included in this column, percentage of total voting power represents voting power based on both Class A Ordinary Shares and Class B Ordinary Shares beneficially owned by such person or group with respect to all of our outstanding Class A Ordinary Shares and Class B Ordinary Shares as one single class. 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 on all matters subject to a shareholders' vote.

(3) Includes 2,315,148 Class A Ordinary Shares owned by Jurchen, warrants held by Jurchen to purchase 540,540 Class A Ordinary Shares, options granted to Mr. Huen to purchase 10,054 Class A Ordinary Shares, and 16,061,469 Class B Ordinary Shares owned by Jurchen. Jurchen Investment Corporation, is a company wholly-owned by Mr. Huen. Mr. Huen maintains sole voting control over the shares held by Jurchen, the principal office address of which is at 17th Floor, Guangdong Investment Tower, 148 Connaught Road Central, Hong Kong. Does not include 10,053 Class A Ordinary Shares issuable upon exercise of outstanding options issued on March 15, 2019, 66,890 Class A Ordinary Shares issuable upon exercise of outstanding options issued on March 16, 2020 and 20,107 Class A Ordinary Shares issuable upon exercise of outstanding options issued on June 1, 2020 to Mr. Huen pursuant to the Option Plan, since such options have not vested and will not be exercisable within 60 days of the date of this prospectus.

(4) Includes (i) 14,850 Class A Ordinary Shares and 133,649 Class B Ordinary Shares indirectly owned through DSF Investment Holdings Limited ("DSF"). DSF holds 50,339 Class A Ordinary Shares and 453,048 Class B Ordinary Shares of the Company and is 29.5% held by Mr. Lui; Eternal Clarity Holdings Limited, which is wholly-owned by Mr. Lui's mother, Ms. Emily Woo, owns the remaining 70.5% of DSF. DSF is located at Flat A2, 11th Floor, Wing Hang Insurance Building, 11 Wing Kut Street, Hong Kong, (ii) 235,905 Class A Ordinary Shares and 2,007,684 Class B Ordinary Shares indirectly owned through CGY Investments Limited, which is 50% held by Seng Fun Yee (Mr. Lui's spouse) and holds 471,809 Class A Ordinary Shares and 4,015,367 Class B Ordinary Shares of the Company. CGY Investments Limited is 50% held by Seng Fun Yee (Mr. Lui's spouse), 25% held by Mandy Lui (Mr. Lui's sister) and 25% held by Adrian Lui (Mr. Lui's brother). The principal business address of CGY Investments are Unit A 3/F Cheong Sun Tower, 116-118 Wing Lok St, Sheung Wan, Hong Kong, and (iii) options granted to Mr. Lui to purchase 10,054 Class A Ordinary Shares. Mr. Lui only controls and/or has substantial influence on the disposition and voting rights of 29.5% of the Aptorum shares DSF owns; Mr. Lui controls and/or has substantial influence on the disposition and voting rights of the shares held by his spouse, but no such control over the shares held by his sister or brother regarding the CGY shares. Does not include 10,053 Class A Ordinary Shares issuable upon exercise of outstanding options issued on March 15, 2019, 66,890 Class A Ordinary Shares issuable upon exercise of outstanding options issued on March 16, 2020 to CGY Investments Limited, of which 50% is deemed controlled by Mr. Lui, and 20,107 Class A Ordinary Shares issuable upon exercise of outstanding options issued on June 1, 2020 to CGY Investments Limited, of which 50% is deemed controlled by Mr. Lui pursuant to the Option Plan, since such options have not vested and will not be exercisable within 60 days of the date of this prospectus.

(5) Pursuant to his appointment letter, Dr. Cheng received a stock bonus of 7% of Aptorum Medical Limited's ordinary shares as of the date of this prospectus. Does not include 10,053 Class A Ordinary Shares issuable upon exercise of outstanding options issued on March 15, 2019, 66,890 Class A Ordinary Shares issuable upon exercise of outstanding options issued on March 16, 2020 and 20,107 Class A Ordinary Shares issuable upon exercise of outstanding options issued on June 1, 2020 to Dr. Cheng pursuant to the Option Plan, since such options have not vested and will not be exercisable within 60 days of the date of this prospectus .

(6) Does not include 4,749 Class A Ordinary Shares issuable upon exercise of outstanding options issued on March 15, 2019, 54,627 Class A Ordinary Shares issuable upon exercise of outstanding options issued on March 16, 2020 and 9,498 Class A Ordinary Shares issuable upon exercise of outstanding options issued on June 1, 2020 to Miss Khan pursuant to the Option Plan, since such options have not vested and will not be exercisable within 60 days of the date of this prospectus.

(7) Does not include 10,053 Class A Ordinary Shares issuable upon exercise of outstanding options issued on March 15, 2019, 66,890 Class A Ordinary Shares issuable upon exercise of outstanding options issued on March 16, 2020 and 20,107 Class A Ordinary Shares issuable upon exercise of outstanding options issued on June 1, 2020 to Dr. Lee pursuant to the Option Plan, since such options have not vested and will not be exercisable within 60 days of the date of this prospectus .

(8) Does not include 775 Class A Ordinary Shares issuable upon exercise of outstanding options issued on March 15, 2019, 8,027 Class A Ordinary Shares issuable upon exercise of outstanding options issued on March 16, 2020 and 1,551 Class A Ordinary Shares issuable upon exercise of outstanding options issued on June 1, 2020 to Dr. Ng pursuant to the Option Plan, since such options have not vested and will not be exercisable within 60 days of the date of this prospectus .

(9) Does not include 1,005 Class A Ordinary Shares issuable upon exercise of outstanding options issued on March 15, 2019, 9,365 Class A Ordinary Shares issuable upon exercise of outstanding options issued on March 16, 2020 and 2,011 Class A Ordinary Shares issuable upon exercise of outstanding options issued on June 1, 2020 to Mr. Bathurst pursuant to the Option Plan, since such options have not vested and will not be exercisable within 60 days of the date of this prospectus .

(10) Does not include 1,005 Class A Ordinary Shares issuable upon exercise of outstanding options issued on March 15, 2019, 9,365 Class A Ordinary Shares issuable upon exercise of outstanding options issued on March 16, 2020 and 2,011 Class A Ordinary Shares issuable upon exercise of outstanding options issued on June 1, 2020 to Mr. Scherer pursuant to the Option Plan, since such options have not vested and will not be exercisable within 60 days of the date of this prospectus .

(11) Includes (i) 129,589 Class A Ordinary Shares held by Chi Ling Lily Heung, the wife of Dr. Wu, (ii) 76,971 Class A Ordinary Shares held by Dr. Wu, and (iii) options granted to Dr. Wu to purchase 1,006 Class A Ordinary Shares. Does not include 1,005 Class A Ordinary Shares issuable upon exercise of outstanding options issued on March 15, 2019, 9,365 Class A Ordinary Shares issuable upon exercise of outstanding options issued on March 16, 2020 and 2,011 Class A Ordinary Shares issuable upon exercise of outstanding options issued on June 1, 2020 to Dr. Wu pursuant to the Option Plan, since such options have not vested and will not be exercisable within 60 days of the date of this prospectus .

(12) Does not include 1,005 Class A Ordinary Shares issuable upon exercise of outstanding options issued on March 15, 2019, 9,365 Class A Ordinary Shares issuable upon exercise of outstanding options issued on March 16, 2020 and 2,011 Class A Ordinary Shares issuable upon exercise of outstanding options issued on June 1, 2020 to Dr. Arner pursuant to the Option Plan, since such options have not vested and will not be exercisable within 60 days of the date of this prospectus .

(13) Sui Fong Isabel Huen Ng is the mother of Mr. Ian Huen. Mr. Ian Huen does not have control nor substantial influence on the disposition and voting rights of the shares held by his mother.

(14) CGY Investments Limited is 50% held by Seng Fun Yee (Mr. Lui's spouse), 25% held by Mandy Lui (Mr. Lui's sister) and 25% held by Adrian Lui (Mr. Lui's brother). The principal business address of CGY Investments are Unit A 3/F Cheong Sun Tower, 116-118 Wing Lok St, Sheung Wan, Hong Kong. Mr. Lui controls and/or has substantial influence on the disposition and voting rights of the shares held by his spouse, but no such control over the shares held by his sister or brother. Does not include 66,890 Class A Ordinary Shares issuable upon exercise of outstanding options issued on March 16, 2020 and 20,107 Class A Ordinary Shares issuable upon exercise of outstanding options issued on June 1, 2020 to CGY Investments Limited pursuant to the Option Plan, since such options have not vested and will not be exercisable within 60 days of the date of this prospectus .

## SHARES ELIGIBLE FOR FUTURE SALE

Future sales of substantial amounts of our Class A Ordinary Shares, including shares issued upon exercise of outstanding options and warrants, in the public market after this Offering could adversely affect market prices prevailing from time to time and could impair our ability to raise capital through the sale of our equity securities.

Upon the completion of this Offering, based on the number of shares outstanding as of [●], 2020, we will have **[●]** Class A Ordinary Shares outstanding. Of these outstanding shares, all of the **[●]** Class A Ordinary Shares sold in this Offering will be freely tradable, except that any shares purchased by our affiliates, as that term is defined in Rule 144 under the Securities Act, may only be sold in compliance with the limitations described below.

The remaining outstanding shares will be deemed restricted securities as defined under Rule 144. Restricted securities may be sold in the public market only if registered or if they qualify for an exemption from registration under Rule 144 or Rule 701 promulgated under the Securities Act, which rules are summarized below. In addition, all of our shareholders have entered into market standoff agreements with us or lock-up as further described in "— Lock-Up Agreements" below, under which they agreed not to sell their shares until certain time or performance metrics have been met. Subject to the provisions of Rule 144 or Rule 701, shares are or will be available for sale in the public market as follows:

- on the date of this prospectus, **[●]** Class A Ordinary Shares (including all shares sold in this Offering) are available for sale in the public market, except for the shares purchased by affiliates which are subject to the volume and other restrictions of Rule 144 as well as the lock-up agreement restrictions described below;

- the remainder of the shares will be eligible for sale in the public market from time to time thereafter, subject in some cases to the volume and other restrictions of Rule 144, as described below.

**Rule 144**

In general, under Rule 144 as currently in effect, a person who is not deemed to have been one of our affiliates for purposes of the Securities Act at any time during the 90 days preceding a sale and who has beneficially owned the shares proposed to be sold for at least six months, including the holding period of any prior owner other than our affiliates, is entitled to sell those shares without complying with the manner of sale, volume limitation or notice provisions of Rule 144, subject to compliance with the public information requirements of Rule 144. If such a person has beneficially owned the shares proposed to be sold for at least one year, including the holding period of any prior owner other than our affiliates, then that person is entitled to sell those shares without complying with any of the requirements of Rule 144.

In general, under Rule 144, as currently in effect, our affiliates are entitled to sell upon expiration of the lock-up agreements described above, within any three-month period beginning 90 days after the date of this prospectus, a number of shares that does not exceed the greater of:

- 1% of the number of shares then outstanding, which will equal approximately [●] shares immediately after this offering; or

- The average weekly trading volume of the shares during the four calendar weeks preceding the filing of a notice on Form 144 with respect to that sale.

Sales under Rule 144 by our affiliates are also subject to certain manner of sale provisions and notice requirements and to the availability of current public information about us.

**Rule 701**

Rule 701 generally allows a shareholder who purchased ordinary shares pursuant to a written compensatory plan or contract and who is not deemed to have been an affiliate of our company during the immediately preceding 90 days to sell these shares in reliance upon Rule 144, but without being required to comply with the public information and holding period requirements of Rule 144. Rule 701 also permits affiliates of our company to sell their Rule 701 shares under Rule 144 without complying with the holding period requirements of Rule 144.

**Registration Rights**

We have granted registration rights and right to participate to placement agent and certain of our shareholders. For a further description of these rights, see "Description of Share Capital — Registration Rights" and "Transactions with Related Persons — Registered Direct Offering."

## 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, 8,491,526 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 (our class B Ordinary Shares are not registered pursuant to Section 12(b), 12(g) or Section 15(d) of the Act, but we are voluntarily including information with respect to same in this exhibit).

***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.

***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.

**Warrants**

The following summary of certain terms and provisions of the warrants that are being offered hereby is not complete and is subject to, and qualified in its entirety by, the provisions of the warrants, the form of which is filed as an exhibit to the registration statement of which this prospectus forms a part. Prospective investors should carefully review the terms and provisions of the form of warrant for a complete description of the terms and conditions of the warrants.

*Exercise Price and Duration.* The warrants will have an exercise price equal to 100% of the combined public offering price per Class A Ordinary Share and related warrant. The warrants are exercisable immediately upon issuance, and at any time thereafter up to the fifth anniversary of the issuance date. The exercise price is subject to appropriate adjustment in the event of certain stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting our Class A Ordinary Shares and also upon any distributions of assets, including cash, stock or other property to our shareholders.

*Exercisability.* The warrants will be exercisable, at the option of each holder, in whole or in part by delivering to us a duly executed exercise notice and, at any time a registration statement registering the issuance of the Class A Ordinary Share underlying the warrants under the Securities Act is effective and available for the issuance of such shares, or an exemption from registration under the Securities Act is available for the issuance of such shares, by payment in full in immediately available funds for the number of Class A Ordinary Shares purchased upon such exercise.

*Cashless Exercise*. If at the time of exercise there is no effective registration statement registering, or the prospectus contained therein is not available for the issuance of the Class A Ordinary Shares underlying the warrants, then the warrants may also be exercised, in whole or in part, at such time by means of a cashless exercise, in which case the holder would receive upon such exercise the net number of Class A Ordinary Shares determined according to the formula set forth in the warrant.

*Exercise Limitation.* A holder will not have the right to exercise any portion of the warrant if the holder (together with its affiliates) would beneficially own in excess of 4.99% (or 9.99% upon the request of the holder) of the number of Class A Ordinary Shares outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the warrants. However, any holder may increase or decrease such percentage, provided that any increase will not be effective until the 61st day after such election.

*Transferability*. Subject to applicable laws, the warrants may be offered for sale, sold, transferred or assigned without our consent.

*Fractional Shares*. No fractional Class A Ordinary Shares will be issued upon the exercise of the warrants. Rather, the number of Class A Ordinary Shares to be issued will be rounded to the nearest whole number.

*Trading Market*. There is no established public trading market for the warrants being issued in this offering, and we do not expect a market to develop. We do not intend to apply for listing of the warrants on any securities exchange or other nationally recognized trading system. Without an active trading market, the liquidity of the warrants will be limited.

*Fundamental Transactions*. If a fundamental transaction occurs, then the successor entity will succeed to, and be substituted for us, and may exercise every right and power that we may exercise and will assume all of our obligations under the warrants with the same effect as if such successor entity had been named in the warrant itself. If holders of our Class A Ordinary Shares are given a choice as to the securities, cash or property to be received in a fundamental transaction, then the holder shall be given the same choice as to the consideration it receives upon any exercise of the warrant following such fundamental transaction. In addition, in certain circumstances, upon a fundamental transaction, the holder will have the right to require us to repurchase its warrant at its fair value using the Black Scholes option pricing formula; provided, however, that, if the fundamental transaction is not within our control, including not approved by our board of directors, then the holder shall only be entitled to receive the same type or form of consideration (and in the same proportion), at the Black Scholes value of the unexercised portion of the warrant, that is being offered and paid to the holders of our Class A Ordinary Shares in connection with the fundamental transaction.

*Rights as a Shareholder*. Except as otherwise provided in the warrants or by virtue of such holder's ownership of our Class A Ordinary Shares, the holder of a warrant does not have the rights or privileges of a holder of our Class A Ordinary Shares, including any voting rights, until the holder exercises the warrant.

*Amendment and Waiver*. The warrants may be modified or amended or the provisions thereof waived with the written consent of our company on the one the hand and a holder on the other hand.

**Pre-Funded Warrants**

The following summary of certain terms and provisions of the pre-funded warrants that are being offered hereby is not complete and is subject to, and qualified in its entirety by, the provisions of pre-funded warrant, the form of which will be filed as an exhibit to the registration statement of which this prospectus forms a part. Prospective investors should carefully review the terms and provisions of the form of pre-funded warrant for a complete description of the terms and conditions of the pre-funded warrants.

***Duration and Exercise Price***

Each pre-funded warrant offered hereby will have an initial exercise price per share equal to $0.01. The pre-funded warrants will be immediately exercisable and will expire when exercised in full. Each pre-funded warrant is exercisable for one Class A Ordinary Share. The exercise price and number of Class A Ordinary Shares issuable upon exercise is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our Class A Ordinary Shares and the exercise price.

***Exercisability***

The pre-funded warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full for the number of Class A Ordinary Shares purchased upon such exercise (except in the case of a cashless exercise as discussed below). A holder (together with its affiliates) may not exercise any portion of the pre-funded warrant to the extent that the holder would own more than 4.99% of the outstanding Class A Ordinary Shares immediately after exercise, except that upon at least 61 days' prior notice from the holder to us, the holder may increase the amount of beneficial ownership of outstanding Class A Ordinary Shares after exercising the holder's pre-funded warrants up to 9.99% of the number of Class A Ordinary Shares outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the pre-funded warrants. Purchasers of pre-funded warrants in this offering may also elect prior to the issuance of the pre-funded warrants to have the initial exercise limitation set at 9.99% of our outstanding Class A Ordinary Shares.

***Cashless Exercise***

If, at the time a holder exercises its pre-funded warrants, a registration statement registering the issuance of the Class A Ordinary Shares underlying the pre-funded warrants under the Securities Act is not then effective or available for the issuance of such shares, then in lieu of making the cash payment otherwise contemplated to be made to us upon such exercise in payment of the aggregate exercise price, the holder may elect instead to receive upon such exercise (either in whole or in part) the net number of Class A Ordinary Shares determined according to a formula set forth in the pre-funded warrants.

***Transferability***

Subject to applicable laws, a pre-funded warrant may be transferred at the option of the holder upon surrender of the pre-funded warrant to us together with the appropriate instruments of transfer.

***Fractional Shares***

No fractional Class A Ordinary Shares will be issued upon the exercise of the pre-funded warrants. Rather, the number of Class A Ordinary Shares to be issued will be rounded to the nearest whole number.

***Trading Market***

There is no trading market available for the pre-funded warrants on any securities exchange or nationally recognized trading system. The Class A Ordinary Shares issuable upon exercise of the pre-funded warrants are currently listed on the Nasdaq Capital Market.

***Right as a Shareholder***

Except as otherwise provided in the pre-funded warrants or by virtue of such holder's ownership of Class A Ordinary Shares, the holders of the pre-funded warrants do not have the rights or privileges of holders of our Class A Ordinary Shares, until they exercise their pre-funded warrants. The pre-funded warrants will provide that holders have the right to participate in distributions or dividends paid on our Class A Ordinary Shares.

***Fundamental Transaction***

In the event of a fundamental transaction, as described in the pre-funded warrants and generally including any reorganization, recapitalization or reclassification of our ordinary shares, the sale, transfer or other disposition of all or substantially all of our properties or assets, our consolidation or merger with or into another person, the acquisition of more than 50% of our outstanding Class A Ordinary Shares, or any person or group becoming the beneficial owner of 50% of the voting power represented by our outstanding Class A Ordinary Shares, the holders of the pre-funded warrants will be entitled to receive upon exercise of the pre-funded warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the pre-funded warrants immediately prior to such fundamental transaction.

**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 their engagement, we agreed to register the Class A Ordinary Shares underlying the Placement Agent's Warrants in this Registration Statement.

## PLAN OF DISTRIBUTION

Pursuant to a placement agent agreement, dated , 2020, we have engaged H.C. Wainwright & Co., LLC (the "Placement Agent") to act as our exclusive placement agent in connection with this offering. The Placement Agent is not purchasing or selling any such securities, nor is it required to arrange for the purchase and sale of any specific number or dollar amount of such securities, other than to use its "reasonable best efforts," to arrange for the sale of such securities by us. The terms of this offering are subject to market conditions and negotiations between us, the Placement Agent, and prospective investors. The placement agent agreement does not give rise to any commitment by the Placement Agent to purchase any of our securities, and the Placement Agent will have no authority to bind us by virtue of the placement agent agreement. Further, the Placement Agent does not guarantee that it will be able to raise new capital in any prospective offering. The Placement Agent may engage sub-agents or selected dealers to assist with the offering.

We will enter into a securities purchase agreement directly with institutional investors, at such investor's option, which purchase our securities in this offering, providing such investors with certain representations, warranties and covenants from us, which representations, warranties and covenants will not be available to other investors which do not enter into a securities purchase agreement. Investors which do not enter into a securities purchase agreement shall rely solely on this prospectus in connection with the purchase of our securities in the offering.

We will deliver the Class A Ordinary Shares being issued to the investors electronically and will mail such investors physical warrant certificates for the warrants and pre-funded warrants, if any, sold in this offering, upon receipt of investor funds for the purchase of the Class A Ordinary Shares, pre-funded warrants, if any, and warrants offered pursuant to this prospectus. We expect to deliver the securities being offered pursuant to this prospectus on or about , 2020.

**Fees and Expenses**

The following table show the total placement agent fees we will pay in connection with the sale of the securities in this offering, assuming the purchase of all of the securities we are offering.

| | Per Class A Ordinary Share and related Warrant | Per Pre-Funded Warrant and related Warrant |
|---|---|---|
| Placement Agent Fees | | |
| Total | | |

We have agreed to pay to the Placement Agent a cash fee equal to 7.0% of the aggregate gross proceeds raised in this offering and a management fee equal to 1.0% of the aggregate gross proceeds raised in this offering.

We estimate the total expenses payable by us for this offering to be approximately $ , which amount includes (i) a Placement Agent's fee of $ , assuming the purchase of all of the securities we are offering; (ii) the management fee of $ (equal to 1.0% of the aggregate gross proceeds raised in this offering); (iii) a $50,000 non-accountable expense allowance payable to the Placement Agent; (iv) reimbursement of the accountable expenses of the Placement Agent equal to $100,000, including the legal fees of the Placement Agent being paid by us (none of which has been paid in advance); (v) the Placement Agent's clearing expenses in the amount of $12,900 in connection with this offering; and (vi) other estimated expenses of approximately $ which include legal, accounting, printing costs and various fees associated with the registration and listing of our shares. In addition, we have agreed to issue the Placement Agent's Warrants to the Placement Agent. See "Placement Agent's Warrants" below for additional detail.

**Placement Agent's Warrants**

We have agreed to issue to the Placement warrants to purchase 7.0% of the number of Class A Ordinary Shares (including the Class A Ordinary Shares issuable upon exercise of the pre-funded warrants) being sold in this offering. The Placement Agent's Warrants will have a term of five years from the commencement of sales in this offering and an exercise price per Class A Ordinary Share equal to $ per share, which represents 125% of the combined public offering price for the Class A Ordinary Shares and related warrants sold in this offering.

**Right to Participate**

We have also granted the Placement Agent, a right to participate for a period of one year from the closing of this offering. Under this right to participate, if, from the date hereof until the 12-month anniversary following consummation of this offering, the Company or any of its subsidiaries decides to among other things, raise funds by means of a public offering (including at-the-market facility) or a private placement or any other capital-raising financing of equity, equity-linked or debt securities using an underwriter or placement agent, the Placement Agent shall have the right to act as sole book-running manager, sole underwriter or sole placement agent for such financing. If the Placement Agent decides to accept any such engagement, the agreement governing such engagement will contain, among other things, provisions for customary fees for transactions of similar size and nature, including indemnification, which are appropriate to such a transaction.

**Tail Financing Payments**

The Placement Agent will be entitled to compensation as set forth above, with respect to any public or private offering or other financing or capital-raising transaction of any kind ("Tail Financing") to the extent that such financing or capital is received by the Company from (i) in connection with a public offering, investors whom the Placement Agent had contacted during the term of our placement agent agreement with the Placement Agent or introduced to the Company during such term, or (ii) in connection with a non-public offering, investors whom the Placement Agent had brought over-the-wall during such term, if such Tail Financing is consummated at any time within the 12-month period following the expiration or termination of our placement agent agreement with the Placement Agent and a list of such investors is provided to the Company as promptly as practicable following the expiration or termination of our placement agent agreement with the Placement Agent.

**Lock-Up Agreement**

We have agreed with the Placement Agent to be subject to a lock-up period of 90 days following the date of closing of the offering pursuant to this prospectus. This means that, during the applicable lock-up period, we may not issue, enter into any agreement to issue or announce the issuance or proposed issuance of any Class A Ordinary Shares or their equivalents, subject to certain exceptions. The placement agent may waive the terms of these lock-up agreements in its sole discretion and without notice.

Each of our officers and directors have also agreed with the Placement Agent to be subject to a lock-up period of 90 days following the date of closing of the offering pursuant to this prospectus. This means that, during the lock-up period, such persons may not offer for sale, contract to sell, sell, distribute, grant any option, right or warrant to purchase, pledge, hypothecate or otherwise dispose of, directly or indirectly, any Class A Ordinary Shares or any securities convertible into, or exercisable or exchangeable for, our Class A Ordinary Shares. Certain limited transfers are permitted during the lock-up period if the transferee agrees to these lock-up restrictions. The placement agent may waive the terms of these lock-up agreements in its sole discretion and without notice.

**Listing**

Our Class A Ordinary Shares are listed on the Nasdaq Global Market under the symbol "APM". There is no established public trading market for the warrants or the pre-funded warrants and we do not plan to list the warrants or pre-funded warrants or the Placement Agent's Warrants on the Nasdaq Global Market or any other securities exchange or trading market. Without an active trading market, the liquidity of the warrants and the pre-funded warrants will be limited.

**Indemnification**

We have agreed to indemnify the Placement Agent and specified other persons against some civil liabilities, including liabilities under the Securities Act, and the Securities Exchange Act of 1934, as amended, or the Exchange Act, and to contribute to payments that the Placement Agent may be required to make in respect of such liabilities.

**Regulation M**

The Placement Agent may be deemed to be an underwriter within the meaning of Section 2(a)(11) of the Securities Act and any fees received by it and any profit realized on the sale of the securities by it while acting as principal might be deemed to be underwriting discounts or commissions under the Securities Act. The Placement Agent will be required to comply with the requirements of the Securities Act and the Exchange Act including, without limitation, Rule 10b-5 and Regulation M under the Exchange Act. These rules and regulations may limit the timing of purchases and sales of our securities by the Placement Agent. Under these rules and regulations, the Placement Agent may not (i) engage in any stabilization activity in connection with our securities; and (ii) bid for or purchase any of our securities or attempt to induce any person to purchase any of our securities, other than as permitted under the Exchange Act, until they have completed their participation in the distribution.

**Other Relationships**

In connection with the Purchaser Warrant Exchange, we paid the Placement Agent $212,500 in fees ($25,000 of which was for non-accountable expenses and $50,000 of which was for legal and other fees).

From time to time, the Placement Agent has provided and may provide in the future, various advisory, investment and commercial banking and other services to us in the ordinary course of business, for which it has and may receive customary fees and commissions. However, except as disclosed in this prospectus, we have no present arrangements with the Placement Agent for any services.

Dr. Kira Sheinerman serves as a senior strategic consultant to the company. Dr. Sheinerman also serves as a Managing Director, Healthcare Investment Banking at H.C. Wainwright & Co., the placement agent for this offering. Dr. Sheinerman did not participate in this offering on behalf of the Company or H.C. Wainwright & Co.

## TAXATION

*The following summary contains a description of certain Cayman Islands and U.S. federal income tax consequences of the acquisition, ownership and disposition of Class A Ordinary Shares, warrants and pre-funded warrants. Please note that this summary should not be considered a comprehensive description of all the tax considerations that may be relevant to the decision to purchase Class A Ordinary Shares, warrants and pre-funded warrants. The summary is based upon the tax laws of the Cayman Islands and regulations thereunder and on the tax laws of the United States and regulations thereunder as of the date hereof, which are subject to change*.

### Cayman Islands Tax Considerations

The Cayman Islands currently levies no taxes on individuals or corporations based upon profits, income, gains or appreciation and there is no taxation in the nature of inheritance tax or estate duty. There are no other taxes likely to be material to us levied by the government of the Cayman Islands except for stamp duties which may be applicable on instruments executed in, or brought within, the jurisdiction of the Cayman Islands. The Cayman Islands is not party to any double tax treaties which are applicable to any payments made by or to our Company. There are no exchange control regulations or currency restrictions in the Cayman Islands.

Payments of dividends and capital in respect of our Class A Ordinary Shares will not be subject to taxation in the Cayman Islands and no withholding will be required on the payment of a dividend or capital to any holder of our Class A Ordinary Shares, nor will gains derived from the disposal of our Class A Ordinary Shares be subject to Cayman Islands income or corporation tax.

No stamp duty is payable in respect of the issue of our Class A Ordinary Shares or on an instrument of transfer in respect of our Class A Ordinary Shares except on instruments executed in, or brought within, the jurisdiction of the Cayman Islands.

### Material U.S. Federal Income Tax Considerations for U.S. Holders

The following is a description of the material U.S. federal income tax consequences to U.S. Holders (as defined below) of purchasing, owning and disposing of Class A Ordinary Shares, warrants and pre-funded warrants. It is not a comprehensive description of all U.S. federal income tax considerations that may be relevant to a particular person's decision to acquire Class A Ordinary Shares, warrants and pre-funded warrants. This discussion applies only to a U.S. Holder that holds a Class A Ordinary Share, warrant and pre-funded warrant as a capital asset for U.S. federal income tax purposes (generally, property held for investment). In addition, it does not describe all of the tax consequences that may be relevant in light of a U.S. Holder's particular circumstances, including state and local tax consequences, non-U.S. tax consequences, federal estate or gift tax consequences, alternative minimum tax consequences, the potential application of the provisions of the Code known as the Medicare Contribution Tax, and tax consequences applicable to U.S. Holders subject to special rules, such as:

- banks and other financial institutions;
- insurance companies;
- dealers or traders in securities who use a mark-to-market method of tax accounting;
- persons holding Class A Ordinary Shares as part of a hedging transaction, "straddle," wash sale, conversion transaction or integrated transaction or persons entering into a constructive sale with respect to the Class A Ordinary Shares;
- persons whose "functional currency" for U.S. federal income tax purposes is not the U.S. dollar;
- tax exempt entities, including "individual retirement accounts" and "Roth IRAs";
- former citizens or long-term residents of the United States;

- entities or arrangements classified as partnerships for U.S. federal income tax purposes;
- regulated investment companies or real estate investment trusts;
- persons who acquired our Class A Ordinary Shares pursuant to the exercise of an employee share option or otherwise as compensation;
- persons that own or are deemed to own ten percent or more of our shares; and
- persons holding Class A Ordinary Shares in connection with a trade or business conducted outside the United States.

If an entity or arrangement that is classified as a partnership for U.S. federal income tax purposes holds Class A Ordinary Shares, the U.S. federal income tax treatment of such partnership and each partner thereof will generally depend on the status of the partner and the activities of the partnership. Partnerships holding Class A Ordinary Shares and partners in such partnerships are encouraged to consult their tax advisors as to the particular U.S. federal income tax consequences of purchasing, holding and disposing of Class A Ordinary Shares.

The discussion is based on the Code, the Treasury Regulations issued thereunder, and administrative and judicial interpretations thereof, all as in effect on the date hereof and all of which are subject to change, possibly with retroactive effect, or to different interpretation. Such change could materially and adversely affect the tax consequences described below.

For purposes of this discussion, a "U.S. Holder" is a holder who, for U.S. federal income tax purposes, is a beneficial owner of Class A Ordinary Shares, warrants or pre-funded warrants and that is:

(1) an individual citizen or resident of the United States;

(2) a corporation, or other entity taxable as a corporation, created or organized in or under the laws of the United States, any state therein or the District of Columbia;

(3) an estate, the income of which is subject to U.S. federal income taxation regardless of its source; or

(4) a trust, (i) if a court within the United States is able to exercise primary supervision over its administration and one or more "U.S. persons" (within the meaning of the Code) have the authority to control all of its substantial decisions, or (ii) if a valid election is in effect for the trust to be treated as a U.S. person.

U.S. Holders are encouraged to consult their tax advisors concerning the U.S. federal, state, local and foreign tax consequences of purchasing, owning and disposing of Class A Ordinary Shares in their particular circumstances.

***Taxation of Distributions***

Subject to the discussion below under "Passive Foreign Investment Company Rules," a U.S. Holder will be required to include in gross income as dividend income the gross amount of any distributions paid on Class A Ordinary Shares (including any amount of taxes withheld), other than certain *pro rata* distributions of Class A Ordinary Shares, to the extent paid out of our current or accumulated earnings and profits (as determined under U.S. federal income tax principles). Distributions in excess of our current and accumulated earnings and profits would be treated as a non-taxable return of capital to the extent of the U.S. Holder's adjusted tax basis in the Class A Ordinary Shares and thereafter as a gain from the sale of the Class A Ordinary Shares. However, because we do not calculate our earnings and profits under U.S. federal income tax principles, we expect that distributions generally will be reported to U.S. Holders as dividends.

In case of a U.S. Holder that is a corporation, dividends paid on the Class A Ordinary Shares will be subject to regular corporate rates and will not be eligible for the "dividends received" deduction generally allowed to corporate shareholders with respect to dividends received from U.S. corporations.

Dividends received by an individual, trust or estate will be subject to taxation at standard tax rates. A reduced income tax rate applies to dividends paid by a "qualified foreign corporations" (if certain holding period requirements and other conditions are met). A non-U.S. corporation generally will be considered to be a qualified foreign corporation (i) if it is eligible for the benefits of a comprehensive tax treaty with the United States which includes an exchange of information program or (ii) with respect to any dividend it pays on stock which is readily tradable on an established securities market in the United States. US. Treasury Department guidance indicates that our Class A Ordinary Shares, which will be listed on the NASDAQ Global Market will be readily tradable on an established securities market in the United States. There can be no assurance, however, that our Class A Ordinary Shares will be considered readily tradable on an established securities market in later years.

Non-corporate U.S. Holders will not be eligible for reduced rates of taxation on any dividends received from us if we are a PFIC in the taxable year in which such dividends are paid or in the preceding taxable year (see "Passive Foreign Investment Company Rules" below).

A U.S. Holder may be eligible, subject to a number of complex limitations, to claim a foreign tax credit in respect of any foreign withholding taxes imposed on dividends received on the Class A Ordinary Shares. A U.S. Holder who does not elect to claim a foreign tax credit for foreign income tax withheld may instead claim a deduction for U.S. federal income tax purposes in respect of such withholding, but only for a year in which such investor elects to do so for all creditable foreign income taxes. For purposes of calculating the foreign tax credit limitation, dividends paid by us will, depending on the circumstances of the U.S. Holder, be either general or passive income.

While we do not expect to pay dividends in the near future, in the event any dividends are paid and if a dividend is paid in non-U.S. currency, it must be included in a U.S. Holder's income as a U.S. dollar amount based on the exchange rate in effect on the date such dividend is actually or constructively received, regardless of whether the dividend is in fact converted into U.S. dollars. If the dividend is converted to U.S. dollars on the date of receipt, a U.S. Holder generally will not recognize a foreign currency gain or loss. If the non-U.S. currency is converted into U.S. dollars on a later date, however, the U.S. Holder must include in income any gain or loss resulting from any exchange rate fluctuations. Such gain or loss will generally be ordinary income or loss and will be from sources within the United States for foreign tax credit limitation purposes. U.S. Holders should consult their own tax advisors regarding the tax consequences to them if we pay dividends in non-U.S. currency.

***Sale or Other Taxable Disposition of Shares***

Subject to the discussion below under "Passive Foreign Investment Company Rules," gain or loss realized on the sale or other taxable disposition of Class A Ordinary Shares and warrants will be capital gain or loss, and will be long-term capital gain or loss if the U.S. Holder held the Class A Ordinary Shares for more than one year. The amount of the gain or loss will equal the difference between the U.S. Holder's tax basis in the Class A Ordinary Shares disposed of and the amount realized on the disposition. Long-term capital gain of a non-corporate U.S. Holder is generally taxed at preferential rates. This gain or loss will generally be U.S.-source gain or loss for foreign tax credit purposes. The deductibility of capital losses is subject to limitations. U.S. Holders are urged to consult their tax advisors regarding the tax consequences if a foreign tax is imposed on the disposition of Class A Ordinary Shares, including the availability of the foreign tax credit under an investor's own particular circumstances.

A U.S. Holder that receives non-U.S. currency on the disposition of the Class A Ordinary Shares will realize an amount equal to the U.S. dollar value of the foreign currency received on the date of disposition (or in the case of cash basis and electing accrual basis taxpayers, the settlement date) whether or not converted into U.S. dollars at that time. Very generally, the U.S. Holder will recognize currency gain or loss if the U.S. dollar value of the currency received on the settlement date differs from the amount realized with respect to the Class A Ordinary Shares. Any currency gain or loss on the settlement date or on any subsequent disposition of the foreign currency generally will be U.S.-source ordinary income or loss.

***Exercise of a Pre-funded Warrant***

A U.S. Holder generally will not recognize taxable gain or loss on the acquisition of Class A Ordinary Shares upon exercise of a pre-funded warrant. The U.S. Holder's aggregate tax basis in the share of our Class A Ordinary Shares received upon exercise of a pre-funded warrant generally will be an amount equal to the sum of the U.S. Holder's tax basis in the pre-funded warrant prior to exercise and the warrant's exercise price. Provided that a pre-funded warrant is treated as our Class A Ordinary Shares, a U.S. Holder's holding period for the Class A Ordinary Shares received upon exercise of a warrant will include the holding period for the pre-funded warrant. On the other hand, if the pre-funded warrant is treated as an option to purchase our stock, a U.S. Holder's holding period for the Class A Ordinary Shares received upon exercise of a warrant will begin on the date following the date of exercise of the warrant and will not include the period during which the U.S. Holder held the warrant.

A U.S. Holder may be permitted to undertake a cashless exercise of pre-funded warrants into our Class A Ordinary Shares. The U.S. federal income tax treatment of a cashless exercise is unclear, and the tax consequences of a cashless exercise could differ from the consequences of an exercise described above. For example, the cashless exercise could be treated as a taxable disposition of a portion of the Warrants or the common shares into which they are exercisable. U.S. Holders should consult their own tax advisors regarding the U.S. federal income tax consequences of a cashless exercise.

***Passive Foreign Investment Company Rules***

Special U.S. federal income tax rules apply to a U.S. Holder that holds stock in a foreign corporation classified as a PFIC for U.S. federal income tax purposes. In general, a non-U.S. corporation will be classified as a PFIC for any taxable year in which, after applying certain look-through rules, either:

- at least 75% of its gross income for such taxable year is passive income (e.g., dividends, interest, capital gains and rents derived other than in the active conduct of a rental business); or

- at least 50% of its gross assets (determined on the basis of a quarterly average) is attributable to assets that produce passive income or are held for the production of passive income.

We will be treated as owning our proportionate share of the assets and earning our proportionate share of the income of any other corporation in which we own, directly or indirectly, 25% or more (by value) of the equity.

A separate determination must be made after the close of each taxable year as to whether we are a PFIC for that year. As a result, our PFIC status may change. In particular, the total value of our assets generally will be calculated using the market price of our Class A Ordinary Shares, which may fluctuate considerably. Fluctuations in the market price of our Class A Ordinary Shares may result in our being a PFIC for any taxable year.

Due to the amount of restricted and unrestricted cash that we had on hand during our year ending December 31, 2018 and 2017, we believe that we were classified as a PFIC for that tax year. Depending on the future composition and value of our assets, we may be classified as a PFIC for future years.

If we were to be classified as a PFIC, a U.S. Holder would be subject to different taxation rules depending on whether the U.S. Holder (i) takes no action, (ii) makes an election to treat us as a "Qualified Electing Fund" (a "QEF election") or (iii) if permitted, makes a "mark-to-market" election with respect to our Class A Ordinary Shares (a Mark-to-Market Election will be unavailable with respect to our warrants and is not expected to be available with respect to the pre-funded warrants, which are not likely to be treated as regularly traded on a qualified exchange). A U.S. Holder of our Class A Ordinary Shares will also be required under applicable Treasury Regulations to file an annual information return (Form 8621) containing information regarding our company. Additional explanations of the PFIC rules are set forth below: this material is complex and may affect different U.S. Holders differently. Accordingly, U.S. Holders should consult their own tax advisors about the consequences of our company being classified as a PFIC and about what steps, if any, they might take to lessen the tax impact of our PFIC status on them.

A U.S. Holder who does not make a timely QEF or mark-to-market election (a "Non-Electing Holder,"), as discussed below, will be subject to special tax rules with respect to any "excess distribution" that you receive and any gain you realize from a sale or other disposition (including a pledge) of Class A Ordinary Shares. Distributions you receive in a taxable year that are greater than 125% of the average annual distributions you received during the shorter of the three preceding taxable years or your holding period for the Class A Ordinary Shares, warrants or pre-funded warrants will be treated as an excess distribution. Under these special tax rules:

- the excess distribution or gain will be allocated ratably over your holding period for the Class A Ordinary Shares, warrants or pre-funded warrants;
- the amount allocated to the current taxable year, and any taxable year prior to the first taxable year in which we became a PFIC, will be treated as ordinary income; and
- the amount allocated to each other year will be subject to the highest tax rate in effect for that year and the interest charge generally applicable to underpayments of tax will be imposed on the resulting tax attributable to each such year.

It should be noted that, until such time as we make a distribution, there are no tax consequences to Non-Electing Holders. However, if we ever did make a distribution it would in all likelihood be an excess distribution (because we would not have previously made any distributions to holders of Class A Ordinary Shares). At that point, and for all subsequent distributions, the rules described above would apply to Non-Electing Holders. The tax liability for amounts allocated to years prior to the year of disposition or "excess distribution" cannot be offset by any net operating losses for such years, and gains (but not losses) realized on the sale of the Class A Ordinary Shares, warrants or pre-funded warrants cannot be treated as capital, even if you hold the Ordinary Shares as capital assets.

Certain elections may be available that would result in alternative treatments. The adverse consequences of owning stock in a PFIC could be mitigated if a U.S. Holder makes a valid QEF election (a U.S. Holder which we refer to as an "Electing Holder") which, among other things, would require the Electing Holder to include currently in income its pro rata share of the PFIC's net capital gain and ordinary earnings, if any, for our taxable year that ends with or within the taxable year of the Electing Holder, regardless of whether or not the Electing Holder actually received distributions from us. When an Electing Holder makes a QEF election, its adjusted tax basis in our Class A Ordinary Shares, warrants or pre-funded warrants is increased to reflect taxed but undistributed earnings and profits. Distributions of earnings and profits that had been previously taxed will result in a corresponding reduction in the adjusted tax basis in our Class A Ordinary Shares and will not be taxed again once distributed. An Electing Holder would generally recognize capital gain or loss on the sale, exchange or other disposition of our Class A Ordinary Shares.

A U.S. Holder can make a QEF election with respect to any year that we are a PFIC by filing IRS Form 8621 with its U.S. federal income tax return. This election must be made by the deadline (including extensions) for filing the U.S. Holder's federal tax return for the year in question. U.S. Holders should discuss their election alternatives with their own tax advisors. Once an election is made, the Electing Holder is subject to the QEF rules for as long as we are a PFIC.

It should be noted that in order to make a QEF election a U.S. Holder needs information from us concerning our PFIC status and our financial results for the year. We cannot assure our U.S. Holders that we will provide such information.

As an alternative to making a QEF election, a U.S. Holder may make a "mark-to-market" election with respect to our Class A Ordinary Shares provided our Class A Ordinary Shares are treated as "marketable stock." The Class A Ordinary Shares generally will be treated as marketable stock if they are regularly traded on a "qualified exchange or other market" (within the meaning of applicable Treasury Regulations) on at least 15 days during each calendar quarter (other than in de minimis amounts).

If a U.S. Holder makes an effective mark-to-market election, for each taxable year that we are a PFIC, the U.S. Holder will include as ordinary income the excess of the fair market value of its Class A Ordinary Shares at the end of the year over its adjusted tax basis in the Class A Ordinary Shares. You will be entitled to deduct as an ordinary loss in each such year the excess of your adjusted tax basis in the Class A Ordinary Shares over their fair market value at the end of the year, but only to the extent of the net amount previously included in income as a result of the mark-to-market election. A U.S. Holder's adjusted tax basis in the Class A Ordinary Shares will be increased by the amount of any income inclusion and decreased by the amount of any deductions under the mark-to-market rules. In addition, upon the sale or other disposition of your Class A Ordinary Shares in a year that we are PFIC, any gain will be treated as ordinary income and any loss will be treated as ordinary loss, but only to the extent of the net amount of previously included income as a result of the mark-to-market election.

If a U.S. Holder makes a mark-to-market election, it will be effective for the taxable year for which the election is made and all subsequent taxable years unless the Class A Ordinary Shares are no longer regularly traded on a qualified exchange or other market, or the IRS consents to the revocation of the election. You are urged to consult your tax advisor about the availability of the mark-to-market election, and whether making the election would be advisable in your particular circumstances.

***Information Reporting and Backup Withholding***

Payments of dividends and sales proceeds that are made within the United States or through certain U.S.-related financial intermediaries generally are subject to information reporting, and may be subject to backup withholding, unless (i) the U.S. Holder is a corporation or other exempt recipient or (ii) in the case of backup withholding, the U.S. Holder provides a correct taxpayer identification number and certifies that it is not subject to backup withholding.

Backup withholding is not an additional tax. The amount of any backup withholding from a payment to a U.S. Holder will be allowed as a credit against the holder's U.S. federal income tax liability and may entitle it to a refund, provided that the required information is timely furnished to the IRS.

***Information with Respect to Foreign Financial Assets***

Certain U.S. Holders may be required to report information relating to the Class A Ordinary Shares, warrants or pre-funded warrants, subject to certain exceptions (including an exception for Class A Ordinary Shares held in accounts maintained by certain U.S. financial institutions). U.S. Holders should consult their tax advisors regarding their reporting obligations with respect to their purchase, ownership and disposition of the Class A Ordinary Shares, warrants and pre-funded warrants.

## EXPENSES OF THIS OFFERING

Set forth below is an itemization of our total expenses, which are expected to be incurred in connection with the offer and sale of the Class A Ordinary Shares by us. With the exception of the SEC registration fee, all amounts are estimates.

| | | |
|---|---|---|
| Securities and Exchange Commission registration fee | $ | [●] |
| Legal fees and expenses | $ | [●] |
| Other professional fees | $ | [●] |
| **Total** | $ | [●] |

## LEGAL MATTERS

The validity of the Class A Ordinary Shares, warrants and pre-funded warrants being offered by this prospectus and other legal matters relating to Cayman Islands law will be passed upon for us by Campbells. Certain legal matters 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. The placement agent is being represented by Ellenoff Grossman & Schole LLP, New York, New York.

## EXPERTS

The consolidated balance sheets (successor basis) as of December 31, 2019 and 2018, the related consolidated statements (successor basis) of operations and comprehensive loss, equity and cash flows for each of the two years in the period ended December 31, 2019, 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 incorporated by reference in this prospectus have been audited by Marcum Bernstein & Pinchuk LLP, an independent registered public accounting firm ("Marcum"), as set forth in their report thereon, included therein, and incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing. The consolidated financial statements for the six months ended June 30, 2020 incorporated herein by reference are not audited.

## ENFORCEMENT 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 outside the United States. 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, United Kingdom 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 of this prospectus, no treaty or other form of reciprocity exists between the Cayman Islands and United Kingdom and/or 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, United Kingdom 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.

## 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 interim financial information for the first six months of each fiscal year.

We maintain a corporate website at www.aptorumgroup.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 Report on Form 6-K furnished with the Commission on September 2, 2020, which contains Management's Discussion and Analysis of Financial Condition and Results of Operations and the unaudited interim condensed consolidated financial statements and related notes thereto for the Company, as of and for the six months ended June 30, 2020;

(2) our Report on Form 6-K furnished with the Commission on September 1, 2020;

(3) our Report on Form 6-K furnished with the Commission on August 27, 2020;

(4) our Report on Form 6-K furnished with the Commission on August 20, 2020;

(5) our Report on Form 6-K furnished with the Commission on July 24, 2020;

(6) our Report on Form 6-K furnished with the Commission on July 17, 2020;

(7) our Report on Form 6-K furnished with the Commission on June 29, 2020;

(8) our Report on Form 6-K furnished with the Commission on May 13, 2020;

(9) our Annual Report on Form 20-F for the fiscal year ended December 31, 2019, filed with the SEC on April 29, 2020, which contains our audited consolidated financial statements for the most recent fiscal year for which those statements have been filed;

(10) the description of our Ordinary 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 17 Hanover Square, London W1S 1BN, United Kingdom, Attention: Sabrina Khan, Chief Financial Officer, +44 20 80929299. Additionally, copies of the documents incorporated herein by reference may be accessed at our website at www.aptorumgroup.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.

**Aptorum Group Limited**

**Up to 9,202,453 Class A Ordinary Shares and Warrants to purchase up to 9,202,453 Class A Ordinary Shares**
**or**
**Up to 9,202,453 Pre-Funded Warrants to Purchase Class A Ordinary Shares and Warrants to Purchase up to 9,202,453 Class A Ordinary Shares**
**(and 18,404,906 Class A Ordinary Shares Issuable Upon Exercise of the Pre-Funded Warrants and Warrants)**

**PRELIMINARY PROSPECTUS**

# H.C. Wainwright & Co.

## 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.

**The Bond Offering**

On April 6, 2018, we entered into a subscription agreement (the "Bond Subscription Agreement") with Peace Range Limited ("Peace Range"), a company incorporated under the laws of the British Virgin Islands and wholly-owned special purpose vehicle of Adamas Ping An Opportunities Fund L.P. Adamas Ping An Opportunities Fund L.P. is the third fund from Adamas Asset Management (HK) Limited ("Adamas") and the first fund from the joint venture between Adamas and Yun Sheng Capital Company Limited, a subsidiary of Ping An Insurance (Group) Company of China, Limited and is advised by Ping An Capital Company Limited. Pursuant to the Bond Subscription Agreement, we 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. We 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 closing of the transaction contemplated by the Bond Subscription Agreement and the issuance of the Bond are subject to standard closing conditions, which may be satisfied or waived by the impacted party. The Bond earns interest at the rate of 8% per annum, payable semi-annually. The payment of the Bond is guaranteed by our holding company, Jurchen Investment Corporation ("Jurchen"), a company wholly-owned by our CEO, Ian Huen, pursuant to a deed of guarantee (the "Guarantee"). In addition, the repayment of the principal of the Bond and interest payables is secured by a fund we 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 automatically converted into our Class A Ordinary Shares following the IPO; 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. We closed the Bond Offering on April 25, 2018 and issued a Bond to Peace Range pursuant to the Bond Subscription Agreement. Pursuant to the aforementioned conversion rights, we issued an aggregate of 119,217 shares of Class A Ordinary Shares to the Bond holder after the IPO closed. Following the IPO and pursuant to the terms of the related agreements, the shares Jurchen previously submitted to be held in escrow to guarantee the payment of the Bond were released to Jurchen and the related share charge agreement and escrow agreement were terminated.

On April 24, 2019, one of our wholly owned subsidiaries, Aptorum Investment Holding Ltd., repurchased the Bonds from Peace Range. According to the amended and restated terms and conditions of the Bonds, the Bondholder was granted certain rights to subscribe for additional 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 7 days prior to the maturity date ("Subscription Right"). The total consideration of the repurchase of Bonds and the Subscription Rights was US$13.6 million in cash, excluding accrued interest. The Bond matured and was redeemed on October 25, 2019.

One of the underwriters in the IPO 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. China Renaissance Securities (HK) Limited ("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. Prior to the commencement the IPO, Boustead assigned all such securities to a non-affiliate; the assignment is non-recourse. As of the date hereof, there are no outstanding Bond PA Warrants.

**The Series A Note Offering**

On May 15, 2018, we closed a private financing with certain investors (the "Series A Note Investors") who purchased an aggregate of approximately $1,600,400 Series A convertible notes, at a purchase price of $10,000 per note (the "Series A Notes"), pursuant to a note purchase agreement. Some of the Series A Note Investors are either affiliates of the Company or "related persons" as such term is defined in Item 404 of Regulation S-K. We refer to this 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 the Series A Notes or the Class A Ordinary Shares underlying the Series A Notes during the six-month period commencing on the date our Class A Ordinary Shares commence trading on NASDAQ Global Market. The Series A Notes automatically converted into Class A Ordinary Shares at the closing of the IPO at a conversion price equal to a 56% discount to the actual price per Class A Ordinary Share ("Conversion Price"). Accordingly, the Series A Notes converted into, and we issued an aggregate of 230,252 shares of Class A Ordinary Shares after the IPO closed.

One of the underwriters in the IPO also served as a placement agent for the Series A Note Offering 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 Series A Note PA Warrants are also exercisable on a cashless basis, at the holder's discretion. As of the date hereof, there are no outstanding Series A Note PA Warrants.

**Credit Agreements and Promissory Notes**

On August 13, 2019 (the "Effective Date"), Aptorum Therapeutics Limited ("ATL"), one of our wholly-owned subsidiaries, entered into two separate Promissory Notes and Line of Credit Agreements (the "Agreements") with Aeneas Group Limited ("Aeneas Group") and Jurchen Investment Corporation ("Jurchen"). The Aeneas Group Agreement and Jurchen Agreement provide ATL with a line of credit up to twelve million dollars ($12,000,000) and three million dollars ($3,000,000), respectively (collectively, the "Line of Credit"), representing the maximum aggregate amount of the advances of funds from the Line of Credit that may be outstanding at any time under the Line of Credit (the "Principal Indebtedness"). ATL may draw down from the Line of Credit at any time through the day immediately preceding the third anniversary of the Effective Date (the "Maturity Date"). Interest will be payable on the outstanding Principal Indebtedness at the rate of eight percent (8%) per annum, payable semi-annually in arrears on February 12 and August 12 in each year. ATL may pre-pay in whole or in part, the Principal Indebtedness of the Line of Credit, and all interest accrued at any time prior to the Maturity Date, without penalty. Under the Agreements, in addition to certain standard covenants, we are also not permitted, without the prior written consent of Aeneas Group and Jurchen to (i) liquidate, dissolve or wind-up our business and affairs; (ii) effect any merger or consolidation transaction; (iii) sell, lease, transfer, license or otherwise dispose, in a single transaction or series of related transactions, all or substantially all of our assets; or (iv) consent to any of the foregoing. The Agreements are subject to standard events of default, which if not cured within the agreed upon cure period, permits Aeneas Group or Jurchen, as applicable, to declare the outstanding Principal Indebtedness immediately due and payable, to exercise any other remedy provided for in the Agreements or any other right available to Aeneas Group or Jurchen as provided at law or in equity. Jurchen and Aeneas Group also maintain the right to set-off during the term of the Agreements.

**Registered Direct Offering**

On February 28, 2020, we closed a Registered Direct Offering with certain non-affiliated institutional investors (the "Non-affiliated Purchasers") and Jurchen Investment Corporation, our largest shareholder and wholly owned by Mr. Ian Huen, our Chief Executive Officer (the "Affiliated Purchaser" collectively with the Non-affiliated Purchasers, the "Purchasers"). The Purchasers purchased an aggregate of 1,351,350 Class A Ordinary Shares and warrants ("February 2020 Warrants") to purchase 1,351,350 Class A Ordinary Shares (the "Offering"), for gross proceeds of approximately $10 million. The February 2020 Warrants will be exercisable immediately following the date of issuance for a period of seven years at an initial exercise price of $7.40. The purchase price for each Share and the corresponding Warrant is $7.40.

We agreed that we would not issue any Class A Ordinary Shares (or Class A Ordinary Share Equivalents (as defined in the purchase agreement entered on February 25, 2020)) for 45 days following the closing of the Registered Direct Offering subject to certain customary exceptions, including, without limitation, issuances of restricted securities to consultants or employees of the Company, share option grants and issuances pursuant to existing outstanding securities and issuance in connection with strategic acquisition.

We agreed from the date of the purchase agreement until the date that is the later of (i) the 12 month anniversary of the closing date or (ii) one or more subsequent issuance by the Company or any of its subsidiaries of ordinary share equivalent having aggregate gross proceeds of at least $20,000,000, the Purchasers shall have the right to participate in the subsequent financing up to an amount equal to 50% of the Subsequent Financing (the "Participation Maximum") on the same terms, conditions and price provided for in the Subsequent Financing.

We also agreed certain most favored nation treatment of the all the Purchasers pursuant to which each Purchaser will have the opportunity to automatically have the same benefit if the terms and conditions with respect to this Purchase Agreement or any securities offered therein the Company offered to the other Purchasers are more favorable.

**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 "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 registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of New York, State of New York, on September 25, 2020.

**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 Registration Statement has been signed by the following persons in the capacities set forth below on September 25, 2020.

| | |
|---|---|
| /s/ Ian Huen<br>Name: Ian Huen | Chief Executive Officer (principal executive officer) and Executive Director |
| /s/ Sabrina Khan<br>Name: Sabrina Khan | Chief Financial Officer<br>(principal financial officer and principal accounting officer) |
| /s/ Darren Lui<br>Name: Darren Lui | President and Executive Director |
| /s/ Clark Cheng<br>Name: Clark Cheng | Chief Medical Officer and Executive Director |
| /s/ Douglas Arner<br>Name: Douglas Arner | Director |
| /s/ Charles Bathurst<br>Name: Charles Bathurst | Director |
| /s/ Mirko Scherer<br>Name: Mirko Scherer | Director |
| /s/ Justin Wu<br>Name: Justin Wu | Director |

**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 registration statement on Form F-1 in the City of New York, State of New York, on September 25, 2020.

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:

| Exhibit No. | Description |
|---|---|
| 1.1 | Form of Placement Agent Agreement |
| 3.1 | Second Amended and Restated Articles of Association * |
| 4.1 | Registrant's Specimen Certificate for Ordinary Shares* |
| 4.2 | Form of Placement Agent's Warrant |
| 4.3 | Form of February 2020 Warrant+ |
| 4.4 | Form of Pre-Funded Warrant |
| 4.5 | Form of Warrant |
| 5.1 | Opinion of Cayman Islands counsel of Aptorum Group Limited, as to the validity of the Ordinary Shares and tax matters |
| 5.2 | Opinion of U.S. counsel of Aptorum Group Limited, as to the validity of the Ordinary Shares |
| 10.1 | Appointment Letter between the Company and Ian Huen (Founder, Chief Executive Officer & Executive Director), dated September 25, 2017 * |
| 10.2 | Employment Letter between the Company and Sabrina Khan (Chief Financial Officer), dated September 1, 2017 * |
| 10.3 | Addendum to Employment Letter between Company and Sabrina Khan (Chief Financial Officer) dated April 24, 2018 * |
| 10.4 | Appointment Letter between the Company and Darren Lui (Chief Business Officer, President & Director), dated September 25, 2017 * |
| 10.5 | Employment Letter between the Company and Clark Cheng (Chief Medical Officer & Director), dated August 31, 2017 * |
| 10.6 | Addendum to Appointment Letter between the Company and Clark Cheng (Chief Medical Officer & Director), dated September 25, 2017 * |
| 10.7 | Second Addendum to Appointment Letter between the Company and Clark Cheng (Chief Medical Officer & Director), dated October 30, 2017 * |
| 10.8 | Third Addendum to Appointment Letter between the Company and Clark Cheng (Chief Medical Officer & Director), dated January 2, 2018* |
| 10.10 | Appointment Letter between the Company and Charles Bathurst (Independent Non-Executive Director), dated September 24, 2017* |
| 10.11 | Appointment Letter between the Company and Mirko Scherer (Independent Non-Executive Director), dated September 24, 2017* |
| 10.12 | Employment Agreement between the Company and Justin Wu (Independent Non-Executive Director), dated September 18, 2017* |
| 10.13 | Employment Agreement between the Company and Douglas Arner (Independent Non-Executive Director), dated February 13, 2018* |
| 10.25 | 2017 Share Option Plan* |
| 10.26 | Master Service Agreement between Covar Pharmaceuticals Incorporated and Aptorum Therapeutics Limited dated May 15, 2019(9) |
| 10.27 | 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(5) |
| 10.28 | Exclusive Patent License Agreement for ALS-4 dated October 18, 2017(3) |
| 10.29 | First Amendment to Exclusive License Agreement for ALS-4 dated June 7, 2018* |
| 10.30 | Second Amendment to Exclusive License Agreement for ALS-4 dated July 10, 2019(6)(7) |
| 10.31 | Exclusive License Agreement for ALS-4 dated January 11, 2019(4) |
| 10.32 | Appoint letter with Dr. Lee dated March 13, 2019++ |
| 10.33 | Appointment letter with Dr. Ng, dated March 13, 2019++ |
| 10.34 | Master Collaboration Agreement by and between the Company, A*ccelerate Technologies Pte. Ltd, and Aeneas Capital Limited dated April 24, 2019 (1) |

| | |
|---|---|
| 10.35 | Form of Line of Credit Agreement (2) |
| 10.36 | Form of Promissory Note (2) |
| 10.37 | Consulting agreement with CGY Investment Limited effective on January 10, 2020(6) |
| 10.38 | Distribution and Marketing Agreement between Nativus Life Sciences Limited and Multipak Limited(6) |
| 10.39 | Secondment Agreement (2) between the Company and Aenco Limited dated April 1, 2020(6) |
| 10.40 | Contract Research Agreement between Aptorum Therapeutics Limited and Aeneas Technology (Hong Kong) Limited(10) |
| 10.41 | Form of February 2020 Securities Purchase Agreement+ |
| 10.42 | Form of Purchaser Warrant Exchange Agreement(8) |
| 10.43 | Form of Lock-Up Agreement(8) |
| 10.44 | Form of Securities Purchase Agreement to be entered into among the Company and certain investors |
| 10.45 | Form of Lock-Up Agreement to be entered into by the Company's officers and directors |
| 21.1 | List of Subsidiaries(10) |
| 23.1 | Consent of Marcum Bernstein & Pinchuk LLP |
| 23.2 | Consent of Cayman Islands counsel of Aptorum Group Limited (included in Exhibit 5.1) |
| 23.3 | Consent of U.S. counsel of Aptorum Group Limited (included in Exhibit 5.2) |
| 99.1 | Code of Business Ethics* |

* 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 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 February 26, 2020
(1) Incorporated by reference to our Current Report on Form 6-K filed on April 24, 2019
(2) Incorporated by reference to our Current Report on Form 6-K filed on August 14, 2019
(3) Incorporated by reference to our Registration Statement Filed on Form F-1 on September 5, 2018; portions of the exhibit were previously omitted in reliance on the confidential treatment provisions available pursuant to revised paragraph 4(a) of Instructions as to Exhibits of Form 20-F
(4) Incorporated by reference to our annual report on Form 20-F filed on April 15, 2019; portions of the exhibit were previously omitted in reliance on the confidential treatment provisions available pursuant to revised paragraph 4(a) of Instructions as to Exhibits of Form 20-F
(5) Incorporated by reference to our annual report on Form 20-F filed on April 15, 2019
(6) Incorporated by reference to our annual report on Form 20-F filed on April 29, 2020
(7) Certain information from this exhibit 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
(8) Incorporated by reference to our Current Report on Form 6-K filed on August 27, 2020
(9) Incorporated by reference to our Registration Statement Filed on Form F-1 on July 2, 2019
(10) Incorporated by reference to our Registration Statement Filed on Form F-1 on September 11, 2020

**Exhibit 1.1**

**PLACEMENT AGENCY AGREEM ENT**

September __, 2020

H.C. Wainwright & Co., LLC
430 Park Avenue
New York, New York 10022

Ladies and Gentlemen:

**Introduction**. Subject to the terms and conditions herein (this "Agreement"), Aptorum Group Limited, a Cayman Islands company (the "Company"), hereby agrees to sell up to an aggregate of $15,000,000 of registered securities of the Company, including, but not limited to, _____ shares (the "Shares") of the Company's Class A ordinary shares, $1.00 par value per share (the "Ordinary Shares"), pre-funded Ordinary Share purchase warrants to purchase up to an aggregate of _____ Ordinary Shares (the "Pre-Funded Warrants"), and Ordinary Share purchase warrants to purchase up to an aggregate of _____ Ordinary Shares (the "Warrants" and the Ordinary Shares underlying the Pre-Funded Warrants and the Warrants, the "Warrant Shares" and, the Shares, the Pre-Funded Warrants, the Warrants and the Warrant Shares, the "Securities"), directly to various investors (each, an "Investor" and, collectively, the "Investors") through H.C. Wainwright & Co., LLC, as placement agent (the "Placement Agent"). The documents executed and delivered by the Company and the Investors in connection with the Offering (as defined below), including, without limitation, a securities purchase agreement (the "Purchase Agreement"), shall be collectively referred to herein as the "Transaction Documents." The purchase price to the Investors for each Share is $___, the purchase price for each Pre-Funded Warrant is $_____, the exercise price to the Investors for each Ordinary Share issuable upon exercise of the Pre-Funded Warrants is $____, and the exercise price to the Investors for each Ordinary Share issuable upon exercise of the Warrants is $___. The Placement Agent may retain other brokers or dealers to act as sub-agents or selected-dealers on its behalf in connection with the Offering.

The Company hereby confirms its agreement with the Placement Agent as follows:

**Section 1. Agreement to Act as Placement Agent**.

(a) On the basis of the representations, warranties and agreements of the Company herein contained, and subject to all the terms and conditions of this Agreement, the Placement Agent shall be the exclusive placement agent in connection with the offering and sale by the Company of the Securities pursuant to the Company's registration statement on Form F-1 (File No. 333-248743) (the "Registration Statement"), with the terms of such offering (the "Offering") to be subject to market conditions and negotiations between the Company, the Placement Agent and the prospective Investors. The Placement Agent will act on a reasonable best-efforts basis and the Company agrees and acknowledges that there is no guarantee of the successful placement of the Securities, or any portion thereof, in the prospective Offering. Under no circumstances will the Placement Agent or any of its "Affiliates" (as defined below) be obligated to underwrite or purchase any of the Securities for its own account or otherwise provide any financing. The Placement Agent shall act solely as the Company's agent and not as principal. The Placement Agent shall have no authority to bind the Company with respect to any prospective offer to purchase Securities and the Company shall have the sole right to accept offers to purchase Securities and may reject any such offer, in whole or in part. Subject to the terms and conditions hereof, payment of the purchase price for, and delivery of, the Securities shall be made at one or more closings (each a "Closing" and the date on which each Closing occurs, a "Closing Date"). The Closing of the issuance of the Shares shall occur via "Delivery Versus Payment", i.e., on the Closing Date, the Company shall issue the Shares directly to the account designated by the Placement Agent and, upon receipt of such Shares, the Placement Agent shall electronically deliver such Shares to the applicable Investor and payment shall be made by the Placement Agent (or its clearing firm) by wire transfer to the Company. Within three trading days of the Closing, the Company shall deliver a Warrant registered in the name of each Investor to purchase up to a number of Ordinary Shares equal to 100.0% of such Investor's Shares and/or Pre-Funded Warrants purchased pursuant to the Offering. As compensation for services rendered, on each Closing Date, the Company shall pay to the Placement Agent the fees and expenses set forth below:

(i) A cash fee equal to 7.0% of the gross proceeds received by the Company from the sale of the Securities (including any exercise of the Pre-Funded Warrants) (the "Cash Fee") at the closing of the Offering (the "Closing"); provided, however, that such Cash Fee shall be reduced to 3.5% of the gross proceeds raised in the Offering from (i) Investors who are listed on Appendix A attached to the Engagement Agreement (as defined in Section 13(a)) and/or (ii) Investors who are listed on Appendix B attached to the Engagement Agreement solely if the Company is also paying Alliance Global Partners ("AGP") a tail fee pursuant to AGP's right for a tail fee existing as of the date hereof with respect to such Investors.

(ii) Such number of Ordinary Share purchase warrants (the "Placement Agent Warrants") to Placement Agent or its designees at each Closing to purchase shares of Ordinary Shares equal to 7.0% of the aggregate number of Shares and Ordinary Shares underlying the Pre-Funded Warrants sold in the Offering; provided, however, that such warrant coverage shall be reduced to 3.5% of the aggregate number of Shares and Ordinary Shares underlying the Pre-Funded Warrants sold to (i) Investors who are listed on Appendix A attached to the Engagement Agreement and/or (ii) Investors who are listed on Appendix B attached to the Engagement Agreement solely if the Company is also paying AGP a tail fee pursuant to AGP's right for a tail fee existing as of the date hereof with respect to such Investors. The Placement Agent Warrants shall have the same terms as the Warrants issued to the Investors in the Offering except that the exercise price shall be 125% of the public offering price per Share and shall have an expiration date of 5 years from the commencement of the sales of the Offering.

(iii) The Company also agrees to pay the Placement Agent a management fee equal to 1.0% of the gross proceeds of the Offering.

(iv) The Company further agrees to reimburse the Placement Agent's non-accountable expenses in the amount of $50,000.

(v) The Company further agrees to reimburse the Placement Agent's legal expenses in the amount of $100,000.

(vi) The Company additionally agrees to reimburse the Placement Agent's closing expenses in the amount of $12,900.

(b) The term of the Placement Agent's exclusive engagement will be until the completion of the Offering (the "Exclusive Term"); provided, however, that a party hereto may terminate the engagement with respect to itself at any time upon 10 days written notice to the other parties. Notwithstanding anything to the contrary contained herein, the provisions concerning confidentiality, indemnification and contribution contained herein and the Company's obligations contained in the indemnification provisions will survive any expiration or termination of this Agreement, and the Company's obligation to pay fees actually earned and payable and to reimburse expenses actually incurred and reimbursable pursuant to Section 1 hereof and which are permitted to be reimbursed under FINRA Rule 5110(f)(2)(D)(i), will survive any expiration or termination of this Agreement. Nothing in this Agreement shall be construed to limit the ability of the Placement Agent or its Affiliates to pursue, investigate, analyze, invest in, or engage in investment banking, financial advisory or any other business relationship with Persons (as defined below) other than the Company. As used herein (i) "Persons" means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind and (ii) "Affiliate" means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person as such terms are used in and construed under Rule 405 under the Securities Act of 1933, as amended (the "Securities Act").

**Section 2. Representations, Warranties and Covenants of the Company**. The Company hereby represents, warrants and covenants to the Placement Agent as of the date hereof, and as of each Closing Date, as follows:

(a) Securities Law Filings. The Company has filed with the Securities and Exchange Commission (the "Commission") the Registration Statement under the Securities Act, which was filed on September 11, 2020 and declared effective on _____, 2020 for the registration of the Securities and the Placement Agent Warrants under the Securities Act. Following the determination of pricing among the Company and the prospective Investors introduced to the Company by Placement Agent, the Company will file with the Commission pursuant to Rules 430B and 424(b) under the Securities Act, and the rules and regulations (the "Rules and Regulations") of the Commission promulgated thereunder, a final prospectus relating to the placement of the Securities, their respective pricings and the plan of distribution thereof and will advise the Placement Agent of all further information (financial and other) with respect to the Company required to be set forth therein. Such registration statement, at any given time, including the exhibits thereto filed at such time, as amended at such time, is hereinafter called the "Registration Statement"; such prospectus in the form in which it appears in the Registration Statement at the time of effectiveness is hereinafter called the "Preliminary Prospectus"; and the final prospectus, in the form in which it will be filed with the Commission pursuant to Rules 430A and/or 424(b) (including the Preliminary Prospectus as it may be amended or supplemented) is hereinafter called the "Final Prospectus." The Registration Statement at the time it originally became effective is hereinafter called the "Original Registration Statement." Any reference in this Agreement to the Registration Statement, the Original Registration Statement, the Preliminary Prospectus or the Final Prospectus shall be deemed to refer to and include the documents incorporated by reference therein (the "Incorporated Documents"), if any, which were or are filed under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), at any given time, as the case may be; and any reference in this Agreement to the terms "amend," "amendment" or "supplement" with respect to the Registration Statement, the Original Registration Statement, the Preliminary Prospectus or the Final Prospectus shall be deemed to refer to and include the filing of any document under the Exchange Act after the date of this Agreement, or the issue date of the Preliminary Prospectus or the Final Prospectus, as the case may be, deemed to be incorporated therein by reference. All references in this Agreement to financial statements and schedules and other information which is "contained," "included," "described," "referenced," "set forth" or "stated" in the Registration Statement, the Preliminary Prospectus or the Final Prospectus (and all other references of like import) shall be deemed to mean and include all such financial statements and schedules and other information which is or is deemed to be incorporated by reference in the Registration Statement, the Preliminary Prospectus or the Final Prospectus, as the case may be. As used in this paragraph and elsewhere in this Agreement, "Time of Sale Disclosure Package" means the Preliminary Prospectus, any subscription agreement between the Company and the Investors, the final terms of the Offering provided to the Investors (orally or in writing) and any issuer free writing prospectus as defined in Rule 433 of the Act (each, an "Issuer Free Writing Prospectus"), if any, that the parties hereto shall hereafter expressly agree in writing to treat as part of the Time of Sale Disclosure Package. The term "any Prospectus" shall mean, as the context requires, the Preliminary Prospectus, the Final Prospectus, and any supplement to either thereof. The Company has not received any notice that the Commission has issued or intends to issue a stop order suspending the effectiveness of the Registration Statement or the use of the Preliminary Prospectus or any prospectus supplement or intends to commence a proceeding for any such purpose.

(b) Assurances. The Original Registration Statement, as amended, (and any further documents to be filed with the Commission) contains all exhibits and schedules as required by the Securities Act. Each of the Registration Statement and any post-effective amendment thereto, at the time it became effective, complied in all material respects with the Securities Act and the applicable Rules and Regulations and did not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading. The Final Prospectus, as of its date, complied or will comply in all material respects with the Securities Act and the applicable Rules and Regulations. The Final Prospectus, as amended or supplemented, did not and will not contain as of the date thereof any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading. The Incorporated Documents, when they were filed with the Commission, conformed in all material respects to the requirements of the Exchange Act and the applicable Rules and Regulations promulgated thereunder, and none of such documents, when they were filed with the Commission, contained any untrue statement of a material fact or omitted to state a material fact necessary to make the statements therein (with respect to Incorporated Documents incorporated by reference in the Final Prospectus), in light of the circumstances under which they were made not misleading. No post-effective amendment to the Registration Statement reflecting any facts or events arising after the date thereof which represent, individually or in the aggregate, a fundamental change in the information set forth therein is required to be filed with the Commission. Except for this Agreement and the Transaction Documents, there are no documents required to be filed with the Commission in connection with the transaction contemplated hereby that (x) have not been filed as required pursuant to the Securities Act or (y) will not be filed within the requisite time period. Except for this Agreement and the Transaction Documents, there are no contracts or other documents required to be described in the Final Prospectus, or to be filed as exhibits or schedules to the Registration Statement, which have not been described or filed as required.

(c) Offering Materials. Neither the Company nor any of its directors and officers has distributed and none of them will distribute, prior to each Closing Date, any offering material in connection with the offering and sale of the Securities other than the Time of Sale Disclosure Package.

(d) Authorization; Enforcement. The Company has the requisite corporate power and authority to enter into and to consummate the transactions contemplated by this Agreement and the Time of Sale Disclosure Package and otherwise to carry out its obligations hereunder and thereunder. The execution and delivery of each of this Agreement and the Time of Sale Disclosure Package by the Company and the consummation by it of the transactions contemplated hereby and thereby have been duly authorized by all necessary action on the part of the Company and no further action is required by the Company, the Company's Board of Directors (the "Board of Directors") or the Company's stockholders in connection therewith other than in connection with the Required Approvals (as defined below). This Agreement has been duly executed by the Company and, when delivered in accordance with the terms hereof, will constitute the valid and binding obligation of the Company enforceable against the Company in accordance with its terms, except (i) as limited by general equitable principles and applicable bankruptcy, insolvency, reorganization, moratorium and other laws of general application affecting enforcement of creditors' rights generally, (ii) as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies and (iii) insofar as indemnification and contribution provisions may be limited by applicable law.

(e) No Conflicts. The execution, delivery and performance by the Company of this Agreement and the transactions contemplated pursuant to the Time of Sale Disclosure Package, the issuance and sale of the Securities and the consummation by it of the transactions contemplated hereby and thereby to which it is a party do not and will not (i) conflict with or violate any provision of the Company's or any Subsidiary's certificate or articles of incorporation, bylaws or other organizational or charter documents, or (ii) conflict with, or constitute a default (or an event that with notice or lapse of time or both would become a default) under, result in the creation of any Lien upon any of the properties or assets of the Company or any Subsidiary, or give to others any rights of termination, amendment, acceleration or cancellation (with or without notice, lapse of time or both) of, any agreement, credit facility, debt or other instrument (evidencing a Company or Subsidiary debt or otherwise) or other understanding to which the Company or any Subsidiary is a party or by which any property or asset of the Company or any Subsidiary is bound or affected, or (iii) subject to the Required Approvals, conflict with or result in a violation of any law, rule, regulation, order, judgment, injunction, decree or other restriction of any court or governmental authority to which the Company or a Subsidiary is subject (including federal and state securities laws and regulations), or by which any property or asset of the Company or a Subsidiary is bound or affected; except in the case of each of clauses (ii) and (iii), such as could not have or reasonably be expected to in: (x) a material adverse effect on the legality, validity or enforceability of this Agreement or any other agreement entered into between the Company and the Investors, (y) a material adverse effect on the results of operations, assets, business, prospects or condition (financial or otherwise) of the Company and the Subsidiaries, taken as a whole, or (z) a material adverse effect on the Company's ability to perform in any material respect on a timely basis its obligations under this Agreement or the transactions contemplated under the Prospectus (any of (x), (y) or (z), a "Material Adverse Effect"). As used in this Agreement, "Subsidiary" means all of the direct and indirect subsidiaries of the Company as set forth in the Incorporated Documents. As used in this Section 2(e), "Lien" means liens, charges, security interests, encumbrances, rights of first refusal, preemptive rights or other restrictions.

(f) Certificates. Any certificate signed by an officer of the Company and delivered to the Placement Agent or to counsel for the Placement Agent shall be deemed to be a representation and warranty by the Company to the Placement Agent as to the matters set forth therein.

(g) Reliance. The Company acknowledges that the Placement Agent will rely upon the accuracy and truthfulness of the foregoing representations and warranties and hereby consents to such reliance.

(h) Forward-Looking Statements. No forward-looking statements (within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act) contained in the Time of Sale Disclosure Package has been made or reaffirmed without a reasonable basis or has been disclosed other than in good faith.

(i) FINRA Affiliations. There are no affiliations with any FINRA member firm that is participating in the Offering among the Company's officers, directors or, to the knowledge of the Company, any five percent (5%) or greater stockholder of the Company.

(j) Representations and Warranties Incorporated by Reference. Each of the representations and warranties (together with any related disclosure schedules thereto) made by the Company to the Investors in the Purchase Agreement is hereby incorporated herein by reference (as though fully restated herein) and is hereby made to, and in favor of, the Placement Agent.

**Section 3. Delivery and Payment**. Each Closing shall occur at the offices of Ellenoff Grossman & Schole LLP, 1345 Avenue of the Americas, New York, New York 10105 ("Placement Agent Counsel") (or at such other place as shall be agreed upon by the Placement Agent and the Company). Subject to the terms and conditions hereof, at each Closing payment of the purchase price for the Securities sold on such Closing Date shall be made by Federal Funds wire transfer, against delivery of the Shares (with Warrants to follow as provided for in Section 1(a)), and such Securities shall be registered in such name or names and shall be in such denominations, as the Placement Agent may request at least one business day before the Closing Date.

Deliveries of the documents with respect to the purchase of the Securities, if any, shall be made at the offices of Placement Agent Counsel. All actions taken at a Closing shall be deemed to have occurred simultaneously.

**Section 4. Covenants and Agreements of the Company**. The Company further covenants and agrees with the Placement Agent as follows:

(a) Registration Statement Matters. During the Prospectus Delivery Period (as defined below), the Company will advise the Placement Agent promptly after it receives notice thereof of the time when any amendment to the Registration Statement has been filed or becomes effective or any supplement to the Final Prospectus has been filed and will furnish the Placement Agent with copies thereof. During the Prospectus Delivery Period, the Company will file promptly all reports and any definitive proxy or information statements required to be filed by the Company with the Commission pursuant to Section 13(a), 14 or 15(d) of the Exchange Act subsequent to the date of any Prospectus. During the Prospectus Delivery Period, the Company will advise the Placement Agent, promptly after it receives notice thereof (i) of any request by the Commission to amend the Registration Statement or to amend or supplement any Prospectus or for additional information, and (ii) of the issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement or any post-effective amendment thereto or any order directed at any Incorporated Document, if any, or any amendment or supplement thereto or any order preventing or suspending the use of the Preliminary Prospectus or the Final Prospectus or any prospectus supplement or any amendment or supplement thereto or any post-effective amendment to the Registration Statement, of the suspension of the qualification of the Securities for offering or sale in any jurisdiction, of the institution or threatened institution of any proceeding for any such purpose, or of any request by the Commission for the amending or supplementing of the Registration Statement or a Prospectus or for additional information. The Company shall use its commercially reasonable efforts to prevent the issuance of any such stop order or prevention or suspension of such use. If the Commission shall enter any such stop order or order or notice of prevention or suspension at any time, the Company will use its commercially reasonable efforts to obtain the lifting of such order at the earliest possible moment, or will file a new registration statement and use its best efforts to have such new registration statement declared effective as soon as practicable. Additionally, the Company agrees that during the Prospectus Delivery Period, it shall comply with the provisions of Rules 424(b), 430A, 430B and 430C, as applicable, under the Securities Act, including with respect to the timely filing of documents thereunder, and will use its reasonable efforts to confirm that any filings made by the Company under such Rule 424(b) are received in a timely manner by the Commission.

(b) Blue Sky Compliance. The Company will cooperate with the Placement Agent and the Investors in endeavoring to qualify the Securities for sale under the securities laws of such jurisdictions (United States and foreign) as the Placement Agent and the Investors may reasonably request and will make such applications, file such documents, and furnish such information as may be reasonably required for that purpose, provided the Company shall not be required to qualify as a foreign corporation or to file a general consent to service of process in any jurisdiction where it is not now so qualified or required to file such a consent, and provided further that the Company shall not be required to produce any new disclosure document. During the Prospectus Delivery Period, the Company will, from time to time, prepare and file such statements, reports and other documents as are or may be required to continue such qualifications in effect. During the Prospectus Delivery Period, the Company will advise the Placement Agent promptly of the suspension of the qualification or registration of (or any such exemption relating to) the Securities for offering, sale or trading in any jurisdiction or any initiation or threat of any proceeding for any such purpose, and in the event of the issuance of any order suspending such qualification, registration or exemption, the Company shall use its commercially reasonable efforts to obtain the withdrawal thereof at the earliest possible moment.

(c) Amendments and Supplements to a Prospectus and Other Matters. The Company will comply with the Securities Act and the Exchange Act, and the rules and regulations of the Commission thereunder, so as to permit the completion of the distribution of the Securities as contemplated in this Agreement, the Incorporated Documents and any Prospectus. If during the period in which a prospectus is required by law to be delivered in connection with the distribution of Securities contemplated by the Incorporated Documents or any Prospectus (the "Prospectus Delivery Period"), any event shall occur as a result of which, in the judgment of the Company or in the opinion of the Placement Agent or counsel for the Placement Agent, it becomes necessary to amend or supplement the Incorporated Documents or any Prospectus in order to make the statements therein, in the light of the circumstances under which they were made, as the case may be, not misleading, or if it is necessary at any time to amend or supplement the Incorporated Documents or any Prospectus or to file under the Exchange Act any Incorporated Document to comply with any law, the Company will promptly prepare and file with the Commission, and furnish at its own expense to the Placement Agent and to dealers, an appropriate amendment to the Registration Statement or supplement to the Registration Statement, the Incorporated Documents or any Prospectus that is necessary in order to make the statements in the Incorporated Documents and any Prospectus as so amended or supplemented, in the light of the circumstances under which they were made, as the case may be, not misleading, or so that the Registration Statement, the Incorporated Documents or any Prospectus, as so amended or supplemented, will comply with law. Before amending the Registration Statement or supplementing the Incorporated Documents or any Prospectus in connection with the Offering, the Company will furnish the Placement Agent with a copy of such proposed amendment or supplement and will not file any such amendment or supplement to which the Placement Agent reasonably objects.

(d) Copies of any Amendments and Supplements to a Prospectus. The Company will furnish the Placement Agent, without charge, during the period beginning on the date hereof and ending on the later of the last Closing Date of the Offering, as many copies of any Prospectus or prospectus supplement and any amendments and supplements thereto, as the Placement Agent may reasonably request.

(e) Free Writing Prospectus. The Company covenants that it will not, unless it obtains the prior written consent of the Placement Agent, make any offer relating to the Securities that would constitute an Company Free Writing Prospectus or that would otherwise constitute a "free writing prospectus" (as defined in Rule 405 of the Securities Act) required to be filed by the Company with the Commission or retained by the Company under Rule 433 of the Securities Act. In the event that the Placement Agent expressly consents in writing to any such free writing prospectus (a "Permitted Free Writing Prospectus"), the Company covenants that it shall (i) treat each Permitted Free Writing Prospectus as an Company Free Writing Prospectus, and (ii) comply with the requirements of Rule 164 and 433 of the Securities Act applicable to such Permitted Free Writing Prospectus, including in respect of timely filing with the Commission, legending and record keeping.

(f) Transfer Agent. The Company will maintain, at its expense, a registrar and transfer agent for the Ordinary Shares.

(g) Earnings Statement. As soon as practicable and in accordance with applicable requirements under the Securities Act, but in any event not later than 18 months after the last Closing Date, the Company will make generally available to its security holders and to the Placement Agent an earnings statement, covering a period of at least 12 consecutive months beginning after the last Closing Date, that satisfies the provisions of Section 11(a) and Rule 158 under the Securities Act.

(h) Periodic Reporting Obligations. During the Prospectus Delivery Period, the Company will duly file, on a timely basis, with the Commission and the Trading Market all reports and documents required to be filed under the Exchange Act within the time periods and in the manner required by the Exchange Act.

(i) Additional Documents. The Company will enter into any subscription, purchase or other customary agreements as the Placement Agent or the Investors deem necessary or appropriate to consummate the Offering, all of which will be in form and substance reasonably acceptable to the Placement Agent and the Investors. The Company agrees that the Placement Agent may rely upon, and each is a third-party beneficiary of, the representations and warranties, and applicable covenants, set forth in any purchase, subscription or other agreement entered into with Investors in connection with the Offering.

(j) No Manipulation of Price. The Company will not take, directly or indirectly, any action designed to cause or result in, or that has constituted or might reasonably be expected to constitute, the stabilization or manipulation of the price of any securities of the Company.

(k) Acknowledgment. The Company acknowledges that any advice given by the Placement Agent to the Company is solely for the benefit and use of the Board of Directors of the Company and may not be used, reproduced, disseminated, quoted or referred to, without the Placement Agent's prior written consent.

(l) Announcement of Offering. The Company acknowledges and agrees that the Placement Agent may at its sole expense, subsequent to the Closing, make public its involvement with the Offering.

(m) Reliance on Others. The Company confirms that it will rely on its own counsel and accountants for legal and accounting advice.

(n) Research Matters. By entering into this Agreement, the Placement Agent does not provide any promise, either explicitly or implicitly, of favorable or continued research coverage of the Company and the Company hereby acknowledges and agrees that the Placement Agent's selection as a placement agent for the Offering was in no way conditioned, explicitly or implicitly, on the Placement Agent providing favorable or any research coverage of the Company. In accordance with FINRA Rule 2711(e), the parties acknowledge and agree that the Placement Agent has not directly or indirectly offered favorable research, a specific rating or a specific price target, or threatened to change research, a rating or a price target, to the Company or inducement for the receipt of business or compensation.

**Section 5. Conditions of the Obligations of the Placement Agent**. The obligations of the Placement Agent hereunder shall be subject to the accuracy in all material respects of the representations and warranties on the part of the Company set forth in Section 2 hereof, in each case as of the date hereof and as of each Closing Date as though then made, to the timely performance by each of the Company of its covenants and other obligations hereunder on and as of such dates, and to each of the following additional conditions:

(a) Accountants' Comfort Letter. On the date hereof, the Placement Agent shall have received, and the Company shall have caused to be delivered to the Placement Agent, a letter from Marcum Bernstein & Pinchuk LLP (the independent registered public accounting firm of the Company), addressed to the Placement Agent, dated as of the date hereof, in form and substance satisfactory to the Placement Agent. The letter shall not disclose any change in the condition (financial or other), earnings, operations, business or prospects of the Company from that set forth in the Incorporated Documents or the applicable Prospectus or prospectus supplement, which, in the Placement Agent's sole judgment, is material and adverse and that makes it, in the Placement Agent's sole judgment, impracticable or inadvisable to proceed with the Offering of the Securities as contemplated by such Prospectus.

(b) Compliance with Registration Requirements; No Stop Order; No Objection from the FINRA. Each Prospectus (in accordance with Rule 424(b)) and "free writing prospectus" (as defined in Rule 405 of the Securities Act), if any, shall have been duly filed with the Commission, as appropriate; no stop order suspending the effectiveness of the Registration Statement or any part thereof shall have been issued and no proceeding for that purpose shall have been initiated or threatened by the Commission; no order preventing or suspending the use of any Prospectus shall have been issued and no proceeding for that purpose shall have been initiated or threatened by the Commission; no order having the effect of ceasing or suspending the distribution of the Securities or any other securities of the Company shall have been issued by any securities commission, securities regulatory authority or stock exchange and no proceedings for that purpose shall have been instituted or shall be pending or, to the knowledge of the Company, contemplated by any securities commission, securities regulatory authority or stock exchange; all requests for additional information on the part of the Commission shall have been complied with; and the FINRA shall have raised no objection to the fairness and reasonableness of the placement terms and arrangements.

(c) Corporate Proceedings. All corporate proceedings and other legal matters in connection with this Agreement, the Registration Statement and each Prospectus, and the registration, sale and delivery of the Securities, shall have been completed or resolved in a manner reasonably satisfactory to the Placement Agent's counsel, and such counsel shall have been furnished with such papers and information as it may reasonably have requested to enable such counsel to pass upon the matters referred to in this Section 5.

(d) No Material Adverse Change. Subsequent to the execution and delivery of this Agreement and prior to each Closing Date, in the Placement Agent's sole judgment after consultation with the Company, there shall not have occurred any Material Adverse Change or development involving a prospective material adverse change in the condition or the business activities, financial or otherwise, of the Company from the latest dates as of which such condition is set forth in the Registration Statement and Prospectus (each, a "Material Adverse Change").

(e) Opinion of Counsels for the Company. The Placement Agent shall have received on each Closing Date the favorable opinion of US legal counsel and Cayman Islands legal counsel to the Company, dated as of such Closing Date, including, without limitation, negative assurance letters addressed to the Placement Agent and in form and substance satisfactory to the Placement Agent to the Company.

(f) Officers' Certificate. The Placement Agent shall have received on each Closing Date a certificate of the Company, dated as of such Closing Date, signed by the Chief Executive Officer and Chief Financial Officer of the Company, to the effect that, and the Placement Agent shall be satisfied that, the signers of such certificate have reviewed the Registration Statement, the Incorporated Documents, the Final Prospectus, and this Agreement and to the further effect that:

(i) The representations and warranties of the Company in this Agreement are true and correct in all material respects, as if made on and as of such Closing Date, and the Company has complied in all material respects with all the agreements and satisfied all the conditions on its part to be performed or satisfied at or prior to such Closing Date;

(ii) No stop order suspending the effectiveness of the Registration Statement or the use of the Final Prospectus has been issued and no proceedings for that purpose have been instituted or are pending or, to the Company's knowledge, threatened under the Securities Act; no order having the effect of ceasing or suspending the distribution of the Securities or any other securities of the Company has been issued by any securities commission, securities regulatory authority or stock exchange in the United States and no proceedings for that purpose have been instituted or are pending or, to the knowledge of the Company, contemplated by any securities commission, securities regulatory authority or stock exchange in the United States;

(iii) When the Registration Statement became effective, at the time of sale, and at all times subsequent thereto up to the delivery of such certificate, the Registration Statement and the Incorporated Documents, if any, when such documents became effective or were filed with the Commission, contained all material information required to be included therein by the Securities Act and the Exchange Act and the applicable rules and regulations of the Commission thereunder, as the case may be, and in all material respects conformed to the requirements of the Securities Act and the Exchange Act and the applicable rules and regulations of the Commission thereunder, as the case may be, and the Registration Statement and the Incorporated Documents, if any, did not and do not include any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading (provided, however, that the preceding representations and warranties contained in this paragraph (iii) shall not apply to any statements or omissions made in reliance upon and in conformity with information furnished in writing to the Company by the Placement Agent expressly for use therein) and, since the effective date of the Registration Statement, there has occurred no event required by the Securities Act and the rules and regulations of the Commission thereunder to be set forth in the Incorporated Documents which has not been so set forth; and

(iv) Subsequent to the respective dates as of which information is given in the Registration Statement, the Incorporated Documents and the Final Prospectus, there has not been: (a) any Material Adverse Change; (b) any transaction that is material to the Company and the Subsidiaries taken as a whole, except transactions entered into in the ordinary course of business; (c) any obligation, direct or contingent, that is material to the Company and the Subsidiaries taken as a whole, incurred by the Company or any Subsidiary, except obligations incurred in the ordinary course of business; (d) any material change in the capital stock (except changes thereto resulting from the exercise of outstanding stock options or warrants) or outstanding indebtedness of the Company or any Subsidiary; (e) any dividend or distribution of any kind declared, paid or made on the capital stock of the Company; or (f) any loss or damage (whether or not insured) to the property of the Company or any Subsidiary which has been sustained or will have been sustained which has a Material Adverse Effect.

(g) Bring-down Comfort Letter. On each Closing Date, the Placement Agent shall have received from Marcum Bernstein & Pinchuk LLP, or such other independent registered public accounting firm of the Company, a letter dated as of such Closing Date, in form and substance satisfactory to the Placement Agent, to the effect that they reaffirm the statements made in the letter furnished pursuant to subsection (a) of this Section 5, except that the specified date referred to therein for the carrying out of procedures shall be no more than two business days prior to such Closing Date.

(h) Stock Exchange Listing. The Shares shall be registered under the Exchange Act and shall be listed on the Trading Market, and the Company shall not have taken any action designed to terminate, or likely to have the effect of terminating, the registration of the Shares under the Exchange Act or delisting or suspending from trading the Shares from the Trading Market, nor shall the Company have received any information suggesting that the Commission or the Trading Market is contemplating terminating such registration or listing.

(i) Additional Documents. On or before each Closing Date, the Placement Agent and counsel for the Placement Agent shall have received such information and documents as they may reasonably require for the purposes of enabling them to pass upon the issuance and sale of the Securities as contemplated herein, or in order to evidence the accuracy of any of the representations and warranties, or the satisfaction of any of the conditions or agreements, herein contained.

If any condition specified in this Section 5 is not satisfied when and as required to be satisfied, this Agreement may be terminated by the Placement Agent by notice to the Company at any time on or prior to a Closing Date, which termination shall be without liability on the part of any party to any other party, except that Section 6 (Payment of Expenses), Section 7 (Indemnification and Contribution) and Section 8 (Representations and Indemnities to Survive Delivery) shall at all times be effective and shall survive such termination.

**Section 6. Payment of Expenses**. The Company agrees to pay all costs, fees and expenses incurred by the Company in connection with the performance of its obligations hereunder and in connection with the transactions contemplated hereby, including, without limitation: (i) all expenses incident to the issuance, delivery and qualification of the Securities (including all printing and engraving costs); (ii) all fees and expenses of the registrar and transfer agent of the Shares; (iii) all necessary issue, transfer and other stamp taxes in connection with the issuance and sale of the Securities; (iv) all fees and expenses of the Company's counsel, independent public or certified public accountants and other advisors; (v) all costs and expenses incurred in connection with the preparation, printing, filing, shipping and distribution of the Registration Statement (including financial statements, exhibits, schedules, consents and certificates of experts), the Preliminary Prospectus, the Final Prospectus and each prospectus supplement, if any, and all amendments and supplements thereto, and this Agreement; (vi) all filing fees, reasonable attorneys' fees and expenses incurred by the Company or the Placement Agent in connection with qualifying or registering (or obtaining exemptions from the qualification or registration of) all or any part of the Securities for offer and sale under the state securities or blue sky laws or the securities laws of any other country; (vii) if applicable, the filing fees incident to the review and approval by the FINRA of the Placement Agent's participation in the offering and distribution of the Securities; (viii) the fees and expenses associated with including the Shares and Warrant Shares on the Trading Market; (ix) all costs and expenses incident to the travel and accommodation of the Company's employees on the "roadshow," if any; and (x) all other fees, costs and expenses referred to in Part II of the Registration Statement.

**Section 7. Indemnification and Contribution**.

(a) The Company agrees to indemnify and hold harmless the Placement Agent, its affiliates and each person controlling the Placement Agent (within the meaning of Section 15 of the Securities Act), and the directors, officers, agents and employees of the Placement Agent, its affiliates and each such controlling person (the Placement Agent, and each such entity or person. an "Indemnified Person") from and against any losses, claims, damages, judgments, assessments, costs and other liabilities (collectively, the "Liabilities"), and shall reimburse each Indemnified Person for all fees and expenses (including the reasonable fees and expenses of one counsel for all Indemnified Persons, except as otherwise expressly provided herein) (collectively, the "Expenses") as they are incurred by an Indemnified Person in investigating, preparing, pursuing or defending any actions, whether or not any Indemnified Person is a party thereto, (i) caused by, or arising out of or in connection with, any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, any Incorporated Document, or any Prospectus or by any omission or alleged omission to state therein a material fact necessary to make the statements therein, in light of the circumstances under which they were made, not misleading (other than untrue statements or alleged untrue statements in, or omissions or alleged omissions from, information relating to an Indemnified Person furnished in writing by or on behalf of such Indemnified Person expressly for use in the Incorporated Documents) or (ii) otherwise arising out of or in connection with advice or services rendered or to be rendered by any Indemnified Person pursuant to this Agreement, the transactions contemplated thereby or any Indemnified Person's actions or inactions in connection with any such advice, services or transactions; provided, however, that, in the case of clause (ii) only, the Company shall not be responsible for any Liabilities or Expenses of any Indemnified Person that are finally judicially determined to have resulted solely from such Indemnified Person's (x) gross negligence or willful misconduct in connection with any of the advice, actions, inactions or services referred to above or (y) use of any offering materials or information concerning the Company in connection with the offer or sale of the Securities in the Offering which were not authorized for such use by the Company and which use constitutes gross negligence or willful misconduct. The Company also agrees to reimburse each Indemnified Person for all Expenses as they are incurred in connection with enforcing such Indemnified Person's rights under this Agreement.

(b) Upon receipt by an Indemnified Person of actual notice of an action against such Indemnified Person with respect to which indemnity may be sought under this Agreement, such Indemnified Person shall promptly notify the Company in writing; provided that failure by any Indemnified Person so to notify the Company shall not relieve the Company from any liability which the Company may have on account of this indemnity or otherwise to such Indemnified Person, except to the extent the Company shall have been prejudiced by such failure. The Company shall, if requested by the Placement Agent, assume the defense of any such Action including the employment of counsel reasonably satisfactory to the Placement Agent, which counsel may also be counsel to the Company. Any Indemnified Person shall have the right to employ separate counsel in any such action and participate in the defense thereof, but the fees and expenses of such counsel shall be at the expense of such Indemnified Person unless: (i) the Company has failed promptly to assume the defense and employ counsel or (ii) the named parties to any such Action (including any impeded parties) include such Indemnified Person and the Company, and such Indemnified Person shall have been advised in the reasonable opinion of counsel that there is an actual conflict of interest that prevents the counsel selected by the Company from representing both the Company (or another client of such counsel) and any Indemnified Person; provided that the Company shall not in such event be responsible hereunder for the fees and expenses of more than one firm of separate counsel for all Indemnified Persons in connection with any Action or related Actions, in addition to any local counsel. The Company shall not be liable for any settlement of any Action effected without its written consent (which shall not be unreasonably withheld). In addition, the Company shall not, without the prior written consent of the Placement Agent (which shall not be unreasonably withheld), settle, compromise or consent to the entry of any judgment in or otherwise seek to terminate any pending or threatened Action in respect of which indemnification or contribution may be sought hereunder unless such settlement, compromise, consent or termination includes an unconditional release of each Indemnified Person from all Liabilities arising out of such Action for which indemnification or contribution may be sought hereunder. The indemnification required hereby shall be made by periodic payments of the amount thereof during the course of the investigation or defense, as such expense, loss, damage or liability is incurred and is due and payable.

(c) In the event that the foregoing indemnity is unavailable to an Indemnified Person other than in accordance with this Agreement, the Company shall contribute to the Liabilities and Expenses paid or payable by such Indemnified Person in such proportion as is appropriate to reflect (i) the relative benefits to the Company, on the one hand, and to the Placement Agent and any other Indemnified Person, on the other hand, of the matters contemplated by this Agreement or (ii) if the allocation provided by the immediately preceding clause is not permitted by applicable law, not only such relative benefits but also the relative fault of the Company, on the one hand, and the Placement Agent and any other Indemnified Person, on the other hand, in connection with the matters as to which such Liabilities or Expenses relate, as well as any other relevant equitable considerations; provided that in no event shall the Company contribute less than the amount necessary to ensure that all Indemnified Persons, in the aggregate, are not liable for any Liabilities and Expenses in excess of the amount of fees actually received by the Placement Agent pursuant to this Agreement. For purposes of this paragraph, the relative benefits to the Company, on the one hand, and to the Placement Agent on the other hand, of the matters contemplated by this Agreement shall be deemed to be in the same proportion as (a) the total value paid or contemplated to be paid to or received or contemplated to be received by the Company in the transaction or transactions that are within the scope of this Agreement, whether or not any such transaction is consummated, bears to (b) the fees paid to the Placement Agent under this Agreement. Notwithstanding the above, no person guilty of fraudulent misrepresentation within the meaning of Section 11(f) of the Securities Act, as amended, shall be entitled to contribution from a party who was not guilty of fraudulent misrepresentation.

(d) The Company also agrees that no Indemnified Person shall have any liability (whether direct or indirect, in contract or tort or otherwise) to the Company for or in connection with advice or services rendered or to be rendered by any Indemnified Person pursuant to this Agreement, the transactions contemplated thereby or any Indemnified Person's actions or inactions in connection with any such advice, services or transactions except for Liabilities (and related Expenses) of the Company that are finally judicially determined to have resulted solely from such Indemnified Person's gross negligence or willful misconduct in connection with any such advice, actions, inactions or services.

(e) The reimbursement, indemnity and contribution obligations of the Company set forth herein shall apply to any modification of this Agreement and shall remain in full force and effect regardless of any termination of, or the completion of any Indemnified Person's services under or in connection with, this Agreement.

**Section 8. Representations and Indemnities to Survive Delivery**. The respective indemnities, agreements, representations, warranties and other statements of the Company or any person controlling the Company, of its officers, and of the Placement Agent set forth in or made pursuant to this Agreement will remain in full force and effect, regardless of any investigation made by or on behalf of the Placement Agent, the Company, or any of its or their partners, officers or directors or any controlling person, as the case may be, and will survive delivery of and payment for the Securities sold hereunder and any termination of this Agreement. A successor to a Placement Agent, or to the Company, its directors or officers or any person controlling the Company, shall be entitled to the benefits of the indemnity, contribution and reimbursement agreements contained in this Agreement.

**Section 9. Notices**. All communications hereunder shall be in writing and shall be mailed, hand delivered, e-mailed or telecopied and confirmed to the parties hereto as follows:

If to the Placement Agent to the address set forth above, attention: Head of Investment Banking, e-mail: placements@hcwco.com

*With a copy to:*

Ellenoff Grossman & Schole LLP
1345 Avenue of the Americas, 11th Floor
New York, New York 10105
E-mail: capmkts@egsllp.com
Attention: Robert Charron

If to the Company:

Aptorum Group Limited
17 Hanover Square, Mayfair
London, W1S 1BN
United Kingdom
E-mail: [redacted]
Attention: Chief Financial Officer and Executive Director, repsectively

*With a copy to:*

Hunter Taubman Fischer & Li LLC
800 Third Avenue, Suite 2800
New York, New York 10022
E-mail: ltaubman@htflawyers.com
Attention: Lou Taubman

Any party hereto may change the address for receipt of communications by giving written notice to the others.

**Section 10. Successors**. This Agreement will inure to the benefit of and be binding upon the parties hereto, and to the benefit of the employees, officers and directors and controlling persons referred to in Section 7 hereof, and to their respective successors, and personal representative, and no other person will have any right or obligation hereunder.

**Section 11. Partial Unenforceability**. The invalidity or unenforceability of any section, paragraph or provision of this Agreement shall not affect the validity or enforceability of any other section, paragraph or provision hereof. If any Section, paragraph or provision of this Agreement is for any reason determined to be invalid or unenforceable, there shall be deemed to be made such minor changes (and only such minor changes) as are necessary to make it valid and enforceable.

**Section 12. Governing Law Provisions**. This Agreement shall be deemed to have been made and delivered in New York City and both this engagement letter and the transactions contemplated hereby shall be governed as to validity, interpretation, construction, effect and in all other respects by the internal laws of the State of New York, without regard to the conflict of laws principles thereof. Each of the Placement Agent and the Company: (i) agrees that any legal suit, action or proceeding arising out of or relating to this engagement letter and/or the transactions contemplated hereby shall be instituted exclusively in New York Supreme Court, County of New York, or in the United States District Court for the Southern District of New York, (ii) waives any objection which it may have or hereafter to the venue of any such suit, action or proceeding, and (iii) irrevocably consents to the jurisdiction of the New York Supreme Court, County of New York, and the United States District Court for the Southern District of New York in any such suit, action or proceeding. Each of the Placement Agent and the Company further agrees to accept and acknowledge service of any and all process which may be served in any such suit, action or proceeding in the New York Supreme Court, County of New York, or in the United States District Court for the Southern District of New York and agrees that service of process upon the Company mailed by certified mail to the Company's address shall be deemed in every respect effective service of process upon the Company, in any such suit, action or proceeding, and service of process upon the Placement Agent mailed by certified mail to the Placement Agent's address shall be deemed in every respect effective service process upon the Placement Agent, in any such suit, action or proceeding. Notwithstanding any provision of this engagement letter to the contrary, the Company agrees that neither the Placement Agent nor its affiliates, and the respective officers, directors, employees, agents and representatives of the Placement Agent, its affiliates and each other person, if any, controlling the Placement Agent or any of its affiliates, shall have any liability (whether direct or indirect, in contract or tort or otherwise) to the Company for or in connection with the engagement and transaction described herein except for any such liability for losses, claims, damages or liabilities incurred by us that are finally judicially determined to have resulted from the willful misconduct or gross negligence of such individuals or entities. If either party shall commence an action or proceeding to enforce any provision of this Agreement, then the prevailing party in such action or proceeding shall be reimbursed by the other party for its reasonable attorney's fees and other costs and expenses incurred with the investigation, preparation and prosecution of such action or proceeding.

**Section 13. General Provisions**.

(a) This Agreement constitutes the entire agreement of the parties to this Agreement and supersedes all prior written or oral and all contemporaneous oral agreements, understandings and negotiations with respect to the subject matter hereof. Notwithstanding anything herein to the contrary, the Engagement Agreement, dated August 17, 2020 (the "Engagement Agreement"), between the Company and the Placement Agent, shall continue to be effective and the terms therein shall continue to survive and be enforceable by the Placement Agent in accordance with its terms, provided that, in the event of a conflict between the terms of the Engagement Agreement and this Agreement, the terms of this Agreement shall prevail. This Agreement may be executed in two or more counterparts, each one of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument. This Agreement may not be amended or modified unless in writing by all of the parties hereto, and no condition herein (express or implied) may be waived unless waived in writing by each party whom the condition is meant to benefit. Section headings herein are for the convenience of the parties only and shall not affect the construction or interpretation of this Agreement.

(b) The Company acknowledges that in connection with the offering of the Securities: (i) the Placement Agent has acted at arms length, are not agents of, and owe no fiduciary duties to the Company or any other person, (ii) the Placement Agent owes the Company only those duties and obligations set forth in this Agreement and (iii) the Placement Agent may have interests that differ from those of the Company. The Company waives to the full extent permitted by applicable law any claims it may have against the Placement Agent arising from an alleged breach of fiduciary duty in connection with the offering of the Securities

[*The remainder of this page has been intentionally left blank.*]

If the foregoing is in accordance with your understanding of our agreement, please sign below whereupon this instrument, along with all counterparts hereof, shall become a binding agreement in accordance with its terms.

Very truly yours,

**APTORUM GROUP LIMITED**

By: _____
Name:
Title:

The foregoing Placement Agency Agreement is hereby confirmed and accepted as of the date first above written.

**H.C. WAINWRIGHT & CO., LLC**

By: _____
Name:
Title:

**Exhibit 4.2**

**PLACEMENT AGENT ORDINARY SHARE PURCHASE WARRANT**

**APTORUM GROUP LIMITED**

Warrant Shares: _____ Initial Exercise Date: _____ __, 2020

THIS PLACEMENT AGENT ORDINARY SHARE PURCHASE WARRANT (the "Warrant") certifies that, for value received, _____ or its assigns (the "Holder") is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after the date hereof (the "Initial Exercise Date") and on or prior to 5:00 p.m. (New York City time) on ____[1] (the "Termination Date") but not thereafter, to subscribe for and purchase from Aptorum Group Limited, a company organized under the laws of the Cayman Islands (the "Company"), up to _____ Class A ordinary shares (as subject to adjustment hereunder, the "Warrant Shares"). The purchase price of one Warrant Share under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b). This Warrant is being issued pursuant to that certain Placement Agency Agreement dated as of _____, by and between the Company and H.C. Wainwright & Co., LLC.

Section 1. Definitions. In addition to the terms defined elsewhere in this Warrant, the following terms have the meanings indicated in this Section 1:

"Affiliate" means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person, as such terms are used in and construed under Rule 405 under the Securities Act.

"Bid Price" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Ordinary Shares are then listed or quoted on a Trading Market, the bid price of the Ordinary Shares for the time in question (or the nearest preceding date) on the Trading Market on which the Ordinary Shares are then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Ordinary Shares for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Ordinary Shares are not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Ordinary Shares are then reported on the Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per Ordinary Share so reported, or (d) in all other cases, the fair market value of an Ordinary Share as determined by an independent appraiser selected in good faith by the Holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

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[1] Insert the date that is the 5 year anniversary of the commencement of sales, provided that, if such date is not a Trading Day, insert the immediately following Trading Day.

"Board of Directors" means the board of directors of the Company.

"Business Day" means any day other than Saturday, Sunday or other day on which commercial banks in The City of New York are authorized or required by law to remain closed; provided, however, for clarification, commercial banks shall not be deemed to be authorized or required by law to remain closed due to "stay at home", "shelter-in-place", "non-essential employee" or any other similar orders or restrictions or the closure of any physical branch locations at the direction of any governmental authority so long as the electronic funds transfer systems (including for wire transfers) of commercial banks in The City of New York generally are open for use by customers on such day.

"Commission" means the United States Securities and Exchange Commission.

"Exchange Act" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

"Ordinary Share(s)" means the Class A ordinary shares of the Company, par value $1.00 per share, and any other class of securities into which such securities may hereafter be reclassified or changed.

"Ordinary Share Equivalents" means any securities of the Company or the Subsidiaries which would entitle the holder thereof to acquire at any time Ordinary Shares, including, without limitation, any debt, preferred shares, right, option, warrant or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Ordinary Shares.

"Person" means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

"Registration Statement" means the Company's registration statement on Form F-1 (File No. 248743).

"Securities Act" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

"Subsidiary" means any subsidiary of the Company and shall, where applicable, also include any direct or indirect subsidiary of the Company formed or acquired after the date hereof.

"Trading Day" means a day on which the Ordinary Shares are traded on a Trading Market.

"Trading Market" means any of the following markets or exchanges on which the Ordinary Shares are listed or quoted for trading on the date in question: the NYSE American, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market or the New York Stock Exchange (or any successors to any of the foregoing).

"Transfer Agent" means Continental Trust & Transfer Company, the current transfer agent of the Company, with a mailing address of 1 State Street, 30th Floor, New York, NY 10004 and a facsimile number of _____, and any successor transfer agent of the Company.

"VWAP" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Ordinary Shares are then listed or quoted on a Trading Market, the daily volume weighted average price of an Ordinary Shares for such date (or the nearest preceding date) on the Trading Market on which an Ordinary Shares is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if the OTCQB or OTCQX is not a Trading Market, the volume weighted average price of an Ordinary Shares for such date (or the nearest preceding date) on the OTCQB or OTCQX, (c) if Ordinary Shares s are not then listed or quoted for trading on the OTCQB or OTCQX and if prices for Ordinary Shares s are then reported in the "Pink Sheets" published by OTC Markets Group, Inc. (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of an Ordinary Shares so reported, or (d) in all other cases, the fair market value of an Ordinary Shares as determined by an independent appraiser selected in good faith by the Purchasers of a majority in interest of the Securities then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

"Warrants" means this Warrant and other Ordinary Share purchase warrants issued by the Company pursuant to the Registration Statement.

Section 2. Exercise.

a) Exercise of Warrant. Exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Company of a duly executed facsimile copy or PDF copy submitted by e-mail (or e-mail attachment) of the Notice of Exercise in the form annexed hereto (the "Notice of Exercise"). Within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined in Section 2(d)(i) herein) following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the shares specified in the applicable Notice of Exercise by wire transfer or cashier's check drawn on a United States bank unless the cashless exercise procedure specified in Section 2(c) below is specified in the applicable Notice of Exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation within three (3) Trading Days of the date on which the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Holder and the Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise within one (1) Business Day of receipt of such notice. **The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof.**

b) Exercise Price. The exercise price per Ordinary Share under this Warrant shall be $_____, subject to adjustment hereunder (the "Exercise Price").

c) Cashless Exercise. If at the time of exercise hereof there is no effective registration statement registering, or the prospectus contained therein is not available for the issuance of the Warrant Shares to the Holder, then this Warrant may also be exercised, in whole or in part, at such time by means of a "cashless exercise" in which the Holder shall be entitled to receive a number of Warrant Shares equal to the quotient obtained by dividing [(A-B) (X)] by (A), where:

(A) = as applicable: (i) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise if such Notice of Exercise is (1) both executed and delivered pursuant to Section 2(a) hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 2(a) hereof on a Trading Day prior to the opening of "regular trading hours" (as defined in Rule 600(b)(68) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) at the option of the Holder, either (y) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise or (z) the Bid Price of the Ordinary Shares on the principal Trading Market as reported by Bloomberg L.P. as of the time of the Holder's execution of the applicable Notice of Exercise if such Notice of Exercise is executed during "regular trading hours" on a Trading Day and is delivered within two (2) hours thereafter (including until two (2) hours after the close of "regular trading hours" on a Trading Day) pursuant to Section 2(a) hereof or (iii) the VWAP on the date of the applicable Notice of Exercise if the date of such Notice of Exercise is a Trading Day and such Notice of Exercise is both executed and delivered pursuant to Section 2(a) hereof after the close of "regular trading hours" on such Trading Day;

(B) = the Exercise Price of this Warrant, as adjusted hereunder; and

(X) = the number of Warrant Shares that would be issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise.

If Warrant Shares are issued in such a cashless exercise, the parties acknowledge and agree that in accordance with Section 3(a)(9) of the Securities Act, the Warrant Shares shall take on the registered characteristics of the Warrants being exercised. The Company agrees not to take any position contrary to this Section 2(c).

Notwithstanding anything herein to the contrary, on the Termination Date, this Warrant shall be automatically exercised via cashless exercise pursuant to this Section 2(c).

d) Mechanics of Exercise.

i. Delivery of Warrant Shares Upon Exercise. The Company shall cause the Warrant Shares purchased hereunder to be transmitted by the Transfer Agent to the Holder by crediting the account of the Holder's or its designee's balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system ("DWAC") if the Company is then a participant in such system and either (A) there is an effective registration statement permitting the issuance of the Warrant Shares to or resale of the Warrant Shares by Holder or (B) this Warrant is being exercised via cashless exercise, and otherwise by physical delivery of a certificate, registered in the Company's share register in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise by the date that is the earliest of (i) two (2) Trading Days after the delivery to the Company of the Notice of Exercise, (ii) one (1) Trading Day after delivery of the aggregate Exercise Price to the Company and (iii) the number of Trading Days comprising the Standard Settlement Period after the delivery to the Company of the Notice of Exercise (such date, the "Warrant Share Delivery Date"). Upon delivery of the Notice of Exercise, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date of delivery of the Warrant Shares, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period following delivery of the Notice of Exercise. If the Company fails for any reason to deliver to the Holder the Warrant Shares subject to a Notice of Exercise by the Warrant Share Delivery Date, the Company shall pay to the Holder, in cash, as liquidated damages and not as a penalty, for each $1,000 of Warrant Shares subject to such exercise (based on the VWAP of the Ordinary Shares on the date of the applicable Notice of Exercise), $10 per Trading Day (increasing to $20 per Trading Day on the fifth Trading Day after such liquidated damages begin to accrue) for each Trading Day after such Warrant Share Delivery Date until such Warrant Shares are delivered or Holder rescinds such exercise. The Company agrees to maintain a transfer agent that is a participant in the FAST program so long as this Warrant remains outstanding and exercisable. As used herein, "Standard Settlement Period" means the standard settlement period, expressed in a number of Trading Days, on the Company's primary Trading Market with respect to the Ordinary Shares as in effect on the date of delivery of the Notice of Exercise. Notwithstanding the foregoing, with respect to any Notice(s) of Exercise delivered on or prior to 12:00 p.m. (New York City time) on the Initial Exercise Date, which may be delivered at any time after _____ __, 2020[2] the Company agrees to deliver the Warrant Shares subject to such notice(s) by 4:00 p.m. (New York City time) on the Initial Exercise Date and the Initial Exercise Date shall be the Warrant Share Delivery Date for purposes hereunder.

ii. Delivery of New Warrants Upon Exercise. If this Warrant shall have been exercised in part, the Company shall, at the request of a Holder and upon surrender of this Warrant certificate, at the time of delivery of the Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

iii. Rescission Rights. If the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares pursuant to Section 2(d)(i) by the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise.

2 Insert the date and time of execution of the Securities Purchase Agreement

iv. Compensation for Buy-In on Failure to Timely Deliver Warrant Shares Upon Exercise. In addition to any other rights available to the Holder, if the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares in accordance with the provisions of Section 2(d)(i) above pursuant to an exercise on or before the Warrant Share Delivery Date, and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases, Ordinary Shares to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a "Buy-In"), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the Ordinary Shares so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of Ordinary Shares that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases Ordinary Shares having a total purchase price of $11,000 to cover a Buy-In with respect to an attempted exercise of Ordinary Shares with an aggregate sale price giving rise to such purchase obligation of $10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder $1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence of the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver Ordinary Shares upon exercise of the Warrant as required pursuant to the terms hereof.

v. No Fractional Shares or Scrip. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such exercise, the Company shall, at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price or round up to the next whole share.

vi. Charges, Taxes and Expenses. Issuance of Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such Warrant Shares, all of which taxes and expenses shall be paid by the Company, and such Warrant Shares shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that, in the event that Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto. The Company shall pay all Transfer Agent fees required for same-day processing of any Notice of Exercise and all fees to the Depository Trust Company (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Warrant Shares.

vii. Closing of Books. The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof.

e) Holder's Exercise Limitations. The Company shall not effect any exercise of this Warrant, and a Holder shall not have the right to exercise any portion of this Warrant, pursuant to Section 2 or otherwise, to the extent that after giving effect to such issuance after exercise as set forth on the applicable Notice of Exercise, the Holder (together with the Holder's Affiliates, and any other Persons acting as a group together with the Holder or any of the Holder's Affiliates (such Persons, "Attribution Parties")), would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of Ordinary Shares beneficially owned by the Holder and its Affiliates and Attribution Parties shall include the number of Ordinary Shares issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of Ordinary Shares which would be issuable upon (i) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any other Ordinary Share Equivalents) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 2(e), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that the Company is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 2(e) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 2(e), in determining the number of outstanding Ordinary Shares, a Holder may rely on the number of outstanding Ordinary Shares as reflected in (A) the Company's most recent periodic or annual report filed with the Commission, as the case may be, (B) a more recent public announcement by the Company or (C) a more recent written notice by the Company or the Transfer Agent setting forth the number of Ordinary Shares outstanding. Upon the written or oral request of a Holder, the Company shall within one Trading Day confirm orally and in writing to the Holder the number of Ordinary Shares then outstanding. In any case, the number of outstanding Ordinary Shares shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding Ordinary Shares was reported. The "Beneficial Ownership Limitation" shall be 4.99% (or, upon election by a Holder prior to the issuance of any Warrants, 9.99%) of the number of Ordinary Shares outstanding immediately after giving effect to the issuance of Ordinary Shares issuable upon exercise of this Warrant. The Holder, upon notice to the Company, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 2(e), provided that the Beneficial Ownership Limitation in no event exceeds 9.99% of the number of Ordinary Shares outstanding immediately after giving effect to the issuance of Ordinary Shares upon exercise of this Warrant held by the Holder and the provisions of this Section 2(e) shall continue to apply. Any increase in the Beneficial Ownership Limitation will not be effective until the 61$^{st}$ day after such notice is delivered to the Company. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 2(e) to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of this Warrant.

Section 3. Certain Adjustments.

a) Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions on Ordinary Shares or any other equity or equity equivalent securities payable in Ordinary Shares (which, for avoidance of doubt, shall not include any Ordinary Shares issued by the Company upon exercise of this Warrant), (ii) subdivides outstanding Ordinary Shares into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding Ordinary Shares into a smaller number of shares, or (iv) issues by reclassification of Ordinary Shares any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of Ordinary Shares (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of Ordinary Shares outstanding immediately after such event, and the number of shares issuable upon exercise of this Warrant shall be proportionately adjusted such that the aggregate Exercise Price of this Warrant shall remain unchanged. Any adjustment made pursuant to this Section 3(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or re-classification.

b) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 3(a) above, if at any time the Company grants, issues or sells any Ordinary Share Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of Ordinary Shares (the "Purchase Rights"), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of Ordinary Shares acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of Ordinary Shares are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, that, to the extent that the Holder's right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such Ordinary Shares as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

c) Pro Rata Distributions. During such time as this Warrant is outstanding, if the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of Ordinary Shares, by way of return of capital or otherwise, other than cash (including, without limitation, any distribution of stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a "Distribution"), at any time after the issuance of this Warrant, then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of Ordinary Shares acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of Ordinary Shares are to be determined for the participation in such Distribution (provided, however, that, to the extent that the Holder's right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any Ordinary Shares as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

d) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person, (ii) the Company directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Ordinary Shares are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding Ordinary Shares, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Ordinary Shares or any compulsory share exchange pursuant to which the Ordinary Shares are effectively converted into or exchanged for other securities, cash or property, or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off, merger or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires more than 50% of the outstanding Ordinary Shares (not including any Ordinary Shares held by the other Person or other Persons making or party to, or associated or affiliated with the other Persons making or party to, such stock or share purchase agreement or other business combination) (each a "Fundamental Transaction"), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, at the option of the Holder (without regard to any limitation in Section 2(e) on the exercise of this Warrant), the number of Ordinary Shares of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (the "Alternate Consideration") receivable as a result of such Fundamental Transaction by a holder of the number of Ordinary Shares for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2(e) on the exercise of this Warrant). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one Ordinary Share in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Ordinary Shares are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. Notwithstanding anything to the contrary, in the event of a Fundamental Transaction, the Company or any Successor Entity (as defined below) shall, at the Holder's option, exercisable at any time concurrently with, or within 30 days after, the consummation of the Fundamental Transaction (or, if later, the date of the public announcement of the applicable Fundamental Transaction), purchase this Warrant from the Holder by paying to the Holder an amount of cash equal to the Black Scholes Value (as defined below) of the remaining unexercised portion of this Warrant on the date of the consummation of such Fundamental Transaction; provided, however, that, if the Fundamental Transaction is not within the Company's control, including not approved by the Company's Board of Directors, Holder shall only be entitled to receive from the Company or any Successor Entity the same type or form of consideration (and in the same proportion), at the Black Scholes Value of the unexercised portion of this Warrant, that is being offered and paid to the holders of Ordinary Shares of the Company in connection with the Fundamental Transaction, whether that consideration be in the form of cash, stock or any combination thereof, or whether the holders of Ordinary Shares are given the choice to receive from among alternative forms of consideration in connection with the Fundamental Transaction; provided, further, that if holders of Ordinary Shares of the Company are not offered or paid any consideration in such Fundamental Transaction, such holders of Ordinary Shares will be deemed to have received common stock of the Successor Entity (which Entity may be the Company following such Fundamental Transaction) in such Fundamental Transaction. "Black Scholes Value" means the value of this Warrant based on the Black-Scholes Option Pricing Model obtained from the "OV" function on Bloomberg, L.P. ("Bloomberg") determined as of the day of consummation of the applicable Fundamental Transaction for pricing purposes and reflecting (A) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the time between the date of the public announcement of the applicable Fundamental Transaction and the Termination Date, (B) an expected volatility equal to the greater of 100% and the 100 day volatility obtained from the HVT function on Bloomberg (determined utilizing a 365 day annualization factor) as of the Trading Day immediately following the public announcement of the applicable Fundamental Transaction, (C) the underlying price per share used in such calculation shall be the greater of (i) the sum of the price per share being offered in cash, if any, plus the value of any non-cash consideration, if any, being offered in such Fundamental Transaction and (ii) the greater of (x) the last VWAP immediately prior to the public announcement of such Fundamental Transaction and (y) the last VWAP immediately prior to the consummation of such Fundamental Transaction and (D) a remaining option time equal to the time between the date of the public announcement of the applicable Fundamental Transaction and the Termination Date, and (E) a zero cost of borrow. The payment of the Black Scholes Value will be made by wire transfer of immediately available funds (or such other consideration) within five Business Days of the Holder's election (or, if later, on the date of consummation of the Fundamental Transaction). The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the "Successor Entity") to assume in writing all of the obligations of the Company under this Warrant in accordance with the provisions of this Section 3(e) pursuant to written agreements in form and substance reasonably satisfactory to the Holder and approved by the Holder (without unreasonable delay) prior to such Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant which is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the Ordinary Shares acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the Ordinary Shares pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for (so that from and after the date of such Fundamental Transaction, the provisions of this Warrant referring to the "Company" shall refer instead to the Successor Entity), and may exercise every right and power of the Company and shall assume all of the obligations of the Company under this Warrant with the same effect as if such Successor Entity had been named as the Company herein.

e) Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 3, the number of Ordinary Shares deemed to be issued and outstanding as of a given date shall be the sum of the number of Ordinary Shares (excluding treasury shares, if any) issued and outstanding.

f) Notice to Holder.

i. Adjustment to Exercise Price. Whenever the Exercise Price is adjusted pursuant to any provision of this Section 3, the Company shall promptly deliver to the Holder by facsimile or email a notice setting forth the Exercise Price after such adjustment and any resulting adjustment to the number of Warrant Shares and setting forth a brief statement of the facts requiring such adjustment.

ii. Notice to Allow Exercise by Holder. If (A) the Company shall declare a dividend (or any other distribution in whatever form) on the Ordinary Shares, (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Ordinary Shares, (C) the Company shall authorize the granting to all holders of the Ordinary Shares rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of the Company shall be required in connection with any reclassification of the Ordinary Shares, any consolidation or merger to which the Company (or any of its Subsidiaries) is a party, any sale or transfer of all or substantially all of its assets, or any compulsory share exchange whereby the Ordinary Shares are converted into other securities, cash or property, or (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be delivered by facsimile or email to the Holder at its last facsimile number or email address as it shall appear upon the Warrant Register of the Company, at least 20 calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Ordinary Shares of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Ordinary Shares of record shall be entitled to exchange their Ordinary Shares for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided in this Warrant constitutes, or contains, material, non-public information regarding the Company or any of the Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 6-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

g) Voluntary Adjustment By Company. Subject to the rules and regulations of the Trading Market, the Company may at any time during the term of this Warrant, subject to the prior written consent of the Holder, reduce the then current Exercise Price to any amount and for any period of time deemed appropriate by the board of directors of the Company.

Section 4. Transfer of Warrant.

a) Transferability. This Warrant and all rights hereunder (including, without limitation, any registration rights) are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company unless the Holder has assigned this Warrant in full, in which case, the Holder shall surrender this Warrant to the Company within three (3) Trading Days of the date on which the Holder delivers an assignment form to the Company assigning this Warrant in full. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

b) New Warrants. This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall be dated the initial issuance date of this Warrant and shall be identical with this Warrant except as to the number of Warrant Shares issuable pursuant thereto.

c) Warrant Register. The Company shall register this Warrant, upon records to be maintained by the Company for that purpose (the "Warrant Register"), in the name of the record Holder hereof from time to time. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.

Section 5. Miscellaneous.

a) No Rights as Stockholder Until Exercise; No Settlement in Cash. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a stockholder of the Company prior to the exercise hereof as set forth in Section 2(d)(i), except as expressly set forth in Section 3. Without limiting any rights of a Holder to receive Warrant Shares on a "cashless exercise" pursuant to Section 2(c) or to receive cash payments pursuant to Section 2(d)(i) and Section 2(d)(iv) herein, in no event shall the Company be required to net cash settle an exercise of this Warrant.

b) Loss, Theft, Destruction or Mutilation of Warrant. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

c) Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a Business Day, then such action may be taken or such right may be exercised on the next succeeding Business Day.

d) Authorized Shares.

The Company covenants that, during the period the Warrant is outstanding, it will reserve from its authorized and unissued Ordinary Shares a sufficient number of shares to provide for the issuance of the Warrant Shares upon the exercise of any purchase rights under this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of issuing the necessary Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Ordinary Shares may be listed. The Company covenants that all Warrant Shares which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant and payment for such Warrant Shares in accordance herewith, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges created by the Company in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (i) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (ii) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant and (iii) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof, as may be, necessary to enable the Company to perform its obligations under this Warrant.

Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof.

e) Governing Law. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be governed by and construed and enforced in accordance with the internal laws of the State of New York, without regard to the principles of conflicts of law thereof. Each party agrees that all legal proceedings concerning the interpretations, enforcement and defense of the transactions contemplated by this Warrant (whether brought against a party hereto or their respective affiliates, directors, officers, shareholders, partners, members, employees or agents) shall be commenced exclusively in the state and federal courts sitting in the City of New York. Each party hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in the City of New York, Borough of Manhattan for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is improper or is an inconvenient venue for such proceeding. Each party hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this Warrant and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any other manner permitted by law. If either party shall commence an action, suit or proceeding to enforce any provisions of this Warrant, the prevailing party in such action, suit or proceeding shall be reimbursed by the other party for their reasonable attorneys' fees and other costs and expenses incurred with the investigation, preparation and prosecution of such action or proceeding.

f) Restrictions. The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered, and the Holder does not utilize cashless exercise, will have restrictions upon resale imposed by state and federal securities laws.

g) Nonwaiver and Expenses. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice the Holder's rights, powers or remedies. Without limiting any other provision of this Warrant, if the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to the Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by the Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

h) Notices. Any and all notices or other communications or deliveries to be provided by the Holders hereunder including, without limitation, any Notice of Exercise, shall be in writing and delivered personally, by facsimile or e-mail, or sent by a nationally recognized overnight courier service, addressed to the Company, at _____, Attention: _____, facsimile number: _____, email address: _____, or such other facsimile number, email address or address as the Company may specify for such purposes by notice to the Holders. Any and all notices or other communications or deliveries to be provided by the Company hereunder shall be in writing and delivered personally, by facsimile or e-mail, or sent by a nationally recognized overnight courier service addressed to each Holder at the facsimile number, e-mail address or address of such Holder appearing on the books of the Company. Any notice or other communication or deliveries hereunder shall be deemed given and effective on the earliest of (i) the time of transmission, if such notice or communication is delivered via facsimile at the facsimile number or via e-mail at the e-mail address set forth in this Section prior to 5:30 p.m. (New York City time) on any date, (ii) the next Trading Day after the time of transmission, if such notice or communication is delivered via facsimile at the facsimile number or via e-mail at the e-mail address set forth in this Section on a day that is not a Trading Day or later than 5:30 p.m. (New York City time) on any Trading Day, (iii) the second Trading Day following the date of mailing, if sent by U.S. nationally recognized overnight courier service, or (iv) upon actual receipt by the party to whom such notice is required to be given. To the extent that any notice provided hereunder constitutes, or contains, material, non-public information regarding the Company or any Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 6-K.

i) Limitation of Liability. No provision hereof, in the absence of any affirmative action by the Holder to exercise this Warrant to purchase Warrant Shares, and no enumeration herein of the rights or privileges of the Holder, shall give rise to any liability of the Holder for the purchase price of any Ordinary Shares or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

j) Remedies. The Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive and not to assert the defense in any action for specific performance that a remedy at law would be adequate.

k) Successors and Assigns. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors and permitted assigns of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of any Holder from time to time of this Warrant and shall be enforceable by the Holder or holder of Warrant Shares.

l) Amendment. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company, on the one hand, and the Holder, on the other hand.

m) Severability. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

n) Headings. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

**********

*(Signature Page Follows)*

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized as of the date first above indicated.

**APTORUM GROUP LIMITED**

By: _____

Name:
Title:

**NOTICE OF EXERCISE**

TO: APTORUM GROUP LIMTED

(1) The undersigned hereby elects to purchase _____ Warrant Shares of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Payment shall take the form of (check applicable box):

☐ in lawful money of the United States; or

☐ if permitted the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c).

(3) Please issue said Warrant Shares in the name of the undersigned or in such other name as is specified below:

_____

The Warrant Shares shall be delivered to the following DWAC Account Number:

_____

_____

_____

[SIGNATURE OF HOLDER]

Name of Investing Entity: _____
*Signature of Authorized Signatory of Investing Entity*: _____
Name of Authorized Signatory: _____
Title of Authorized Signatory: _____
Date: _____

**ASSIGNMENT FORM**

*(To assign the foregoing Warrant, execute this form and supply required information. Do not use this form to purchase shares.)*

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

Name: _____
(Please Print)

Address: _____
(Please Print)

Phone Number: _____

Email Address: _____

Dated: _____ __, _____

Holder's Signature: _____

Holder's Address: _____

**Exhibit 4.4**

**PRE-FUNDED CLASS A ORDINARY SHARE PURCHASE WARRANT**

**APTORUM GROUP LIMITED**

Warrant Shares: _____ Initial Exercise Date: _____ __, 2020

THIS PRE-FUNDED CLASS A ORDINARY SHARE PURCHASE WARRANT (the "Warrant") certifies that, for value received, _____ or its assigns (the "Holder") is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after the date hereof (the "Initial Exercise Date") and until this Warrant is exercised in full (the "Termination Date") but not thereafter, to subscribe for and purchase from Aptorum Group Limited, a company organized under the laws of the Cayman Islands (the "Company"), up to _____ Class A ordinary shares (as subject to adjustment hereunder, the "Warrant Shares"). The purchase price of one Warrant Share under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b).

Section 1. Definitions. In addition to the terms defined elsewhere in this Warrant, the following terms have the meanings indicated in this Section 1:

"Affiliate" means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person, as such terms are used in and construed under Rule 405 under the Securities Act.

"Bid Price" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Ordinary Shares are then listed or quoted on a Trading Market, the bid price of the Ordinary Shares for the time in question (or the nearest preceding date) on the Trading Market on which the Ordinary Shares are then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Ordinary Shares for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Ordinary Shares are not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Ordinary Shares are then reported on the Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per Ordinary Share so reported, or (d) in all other cases, the fair market value of an Ordinary Share as determined by an independent appraiser selected in good faith by the Holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

"Business Day" means any day other than Saturday, Sunday or other day on which commercial banks in The City of New York are authorized or required by law to remain closed; provided, however, for clarification, commercial banks shall not be deemed to be authorized or required by law to remain closed due to "stay at home", "shelter-in-place", "non-essential employee" or any other similar orders or restrictions or the closure of any physical branch locations at the direction of any governmental authority so long as the electronic funds transfer systems (including for wire transfers) of commercial banks in The City of New York generally are open for use by customers on such day.

"Commission" means the United States Securities and Exchange Commission.

"Exchange Act" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

"Ordinary Share(s)" means the Class A ordinary shares of the Company, par value $1.00 per share, and any other class of securities into which such securities may hereafter be reclassified or changed.

"Ordinary Share Equivalents" means any securities of the Company or the Subsidiaries which would entitle the holder thereof to acquire at any time Ordinary Shares, including, without limitation, any debt, preferred shares, right, option, warrant or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Ordinary Shares.

"Person" means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

"Registration Statement" means the Company's registration statement on Form F-1 (File No. 248743).

"Securities Act" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

"Subsidiary" means any subsidiary of the Company and shall, where applicable, also include any direct or indirect subsidiary of the Company formed or acquired after the date hereof.

"Trading Day" means a day on which the Ordinary Shares are traded on a Trading Market.

"Trading Market" means any of the following markets or exchanges on which the Ordinary Shares are listed or quoted for trading on the date in question: the NYSE American, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market or the New York Stock Exchange (or any successors to any of the foregoing).

"Transfer Agent" means Continental Trust & Transfer Company, the current transfer agent of the Company, with a mailing address of 1 State Street, 30th Floor, New York, NY 10004 and a facsimile number of _____, and any successor transfer agent of the Company.

"VWAP" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Ordinary Shares are then listed or quoted on a Trading Market, the daily volume weighted average price of an Ordinary Shares for such date (or the nearest preceding date) on the Trading Market on which an Ordinary Shares is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if the OTCQB or OTCQX is not a Trading Market, the volume weighted average price of an Ordinary Shares for such date (or the nearest preceding date) on the OTCQB or OTCQX, (c) if Ordinary Shares s are not then listed or quoted for trading on the OTCQB or OTCQX and if prices for Ordinary Shares s are then reported in the "Pink Sheets" published by OTC Markets Group, Inc. (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of an Ordinary Shares so reported, or (d) in all other cases, the fair market value of an Ordinary Shares as determined by an independent appraiser selected in good faith by the Purchasers of a majority in interest of the Securities then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

"Warrants" means this Warrant and other Ordinary Share purchase warrants issued by the Company pursuant to the Registration Statement.

Section 2. Exercise.

a) Exercise of Warrant. Exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Company of a duly executed facsimile copy or PDF copy submitted by e-mail (or e-mail attachment) of the Notice of Exercise in the form annexed hereto (the "Notice of Exercise"). Within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined in Section 2(d)(i) herein) following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the shares specified in the applicable Notice of Exercise by wire transfer or cashier's check drawn on a United States bank unless the cashless exercise procedure specified in Section 2(c) below is specified in the applicable Notice of Exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation within three (3) Trading Days of the date on which the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Holder and the Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise within one (1) Business Day of receipt of such notice. **The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof.**

b) Exercise Price. The aggregate exercise price of this Warrant, except for a nominal exercise price of $0.01 per Warrant Share, was pre-funded to the Company on or prior to the Initial Exercise Date and, consequently, no additional consideration (other than the nominal exercise price of $0.01 per Warrant Share) shall be required to be paid by the Holder to any Person to effect any exercise of this Warrant. The Holder shall not be entitled to the return or refund of all, or any portion, of such pre-paid aggregate exercise price under any circumstance or for any reason whatsoever, including in the event this Warrant shall not have been exercised prior to the Termination Date. The remaining unpaid exercise price per Ordinary Share under this Warrant shall be $0.01, subject to adjustment hereunder (the "Exercise Price").

c) Cashless Exercise. This Warrant may also be exercised, in whole or in part, at such time by means of a "cashless exercise" in which the Holder shall be entitled to receive a number of Warrant Shares equal to the quotient obtained by dividing [(A-B) (X)] by (A), where:

(A) = as applicable: (i) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise if such Notice of Exercise is (1) both executed and delivered pursuant to Section 2(a) hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 2(a) hereof on a Trading Day prior to the opening of "regular trading hours" (as defined in Rule 600(b)(68) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) at the option of the Holder, either (y) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise or (z) the Bid Price of the Ordinary Shares on the principal Trading Market as reported by Bloomberg L.P. as of the time of the Holder's execution of the applicable Notice of Exercise if such Notice of Exercise is executed during "regular trading hours" on a Trading Day and is delivered within two (2) hours thereafter (including until two (2) hours after the close of "regular trading hours" on a Trading Day) pursuant to Section 2(a) hereof or (iii) the VWAP on the date of the applicable Notice of Exercise if the date of such Notice of Exercise is a Trading Day and such Notice of Exercise is both executed and delivered pursuant to Section 2(a) hereof after the close of "regular trading hours" on such Trading Day;

(B) = the Exercise Price of this Warrant, as adjusted hereunder; and

(X) = the number of Warrant Shares that would be issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise.

If Warrant Shares are issued in such a cashless exercise, the parties acknowledge and agree that in accordance with Section 3(a)(9) of the Securities Act, the Warrant Shares shall take on the registered characteristics of the Warrants being exercised. The Company agrees not to take any position contrary to this Section 2(c).

Notwithstanding anything herein to the contrary, on the Termination Date, this Warrant shall be automatically exercised via cashless exercise pursuant to this Section 2(c).

d) Mechanics of Exercise.

i. Delivery of Warrant Shares Upon Exercise. The Company shall cause the Warrant Shares purchased hereunder to be transmitted by the Transfer Agent to the Holder by crediting the account of the Holder's or its designee's balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system ("DWAC") if the Company is then a participant in such system and either (A) there is an effective registration statement permitting the issuance of the Warrant Shares to or resale of the Warrant Shares by Holder or (B) this Warrant is being exercised via cashless exercise, and otherwise by physical delivery of a certificate, registered in the Company's share register in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise by the date that is the earliest of (i) two (2) Trading Days after the delivery to the Company of the Notice of Exercise, (ii) one (1) Trading Day after delivery of the aggregate Exercise Price to the Company and (iii) the number of Trading Days comprising the Standard Settlement Period after the delivery to the Company of the Notice of Exercise (such date, the "Warrant Share Delivery Date"). Upon delivery of the Notice of Exercise, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date of delivery of the Warrant Shares, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period following delivery of the Notice of Exercise. If the Company fails for any reason to deliver to the Holder the Warrant Shares subject to a Notice of Exercise by the Warrant Share Delivery Date, the Company shall pay to the Holder, in cash, as liquidated damages and not as a penalty, for each $1,000 of Warrant Shares subject to such exercise (based on the VWAP of the Ordinary Shares on the date of the applicable Notice of Exercise), $10 per Trading Day (increasing to $20 per Trading Day on the fifth Trading Day after such liquidated damages begin to accrue) for each Trading Day after such Warrant Share Delivery Date until such Warrant Shares are delivered or Holder rescinds such exercise. The Company agrees to maintain a transfer agent that is a participant in the FAST program so long as this Warrant remains outstanding and exercisable. As used herein, "Standard Settlement Period" means the standard settlement period, expressed in a number of Trading Days, on the Company's primary Trading Market with respect to the Ordinary Shares as in effect on the date of delivery of the Notice of Exercise. Notwithstanding the foregoing, with respect to any Notice(s) of Exercise delivered on or prior to 12:00 p.m. (New York City time) on the Initial Exercise Date, which may be delivered at any time after _____ __, 2020[1] the Company agrees to deliver the Warrant Shares subject to such notice(s) by 4:00 p.m. (New York City time) on the Initial Exercise Date and the Initial Exercise Date shall be the Warrant Share Delivery Date for purposes hereunder.

[1] Insert the date and time of execution of the Securities Purchase Agreement

ii. Delivery of New Warrants Upon Exercise. If this Warrant shall have been exercised in part, the Company shall, at the request of a Holder and upon surrender of this Warrant certificate, at the time of delivery of the Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

iii. Rescission Rights. If the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares pursuant to Section 2(d)(i) by the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise.

iv. Compensation for Buy-In on Failure to Timely Deliver Warrant Shares Upon Exercise. In addition to any other rights available to the Holder, if the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares in accordance with the provisions of Section 2(d)(i) above pursuant to an exercise on or before the Warrant Share Delivery Date, and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases, Ordinary Shares to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a "Buy-In"), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the Ordinary Shares so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of Ordinary Shares that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases Ordinary Shares having a total purchase price of $11,000 to cover a Buy-In with respect to an attempted exercise of Ordinary Shares with an aggregate sale price giving rise to such purchase obligation of $10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder $1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence of the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver Ordinary Shares upon exercise of the Warrant as required pursuant to the terms hereof.

v. No Fractional Shares or Scrip. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such exercise, the Company shall, at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price or round up to the next whole share.

vi. Charges, Taxes and Expenses. Issuance of Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such Warrant Shares, all of which taxes and expenses shall be paid by the Company, and such Warrant Shares shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that, in the event that Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto. The Company shall pay all Transfer Agent fees required for same-day processing of any Notice of Exercise and all fees to the Depository Trust Company (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Warrant Shares.

vii. Closing of Books. The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof.

e) Holder's Exercise Limitations. The Company shall not effect any exercise of this Warrant, and a Holder shall not have the right to exercise any portion of this Warrant, pursuant to Section 2 or otherwise, to the extent that after giving effect to such issuance after exercise as set forth on the applicable Notice of Exercise, the Holder (together with the Holder's Affiliates, and any other Persons acting as a group together with the Holder or any of the Holder's Affiliates (such Persons, "Attribution Parties")), would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of Ordinary Shares beneficially owned by the Holder and its Affiliates and Attribution Parties shall include the number of Ordinary Shares issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of Ordinary Shares which would be issuable upon (i) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any other Ordinary Share Equivalents) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 2(e), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that the Company is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 2(e) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 2(e), in determining the number of outstanding Ordinary Shares, a Holder may rely on the number of outstanding Ordinary Shares as reflected in (A) the Company's most recent periodic or annual report filed with the Commission, as the case may be, (B) a more recent public announcement by the Company or (C) a more recent written notice by the Company or the Transfer Agent setting forth the number of Ordinary Shares outstanding. Upon the written or oral request of a Holder, the Company shall within one Trading Day confirm orally and in writing to the Holder the number of Ordinary Shares then outstanding. In any case, the number of outstanding Ordinary Shares shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding Ordinary Shares was reported. The "Beneficial Ownership Limitation" shall be 4.99% (or, upon election by a Holder prior to the issuance of any Warrants, 9.99%) of the number of Ordinary Shares outstanding immediately after giving effect to the issuance of Ordinary Shares issuable upon exercise of this Warrant. The Holder, upon notice to the Company, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 2(e), provided that the Beneficial Ownership Limitation in no event exceeds 9.99% of the number of Ordinary Shares outstanding immediately after giving effect to the issuance of Ordinary Shares upon exercise of this Warrant held by the Holder and the provisions of this Section 2(e) shall continue to apply. Any increase in the Beneficial Ownership Limitation will not be effective until the 61$^{st}$ day after such notice is delivered to the Company. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 2(e) to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of this Warrant.

Section 3. Certain Adjustments.

a) Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions on Ordinary Shares or any other equity or equity equivalent securities payable in Ordinary Shares (which, for avoidance of doubt, shall not include any Ordinary Shares issued by the Company upon exercise of this Warrant), (ii) subdivides outstanding Ordinary Shares into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding Ordinary Shares into a smaller number of shares, or (iv) issues by reclassification of Ordinary Shares any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of Ordinary Shares (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of Ordinary Shares outstanding immediately after such event, and the number of shares issuable upon exercise of this Warrant shall be proportionately adjusted such that the aggregate Exercise Price of this Warrant shall remain unchanged. Any adjustment made pursuant to this Section 3(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or re-classification.

b) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 3(a) above, if at any time the Company grants, issues or sells any Ordinary Share Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of Ordinary Shares (the "Purchase Rights"), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of Ordinary Shares acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of Ordinary Shares are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, that, to the extent that the Holder's right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such Ordinary Shares as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

c) Pro Rata Distributions. During such time as this Warrant is outstanding, if the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of Ordinary Shares, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a "Distribution"), at any time after the issuance of this Warrant, then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of Ordinary Shares acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of Ordinary Shares are to be determined for the participation in such Distribution (provided, however, that, to the extent that the Holder's right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any Ordinary Shares as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

d) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person, (ii) the Company directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Ordinary Shares are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding Ordinary Shares, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Ordinary Shares or any compulsory share exchange pursuant to which the Ordinary Shares are effectively converted into or exchanged for other securities, cash or property, or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off, merger or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires more than 50% of the outstanding Ordinary Shares (not including any Ordinary Shares held by the other Person or other Persons making or party to, or associated or affiliated with the other Persons making or party to, such stock or share purchase agreement or other business combination) (each a "Fundamental Transaction"), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, at the option of the Holder (without regard to any limitation in Section 2(e) on the exercise of this Warrant), the number of Ordinary Shares of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (the "Alternate Consideration") receivable as a result of such Fundamental Transaction by a holder of the number of Ordinary Shares for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2(e) on the exercise of this Warrant). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one Ordinary Share in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Ordinary Shares are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the "Successor Entity") to assume in writing all of the obligations of the Company under this Warrant in accordance with the provisions of this Section 3(e) pursuant to written agreements in form and substance reasonably satisfactory to the Holder and approved by the Holder (without unreasonable delay) prior to such Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant which is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the Ordinary Shares acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the Ordinary Shares pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for (so that from and after the date of such Fundamental Transaction, the provisions of this Warrant referring to the "Company" shall refer instead to the Successor Entity), and may exercise every right and power of the Company and shall assume all of the obligations of the Company under this Warrant with the same effect as if such Successor Entity had been named as the Company herein.

e) Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 3, the number of Ordinary Shares deemed to be issued and outstanding as of a given date shall be the sum of the number of Ordinary Shares (excluding treasury shares, if any) issued and outstanding.

f) Notice to Holder.

i. Adjustment to Exercise Price. Whenever the Exercise Price is adjusted pursuant to any provision of this Section 3, the Company shall promptly deliver to the Holder by facsimile or email a notice setting forth the Exercise Price after such adjustment and any resulting adjustment to the number of Warrant Shares and setting forth a brief statement of the facts requiring such adjustment.

ii. Notice to Allow Exercise by Holder. If (A) the Company shall declare a dividend (or any other distribution in whatever form) on the Ordinary Shares, (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Ordinary Shares, (C) the Company shall authorize the granting to all holders of the Ordinary Shares rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of the Company shall be required in connection with any reclassification of the Ordinary Shares, any consolidation or merger to which the Company (or any of its Subsidiaries) is a party, any sale or transfer of all or substantially all of its assets, or any compulsory share exchange whereby the Ordinary Shares are converted into other securities, cash or property, or (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be delivered by facsimile or email to the Holder at its last facsimile number or email address as it shall appear upon the Warrant Register of the Company, at least 20 calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Ordinary Shares of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Ordinary Shares of record shall be entitled to exchange their Ordinary Shares for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided in this Warrant constitutes, or contains, material, non-public information regarding the Company or any of the Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 6-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

g) Voluntary Adjustment By Company. Subject to the rules and regulations of the Trading Market, the Company may at any time during the term of this Warrant, subject to the prior written consent of the Holder, reduce the then current Exercise Price to any amount and for any period of time deemed appropriate by the board of directors of the Company.

Section 4. Transfer of Warrant.

a) Transferability. This Warrant and all rights hereunder (including, without limitation, any registration rights) are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company unless the Holder has assigned this Warrant in full, in which case, the Holder shall surrender this Warrant to the Company within three (3) Trading Days of the date on which the Holder delivers an assignment form to the Company assigning this Warrant in full. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

b) New Warrants. This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall be dated the initial issuance date of this Warrant and shall be identical with this Warrant except as to the number of Warrant Shares issuable pursuant thereto.

c) Warrant Register. The Company shall register this Warrant, upon records to be maintained by the Company for that purpose (the "Warrant Register"), in the name of the record Holder hereof from time to time. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.

Section 5. Miscellaneous.

a) No Rights as Stockholder Until Exercise; No Settlement in Cash. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a stockholder of the Company prior to the exercise hereof as set forth in Section 2(d)(i), except as expressly set forth in Section 3. Without limiting any rights of a Holder to receive Warrant Shares on a "cashless exercise" pursuant to Section 2(c) or to receive cash payments pursuant to Section 2(d)(i) and Section 2(d)(iv) herein, in no event shall the Company be required to net cash settle an exercise of this Warrant.

b) Loss, Theft, Destruction or Mutilation of Warrant. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

c) Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a Business Day, then such action may be taken or such right may be exercised on the next succeeding Business Day.

d) Authorized Shares.

The Company covenants that, during the period the Warrant is outstanding, it will reserve from its authorized and unissued Ordinary Shares a sufficient number of shares to provide for the issuance of the Warrant Shares upon the exercise of any purchase rights under this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of issuing the necessary Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Ordinary Shares may be listed. The Company covenants that all Warrant Shares which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant and payment for such Warrant Shares in accordance herewith, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges created by the Company in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (i) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (ii) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant and (iii) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof, as may be, necessary to enable the Company to perform its obligations under this Warrant.

Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof.

e) Governing Law. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be governed by and construed and enforced in accordance with the internal laws of the State of New York, without regard to the principles of conflicts of law thereof. Each party agrees that all legal proceedings concerning the interpretations, enforcement and defense of the transactions contemplated by this Warrant (whether brought against a party hereto or their respective affiliates, directors, officers, shareholders, partners, members, employees or agents) shall be commenced exclusively in the state and federal courts sitting in the City of New York. Each party hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in the City of New York, Borough of Manhattan for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is improper or is an inconvenient venue for such proceeding. Each party hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this Warrant and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any other manner permitted by law. If either party shall commence an action, suit or proceeding to enforce any provisions of this Warrant, the prevailing party in such action, suit or proceeding shall be reimbursed by the other party for their reasonable attorneys' fees and other costs and expenses incurred with the investigation, preparation and prosecution of such action or proceeding.

f) Restrictions. The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered, and the Holder does not utilize cashless exercise, will have restrictions upon resale imposed by state and federal securities laws.

g) Nonwaiver and Expenses. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice the Holder's rights, powers or remedies. Without limiting any other provision of this Warrant, if the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to the Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by the Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

h) Notices. Any and all notices or other communications or deliveries to be provided by the Holders hereunder including, without limitation, any Notice of Exercise, shall be in writing and delivered personally, by facsimile or e-mail, or sent by a nationally recognized overnight courier service, addressed to the Company, at _____, Attention: _____, facsimile number: _____, email address: _____, or such other facsimile number, email address or address as the Company may specify for such purposes by notice to the Holders. Any and all notices or other communications or deliveries to be provided by the Company hereunder shall be in writing and delivered personally, by facsimile or e-mail, or sent by a nationally recognized overnight courier service addressed to each Holder at the facsimile number, e-mail address or address of such Holder appearing on the books of the Company. Any notice or other communication or deliveries hereunder shall be deemed given and effective on the earliest of (i) the time of transmission, if such notice or communication is delivered via facsimile at the facsimile number or via e-mail at the e-mail address set forth in this Section prior to 5:30 p.m. (New York City time) on any date, (ii) the next Trading Day after the time of transmission, if such notice or communication is delivered via facsimile at the facsimile number or via e-mail at the e-mail address set forth in this Section on a day that is not a Trading Day or later than 5:30 p.m. (New York City time) on any Trading Day, (iii) the second Trading Day following the date of mailing, if sent by U.S. nationally recognized overnight courier service, or (iv) upon actual receipt by the party to whom such notice is required to be given. To the extent that any notice provided hereunder constitutes, or contains, material, non-public information regarding the Company or any Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 6-K.

i) Limitation of Liability. No provision hereof, in the absence of any affirmative action by the Holder to exercise this Warrant to purchase Warrant Shares, and no enumeration herein of the rights or privileges of the Holder, shall give rise to any liability of the Holder for the purchase price of any Ordinary Shares or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

j) Remedies. The Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive and not to assert the defense in any action for specific performance that a remedy at law would be adequate.

k) Successors and Assigns. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors and permitted assigns of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of any Holder from time to time of this Warrant and shall be enforceable by the Holder or holder of Warrant Shares.

l) Amendment. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company, on the one hand, and the Holder, on the other hand.

m) Severability. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

n) Headings. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

**********

*(Signature Page Follows)*

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized as of the date first above indicated.

**APTORUM GROUP LIMITED**

By: _____

Name:
Title:

**NOTICE OF EXERCISE**

TO: APTORUM GROUP LIMTED

(1) The undersigned hereby elects to purchase _____ Warrant Shares of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Payment shall take the form of (check applicable box):

[ ] in lawful money of the United States; or

[ ] if permitted the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c).

(3) Please issue said Warrant Shares in the name of the undersigned or in such other name as is specified below:

_____

The Warrant Shares shall be delivered to the following DWAC Account Number:

_____

_____

_____

[SIGNATURE OF HOLDER]

Name of Investing Entity: _____

*Signature of Authorized Signatory of Investing Entity:* _____

Name of Authorized Signatory: _____

Title of Authorized Signatory: _____

Date: _____

**ASSIGNMENT FORM**

*(To assign the foregoing Warrant, execute this form and supply required information. Do not use this form to purchase shares.)*

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

Name: _____
(Please Print)

Address: _____
(Please Print)

Phone Number: _____

Email Address: _____

Dated: _____ __, _____

Holder's Signature: _____
Holder's Address: _____

**Exhibit 4.5**

**CLASS A ORDINARY SHARE PURCHASE WARRANT**

**APTORUM GROUP LIMITED**

Warrant Shares: _____ Initial Exercise Date: _____ __, 2020

THIS CLASS A ORDINARY SHARE PURCHASE WARRANT (the "Warrant") certifies that, for value received, _____ or its assigns (the "Holder") is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after the date hereof (the "Initial Exercise Date") and on or prior to 5:00 p.m. (New York City time) on ____[1] (the "Termination Date") but not thereafter, to subscribe for and purchase from Aptorum Group Limited, a company organized under the laws of the Cayman Islands (the "Company"), up to _____ Class A ordinary shares (as subject to adjustment hereunder, the "Warrant Shares"). The purchase price of one Warrant Share under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b).

Section 1. Definitions. In addition to the terms defined elsewhere in this Warrant, the following terms have the meanings indicated in this Section 1:

"Affiliate" means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person, as such terms are used in and construed under Rule 405 under the Securities Act.

"Bid Price" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Ordinary Shares are then listed or quoted on a Trading Market, the bid price of the Ordinary Shares for the time in question (or the nearest preceding date) on the Trading Market on which the Ordinary Shares are then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Ordinary Shares for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Ordinary Shares are not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Ordinary Shares are then reported on the Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per Ordinary Share so reported, or (d) in all other cases, the fair market value of an Ordinary Share as determined by an independent appraiser selected in good faith by the Holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

"Board of Directors" means the board of directors of the Company.

[1] Insert the date that is the 5 year anniversary of the Initial Exercise Date, provided that, if such date is not a Trading Day, insert the immediately following Trading Day.

"Business Day" means any day other than Saturday, Sunday or other day on which commercial banks in The City of New York are authorized or required by law to remain closed; provided, however, for clarification, commercial banks shall not be deemed to be authorized or required by law to remain closed due to "stay at home", "shelter-in-place", "non-essential employee" or any other similar orders or restrictions or the closure of any physical branch locations at the direction of any governmental authority so long as the electronic funds transfer systems (including for wire transfers) of commercial banks in The City of New York generally are open for use by customers on such day.

"Commission" means the United States Securities and Exchange Commission.

"Exchange Act" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

"Ordinary Share(s)" means the Class A ordinary shares of the Company, par value $1.00 per share, and any other class of securities into which such securities may hereafter be reclassified or changed.

"Ordinary Share Equivalents" means any securities of the Company or the Subsidiaries which would entitle the holder thereof to acquire at any time Ordinary Shares, including, without limitation, any debt, preferred shares, right, option, warrant or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Ordinary Shares.

"Person" means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

"Registration Statement" means the Company's registration statement on Form F-1 (File No. 248743).

"Securities Act" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

"Subsidiary" means any subsidiary of the Company and shall, where applicable, also include any direct or indirect subsidiary of the Company formed or acquired after the date hereof.

"Trading Day" means a day on which the Ordinary Shares are traded on a Trading Market.

"Trading Market" means any of the following markets or exchanges on which the Ordinary Shares are listed or quoted for trading on the date in question: the NYSE American, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market or the New York Stock Exchange (or any successors to any of the foregoing).

"Transfer Agent" means Continental Trust & Transfer Company, the current transfer agent of the Company, with a mailing address of 1 State Street, 30th Floor, New York, NY 10004 and a facsimile number of _____, and any successor transfer agent of the Company.

"VWAP" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Ordinary Shares are then listed or quoted on a Trading Market, the daily volume weighted average price of an Ordinary Shares for such date (or the nearest preceding date) on the Trading Market on which an Ordinary Shares is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if the OTCQB or OTCQX is not a Trading Market, the volume weighted average price of an Ordinary Shares for such date (or the nearest preceding date) on the OTCQB or OTCQX, (c) if Ordinary Shares s are not then listed or quoted for trading on the OTCQB or OTCQX and if prices for Ordinary Shares s are then reported in the "Pink Sheets" published by OTC Markets Group, Inc. (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of an Ordinary Shares so reported, or (d) in all other cases, the fair market value of an Ordinary Shares as determined by an independent appraiser selected in good faith by the Purchasers of a majority in interest of the Securities then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

"Warrants" means this Warrant and other Ordinary Share purchase warrants issued by the Company pursuant to the Registration Statement.

Section 2. Exercise.

a) Exercise of Warrant. Exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Company of a duly executed facsimile copy or PDF copy submitted by e-mail (or e-mail attachment) of the Notice of Exercise in the form annexed hereto (the "Notice of Exercise"). Within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined in Section 2(d)(i) herein) following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the shares specified in the applicable Notice of Exercise by wire transfer or cashier's check drawn on a United States bank unless the cashless exercise procedure specified in Section 2(c) below is specified in the applicable Notice of Exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation within three (3) Trading Days of the date on which the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Holder and the Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise within one (1) Business Day of receipt of such notice. **The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof.**

b) Exercise Price. The exercise price per Ordinary Share under this Warrant shall be $_____, subject to adjustment hereunder (the "Exercise Price").

c) Cashless Exercise. If at the time of exercise hereof there is no effective registration statement registering, or the prospectus contained therein is not available for the issuance of the Warrant Shares to the Holder, then this Warrant may also be exercised, in whole or in part, at such time by means of a "cashless exercise" in which the Holder shall be entitled to receive a number of Warrant Shares equal to the quotient obtained by dividing [(A-B) (X)] by (A), where:

(A) = as applicable: (i) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise if such Notice of Exercise is (1) both executed and delivered pursuant to Section 2(a) hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 2(a) hereof on a Trading Day prior to the opening of "regular trading hours" (as defined in Rule 600(b)(68) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) at the option of the Holder, either (y) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise or (z) the Bid Price of the Ordinary Shares on the principal Trading Market as reported by Bloomberg L.P. as of the time of the Holder's execution of the applicable Notice of Exercise if such Notice of Exercise is executed during "regular trading hours" on a Trading Day and is delivered within two (2) hours thereafter (including until two (2) hours after the close of "regular trading hours" on a Trading Day) pursuant to Section 2(a) hereof or (iii) the VWAP on the date of the applicable Notice of Exercise if the date of such Notice of Exercise is a Trading Day and such Notice of Exercise is both executed and delivered pursuant to Section 2(a) hereof after the close of "regular trading hours" on such Trading Day;

(B) = the Exercise Price of this Warrant, as adjusted hereunder; and

(X) = the number of Warrant Shares that would be issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise.

If Warrant Shares are issued in such a cashless exercise, the parties acknowledge and agree that in accordance with Section 3(a)(9) of the Securities Act, the Warrant Shares shall take on the registered characteristics of the Warrants being exercised. The Company agrees not to take any position contrary to this Section 2(c).

Notwithstanding anything herein to the contrary, on the Termination Date, this Warrant shall be automatically exercised via cashless exercise pursuant to this Section 2(c).

d) Mechanics of Exercise.

i. Delivery of Warrant Shares Upon Exercise. The Company shall cause the Warrant Shares purchased hereunder to be transmitted by the Transfer Agent to the Holder by crediting the account of the Holder's or its designee's balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system ("DWAC") if the Company is then a participant in such system and either (A) there is an effective registration statement permitting the issuance of the Warrant Shares to or resale of the Warrant Shares by Holder or (B) this Warrant is being exercised via cashless exercise, and otherwise by physical delivery of a certificate, registered in the Company's share register in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise by the date that is the earliest of (i) two (2) Trading Days after the delivery to the Company of the Notice of Exercise, (ii) one (1) Trading Day after delivery of the aggregate Exercise Price to the Company and (iii) the number of Trading Days comprising the Standard Settlement Period after the delivery to the Company of the Notice of Exercise (such date, the "Warrant Share Delivery Date"). Upon delivery of the Notice of Exercise, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date of delivery of the Warrant Shares, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period following delivery of the Notice of Exercise. If the Company fails for any reason to deliver to the Holder the Warrant Shares subject to a Notice of Exercise by the Warrant Share Delivery Date, the Company shall pay to the Holder, in cash, as liquidated damages and not as a penalty, for each $1,000 of Warrant Shares subject to such exercise (based on the VWAP of the Ordinary Shares on the date of the applicable Notice of Exercise), $10 per Trading Day (increasing to $20 per Trading Day on the fifth Trading Day after such liquidated damages begin to accrue) for each Trading Day after such Warrant Share Delivery Date until such Warrant Shares are delivered or Holder rescinds such exercise. The Company agrees to maintain a transfer agent that is a participant in the FAST program so long as this Warrant remains outstanding and exercisable. As used herein, "Standard Settlement Period" means the standard settlement period, expressed in a number of Trading Days, on the Company's primary Trading Market with respect to the Ordinary Shares as in effect on the date of delivery of the Notice of Exercise. Notwithstanding the foregoing, with respect to any Notice(s) of Exercise delivered on or prior to 12:00 p.m. (New York City time) on the Initial Exercise Date, which may be delivered at any time after _____ __, 2020[2] the Company agrees to deliver the Warrant Shares subject to such notice(s) by 4:00 p.m. (New York City time) on the Initial Exercise Date and the Initial Exercise Date shall be the Warrant Share Delivery Date for purposes hereunder.

[2] Insert the date and time of execution of the Securities Purchase Agreement

ii. Delivery of New Warrants Upon Exercise. If this Warrant shall have been exercised in part, the Company shall, at the request of a Holder and upon surrender of this Warrant certificate, at the time of delivery of the Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

iii. Rescission Rights. If the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares pursuant to Section 2(d)(i) by the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise.

iv. Compensation for Buy-In on Failure to Timely Deliver Warrant Shares Upon Exercise. In addition to any other rights available to the Holder, if the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares in accordance with the provisions of Section 2(d)(i) above pursuant to an exercise on or before the Warrant Share Delivery Date, and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases, Ordinary Shares to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a "Buy-In"), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the Ordinary Shares so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of Ordinary Shares that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases Ordinary Shares having a total purchase price of $11,000 to cover a Buy-In with respect to an attempted exercise of Ordinary Shares with an aggregate sale price giving rise to such purchase obligation of $10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder $1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence of the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver Ordinary Shares upon exercise of the Warrant as required pursuant to the terms hereof.

v. No Fractional Shares or Scrip. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such exercise, the Company shall, at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price or round up to the next whole share.

vi. Charges, Taxes and Expenses. Issuance of Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such Warrant Shares, all of which taxes and expenses shall be paid by the Company, and such Warrant Shares shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that, in the event that Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto. The Company shall pay all Transfer Agent fees required for same-day processing of any Notice of Exercise and all fees to the Depository Trust Company (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Warrant Shares.

vii. Closing of Books. The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof.

e) Holder's Exercise Limitations. The Company shall not effect any exercise of this Warrant, and a Holder shall not have the right to exercise any portion of this Warrant, pursuant to Section 2 or otherwise, to the extent that after giving effect to such issuance after exercise as set forth on the applicable Notice of Exercise, the Holder (together with the Holder's Affiliates, and any other Persons acting as a group together with the Holder or any of the Holder's Affiliates (such Persons, "Attribution Parties")), would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of Ordinary Shares beneficially owned by the Holder and its Affiliates and Attribution Parties shall include the number of Ordinary Shares issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of Ordinary Shares which would be issuable upon (i) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any other Ordinary Share Equivalents) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 2(e), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that the Company is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 2(e) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 2(e), in determining the number of outstanding Ordinary Shares, a Holder may rely on the number of outstanding Ordinary Shares as reflected in (A) the Company's most recent periodic or annual report filed with the Commission, as the case may be, (B) a more recent public announcement by the Company or (C) a more recent written notice by the Company or the Transfer Agent setting forth the number of Ordinary Shares outstanding. Upon the written or oral request of a Holder, the Company shall within one Trading Day confirm orally and in writing to the Holder the number of Ordinary Shares then outstanding. In any case, the number of outstanding Ordinary Shares shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding Ordinary Shares was reported. The "Beneficial Ownership Limitation" shall be 4.99% (or, upon election by a Holder prior to the issuance of any Warrants, 9.99%) of the number of Ordinary Shares outstanding immediately after giving effect to the issuance of Ordinary Shares issuable upon exercise of this Warrant. The Holder, upon notice to the Company, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 2(e), provided that the Beneficial Ownership Limitation in no event exceeds 9.99% of the number of Ordinary Shares outstanding immediately after giving effect to the issuance of Ordinary Shares upon exercise of this Warrant held by the Holder and the provisions of this Section 2(e) shall continue to apply. Any increase in the Beneficial Ownership Limitation will not be effective until the 61$^{st}$ day after such notice is delivered to the Company. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 2(e) to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of this Warrant.

Section 3. Certain Adjustments.

a) Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions on Ordinary Shares or any other equity or equity equivalent securities payable in Ordinary Shares (which, for avoidance of doubt, shall not include any Ordinary Shares issued by the Company upon exercise of this Warrant), (ii) subdivides outstanding Ordinary Shares into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding Ordinary Shares into a smaller number of shares, or (iv) issues by reclassification of Ordinary Shares any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of Ordinary Shares (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of Ordinary Shares outstanding immediately after such event, and the number of shares issuable upon exercise of this Warrant shall be proportionately adjusted such that the aggregate Exercise Price of this Warrant shall remain unchanged. Any adjustment made pursuant to this Section 3(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or re-classification.

b) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 3(a) above, if at any time the Company grants, issues or sells any Ordinary Share Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of Ordinary Shares (the "Purchase Rights"), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of Ordinary Shares acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of Ordinary Shares are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, that, to the extent that the Holder's right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such Ordinary Shares as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

c) Pro Rata Distributions. During such time as this Warrant is outstanding, if the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of Ordinary Shares, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a "Distribution"), at any time after the issuance of this Warrant, then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of Ordinary Shares acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of Ordinary Shares are to be determined for the participation in such Distribution (provided, however, that, to the extent that the Holder's right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any Ordinary Shares as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

d) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person, (ii) the Company directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Ordinary Shares are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding Ordinary Shares, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Ordinary Shares or any compulsory share exchange pursuant to which the Ordinary Shares are effectively converted into or exchanged for other securities, cash or property, or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off, merger or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires more than 50% of the outstanding Ordinary Shares (not including any Ordinary Shares held by the other Person or other Persons making or party to, or associated or affiliated with the other Persons making or party to, such stock or share purchase agreement or other business combination) (each a "Fundamental Transaction"), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, at the option of the Holder (without regard to any limitation in Section 2(e) on the exercise of this Warrant), the number of Ordinary Shares of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (the "Alternate Consideration") receivable as a result of such Fundamental Transaction by a holder of the number of Ordinary Shares for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2(e) on the exercise of this Warrant). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one Ordinary Share in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Ordinary Shares are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. Notwithstanding anything to the contrary, in the event of a Fundamental Transaction, the Company or any Successor Entity (as defined below) shall, at the Holder's option, exercisable at any time concurrently with, or within 30 days after, the consummation of the Fundamental Transaction (or, if later, the date of the public announcement of the applicable Fundamental Transaction), purchase this Warrant from the Holder by paying to the Holder an amount of cash equal to the Black Scholes Value (as defined below) of the remaining unexercised portion of this Warrant on the date of the consummation of such Fundamental Transaction; provided, however, that, if the Fundamental Transaction is not within the Company's control, including not approved by the Company's Board of Directors, Holder shall only be entitled to receive from the Company or any Successor Entity the same type or form of consideration (and in the same proportion), at the Black Scholes Value of the unexercised portion of this Warrant, that is being offered and paid to the holders of Ordinary Shares of the Company in connection with the Fundamental Transaction, whether that consideration be in the form of cash, stock or any combination thereof, or whether the holders of Ordinary Shares are given the choice to receive from among alternative forms of consideration in connection with the Fundamental Transaction; provided, further, that if holders of Ordinary Shares of the Company are not offered or paid any consideration in such Fundamental Transaction, such holders of Ordinary Shares will be deemed to have received common stock of the Successor Entity (which Entity may be the Company following such Fundamental Transaction) in such Fundamental Transaction. "Black Scholes Value" means the value of this Warrant based on the Black-Scholes Option Pricing Model obtained from the "OV" function on Bloomberg, L.P. ("Bloomberg") determined as of the day of consummation of the applicable Fundamental Transaction for pricing purposes and reflecting (A) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the time between the date of the public announcement of the applicable Fundamental Transaction and the Termination Date, (B) an expected volatility equal to the greater of 100% and the 100 day volatility obtained from the HVT function on Bloomberg (determined utilizing a 365 day annualization factor) as of the Trading Day immediately following the public announcement of the applicable Fundamental Transaction, (C) the underlying price per share used in such calculation shall be the greater of (i) the sum of the price per share being offered in cash, if any, plus the value of any non-cash consideration, if any, being offered in such Fundamental Transaction and (ii) the greater of (x) the last VWAP immediately prior to the public announcement of such Fundamental Transaction and (y) the last VWAP immediately prior to the consummation of such Fundamental Transaction and (D) a remaining option time equal to the time between the date of the public announcement of the applicable Fundamental Transaction and the Termination Date, and (E) a zero cost of borrow. The payment of the Black Scholes Value will be made by wire transfer of immediately available funds (or such other consideration) within five Business Days of the Holder's election (or, if later, on the date of consummation of the Fundamental Transaction). The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the "Successor Entity") to assume in writing all of the obligations of the Company under this Warrant in accordance with the provisions of this Section 3(e) pursuant to written agreements in form and substance reasonably satisfactory to the Holder and approved by the Holder (without unreasonable delay) prior to such Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant which is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the Ordinary Shares acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the Ordinary Shares pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the

occurrence of any such Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for (so that from and after the date of such Fundamental Transaction, the provisions of this Warrant referring to the "Company" shall refer instead to the Successor Entity), and may exercise every right and power of the Company and shall assume all of the obligations of the Company under this Warrant with the same effect as if such Successor Entity had been named as the Company herein.

e) Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 3, the number of Ordinary Shares deemed to be issued and outstanding as of a given date shall be the sum of the number of Ordinary Shares (excluding treasury shares, if any) issued and outstanding.

f) Notice to Holder.

i. Adjustment to Exercise Price. Whenever the Exercise Price is adjusted pursuant to any provision of this Section 3, the Company shall promptly deliver to the Holder by facsimile or email a notice setting forth the Exercise Price after such adjustment and any resulting adjustment to the number of Warrant Shares and setting forth a brief statement of the facts requiring such adjustment.

ii. Notice to Allow Exercise by Holder. If (A) the Company shall declare a dividend (or any other distribution in whatever form) on the Ordinary Shares, (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Ordinary Shares, (C) the Company shall authorize the granting to all holders of the Ordinary Shares rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of the Company shall be required in connection with any reclassification of the Ordinary Shares, any consolidation or merger to which the Company (or any of its Subsidiaries) is a party, any sale or transfer of all or substantially all of its assets, or any compulsory share exchange whereby the Ordinary Shares are converted into other securities, cash or property, or (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be delivered by facsimile or email to the Holder at its last facsimile number or email address as it shall appear upon the Warrant Register of the Company, at least 20 calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Ordinary Shares of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Ordinary Shares of record shall be entitled to exchange their Ordinary Shares for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided in this Warrant constitutes, or contains, material, non-public information regarding the Company or any of the Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 6-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

g) Voluntary Adjustment By Company. Subject to the rules and regulations of the Trading Market, the Company may at any time during the term of this Warrant, subject to the prior written consent of the Holder, reduce the then current Exercise Price to any amount and for any period of time deemed appropriate by the board of directors of the Company.

Section 4. Transfer of Warrant.

a) Transferability. This Warrant and all rights hereunder (including, without limitation, any registration rights) are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company unless the Holder has assigned this Warrant in full, in which case, the Holder shall surrender this Warrant to the Company within three (3) Trading Days of the date on which the Holder delivers an assignment form to the Company assigning this Warrant in full. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

b) New Warrants. This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall be dated the initial issuance date of this Warrant and shall be identical with this Warrant except as to the number of Warrant Shares issuable pursuant thereto.

c) Warrant Register. The Company shall register this Warrant, upon records to be maintained by the Company for that purpose (the "Warrant Register"), in the name of the record Holder hereof from time to time. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.

Section 5. Miscellaneous.

a) No Rights as Stockholder Until Exercise; No Settlement in Cash. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a stockholder of the Company prior to the exercise hereof as set forth in Section 2(d)(i), except as expressly set forth in Section 3. Without limiting any rights of a Holder to receive Warrant Shares on a "cashless exercise" pursuant to Section 2(c) or to receive cash payments pursuant to Section 2(d)(i) and Section 2(d)(iv) herein, in no event shall the Company be required to net cash settle an exercise of this Warrant.

b) Loss, Theft, Destruction or Mutilation of Warrant. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

c) Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a Business Day, then such action may be taken or such right may be exercised on the next succeeding Business Day.

d) Authorized Shares.

The Company covenants that, during the period the Warrant is outstanding, it will reserve from its authorized and unissued Ordinary Shares a sufficient number of shares to provide for the issuance of the Warrant Shares upon the exercise of any purchase rights under this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of issuing the necessary Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Ordinary Shares may be listed. The Company covenants that all Warrant Shares which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant and payment for such Warrant Shares in accordance herewith, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges created by the Company in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (i) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (ii) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant and (iii) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof, as may be, necessary to enable the Company to perform its obligations under this Warrant.

Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof.

e) Governing Law. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be governed by and construed and enforced in accordance with the internal laws of the State of New York, without regard to the principles of conflicts of law thereof. Each party agrees that all legal proceedings concerning the interpretations, enforcement and defense of the transactions contemplated by this Warrant (whether brought against a party hereto or their respective affiliates, directors, officers, shareholders, partners, members, employees or agents) shall be commenced exclusively in the state and federal courts sitting in the City of New York. Each party hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in the City of New York, Borough of Manhattan for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is improper or is an inconvenient venue for such proceeding. Each party hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this Warrant and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any other manner permitted by law. If either party shall commence an action, suit or proceeding to enforce any provisions of this Warrant, the prevailing party in such action, suit or proceeding shall be reimbursed by the other party for their reasonable attorneys' fees and other costs and expenses incurred with the investigation, preparation and prosecution of such action or proceeding.

f) Restrictions. The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered, and the Holder does not utilize cashless exercise, will have restrictions upon resale imposed by state and federal securities laws.

g) Nonwaiver and Expenses. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice the Holder's rights, powers or remedies. Without limiting any other provision of this Warrant, if the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to the Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by the Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

h) Notices. Any and all notices or other communications or deliveries to be provided by the Holders hereunder including, without limitation, any Notice of Exercise, shall be in writing and delivered personally, by facsimile or e-mail, or sent by a nationally recognized overnight courier service, addressed to the Company, at _____, Attention: _____, facsimile number: _____, email address: _____, or such other facsimile number, email address or address as the Company may specify for such purposes by notice to the Holders. Any and all notices or other communications or deliveries to be provided by the Company hereunder shall be in writing and delivered personally, by facsimile or e-mail, or sent by a nationally recognized overnight courier service addressed to each Holder at the facsimile number, e-mail address or address of such Holder appearing on the books of the Company. Any notice or other communication or deliveries hereunder shall be deemed given and effective on the earliest of (i) the time of transmission, if such notice or communication is delivered via facsimile at the facsimile number or via e-mail at the e-mail address set forth in this Section prior to 5:30 p.m. (New York City time) on any date, (ii) the next Trading Day after the time of transmission, if such notice or communication is delivered via facsimile at the facsimile number or via e-mail at the e-mail address set forth in this Section on a day that is not a Trading Day or later than 5:30 p.m. (New York City time) on any Trading Day, (iii) the second Trading Day following the date of mailing, if sent by U.S. nationally recognized overnight courier service, or (iv) upon actual receipt by the party to whom such notice is required to be given. To the extent that any notice provided hereunder constitutes, or contains, material, non-public information regarding the Company or any Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 6-K.

i) Limitation of Liability. No provision hereof, in the absence of any affirmative action by the Holder to exercise this Warrant to purchase Warrant Shares, and no enumeration herein of the rights or privileges of the Holder, shall give rise to any liability of the Holder for the purchase price of any Ordinary Shares or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

j) Remedies. The Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive and not to assert the defense in any action for specific performance that a remedy at law would be adequate.

k) Successors and Assigns. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors and permitted assigns of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of any Holder from time to time of this Warrant and shall be enforceable by the Holder or holder of Warrant Shares.

l) Amendment. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company, on the one hand, and the Holder, on the other hand.

m) Severability. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

n) Headings. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

**********

*(Signature Page Follows)*

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized as of the date first above indicated.

**APTORUM GROUP LIMITED**

By: _____

Name:

Title:

**NOTICE OF EXERCISE**

TO: APTORUM GROUP LIMTED

(1) The undersigned hereby elects to purchase _____ Warrant Shares of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Payment shall take the form of (check applicable box):

[ ] in lawful money of the United States; or

[ ] if permitted the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c).

(3) Please issue said Warrant Shares in the name of the undersigned or in such other name as is specified below:

_____

The Warrant Shares shall be delivered to the following DWAC Account Number:

_____

_____

_____

[SIGNATURE OF HOLDER]

Name of Investing Entity: _____

*Signature of Authorized Signatory of Investing Entity:* _____

Name of Authorized Signatory: _____

Title of Authorized Signatory: _____

Date: _____

**ASSIGNMENT FORM**

*(To assign the foregoing Warrant, execute this form and supply required information. Do not use this form to purchase shares.)*

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

Name: _____
(Please Print)

Address: _____
(Please Print)

Phone Number: _____

Email Address: _____

Dated: _____ __, _____

Holder's Signature: _____
Holder's Address: _____

**Exhibit 5.1**

Campbells
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** rlaws@campbellslegal.com or
dmagee@campbellslegal.com

campbellslegal.com

Our Ref: RCS/RML/12574-17506
Your Ref:

CAYMAN | BVI | HONG KONG

**By Email**

Aptorum Group Limited
Floor 4, Willow House,
Cricket Square,
Grand Cayman, KY1-9010
Cayman Islands

25 September 2020

Dear Sirs

**Aptorum Group Limited – Listing of Class A Ordinary Shares**

We have acted as Cayman Islands legal advisers to Aptorum Group Limited (the "**Company**"), a Cayman Islands exempted company, in connection with the Company's registration and offering (the "**Offering**") of (A) up to an aggregate amount of US$30,000,000 Class A Ordinary Shares ("**Shares**"); (B) warrants exercisable for up to an aggregate amount of US$30,000,000 in Class A Ordinary Shares ("**Warrants"**); (C) up to an aggregate amount of US$30,000,000 in Class A Ordinary Shares underlying the Warrants ("**Warrant Shares**"); (D) up to an aggregate amount of US$30,000,000 in pre-funded warrants to purchase Shares (the "**Pre-Funded Warrants**"), (E) up to an aggregate amount of US$30,000,000 in Class A Ordinary Shares underlying the Pre-Funded Warrants (the "**PF Warrant Shares**"), (F) warrants exercisable for up to US$2,600,000 in Class A Ordinary Shares issued to the placement agent pursuant to the Placement Agent Agreement (as defined below) (the "**Placement Agent Warrants**") and (H) up to US$2,600,000 in Class A Ordinary Shares underlying the Placement Agent Warrants (the "**PA Warrant Shares**," and together with the Shares, the Warrants, the Warrant Shares, the Pre-Funded Warrants, the PF Warrant Shares and the Placement Agent Warrants, the "**Registered Securities**"), through a Registration Statement on Form F-1 ("**Form F-1")** and as amended by the Pre-Effective Amendment No. 1 to Form F-1 (the "**Registration Statement**"), filed with the Securities and Exchange Commission under the U.S. Securities Act of 1933, as amended to date (the "**Act**"), as to which this opinion is a part, to be filed with the United States Securities and Exchange Commission (the "**Commission**").

**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 A&R Memorandum and Articles (as defined below) remain in full force and effect and are unamended;

1.6 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;

1.7 The authorised shares of the Company as set out in the A&R Memorandum and Articles have not been amended; and

1.8 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.

1.9 The Shares, the PF Warrant Shares and the PA Warrant Shares to be offered and issued by the Company pursuant to the Registration Statement and Placement Agent Agreement (as defined below) will be issued by the Company against payment in full, in accordance with Registration Statement and be duly registered in the Company's register of members.

1.10 There is nothing under any law (other than the laws of the Cayman Islands) which would or might affect the opinions herein.

**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 Registration Statement as provided and to be filed with the Commission on or about the date of this opinion;

2.3 A copy of the certificate of incorporation issued by the Registrar of Companies in the Cayman Islands on 13 September 2010;

2.4 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;

2.5 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;

2.6 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 by Campbells Corporate Services Limited and reviewed on 24 September 2020;

2.7 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**");

2.8 Certificate of Good Standing in respect of the Company issued by the Registrar of Companies in the Cayman Islands dated 31 August 2020 (the "**Certificate of Good Standing**");

2.9 Copies of the written resolutions of the board of directors of the Company dated 24 August 2020 and 24 September 2020 (the "**Resolutions**");

2.10 A copy of the shareholder resolutions of the Company dated 13 October 2017 (the "**Shareholder Resolutions**");

2.11 The records of proceedings of the Company on file with, and available for inspection on 24 September 2020, at the Grand Court of the Cayman Islands;

2.12 A copy of the letter of engagement between H.C. Wainwright & Co., LLC (the "**Placement Agent**") and the Company dated 17 August 2020 setting out the terms upon which the Placement Agent will serve as placement agent in the offering of securities of the Company ("**Engagment Letter**");

2.13 A copy of the final draft form of the placement agent agreement between the Placement Agent and the Company setting out the terms of the Offering and the compensation payable to the Placement Agent (the "**Placement Agent Agreement**");

2.14 A copy of the final draft form of the Placement Agent Warrants;

2.15 A copy of the Pre-Funded Warrants;

2.16 A copy of the form of securities purchase agreement to be entered into by investors ("**Purchase Agreement**"); and

2.17 A copy of the final draft form of the Warrant.

**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 with the Registrar of Companies under the laws of the Cayman Islands.

3.2 The issue and allotment (as applicable) of the Registered Securites has been duly authorised, and when allotted, issued and paid for as contemplated as described in the Registration Statement, the Placement Agent Agreement, the Purchase Agreement, the Pre-Funded Warrants and/or the Placement Agent Warrants, and/or the Warrants 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).

3.3 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 Shares, the PF Warrant Shares and the PA Warrant Shares, that a shareholder shall not, solely by virtue of its status as a shareholder, be liable for additional assessments or calls on the Shares, the PF Warrant Shares and the PA Warrant Shares 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.

We hereby consent to filing of this opinion as an exhibit to the Registration Statement and to the reference to our name under the heading "Enforcement of Civil Liabilities" and "Legal matters" and elsewhere in the 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 Registration Statement, including this opinion and an exhibit or otherwise.

Yours faithfully

**Campbells**

**Exhibit 5.2**


September 25, 2020

**APTORUM GROUP LIMITED**
17 Hanover Square
London W1S 1BN, United Kingdom

Ladies and Gentlemen:

We have acted as U.S. securities counsel to Aptorum Group Limited, a Cayman Islands exempted company (the "**Company**") in connection with the public offering (the "Offering"), pursuant to a Registration Statement on Form F-1 initially filed by the Company with the United States Securities and Exchange Commission (the "**Commission**") publicly on September 11, 2020 (File No. 333-248743) (as amended, the "Registration Statement").of the following securities of the Company: (A) up to 9,202,453 Class A Ordinary Shares, par value $1.00 per share ("**Shares**"); (B) 9,202,453 warrants exercisable for up to 9,202,453 Class A Ordinary Shares ("**Warrants"**); (C) up to 9,202,453 Class A Ordinary Shares underlying the Warrants ("**Warrant Shares**"); (D) up to 9,202,453 pre-funded warrants to purchase Shares (the "**Pre-Funded Warrants**"), (E) up to 9,202,453 Class A Ordinary Shares underlying the Pre-Funded Warrants (the "**PF Warrant Shares**"), (F) warrants exercisable for up to 644,172 Class A Ordinary Shares issued to the placement agent pursuant to the Placement Agent Agreement (as defined below) (the "**Placement Agent Warrants**") and (G) up to 644,172 Class A Ordinary Shares underlying the Placement Agent Warrants (the "**PA Warrant Shares**," and together with the Shares, the Warrants, the Warrant Shares, the Pre-Funded Warrants, the PF Warrant Shares and the Placement Agent Warrants, the "**Securities**").

In connection with this opinion letter, we have examined originals or copies, certified or otherwise identified to our satisfaction, of the Registration Statement and prospectus included therein (the "**Prospectus**"), of such records of the Company and such agreements, certificates and statements of public officials, certificates of officers or representatives of the Company, and such other documents, certificates and records as we have deemed necessary or appropriate as a basis for the opinion set forth herein. In our examination, we have assumed the legal capacity of all natural persons, the genuineness of all signatures, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as certified or photostatic copies and the authenticity of all originals of such latter documents. In making our examination of the documents executed by the parties, we have assumed that such parties had the power, corporate or other, to enter into and perform all obligations thereunder and have also assumed the due authorization by all requisite action, corporate or other, and execution and delivery by such parties of such documents and the validity and binding effect thereof. Except as expressly set forth herein, we have not undertaken any independent investigation to determine the existence or absence of facts material to the opinions expressed herein and no inference as to our knowledge concerning such facts should be drawn from the fact that such representation has been relied upon by us in connection with the preparation and delivery of this opinion. As to any facts material to the opinions expressed herein which were not independently established or verified, we have relied upon oral or written statements and representations of officers and other representatives of the Company and others, in each case as we have deemed relevant and appropriate. We have not independently verified the facts so relied on.

This opinion is limited to the laws of the State of New York and United States federal law as in effect on the date hereof. We expressly disclaim any responsibility to advise of any development or circumstance of any kind, including any change of law or fact that may occur after the date of this opinion letter that might affect the opinion expressed herein. We express no opinion with respect to the applicability to, or the effect on, the subject transaction of the laws of any other jurisdiction or as to any matters of municipal law or the laws of any local agencies within any state other than the State of New York. We express no opinion as to whether the laws of any other jurisdiction are applicable to the subject matter hereof, and we express no opinion as to compliance with any federal or other state law, rule or regulation relating to securities, or to the sale or issuance thereof.

Based on the foregoing, and having regard to legal considerations which we deem relevant, and subject to the qualifications, limitations and assumptions set forth herein, we are of the opinion that when the Registration Statement becomes effective under the Securities Act of 1933, as amended (the "**Act**") and when the Offering is completed as contemplated by the placement agent agreement by and between the Company and the placement agent (the "**Placement Agent Agreement**") and the Registration Statement, the Warrants, Pre-Funded Warrants and Placement Agent Warrants, when issued and sold by the Company and delivered by the Company in accordance with and in the manner described in the Registration Statement and the Placement Agent Agreement, as applicable, when executed and delivered by the Company, will constitute the valid and binding obligations of the Company, enforceable in accordance with their terms, except: (a) as such enforceability may be limited by bankruptcy, insolvency, reorganization or similar laws affecting creditors' rights generally and by general equitable principles (regardless of whether enforceability is considered in a proceeding in equity or at law); (b) as enforceability of any indemnification or contribution provision may be limited under federal and state securities laws, and (c) that the remedy of specific performance and injunctive and other forms of equitable relief may be subject to the equitable defenses and to the discretion of the court before which any proceeding therefor may be brought.

We express no opinion as to the enforceability of (i) provisions that relate to choice of law, forum selection or submission to jurisdiction (including, without limitation, any express or implied waiver of any objection to venue in any court or of any objection that a court is an inconvenient forum) to the extent that the validity, binding effect or enforceability of any such provision is to be determined by any court other than a state court of the State of New York, (ii) waivers by the Company of any statutory or constitutional rights or remedies, or (iii) terms which excuse any person or entity from liability for, or require the Company to indemnify such person or entity against, such person's or entity's negligence or willful misconduct. We draw your attention to the fact that, under certain circumstances, the enforceability of terms to the effect that provisions may not be waived or modified except in writing may be limited.


We consent to the filing of this opinion as an exhibit to the Registration Statement, the discussion of this opinion in the Registration Statement and to the references to our firm in the Registration Statement and the Prospectus. In giving this consent, we do not hereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act, or the rules and regulations promulgated thereunder, nor do we admit that we are experts with respect to any part of the Registration Statement within the meaning of the term "expert" as used in the Act.

Very truly yours,

HUNTER TAUBMAN FISCHER & LI LLC

www.htflawyers.com | info@htflawyers.com
1450 Broadway, 26th Floor - New York, NY 10018 | Office: (212) 530-2210 | Fax: (212) 202-6380

SECURITIES PURCHASE AGREEMENT

This Securities Purchase Agreement (this "Agreement") is dated as of September ___, 2020, between Aptorum Group Limited, a company organized under the laws of the Cayman Islands (the "Company"), and each purchaser identified on the signature pages hereto (each, including its successors and assigns, a "Purchaser" and collectively the "Purchasers").

WHEREAS, subject to the terms and conditions set forth in this Agreement and pursuant to an effective registration statement under the Securities Act of 1933, as amended (the "Securities Act") as to the Shares and the Warrants, the Company desires to issue and sell to each Purchaser, and each Purchaser, severally and not jointly, desires to purchase from the Company, securities of the Company as more fully described in this Agreement.

NOW, THEREFORE, IN CONSIDERATION of the mutual covenants contained in this Agreement, and for other good and valuable consideration the receipt and adequacy of which are hereby acknowledged, the Company and each Purchaser agree as follows:

**ARTICLE I.**
DEFINITIONS

1.1 Definitions. In addition to the terms defined elsewhere in this Agreement, for all purposes of this Agreement, the following terms have the meanings set forth in this Section 1.1:

"Acquiring Person" shall have the meaning ascribed to such term in Section 4.5.

"Action" shall have the meaning ascribed to such term in Section 3.1(j).

"Affiliate" means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person as such terms are used in and construed under Rule 405 under the Securities Act.

"Board of Directors" means the board of directors of the Company.

"Business Day" means any day other than Saturday, Sunday or other day on which commercial banks in The City of New York are authorized or required by law to remain closed, provided that banks shall not be deemed to be authorized or obligated to be closed due to a "shelter in place," "non-essential employee" or similar closure of physical branch locations at the direction of any governmental authority if such banks' electronic funds transfer systems (including for wire transfers) are open for use by customers on such day.

"Closing" means the closing of the purchase and sale of the Securities pursuant to Section 2.1.

"Closing Date" means the Trading Day on which all of the Transaction Documents have been executed and delivered by the applicable parties thereto, and all conditions precedent to (i) the Purchasers' obligations to pay the Subscription Amount and (ii) the Company's obligations to deliver the Securities, in each case, have been satisfied or waived, but in no event later than the second Trading Day following the date of this Agreement.

"Commission" means the United States Securities and Exchange Commission.

"Company Cayman Islands Counsel" means Campbells Law Firm.

"Company U.S. Counsel" means Hunter Taubman Fischer & Li, LLC.

"Disclosure Schedules" means the Disclosure Schedules of the Company delivered concurrently herewith.

"Disclosure Time" means, (i) if this Agreement is signed on a day that is not a Trading Day or after 9:00 a.m. (New York City time) and before midnight (New York City time) on any Trading Day, 9:01 a.m. (New York City time) on the Trading Day immediately following the date hereof, unless otherwise instructed as to an earlier time by the Placement Agent, and (ii) if this Agreement is signed between midnight (New York City time) and 9:00 a.m. (New York City time) on any Trading Day, no later than 9:01 a.m. (New York City time) on the date hereof, unless otherwise instructed as to an earlier time by the Placement Agent.

"EGS" means Ellenoff Grossman & Schole LLP, with offices located at 1345 Avenue of the Americas, New York, New York 10105.

"Evaluation Date" shall have the meaning ascribed to such term in Section 3.1(s).

"Exchange Act" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

"Exempt Issuance" means the issuance of (a) Ordinary Shares or options to employees, officers or directors of the Company pursuant to any stock or option plan duly adopted for such purpose, by a majority of the non-employee members of the Board of Directors or a majority of the members of a committee of non-employee directors established for such purpose for services rendered to the Company, (b) securities upon the exercise or exchange of or conversion of any Securities issued hereunder and/or other securities exercisable or exchangeable for or convertible into Ordinary Shares issued and outstanding on the date of this Agreement, provided that such securities have not been amended since the date of this Agreement to increase the number of such securities or to decrease the exercise price, exchange price or conversion price of such securities (other than in connection with stock splits or combinations) or to extend the term of such securities, (c) securities issued pursuant to acquisitions or strategic transactions approved by a majority of the disinterested directors of the Company, provided that such securities are issued as "restricted securities" (as defined in Rule 144) and carry no registration rights that require or permit the filing of any registration statement in connection therewith during the prohibition period in Section 4.11(a) herein, and provided that any such issuance shall only be to a Person (or to the equityholders of a Person) which is, itself or through its subsidiaries, an operating company or an owner of an asset in a business synergistic with the business of the Company and shall provide to the Company additional benefits in addition to the investment of funds, but shall not include a transaction in which the Company is issuing securities primarily for the purpose of raising capital or to an entity whose primary business is investing in securities, and (d) up to $_____ of Securities, including Ordinary Shares, Pre-Funded Warrants, and Ordinary Warrants issued to other purchasers pursuant to the Prospectus concurrently with the Closing at the Ordinary Share Purchase Price or the Pre-Funded Warrant Purchase Price.

"FCPA" means the Foreign Corrupt Practices Act of 1977, as amended.

"FDA" shall have the meaning ascribed to such term in Section 3.1(ss).

"FDCA" shall have the meaning ascribed to such term in Section 3.1(ss).

"GAAP" shall have the meaning ascribed to such term in Section 3.1(h).

"Indebtedness" shall have the meaning ascribed to such term in Section 3.1(aa).

"Intellectual Property Rights" shall have the meaning ascribed to such term in Section 3.1(p).

"Liens" means a lien, charge, pledge, security interest, encumbrance, right of first refusal, preemptive right or other restriction.

"Material Adverse Effect" shall have the meaning assigned to such term in Section 3.1(b).

"Material Permits" shall have the meaning ascribed to such term in Section 3.1(n).

"Ordinary Share(s)" means the Class A ordinary shares of the Company, par value $1.00 per share, and any other class of securities into which such securities may hereafter be reclassified or changed.

"Ordinary Share Equivalents" means any securities of the Company or the Subsidiaries which would entitle the holder thereof to acquire at any time Ordinary Shares, including, without limitation, any debt, preferred shares, right, option, warrant or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Ordinary Shares.

"Ordinary Share Purchase Price" equals $___ subject to adjustment for reverse and forward share splits, share dividends, share combinations and other similar transactions of Ordinary Shares that occur after the date of this Agreement.

"Ordinary Warrants" means, collectively, the Ordinary Share purchase warrants delivered to the Purchasers at the Closing in accordance with Section 2.2(a) hereof, which Ordinary Warrants shall be exercisable immediately and have a term of exercise equal to five (5) years, in the form of Exhibit A-1 attached hereto.

"Ordinary Warrant Shares" means the Ordinary Shares issuable upon exercise of the Ordinary Warrants.

"Person" means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint share company, government (or an agency or subdivision thereof) or other entity of any kind.

"Placement Agent" means H.C. Wainwright & Co., LLC.

"Pre-Funded Warrant Purchase Price" equals $____ per each Pre-Funded Warrant, subject to adjustment for reverse and forward stock splits, stock dividends, stock combinations and other similar transactions of the Ordinary Shares that occur after the date of this Agreement.

"Pre-Funded Warrant Subscription Amount" means, as to each Purchaser, the aggregate amount to be paid for the Pre-Funded Warrants purchased hereunder as specified below such Purchaser's name on the signature page of this Agreement and next to the heading "Pre-Funded Warrant Subscription Amount," in United States dollars and in immediately available funds.

"Pre-Funded Warrants" means, collectively, the Ordinary Share purchase warrants delivered to the Purchasers at the Closing in accordance with Section 2.2(a) hereof, which Pre-Funded Warrants shall be exercisable immediately and shall expire when exercised in full, in the form of Exhibit A-2 attached hereto.

"Pre-Funded Warrant Shares" means the Ordinary Shares issuable upon exercise of the Pre-Funded Warrants.

"Preliminary Prospectus" means the preliminary prospectus dated September __, 2020, filed with the Commission.

"Proceeding" means an action, claim, suit, investigation or proceeding (including, without limitation, an informal investigation or partial proceeding, such as a deposition), whether commenced or threatened.

"Prospectus" means the final prospectus filed for the Registration Statement.

"Purchaser Party" shall have the meaning ascribed to such term in Section 4.8.

"Registration Statement" means the effective registration statement on Form F-1 filed with Commission (File No. 333-248743) which registers the sale of the Shares, the Warrants, and the Warrant Shares to the Purchasers.

"Required Approvals" shall have the meaning ascribed to such term in Section 3.1(e).

"Rule 144" means Rule 144 promulgated by the Commission pursuant to the Securities Act, as such Rule may be amended or interpreted from time to time, or any similar rule or regulation hereafter adopted by the Commission having substantially the same purpose and effect as such Rule.

"Rule 424" means Rule 424 promulgated by the Commission pursuant to the Securities Act, as such Rule may be amended or interpreted from time to time, or any similar rule or regulation hereafter adopted by the Commission having substantially the same purpose and effect as such Rule.

"SEC Reports" shall have the meaning ascribed to such term in Section 3.1(h).

"Securities" means the Shares, the Warrants and the Warrant Shares.

"Securities Act" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

"Shares" means the Ordinary Shares issued and issuable to each Purchaser pursuant to this Agreement and to other purchasers pursuant to the Prospectus.

"Short Sales" means all "short sales" as defined in Rule 200 of Regulation SHO under the Exchange Act (but shall not be deemed to include locating and/or borrowing Ordinary Shares).

"Subscription Amount" means the Ordinary Share Subscription Amount and/or the Pre-Funded Warrant Subscription Amount, as applicable, in accordance with the terms of Section 2.1 of this Agreement.

"Subsidiary" means any subsidiary of the Company as set forth on Schedule 3.1(a), and shall, where applicable, also include any direct or indirect subsidiary of the Company formed or acquired after the date of this Agreement.

"Trading Day" means a day on which the principal Trading Market is open for trading.

"Trading Market" means any of the following markets or exchanges on which the Ordinary Shares are listed or quoted for trading on the date in question: the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market, the New York Stock Exchange, or the NYSE American (or any successors to any of the foregoing).

"Transaction Documents" means this Agreement, the Warrants, all exhibits and schedules thereto and hereto and any other documents or agreements executed in connection with the transactions contemplated hereunder.

"Transfer Agent" means Continental Stock Transfer & Trust Company, the current transfer agent of the Company, with a mailing address of 1 State Street, 30th Floor, New York, NY 10004, and any successor transfer agent of the Company.

"Variable Rate Transaction" shall have the meaning ascribed to such term in Section 4.11(b).

"VWAP" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Ordinary Shares are then listed or quoted on a Trading Market, the daily volume weighted average price of an Ordinary Shares for such date (or the nearest preceding date) on the Trading Market on which an Ordinary Shares is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if the OTCQB or OTCQX is not a Trading Market, the volume weighted average price of an Ordinary Shares for such date (or the nearest preceding date) on the OTCQB or OTCQX, (c) if Ordinary Shares s are not then listed or quoted for trading on the OTCQB or OTCQX and if prices for Ordinary Shares s are then reported in the "Pink Sheets" published by OTC Markets Group, Inc. (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of an Ordinary Shares so reported, or (d) in all other cases, the fair market value of an Ordinary Shares as determined by an independent appraiser selected in good faith by the Purchasers of a majority in interest of the Securities then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

"Warrants" means, collectively, the Ordinary Warrants and the Pre-Funded Warrants.

"Warrant Shares" means the Ordinary Shares issuable upon exercise of the Warrants.

**ARTICLE II.**
PURCHASE AND SALE

2.1 Closing. On the Closing Date, upon the terms and subject to the conditions set forth herein, the Company agrees to sell, and the Purchasers, severally and not jointly, agree to purchase, up to an aggregate of $_____ of Ordinary Shares as determined pursuant to Section 2.2(a); provided, however, that, solely to the extent a Purchaser determines, in its sole discretion, that such Purchaser (together with such Purchaser's Affiliates, and any Person acting as a group together with such purchaser or any of such Purchaser's Affiliates) would beneficially own in excess of the Beneficial Ownership Limitation, in lieu of purchasing Ordinary Shares, such Purchaser may elect to purchase Pre-Funded Warrants at the Pre-Funded Warrant Purchase Price in lieu of Ordinary Shares. The "Beneficial Ownership Limitation" shall be 4.99% (or, at the election of the Purchaser, 9.99%) of the number of Ordinary Shares outstanding immediately after giving effect to the issuance of the Securities on the Closing Date. Unless otherwise directed by the Placement Agent, each Purchaser shall deliver, via wire transfer, immediately available funds equal to its Subscription Amount pursuant to Section 2.2(b)(ii), and the Company shall deliver to each Purchaser its respective Shares and Ordinary Warrants and/or Pre-Funded Warrants and Ordinary Warrants (as applicable to each Purchaser), as determined pursuant to Section 2.2(a), and the Company and each Purchaser shall deliver the other items set forth in Section 2.2 deliverable at the Closing. Upon satisfaction of the covenants and conditions set forth in Sections 2.2 and 2.3, the Closing shall occur at the offices of EGS or such other location as the parties shall mutually agree. Each Purchaser acknowledges that, concurrently with the Closing and pursuant to the Prospectus, the Company may sell up to $_____ of additional Securities to purchasers not party to this Purchase Agreement, and will issue to each such purchaser such additional Shares and Ordinary Warrants or Pre-Funded Warrants and Ordinary Warrants in the same form and at the same Ordinary Share Purchase Price or Pre-Funded Warrant Purchase Price. The Company covenants that, if the Purchaser delivers a Notice of Exercise (as defined in the Warrants) no later than 12:00 p.m. (New York City time) on the Closing Date to exercise Warrants between the date hereof and the Closing Date, the Company shall deliver Warrant Shares to the Purchaser on the Closing Date in connection with such Notice of Exercise; provided that the Purchasers must deliver payment of the Exercise Price (as defined in the Warrants) at or prior to Closing. Unless otherwise directed by the Placement Agent, settlement of the Shares shall occur via "Delivery Versus Payment" ("DVP") (i.e., on the Closing Date, the Company shall issue the Shares registered in the Purchasers' names and addresses and released by the Transfer Agent directly to the account(s) at the Placement Agent identified by each Purchaser; upon receipt of such Shares, the Placement Agent shall promptly electronically deliver such Shares to the applicable Purchaser, and payment therefor shall be made by the Placement Agent (or its clearing firm) by wire transfer to the Company).

2.2 Deliveries.

(a) On or prior to the Closing Date, the Company shall deliver or cause to be delivered to each Purchaser the following:

(i) this Agreement duly executed by the Company;

(ii) legal opinions of Company U.S. Counsel and Company Cayman Islands Counsel, in a form reasonably acceptable to the Placement Agent and Purchasers;

(iii) the Company shall have provided each Purchaser with the Company's wire instructions, on Company letterhead and executed by the Chief Executive Officer or Chief Financial Officer;

(iv) subject to the last sentence of Section 2.1, a copy of the irrevocable instructions to the Transfer Agent instructing the Transfer Agent to deliver on an expedited basis via The Depository Trust Company Deposit or Withdrawal at Custodian system ("DWAC") Shares equal to such Purchaser's Ordinary Share Subscription Amount divided by the Ordinary Share Purchase Price, registered in the name of such Purchaser;

(v) as to each Purchaser purchasing Pre-Funded Warrants, a Pre-Funded Warrant registered in the name of such Purchaser to purchase up to a number of Ordinary Shares as set forth in the Pre-Funded Warrant, with an exercise price equal to $0.01, subject to adjustment therein (such Pre-Funded Warrant certificate may be delivered within three Trading Days of the Closing Date);

(vi) an Ordinary Warrant registered in the name of such Purchaser to purchase up to a number of Ordinary Shares equal to 100% of such Purchaser's Shares and/or Warrant Shares underlying Pre-Funded Warrants, with an exercise price equal to $___, subject to adjustment therein (such Ordinary Warrant certificate may be delivered within three Trading Days of the Closing Date); and

(vii) the Prospectus (which may be delivered in accordance with Rule 172 under the Securities Act).

(b) On or prior to the Closing Date, each Purchaser shall deliver or cause to be delivered to the Company the following:

(i) this Agreement duly executed by such Purchaser; and

(ii) such Purchaser's Subscription Amount, which shall be made available for "Delivery Versus Payment" settlement with the Company or its designees.

2.3 Closing Conditions.

(a) The obligations of the Company hereunder in connection with the Closing are subject to the following conditions being met:

(i) the accuracy in all material respects (or, to the extent representations or warranties are qualified by materiality or Material Adverse Effect, in all respects) on the Closing Date of the representations and warranties of the Purchasers contained herein (unless as of a specific date therein in which case they shall be accurate as of such date);

(ii) all obligations, covenants and agreements of each Purchaser required to be performed at or prior to the Closing Date shall have been performed; and

(iii) the delivery by each Purchaser of the items set forth in Section 2.2(b) of this Agreement.

(b) The respective obligations of the Purchasers hereunder in connection with the Closing are subject to the following conditions being met:

(i) the accuracy in all material respects (or, to the extent representations or warranties are qualified by materiality or Material Adverse Effect, in all respects) when made and on the Closing Date of the representations and warranties of the Company contained herein (unless as of a specific date therein in which case they shall be accurate as of such date);

(ii) all obligations, covenants and agreements of the Company required to be performed at or prior to the Closing Date shall have been performed;

(iii) the delivery by the Company of the items set forth in Section 2.2(a) of this Agreement;

(iv) there shall have been no Material Adverse Effect with respect to the Company since the date of this Agreement; and

(v) from the date of this Agreement to the Closing Date, trading in the Ordinary Shares shall not have been suspended by the Commission or any Trading Market, and, at any time prior to the Closing Date, trading in securities generally as reported by Bloomberg L.P. shall not have been suspended or limited, or minimum prices shall not have been established on securities whose trades are reported by such service, or on any Trading Market, nor shall a banking moratorium have been declared either by the United States or New York State authorities nor shall there have occurred any material outbreak or escalation of hostilities or other national or international calamity of such magnitude in its effect on, or any material adverse change in, any financial market which, in each case, in the reasonable judgment of such Purchaser, makes it impracticable or inadvisable to purchase the Securities at the Closing.

(vi) no stop order suspending the effectiveness of the Registration Statement or any post-effective amendment thereto has been issued under the Securities Act.

**ARTICLE III.**
REPRESENTATIONS AND WARRANTIES

3.1 Representations and Warranties of the Company. Except as set forth in the Disclosure Schedules, which Disclosure Schedules shall be deemed a part hereof and shall qualify any representation or otherwise made herein to the extent of the disclosure contained in the corresponding section of the Disclosure Schedules, the Company hereby makes the following representations and warranties to each Purchaser:

(a) Subsidiaries. All of the direct and indirect subsidiaries of the Company are set forth on Schedule 3.1(a). Except as set forth on Schedule 3.1(a) or in the SEC Reports, the Company owns, directly or indirectly, all of the capital stock or other equity interests of each Subsidiary free and clear of any Liens, and all of the issued and outstanding shares of capital stock of each Subsidiary are validly issued and are fully paid, non-assessable and free of preemptive and similar rights to subscribe for or purchase securities. If the Company has no subsidiaries, all other references to the Subsidiaries or any of them in the Transaction Documents shall be disregarded.

(b) Organization and Qualification. The Company and each of the Subsidiaries is an entity duly incorporated or otherwise organized, validly existing and, if applicable under the laws of the jurisdiction in which they are formed, in good standing under the laws of the jurisdiction of its incorporation or organization, with the requisite power and authority to own and use its properties and assets and to carry on its business as currently conducted. The Company and each of the Subsidiaries has all necessary authorizations, approvals, orders, licenses, certificates and permits of and from all governmental regulatory officials and bodies that it needs as of the date of this Agreement to conduct its business purpose in all material respects as described in the Registration Statement and SEC Reports and to own or lease its properties. Neither the Company nor any Subsidiary is in violation nor default of any of the provisions of its respective certificate or articles of incorporation, bylaws or other organizational or charter documents. Each of the Company and the Subsidiaries is duly qualified to conduct business and is in good standing as a foreign corporation or other entity in each jurisdiction in which the nature of the business conducted or property owned by it makes such qualification necessary, except where the failure to be so qualified or in good standing, as the case may be, could not have or reasonably be expected to result in: (i) a material adverse effect on the legality, validity or enforceability of any Transaction Document, (ii) a material adverse effect on the results of operations, assets, business, prospects or condition (financial or otherwise) of the Company and the Subsidiaries, taken as a whole, or (iii) a material adverse effect on the Company's ability to perform in any material respect on a timely basis its obligations under any Transaction Document (any of (i), (ii) or (iii), a "Material Adverse Effect") and no Proceeding has been instituted in any such jurisdiction revoking, limiting or curtailing or seeking to revoke, limit or curtail such power and authority or qualification.

(c) Authorization; Enforcement. The Company has the requisite corporate power and authority to enter into and to consummate the transactions contemplated by this Agreement and each of the other Transaction Documents and otherwise to carry out its obligations hereunder and thereunder. The execution and delivery of this Agreement and each of the other Transaction Documents by the Company and the consummation by it of the transactions contemplated hereby and thereby have been duly authorized by all necessary action on the part of the Company and no further action is required by the Company, the Board of Directors or the Company's shareholders in connection herewith or therewith other than in connection with the Required Approvals. This Agreement and each other Transaction Document to which it is a party has been (or upon delivery will have been) duly executed by the Company and, when delivered in accordance with the terms hereof and thereof, will constitute the valid and binding obligation of the Company enforceable against the Company in accordance with its terms, except (i) as limited by general equitable principles and applicable bankruptcy, insolvency, reorganization, moratorium and other laws of general application affecting enforcement of creditors' rights generally, (ii) as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies and (iii) insofar as indemnification and contribution provisions may be limited by applicable law.

(d) No Conflicts. The execution, delivery and performance by the Company of this Agreement and the other Transaction Documents to which it is a party, the issuance and sale of the Securities and the consummation by it of the transactions contemplated hereby and thereby do not and will not (i) conflict with or violate any provision of the Company's or any Subsidiary's certificate or articles of incorporation, bylaws or other organizational or charter documents, or (ii) conflict with, or constitute a default (or an event that with notice or lapse of time or both would become a default) under, result in the creation of any Lien upon any of the properties or assets of the Company or any Subsidiary, or give to others any rights of termination, amendment, anti-dilution or similar adjustments, acceleration or cancellation (with or without notice, lapse of time or both) of, any agreement, credit facility, debt or other instrument (evidencing a Company or Subsidiary debt or otherwise) or other understanding to which the Company or any Subsidiary is a party or by which any property or asset of the Company or any Subsidiary is bound or affected, or (iii) subject to the Required Approvals, conflict with or result in a violation of any law, rule, regulation, order, judgment, injunction, decree or other restriction of any court or governmental authority to which the Company or a Subsidiary is subject (including federal and state securities laws and regulations), or by which any property or asset of the Company or a Subsidiary is bound or affected; except in the case of each of clauses (ii) and (iii), such as could not have or reasonably be expected to result in a Material Adverse Effect.

(e) Filings, Consents and Approvals. The Company is not required to obtain any consent, waiver, authorization or order of, give any notice to, or make any filing or registration with, any court or other federal, state, local or other governmental authority or other Person in connection with the execution, delivery and performance by the Company of the Transaction Documents, other than: (i) the filings required pursuant to Section 4.4 of this Agreement, (ii) the filing with the Commission of the Prospectus, (iii) application(s) to each applicable Trading Market for the listing of the Shares and the Warrant Shares for trading thereon in the time and manner required thereby and (iv) such filings as are required to be made under applicable state securities laws (collectively, the "Required Approvals").

(f) Issuance of the Securities; Registration. The Shares are duly authorized and, when issued and paid for in accordance with the applicable Transaction Documents, will be duly and validly issued, fully paid and nonassessable, free and clear of all Liens imposed by the Company. The Warrants are duly authorized and, when issued and paid for in accordance with the applicable Transaction Documents, will constitute valid and legally binding obligations of the Company, enforceable against the Company in accordance with their terms. The Warrant Shares are duly authorized and, when issued in accordance with the terms of the Warrants, will be validly issued, fully paid and nonassessable, free and clear of all Liens imposed by the Company. The Company has reserved from its duly authorized capital share the maximum number of Ordinary Shares issuable pursuant to this Agreement and the Warrants. The Company has prepared and filed the Registration Statement in conformity with the requirements of the Securities Act, which became effective on September __, 2020 (the "Effective Date"), including the Prospectus, and such amendments and supplements thereto as may have been required to the date of this Agreement. The Registration Statement is effective under the Securities Act and no stop order preventing or suspending the effectiveness of the Registration Statement or suspending or preventing the use of the Preliminary Prospectus or the Prospectus has been issued by the Commission and no proceedings for that purpose have been instituted or, to the knowledge of the Company, are threatened by the Commission. The Company, if required by the rules and regulations of the Commission, shall file the Prospectus with the Commission pursuant to Rule 424(b). At the time the Registration Statement and any amendments thereto became effective, at the date of this Agreement and at the Closing Date, the Registration Statement and any amendments thereto conformed and will conform in all material respects to the requirements of the Securities Act and did not and will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein not misleading; and the Preliminary Prospectus the Prospectus and any amendments or supplements thereto, at the time the Preliminary Prospectus and the Prospectus or any amendment or supplement thereto was issued and at the Closing Date, conformed and will conform in all material respects to the requirements of the Securities Act and did not and will not contain an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading.

(g) Capitalization. The equity capitalization of the Company is as set forth on Schedule 3.1(g). The Company has not issued any capital stock since its most recently filed Form 6-K. Except as set forth on Schedule 3.1(g), no Person has any right of first refusal, preemptive right, right of participation, or any similar right to participate in the transactions contemplated by the Transaction Documents. Except as set forth on Schedule 3.1(g) and as a result of the purchase and sale of the Securities, there are no outstanding options, warrants, scrip rights to subscribe to, calls or commitments of any character whatsoever relating to, or securities, rights or obligations convertible into or exercisable or exchangeable for, or giving any Person any right to subscribe for or acquire, any Ordinary Shares or Ordinary Share Equivalents or the capital stock of any Subsidiary, or contracts, commitments, understandings or arrangements by which the Company or any Subsidiary is or may become bound to issue additional Ordinary Shares or Ordinary Share Equivalents or capital stock of any Subsidiary. The issuance and sale of the Securities will not obligate the Company or any Subsidiary to issue Ordinary Shares or Ordinary Share Equivalents or other securities to any Person (other than the Purchasers) and will not result in a right of any holder of Company securities to adjust the exercise, conversion, exchange or reset price under any of such securities. There are no outstanding securities or instruments of the Company or any Subsidiary that contain any redemption or similar provisions, and there are no contracts, commitments, understandings or arrangements by which the Company or any Subsidiary is or may become bound to redeem a security of the Company or such Subsidiary. The Company does not have any share appreciation rights or "phantom share" plans or agreements or any similar plan or agreement. All of the outstanding shares of capital stock of the Company are duly authorized, validly issued, fully paid and nonassessable, have been issued in compliance with all federal and state securities laws where applicable, and none of such outstanding shares was issued in violation of any preemptive rights or similar rights to subscribe for or purchase securities. Except for the Required Approvals, no further approval or authorization of any shareholder, the Board of Directors or others is required for the issuance and sale of the Securities. There are no shareholders agreements, voting agreements or other similar agreements with respect to the Company's capital stock to which the Company is a party or, to the knowledge of the Company, between or among any of the Company's shareholders.

(h) SEC Reports; Financial Statements. The Company has filed all reports, schedules, forms, statements and other documents required to be filed by the Company under the Securities Act and the Exchange Act, including pursuant to Section 13(a) or 15(d) thereof, for the one year preceding the date of this Agreement (or such shorter period as the Company was required by law or regulation to file such material) (the foregoing materials, including the exhibits thereto and documents incorporated by reference therein, together with the Prospectus, being collectively referred to herein as the "SEC Reports") on a timely basis or has received a valid extension of such time of filing and has filed any such SEC Reports prior to the expiration of any such extension. As of their respective dates, the SEC Reports complied in all material respects with the requirements of the Securities Act and the Exchange Act, as applicable, and none of the SEC Reports, when filed, contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The Company has never been an issuer subject to Rule 144(i) under the Securities Act. The financial statements of the Company included in the SEC Reports comply in all material respects with applicable accounting requirements and the rules and regulations of the Commission with respect thereto as in effect at the time of filing. Such financial statements have been prepared in accordance with United States generally accepted accounting principles applied on a consistent basis during the periods involved ("GAAP"), except as may be otherwise specified in such financial statements or the notes thereto and except that unaudited financial statements may not contain all footnotes required by GAAP, and fairly present in all material respects the financial position of the Company and its consolidated Subsidiaries as of and for the dates thereof and the results of operations and cash flows for the periods then ended, subject, in the case of unaudited statements, to normal, immaterial, year-end audit adjustments.

(i) Material Changes; Undisclosed Events, Liabilities or Developments. Since the date of the latest audited financial statements included within the SEC Reports, except as specifically disclosed in a subsequent SEC Report filed prior to the date of this Agreement, (i) there has been no event, occurrence or development that has had or that could reasonably be expected to result in a Material Adverse Effect, (ii) the Company has not incurred any liabilities (contingent or otherwise) other than (A) trade payables and accrued expenses incurred in the ordinary course of business consistent with past practice and (B) liabilities not required to be reflected in the Company's financial statements pursuant to GAAP or disclosed in filings made with the Commission, (iii) the Company has not altered its method of accounting, (iv) the Company has not declared or made any dividend or distribution of cash or other property to its shareholders or purchased, redeemed or made any agreements to purchase or redeem any shares of its capital stock and (v) the Company has not issued any equity securities to any officer, director or Affiliate, except pursuant to existing Company share option plans. The Company does not have pending before the Commission any request for confidential treatment of information. Except for the issuance of the Securities contemplated by this Agreement or as set forth on Schedule 3.1(i), no event, liability, fact, circumstance, occurrence or development has occurred or exists or is reasonably expected to occur or exist with respect to the Company or its Subsidiaries or their respective businesses, prospects, properties, operations, assets or financial condition that would be required to be disclosed by the Company under applicable securities laws at the time this representation is made or deemed made that has not been publicly disclosed at least 1 Trading Day prior to the date that this representation is made.

(j) Litigation. There is no action, suit, inquiry, notice of violation, proceeding or investigation pending or, to the knowledge of the Company, threatened against or affecting the Company, any Subsidiary or any of their respective properties before or by any court, arbitrator, governmental or administrative agency or regulatory authority (federal, state, county, local or foreign) (collectively, an "Action") which (i) adversely affects or challenges the legality, validity or enforceability of any of the Transaction Documents or the Securities or (ii) could, if there were an unfavorable decision, have or reasonably be expected to result in a Material Adverse Effect. Neither the Company nor any Subsidiary, nor any director or officer thereof, is or has been the subject of any Action involving a claim of violation of or liability under federal or state securities laws or a claim of breach of fiduciary duty, which could result in a Material Adverse Effect. There has not been, and to the knowledge of the Company, there is not pending or contemplated, any investigation by the Commission involving the Company or any current or former director or officer of the Company. The Commission has not issued any stop order or other order suspending the effectiveness of any registration statement filed by the Company or any Subsidiary under the Exchange Act or the Securities Act.

(k) Labor Relations. No labor dispute exists or, to the knowledge of the Company, is imminent with respect to any of the employees of the Company, which could reasonably be expected to result in a Material Adverse Effect. None of the Company's or its Subsidiaries' employees is a member of a union that relates to such employee's relationship with the Company or such Subsidiary, and neither the Company nor any of its Subsidiaries is a party to a collective bargaining agreement, and the Company and its Subsidiaries believe that their relationships with their employees are good. To the knowledge of the Company, no executive officer of the Company or any Subsidiary, is, or is now expected to be, in violation of any material term of any employment contract, confidentiality, disclosure or proprietary information agreement or non-competition agreement, or any other contract or agreement or any restrictive covenant in favor of any third party, and the continued employment of each such executive officer does not subject the Company or any of its Subsidiaries to any liability with respect to any of the foregoing matters. The Company and its Subsidiaries are in compliance with all U.S. federal, state, local and foreign laws and regulations relating to employment and employment practices, terms and conditions of employment and wages and hours, except where the failure to be in compliance could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(l) Compliance. Neither the Company nor any Subsidiary: (i) is in default under or in violation of (and no event has occurred that has not been waived that, with notice or lapse of time or both, would result in a default by the Company or any Subsidiary under), nor has the Company or any Subsidiary received notice of a claim that it is in default under or that it is in violation of, any indenture, loan or credit agreement or any other agreement or instrument to which it is a party or by which it or any of its properties is bound (whether or not such default or violation has been waived), (ii) is in violation of any judgment, decree or order of any court, arbitrator or other governmental authority or (iii) is or has been in violation of any statute, rule, ordinance or regulation of any governmental authority, including without limitation all foreign, federal, state and local laws relating to taxes, environmental protection, occupational health and safety, product quality and safety and employment and labor matters, except in each case as could not have or reasonably be expected to result in a Material Adverse Effect.

(m) Regulatory Permits. The Company and the Subsidiaries possess all certificates, authorizations and permits issued by the appropriate federal, state, local or foreign regulatory authorities necessary to conduct their respective businesses as described in the SEC Reports, except where the failure to possess such permits could not reasonably be expected to result in a Material Adverse Effect ("Material Permits"), and neither the Company nor any Subsidiary has received any notice of proceedings relating to the revocation or modification of any Material Permit.

(n) Title to Assets. The Company and the Subsidiaries have good and marketable title in fee simple to all real property owned by them and good and marketable title in all personal property owned by them that is material to the business of the Company and the Subsidiaries, in each case free and clear of all Liens, except for (i) Liens as do not materially affect the value of such property and do not materially interfere with the use made and proposed to be made of such property by the Company and the Subsidiaries and (ii) Liens for the payment of federal, state or other taxes, for which appropriate reserves have been made therefor in accordance with GAAP and, the payment of which is neither delinquent nor subject to penalties. Any real property and facilities held under lease by the Company and the Subsidiaries are held by them under valid, subsisting and enforceable leases with which the Company and the Subsidiaries are in compliance in all material respects.

(o) Intellectual Property. Except as disclosed in SEC Reports and Schedule 3(o), the Company and the Subsidiaries have, or have rights to use, all patents, patent applications, trademarks, trademark applications, service marks, trade names, trade secrets, inventions, copyrights, licenses and other intellectual property rights and similar rights necessary or required for use in connection with their respective businesses as described in the SEC Reports and which the failure to so have could have a Material Adverse Effect (collectively, the "Intellectual Property Rights"). None of, and neither the Company nor any Subsidiary has received a notice (written or otherwise) that any of, the Intellectual Property Rights has expired, terminated or been abandoned, or is expected to expire or terminate or be abandoned, within two (2) years from the date of this Agreement, except as would not reasonably be expected to have a Material Adverse Effect. Neither the Company nor any Subsidiary has received, since the date of the latest audited financial statements included within the SEC Reports, a written notice of a claim or otherwise has any knowledge that the Intellectual Property Rights violate or infringe upon the rights of any Person, except as could not have or reasonably be expected to not have a Material Adverse Effect. To the knowledge of the Company, all such Intellectual Property Rights are enforceable and there is no existing infringement by another Person of any of the Intellectual Property Rights. The Company and its Subsidiaries have taken reasonable security measures to protect the secrecy, confidentiality and value of all of their intellectual properties, except where failure to do so could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(p) Insurance. The Company and the Subsidiaries are insured by insurers of recognized financial responsibility against such losses and risks and in such amounts as are prudent and customary in the businesses in which the Company and the Subsidiaries are engaged. Neither the Company nor any Subsidiary has any reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue its business without a significant increase in cost.

(q) Transactions With Affiliates and Employees. Except as set forth on Schedule 3.1(q), none of the officers or directors of the Company or any Subsidiary and, to the knowledge of the Company, none of the employees of the Company or any Subsidiary is presently a party to any transaction with the Company or any Subsidiary (other than for services as employees, officers and directors), including any contract, agreement or other arrangement providing for the furnishing of services to or by, providing for rental of real or personal property to or from, providing for the borrowing of money from or lending of money to or otherwise requiring payments to or from any officer, director or such employee or, to the knowledge of the Company, any entity in which any officer, director, or any such employee has a substantial interest or is an officer, director, trustee, shareholder, member or partner, in each case in excess of $120,000 other than for (i) payment of salary or consulting fees for services rendered, (ii) reimbursement for expenses incurred on behalf of the Company and (iii) other employee benefits, including share option agreements under any share option plan of the Company.

(r) Sarbanes-Oxley; Internal Accounting Controls. The Company and the Subsidiaries are in material compliance with any and all applicable requirements of the Sarbanes-Oxley Act of 2002 that are effective as of the date of this Agreement and applicable to the Company and the Subsidiaries, and any and all applicable rules and regulations promulgated by the Commission thereunder that are effective as of the date of this Agreement and as of the Closing Date and applicable to the Company and the Subsidiaries. Except as set forth on Schedule 3.1(r), the Company and the Subsidiaries maintain a system of internal accounting controls to provide reasonable assurance that: (i) transactions are executed in accordance with management's general or specific authorizations, (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and to maintain asset accountability, (iii) access to assets is permitted only in accordance with management's general or specific authorization, and (iv) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences. The Company and the Subsidiaries have established disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the Company and the Subsidiaries and designed such disclosure controls and procedures to ensure that information required to be disclosed by the Company in the reports it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the Commission's rules and forms. The Company's certifying officers have evaluated the disclosure controls and procedures of the Company and the Subsidiaries as of the end of the period covered by the most recently filed Form 20-F under the Exchange Act (such date, the "Evaluation Date") and concluded the Company's disclosure control and procedures were not effective as of the Evaluation Date. The Company presented in its most recently filed Form 20-F under the Exchange Act the conclusions of the certifying officers about the disclosure controls and procedures based on their evaluations as of the Evaluation Date. Since the Evaluation Date, there have been no changes in the internal control over financial reporting (as such term is defined in the Exchange Act) of the Company and its Subsidiaries that have materially affected, or is reasonably likely to materially affect, the internal control over financial reporting of the Company and its Subsidiaries.

(s) Certain Fees. Except as set forth in the Prospectus or in Schedule 3.1(s), no brokerage or finder's fees or commissions are or will be payable by the Company or any Subsidiary to any broker, financial advisor or consultant, finder, placement agent, investment banker, bank or other Person with respect to the transactions contemplated by the Transaction Documents. Other than for Persons directly engaged by a Purchaser, if any, the Purchasers shall have no obligation with respect to any fees or with respect to any claims made by or on behalf of other Persons for fees of a type contemplated in this Section that may be due in connection with the transactions contemplated by the Transaction Documents.

(t) Investment Company. The Company is not, and is not an Affiliate of, and immediately after receipt of payment for the Securities, will not be or be an Affiliate of, an "investment company" within the meaning of the Investment Company Act of 1940, as amended. The Company shall conduct its business in a manner so that it will not become an "investment company" subject to registration under the Investment Company Act of 1940, as amended.

(u) Registration Rights. No Person has any right to cause the Company or any Subsidiary to effect the registration under the Securities Act of any securities of the Company or any Subsidiary.

(v) Listing and Maintenance Requirements. The Ordinary Shares are registered pursuant to Section 12(b) or 12(g) of the Exchange Act, and the Company has taken no action designed to, or which to its knowledge is likely to have the effect of, terminating the registration of the Ordinary Shares under the Exchange Act nor has the Company received any notification that the Commission is contemplating terminating such registration. The Company has not, in the 12 months preceding the date of this Agreement, received notice from any Trading Market on which the Ordinary Shares are or have been listed or quoted to the effect that the Company is not in compliance with the listing or maintenance requirements of such Trading Market. The Company is, and has no reason to believe that it will not in the foreseeable future continue to be, in compliance with all such listing and maintenance requirements.

(w) Application of Takeover Protections. The Company and the Board of Directors have taken all necessary action, if any, in order to render inapplicable any control share acquisition, business combination, poison pill (including any distribution under a rights agreement) or other similar anti-takeover provision under the Company's certificate of incorporation (or similar charter documents) or the laws of its jurisdiction of incorporation that is or could become applicable to the Purchasers as a result of the Purchasers and the Company fulfilling their obligations or exercising their rights under the Transaction Documents, including without limitation as a result of the Company's issuance of the Securities and the Purchasers' ownership of the Securities.

(x) Disclosure. Except with respect to the material terms and conditions of the transactions contemplated by the Transaction Documents, the Company confirms that neither it nor any other Person acting on its behalf has provided any of the Purchasers or their agents or counsel with any information that it believes constitutes or might constitute material, non-public information which is not otherwise disclosed in the Prospectus. The Company understands and confirms that the Purchasers will rely on the foregoing representation in effecting transactions in securities of the Company. All of the disclosure furnished by or on behalf of the Company to the Purchasers regarding the Company and its Subsidiaries, their respective businesses and the transactions contemplated hereby, including the Disclosure Schedules to this Agreement, is true and correct in all material respects and does not contain any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements made therein, in light of the circumstances under which they were made, not misleading. The press releases disseminated by the Company during the twelve months preceding the date of this Agreement taken as a whole do not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they were made and when made, not misleading. The Company acknowledges and agrees that no Purchaser makes or has made any representations or warranties with respect to the transactions contemplated hereby other than those specifically set forth in Section 3.2 hereof.

(y) No Integrated Offering. Assuming the accuracy of the Purchasers' representations and warranties set forth in Section 3.2, neither the Company, nor any of its Affiliates, nor any Person acting on its or their behalf has, directly or indirectly, made any offers or sales of any security or solicited any offers to buy any security, under circumstances that would cause this offering of the Securities to be integrated with prior offerings by the Company for purposes of any applicable shareholder approval provisions of any Trading Market on which any of the securities of the Company are listed or designated.

(z) Solvency. Based on the consolidated financial condition of the Company as of the Closing Date, after giving effect to the receipt by the Company of the proceeds from the sale of the Securities hereunder, (i) the fair saleable value of the Company's assets exceeds the amount that will be required to be paid on or in respect of the Company's existing debts and other liabilities (including known contingent liabilities) as they mature, (ii) the Company's assets do not constitute unreasonably small capital to carry on its business as now conducted and as proposed to be conducted including its capital needs taking into account the particular capital requirements of the business conducted by the Company, consolidated and projected capital requirements and capital availability thereof, and (iii) the current cash flow of the Company, together with the proceeds the Company would receive, were it to liquidate all of its assets, after taking into account all anticipated uses of the cash, would be sufficient to pay all amounts on or in respect of its liabilities when such amounts are required to be paid. The Company does not intend to incur debts beyond its ability to pay such debts as they mature (taking into account the timing and amounts of cash to be payable on or in respect of its debt). The Company has no knowledge of any facts or circumstances which lead it to believe that it will file for reorganization or liquidation under the bankruptcy or reorganization laws of any jurisdiction within one year from the Closing Date. Schedule 3.1(aa) sets forth as of the date of this Agreement all outstanding secured and unsecured Indebtedness of the Company or any Subsidiary, or for which the Company or any Subsidiary has commitments. For the purposes of this Agreement, "Indebtedness" means (x) any liabilities for borrowed money or amounts owed in excess of $50,000 (other than trade accounts payable incurred in the ordinary course of business), (y) all guaranties, endorsements and other contingent obligations in respect of indebtedness of others, whether or not the same are or should be reflected in the Company's consolidated balance sheet (or the notes thereto), except guaranties by endorsement of negotiable instruments for deposit or collection or similar transactions in the ordinary course of business; and (z) the present value of any lease payments in excess of $50,000 due under leases required to be capitalized in accordance with GAAP. Neither the Company nor any Subsidiary is in default with respect to any Indebtedness.

(aa) Tax Status. Except for matters that would not, individually or in the aggregate, have or reasonably be expected to result in a Material Adverse Effect, the Company and its Subsidiaries each (i) has made or filed all United States federal, state and local income and all foreign income and franchise tax returns, reports and declarations required by any jurisdiction to which it is subject, (ii) has paid all taxes and other governmental assessments and charges that are material in amount, shown or determined to be due on such returns, reports and declarations and (iii) has set aside on its books provision reasonably adequate for the payment of all material taxes for periods subsequent to the periods to which such returns, reports or declarations apply. There are no unpaid taxes in any material amount claimed to be due by the taxing authority of any jurisdiction, and the officers of the Company or of any Subsidiary know of no basis for any such claim.

(bb) Foreign Corrupt Practices. Neither the Company nor any Subsidiary, nor to the knowledge of the Company or any Subsidiary, any agent or other person acting on behalf of the Company or any Subsidiary, has (i) directly or indirectly, used any funds for unlawful contributions, gifts, entertainment or other unlawful expenses related to foreign or domestic political activity, (ii) made any unlawful payment to foreign or domestic government officials or employees or to any foreign or domestic political parties or campaigns from corporate funds, (iii) failed to disclose fully any contribution made by the Company or any Subsidiary (or made by any person acting on its behalf of which the Company is aware) which is in violation of law, or (iv) violated in any material respect any provision of FCPA.

(cc) Accountants. The Company's accounting firm is as set forth in the Prospectus. To the knowledge and belief of the Company, such accounting firm (i) is a registered public accounting firm as required by the Exchange Act and (ii) shall express its opinion with respect to the financial statements to be included in the Company's Annual Report for the fiscal year ended December 31, 2020.

(dd) Acknowledgment Regarding Purchasers' Purchase of Securities. The Company acknowledges and agrees that each of the Purchasers is acting solely in the capacity of an arm's length purchaser with respect to the Transaction Documents and the transactions contemplated thereby. The Company further acknowledges that no Purchaser is acting as a financial advisor or fiduciary of the Company (or in any similar capacity) with respect to the Transaction Documents and the transactions contemplated thereby and any advice given by any Purchaser or any of their respective representatives or agents in connection with the Transaction Documents and the transactions contemplated thereby is merely incidental to the Purchasers' purchase of the Securities. The Company further represents to each Purchaser that the Company's decision to enter into this Agreement and the other Transaction Documents has been based solely on the independent evaluation of the transactions contemplated hereby by the Company and its representatives.

(ee) Acknowledgement Regarding Purchaser's Trading Activity. Anything in this Agreement or elsewhere herein to the contrary notwithstanding (except for Sections 3.2(f) and 4.13 hereof), it is understood and acknowledged by the Company that: (i) none of the Purchasers has been asked by the Company to agree, nor has any Purchaser agreed, to desist from purchasing or selling, long and/or short, securities of the Company, or "derivative" securities based on securities issued by the Company or to hold the Securities for any specified term; (ii) past or future open market or other transactions by any Purchaser, specifically including, without limitation, Short Sales or "derivative" transactions, before or after the closing of this or future private placement transactions, may negatively impact the market price of the Company's publicly-traded securities; (iii) any Purchaser, and counter-parties in "derivative" transactions to which any such Purchaser is a party, directly or indirectly, presently may have a "short" position in the Ordinary Shares, and (iv) each Purchaser shall not be deemed to have any affiliation with or control over any arm's length counter-party in any "derivative" transaction. The Company further understands and acknowledges that (y) one or more Purchasers may engage in hedging activities at various times during the period that the Securities are outstanding, including, without limitation, during the periods that the value of the Warrant Shares deliverable with respect to Securities are being determined, and (z) such hedging activities (if any) could reduce the value of the existing shareholders' equity interests in the Company at and after the time that the hedging activities are being conducted. The Company acknowledges that such aforementioned hedging activities do not constitute a breach of any of the Transaction Documents.

(ff) Regulation M Compliance. The Company has not, and to its knowledge no one acting on its behalf has, (i) taken, directly or indirectly, any action designed to cause or to result in the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of any of the Securities, (ii) sold, bid for, purchased, or, paid any compensation for soliciting purchases of, any of the Securities, or (iii) paid or agreed to pay to any Person any compensation for soliciting another to purchase any other securities of the Company, other than, in the case of clauses (ii) and (iii), compensation paid to the Company's placement agent in connection with the placement of the Securities.

(gg) Office of Foreign Assets Control. Neither the Company nor any Subsidiary nor, to the Company's knowledge, any director, officer, agent, employee or affiliate of the Company or any Subsidiary is currently subject to any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Treasury Department ("OFAC").

(hh) U.S. Real Property Holding Corporation. The Company is not and has never been a U.S. real property holding corporation within the meaning of Section 897 of the Internal Revenue Code of 1986, as amended, and the Company shall so certify upon Purchaser's request.

(ii) Bank Holding Company Act. Neither the Company nor any of its Subsidiaries or Affiliates is subject to the Bank Holding Company Act of 1956, as amended (the "BHCA") and to regulation by the Board of Governors of the Federal Reserve System (the "Federal Reserve"). Neither the Company nor any of its Subsidiaries or Affiliates owns or controls, directly or indirectly, five percent (5%) or more of the outstanding shares of any class of voting securities or twenty-five percent or more of the total equity of a bank or any entity that is subject to the BHCA and to regulation by the Federal Reserve. Neither the Company nor any of its Subsidiaries or Affiliates exercises a controlling influence over the management or policies of a bank or any entity that is subject to the BHCA and to regulation by the Federal Reserve.

(jj) Money Laundering. The operations of the Company and its Subsidiaries are and have been conducted at all times in compliance with applicable financial record-keeping and reporting requirements of the Currency and Foreign Transactions Reporting Act of 1970, as amended, applicable money laundering statutes and applicable rules and regulations thereunder (collectively, the "Money Laundering Laws"), and no Action or Proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company or any Subsidiary with respect to the Money Laundering Laws is pending or, to the knowledge of the Company or any Subsidiary, threatened.

(kk) Environmental Laws. The Company and its Subsidiaries (i) are in compliance with all federal, state, local and foreign laws relating to pollution or protection of human health or the environment (including ambient air, surface water, groundwater, land surface or subsurface strata), including laws relating to emissions, discharges, releases or threatened releases of chemicals, pollutants, contaminants, or toxic or hazardous substances or wastes (collectively, "Hazardous Materials") into the environment, or otherwise relating to the manufacture, processing, distribution, use, treatment, storage, disposal, transport or handling of Hazardous Materials, as well as all authorizations, codes, decrees, demands, or demand letters, injunctions, judgments, licenses, notices or notice letters, orders, permits, plans or regulations, issued, entered, promulgated or approved thereunder ("Environmental Laws"); (ii) have received all permits licenses or other approvals required of them under applicable Environmental Laws to conduct their respective businesses; and (iii) are in compliance with all terms and conditions of any such permit, license or approval where in each clause (i), (ii) and (iii), the failure to so comply could be reasonably expected to have, individually or in the aggregate, a Material Adverse Effect.

(ll) FDA. As to each product subject to the jurisdiction of the U.S. Food and Drug Administration ("FDA") or any non-U.S. counterpart that is manufactured, packaged, labeled, tested, distributed, sold, and/or marketed by the Company or any of its Subsidiaries (each such product, a "Pharmaceutical Product") (if any), such Pharmaceutical Product is being manufactured, packaged, labeled, tested, distributed, sold and/or marketed by the Company or its Subsidiaries in compliance with all applicable Health Care Laws relating to registration, investigational use, premarket clearance, licensure, or application approval, good manufacturing practices, good laboratory practices, good clinical practices, product listing, quotas, labeling, advertising, record keeping and filing of reports, except where the failure to be in compliance would not have a Material Adverse Effect. There is no pending, completed or, to the Company's knowledge, threatened, action (including any lawsuit, arbitration, or legal or administrative or regulatory proceeding, charge, complaint, or investigation) against the Company or any of its Subsidiaries, and none of the Company or any of its Subsidiaries has received any notice, warning letter or other communication from the FDA or any other governmental entity, which (i) contests the premarket clearance, licensure, registration, or approval of, the uses of, the distribution of, the manufacturing or packaging of, the testing of, the sale of, or the labeling and promotion of any Pharmaceutical Product, (ii) withdraws its approval of, requests the recall, suspension, or seizure of, or withdraws or orders the withdrawal of advertising or sales promotional materials relating to, any Pharmaceutical Product, (iii) imposes a clinical hold on any clinical investigation by the Company or any of its Subsidiaries, (iv) enjoins production at any facility of the Company or any of its Subsidiaries, (v) enters or proposes to enter into a consent decree of permanent injunction with the Company or any of its Subsidiaries, or (vi) otherwise alleges any violation of any laws, rules or regulations by the Company or any of its Subsidiaries, and which, either individually or in the aggregate, would have a Material Adverse Effect. The properties, business and operations of the Company have been and are being conducted in all material respects in accordance with all applicable Health Care Laws. The Company has not been informed by the FDA or any non-U.S. counterpart that the FDA or any non-U.S. counterpart will prohibit the marketing, sale, license or use in the United States or in any other territory any product proposed to be developed, produced or marketed by the Company or any Subsidiary nor has the FDA or any non-U.S. counterpart expressed any concern as to approving or clearing for marketing any product being developed or proposed to be developed by the Company or any Subsidiary. To the Company's knowledge, there are no legal or governmental proceedings relating to any Health Care Law pending or threatened to which the Company is a party, nor is it aware of any material violations of such acts or regulations by the Company, which would have a Material Adverse Effect. For purposes of this Agreement, "Health Care Laws" means: (i) the Federal Food, Drug, and Cosmetic Act and the regulations promulgated thereunder; (ii) all applicable federal, state, local and all applicable foreign health care related fraud and abuse laws, including, without limitation, the U.S. Anti-Kickback Statute (42 U.S.C. Section 1320a-7b(b)), the U.S. Physician Payment Sunshine Act (42 U.S.C. § 1320a-7h), the U.S. Civil False Claims Act (31 U.S.C. Section 3729 et seq.), the criminal False Claims Law (42 U.S.C. § 1320a-7b(a)), all criminal laws relating to health care fraud and abuse, including but not limited to 18 U.S.C. Sections 286 and 287, and the health care fraud criminal provisions under the U.S. Health Insurance Portability and Accountability Act of 1996 ("HIPAA") (42 U.S.C. Section 1320d et seq.), the exclusion laws (42 U.S.C. § 1320a-7), the civil monetary penalties law (42 U.S.C. § 1320a-7a), the statutes, regulations and directives of applicable government funded or sponsored healthcare programs, and the regulations promulgated pursuant to such statutes; (iii) the Standards for Privacy of Individually Identifiable Health Information (the "Privacy Rule"), the Security Standards, and the Standards for Electronic Transactions and Code Sets promulgated under HIPAA, the Health Information Technology for Economic and Clinical Health Act (42 U.S.C. Section 17921 et seq.), and the regulations promulgated thereunder and any state or non-U.S. counterpart thereof or other law or regulation the purpose of which is to protect the privacy of individuals or prescribers; (iv) Medicare (Title XVIII of the Social Security Act); (v) Medicaid (Title XIX of the Social Security Act); and (vi) any and all other applicable health care laws and regulations.

3.2 Representations and Warranties of the Purchasers. Each Purchaser, for itself and for no other Purchaser, hereby represents and warrants as of the date of this Agreement and as of the Closing Date to the Company as follows (unless as of a specific date therein, in which case they shall be accurate as of such date):

(a) Organization; Authority. Such Purchaser is either an individual or an entity duly incorporated or formed, validly existing and in good standing under the laws of the jurisdiction of its incorporation or formation with full right, corporate, partnership, limited liability company or similar power and authority to enter into and to consummate the transactions contemplated by the Transaction Documents and otherwise to carry out its obligations hereunder and thereunder. The execution and delivery of the Transaction Documents and performance by such Purchaser of the transactions contemplated by the Transaction Documents have been duly authorized by all necessary corporate, partnership, limited liability company or similar action, as applicable, on the part of such Purchaser. Each Transaction Document to which it is a party has been duly executed by such Purchaser, and when delivered by such Purchaser in accordance with the terms hereof, will constitute the valid and legally binding obligation of such Purchaser, enforceable against it in accordance with its terms, except: (i) as limited by general equitable principles and applicable bankruptcy, insolvency, reorganization, moratorium and other laws of general application affecting enforcement of creditors' rights generally, (ii) as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies and (iii) insofar as indemnification and contribution provisions may be limited by applicable law.

(b) Understandings or Arrangements. Such Purchaser is acquiring the Securities as principal for its own account and has no direct or indirect arrangement or understandings with any other persons to distribute or regarding the distribution of such Securities (this representation and warranty not limiting such Purchaser's right to sell the Securities pursuant to the Registration Statement or otherwise in compliance with applicable federal and state securities laws). Such Purchaser is acquiring the Securities hereunder in the ordinary course of its business.

(c) Purchaser Status. At the time such Purchaser was offered the Securities, it was, and as of the date of this Agreement it is, and on each date on which it exercise any Warrants, it will be an "accredited investor" as defined in Rule 501(a)(1), (a)(2), (a)(3), (a)(7) or (a)(8) under the Securities Act.

(d) Experience of Such Purchaser. Such Purchaser, either alone or together with its representatives, has such knowledge, sophistication and experience in business and financial matters so as to be capable of evaluating the merits and risks of the prospective investment in the Securities, and has so evaluated the merits and risks of such investment. Such Purchaser is able to bear the economic risk of an investment in the Securities and, at the present time, is able to afford a complete loss of such investment.

(e) Access to Information. Such Purchaser acknowledges that it has had the opportunity to review the Transaction Documents (including all exhibits and schedules thereto) and the SEC Reports and, has been afforded, (i) the opportunity to ask such questions as it has deemed necessary of, and to receive answers from, representatives of the Company concerning the terms and conditions of the offering of the Securities and the merits and risks of investing in the Securities; (ii) access to information about the Company and its financial condition, results of operations, business, properties, management and prospects sufficient to enable it to evaluate its investment; and (iii) the opportunity to obtain such additional information that the Company possesses or can acquire without unreasonable effort or expense that is necessary to make an informed investment decision with respect to the investment. Such Purchaser acknowledges and agrees that neither the Placement Agent nor any Affiliate of the Placement Agent has provided such Purchaser with any information or advice with respect to the Securities nor is such information or advice necessary or desired. Neither the Placement Agent nor any Affiliate has made or makes any representation as to the Company or the quality of the Securities and the Placement Agent and any Affiliate may have acquired non-public information with respect to the Company which such Purchaser agrees need not be provided to it. In connection with the issuance of the Securities to such Purchaser, neither the Placement Agent nor any of its Affiliates has acted as a financial advisor or fiduciary to such Purchaser.

(f) Certain Transactions and Confidentiality. Other than consummating the transactions contemplated hereunder, such Purchaser has not, nor has any Person acting on behalf of or pursuant to any understanding with such Purchaser, directly or indirectly executed any purchases or sales, including Short Sales, of the securities of the Company during the period commencing as of the time that such Purchaser first received a term sheet (written or oral) from the Company or any other Person representing the Company setting forth the material pricing terms of the transactions contemplated hereunder and ending immediately prior to the execution hereof. Notwithstanding the foregoing, in the case of a Purchaser that is a multi-managed investment vehicle whereby separate portfolio managers manage separate portions of such Purchaser's assets and the portfolio managers have no direct knowledge of the investment decisions made by the portfolio managers managing other portions of such Purchaser's assets, the representation set forth above shall only apply with respect to the portion of assets managed by the portfolio manager that made the investment decision to purchase the Securities covered by this Agreement. Other than to other Persons party to this Agreement or to such Purchaser's representatives, including, without limitation, its officers, directors, partners, legal and other advisors, employees, agents and Affiliates, such Purchaser has maintained the confidentiality of all disclosures made to it in connection with this transaction (including the existence and terms of this transaction). Notwithstanding the foregoing, for the avoidance of doubt, nothing contained herein shall constitute a representation or warranty, or preclude any actions, with respect to locating or borrowing shares in order to effect Short Sales or similar transactions in the future.

The Company acknowledges and agrees that the representations contained in this Section 3.2 shall not modify, amend or affect such Purchaser's right to rely on the Company's representations and warranties contained in this Agreement or any representations and warranties contained in any other Transaction Document or any other document or instrument executed and/or delivered in connection with this Agreement or the consummation of the transactions contemplated hereby. Notwithstanding the foregoing, for the avoidance of doubt, nothing contained herein shall constitute a representation or warranty, or preclude any actions, with respect to locating or borrowing shares in order to effect Short Sales or similar transactions in the future.

**ARTICLE IV.**
OTHER AGREEMENTS OF THE PARTIES

4.1 Warrant Shares. If all or any portion of a Warrant is exercised at a time when there is an effective registration statement to cover the issuance or resale of the Warrant Shares or if the Warrant is exercised via cashless exercise, the Warrant Shares issued pursuant to any such exercise shall be issued free of all legends. If at any time following the date hereof the Registration Statement (or any subsequent registration statement registering the sale or resale of the Warrant Shares) is not effective or is not otherwise available for the sale or resale of the Warrant Shares, the Company shall immediately notify the holders of the Warrants in writing that such registration statement is not then effective and thereafter shall promptly notify such holders when the registration statement is effective again and available for the sale or resale of the Warrant Shares (it being understood and agreed that the foregoing shall not limit the ability of the Company to issue, or any Purchaser to sell, any of the Warrant Shares in compliance with applicable federal and state securities laws). The Company shall use best efforts to keep a registration statement (including the Registration Statement) registering the issuance or resale of the Warrant Shares effective during the term of the Warrants.

4.2 Furnishing of Information. Until the earliest of the time that (i) no Purchaser owns Securities or (ii) the Warrants have expired, the Company covenants to timely file (or obtain extensions in respect thereof and file within the applicable grace period) all reports required to be filed by the Company after the date hereof pursuant to the Exchange Act even if the Company is not then subject to the reporting requirements of the Exchange Act.

4.3 Integration. The Company shall not sell, offer for sale or solicit offers to buy or otherwise negotiate in respect of any security (as defined in Section 2 of the Securities Act) that would be integrated with the offer or sale of the Securities for purposes of the rules and regulations of any Trading Market such that it would require shareholder approval prior to the closing of such other transaction unless shareholder approval is obtained before the closing of such subsequent transaction.

4.4 Securities Laws Disclosure; Publicity. The Company shall (a) by the Disclosure Time, issue a press release disclosing the material terms of the transactions contemplated hereby, and (b) file a Report on Form 6-K, including the Transaction Documents as exhibits thereto, with the Commission within the time required by the Exchange Act. From and after the issuance of such press release, the Company represents to the Purchasers that it shall have publicly disclosed all material, non-public information delivered to any of the Purchasers by the Company or any of its Subsidiaries, or any of their respective officers, directors, employees or agents in connection with the transactions contemplated by the Transaction Documents. In addition, effective upon the issuance of such press release, the Company acknowledges and agrees that any and all confidentiality or similar obligations under any agreement, whether written or oral, between the Company, any of its Subsidiaries or any of their respective officers, directors, agents, employees or Affiliates on the one hand, and any of the Purchasers or any of their Affiliates on the other hand, shall terminate. The Company and each Purchaser shall consult with each other in issuing any other press releases with respect to the transactions contemplated hereby, and neither the Company nor any Purchaser shall issue any such press release nor otherwise make any such public statement without the prior consent of the Company, with respect to any press release of any Purchaser, or without the prior consent of each Purchaser, with respect to any press release of the Company, which consent shall not unreasonably be withheld or delayed, except if such disclosure is required by law, in which case the disclosing party shall promptly provide the other party with prior notice of such public statement or communication. Notwithstanding the foregoing, the Company shall not publicly disclose the name of any Purchaser, or include the name of any Purchaser in any filing with the Commission or any regulatory agency or Trading Market, without the prior written consent of such Purchaser, except (a) as required by federal securities law in connection with the filing of final Transaction Documents with the Commission and (b) to the extent such disclosure is required by law or Trading Market regulations, in which case the Company shall provide the Purchasers with prior notice of such disclosure permitted under this clause (b).

4.5 Shareholder Rights Plan. No claim will be made or enforced by the Company or, with the consent of the Company, any other Person, that any Purchaser is an "Acquiring Person" under any control share acquisition, business combination, poison pill (including any distribution under a rights agreement) or similar anti-takeover plan or arrangement in effect or hereafter adopted by the Company, or that any Purchaser could be deemed to trigger the provisions of any such plan or arrangement, by virtue of receiving Securities under the Transaction Documents or under any other agreement between the Company and the Purchasers.

4.6 Non-Public Information. Except with respect to the material terms and conditions of the transactions contemplated by the Transaction Documents, which shall be disclosed pursuant to Section 4.4, the Company covenants and agrees that neither it, nor any other Person acting on its behalf will provide any Purchaser or its agents or counsel with any information that constitutes, or the Company reasonably believes constitutes, material non-public information, unless prior thereto such Purchaser shall have consented to the receipt of such information and agreed with the Company to keep such information confidential. The Company understands and confirms that each Purchaser shall be relying on the foregoing covenant in effecting transactions in securities of the Company. To the extent that the Company delivers any material, non-public information to a Purchaser without such Purchaser's consent, the Company hereby covenants and agrees that such Purchaser shall not have any duty of confidentiality to the Company, any of its Subsidiaries, or any of their respective officers, directors, agents, employees or Affiliates, or a duty to the Company, any of its Subsidiaries or any of their respective officers, directors, agents, employees or Affiliates not to trade on the basis of, such material, non-public information, provided that the Purchaser shall remain subject to applicable law. To the extent that any notice provided pursuant to any Transaction Document constitutes, or contains, material, non-public information regarding the Company or any Subsidiaries, the Company shall simultaneously file such notice with the Commission on a Report on Form 6-K. The Company understands and confirms that each Purchaser shall be relying on the foregoing covenant in effecting transactions in securities of the Company.

4.7 Use of Proceeds. The Company shall use the net proceeds from the sale of the Securities hereunder for working capital purposes and lawful business purposes, and shall not use such proceeds: (a) for the satisfaction of any portion of the Company's debt (other than payment of trade payables in the ordinary course of the Company's business and prior practices), (b) for the redemption of any Ordinary Shares or Ordinary Share Equivalents, (c) for the settlement of any outstanding litigation or (d) in violation of FCPA or OFAC regulations.

4.8 Indemnification of Purchasers. Subject to the provisions of this Section 4.8, the Company will indemnify and hold each Purchaser and its directors, officers, shareholders, members, partners, employees and agents (and any other Persons with a functionally equivalent role of a Person holding such titles notwithstanding a lack of such title or any other title), each Person who controls such Purchaser (within the meaning of Section 15 of the Securities Act and Section 20 of the Exchange Act), and the directors, officers, shareholders, agents, members, partners or employees (and any other Persons with a functionally equivalent role of a Person holding such titles notwithstanding a lack of such title or any other title) of such controlling persons (each, a "Purchaser Party") harmless from any and all losses, liabilities, obligations, claims, contingencies, damages, costs and expenses, including all judgments, amounts paid in settlements, court costs and reasonable attorneys' fees and costs of investigation that any such Purchaser Party may suffer or incur as a result of or relating to (a) any breach of any of the representations, warranties, covenants or agreements made by the Company in this Agreement or in the other Transaction Documents or (b) any action instituted against the Purchaser Parties in any capacity, or any of them or their respective Affiliates, by any stockholder of the Company who is not an Affiliate of such Purchaser Party, with respect to any of the transactions contemplated by the Transaction Documents (unless such action is solely based upon a material breach of such Purchaser Party's representations, warranties or covenants under the Transaction Documents or any agreements or understandings such Purchaser Party may have with any such stockholder or any violations by such Purchaser Party of state or federal securities laws or any conduct by such Purchaser Party which is finally judicially determined to constitute fraud, gross negligence or willful misconduct). If any action shall be brought against any Purchaser Party in respect of which indemnity may be sought pursuant to this Agreement, such Purchaser Party shall promptly notify the Company in writing, and the Company shall have the right to assume the defense thereof with counsel of its own choosing reasonably acceptable to the Purchaser Party. Any Purchaser Party shall have the right to employ separate counsel in any such action and participate in the defense thereof, but the fees and expenses of such counsel shall be at the expense of such Purchaser Party except to the extent that (i) the employment thereof has been specifically authorized by the Company in writing, (ii) the Company has failed after a reasonable period of time to assume such defense and to employ counsel or (iii) in such action there is, in the reasonable opinion of counsel, a material conflict on any material issue between the position of the Company and the position of such Purchaser Party, in which case the Company shall be responsible for the reasonable fees and expenses of no more than one such separate counsel. The Company will not be liable to any Purchaser Party under this Agreement (y) for any settlement by a Purchaser Party effected without the Company's prior written consent, which shall not be unreasonably withheld or delayed; or (z) to the extent, but only to the extent that a loss, claim, damage or liability is attributable to any Purchaser Party's breach of any of the representations, warranties, covenants or agreements made by such Purchaser Party in this Agreement or in the other Transaction Documents. The indemnification required by this Section 4.8 shall be made by periodic payments of the amount thereof during the course of the investigation or defense, as and when bills are received or are incurred. The indemnity agreements contained herein shall be in addition to any cause of action or similar right of any Purchaser Party against the Company or others and any liabilities the Company may be subject to pursuant to law.

4.9 Reservation of Ordinary Shares. As of the date of this Agreement, the Company has reserved and the Company shall continue to reserve and keep available at all times, free of preemptive rights, a sufficient number of Ordinary Shares for the purpose of enabling the Company to issue the Shares pursuant to this Agreement and Warrant Shares pursuant to any exercise of the Warrants.

4.10 Listing of Shares. The Company hereby agrees to use commercially reasonable best efforts to maintain the listing or quotation of the Shares and Warrant Shares on each Trading Market on which any Ordinary Shares are currently listed, and concurrently with the Closing, the Company shall apply to list or quote all of the Shares and Warrant Shares on such Trading Markets and promptly secure the listing of all of the Shares and Warrant Shares on such Trading Markets. The Company further agrees, if the Company applies to have the Ordinary Shares traded on any other Trading Market, it will then include in such application all of the Shares and Warrant Shares, and will take such other action as is necessary to cause all of the Shares and Warrant Shares to be listed or quoted on such other Trading Market as promptly as possible. The Company will then take all action reasonably necessary to continue the listing and trading of its ordinary shares on a Trading Market and will comply in all material respects with the Company's reporting, filing and other obligations under the bylaws or rules of the Trading Market.

4.11 Subsequent Equity Sales.

(a) From the date hereof until ninety (90) days after the Closing Date, neither the Company nor any Subsidiary shall issue, enter into any agreement to issue or announce the issuance or proposed issuance of any Ordinary Shares or Ordinary Share Equivalents.

(b) From the date hereof until the one (1) year anniversary of the Closing Date, the Company shall be prohibited from effecting or entering into an agreement to effect any issuance by the Company or any of its Subsidiaries of Ordinary Shares or Ordinary Share Equivalents (or a combination of units thereof) involving a Variable Rate Transaction. "Variable Rate Transaction" means a transaction in which the Company (i) issues or sells any debt or equity securities that are convertible into, exchangeable or exercisable for, or include the right to receive additional Ordinary Shares either (A) at a conversion price, exercise price or exchange rate or other price that is based upon and/or varies with the trading prices of or quotations for the Ordinary Shares at any time after the initial issuance of such debt or equity securities, or (B) with a conversion, exercise or exchange price that is subject to being reset at some future date after the initial issuance of such debt or equity security or upon the occurrence of specified or contingent events directly or indirectly related to the business of the Company or the market for the Ordinary Shares (but not including antidilution protections related to future share issuances) or (ii) enters into, or effects a transaction under, any agreement, including, but not limited to, an equity line of credit, whereby the Company may issue securities at a future determined price. For the avoidance of doubt, following the ninety (90) day anniversary of the Closing Date, sales effected under an "at-the-market" facility through the Placement Agent shall not be considered a Variable Rate Transaction. Any Purchaser shall be entitled to obtain injunctive relief against the Company to preclude any such issuance, which remedy shall be in addition to any right to collect damages.

(c) Notwithstanding the foregoing, this Section 4.11 shall not apply in respect of an Exempt Issuance, except that no Variable Rate Transaction shall be an Exempt Issuance.

4.12 Equal Treatment of Purchasers. No consideration (including any modification of any Transaction Document) shall be offered or paid to any Person to amend or consent to a waiver or modification of any provision of the Transaction Documents unless the same consideration is also offered to all of the parties to the Transaction Documents. For clarification purposes, this provision constitutes a separate right granted to each Purchaser by the Company and negotiated separately by each Purchaser, and is intended for the Company to treat the Purchasers as a class and shall not in any way be construed as the Purchasers acting in concert or as a group with respect to the purchase, disposition or voting of Securities or otherwise.

4.13 Certain Transactions and Confidentiality. Each Purchaser, severally and not jointly with the other Purchasers, covenants that neither it nor any Affiliate acting on its behalf or pursuant to any understanding with it will execute any purchases or sales, including Short Sales of any of the Company's securities during the period commencing with the execution of this Agreement and ending at such time that the transactions contemplated by this Agreement are first publicly announced pursuant to the initial press release as described in Section 4.4. Each Purchaser, severally and not jointly with the other Purchasers, covenants that until such time as the transactions contemplated by this Agreement are publicly disclosed by the Company pursuant to the initial press release as described in Section 4.4, such Purchaser will maintain the confidentiality of the existence and terms of this transaction and the information included in the Disclosure Schedules. Notwithstanding the foregoing and notwithstanding anything contained in this Agreement to the contrary, the Company expressly acknowledges and agrees that (i) no Purchaser makes any representation, warranty or covenant hereby that it will not engage in effecting transactions in any securities of the Company after the time that the transactions contemplated by this Agreement are first publicly announced pursuant to the initial press release as described in Section 4.4, (ii) no Purchaser shall be restricted or prohibited from effecting any transactions in any securities of the Company in accordance with applicable securities laws from and after the time that the transactions contemplated by this Agreement are first publicly announced pursuant to the initial press release as described in Section 4.4 and (iii) no Purchaser shall have any duty of confidentiality or duty not to trade in the securities of the Company to the Company or its Subsidiaries after the issuance of the initial press release as described in Section 4.4. Notwithstanding the foregoing, in the case of a Purchaser that is a multi-managed investment vehicle whereby separate portfolio managers manage separate portions of such Purchaser's assets and the portfolio managers have no direct knowledge of the investment decisions made by the portfolio managers managing other portions of such Purchaser's assets, the covenant set forth above shall only apply with respect to the portion of assets managed by the portfolio manager that made the investment decision to purchase the Securities covered by this Agreement.

4.14 Exercise Procedures. The form of Notice of Exercise included in the Warrants set forth the totality of the procedures required of the Purchasers in order to exercise the Warrants. No additional legal opinion, other information or instructions shall be required of the Purchasers to exercise their Warrants. Without limiting the preceding sentences, no ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise form be required in order to exercise the Warrants. The Company shall honor exercises of the Warrants and shall deliver Warrant Shares in accordance with the terms, conditions and time periods set forth in the Transaction Documents.

**ARTICLE V.**
MISCELLANEOUS

5.1 Termination. This Agreement may be terminated by any Purchaser, as to such Purchaser's obligations hereunder only and without any effect whatsoever on the obligations between the Company and the other Purchasers, by written notice to the other parties, if the Closing has not been consummated on or before the fifth ($5^{th}$) Trading Day following the date hereof; provided, however, that no such termination will affect the right of any party to sue for any breach by any other party (or parties).

5.2 Fees and Expenses. Except as expressly set forth in the Transaction Documents to the contrary, each party shall pay the fees and expenses of its advisers, counsel, accountants and other experts, if any, and all other expenses incurred by such party incident to the negotiation, preparation, execution, delivery and performance of this Agreement. The Company shall pay all Transfer Agent fees (including, without limitation, any fees required for same-day processing of any instruction letter delivered by the Company and any exercise notice delivered by a Purchaser), stamp taxes and other taxes and duties levied in connection with the delivery of any Securities to the Purchasers.

5.3 Entire Agreement. The Transaction Documents, together with the exhibits and schedules thereto, and the Prospectus, contain the entire understanding of the parties with respect to the subject matter hereof and thereof and supersede all prior agreements and understandings, oral or written, with respect to such matters, which the parties acknowledge have been merged into such documents, exhibits and schedules.

5.4 Notices. Any and all notices or other communications or deliveries required or permitted to be provided hereunder shall be in writing and shall be deemed given and effective on the earliest of: (a) the time of transmission, if such notice or communication is delivered via facsimile at the facsimile number or email attachment at the email address as set forth on the signature pages attached hereto at or prior to 5:30 p.m. (New York City time) on a Trading Day, (b) the next Trading Day after the time of transmission, if such notice or communication is delivered via facsimile at the facsimile number or email attachment at the email address as set forth on the signature pages attached hereto on a day that is not a Trading Day or later than 5:30 p.m. (New York City time) on any Trading Day, (c) the second ($2^{nd}$) Trading Day following the date of mailing, if sent by U.S. nationally recognized overnight courier service or (d) upon actual receipt by the party to whom such notice is required to be given. The address for such notices and communications shall be as set forth on the signature pages attached hereto. To the extent that any notice provided pursuant to any Transaction Document constitutes, or contains, material, non-public information regarding the Company or any Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Report on Form 6-K.

5.5 Amendments; Waivers. No provision of this Agreement may be waived, modified, supplemented or amended except in a written instrument signed, in the case of an amendment, by the Company and Purchasers which purchased at least 50.1% in interest of the Shares and Pre-Funded Warrants based on the initial Subscription Amounts hereunder or, in the case of a waiver, by the party against whom enforcement of any such waived provision is sought, provided that if any amendment, modification or waiver disproportionately and adversely impacts a Purchaser (or group of Purchasers), the consent of such disproportionately impacted Purchaser (or group of Purchasers) shall also be required. No waiver of any default with respect to any provision, condition or requirement of this Agreement shall be deemed to be a continuing waiver in the future or a waiver of any subsequent default or a waiver of any other provision, condition or requirement hereof, nor shall any delay or omission of any party to exercise any right hereunder in any manner impair the exercise of any such right. Any proposed amendment or waiver that disproportionately, materially and adversely affects the rights and obligations of any Purchaser relative to the comparable rights and obligations of the other Purchasers shall require the prior written consent of such adversely affected Purchaser. Any amendment effected in accordance with this Section 5.5 shall be binding upon each Purchaser and holder of Securities and the Company.

5.6 Headings. The headings herein are for convenience only, do not constitute a part of this Agreement and shall not be deemed to limit or affect any of the provisions hereof.

5.7 Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of the parties and their successors and permitted assigns. The Company may not assign this Agreement or any rights or obligations hereunder without the prior written consent of each Purchaser (other than by merger). Any Purchaser may assign any or all of its rights under this Agreement to any Person to whom such Purchaser assigns or transfers any Securities, provided that such transferee agrees in writing to be bound, with respect to the transferred Securities, by the provisions of the Transaction Documents that apply to the "Purchasers."

5.8 No Third-Party Beneficiaries. The Placement Agent shall be the third party beneficiary of the representations and warranties of the Company in Section 3.1 and the representations and warranties of the Purchasers in Section 3.2. This Agreement is intended for the benefit of the parties hereto and their respective successors and permitted assigns and is not for the benefit of, nor may any provision hereof be enforced by, any other Person, except as otherwise set forth in Section 4.8 and this Section 5.8.

5.9 Governing Law. All questions concerning the construction, validity, enforcement and interpretation of the Transaction Documents shall be governed by and construed and enforced in accordance with the internal laws of the State of New York, without regard to the principles of conflicts of law thereof. Each party agrees that all legal Proceedings concerning the interpretations, enforcement and defense of the transactions contemplated by this Agreement and any other Transaction Documents (whether brought against a party hereto or its respective affiliates, directors, officers, shareholders, partners, members, employees or agents) shall be commenced exclusively in the state and federal courts sitting in the City of New York. Each party hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in the City of New York, Borough of Manhattan for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein (including with respect to the enforcement of any of the Transaction Documents), and hereby irrevocably waives, and agrees not to assert in any Action or Proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such Action or Proceeding is improper or is an inconvenient venue for such Proceeding. Each party hereby irrevocably waives personal service of process and consents to process being served in any such Action or Proceeding by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this Agreement and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any other manner permitted by law. If any party shall commence an Action or Proceeding to enforce any provisions of the Transaction Documents, then, in addition to the obligations of the Company under Section 4.8, the prevailing party in such Action or Proceeding shall be reimbursed by the non-prevailing party for its reasonable attorneys' fees and other costs and expenses incurred with the investigation, preparation and prosecution of such Action or Proceeding.

5.10 Survival. The representations and warranties contained herein shall survive the Closing and the delivery of the Securities for the applicable statute of limitations.

5.11 Execution. This Agreement may be executed in two or more counterparts, all of which when taken together shall be considered one and the same agreement and shall become effective when counterparts have been signed by each party and delivered to each other party, it being understood that the parties need not sign the same counterpart. In the event that any signature is delivered by facsimile transmission or by e-mail delivery of a ".pdf" format data file, such signature shall create a valid and binding obligation of the party executing (or on whose behalf such signature is executed) with the same force and effect as if such facsimile or ".pdf" signature page were an original thereof.

5.12 Severability. If any term, provision, covenant or restriction of this Agreement is held by a court of competent jurisdiction to be invalid, illegal, void or unenforceable, the remainder of the terms, provisions, covenants and restrictions set forth herein shall remain in full force and effect and shall in no way be affected, impaired or invalidated, and the parties hereto shall use their commercially reasonable efforts to find and employ an alternative means to achieve the same or substantially the same result as that contemplated by such term, provision, covenant or restriction. It is hereby stipulated and declared to be the intention of the parties that they would have executed the remaining terms, provisions, covenants and restrictions without including any of such that may be hereafter declared invalid, illegal, void or unenforceable.

5.13 Rescission and Withdrawal Right. Notwithstanding anything to the contrary contained in (and without limiting any similar provisions of) any of the other Transaction Documents, whenever any Purchaser exercises a right, election, demand or option under a Transaction Document and the Company does not timely perform its related obligations within the periods therein provided, then such Purchaser may rescind or withdraw, in its sole discretion from time to time upon written notice to the Company, any relevant notice, demand or election in whole or in part without prejudice to its future actions and rights; provided, however, that in the case of a rescission of an exercise of a Warrant, the applicable Purchaser shall be required to return any Ordinary Shares subject to any such rescinded exercise notice concurrently with the return to such Purchaser of the aggregate exercise price paid to the Company for such shares and the restoration of such Purchaser's right to acquire such shares pursuant to such Purchaser's Warrant (including, issuance of a replacement warrant certificate evidencing such restored right).

5.14 Replacement of Securities. If any certificate or instrument evidencing any Securities is mutilated, lost, stolen or destroyed, the Company shall issue or cause to be issued in exchange and substitution for and upon cancellation thereof (in the case of mutilation), or in lieu of and substitution therefor, a new certificate or instrument, but only upon receipt of evidence reasonably satisfactory to the Company of such loss, theft or destruction. The applicant for a new certificate or instrument under such circumstances shall also pay any reasonable third-party costs (including customary indemnity) associated with the issuance of such replacement Securities.

5.15 Remedies. In addition to being entitled to exercise all rights provided herein or granted by law, including recovery of damages, each of the Purchasers and the Company will be entitled to specific performance under the Transaction Documents. The parties agree that monetary damages may not be adequate compensation for any loss incurred by reason of any breach of obligations contained in the Transaction Documents and hereby agree to waive and not to assert in any Action for specific performance of any such obligation the defense that a remedy at law would be adequate.

5.16 Payment Set Aside. To the extent that the Company makes a payment or payments to any Purchaser pursuant to any Transaction Document or a Purchaser enforces or exercises its rights thereunder, and such payment or payments or the proceeds of such enforcement or exercise or any part thereof are subsequently invalidated, declared to be fraudulent or preferential, set aside, recovered from, disgorged by or are required to be refunded, repaid or otherwise restored to the Company, a trustee, receiver or any other Person under any law (including, without limitation, any bankruptcy law, state or federal law, common law or equitable cause of action), then to the extent of any such restoration the obligation or part thereof originally intended to be satisfied shall be revived and continued in full force and effect as if such payment had not been made or such enforcement or setoff had not occurred.

5.17 Independent Nature of Purchasers' Obligations and Rights. The obligations of each Purchaser under any Transaction Document are several and not joint with the obligations of any other Purchaser, and no Purchaser shall be responsible in any way for the performance or non-performance of the obligations of any other Purchaser under any Transaction Document. Nothing contained herein or in any other Transaction Document, and no action taken by any Purchaser pursuant hereto or thereto, shall be deemed to constitute the Purchasers as a partnership, an association, a joint venture or any other kind of entity, or create a presumption that the Purchasers are in any way acting in concert or as a group with respect to such obligations or the transactions contemplated by the Transaction Documents. Each Purchaser shall be entitled to independently protect and enforce its rights including, without limitation, the rights arising out of this Agreement or out of the other Transaction Documents, and it shall not be necessary for any other Purchaser to be joined as an additional party in any proceeding for such purpose. Each Purchaser has been represented by its own separate legal counsel in its review and negotiation of the Transaction Documents. For reasons of administrative convenience only, each Purchaser and its respective counsel have chosen to communicate with the Company through EGS. EGS does not represent any of the Purchasers and only represents the Placement Agent. The Company has elected to provide all Purchasers with the same terms and Transaction Documents for the convenience of the Company and not because it was required or requested to do so by any of the Purchasers. It is expressly understood and agreed that each provision contained in this Agreement and in each other Transaction Document is between the Company and a Purchaser, solely, and not between the Company and the Purchasers collectively and not between and among the Purchasers.

5.18 Liquidated Damages. The Company's obligations to pay any partial liquidated damages or other amounts owing under the Transaction Documents is a continuing obligation of the Company and shall not terminate until all unpaid partial liquidated damages and other amounts have been paid notwithstanding the fact that the instrument or security pursuant to which such partial liquidated damages or other amounts are due and payable shall have been canceled.

5.19 Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a Business Day, then such action may be taken or such right may be exercised on the next succeeding Business Day.

5.20 Construction. The parties agree that each of them and/or their respective counsel have reviewed and had an opportunity to revise the Transaction Documents and, therefore, the normal rule of construction to the effect that any ambiguities are to be resolved against the drafting party shall not be employed in the interpretation of the Transaction Documents or any amendments thereto. In addition, each and every reference to share prices and Ordinary Shares in any Transaction Document shall be subject to adjustment for reverse and forward share splits, share dividends, share combinations and other similar transactions of the Ordinary Shares and Warrants that occur after the date of this Agreement.

5.21 **WAIVER OF JURY TRIAL. IN ANY ACTION, SUIT, OR PROCEEDING IN ANY JURISDICTION BROUGHT BY ANY PARTY AGAINST ANY OTHER PARTY, THE PARTIES EACH KNOWINGLY AND INTENTIONALLY, TO THE GREATEST EXTENT PERMITTED BY APPLICABLE LAW, HEREBY ABSOLUTELY, UNCONDITIONALLY, IRREVOCABLY AND EXPRESSLY WAIVES FOREVER TRIAL BY JURY.**

*(Signature Pages Follow)*

IN WITNESS WHEREOF, the parties hereto have caused this Securities Purchase Agreement to be duly executed by their respective authorized signatories as of the date first indicated above.

**APTORUM GROUP LIMITED**

By:_____
Name: Ian Huen
Title: Chief Executive Officer

Address for Notice:

E-Mail:
Fax:

With a copy to (which shall not constitute notice):

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK
SIGNATURE PAGE FOR PURCHASER FOLLOWS]

[PURCHASER SIGNATURE PAGES TO APM SECURITIES PURCHASE AGREEMENT]

IN WITNESS WHEREOF, the undersigned have caused this Securities Purchase Agreement to be duly executed by their respective authorized signatories as of the date first indicated above.

Name of Purchaser: _____
*Signature of Authorized Signatory of Purchaser*: _____
Name of Authorized Signatory: _____
Title of Authorized Signatory: _____
Email Address of Authorized Signatory:_____
Facsimile Number of Authorized Signatory: _____
Address for Notice to Purchaser (and delivery of Warrants):

Address for Delivery of Share to Purchaser (if not same as address for notice):

Subscription Amount: $_____

Ordinary Shares: _____

Warrants: _____

EIN Number: _____

[SIGNATURE PAGES CONTINUE]

**Exhibit 10.45**

**Form of Lock-Up Agreement**

_____, 2020

H.C. Wainwright & Co., LLC
430 Park Avenue, 3rd Floor
New York, NY 10022

Ladies and Gentlemen:

The undersigned understands that H.C. Wainwright & Co., LLC, acting as placement agent (the "**Placement Agent**") in an offering with Aptorum Group Limited, a Cayman Islands corporation, (the "**Company**"), proposes to enter into a placement agency agreement (the "**Agency Agreement**"), providing for the public offering (the "**Public Offering**") of ordinary shares, par value $1.00 per share, of the Company (the "**Shares**") and ordinary share purchase warrants (the "**Warrants**").

To induce the Placement Agent to continue its efforts in connection with the Public Offering, the undersigned hereby agrees that, without the prior written consent of the Placement Agent, the undersigned will not, during the period commencing on the date hereof and ending ninety (90) days after the date of the final prospectus supplement (the "**Prospectus**") relating to the Public Offering (the "**Lock-Up Period**"), (1) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly, any ordinary shares of the Company or any securities convertible into or exercisable or exchangeable for ordinary shares of the Company, whether now beneficially owned (as such term is used in Rule 13d-3 of the Securities Exchange Act of 1934, as amended (the "**Exchange Act**") or hereafter acquired by the undersigned or with respect to which the undersigned has or hereafter acquires the power of disposition (collectively, the "**Lock-Up Securities**"); (2) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of Lock-Up Securities, whether any such transaction is to be settled by delivery of shares of Lock-Up Securities, in cash or otherwise; (3) make any demand for or exercise any right with respect to the registration of any Lock-Up Securities; or (4) publicly disclose the intention to make any offer, sale, pledge or disposition, or to enter into any transaction, swap, hedge or other arrangement relating to any Lock-Up Securities. Notwithstanding the foregoing, and subject to the conditions below, the undersigned may transfer Lock-Up Securities without the prior written consent of the Placement Agent in connection with (a) transfers of Lock-Up Securities as a *bona fide* gift, by will or intestacy or to a family member or trust for the direct or indirect benefit of the undersigned or a family member (for purposes of this lock-up agreement, "family member" means any relationship by blood, marriage or adoption, not more remote than first cousin); (b) transfers of Lock-Up Securities to a charity or educational institution; (c) if the undersigned or a family member, directly or indirectly, controls a corporation, partnership, limited liability company or other business entity, any transfers of Lock-Up Securities to any shareholder, partner or member of, or owner of similar equity interests in, the undersigned, as the case may be; or (d) the sales of Shares to cover the payment of the exercise prices or the payment of taxes associated with the exercise or vesting of equity awards under any equity compensation plan of the Company; provided that in the case of any transfer pursuant to the foregoing clauses (a), (b) or (c), (i) any such transfer shall not involve a disposition for value, (ii) each transferee shall sign and deliver to the Placement Agent a lock-up agreement substantially in the form of this lock-up agreement and (iii) no filing under Section 16(a) of the Exchange Act shall be required or shall be voluntarily made, except for a Form 5. The undersigned also agrees and consents to the Company's entry of stop transfer instructions with the Company's transfer agent against the transfer of the undersigned's Lock-Up Securities except in compliance with this lock-up agreement.

No provision in this agreement shall be deemed to restrict or prohibit the exercise, exchange or conversion by the undersigned of any securities exercisable or exchangeable for or convertible into Shares, as applicable; provided that the undersigned does not transfer the Shares acquired on such exercise, exchange or conversion during the Lock-Up Period, unless otherwise permitted pursuant to the terms of this lock-up agreement.

The undersigned understands that the Company and the Placement Agent are relying upon this lock-up agreement in proceeding toward consummation of the Public Offering. The undersigned further understands that this lock-up agreement is irrevocable and shall be binding upon the undersigned's heirs, legal representative, successors and assigns.

The undersigned understands that, if the Agency Agreement is not executed by _____, 2020, or if the Agency Agreement (other than the provisions thereof which survive termination) shall terminate or be terminated prior to payment for and delivery of the Shares and Warrants to be sold thereunder, then this lock-up agreement shall be void and of no further force or effect.

Whether or not the Public Offering actually occurs depends on a number of factors, including market conditions. Any Public Offering will only be made pursuant to an Agency Agreement, the terms of which are subject to negotiation between the Company and the Placement Agent.

[*remainder of page intentionally blank*]

Very truly yours,

(Name - Please Print)

(Signature)

(Name of Signatory, in the case of entities - Please Print)

(Title of Signatory, in the case of entities - Please Print)

Address:

[*Signature Page to Lock-Up Agreement*]

**Exhibit 23.1**

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM'S CONSENT

We consent to the incorporation by reference in this Registration Statement of Aptorum Group Limited on Form F-1 Amendment No. 2 (FILE NO. 333-248743) of our report dated April 29, 2020, with respect to our audits of the consolidated balance sheets (successor basis) of the Company as of December 31, 2019 and 2018, the related consolidated statements (successor basis) of operations and comprehensive loss, equity and cash flows for the years ended December 31, 2019 and 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, appearing in the Annual Report on Form 20-F of Aptorum Group Limited for the year ended December 31, 2019. We also consent to the reference to our firm under the heading "Experts" in the Prospectus, which is part of this Registration Statement.

/s/ Marcum Bernstein & Pinchuk LLP

Marcum Bernstein & Pinchuk LLP
New York, New York
September 25, 2020

NEW YORK OFFICE ● 7 Penn Plaza ● Suite 830 ● New York, New York ● 10001
Phone 646.442.4845 ● Fax 646.349.5200 ● www.marcumbp.com