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Hong Kong Exchanges and Clearing Limited  
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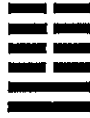
Dear Sirs,

**Re: HKEx Consultation Paper for Emerging and Innovative Sectors dated February 2018**

Further to the announcement by the HK Exchange ("HKEx") in relation to the proposed new listing regime for emerging and innovative sectors and the subsequent consultation paper released in February 2018, we are extremely excited about this positive development for Hong Kong and we strongly believe that this initiative will further facilitate Hong Kong as a leading innovation hub for technologies. We would also like to express our gratitude for your time in meeting with us on the 7 March 2018 at your offices.

By background, Aptorum Group ("Aptorum") was founded in Hong Kong and we focus on the acquisition of biopharmaceutical assets with the intention to engage in drug research, development, and commercialization purposes. Aptorum seeks to work with a number of Hong Kong and overseas based academic institutions (for example, the University of Hong Kong, Chinese University of Hong Kong, City University and Polytechnic University etc) and external collaborators to pursue the research and development of a diverse portfolio of biopharmaceutical products, ranging from medical imaging drugs for diagnostic purposes, pharmaceutical drugs for therapeutics purposes (small molecules and biologics) and also drug discovery platforms, with the view to seek commercialization in major jurisdictions worldwide including China, Europe and North America.

As a Hong Kong based biopharmaceutical company, Aptorum is keen to closely follow this new listing regime initiative and we have discussed with a number of collaborators and



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academics in this area. Further to our meeting, we would like to provide the following views to the HKEx for consideration at this preparatory stage as part of the consultation process.

The biotechnology/biopharmaceutical industry carries a significant amount of development risks as the development cycle, depending on the underlying technology and indications, can be relatively long in duration (years) and a number of highly dependable factors will have a direct impact on the success probability of the technology, for example the outcomes of toxicity, delivery mechanisms, human efficacies etc. On this basis, it is our view that a “risk diversified” approach in terms of candidate selections, drug targets, multiple innovations and sustainable pipeline (etc) by a biotech company can significantly reduce, from a stakeholder perspective, the associated investment risks and therefore potentially increase the potential investment returns in the long run. Some of these pipeline may be evidenced by a strong preclinical asset base and/or a sustainable drug screening and development platform, for example.

On an overall industry perspective, the above may affect the regulator’s views towards approaching the “systemic” risks of the overall listing industry. Having been both a past stakeholder as well as now an operational biopharmaceutical company, we would like to make the observation that the biotechnology/biopharmaceutical industry is somewhat akin to the “asset management” industry where portfolio of investments are often diversified so as not to take on significant single asset non-systemic risks. In addition, we agree that there should be considerations in the management team’s background and experience (or to the extent, if the development is outsourced to relevant contract research organisations, the experience of such outsource provider) in assessing the suitability of listing. This aspect shares similarities to the “responsible officer” concept in attaining and maintaining licenses in the regulated industry required by the HK SFC. We wish to share with you some case studies and express our observations further, in the below, in relation to the current proposed rules in the consultation paper.

As per the consultation paper, in relation to the “suitability to list” criteria of prospective biotechnology companies, we comprehend the logic in the proposed application of an objective based approach in relation to screening and selecting such prospective candidates for listing (e.g. the completion of Phase 1 clinical studies for its core products). We would like to express the following points:



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- In comparison with other known exchanges such as the Nasdaq, NYSE or London Stock Exchange, there are currently no such objective requirements of prospective companies in this sector seeking for listing. The industry relies heavily on open market economics, key expert opinions and prospective investor pricing mechanics to determine the risks of such biotech companies (for example, by a lower or higher valuation of the company) in determining whether its IPO and post IPO performance is successful; in other words, the risk profile of a biotechnology company is governed by market valuation and investor take up at IPO based on a wider assessment of, for example, the prospects of the company products, the experience of the management team and its financials.
  
- As useful case studies, we would like to refer to two particular cases:
  - (i) a recently NASDAQ IPO-ed company, Denali Therapeutics<sup>1</sup>, is a promising development company focused on the novel treatment for neurodegenerative diseases and drug discovery. Based on investor assessment, Denali achieved an ipo valuation of c. USD1.7billion raising close to USD250million from the market. Its pipeline consists of a lead product still currently conducting phase 1 trials and the remaining pipeline at various preclinical stages;
  
  - (ii) another promising 2015 Nasdaq IPO-ed company, Wave Life Sciences<sup>2</sup>, specializes in a broad pipeline of drug development targeting nuclei acid therapeutic candidates. Wave achieved an ipo valuation of c. USD600million based on extremely promising preclinical pipeline and prospects and have gone on to perform well post IPO, now with a current valuation c. USD1.2billion.
  
- Based on the above, we would like to express the concern that, based on current proposed selection rules, Hong Kong will not be able to capture such promising

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<sup>1</sup> <https://www.cnbc.com/2017/12/08/denali-therapeutics-celebrates-its-ipo-at-the-nasdaq-marketsite.html>

<sup>2</sup> <https://www.nasdaq.com/markets/ipos/company/wave-life-sciences-ltd-956413-79562>



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companies from the international marketplace despite strong key opinions and investor assessment of future prospects of such companies. On the other hand, based on the current proposed objective test, it may (unintentionally but rigidly) favour for example a theoretical single asset company that has achieved phase 1 clinical trials under cFDA, EMA or FDA but may still fail during the pivotal trials (phase 2 or 3), in which case the “value at risk” of such single asset company can be significantly higher than companies in our above case studies.

- In addition, most of local Hong Kong's biotechnology sector companies are currently still at the preclinical to phase 1 stages due to often lack of funding access from fledgling Hong Kong based investor sentiment, relative to other more matured sectors such as real estate or financials. Hong Kong is still undergoing rapid evolution of its biotechnology industry with support such as our company, as well as government schemes such as the establishment of Hong Kong Science Park and Cyberport (etc). The current proposed listing rules may not be able to speedily accelerate the growth of Hong Kong's biotechnology sector as intended, and instead, will benefit more companies originating from jurisdictions such as mainland China and overseas.
- In conclusion, we would hope that the HKEx can consider adding an exception in its “suitability test” to include a “qualitative” based approach in assessing prospective companies for listing, in order to capture promising companies that, for example, are still in development stage and have promising prospects in revolutionizing our ability to approach diseases worldwide.



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We'd be happy to discuss the above in person and look forward to the HK Exchange's further announcements.

Yours faithfully,

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Darren Lui  
Executive Director, Aptorum Group

Clark Cheng  
Executive Director, Aptorum Group

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