

LCQ11: Development of the biomedicine industry

Following is a question by the Hon Leung Che-cheung and a written reply by the Secretary for Innovation and Technology, Mr Alfred Sit, in the Legislative Council today (December 2):

Question:

On October 29 this year, the Fifth Plenary Session of the Central Committee of the Communist Party of China adopted the Proposal on Formulating the Fourteenth Five-year Plan on National Economic and Social Development, which includes supporting the Hong Kong Special Administrative Region in "consolidating and enhancing its competitive advantages" and "building an international centre for innovation and technology". Furthermore, the Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area, promulgated in February 2019, has listed biomedicine as one of the strategic emerging industries. Regarding the development of Hong Kong's biomedicine industry, will the Government inform this Council:

(1) whether it knows (i) the number of Hong Kong enterprises whose businesses involved the biomedicine field, and (ii) the respective numbers of Mainland and overseas enterprises with which these Hong Kong enterprises partnered in joint biomedical projects, in the past three years, together with a breakdown of the numbers of enterprises mentioned in (i) and (ii) by type of business (i.e. (a) production of as well as research and development (R&D) on biomedicine and (b) production of medical equipment);

(2) as there are comments that as compared with other Mainland cities in the Guangdong-Hong Kong-Macao Greater Bay Area (Greater Bay Area), Hong Kong still has an edge in areas such as scientific research, talents, clinical medicine, pharmaceutical certification and financing in respect of the biomedicine industry, of the government policies on (i) facilitating the enhanced cooperation, between the enterprises and tertiary institutions in Hong Kong and their counterparts in the Mainland cities in the Greater Bay Area, in the biomedicine field (in the areas of industry, education and R&D), and (ii) helping Hong Kong's biomedicine industry develop the Mainland market; and

(3) of the policy on attracting top-notch biomedicine scientific research institutions and talents to establish their bases in Hong Kong, as well as attracting capital to the territory, so as to enhance the competitiveness and sustainable development of Hong Kong's biomedicine industry?

Reply:

President,

Having consulted the Food and Health Bureau (FHB) and the Financial Services and the Treasury Bureau, we provide the reply to the various parts of the question as follows:

(1) The Department of Health (DH) does not have record of the number of Hong Kong enterprises whose businesses involved biomedicine. Hence, we can only provide information about biomedical and pharmaceutical enterprises operating in the Hong Kong Science Park (HKSP) and Industrial Estates (IEs).

In the past three years, there were 127, 153 and 161 biomedical and pharmaceutical enterprises operating in the HKSP and IEs, of which 39, 53 and 57 were engaged in medical device/ in vitro diagnostics respectively.

(2) According to information provided by FHB, to support the training and development of doctors in the Greater Bay Area (GBA), the Hong Kong Academy of Medicine and the Hong Kong College of Family Physicians have launched systematic training and exchange programmes in the GBA to facilitate understanding of and making reference to Hong Kong's established specialist training system. At the same time, through visits, lectures, short-term training programmes, etc., the health authorities at provincial and municipal level as well as universities in Mainland have been fostering cooperation with the Hospital Authority, DH, the two universities' medical schools and healthcare organisations in Hong Kong in the medical field.

Hong Kong has robust systems for drug registration and administrative control of medical devices. As a facilitation measure for Hong Kong residents working and living in the GBA cities to seek healthcare services locally and to encourage locally-funded healthcare institutions to set up in the GBA, the Hong Kong Special Administrative Region (HKSAR) Government will implement as soon as possible the arrangement of using Hong Kong-registered drugs and medical devices used in Hong Kong public hospitals at The University of Hong Kong – Shenzhen Hospital on a trial basis subject to the approval of the Guangdong Province, and will extend the policy to cover more designated healthcare institutions, drugs and medical devices in a timely manner.

In addition, for clinical trials, a total of 32 specialties from Queen Mary Hospital, Prince of Wales Hospital, Hong Kong Eye Hospital and Hong Kong Sanatorium & Hospital have gained accreditation of the clinical trial sites from the National Medical Products Administration; clinical trial data generated from these sites will be for the purpose of drug registration in the Mainland, enabling Hong Kong to serve as an important platform for local and multinational pharmaceutical companies to venture into the vast Chinese market.

In terms of technological research infrastructure, the HKSAR Government is taking forward with the development of the Hong Kong-Shenzhen Innovation and Technology Park (the Park) in the Lok Ma Chau Loop in full swing. The Park will become Hong Kong's largest-ever innovation and technology (I&T) platform, converging technology enterprises, research and development (R&D) institutions and higher education institutions from local, Mainland and overseas, enhancing the collaboration among the industry, academic and

research sectors. The Park will focus on the development of six R&D areas, including healthcare technologies.

On funding support, there is a Guangdong-Hong Kong Technology Cooperation Funding Scheme (TCFS) under the Innovation and Technology Fund (ITF) administered by the Innovation and Technology Commission (ITC). Biotechnology and related scopes have been listed among the technology themes under TCFS in recent years. Between 2018 and 2020, 13 out of the 27 projects approved under TCFS were related to biotechnology. In the meantime, there is also a Mainland-Hong Kong Joint Funding Scheme jointly launched by ITC and the Ministry of Science and Technology (MOST) under the ITF to support R&D projects with an element of Mainland and Hong Kong cooperation. The call for projects for the scheme was first launched in 2019 and both sides are assessing the applications received.

Moreover, to take forward the policy measure in relaxing the limitation on exporting Mainland human genetic resources to Hong Kong and Macao announced by the Central Government in November 2019, ITC invited local universities and public scientific research institutes to nominate their eligible Mainland branches to join MOST's pilot scheme. So far, three Mainland branches established by local universities have been confirmed by MOST to be meeting specific requirements and will be allowed to lodge applications for exporting human genetic resources to Hong Kong for research purpose independently under the scheme.

(3) Biotechnology has always been one of the I&T strengths in Hong Kong. The HKSAR Government will continue to implement various measures in terms of hardware support, funding, financing and talent to attract technology enterprises, R&D institutions and higher education institutions from local, Mainland and overseas to Hong Kong.

In terms of hardware support, the HKSP provides bespoke facilities and other support services to facilitate the industry engaging in biomedical R&D activities, including the Biomedical Technology Support Centre which is equipped with life-science instruments, the Healthcare Devices Innovation Hub which accelerates product development of medical devices, and the Chemical Co-Working Centre which provides wet laboratory facilities, etc. In addition, the HKSP has developed a Biobank and Biomedical Informatics Platform, which provide services for collecting, processing, storage and sharing of bio-specimens, and cloud data management and storage for biomedical analytical needs respectively. The Hong Kong Science and Technology Parks Corporation (HKSTPC) is also planning the development of research facilities, such as medical device testing laboratory and drug testing, etc.

Moreover, the HKSAR Government is taking forward the establishment of the InnoHK research clusters in the HKSP in full swing, one of which is on healthcare technologies, with a view to leveraging on local universities' R&D strengths in healthcare technologies to converge top-notch researchers from all over the world so as to developing Hong Kong as the hub for research collaboration in healthcare technologies. The first batch of R&D centres is expected to be set up in phases by the first quarter of next year.

Furthermore, in terms of funding, the Incu-Bio Incubation Programme of the HKSTPC provides funding of up to \$4 million to incubatees engaging in biotechnology. In view of the relatively complex regulatory procedures involved in biotechnology researches, the incubation programme also offers a targeted funding of up to \$2 million to incubatees for certification or investigational new drug applications, etc.

In terms of financing, the Corporate Venture Fund of the HKSTPC has invested in five biotechnological start-ups engaging in R&D of medical device, drug delivery, stem cell technology and cancer treatment research. Besides, the Innovation and Technology Venture Fund has also invested in a local I&T start-up, of which the principle business is to research and develop DNA sequencing technology. Besides, Hong Kong has implemented a new listing regime since end-April 2018 to facilitate the listing of pre-revenue/ pre-profit biotechnology companies in Hong Kong. Over 20 pre-revenue/ pre-profit biotechnology companies have listed in Hong Kong under the new regime so far.

In terms of talent, ITC launched the Technology Talent Admission Scheme in June 2018. It provides a fast-track arrangement to admit overseas and Mainland technology talent. As of end-October 2020, ITC has allotted 502 quotas, of which 51 are related to biotechnology.