

SFH visits Hong Kong Genome Institute

The Secretary for Food and Health, Professor Sophia Chan, visited the Hong Kong Genome Institute (HKGI) this afternoon (September 3) to learn more about the progress of the Hong Kong Genome Project (HKGP) and exchange views with staff of the HKGI about their work.

In view of the importance of genomic medicine to future medical development, the Food and Health Bureau appointed the Steering Committee on Genomic Medicine in December 2017 to lead the study on strategies for developing genomic medicine in Hong Kong. On the recommendation of the Steering Committee, the Chief Executive announced the launch of the HKGP in the 2018 Policy Address, with \$1.2 billion subsequently earmarked in the 2019-20 Budget for related purposes.

The HKGI was established in May 2020 to take forward the HKGP in partnership with the Hospital Authority, the Faculty of Medicine of the Chinese University of Hong Kong, the Li Ka Shing Faculty of Medicine of the University of Hong Kong and the Department of Health. The HKGI is staffed by a multi-disciplinary team of professionals including doctors, scientific officers, bioinformaticians and genetic counsellors, etc. With the laboratory and data analysis centre located in the Hong Kong Science Park, the HKGI will achieve greater synergy with scientific research institutions there in such areas as biomedical technology and information and communications technology.

The HKGP will be implemented in two phases. The pilot phase, which covers about 2 000 cases with undiagnosed disorders and hereditary cancers, commenced in July 2021. The main phase, which will be extended to cover 18 000 cases of diseases linked to hereditary components, is expected to commence in mid-2022. With both patients and their family members recruited, it is estimated that a total of about 50 000 genomes will be sequenced under the HKGP. According to international and local experience, the diagnostic yield of uncommon diseases could be raised from around 10 per cent up to around 30 per cent by using whole genome sequencing as compared with common diagnostic tests.

Professor Chan said, "Genomic medicine has huge potential in screening, diagnosis and personalised treatment of diseases. The Government is determined to promote local development of genomic medicine, so that our patients can benefit from more precise diagnosis and more effective treatment. I am grateful to the members of the Board and Committees of the HKGI for their valuable advice on the scientific, data and ethical issues of the Project, and the dedicated efforts of the HKGI team so that the HKGP can commence smoothly in July this year."

Accompanied by the HKGI's Chairperson, Mr Philip Tsai, and Chief Executive Officer, Dr Lo Su-vui, Professor Chan also visited the facilities of the partnering centre at the Hong Kong Children's Hospital (HKCH). In the pilot phase, eligible participants will be recruited by the partnering

centres at the HKCH, Prince of Wales Hospital and Queen Mary Hospital in collaboration with the HKGI. Healthcare professionals of these hospitals will conduct preliminary screening and refer suitable cases to the project teams of the partnering centres.

"Making reference to similar overseas projects, genomic and clinical data collected under the HKGP will be de-identified and kept in a bioinformatics analysis platform set up by the HKGI for access by approved researchers, with a view to promoting the development of local medical research and international academic exchanges. The project will strengthen Hong Kong's international status in such areas as genomic medicine and innovation and technology (I&T). I am delighted that local universities and I&T institutions welcome and have indicated strong support for the HKGP," Professor Chan said.

The public can browse the website (www.hkqp.org) for more information about the HKGP.