

For Immediate Release

## **Hong Kong Genome Institute Launches Expert Video Series on Genomic Medicine Renowned Board Members Share R&D that Shapes the Future of Healthcare**

(Hong Kong, 24 August 2022) The **Hong Kong Genome Institute (HKGI)** is committed to driving the development of genomic medicine in Hong Kong to benefit the wider community with better health through more accurate diagnosis, personalised treatment and prevention of disease. To this end, enhancing public genomic literacy and engagement has been one of HKGI's key strategic foci.

To introduce concepts and ideas on genomic medicine that may be new to many, HKGI has invited four of its Board of Directors who are world-renowned scientists and clinical experts to be featured in a series of thematic videos to share their inspiring journey in the research and development (R&D) of genetics and genomics, and the vast potential of genomic medicine in shaping the future of healthcare. They include:

- **Professor Raymond Liang**, Head of Department of Medicine at the Hong Kong Sanatorium & Hospital and the iconic figure who led the “Save Little Gordon” campaign in the 1990s in Hong Kong and the establishment of the world's first all Chinese Unrelated Bone Marrow Donor Registry;
- **Professor Nancy Ip**, President-elect of The Hong Kong University of Science and Technology and a top-notch neuroscientist whose R&D breakthroughs in Alzheimer's disease have inspired and benefited many around the world;
- **Professor Lau Chak-sing**, Dean of the Li Ka Shing Faculty of Medicine at The University of Hong Kong and an authority on Rheumatology and Clinical Immunology across regions who has contributed tremendously to advancing Hong Kong's international standing in the field; and
- **Professor Dennis Lo**, Associate Dean (Research) of the Faculty of Medicine at The Chinese University of Hong Kong who has been honoured with numerous global awards for his ground-breaking discovery of fetal DNA in maternal blood and is well celebrated as the “Father of Non-invasive Prenatal Testing”.

In this four-part video series, each episode profiles one professor on a theme tailored to his/her expertise, offering different perspectives and insights into the development, applications and benefits of genomic medicine. To enhance public understanding on the matter, the themes will cover “**How It All Started**” (background of developing genomic medicine in Hong Kong), “**Building The Blocks**” (importance of establishing genome database of local population), “**Availing It For The Greater Good**” (advocacy for wider clinical applications of genomic medicine) and “**The Future Is Here**” (power of genomic medicine in transforming future healthcare).

Dr Lo Su-vui, Chief Executive Officer of HKGI, said, “We are greatly honoured to have four of our esteemed Board members taking part in this video series. On behalf of HKGI, I would like to extend our heartfelt gratitude to all of them for their unstinting support. In these videos, apart from sharing their world-changing scientific and medical research, the professors also highlight in a layman and engaging manner the milestone development and significance of genomic medicine, and how it will revolutionise public healthcare and benefit everyone in the society. With the launch of this video series and other public education activities, together with initiatives implemented under our strategic foci in driving clinical application, advancing research and nurturing talents, we strive to accelerate the integration of genomics into clinical care. Determined and committed, we will continue to move forward towards realising the **HKGI vision – to avail genomic medicine to all for better health and well-being.**”

The first two episodes of this series featuring **Professor Nancy Ip** and **Professor Dennis Lo** are available for public viewing on HKGI's website ([link](#)) and YouTube Channel ([link](#)). Under the theme "**Genomic Medicine • Building The Blocks**", **Professor Ip** discussed in the interview the importance of establishing a genome database of the local populations by sharing her first research on Chinese patients with Alzheimer's disease (AD). She explained that genetic factors account for around 70% of AD cases; yet the impact of genetic factors varies between ethnic groups. Given the lack of genomic data of the Chinese populations in today's scientific community worldwide, building a genome database will be crucial for the diagnosis and treatment planning for AD patients.

For the interview with Professor Dennis Lo, themed "**Genomic Medicine • The Future Is Here**", **Professor Lo** shared how he and his research team pioneered biomedical breakthroughs with genome sequencing technology, extending the applications of non-invasive blood test from prenatal diagnosis to other branches of medicine, such as cancer detection. These achievements are a testament to the paramount importance of integrating genomics into clinical applications, for it holds the key to a healthy future. As Professor Lo remarked, many regions around the globe have already rolled out genome projects of different scales. Hong Kong shall embrace the era of precision medicine and seize the opportunity to accelerate the development of genomic medicine for more accurate diagnosis and personalised treatment. For a summary of these two episodes, please refer to the **Appendix**.

The other two episodes featuring **Professor Raymond Liang** and **Professor Lau Chak-sing** will be launched in due course. The two experts will share their visions for advancing genomic medicine in Hong Kong along the storyline of "**How It All Started**" and "**Availing It For The Greater Good**". HKGI will continue to produce multi-media educational materials and take forward a wide range of initiatives to raise public awareness of genomic medicine. Please stay tuned!

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### About Hong Kong Genome Institute

The Hong Kong Genome Institute (HKGI), established and wholly owned by the Hong Kong SAR Government, commenced full operations in 2021. With the vision "*to avail genomic medicine to all for better health and well-being*" and supported by the Health Bureau, HKGI works in close collaboration with the Department of Health, Hospital Authority, medical schools of local universities and other stakeholders to accelerate the development of genomic medicine in Hong Kong along four strategic foci: integrate genomics into medicine, advance research, nurture talents and enhance public genomic literacy.

As the first step towards achieving its vision, HKGI launched the Hong Kong Genome Project (HKGP) in 2021. As the city's first large-scale genome sequencing project, HKGP serves as a catalyst to benefit patients and their families with more precise diagnosis and personalised treatment through whole genome sequencing. It also aims to establish genome database of the local population, testing infrastructure and talent pool to address the healthcare needs of Hong Kong in the long run.

For more information, please visit [www.hkgrp.org](http://www.hkgrp.org).

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## Appendix: Hong Kong Genome Institute (HKGI) Expert Video Series on Genomic Medicine

### 1. Professor Nancy Ip – *[Genomic Medicine • Building The Blocks]*

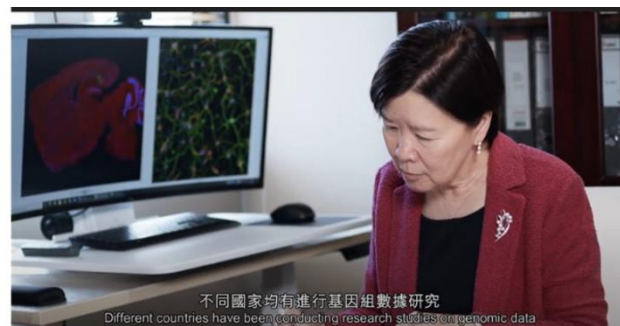
Professor Ip is the President-Elect of The Hong Kong University of Science and Technology and a world-renowned neuroscientist. Her research focuses on the communication mechanisms among nerve cells in the brain, and the cause and diagnosis of neurodegenerative diseases including dementia. Over the years, Professor Ip and her research team have made significant breakthroughs in the diagnosis and treatment of Alzheimer's disease (AD), a common type of dementia. In 2021, Professor Ip led her team to successfully develop a non-invasive blood test from Chinese patient data for the early detection and screening of AD for the first time, with an accuracy level of over 96%.

In the interview, Professor Ip commented that advancement in genome sequencing technology takes on added importance in the research of AD and other genetic diseases. She explained that genetic factors account for around 70% of AD cases; yet the impact of genetic factors varies between ethnic groups. Given the lack of genomic data of the Chinese populations in today's scientific community worldwide, building a genome database will be crucial for the diagnosis and treatment for AD patients.

Professor Ip also shared that with Hong Kong's world-class healthcare system and top-notch R&D talents, HKGI could leverage the city's long-standing edges and resources to drive scientific research in genomics and the establishment of a genome database of local populations to facilitate better understanding of the relationship between diseases and genetic mutations. Relevant research and discoveries will not only benefit the general public in the search of diagnosis and treatment plans for various diseases, but also contribute to the scientific and medical community in Hong Kong, the Mainland and the entire region of Asia.

Link for viewing the video: <https://bit.ly/3QJpyzu>

Link for downloading the screenshots: <https://bit.ly/3c8GrEI>



## 2. Professor Dennis Lo – *[Genomic Medicine • The Future Is Here]*

Professor Dennis Lo is the Associate Dean (Research) of the Faculty of Medicine at The Chinese University of Hong Kong and is well celebrated as the "Father of Non-invasive Prenatal Testing" for his revolutionary breakthroughs in life sciences, including the discovery of fetal DNA in maternal plasma and the invention of non-invasive prenatal testing for Down syndrome and a variety of genetic diseases. The test simply takes blood samples from pregnant women for analysis and thus rids them of the risk of miscarriage, benefiting millions of pregnant women around the world every year.

In the interview, Professor Lo shared how he got inspired while cooking instant noodles, and how his love for photography and the experiment-like process of film development has fuelled him with the indomitable spirit to embrace failure and rise to the challenges along his voyage of scientific discovery. Professor Lo remarked that the 21st Century is a century for biomedical breakthroughs. With genomics being one of the most fast-growing fields, its advancement would bring about far-reaching impact on the future of medicine and healthcare, particularly in regard to the diagnosis, treatment and prevention of diseases as well as potential side effects of drugs. Professor Lo and his team have been focusing on relevant R&D over the years, pushing forward the technology envelope and extending the applications of non-invasive blood test from prenatal diagnosis to other branches of medicine, such as cancer detection.

Professor Lo also pointed out that many regions around the globe have already rolled out genome projects of different scales. Hong Kong shall seize the opportunity to accelerate the development of genomic medicine by rolling out the Hong Kong Genome Project. This would help shed light on how changes in DNA would impact patients, benefiting them with more precise diagnosis and treatment. The genome database built would also inspire new findings and breakthroughs, leading everyone to a future of better health and well-being.

Link for viewing the video: <https://bit.ly/3dMshtz>

Link for downloading the screenshots: <https://bit.ly/3QXLnet>

