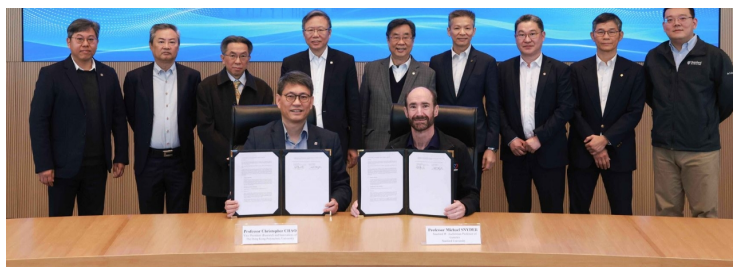


## PolyU and Stanford Medicine join hands to establish joint collaboratory for longitudinal deep omics

22 April 2025 | News

**To investigate the biological mechanisms underpinning healthy and pathological ageing**



The Hong Kong Polytechnic University (PolyU) and Stanford Medicine have recently signed a Memorandum of Understanding (MoU) for the establishment of the PolyU-Stanford Joint Collaboratory for Longitudinal Deep Omics (LDO).

Leveraging PolyU's strengths in biomedical engineering, AI-driven health analytics, and precision medicine, alongside Stanford Medicine's pioneering expertise in genetics and multi-omics, this partnership aims to establish a standardised multi-omics ageing cohort to investigate the biological mechanisms underpinning healthy and pathological ageing, identify personalised biomarkers, predict ageing-related diseases, and advance the development of precision medicine.

Through this partnership, PolyU and Stanford Medicine will conduct joint research on deep omics and related disciplines, focusing on the Asian population.

Research will centre on integrative analysis of ageing mechanisms and individual variability. LDO will perform longitudinal multi-omics analysis of existing cohorts, including genomic, proteomic, metabolomic, and lipidomic profiling, along with retinal imaging and electronic health records.

The collaboration will also develop a real-time health monitoring platform, predictive algorithms for age-related diseases, and institutional exchanges for PhD students and postdoctoral fellows.