School of Biomedical Sciences

The Chinese University of Hong Kong

Official Launch of the Long-Read Sequencing Services

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Abstract:

The emergence of the long-read sequencing technologies marks a transformative advancement in genomic research and precision medicine. Selected as the "Method of the Year 2022", Long-Read Sequencing powers a more complete reading of genomic information over the Next-Generation Sequencing (NGS). Leveraging cutting-edge sequencing platforms such as **PacBio Revio** and **Oxford Nanopore PromethION 24**, the services provided enable unparalleled resolution of complex genomic regions, structural variations, telomere-to-telomere genome assembly, 16S bacterial species identification, and epigenetic modifications that were previously challenging to analyze with short-read NGS.

This service launch targets to empowering scientific discovery and innovation. By democratizing access to long-read sequencing, we aim to accelerate advancements in personalized medicine, pathogen surveillance, and biodiversity studies. Collaborative partnerships with academic, clinical, and industry stakeholders will further drive the development of novel applications, securing long-read sequencing as an indispensable tool in the genomics era.

With the support of the CRF equipment grant **(Ref. no.: C4049-23EF)**, the Genomics Core (GC) at the School of Biomedical Sciences, The Chinese University of Hong Kong aims to provide long-read sequencing service packages covering a board spectrum of different applications and purposes. In this seminar, an introduction on the sequencing technologies, equipment, service workflow as well as bioinformatic support will be covered. Besides providing services, the GC welcomes interested PIs for experimental troubleshooting and project discussions / collaborations.