

# ASHBi DISTINGUISHED SEMINAR

2025 **4.4** Fri

**11:00 - 12:00**

Register here



Venue

Conference Room  
B1F, Faculty of Medicine Bldg. B

Lecturer

**Qiang Yang Ph.D.**

Director of Advanced AI institute, Hong Kong Polytechnic University

**Christine Yuan Huang M.D.**

Technology Transfer Director, Hong Kong Quantum AI Lab

## AI, LLM and Federated Learning: development and applications

Lecturer: **Qiang Yang Ph.D.**

Director of Advanced AI institute, Hong Kong Polytechnic University



In this talk, I will review the rapid development of AI and large language models (LLM). I will introduce federated learning and transfer learning in the era of LLM. Transfer learning is the ability in machine learning systems to adapt to new domains, tasks and situations. Federated learning allows for distributed machine learning with security guarantee and privacy preservation. I will introduce these technologies and survey some of their applications in practice.



## Federated Learning in Longevity Medicine

Lecturer: **Christine Yuan Huang M.D.**

Technology Transfer Director, Hong Kong Quantum AI Lab

With a rapid aging population and a high burden of chronic diseases, improving healthspan is crucial to ensure a good quality of life. With recent breakthroughs in artificial intelligence(AI) and federated learning, aging and lifespan biomarkers are predictive and prognostic with AI technology, and there is also data-driven personalised prevention. One promising area of research is the use of artificial intelligence (AI) to analyze large datasets and identify patterns and relationships that may not be apparent to human researchers. Biomarkers of aging are instruments that may be used to offer a quantitative foundation for assessing the therapeutic success of clinical, health-span-extension therapies.

AI-powered longevity medicine will aid in the discovery of drug targets for specific individuals, the identification of tailored geroprotective interventions and aging and longevity biomarkers to improve the study of disease trajectories, and the identification of interventions that may help slow or even reverse aging-associated biological, physiological, or psychological processes.

Organizer : Prof. Mitinori Saitou & Prof. Yasuaki Hiraoka

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Hosted by Institute for the Advanced Study of Human Biology (WPI-ASHBi)

