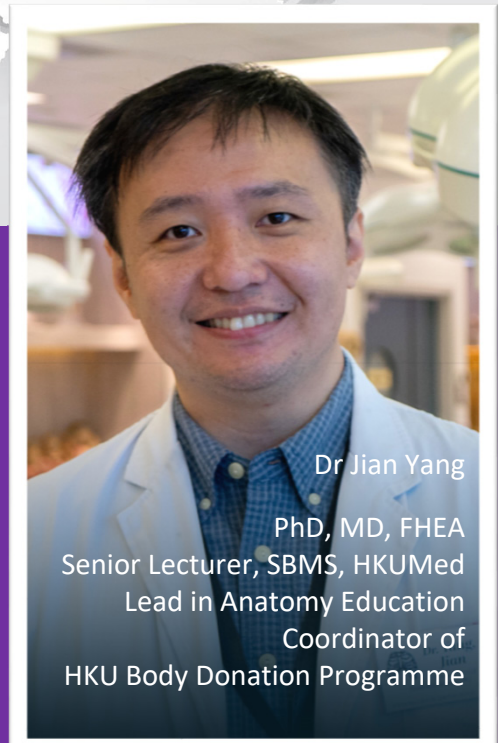# THE UNIVERSITY OF HONG KONG EXPERIENCE SHARING: TECHNOLOGY AND VIRTUAL REALITY ENHANCED ACTIVE LEARNING IN ANATOMY EDUCATION

9th March 2023

11 – 11.30 am | Anatomy Conference Room

Dr Jian Yang
PhD, MD, FHEA
Senior Lecturer, SBMS, HKUMed
Lead in Anatomy Education
Coordinator of
HKU Body Donation Programme

Dr. Jian Yang, a Peking University Health Science Center graduate, pursued his PhD in neuroscience at University of Bristol. He joined the Department of Anatomy, the University of Hong Kong after graduation in 2007, and devoted his passion to anatomy and histology education since 2012. He is now a senior lecturer in the School of Biomedical Sciences, LKS Faculty of Medicine, HKU, Lead in Anatomy Education and Coordinator of HKU Body Donation Programme. His teaching expertise includes gross anatomy, neuroanatomy, histology, and problem-based learning.

He dedicates his effort to converting instructional anatomy and histology classes into indispensable active-learning experience. His research focuses on integrating digital/mobile technology to enhance active learning in anatomy and histology labs. He is now leading the virtual reality anatomy lab. The current projects include creating digital active learning and peer learning platform and integrating VR-enriched tasks (VRETs) into gross anatomy classroom.

With the rapid growth of technological innovations, mobile technology, virtual reality and other digital technologies have been gradually incorporated into anatomy and histology education and have provided a brand-new area of research interest for medical education. In the School of Biomedical Sciences, LKS faculty of medicine, we recognise that it is paramount to make anatomy classes more active and student-centred to create deeper understanding of the subject matter. In recent years, our team has strived to integrate newly emerged technologies into the medical curriculum to enhance active learning.

In the past few years, we have created interactive histology E-platform with digital atlas, discussion forum, and demonstration videos. We have introduced technology-supported task oriented practical (TOP) to reform the anatomy and histology practical sessions. We have also developed the dissection peer support system (DPSS) utilising mobile learning platform iClass. The VR anatomy lab has been established for the students to apply their anatomy and clinical knowledge to complete the tasks in the virtual reality environment.

The digital resources and the mobile platform were extremely helpful in maintaining high quality interactive-learning experience for the students both in-class and off-class, and provided the students with timely feedback. The education technologies and the innovative pedagogies enable students to participate actively and apply knowledge both inside the classroom and online, and are proven to be especially valuable for medical education during the pandemic and in the post COVID era.