

Seminar On

Bridging Barriers: The Unleashed Potential of Inter-disciplinary Research in Neurosurgery

By

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**Venue : Room G6302, 6/F, Yeung Kin Man Academic Building, City University of Hong Kong
(Lift 7)**

Abstract

The evolution of the field of neuroscience and neurosurgery has been propelled by the advent of novel technological capabilities. The pace of such advances has accelerated dramatically in the past decade especially with the momentum generated by the United States National Institutes of Health Brain Research through Advancing Innovative Neurotechnologies (BRAIN) Initiative, a 12-year program to develop and apply new tools and technologies for revolutionizing our understanding of the brain. In the last five years, there is a growing appreciation that the understanding of complex, yet common neurosurgical disorders requires the interdisciplinary efforts of neuroscientists, clinical psychologists, electrical engineers and computer scientists. As neurosurgeons, a definite gap may be perceived between fundamental neuroscience and daily clinical practice. This talk is to bridge that gap by highlighting the latest developments in the field of neurosurgery applied in the operating room (e.g. image-guided surgery and augmented reality), for simulation training and machine learning for a variety of clinically relevant diseases (e.g. radio-genomics for malignant brain tumors). By sharing the daily challenges neurosurgeons face, it is hoped that this talk can provide an open platform to develop innovative solutions.

Biography

Peter Woo completed his undergraduate medical education in 2004 at the University of Hong Kong. He subsequently joined the Department of Neurosurgery of Kwong Wah Hospital and trained in several local centers including Prince of Wales Hospital. Following the completion of his residency training in 2012, Dr. Woo returned to Kwong Wah Hospital, one of the oldest hospitals in Hong Kong, as an associate consultant. During this period he was awarded the Bronze Medal for Best Original Research for Trainees by the Hong Kong Academy of Medicine, was named the Higher Trainee Researcher of the Year by the Hong Kong College of Surgeons and received a Masters in Medical Science from the University of Hong Kong.

Dr. Woo's clinical interests are in surgical neuro-oncology especially with regard to high-grade gliomas. As an Esther Wu Memorial Fund recipient, he embarked on a visiting scholarship at the University of California San Francisco's Department of Neurosurgery under the leadership of Professor Mitchel Berger, a world-leader in this field. His research endeavors involve investigating the patho-mechanisms and behavior of temozolamide-resistant glioblastomas. Dr. Woo is actively involved in neurosurgical training as an elected Neurosurgery Specialty Board member of the Hong Kong College of Surgeons, Chairman of Kwong Wah Hospital's Clinical Research Center Science Committee and Co-ordinator of the Hong Kong Neurosurgical Society Higher Trainee Tutorial Programme.

***** ALL ARE WELCOME *****

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