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THE CHINESE UNIVERSITY OF HONG KONG

PHARMACY SEMINAR

"Determinants of Neurocognitive Outcomes in Survivors of Childhood

Cancer: From Diagnosis to Long-term Survivorship"

Presented by

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Abstract

Major advances in health care delivery have dramatically improved survival rates for children diagnosed with life-threatening diseases. Unfortunately, survivorship often comes at a cost of developing a myriad of treatment-related complications. In particular, survivors of childhood cancer are at increased risk for neurocognitive and behavioral problems that can adversely impact their educational and vocational attainment. This presentation is focused on characterizing predictors of impaired brain function in survivors of childhood cancer. We will demonstrate how chemotherapy exposures and related acute neurotoxicity during the active treatment are predictive of long-term neurocognitive and neuroimaging outcomes in survivors of childhood acute lymphoblastic leukemia. Biomarkers of brain injury within the cerebrospinal fluid and their associations with genetic predispositions will be harnessed to unveil changes in specific cellular integrity in the central nervous system during treatment. As survivors age and advance into long-term survivorship, the impact of chronic inflammation, sleep disturbances and treatment-related chronic health complications on neurocognitive outcomes will also be examined.

The eventual goal of this work is to develop an evidence-based model that will facilitate a "personalized survivorship care plan" for each cancer survivor, as well as to apply a similar approach to improve health outcomes in other chronic conditions such as cognitive ageing and mental illness.

Biosketch

Cheung Yin Ting received her B.Sc. (Pharm.) (Hons.) and Ph.D. from the National University of Singapore where she pioneered the cognitive and psychosocial research program in Asian breast cancer patients. She joined St. Jude Children's Research Hospital, Memphis, USA, as a Post-doctoral Research Associate in 2014. Her current work with the Cognitive Neuroscience Team involves characterizing the pharmacological, biological and genetic determinants of brain function in survivors of pediatric cancer. She is a past recipient of the American Society for Clinical Oncology (ASCO) Merit Award. Her work is published in the Journal of Clinical Oncology, Annals of Oncology, Neuroscience & Biobehavioral Reviews, and Lancet Haematology. She also has a teaching appointment with Rhodes College, Memphis, USA, as an Adjunct Assistant Professor. She hopes that her collaborative research can improve health outcomes in survivors of cancer and related diseases.









