National Neuroscience Institute
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National Neuroscience Research Institute Singapore

NEUROSCIENCE & BEHAVIOURAL DISORDERS

NNRIS Bench to Bedside Seminar Series

Date: **15 January 2021 (Friday)**

Time: **12:00pm – 1:00pm**

Zoom Details: **https://nus-sg.zoom.us/j/83037302546?pwd=c0JFMlNiVXpUNXVaaGl2eDdCY3J6UT09**
Meeting ID: 830 3730 2546
Password: 065645
Note: Please rename your login name to include your institute to facilitate admission

Moderator: **Assoc Prof Hyunsoo Shawn Je**
Neuroscience & Behavioural Disorders Programme, Duke-NUS

DISSECTING THE ROLE OF NS1BP IN CELLULAR SENESCENCE

Dr Yuan Fang
Research fellow
Reconstructive Neurobiology Laboratory
Neuroscience & Behavioural Disorders Programme
Duke-NUS Medical School

Abstract:
We recently identified a family that exhibited severe neurological deficits with signs of premature aging. Genetic analysis revealed a mutation in the NS1BP gene that encodes KLHL39, a BTB-Kelch protein. The association of NS1BP with aging has never been reported. Here, we show that NS1BP mutation disrupts mitotic process and results in DNA damage in fibroblasts, iPSCs, and neural progenitors. Ongoing work is to reveal how mutant NS1BP results in cellular senescence.

Biography:
Dr Yuan Fang received her PhD degree in Nanjing Medical University in China in 2019. She worked on neuron differentiation from human pluripotent stem cells during her PhD. She joined Su-Chun's lab as an intern since October 2017. Currently, she is working on disease modeling by hPSCs.

DEFINING THE ROLE OF NF1 IN BRAIN TUMOR MICROENVIRONMENT

Yeo Ya Ting Jacqueline
Research Officer
Molecular Neurotherapeutics Laboratory
National Neuroscience Institute

Abstract:
Tumor-immune interaction triggers the release of cytokines and chemokines, polarising immune cells into a tumor-promoting phenotype that induces tumor growth and invasion. The *NF1* tumor suppressor gene is primarily mutated or lost in the mesenchymal GBM subtype. Previously, we showed that the loss of *NF1* promoted cell invasion. Conversely, re-expression of the leucine-rich domain (LRD) of neurofibromin (NF1-LRD) inhibited *NF1*-loss-induced invasion *in vitro* and *in vivo*. In this talk, we will discuss our recent findings on the effect of NF1-LRD on microglia/macrophage in glioma tumorigenesis.

Biography:
Jacqueline completed her undergraduate studies in School of Biological Sciences at Nanyang Technological University. She joined Dr Ivy Ho's lab as a research officer after graduation. Her research focuses on understanding the role of NF1-LRD in GBM.

All are welcome. No registration is required.