Institute of Molecular and Cell Biology
A*STAR

SEMINAR ANNOUNCEMENT

We would like to invite you to attend this seminar hosted by Prof Hong Wanjin:

Date: 24 October 2019, Thursday
Time: 11:00AM – 12:00NN
Venue: Level 3, IMCB Seminar Room 3-46, Proteos, Biopolis

Speaker: Dr Mahmoud A Pouladi, Associate Director and Principal Investigator, Translational Laboratory in Genetic Medicine, A*STAR
Title: Modelling triplet repeat expansions using isogenic pluripotent stem cells: towards mechanistic insights

Abstract
Repetitive DNA elements comprise a large proportion of the human genome. Many occur in tandem and are highly polymorphic, although their function and physiological significance remain largely unknown. Expansions in tandem repeats are causative for over a dozen Mendelian neurological disorders that span the spectrum from neurodevelopmental to late-onset neurodegenerative disorders. These include fragile X syndrome, Huntington disease, ataxias, as well as subsets of amyotrophic lateral sclerosis and frontotemporal dementia. In this talk, I will discuss the progress we made in developing isogenic human stem cell-based models of triplet repeat disorders, focussing on Huntington disease as an example. I will further provide an example of how these models can be applied towards understanding disease mechanisms and inferring the physiological significance of tandem repeats.

Biography
Mahmoud Pouladi is a Principal Investigator within the Translational Lab in Genetic Medicine (TLGM) at the Agency for Science, Technology, and Research (A*STAR). He is also an Assistant Professor at the Department of Medicine, the National University of Singapore (NUS), and is the Associate Director of TLGM. He has been the recipient of a number of awards and distinctions including the Canadian Institutes of Health Research Brain Star Award, and the British Columbia Innovation Council's Ripples of Hope Award in Biotechnology & Entrepreneurship. Dr. Pouladi's research aims to understand how discrete genetic factors contribute to the development of neurological disorders. His lab develops isogenic human pluripotent stem cells and transgenic animals to model disease, with the goal of delineating novel approaches to influence outcomes for neurological disorders and in particular Huntington disease (HD) and Fragile X Syndrome (FXS), the most common genetic causes of dementia and intellectual disability, respectively.

ALL ARE WELCOME *(No registration required)*

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Thank you.