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Jockey Club College of Veterinary
Medicine and Life Sciences香港城市大學
City University of Hong Kong
in collaboration with Cornell University

JCC RESEARCH SEMINAR

TOPIC

Epitranscriptomics: a new biological frontier to transform life sciences and medicine

Dr. Dan Ohtan WANG

Team Leader

Laboratory of Neuroepitranscriptomics

RIKEN Center for Biosystems Dynamics Research

Japan

HONG KONG TIME

9 March 2022 (WED)

12:00 PM - 01:00 PM

Online Via ZOOM

Abstract:

Functional genomics and systems biology have opened new doors to previously inaccessible genomic information and holistic approaches to study complex networks of genes and proteins. However, our current understanding of these complex gene regulatory mechanisms has yet lacked sufficient mechanistic resolution for further translational breakthroughs. In my lecture, I will introduce the concept of epitranscriptomics, a burgeoning field to investigate the chemical and structural properties, physiological functions, and disease relevance of chemical RNA modifications. The new field is rapidly evolving and integrating with life sciences from cancer and stem cell biology, vaccine development, to neuroscience.

Speaker's Biography:

Ohtan is a Chinese neuroscientist trained in Japan and US. She studied molecular trafficking of GABA transporters under the guidance of Prof. Michael Quick at the University of Southern California for her Ph.D. After graduation, she worked as a postdoctoral fellow in Prof. Kelsey Martin's lab at UCLA where she developed a live-cell imaging technique to study protein synthesis in living neurons underlying learning and memory. In 2012, she started her own lab at Kyoto University and moved to RIKEN in 2021. Her lab currently focuses on dynamic RNA regulation in neurons and at the synapses. They recently developed a comprehensive catalog of messenger RNAs that carry a methyl group in adenosines at the tripartite synapses. Genes involved in neurodevelopmental and neuropsychiatric diseases were enriched in this modified transcriptome, suggesting special RNA regulations for synapse function.

ALL ARE WELCOME

REGISTRATION / ENQUIRIES

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