HONG KONG RNA CLUB

Seminar

25 Mar 2019 (Mon) / 4:30-5:30pm
B6-605, Yeung Kin Man Acad. Building (AC1)
City University of Hong Kong

Guest Speaker:

Prof. Naoki Sugimoto
Frontier Institute for Biomolecular Engineering Research
Konan University, Kobe, Japan

RNAs in Molecular Crowding World

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RNAs in Molecular Crowding World

Professor Naoki Sugimoto¹,²

¹FIBER (Frontier Institute for Biomolecular Engineering Research), and ²FIRST (Graduate School of Frontiers of Innovative Research in Science and Technology), Konan University, Kobe, Japan.

Abstract

Non-canonical structures of nucleic acids such as a triplex and a quadruplex are stabilized under conditions that mimic the crowded cellular conditions and have been detected in cells. It is possible that the non-canonical structures act as “functional codes” triggered by different molecular environments that regulate gene expression epigenetically.

In this lecture, I will talk how the structures, properties, and functions of nucleic acids differ under various conditions such as highly crowded environments and affect the gene expression (1). I also discuss quantitatively the effects of the chemical environments, especially crowding condition, on the gelation process of repeated RNAs in vitro, and the toxicity of RNAs in patients with neurodegenerative disorders.

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