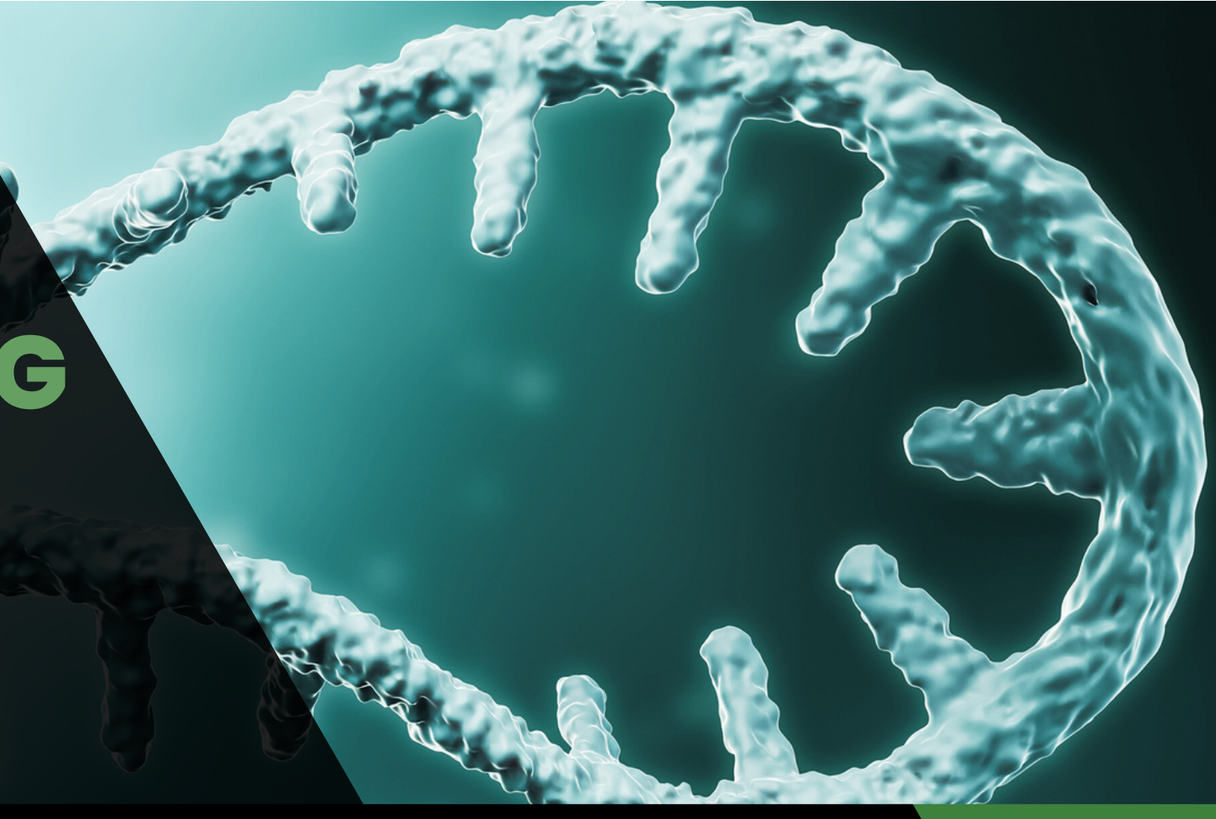
SINGAPORE RNA SEMINAR SERIES

MAPPING AND TARGETING OF RNA G-QUADRUPLEX STRUCTURES



Monday 14 October 2024
10.30am (SGT, GMT+8)

Via Zoom

About the speaker

Dr. Kit Kwok obtained his B.Sc. in Chemistry (2009) from the Chinese University of Hong Kong, after completing an exchange program at University of California, Los Angeles in 2007-2008. He completed his PhD in Pennsylvania State University (2014), mentored by Professor Philip C. Bevilacqua and Professor Sarah M. Assmann. In Apr 2014, Dr. Kwok worked as a Croucher Postdoctoral Fellow in University of Cambridge under Professor Sir Shankar Balasubramanian. In Oct 2016, Dr. Kwok's joined the City University of Hong Kong (CityU) as an Assistant professor and has been promoted to Associate professor in July 2021. Over the years, Dr. Kwok have received numerous awards, including CityU President Award (2019), Croucher Innovation Award (2019), Hong Kong Institute for Advanced Study Rising Star in Chemistry (2021), CityU Outstanding Research Award (2022), NSFC Excellent Young Scientist Fund (優青) (2022), RNA Society Early-Career Award (2024), and RGC Research Fellowship (2025). In 2022, he has been recognized as an elected member of Hong Kong Young Academy of Science (YASHK).

Dr. KWOK Chun Kit
Professor
Department of Chemistry, City University of Hong Kong

About the seminar

RNA G-quadruplexes (rG4s) have key roles in almost every biological process, including but not limited to transcription, RNA processing, and translation. In this talk, we will highlight RNA G-quadruplexes examples we found in the coding and non-coding RNAs and showcase their protein interacting partners and diverse functions in mammalian cells. Besides understanding their regulatory roles in fundamental biological processes, we will also demonstrate our lab's recent efforts in targeting them selectively using novel L-RNA aptamers. As rG4s have been associated with diseases such as cancers and neurological disorders, these newly developed molecular and chemical tools will have potential values in biology and medicine. Specific examples will be provided in this talk, and some unpublished data will be presented.

Co-organised by: Agency for Science, Technology and Research SINGAPORE; NUS National University of Singapore; NANYANG TECHNOLOGICAL UNIVERSITY SINGAPORE

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