HKU Med LKS Faculty of Medicine
Department of Pharmacology & Pharmacy
香港大學藥理及藥劑學系

Dr Li Dak-Sum Research Centre
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The University of Hong Kong

Department of Pharmacology and Pharmacy
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Present

Seminar series – Drug Delivery and Translational Medicine

Phase-separated molecular coacervates for intracellular delivery and cancer therapies

by

Prof. Jiang Xia

Professor
Department of Chemistry & School of Life Sciences
The Chinese University of Hong Kong

Date: 23 January 2025 (Thursday)
Time: 10:00 a.m. – 11:00 a.m.
Venue: Boardroom, 1/F, Daniel & Mayce Yu Administration Wing, LKS Faculty of Medicine, 21 Sassoon Road, Pokfulam, Hong Kong

Abstract:

A low-molecular-weight compound whose structure strikes a fine balance between hydrophobicity and hydrophilicity may form coacervates via liquid-liquid phase separation (LLPS) in the aqueous solution. These coacervates may encapsulate and convoy proteins and nucleic acids across the plasma membrane into the cell. We have devised a set of tools to release the cargo into the cytosol, utilizing the cell's redox potential, light, or chemical compounds, etc. The coacervate-delivery systems have been used in targeted protein degradation, immune cancer therapies, mRNA vaccines, etc.

Bio:

Prof. Jiang Xia is a professor in the Department of Chemistry and a professor by courtesy in the School of Life Sciences at The Chinese University of Hong Kong. He received Bachelor of Science (1995-1999) and Master of Science (1999-2002) from Nanjing University, Ph.D. from Stanford University (2002-2006), and postdoctoral training at Caltech and Howard Hughes Institute (2007-2008). He is also an Adjunct Professor at several universities and the founder or chief consultant of two companies. Prof. Xia became a Fellow of the Royal Society of Chemistry in 2021.

Moderator: Prof. Weiping Wang, Associate Professor, Department of Pharmacology and Pharmacy & Dr. Li Dak-Sum Research Centre, The University of Hong Kong
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Seminar series website QR code