

## SCIENTIFIC PROGRAM

### SESSION LECTURE

No. 31

Molecules, Make Life more Precise-2

Room: 311B

Co-Chairs: Zihe Rao



Nieng Yan



Day 2 October 28<sup>th</sup> (Sunday) 13:30 – 18:00

Time	Speaker	Title
13:30-14:00	<b>David Barford</b> <i>MRC Laboratory at Molecular Biology, Cambridge, UK</i>	Molecular basis for regulation of the anaphase-promoting complex by the spindle assembly checkpoint
14:00-14:30	<b>Nieng Yan</b> <i>Princeton University, USA</i>	Structural and mechanistic investigation of the human glucose transporters GLUTs
14:30-15:00	<b>Xiaodong Zhang</b> <i>Imperial College London, UK</i>	Structures and Mechanisms of Transcription Initiation and Its Regulation
15:00-15:30	<b>Tea Break</b>	
15:30-16:00	<b>Nancy Carrasco</b> <i>Yale University, USA</i>	TBD
16:00-16:30	<b>Rajini Rao</b> <i>Johns Hopkins University, USA</i>	Endosomal pH as a therapeutic Target of neurodegenerative disease
16:30-17:00	<b>Beili Wu</b> <i>Shanghai Institute of Materia Medica, CAS, China</i>	Structural basis of signal recognition and regulation at the full length glucagon receptor
17:00-17:30	<b>Jie-Oh Lee</b> <i>Korea Advanced Institute of Science and Technology Korea</i>	Application of rigid linkers for protein crystallization
17:30-18:00	<b>David Stuart</b> <i>University of Oxford, UK</i>	TBD



### Nieng Yan

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Professor, based on the studies on representative channels, uniporters, and secondary active transporters, Prof. Yan seek to unveil the governing principles of membrane transport, aiming to acquire their dynamic structures, to better comprehend how lipids modulate their activities, and to understand how disease-associated mutations cripple the normal functions of these membrane transport proteins.



### David Barford

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FRS, FMedSci, British medical researcher at the MRC Laboratory of Molecular Biology Cambridge, UK. The aims of his research are to understand the molecular mechanisms underlying the assembly of this large complex, its capacity to recognize and ubiquitinate proteins in a cell cycle-coordinated manner, and the structural basis for its control by the spindle assembly checkpoint.



### Xiaodong Zhang

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Professor Zhang's research programme focuses on unravelling the mechanisms of macromolecular machines using a range of structural biology techniques including X-ray crystallography and cryo-electron microscopy. She is particularly interested in large macromolecular assemblies involved in DNA processing, as well as the AAA (ATPase Associated with diverse cellular Activities) protein family.



### Nancy Carrasco

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Prof. Carrasco research on the Na<sup>+</sup>/I<sup>-</sup> symporter (NIS), the key plasma membrane protein that mediates active iodide transport in the thyroid, lactating breast, and other tissues, ranges from biochemical, biophysical, and physiological investigations to translational studies. She has served as president of the Society of Latin American Biophysicists.



### Rajini Rao

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Dr. Rajini Rao is a professor of physiology at the Johns Hopkins School of Medicine. Her area of research expertise is studying the roles of intracellular ion transport in health and disease.



### Beili Wu

[beiliwu@simms.ac.cn](mailto:beiliwu@simms.ac.cn)

Professor, Shanghai Institute of Materia Medica, Chinese Academy of Sciences. Professor Wu's research is focused on a deep understanding of the structural basis of G protein-coupled receptor signaling transduction, leading to the development of new therapeutics for severe human diseases.



### Jie-Oh Lee

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Dr. Jie-Oh Lee is a professor of Chemistry at Korea Advanced Institute of Science and Technology. His area of research expertise is studying the roles of cell surface receptors in health and disease.



### David Stuart

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FMedSci, FRS. Joint Head of the Division of Structural Biology at the University of Oxford and the Life Sciences Director at Diamond Light Source, Didcot. Prof Stuart's principal research interests include the structure of viruses and viral proteins as well as cellular proteins, especially those that interact with viruses.