SESSION LECTURE

No. 51

Protein Research Frontier

Room: 402AB

Co-Chairs: Zengyi Chang

Brian Matthews

Day3 October 29th (Monday) 8:30 – 12:00		
Time	**Speaker**	**Title**
8:30-8:40	**Brian Mathews** **Zengyi Chang**	Opening remarks
8:40-9:10	**Brian Mathews** *University of Oregon, USA*	Structural biology: getting in on the ground floor
9:10-9:40	**Maojun Yang** *Tsinghua University, China*	Life or death—breath: discovery of the composition of mitochondrial respiratory chain
9:40-10:10	**Carol Robinson** *Oxford University, UK*	Membrane proteins—the lipid connection
10:10-10:30	**Tea Break**	
10:30-11:00	**Demin Zhou** *Peking University, China*	Genomic manipulation on viral proteins in converting life-threatening viruses to precision therapeutic agents
11:00-11:30	**Marina Rodnina** *Max Planck Institute for Biophysical Chemistry, Germany*	The ribosome in action: the path of flawless translation
11:30-12:00	**Zengyi Chang** *Peking University, China*	Exploring proteins in living cells: Uncovering the quiescent body and a novel protein translocon

Zengyi Chang

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Dr. Chang is a professor of Biochemistry and Molecular Biology at Peking University. His research focuses on exploring proteins in living cells, covering such areas as protein (especially membrane protein) translocation, assembly, biogenesis and quality control. He is currently serving as the Executive Council Member for publications of the International Union of Biochemistry and Molecular Biology (IUBMB), President of the Federation of Asian and Oceanian Biochemists and Molecular Biologists (FAOBMB), a vice president of the Chinese Society of Biochemistry and Molecular Biology (CSBMB). Currently, he also serves as an associate editor of Protein Science and an editor of BBRC. He was a former president of the Asia Pacific Protein Association (APPA) and of the Chinese Protein Society.

Maojun Yang

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Working as a professor in School of Life Sciences, Tsinghua University from 2008 to now. Our lab are using the structural biology as a tool to define the biological questions and inhibitors designing of the cell mitochondrial protein complexes. Recently, our lab solved the high resolution Cryo-EM respiratory supercomplex and defiend that the electron transport chain complexes could form a whole megacomplex.

Marina Rodnina

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Marina Rodnina obtained her PhD in Molecular Biology in Kiev, Ukraine, and performed postdoctoral research at the University of Witten/Herdecke, Germany, funded by a research fellowship from the Alexander von Humboldt Foundation. She was appointed a university professor there and, from 2000 to 2009, held the chair of Physical Biochemistry. Since 2008 she is the head of the Department of Physical Biochemistry at the Max Planck Institute for Biophysical Chemistry in Goettingen, Germany. Marina Rodnina has developed novel approaches to study the function of the ribosome as a macromolecular machine. Her group pioneered the use of kinetic and fluorescence methods in conjunction with quantitative biochemistry to solve the mechanisms of translation. Marina Rodnina has over 180 publications in this research area. Since 2004 she has been an elected member of the European Molecular Biology Organization and since 2008 a Member of the German Academy of Sciences Leopoldina. She received the Hans Neurath Award of the Protein Society in 2015 and the Gottfried Wilhelm Leibniz Prize in 2016. Her current interests are focused on the dynamics of the ribosome and translation factors, and the mechanisms of translational recoding and co-translational folding.

Brian Matthews

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Prof. Matthews' research interests focus on the structure, function and folding of proteins. His group has determined the structures of a number of different proteins including the so-called Cro repressor. This study illustrated how a protein can bind to a specific site on DNA and regulate the expression of genetic information. Using the T4 lysozyme system, his group also pioneered the combination of genetic-engineering and crystallographic techniques to understand the basis of protein stability. They were the first to show that proteins of enhanced stability could be designed rationally. He is a Member of the U.S. National Academy of Sciences and the American Academy of Arts and Sciences and currently serves as Editor of Protein Science.

Carol Robinson

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Carol Robinson left school at 16 to take up a position as a laboratory technician with a pharmaceutical company. She completed her graduate education whilst working fulltime in this post and was subsequently admitted to the University of Cambridge where she completed her PhD in two years. Following an eight-year career break to begin raising her three children, she returned to research at Oxford where she subsequently took up a professorial post. In 2001, she accepted the position of Professor of Mass Spectrometry at the University of Cambridge, becoming the first female professor of chemistry at Cambridge. In 2009 she returned to Oxford to take up the Chair of Dr. Lee's Professor of Chemistry which she holds today. She has carried out groundbreaking research into proteins implicated in conditions such as cancer, schizophrenia and drug dependence.

Demin Zhou

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Prof. Zhou's research programs focus on the integration of chemistry into biology for development of chemicals and biotechnologies as anti-virus and anti-cancer drugs.