Frontiers in Biological Membranes

October 16-18, 2008
Purdue University, West Lafayette, Indiana

A symposium presented by the Purdue University Center for Basic and Applied Membrane Sciences

For program, registration, and travel information, visit www.purdue.edu/research/pubams

Session I
Structure-Function of Membrane Proteins

Keynote Speaker
William Weis, Stanford University
School of Medicine, Department of Structural Biology: “Structures of the Beta2-adrenergic Receptor”

Other Lecturers
Michael Rossmann, Purdue Department of Biological Sciences: “Structure and Function of Membrane in Enveloped Viruses”
Jue Chen, Purdue Department of Biological Sciences: “Structures of the OmpF Porin: The Colicin Outer Membrane Translocase”
Bill Cramer, Purdue Department of Biological Sciences: “Crystal Structure of the E. coli Maltose Transporter”

Session II
Membrane Receptors and Signaling

Keynote Speaker
Richard Anderson, University of Wisconsin Department of Pharmacology: “PIP Kinases and Phosphoinositide Signaling”

Other Lecturers
Phil Low, Purdue Department of Chemistry: “Folate-targeted Therapeutics for Cancer and Inflammation”
Marietta Harrison, Purdue Department of Medicinal Chemistry and Molecular Pharmacology: “Signaling from Golgi Membranes in T Cells”
R. Claudio Aguilar, Purdue Department of Biological Sciences: “Signaling Functions of the Endosytotic Machinery”

Session III
Membrane Transport and Intracellular Trafficking

Keynote Speaker
Robert Tampe, Institute of Biochemistry, Biocenter of the Johann Wolfgang Goethe University, Frankfurt, Germany: “Structure and Function of TPR, the Transporter Associated with Antigen Processing”

Other Lecturers
Amy Davidson, Purdue Department of Chemistry: “Using EPR to Detect Conformational Changes in the Maltose Transporter”
Angus Murphy, Purdue Department of Horticulture & Landscape Architecture: “The Membrane-anchored M1.10 Protease APM1 Characterizes an IRAP-like Endosomal Compartment in Arabidopsis”
Eric Barker, Purdue Department of Medicinal Chemistry and Molecular Pharmacology: “Exploration of Drug Binding Sites on the Antidepressant- and Cocaine-Sensitive Serotonin Transporter”

Session IV
Emerging Applications of Membrane Technologies

Keynote Speaker
Horst Vogel, Ecole Polytechnique Federale de Lausanne Institut de Science Biomoleculaire, Lausanne, Switzerland: “Investigating Cellular Signaling at the Nanometer and Attoliter Scale”

Other Lecturers
David Thompson, Purdue Department of Chemistry: “Development of a Supported Membrane Sensor for the Detection of Isoprenylcarboxymethyl Transferase Activity”
Ken Ritchie, Purdue Department of Physics: “Single Molecule Imaging of the Dynamic Structure of Membranes in Living Cells”
Ji-xin Cheng, Purdue Department of Biomedical Engineering: “Imaging Membrane by CARS Microscopy: From Domains in Supported Bilayer to Demyelination in Multiple Sclerosis”

The Purdue University Center for Basic and Applied Membrane Sciences (PUBAMS) fosters collaborations of membrane biology researchers who utilize biophysical, biochemical, and molecular biological approaches in their research. PUBAMS members expand the understanding of basic concepts and phenomena associated with biological membranes and strive to apply new ideas to improve human health, increase agricultural and biofuel production, and engineer new materials and devices through applied and fundamental membrane research.

For more information, visit www.purdue.edu/research/pubams.

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