Sunday, May 19th

3:00 pm Check-in

6:00 pm Reception *(Lobby)*

7:00 pm Dinner

8:00 pm **Keynote Lecture: Roderick MacKinnon**, HHMI/The Rockefeller University
The incredible diversity of potassium channels

9:00 pm Refreshments available at Bob's Pub

NOTE:
Meals are in the **Dining Room**
Talks are in the **Seminar Room**
Posters are in the **Lobby**

Monday, May 20th

All talks are 20 min + 10 min for Q&A

7:30 am Breakfast *(service ends at 8:45am)*

9:00 am **Session 1: ABC transporters**
Chair: Satchal Erramilli

9:00 am **Kaspar Locher**, ETH Zurich
Structure and reaction mechanism of bacterial oligosaccharyltransferase

9:30 am **Jue Chen**, HHMI/Purdue University
Carbon catabolite repression of the maltose transporter revealed by X-ray crystallography

10:00 am Break

10:30 am **Session 2: GPCRs**
Chair: Fai Siu

10:30 am **Krzysztof Palczewski**, Case Western Reserve University
Structural biology of the fundamental steps in vision

11:00 am **Raymond Stevens**, The Scripps Research Institute
Molecular recognition and signaling in the Human GPCR Superfamily

11:30 am **Reinhard Grisshammer**, National Institutes of Health
Structure of the agonist-bound neurotensin receptor NTS1

12:00 pm Lunch *(service ends at 1pm)*

1:00 pm Tour *(optional – meet at reception)*

2:15 pm **Session 3: Membrane transport**
Chair: Sureshkumar Ramasamy

2:15 pm **Wayne Hendrickson**, Columbia University
Membrane protein structures determined from multi-crystal SAD analyses

2:45 pm **Jeff Abramson**, University of California, Los Angeles
Complimenting crystallographic structures of the sodium/galactose transporter to enhance the mechanistic understanding of the transport cycle

3:15 pm **Jochen Zimmer**, University of Virginia
Structural basis for cellulose synthesis and membrane translocation

3:45 pm Break

4:15 pm Session 4: Ion Pumps and Rotors
Chair: Chi-Bao Bui

4:15 pm **Poul Nissen**, Aarhus University, Denmark
Structure, function and regulation of ion pumps

4:45 pm **John Rubinstein**, The Hospital for Sick Children
Electron cryomicroscopy of rotary ATPases

5:15 pm **Daniela Stock**, Victor Chang Cardiac Research Institute
Structure and dynamics of biological rotary motors

5:45 pm Poster Reception

7:15 pm Dinner

8:15 pm Refreshments available at Bob's Pub

Tuesday, May 21st

7:30 am Breakfast *(service ends at 8:45am)*

9:00 am **Session 5: Ion channels**
Chair: Bonnie Wallace

9:00 am **William Catterall**, University of Washington School of Medicine
Sodium channel structure and function at atomic resolution

9:30 am **Kenton Swartz**, National Institutes of Health
Structure and gating mechanisms of ATP-activated P2X receptor channels

10:00 am **Matt Whorton**, Rockefeller University
X-ray structure of the mammalian G protein-gated K+ channel GIRK2 in complex with the βγ G protein subunits

10:30 am Break

11:00 am **Session 6: Gated channels**
Chair: Lei Chen

11:00 am **Eric Gouaux**, HHMI/Oregon Health & Science University
Architecture and mechanism at chemical synapses

11:30 am **Douglas C. Rees**, HHMI/California Institute of Technology
Structure and mechanism of bacterial mechanosensitive channels

12:00 pm **Raimund Dutzler**, University of Zurich
Activation and inhibition of prokaryotic pentameric ligand-gated ion channels

12:30 pm Lunch *(service ends at 1pm)*

2:00 pm **Session 7: Secondary transporters**
Chair: Tamir Gonen

2:00 pm **Ming Zhou**, Baylor College of Medicine
Structural basis of the alternate-access mechanism in a sodium ion-dependent bile acid transporter

2:30 pm **Da-Neng Wang**, Skirball Institute
Structure and mechanism of a bacterial INDY homolog — A sodium-dependent carboxylate transporter involved in fatty acid synthesis and obesity

3:00 pm **Katherine Henzler-Wildman**, Washington University
Small multidrug resistance efflux pumps: Motion, mechanism, and multidrug recognition

3:30 pm Break

4:00 pm **Session 8: Other methods to study membrane proteins**
Chair: **Myriam Duckely**

4:00 pm **James Chou**, Harvard Medical School
The minimalist architectures of viral channels and their implication to therapeutic intervention

4:30 pm **Hans Hebert**, Karolinska Institutet
Structural studies of eicosanoid and glutathione metabolism proteins and larger complexes

5:00 pm **Justin Taraska**, National Institutes of Health
Accurate high-throughput structure mapping and prediction with transition metal ion FRET

5:30 pm Poster Reception

7:00 pm Dinner

8:00 pm Refreshments available at Bob's Pub

Wednesday, May 22nd

7:30 am Breakfast *(service ends at 8:45am)*

9:00 am **Session 9: Gap junction and respiratory complexes**
Chair: Andrew Waight

9:00 am **Mark Yeager**, University of Virginia
X-ray structures of the human Cx26 gap junction channel suggest an electrostatic model for calcium-mediated ion selectivity and a mechanism for channelopathies

9:30 am **Leonid Sazanov**, Medical Research Council (MRC)
Structure and mechanism of respiratory complex I

10:00 am Break

10:30 am **Session 10: β-barrel proteins and bacterial secretion system**
Chair: Susan Buchanan

10:30 am **Nicholas Noinaj**, National Institutes of Health
Structural insights into the role of BamA in the biogenesis of beta-barrel membrane proteins in Gram-negative bacteria

11:00 am **Bert Van den Berg**, University of Newcastle
Toxic waste cleanup: Understanding OM transport of hydrophobics as the first step in biodegradation

11:30 pm **Gabriel Waksman**, University College London
Transport through membranes by a bacterial secretion nano machine

12:00 pm Lunch and departure *(To-go boxes available in servery for those on first shuttle)*

12:30 pm First shuttle to Dulles
1:30 pm Second shuttle to Dulles
2:30 pm Last shuttle to Dulles