

Membrane Proteins in Health and Disease

Wednesday, April 11 to Sunday, April 15, 2018

The Banff Centre
Banff, Alberta, Canada

Sunday April 8 to Tuesday April 10, 2018

International Research Training Group in Membrane Biology
Joint Alberta-Germany Symposium

Wednesday April 11, 2018

SATELLITE MEETINGS:

The Membrane Proteome of pH Homeostasis (9:00 AM – 12:00 noon)

Max Bell Building, Room 251

SMALP 2018: Overcoming Bottlenecks in Membrane Biology (9:00 AM – 5:00 PM)

Max Bell Building, Auditorium

Wednesday April 11, 2018

Main Meeting Begins

61st Annual Meeting of the Canadian Society for Molecular Biosciences

Membrane Proteins in Health and Disease

All sessions will be held in the Max Bell Building Auditorium, unless otherwise indicated.

All coffee breaks will be held in the Husky Energy Foyer.

3:00 – 8:00 PM

Registration Opens

Max Bell Building, Husky Energy Foyer

4:30 – 6:00 PM

Career Skills Workshop, all trainees welcome!

Max Bell Building, Room 251

Drs. Joanne Lemieux and Joe Casey will lead a discussion on how to network in a professional manner to develop connections and enhance opportunities in today's ever-expanding job market for those with graduate studies in the sciences.

3:00 – 6:00 PM

CSMB Board Meeting, Kinear Centre, Room 201

6:00 – 7:20 PM

Dinner, Vistas Dining Room

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- 7:20 – 8:15 PM **Opening Remarks: Howard Young & Todd Alexander**
Opening Lecture: David Stokes, New York University
“How to put a channel to work: Pumping mechanism of the Kdp membrane complex.”
- 8:15 – 11:00 PM **Opening Mixer with light snacks & cash bar**
Max Bell Building, Husky Energy Foyer

Thursday April 12, 2018

- 7:00 – 8:30 AM **Breakfast, Vistas Dining Room**
- 8:30 – 9:10 AM **Arthur Wynne Gold Medal Award Recipient**
Introductory remarks: Philip Hieter
Mona Nemer, Director of the Molecular Cardiology Unit, University of Ottawa
Chief Science Advisor, Government of Canada
“From gene discovery to policy: why we need more science and scientists”
- Symposium – Membrane Proteins in Need of Therapy**
Session Chair: Joseph Casey, University of Alberta
- 9:10 – 9:40 AM **Gaia Novarino**, Institute of Science and Technology Austria, “Impaired amino acid transport is a cause of autism spectrum disorder”
- 9:40 – 10:10 AM **Joseph Mindell**, NIH NINDS, “Protons to Patients: Insights into the role of the chloride transporter CIC-7 in lysosomal function”
- 10:10 – 10:30 AM **Coffee Break & Meet the Speakers**
- 10:30 – 11:00 AM **Joanne Lemieux**, University of Alberta, “Making the Cut: The role of intramembrane proteolysis in Parkinson’s disease”
- 11:00 – 11:30 AM **Anika Hartz**, University of Kentucky, “P-gp in Alzheimer’s Disease: Novel strategies to improve A β clearance”
- 11:30 – 12:00 noon **Rajini Rao**, John Hopkins University, “Calcium and Cancer: The role of SPCA2 in breast tumor growth and progression”
- 12:00 – 1:30 PM **Lunch, Vistas Dining Room**

CSMB Awards Symposium

- 1:30 – 1:40 PM **Award remarks: Philip Hieter, CSMB President**
- 1:40 – 2:10 PM **The CSMB New Investigator Award**
Dr. Katey Rayner, University of Ottawa Heart Institute and Department of Biochemistry
“Inflammatory macrophages in the vessel wall: Should I stay or should I go?”

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- 2:10 – 2:40 PM** **The Canadian Science Publishing Senior Investigator Award**
Dr. Rick Rachubinski, Cell Biology, University of Alberta.
“The invaluableeness of model organisms for understanding the roles of peroxisomes in health and disease”
- 2:40 – 4:00 PM** **Annual General Meeting of the Canadian Society for Molecular Biosciences**
- 4:00 – 6:00 PM** **Poster Session One**
Max Bell Building Room 251 (Posters #1-17), Room 252 (Posters #18-35) and Room 253 (Posters #36-51)
- 6:00 – 7:30 PM** **Dinner, Vistas Dining Room**

Symposium – Structure, Function and Physiology of Ion Channels

Session Chair: Elaine Leslie, University of Alberta

- 7:30 – 8:00 PM** **Isabelle Bacongus**, Vollum Institute, Oregon, “Towards the structure of epithelial sodium channel”
- 8:00 – 8:30 PM** **Barbara Niemeyer**, Saarland University, “Identification of new regulatory mechanisms tuning store-operated calcium entry”
- 8:30 – 9:00 PM** **Break & Meet the Speakers**
- 9:00 – 9:30 PM** **Harley Kurata**, University of Alberta, “Moment-to-moment regulation of neuronal potassium channels by unexpected accessory proteins”
- 9:30 – 10:00 PM** **Tuan Trang**, University of Calgary, “Pain, poppies, and pannexin-1 channels”

Friday April 13, 20148

- 7:00 – 8:30 AM** **Breakfast, Vistas Dining Room**

Symposium – Structure, Function and Physiology of Transporters

Session Chair: Michael Overduin, University of Alberta

- 8:30 – 9:00 AM** **Susan Cole**, Queen’s University, “Protein-protein interactions and membrane localization of the ABCC4 organic anion transporter”
- 9:00 – 9:30 AM** **Bruce Morgan**, University of Kaiserslautern, “Identification and characterization of novel intracellular glutathione transporters in *Saccharomyces cerevisiae*.”
- 9:30 – 10:00 AM** **Mark Parker**, University of Buffalo, "Signs of proximal renal tubular acidosis without acidemia in an *Nbce1b*-null mouse"
- 10:00 – 10:30 AM** **Coffee Break & Meet the Speakers**
- 10:30 – 11:00 AM** **Leonid Sazanov**, Institute of Science and Technology Austria, "Structure and mechanism of respiratory complex I: from bacterial to mammalian systems"
- 11:00 – 12:00 PM** **Speakers selected from abstracts**
Eitan Hoch, Broad Institute of MIT and Harvard
Maria Ioannou, Janelia Research Campus

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Elaine Leslie, University of Alberta
Grant Kemp, Stockholm University

12:00 – 12:20

Group Photo

12:20 – 1:30 PM

Lunch, Vistas Dining Room

Free afternoon

3:00 – 4:00 PM

Career Mentoring Session – Drs. Mona Nemer and Jim Woodgett will lead a discussion on science policy and science advocacy in Canada.

4:00 – 6:00 PM

Poster Session Two

Max Bell Building Room 251 (Posters #52-68), Room 252 (Posters #69-85) and Room 253 (Posters #86-103)

5:30 – 6:00 PM

NSERC Information Session on Discovery Grants, Life Sciences

6:00 – 7:30 PM

Dinner, Vistas Dining Room

Symposium – Membrane Protein Function & Biogenesis

Session Chair: Emmanuelle Cordat, University of Alberta

7:30 – 8:00 PM

Martin van der Laan, Saarland University, "Biogenesis and functional architecture of mitochondrial membranes"

8:00 – 8:30 PM

Ellen Lumpkin, Columbia University, "Mechanosensing at the surface: Excitatory signaling in touch receptors"

8:30 – 9:00 PM

Break & Meet the Speakers

9:00 – 9:30 PM

Lisa Munter, McGill University, "The role of rhomboid protease RHBDL4 in Alzheimer's disease."

9:30 – 10:00 PM

Nina Jones, University of Guelph, "Phosphorylation-dependent signaling by the podocyte membrane protein nephrin regulates filtration barrier integrity"

Saturday April 14, 2018

7:00 – 8:30 AM

Breakfast, Vistas Dining Room

Keynote Speaker

8:30 – 9:15 AM

Sriram Subramaniam, National Cancer Institute, Center for Cancer Research
"Cryo-EM of Dynamic Molecular Assemblies"

Symposium – Molecular Events in Membrane Signaling

Session Chair: Larry Fliegel, University of Alberta

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- 9:15 – 9:45 AM** Terry Hebert, McGill University, “What can we learn from conformational profiling of GPCRs?”
- 9:45 – 10:15 AM** Janos Peti-Peterdi – Keck School of Medicine, USC, “A new mechanism of endogenous nephron repair”
- 10:15 – 10:45 AM** Coffee Break & Meet the Speakers
- 10:45 – 11:15 AM** Derek Bowie, McGill University, “Structural underpinnings of glutamatergic signaling”
- 11:15 – 12:00 PM** Speakers selected from abstracts
Oana Caluseriu, University of Alberta
Franck Duong, University of British Columbia
Afshan Ardan, Wilfrid Laurier University

Lunch 12:00 – 1:30 PM

Symposium – Molecular Insights into Membrane Biology

Session Chair: Harley Kurata, University of Alberta

- 1:30 – 2:00 PM** Poul Nissen, Aarhus University, “Structure and dynamics of P-type ATPases”
- 2:00 – 2:30 PM** Christopher Koth, Genentech, “Structural basis for selective small molecule antagonism of the LPS transporter MsbA.”

2:30 – 3:00 PM Coffee Break & Meet the Speakers

- 3:00 – 3:30 PM** John Rubinstein, Hospital for Sick Children, “Electron cryomicroscopy of rotary ATPases”
- 3:30 – 4:30 PM** Speakers selected from abstracts
Marta Barniol-Xicota, KU Leuven
Bastien Casu, University of Montreal
Jinhong Hu, University of British Columbia
Corina DeKraaker, McGill University

4:30 – 6:00 PM Free time

6:00 – 6:40 PM Membrane Proteins in Health and Disease Honorary Lecture

Introductory remarks: Todd Alexander

Joseph Casey, University of Alberta

“Correcting Defective SLC4A11 to Treat Corneal Dystrophy”

6:40 – 7:20 PM Arthur Wynne Gold Medal Award Recipient

Introductory remarks: Philip Hieter

Jim Woodgett, Medical Biophysics & Director of the Lunenfeld-Tanenbaum Research Institute, University of Toronto

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“How to make the case for fundamental science: Thoughts from a simple protein kinase”

Banquet Dinner & Dance 7:30 – 12:00 Midnight

Sunday April 15, 2018

7:00 – 9:00 AM Breakfast, Vistas Dining Room

Symposium – New and Notable in Membrane Biology

Session Chairs: Howard Young and Todd Alexander, University of Alberta

9:00 - 10:00 AM **Speakers selected from abstracts**
Voula Kanelis, University of Toronto, Mississauga
Kristen Baetz, University of Ottawa
Peter Tieleman, University of Calgary
Jana Broecker, Heptares Therapeutics

10:00 - 10:30 AM Coffee Break & Meet the Speakers

10:30 – 11:00 **Jan Rainey, Dalhousie University, "Membrane catalysis and ligand-receptor interactions in the apelinergic system"**

11:00 - 11:30 AM **Chris Brett, Concordia University, "Lysosome nutrient transporter lifetimes defined by the IntraLuminal Fragment pathway"**

11:30 – 12:00 AM **Trevor Moraes, University of Toronto, "Investigations of Slam: A translocon for surface lipoproteins"**

12:00 – 1:30 PM Lunch, Vistas Dining Room

End of CSMB Annual Meeting