

Ion Channel Modulation Symposium
Wednesday, October 20 – Thursday, October 31, 2019
Royal Sonesta Hotel, Cambridge, MA

Agenda – October 30, 2019

Time	Activity/Topic	Details/Speaker
8:00 a.m.	Registration	Coffee & tea
9:00 a.m.	Welcome Remarks	Thais T Johansen, Sophion Bioscience A/S and John Dunlop, Amgen

Session 1 - Chair: Dr Andrew Marks - Columbia University

9:15 a.m.	<i>Architecture of the proteolysis-regulated epithelial sodium channel</i>	Dr Isabelle Baconguis - Vollum Institute
9:40 a.m.	<i>Regulation of ion channels by distribution of phospholipids in mouse sperm</i>	Professor Yasushi Okamura - Osaka University
10:05 a.m.	<i>L-type Ca²⁺ channel neural mechanisms in neuropsychiatric-related behavior</i>	Professor Anjali Rajadhyaksha - Weill Cornell Medical College
10:30 a.m.	Exhibits and Posters Session	Coffee & Tea

Session 2 - Chair: Professor Derek Bowie - McGill University

11:15 a.m.	<i>Structure and Function of Ryanodine Receptor in Disease of Heart and Skeletal Muscle</i>	Dr Andrew Marks - Columbia University
11:40 a.m.	<i>Molecular Mechanisms of TRPV Channels Gating Revealed by Cryo-EM</i>	Dr Vera Moiseenkova-Bell - University of Pennsylvania
12:05 p.m.	<i>Discovery of Functional Monoclonal Antibodies against Kv1.3 and KCa3.1 using the TetraExpressTM Protein Expression Platform</i>	Dr Paul Colussi - TetraGenetics
12:30 p.m.	Lunch	

Session 3 - Chair: Professor Diane Lipscombe - Brown University

2:00 p.m.	<i>Decrypting human ion channel variants of unknown significance</i>	Professor Al George - Northwestern University
2:25 p.m.	<i>Direct activation of potassium channels by neurotransmitters and ancient medicines</i>	Professor Geoffrey Abbott - University of California, Irvine
2:50 p.m.	<i>Ion channel targeted therapy for a rare disease</i>	Dr Anna Greka - Broad Institute
3:15 p.m.	<i>Strategies for selective neuronal inhibition</i>	Professor Bruce Bean - Harvard University
3:40 p.m.	Reception and Poster Session	
5:30 p.m.	Group Photo and Dinner	

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8:00 a.m.	Coffee & tea	
9:00 a.m.	Welcome Remarks	
Session 4 - Chair: Dr John Dunlop - Amgen		
9:05 a.m.	<i>Structural basis for pharmacological modulation of the TRPC6 channel elucidated by cryo-EM</i>	Dr Yonghong Bai - Amgen
9:30 a.m.	<i>Structural underpinnings of ionotropic glutamate receptor activation</i>	Professor Derek Bowie - McGill University
9:55 a.m.	<i>Regulation of cellular signaling by potassium channels</i>	Professor Len Kaczmarek - Yale University
10:20 a.m.	Exhibits and Posters Session	Coffee & Tea
Session 5 - Chair: Dr John Dunlop - Amgen		
11:00 a.m.	<i>Artificial cell membrane platforms for functional analyses and drug screenings of ion channels</i>	Professor Toshihisa Osaki - University of Tokyo
11:25 a.m.	<i>Using optogenetic assays to identify sodium channel inhibitors as pain therapeutics</i>	Dr Owen McManus - Q-State Biosciences
12:10 p.m.	<i>Potassium channel activity unveils cancer vulnerability: from signaling controlling tumor growth and metastasis to precision medicine</i>	Dr Saverio Gentile - University of Illinois
12:15 p.m.	Lunch	
Session 6 - Chair: Professor Derek Bowie - McGill University		
1:15 p.m.	<i>Cell-specific control of neuronal calcium channel composition: Mechanism, Function and Disease</i>	Professor Diane Lipscombe - Brown University
1:40 p.m.	Multi-modality approach to identify Nav1.7 inhibitors for pain	Dr Bryan Moyer - Amgen
2:05 p.m.	<i>Voltage-gated Ca²⁺ channels of the retina: new insights into Cav1.4 channelopathies</i>	Professor Amy Lee - University of Iowa
2:30 p.m.	Break	Coffee & Tea
Session 7 - Chair: Professor Diane Lipscombe - Brown University		
3:10 p.m.	<i>TTX-sensitive sodium channels mediate action potential firing in mentholsensitive neurons of the dorsal root ganglion</i>	Professor Ellen Lumpkin - University of California, Berkeley
3:35 p.m.	<i>Towards more physiological assays: iPSC-derived neurons tested on the 384 channel automated patch clamp platform Qube</i>	Dr Daniel Sauter - Sophion Bioscience
4:00 p.m.	Wrap Up	