

MPS 2025 Schedule

Napa California,
April 30th - May 1st 2025

Wednesday, April 30th

7:30 - 8:30 am

Arrival, Breakfast, & Poster Set Up

8:30 - 8:45 am

**Dr. Niels Fertig - Nanion CEO, and
Wyatt Hall - Nanion Director of Sales**

Welcome Introduction

Keynote 8:45 - 9:30 am

Dr. Mustafa Djamgoz - Imperial College London

Renaissance of Ion Channels: From a Plethora of Cell Types to the Most Complex Pathophysiologicals

9:30 - 10:00 am

Dr. Brooke Ahern - US Army DEVCOM

Using Toxins as Tools to Understand Unknown Hazards to the Warfighter

10:00 - 10:30 am

Dr. Al George Jr. - Northwestern University

Selective Recording of DRG Neuron Subtypes Using Optogenetic Automated Patch Clamp

10:30 am - 11:15 am

Networking Session & Morning Break

11:15 - 11:45 am

Dr. Teresa Giraldez - Universidad de La Laguna

GRIN2B Disease-Associated Mutations Disrupt the Function of BK Channels & NMDA Receptor Signalling Nanodomains

11:45 - 12:15 pm

Dr. Tamer Gamal El-Din - University of Washington

Two Pores Instead of One: Gating Pore Current and the Electrical Leak in Autism

12:15 - 1:45 pm

Lunch Break & Networking Session

1:45 - 1:55 pm

Dr. Elena Dragicevic - Nanion Technologies

Impedance-Based Cellular Profiling: A High-Resolution Window into iPSC-Cardiomyocyte Behavior and Drug Response

1:55 - 2:25 pm

Dr. Heike Wulff - University of California Davis

Kv1.3 and KCa3.1 as Therapeutic Targets for Reducing Neuroinflammation in Ischemic Stroke

2:25 - 2:55 pm

Dr. Merritt Maduke - Stanford University

Voltage-gated Chloride Channels

2:55 - 3:25 pm

Dr. Baron Chanda - Washington University in St Louis

A Propofol Binding Site in the Voltage-Sensor Domain Mediates Inhibition of HCN1 Channel Activity

3:25 - 3:55pm

Afternoon Break - Networking Session

3:55 - 4:25 pm

Dr. Hiro Furukawa - Cold Spring Harbor Laboratory

Structural Insights into Functions of NMDA Receptors in Basic Neurobiology and Neuroimmunology

4:25 - 4:55 pm

Dr. Gerald Zamponi - University of Calgary

Post translational Modification of Cav3.2 Channels as a Molecular Target for Pain

4:55 - 5:25 pm

Dr. Dave Weaver - Biohaven Pharmaceuticals

Advances in Monovalent Cation Flux Assay & Their Utility for Measuring the Activity of Ion Channels, Transporters GPCRs

5:25 - 5:55 pm

Dr. Matthias Quick - Columbia University

Functional Characterization of Transport-Associated Ion Flux Across Biological Membranes

6:30 - 9:00 pm

Dinner Hosted by Nanion Technologies

Thursday, May 1st

7:30 - 8:30 am

Arrival, Breakfast, & Networking Session

Keynote 8:30 - 9:15 am

Dr. Adam Cohen - Harvard University

Mapping Bioelectrical Signals in Vivo

9:15 - 9:45 am

Dr. Olive Burata - University of California

Peripheral Positions Encode Transport Specificity in the Small Multidrug Resistance Exporters

9:45 - 10:15 am

Dr. David Chiang - BWH Harvard

TBA

10:15 - 11:00 am

Networking Session & Morning Break

11:00 - 11:30 am

Dr. Howard Young - University of Alberta

Conformation-dependent regulation of the SERCA Calcium Pump by Small Transmembrane Peptides.

11:30 - 12:00 pm

Dr. Isabelle Deschenes - The Ohio State University

Arrhythmia Mechanisms in Single Ventricle Disease

12:00 - 12:30 pm

Dr. John Graef - Sarepta Therapeutics

DMD Cardiomyopathy and the Impact of Gene Therapy

12:30 - 12:45 pm

Dr. Jim Brady

Enabling Rapid Cell-based Assay Development with Scalable Electroporation

12:45 pm - 2:15 pm

Networking Session & Lunch

2:15 - 2:45 pm

Dr. Terry Hébert - McGill University

Combining Induced Pluripotent Stem Cells and Biosensors for GPCR-Based Drug Discovery

2:45 - 3:15 pm

Dr. Joseph Munier - Ionis Pharmaceuticals

Maturation of Human Induced Pluripotent Stem Cell-Derived Cardiomyocytes with TDIS Enables Scalable Measure of Physiological Action Potential Durations.

3:15 - 3:45 pm

Dr. Filip Van Petegem - University of British Columbia

Structural & Functional Investigation of Ryanodine Receptor Pharmacology & Pathophysiology High-Resolution Structures of Ryanodine Receptors in Health & Disease

3:45 - 4:45 pm

Exhibitor Booth Break Down

4:45 - 6:45 pm

Wine Tasting

