



Esplanade Room 157: Tuesday, February 24

11:30 AM – 1:00 PM

Sophion Bioscience

Expanding the Reach of Automated Patch Clamp: From Computational Design to Organellar and Natural Product Ion Channel Assays

Automated patch clamp (APC) technology has transformed ion channel research by enabling high-throughput, high-fidelity electrophysiological recordings that were once limited to manual approaches. Sophion Bioscience, a leader in APC instrumentation, continues to push the boundaries of what can be measured; from complex primary cell assays to challenging organellar and transporter recordings. This exhibitor-hosted event highlights recent advances and diverse applications of APC across academic and translational research.

Dr. Hai Minh Nguyen (UC Davis) will discuss how computational peptide design and APC-based functional validation can accelerate the development of selective ion channel modulators. Dr. Daniel Sauter (Sophion Bioscience) will present new APC workflows optimized for recording small current amplitudes such as single channels and transporters. Dr. Rian Manville (UC Irvine) will demonstrate how APC enables systematic screening and characterization of plant-derived compounds with ion channel activity.

Together, the speakers will illustrate how innovations in automated patch clamp technology are driving new directions in ion channel discovery, from molecular design and assay development to translational applications.

Speakers

Rian Manville, Assistant Project Scientist, University of California, Irvine

Hai Nguyen, Associate Project Scientist, University of California, Davis

Daniel Sauter, Application Science Manager, Sophion Bioscience