

The image shows a Nanonion electrochemical workstation. In the foreground, there is a grey control panel with a glowing blue 'ON' button, two USB ports, and a terminal block with three ports labeled 'A', 'C', and 'B'. White and blue cables are connected to these ports. In the background, a black electrochemical cell is visible, featuring two white electrolyte reservoirs and a central electrode assembly. To the right, there are two black circular electrode holders with multiple circular wells. The overall scene is a laboratory setting for electrochemical analysis.

Nanonion
User Meeting USA

2019

Tuesday May 28



7:30 – 8:20 AM ▶ **Arrival & Breakfast, Harbor View Ballroom**
Poster Set Up, Beacon Room

8:20 – 8:45 AM ▶ **Welcome and introduction**
Rodolfo Haedo & Dr. Niels Fertig, Nanion Technologies



Tuesday Morning Session 1:

8:45 – 9:30 AM ▶ **Keynote: Fluorescent ion indicators and automated, parallel electrophysiology: two things that go great together**
Dr. Charles David Weaver, Vanderbilt University



9:30 – 10:00 AM ▶ **Next level functional readouts on human-induced pluripotent stem cell-derived cardiomyocytes**
Dr. Tromondae K. Feaster, FUJIFILM Cellular Dynamics, Inc.

10:00 – 10:30 AM ▶ **Mechanobiology of in vitro assays: tackling prevailing challenges in pre-clinical drug development**
Dr. Matthias Gossmann, InnoVitro GmbH



10:30 – 11:00 AM ▶ **Application of high-throughput automated patch-clamp techniques to study 'ion channel function in cultured primary rat cortical and hypothalamic neurons'**
Dr. May Fern Toh, Alkermes



11:00 – 11:40 AM ▶ **Coffee Break / Poster Presentations**

Tuesday Morning Session 2

11:40 – 12:10 PM ▶ **Dopamine and morphine receptor interactions in the spinal cord: possible new targets for the treatment of sensory dysfunctions**
Dr. Stefan Clemens, East Carolina University



12:10 – 12:40 PM ▶ **The elusive Nav1.7 and the quest for a non-opioid pain killer: antibodies and VhHs**
Dr. Marzia Martina, National Research Council Canada



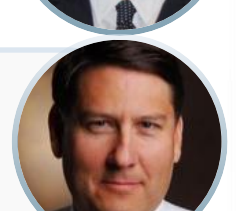
12:40 – 1:10 PM ▶ **An ex-vivo human model of pain for enabling translational research and drug discovery**
Dr. Anh-Tuan Ton, AnaBios Corporation



1:10 – 2:30 PM ▶ **Lunch**

Tuesday Afternoon Session 1

2:30 – 3:00 PM ▶ **Determining the function and pharmacology of epilepsy-associated KCNQ2 variants**
Dr. Alfred George, Northwestern University



3:00 – 3:30 PM ▶ **The therapeutic benefit of targeting potassium channel in metastatic breast cancer**
Dr. Saverio Gentile, University of Illinois



Tuesday May 28

3:30 – 4:10 PM ▶ Coffee Break / Poster Presentation

Tuesday Afternoon Session Next generation HTS Screening

4:10 – 4:40 PM ▶ **What is next in ion channel screening**
Dr. Andrea Brüggemann, Nanion Technologies

4:40 – 5:10 PM ▶ **Liquid handling: an update on new features**
Carl Messina, Beckman Coulter



5:10 – 5:40 PM ▶ Champagne Reception before proceeding to the New England Aquarium

Wednesday May 29

8:00 – 9:00 AM ▶ Arrival and Breakfast, Harbor View Ballroom

9:00 – 9:15 AM ▶ **Introduction**
Dr. James Costantin, Nanion Technologies



Wednesday Morning Session 1

9:15 – 10:00 AM ▶ **Keynote: Connexin channels: new roles and novel non-canonical properties**
Dr. Jorge Contreras, Rutgers New Jersey Medical School

10:00 – 10:30 AM ▶ **High throughput, high resolution electrophysiology for characterizing genetic variants of ion channels**
Dr. Jen Pan, Broad Institute

10:30 – 11:00 AM ▶ **Generation of a comprehensive GABA_A receptor screening platform using SyncroPatch 384PE**
Dr. David Dalrymple, SB Drug Discovery



11:00 – 11:45 PM ▶ Coffee Break / Poster Presentations

Wednesday Morning Session 2

11:45 – 12:15 PM ▶ **Using the Patchliner to profile selective state-dependent Cav2.2 calcium channel modulators with efficacy in preclinical animal models and human tissue**
Dr. Marc Rogers, Metrion Biosciences

12:15 – 12:45 PM ▶ **Sidedness of ion channel block evaluated with the SyncroPatch 384PE**
Dr. Jim Kramer, Charles River Laboratories



12:45 – 2:00 PM ▶ Lunch

Wednesday May 29

2:00 – 4:00 PM ▶ **Interactive Workshop**

Sharing is Caring

Søren Friis
Director Global Customer Relations

Dr. Andrea Brüggemann
Chief Scientific Officer

Dr. Tim Strassmaier
Senior Application Scientist



In this workshop you will learn from Søren Friis tips and experts tricks for your assay development on the SyncroPatch 384PE. Furthermore, the team will share its experience on data handling, troubleshooting and advise you on quality-assured buffer solutions and NPC chips.

Our experts are delighted to answer your questions.

Part One ▶ **Data handling – lab book and questionnaire**

- Introducing a clever cloud-based lab book.
- Coaching on how to store “analysis data combined with the assay run”.
- Presentation on extracting important parameters from historical runs.
- Interactive discussion and questionnaire.



Part Two ▶ **The impact of high quality buffer solutions for Patch Clamp Assays**

- Discussing DOS and DON'TS as well as concrete case studies on buffer solution troubleshooting.
- Introducing our updated buffer solution portfolio.
- Introducing our support box including a selection of buffer solution and NPC chips.



Part Three ▶ **NPC Chips: Which type to choose for which application**

- Introduction of various plate types
- Tips on choosing plate types for cell line optimization

