

Neuronal Models Symposium 2026: Organoids, NAMs, and Neural Circuit Assays for Disease and Drug Discovery | Program

Wednesday, September 16

9:00 - 9:30	Registration and Welcome Coffee	
9:30 - 9:40	Opening Remarks	
9:40 - 10:25	Keynote Talk	From Genes to Circuits: Convergent Molecular Signatures of Autism Dr. Tom Nowakowski University of California, San Francisco, United States
10:25 - 10:50	Scientific Talk	Brain Organoids as Platforms for Understanding and Treating Neurological Disorders Dr. Silvia Velasco Novo Nordisk Foundation Center for Stem Cell Medicine, reNEW Melbourne, Australia
10:50 - 11:00	Short Talk	An Integrated Platform Combining Longitudinal High-Density MEA Electrophysiology and On-Chip Signal-Amplified Spatial Transcriptomics in Human iPSC Neural Networks Aayush Marishi ETH Zürich, Switzerland
11:00 - 11:20	Product Update	From Activity to Insight: Functional Phenotyping with HD-MEAs Dr. Marie Obien MaxWell Biosystems
11:20 - 11:50	Morning Coffee Break	
11:50 - 12:00	Short Talk	Isogenic Human Cerebellar Organoids Reveal RNA Processing and Translational Defects Underlying PCH2a Dr. Theresa Kagermeier Karlsruhe Institut für Technologie, Germany
12:00 - 12:15	Sponsored Session (Nanon)	Altered Excitability and Variation of Ion Channel activity in variants of ALS using iPSC-Derived Motor Neurons and High-throughput Automated Patch-Clamp Dr. David Colameo University of Zürich, Switzerland
12:15 - 12:40	Scientific Talk	High-Throughput Phenotyping and Neural Circuit Analysis in Brain Organoids: Morphology, Neuropharmacology, and Neuromodulation Xinyu Chen Fudan University, China
12:40 - 13:05	Special Session	Stem Cell Research and Biomanufacturing in Space Dr. Arun Sharma Cedars-Sinai Medical Center, United States
13:05 - 14:35	Lunch Break and Poster Session	
14:35 - 14:40	Sponsor Talk	Why Complexity Matters: Building Consistent Complex Neuronal Models to Enable Human-Relevant Discoveries Dr. Rebecca Northeast bit.bio, United Kingdom
14:40 - 14:50	Travel Grant Winner	Divergent Paths to Convergent Cortical Hyperactivity in CACNA1A Loss- and Gain-of-Function Forebrain Assembloids Arvin Sarkissian Emory University, United States
14:50 - 15:15	Scientific Talk	Human Neuronal Models Reveal XPO7 as a Regulator of Sodium Channel Function and Network Activity Dr. Jen Pan Broad Institute of MIT and Harvard, United States

15:15 - 15:40	Scientific Talk	Contextualizing Molecular Pathology through Network Dynamics in Human Brain Assembloids Dr. Ranmal Samarasinghe University of California, Los Angeles, United States
15:40 - 16:10	Panel Discussion	TBD
16:10 - 16:40	Afternoon Coffee Break	
16:40 - 16:50	Short Talk	Electrophysiological Mapping of Human Striatal Microcircuits Enables Parkinson's Disease Stratification Dr. Carles Calatayud Aristoy VIB – KU Leuven, Belgium
16:50 - 17:00	Short Talk	TBD Alexion AstraZeneca, United States
17:00 - 17:45	Keynote Talk	Cerebral Organoids: Growing Human Brain Tissue from Stem Cells to Study Development and Disease Prof. Jürgen Knoblich Institute of Molecular Biotechnology, Austria
17:45	Closing Remarks	

Thursday, September 17

9:00 - 9:30	Welcome Coffee	
9:30 - 9:35	Opening Remarks	
9:35 - 10:20	Keynote Talk	Human iPSC-Based Neuronal Models for ALS Disease Modeling, Drug Discovery, and Reverse Translation Prof. Hideyuki Okano Keio University, Japan
10:20 - 10:45	Scientific Talk	Human Spatial Genomics to Stem Cell Models: Circuit Vulnerability in Alzheimer's Disease Dr. Keri Martinowich Lieber Institute, United States
10:45 - 10:55	Short Talk	Engineering Vision In Vitro: Functional Light-Evoked Responses in Laminated Retinal Organoids Antonio Ortega Johns Hopkins University, United States
10:55 - 11:25	Morning Coffee Break	
11:25 - 11:35	Short Talk	TBD Giorgia Quadrato Lab, University of Southern California, United States
11:35 - 12:00	Scientific Talk	Village-Based Proliferation and Viability Assays Dr. Michael Wells University of California, Los Angeles, United States
12:00 - 12:25	Special Session	Publishing with Cell Press: Inside the Editorial Process Dr. Sheila Chari Cell Stem Cell, United States
12:25 - 13:55	Lunch Break and Poster Session	
13:55 - 14:05	Short Talk	TBD

14:05 - 14:15	Short Talk	TBD
14:15 - 14:40	Scientific Talk	Engineering Living Neuronal Networks: from Structure-Function Relationships to Bio-Inspired Computing Prof. Hideaki Yamamoto Tohoku University, Japan
14:40 - 15:05	Scientific Talk	Uncovering the origins of human neural syntax Dr. Tal Sharf University of California, Santa Cruz, United States
15:05 - 15:35	Afternoon Coffee Break	
15:35 - 15:45	Short Talk	Closed-Loop Reinforcement Trains the Spatial Origin of Network Bursts across Days in Cortical Cultures Dr. Wesley Clawson Tufts University, United States
15:45 - 15:55	Short Talk	TBD Yoshiho Ikeuchi Lab, The University of Tokyo, Japan
15:55 - 16:20	Scientific Talk	Engineering and Decoding Neuronal Circuits Dr. Mohammed Andres Mostajo-Radji University of California, Santa Cruz, United States
16:20 - 17:05	Keynote Talk	Interacting with Neuron Microcircuits 24/7 Prof. Janos Vörös ETH Zürich, Switzerland
17:05	Closing Remarks	
19:00	Dinner	

Friday, September 18

9:00 - 9:30	Welcome	
9:30 - 14:30	Recurrent Workshops	Microfluidic Patterning on High-Density Microelectrode Arrays Dr. Benedikt Mauer , Joël Kuchler ETH Zürich, Switzerland
		Plate -> Prompt -> Publish: Toward Full Lab Automation with Open Culture Science Dr. Tjitse van der Molen , Dr. Spencer Seiler , Dr. Kate Voitiuk Open Culture Science, United States
		How to Train your Organoid: An Introduction to BrainDance Dr. Mircea Teodorescu , Dr. Ash Robbins , Hunter Schweiger University of California Santa Cruz, United States
		Unlocking Functional Insights from Neural Organoids MaxWell Biosystems' Product & Application Team MaxWell Biosystems