Neuroscience 2025

San Diego, CA. November 15-19

Booth #835

Thank you for visiting our booth and we hope you enjoy your time at Neuroscience 2025. We encourage you to visit the posters below and speak to current Maestro MEA users about how our tools helped their research. For information about Axion news and giveaways during this conference, or a closer look at our many neural applications, please visit: axionbiosystems.com/axion-biosystems-sfn-2025.

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- **Astrocytes: Disease Mechanisms I:** Contribution of astrocytic Sparcl1 to cortical synaptic dysfunction in C9orf72-FTD/ALS. *R. A. Culibrk et al. Barrow Neurolog. Inst.* PSTR009.09 / C17
- **Developmental Disorders:** GxE in a dish: common genetic variants altering neurodevelopment in response to valproic acid, an environmental risk factor for autism. *A. B. Marquez Gonzalez et al. UNC at Chapel Hill.* LBP006.25 / LBP055

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- **Neurogenesis and Gliogenesis:** Robust production of parvalbumin interneurons and fast-spiking neurons from human medial ganglionic eminence organoids. *M. P. Walker et al. Univ. of Michigan.* LBP001.08 / LBP008
- **Nicotinic Acetylcholine Receptors:** Sar guided discovery of positive allosteric modulators of α9/α10 nicotinic acetylcholine receptors for the treatment of hidden hearing loss. *P. Sapkota et al. Idaho State Univ.* PSTR005.07 / B15
- **Oscillatory, Aperiodic, and Waveform Analysis of Electrophysiological Recordings:** Developmental trajectory of rhythmic and non-rhythmic spiking in hiPSC-derived cortical tissue. *A. Hutton et al. Univ. of California San Diego.* PSTR007.13 / B48

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- **Motorneuron-Muscle Interface and Muscle Physiology/Biochemistry:** Coupling Compartmentalized Microfluidic Platforms with MEA for Advancing Neuromuscular Junction Modeling. *N. Bagdadi. NETRI, France.* PSTR078.07 / Q3
- **Motorneuron-Muscle Interface and Muscle Physiology/Biochemistry:** Novel microfluidic chambers for longitudinal profiling of brain cortical organoids using graphene-based optical stimulation and microelectrode arrays. *T. Zhou et al. University of California San Diego.* LBP020.13 / LBP049

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- **Preclinical Pain Models and Measurements:** Digital Signature Library: using neurons as universal bio-digital sensors. *A. Toma. NETRI, France.* PSTR117.09 / G11
- **Preclinical Pain Models and Measurements:** Neuron-as-a-sensor : a detailed method to map CIPN. *B. Maisonneuve. NETRI, France.* PSTR117.08 / G10

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- **Electrophysiology: Electrode Arrays I:** Optimization of electrical stimulation in microelectrode arrays to reduce variability in functional assays of neuronal network activity. *S. A. Chvatal et al. Axion BioSystems.* PSTR196.12 / WW1
- **Mechanisms and Propagation of Alpha-Synuclein:** Neuroprotective mechanisms of endosulfine-alpha in cellular models of Parkinson's Disease. *G. Drafor et al. Purdue Univ.* PSTR158.02 / D29
- **Synaptic Plasticity and Structural Remodeling: Mechanisms Shaping Brain Function and Dysfunction:** Selective Blockade of Microtubule Invasion into Dendritic Spines Illuminates Cytoskeletal Roles in Synaptic Plasticity. *H. L. Miller et al. Univ. of Wisconsin.* PSTR152.11 / B29

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- **Spinal Pain Mechanisms and Circuitry:** Molecular and Functional Characterization of hiPSC-Derived Dorsal Horn Neurons for Central Pain Target Discovery. *V. Truong et al. Anatomic Inc.* PSTR277.15 / L2
- **Using Pluripotent Stem Cells to Model Human Diseases:** Embodiment of the insoluble: Investigating nanoplastic neurotoxicity in models of the developing human brain. *A. Hudock et al. Univ. of California San Diego.* PSTR255.30 / A30

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- **Biotechniques: Gene, Protein, or Cell Based Approaches:** Co-culture of frozen neural progenitors, neuron precursors, and astrocytes derived from the highly characterized reference scti003-a line. *A. Moosa et al. STEMCELL Technologies Inc.* PSTR367.06 / YY11
- **Parkinson's Disease: Cellular Mechanisms:** Evaluating TMEM175 mutation phenotypes in human iPSC-derived dopaminergic neuron models for Parkinson's disease. *S. Schachtele et al. Fufifilm Cell. Dynamics.* PSTR325.23 / D54
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- **Treatment and Drug Discovery in Mood Disorders:** Discovery of aminopyrazole-based multitarget antidepressants: Virtual screening, molecular docking, and preliminary SAR and toxicity studies. *I. Y. Attah et al. Univ. of Cape Coast.* PSTR352.14 / JJ16

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- **Pluripotent Stem Cell Neuronal Differentiation, Specification, Organoids, and Assembloids:** Characterization of Human iPSC-Derived Forebrain Neurons for Organoid Modeling of Memory. *A. L. Woehr et al. Wake Forest Inst. Regen. Med.* PSTR369.26 / A26

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