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[Authors]. [Abstract Title]. Program No. XXX.XX. 2025 Neuroscience Meeting Planner.
San Diego, CA: Society for Neuroscience, 2025. Online.

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Information is current as of October 27, 2025. See the Neuroscience 2025 Neuroscience Meeting Planner on SfN.org for the most up-to-date information.

PROT16: Owning the BCI Experience: Creativity, Music, and a Decade of Use

Location: SDCC Exhibit Hall Aisle 1500

Time: Sunday, November 16, 2025, 10:00 AM - 10:30 AM

Description: What happens when BCI users set the agenda? In this fireside conversation, Nathan Copeland—implanted for 10 years and the longest-standing BCI user—and Galen Buckwalter, who performs music with the world's first neural instrument, share how brain computer interfaces have become tools for digital art, music, and everyday life. Moderated by Ian Burkhardt, their stories highlight how choice, creativity, and joy move BCIs beyond the lab. Audience Q&A included.

Blackrock Neurotech

Booth #: 2233

Speaker:

J. Buckwalter;

psyML, Inc., Sierra Madre, CA.

Disclosures:

Speaker:

N. Copeland;

Blackrock NeuroTech, DUNBAR, PA.

Disclosures:

PROT02: A Novel Tool to Monitor Microscope Performance

Location: SDCC Exhibit Hall Aisle 1200

Time: Sunday, November 16, 2025, 11:30 AM - 12:00 PM

Description: Confocal microscopes are complex systems, so maintaining optimal performance can be challenging. Factors such as fluctuations in laser power, changes in detection sensitivity, and variations in imaging performance can all impact the quality and reproducibility of the data, imaging results and hence conclusions. Here we present a new and automated tool for monitoring the above aspects of microscope performances, enabling researchers and core facility managers to ensure data reproducibility.

Evident

Booth #: 1929

Speaker:

G. Glekas;

Evident, Chapel Hill, NC.

Disclosures:

PROT03: Rapidly Generating Functional Forebrain Neurons from Human Pluripotent Stem Cells (hPSCs) Using an NGN2 mRNA-LNP Platform

Location: SDCC Exhibit Hall Aisle 1200

Time: Sunday, November 16, 2025, 1:00 PM - 1:30 PM

Description: Differentiating hPSCs into neurons is key for neurological research. While lentiviral delivery of the transcription factor NGN2 is commonly used to accelerate this process, it poses challenges such as genomic integration risks, variability, and labor-intensive steps. In this talk, we introduce an integration-free, mRNA-lipid nanoparticle (LNP) system designed for the rapid, efficient, and reproducible generation of highly pure neurons: STEMdiff™-TF Forebrain Induced Neuron Differentiation Kit.

STEMCELL Technologies Inc.

Booth #: 1521

Speaker:

E. Knock;

STEMCELL Technologies Inc., Vancouver, BC, CANADA.

Disclosures:

PROT04: Reimagine how you study the brain with 10x Genomics technology

Location: SDCC Exhibit Hall Aisle 1200

Time: Sunday, November 16, 2025, 2:30 PM - 3:00 PM

Description: The quest to decipher the fundamental biology driving complicated, multifactorial neurodegenerative, psychiatric, and neurodevelopmental diseases requires approaches that build a holistic understanding, starting from single cells to tissues and beyond. Imagine accessing the full richness of the brain's cellular and structural complexity all at once, instead of one small piece at a time. Journey deeper into the brain with single cell and spatial technologies from 10x Genomics to see neurobiology in new ways.

10x Genomics

Booth #: 805

Speaker:

J. Kim;

10x Genomics, Pleasanton, CA.

Disclosures:

PROT19: Redefining Antibody Selection in Neuroscience: From Epitope-Mapped Reagents to Able.ai-Driven Multiplex Panel Design

Location: SDCC Exhibit Hall Aisle 1500

Time: Sunday, November 16, 2025, 2:30 PM - 3:00 PM

Description: Precise antibody selection is critical for reproducible neuroscience research. Proteintech addresses this with high-resolution epitope mapping and the AI tool Able.ai, which guides rational antibody selection and assay design. In this presentation, we demonstrate selecting a neuroscience panel for the CellScape CycIF platform, highlighting how epitope-informed, AI-guided approaches optimize multiplex assays and experimental reliability.

Proteintech

Booth #: 1005

Speaker:

A. Rahman-Enyart;

Proteintech Group, Rosemont, IL.

Disclosures:

Speaker:

O. Braubach;

Bruker Spatial Biology, St. Louis, MO.

Disclosures:

PROT05: Illuminating Brain function through Two-Photon: Calcium and Voltage Dynamics with Optogenetics

Location: SDCC Exhibit Hall Aisle 1200

Time: Sunday, November 16, 2025, 4:00 PM - 4:30 PM

Description: Two-photon microscopy has advanced our understanding of computation and connectivity in neuroscience. Through in-vivo calcium imaging at cell-resolution, scientists study brain activity from scales of dendritic spines to neuronal networks. Combined with optogenetics and voltage imaging, 2P offers new insights into dynamic interactions in neural circuits. Learn how Bruker enables research with 3D holographic optogenetics, voltage imaging (OptoVolt), fast volumetric imaging (NeuraLeap), and more.

Bruker

Booth #: 2513

Speaker:

J. Fong;

Billerica, MA.

Disclosures:

PROT06: Versatile Open-Top Light-Sheet Microscopes for Imaging of Multicellular Systems

Location: SDCC Exhibit Hall Aisle 1200

Time: Monday, November 17, 2025, 10:00 AM - 10:30 AM

Description: We present Viventis Deep, an open-top, dual-view, dual-illumination light-sheet microscope designed for imaging of multicellular specimens. Our system offers a unique combination of open top configuration, penetration depth into the sample, easy sample mounting and throughput. Building on this platform, we will also introduce a new addition: a system tailored for imaging larger specimens at greater depths!

Leica Microsystems

Booth #: 929

Speaker:

A. Boni;

Leica Microsystems, Lausanne, SWITZERLAND.

Disclosures:

Speaker:

J. Reddington;

Leica Microsystems, Mannheim, GERMANY.

Disclosures:

PROT07: Iconeus One: Pioneering Real-time Whole-Brain Imaging with Functional Ultrasound

Location: SDCC Exhibit Hall Aisle 1200

Time: Monday, November 17, 2025, 11:30 AM - 12:00 PM

Description: Discover Iconeus One, the leading functional ultrasound (fUS) system for neuroscience research. With ultrafast imaging, it provides exceptional spatial (100 x 100 x 400 μm) and temporal (10 ms) resolution, enabling precise, real-time mapping of hemodynamic changes, even in conscious subjects. This session explores its applications in brain activation, functional connectivity, and high-resolution vascular imaging.

Iconeus

Booth #: 829

Speaker:

P. V. Pelaez;

Iconeus, Paris, FRANCE.

Disclosures:

PROT22: Automated, robust brain organoid generation

Location: SDCC Exhibit Hall Aisle 1500

Time: Monday, November 17, 2025, 11:30 AM - 12:00 PM

Description: Brain organoids are powerful tools for modeling neurological disease and screening therapeutics, but manual workflows limit scalability and consistency. We present an automated solution using AI-driven decision-making on the CellXpress.ai® Automated Cell Culture System to maintain stable culture conditions and predict organoid quality early. This enables reliable, reproducible, and scalable brain organoid generation from iPSCs and streamlines downstream applications.

Molecular Devices, LLC

Booth#: 2112

Speaker:

F. Spira;

R & D, Molecular Devices, AUSTRIA.

Disclosures:

PROT08: Translational Science: Leverage New Approach Methodologies for Neuroscience Innovation

Location: SDCC Exhibit Hall Aisle 1200

Time: Monday, November 17, 2025, 1:00 PM - 1:30 PM

Description: Recent FDA guidance updates are accelerating the development and adoption of New Approach Methodologies (NAMs), offering innovative, non-animal alternatives for evaluating drug efficacy, pharmacology, and safety. This panel features experts from leading service and technology providers discussing the evolving role of NAMs in neuroscience drug discovery, practical implementation challenges, and their potential to streamline and de-risk drug development pipelines.

Charles River

Booth #: 1112

Speaker:

S. Chuang;

Scientific Advisory Services, Charles River Laboratories, Wilmington, MA.

Disclosures:

PROT23: Use of Human Pluripotent Stem Cell-Derived Organoids for Drug Discovery

Location: SDCC Exhibit Hall Aisle 1500

Time: Monday, November 17, 2025, 1:00 PM - 1:30 PM

Description: This talk highlights how 3Brain's CorePlate™ HD-MEA enables the functional assessment of stem cell-derived organoids for drug discovery. We'll discuss alongside experts from STEMCELL Technologies about understanding the variability across cell lines and technical replicates, the importance of qualified reagents, a method for culturing organoids within high volume suspension cultures and how BrainPhys™ enhances organoid activity.

3Brain AG

Booth #: 907

Speaker:

A. L. Jolly;

3Brain, Oceanside, CA.

Disclosures:

Speaker:

C. K. Mak;

STEMCELL Technologies Inc., Vancouver, BC, CANADA.

Disclosures:

PROT09: New tools for functional characterization of advanced iPSC-derived neural models, including organoids, spheroids, and organ-on-a-chip systems

Location: SDCC Exhibit Hall Aisle 1200

Time: Monday, November 17, 2025, 2:30 PM - 3:00 PM

Description: Advanced cell models including spheroids, organoids, and organs-on-chips are revolutionizing neural disease research and therapeutic discovery by offering more physiologically relevant models of the human brain. To characterize neural function in these models, live-cell analysis systems such as AI-driven Omni imaging and high-throughput Maestro MEA are emerging as powerful tools to enable deep insights into human biology, from cell line development to 3D model generation to disease modeling.

Axion BioSystems

Booth #: 835

Speaker:

A. Passaro;

Axion BioSystems, Atlanta, GA.

Disclosures:

PROT24: Breaking barriers with SPEAR UltraDetect™ Biomarker Assays in Alzheimer's and Neurodegeneration Research

Location: SDCC Exhibit Hall Aisle 1500

Time: Monday, November 17, 2025, 2:30 PM - 3:00 PM

Description: SPEAR (Successive Proximity Extension Amplification Reaction) is a novel homogeneous, wash-free immunoassay with two-factor authentication that enables ultra-sensitive, precise protein quantification from only 1 µL of diluted sample. The SPEAR UltraDetect™ menu includes key neurological biomarkers and emerging CNS-specific Tau species, improving disease vs. aging discrimination and supporting scalable studies from mechanistic research to clinical applications.

Spear Bio

Booth #: 3211

Speaker:

L. Provencher;

Applications, Spear Bio, Woburn, MA.

Disclosures:

PROT10: Revealing the power of the 6-base genome to uncover epigenetic mechanisms in neuronal disease

Location: SDCC Exhibit Hall Aisle 1200

Time: Monday, November 17, 2025, 4:00 PM - 4:30 PM

Description: Neuronal tissues contain significantly higher levels of the epigenetic DNA modification 5hmC compared to other tissues. Changes in methylation state between unmodified cytosine, 5mC & 5hmC have been shown to have a significant impact on disease initiation & progression. Here researchers will share how the 6-base genome (A, C, T, G, 5mC & 5hmC) is revealing previously invisible biology by providing accurate 5mC & 5hmC data alongside complete genetic information from brain tissue & cfDNA samples.

biomodal

Booth #: 1020

Speaker:

C. Starvaggi Cucuzza;

ITALY.

Disclosures:

Speaker:

M. Consugar;

biomodal, Cambridge, UNITED KINGDOM.

Disclosures:

PROT25: The UltraMicroscope Choros™: whole mouse 3D imaging at single-cell resolution

Location: SDCC Exhibit Hall Aisle 1500

Time: Monday, November 17, 2025, 4:00 PM - 4:30 PM

Description: The UltraMicroscope Choros™ is our new light sheet microscope designed for users who want to push the boundaries of 3D imaging of large samples. With a dedicated standalone stage, the UltraMicroscope Choros offers up to 69cm³ imaging volume and it allows for effortless imaging of whole cleared mice and entire human organs or biopsy tissues at single-cell resolution, without the need to section or trim precious samples to fit into the imaging cuvette.

Miltenyi Biotec B.V. & Co. KG

Booth #: 2421

Speaker:

J. Luo;

Department of Industrial and Molecular Pharmaceutics, West Lafayette, IN.

Disclosures:

Speaker:

S. Bornemann;

Miltenyi Biotec B.V. & Co. KG, Bergisch Gladbach, GERMANY.

Disclosures:

PROT11: VitroGel® NEURON Hydrogel: A Xeno-free System for 3D and 2D Neural Stem Cell and Neuron Cultures

Location: SDCC Exhibit Hall Aisle 1200

Time: Tuesday, November 18, 2025, 10:00 AM - 10:30 AM

Description: VitroGel® NEURON hydrogel is a synthetic matrix with functional ligands that support the maintenance and differentiation of iPSC-derived neural stem cells, cultured as single cells or spheres, and culture of mature neurons. The hydrogel's well-defined composition and room temperature stability offer significant advantages over animal-based extracellular matrices for neuroscience research, including enhanced experimental reproducibility, automated operation, and potential clinical application.

TheWell Bioscience

Booth #: 720

Speaker:

J. Huang;

TheWell Bioscience Inc, Monmouth Junction, NJ.

Disclosures:

PROT12: In Situ Spatial Proteomics Reveals TDP-43 Aggregates and Endothelial Membrane Composition in Neurological Disease States

Location: SDCC Exhibit Hall Aisle 1200

Time: Tuesday, November 18, 2025, 11:30 AM - 12:00 PM

Description: Dr. Wilfried Rossoll of Mayo Clinic will present how photo-biotinylation of proteins in human FFPE brain tissue with Syncell's Microscoop platform identified proteins associated with TDP-43 aggregates, a hallmark of neurodegenerative disease. Dr. Luisa Iruela-Arispe of Northwestern University will explain how she used Microscoop to study endothelial cell membranes from primary human cells with cerebral cavernous malformations, providing new insights into endothelial biology and vascular disease.

Syncell Inc.

Booth #: 800

Speaker:

W. Rossoll;

Department of Neuroscience, Mayo Clinic, Jacksonville, FL.

Disclosures:

PROT13: Rigorous and Reproducible Western Blots: A How-to Guide for Protein Quantification

Location: SDCC Exhibit Hall Aisle 1200

Time: Tuesday, November 18, 2025, 1:00 PM - 1:30 PM

Description: In this seminar, we will give you the tips and tools for Western blot success! We will review the Western blotting workflow, from electrophoresis to immunodetection, and discuss how to troubleshoot issues at each step. Additionally, we will introduce innovations designed by MilliporeSigma to streamline Western blotting workflows including the new mPAGE® Lux Gel Casting System.

MilliporeSigma

Booth #: 1120

Speaker:

K. Wolfe;

MilliporeSigma, Burlington, MA.

Disclosures: