

When citing an abstract from the 2023 annual meeting, please use the format below.

[Authors]. [Abstract Title]. Program No. XXX.XX. 2023 Neuroscience Meeting Planner.
Washington, D.C.: Society for Neuroscience, 2023. Online.

2023 Copyright by the Society for Neuroscience all rights reserved. Permission to republish any abstract or part of any abstract in any form must be obtained in writing by SfN office prior to publication.

Product Theater

PROT04: Unlocking the Potential for Single-Cell Sequencing at Scale With Combinatorial Indexing

Location: WCC Exhibit Hall Aisle 1500

Time: Sunday, November 12, 2023, 10:00 AM - 10:30 AM

Description: Combinatorial indexing methods for single-cell profiling enable higher levels of sample multiplexing and cell throughput. Using the cell as the compartment, repeated rounds of splitting, indexing, and pooling are performed, enabling single-cell experiments with 100s of thousands to millions of cells.

ScaleBio currently supports workflows for scRNA and scATAC profiling, and is developing kits for single-cell Methylation, Protein, and CRISPR applications.

In this presentation, we will discuss our current portfolio, and share relevant examples for neuroscience research.

Scale Biosciences

Booth #: 827

Onsite Contact:

A. E. Hamilton;

Scale Biosciences, San Diego, CA.

Disclosures: A.E. Hamilton: A. Employment/Salary (full or part-time);; Scale Biosciences.

Onsite Contact:

A. Miller;

Scale Biosciences, San Diego, CA.

Disclosures: A. Miller. None

Speaker:

A. Yen;

Genetics, Washington University School of Medicine, Saint Louis, MO.

Disclosures: A. Yen: None.

Speaker:

J. Koth;

Scale Biosciences, San Francisco, CA.

Disclosures: J. Koth: None.

Product Theater

PROT05: Unlock the Power of Multimodal Data with Inscopix Miniscope Solutions

Location: WCC Exhibit Hall Aisle 1500

Time: Sunday, November 12, 2023, 11:30 AM - 12:00 PM

Description: Join us on a journey into the realm of integrated neuroscience. With its ever-evolving field, one must position themselves for success with new skills, technologies, and ideas. We are thrilled to present the new nVue and IDEAS platform, designed to enhance productivity and multimodal data potential. Whether you're a scientist, a lab group, or in biotech, our scalable solutions will empower you, saving valuable time and effort. Don't miss this opportunity to transform your neuroscience endeavors!

Bruker

Booth #: 2823

Onsite Contact:

B. Tired;

Bruker Corporation, Mountain View, CA.

Disclosures: B. Tired: A. Employment/Salary (full or part-time);; Inscopix, a Bruker Company.

Speaker:

B. Tired;

Bruker Corporation, Mountain View, CA.

Disclosures: B. Tired: None

Product Theater

PROT06: Microscop: A Subcellular Pickable Microscope for Proteomic Discovery

Location: WCC Exhibit Hall Aisle 1500

Time: Sunday, November 12, 2023, 1:00 PM - 1:30 PM

Description: Syncell is introducing Microscop, a platform combining microscopy imaging, AI-enabled pattern generation, and pattern illumination-induced photo-biotinylation to enable subcellular spatial proteomic discovery. It has been successfully used to identify novel protein players in beta amyloid, ALS pTDP-43 aggregates, mossy fiber boutons, etc. As a subcellular pickable microscope, Syncell Microscop can be widely useful for hypothesis-free subcellular proteomic discovery beyond mapping.

Syncell, Inc.

Booth #: 3003

Onsite Contact:

J. Wu;

Syncell, Inc., Taipei, TAIWAN.

Disclosures: J. Wu: None.

Speaker:

H. Cheng;

Institute of Molecular Biology, Academia Sinica, Taipei, TAIWAN.

Disclosures: H. Cheng: None.

Product Theater

PROT07: Holistic Approaches to Basic Neuroscience Research

Location: WCC Exhibit Hall Aisle 1500

Time: Sunday, November 12, 2023, 2:30 PM - 3:00 PM

Description: Modern neuroscience research benefits from holistic investigation approaches by integrating technologies to study neurological processes at molecular, cellular, and animal levels. Harvard Bioscience (HBIO) is a global leader in developing solutions to support neuroscience research and drug discovery. HBIO aims to mitigate laboratory challenges by assisting neuroscientists in a broad spectrum of research needs, furnishing them with diverse, integrated tools that range from *in vitro* to *in vivo*.

Harvard Bioscience

Booth #: 1509

Onsite Contact:

J. Burkhardt;

Harvard Bioscience, Holliston, MA.

Disclosures: J. Burkhardt: None

Speaker:

G. Portugal;

Harvard Bioscience, Holliston, MA.

Disclosures: G. Portugal: A. Employment/Salary (full or part-time);; Harvard Bioscience.

Product Theater

PROT08: Rigorous and Reproducible Western Blotting: A How-To Guide for Protein Quantification

Location: WCC Exhibit Hall Aisle 1500

Time: Sunday, November 12, 2023, 4:00 PM - 4:30 PM

Description: Western blotting is a key technique in neuroscience. It is used to determine relative protein levels, often as proof of differences between cell types, changes under a disease state, or successful genetic knockouts. In this seminar, we will discuss important factors and methods to generate publication-quality Western blot data, such as best practices in sample preparation,

controls and replicates, how to choose your antibodies, imaging, and data analysis and normalization.

MilliporeSigma
Booth #: 1023

Onsite Contact:

C. Carson;
MilliporeSigma, Boston, MA.

Disclosures: C. Carson: A. Employment/Salary (full or part-time);; MilliporeSigma.

Speaker:

C. Carson;
MilliporeSigma, Boston, MA.

Disclosures: C. Carson: A. Employment/Salary (full or part-time);; MilliporeSigma.

Product Theater

PROT09: The Journey of an Eye Tracking Study

Location: WCC Exhibit Hall Aisle 1500

Time: Monday, November 13, 2023, 10:00 AM - 10:30 AM

Description: The Tobii Team will take you from the conceptualization and design of an eye tracking study, through live data collection with the Tobii Pro Glasses 3, to end by showcasing the qualitative and quantitative analysis features in Tobii Pro Lab. You'll leave with the knowledge of how to get your research from the laboratory out into any kind of testing environment, with real-world examples. Attendees will have an exclusive opportunity to enter a raffle to win a one-month free trial of either Tobii Pro Glasses 3 or a Tobii Pro Fusion!

Tobii
Booth #: 1228

Speaker:

M. Biondi;
Tobii Technology, Inc., Reston, VA.

Disclosures: M. Biondi: A. Employment/Salary (full or part-time);; Tobii Technology, Inc..

Speaker:

N. Celin;
Tobii Pro, Reston, VA.

Disclosures: N. Celin: None.

Product Theater

PROT10: Empowering Neuroscientists With Cutting Edge Gene Expression and Spatial Multiomics Portfolio for Advancing Brain Research

Location: WCC Exhibit Hall Aisle 1500

Time: Monday, November 13, 2023, 11:30 AM - 12:00 PM

Description: NanoString's integrated, multiomic solutions allows the study of neurodegeneration, neuroinflammation, and neuronal development from spatial single cells to multicellular tissue compartments and patient cohorts. Discover and develop prognostic and spatial gene signatures. Characterize the heterogeneity of brain tissue in health and disease. Reveal functional, cellular, and temporal changes spatially at single-cell and subcellular resolution. Hear Dr. Adrian Oblak's spatial Alzheimer's study.

NanoString Technologies
Booth #: 2617

Onsite Contact:

K. Sheehy;
NanoString Technologies, Seattle, WA.

Disclosures: K. Sheehy: None.

Speaker:

A. Oblak;
Indiana University School of Medicine, Indianapolis, IN.

Disclosures: A. Oblak: None.

Speaker:

W. Tian;
NanoString Technologies, La Jolla, CA.

Disclosures: W. Tian: None

Product Theater

PROT11: Unleashing the Power of Spatial, Single-Cell Multiomics in Neuroscience and Beyond With Cosmx Spatial Molecular Imager

Location: WCC Exhibit Hall Aisle 1500

Time: Monday, November 13, 2023, 1:00 PM - 1:30 PM

Description: Make the leap into spatial, single cell imaging with CosMx SMI, with best-in-class cell segmentation, cell atlasing, and biomarker discovery. Learn about the future of CosMx SMI with same slide, highest-plex spatial proteogenomics using 6K RNA + 64-plex protein human neuro assays. For mouse, a comprehensive pairing of 1K RNA+ 64-plex protein for

neuropathology. Hear from Joe Ecker's lab about highest-plex single cell spatial signaling and mapping on human brain, diseased, and normal tissues.

NanoString Technologies
Booth #: 2617

Onsite Contact:

K. Sheehy;
NanoString Technologies, Seattle, WA.

Disclosures: K. Sheehy: None.

Speaker:

J. Beechem;
Nanostring Technologies, Seattle, WA.

Disclosures: J. Beechem: None.

Speaker:

V. Devgan;
NanoString Technologies, Seattle, WA.

Disclosures: V. Devgan: None.

Product Theater

PROT12: Illuminating the Brain: Mapping and Manipulating Neural Activity in 3D

Location: WCC Exhibit Hall Aisle 1500

Time: Monday, November 13, 2023, 2:30 PM - 3:00 PM

Description: Two-photon (2P) imaging enables the visualization of neural dynamics across vast areas and at faster rates across cortical layers. Combined with spatial light modulators like the Bruker Neuralight 3D Ultra and fast volumetric scanning with our electrotunable lens, our 2P systems optogenetically stimulate/monitor 3D functional connectivity in real-time. Now with NeuraLeap for Ultima 2Pplus, learn about a new form of activity mapping with super-fast focus capturing correlation across brain layers.

Bruker
Booth #: 2823

Speaker:

J. Fong;
Bruker Corporation, Madison, WI.

Disclosures: J. Fong: None.

Speaker:

K. Mann;
Bruker Corporation, Madison, WI.

Disclosures: K. Mann: A. Employment/Salary (full or part-time); Bruker Corporation.

Product Theater

PROT13: Light Sheet Microscopy Goes Lightspeed: A New Era in 3D Imaging

Location: WCC Exhibit Hall Aisle 1500

Time: Monday, November 13, 2023, 4:00 PM - 4:30 PM

Description: Imaging 3D samples with light sheet microscopy demands significant time investments. However, two releases for the UltraMicroscope Blaze™ have significantly streamlined sample acquisitions. The new LightSpeed mode enhances imaging speeds by 50 times and when coupled with the latest software innovation, MACS® iQ View, the entire imaging process becomes user-friendly. We will illustrate how we leveraged these upgrades to study the intricacies of vascular networks within the developing brain.

Miltenyi Biotec
Booth #: 923

Onsite Contact:

F. Bertan;

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

Disclosures: F. Bertan: None.

Speaker:

E. de Launoit;

Neurosciences, ICM, Paris, FRANCE.

Disclosures: E. de Launoit: None.

Product Theater

PROT14: Expanding Spatial Horizons With Curio Seeker Technology

Location: WCC Exhibit Hall Aisle 1500

Time: Tuesday, November 14, 2023, 10:00 AM - 10:30 AM

Description: Explore more of your regions of interest with the Curio Seeker 10 x 10 mm tile, a spatial transcriptomics technology that provides single-cell resolution while preserving tissue architecture and cellular neighborhoods of fresh frozen tissue samples. We will discuss the latest

data from whole, adult murine brain, and demonstrate how the Curio Seeker 10 x 10 mm tile can delineate different cell populations in distinct regions of the cerebral cortex.

Curio Bioscience
Booth #: 2109

Speaker:

M. Heyer;

Icahn School of Medicine at Mount Sinai, New York, NY.

Disclosures: M. Heyer: None.

Speaker:

M. Lee;

Curio Bioscience, Palo Alto, CA.

Disclosures: M. Lee: A. Employment/Salary (full or part-time); Curio Bioscience.

Product Theater

PROT15: Advancing Neuroscience Research With the Vutara Vxl Super-Resolution Microscope

Location: WCC Exhibit Hall Aisle 1500

Time: Tuesday, November 14, 2023, 11:30 AM - 12:00 PM

Description: Single-Molecule Localization Microscopy (SMLM) is a powerful tool for neuroscience research, allowing for the study of synapses and neurons at a high resolution of 20 nm. The Bruker Vutara VXL super-resolution microscope offers several advantages, including 3D imaging, multi-camera imaging, integrated fluidics and multiplexing, and easy-to-use software. This presentation will discuss the basics of super-resolution microscopy and how the Vutara VXL can advance neuroscience research. Join us to learn more!

Bruker Corporation
Booth #: 2823

Speaker:

W. Wiegraebe;

Bruker Corporation, Madison, WI.

Disclosures: W. Wiegraebe: None

Product Theater

PROT16: Evident: Transforming Precision Imaging

Location: WCC Exhibit Hall Aisle 1500

Time: Tuesday, November 14, 2023, 1:00 PM - 1:30 PM

Description: Starting in 1919, Olympus (now Evident) began to revolutionize imaging technology. Over our 100-year history as a global leader in imaging technologies and cutting-edge design, we have reimagined the traditional microscope for various applications. Recently we have developed new manufacturing technology that will enable higher-quality imaging with our X Line objectives. Join us as we unveil our next generation of precision imaging technology that will broaden the spectrum of possibilities for your research.

Evident Scientific

Booth #: 2123

Onsite Contact:

R. Lowe;

Marketing, Evident, Waltham, MA.

Disclosures: R. Lowe: A. Employment/Salary (full or part-time);; Evident.

Speaker:

G. Glekas;

Evident Scientific, Waltham, MA.

Disclosures: G. Glekas: None.

Product Theater

PROT17: Accelerating the Use of Ipsc-Derived Cerebral Organoids in Drug Discovery and Personalized Medicine

Location: WCC Exhibit Hall Aisle 1500

Time: Tuesday, November 14, 2023, 2:30 PM - 3:00 PM

Description: The workflows associated with developing iPSCs into 3D neuronal organoids are time-consuming, manual, and suffer from limitations of heterogeneity. To achieve a scalable and reliable method for growing iPSC-derived neuronal organoids, we used CellRaft Technology, which provides an automated, user-friendly, high-throughput solution for accelerating the testing of iPSC-derived neuronal organoids in toxicity, disease modeling, and drug discovery.

Cell Microsystems

Booth #: 1213

Onsite Contact:

L. Birkby;

Cell Microsystems, Durham, NC.

Disclosures: **L. Birkby:** A. Employment/Salary (full or part-time); Cell Microsystems.

Speaker:

A. Stern;

Cell Microsystems, Durham, NC.

Disclosures: **A. Stern:** A. Employment/Salary (full or part-time); Cell Microsystems. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cell Microsystems.

Product Theater

PROT18: Discover How to Advance Your Neuroinflammation Research and Drug Discovery With Fast, Functional and Consistent hiPSC-Derived ioMicroglia Cultures

Location: WCC Exhibit Hall Aisle 1500

Time: Tuesday, November 14, 2023, 4:00 PM - 4:30 PM

Description: For years, widely used protocols for generating hiPSC-derived microglia have required long, complex workflows that suffer from lot-to-lot consistency. Dr Javier Conde Vancells, Director Product Management, bit.bio and Dr Malika Bsibsi, Research Leader, Charles River Laboratories, will share exclusive data on the functional and consistent properties of hiPSC-derived ioMicroglia. Highlighting their use in assays, including phagocytosis, cytokine secretion and chemotaxis in just 10 days post-thaw.

bit.bio

Booth #: 2001

Speaker:

M. Bsibsi;

Biology, Charles River, Leiden, NETHERLANDS.

Disclosures: **M. Bsibsi:** None.

Speaker:

J. Conde Vancells;

bit.bio, Cambridge, UNITED KINGDOM.

Disclosures: **J. Conde Vancells:** A. Employment/Salary (full or part-time); bit.bio.

Product Theater

PROT20: Seeing Double: Multiplexed PET for Dual Isotope Imaging

Location: WCC Exhibit Hall Aisle 1500

Time: Wednesday, November 15, 2023, 11:30 AM – 12:00 PM

Description: Explore the realm of PET imaging and the new concept of multiplexed PET. This scientific advancement makes it possible to perform simultaneous imaging with 2 different isotopes providing more in-depth information with a single scan.

Multiplexed PET uses prompt gamma emissions from positron-gamma emitters to enable truly simultaneous dual-isotope PET imaging. This reconstruction method allows PET scanners to record events beyond standard coincidences and can be used for dual PET tracer studies.

Onsite Contact:

S. van Wyk;

Scintica London, ON, CANADA.

Disclosures: S. van Wyk: None

Speaker:

E.C. Pratt;

Memorial Sloan Kettering Cancer Center, New York, NY.

Disclosures: E.C. Pratt: Other; Scintica has paid for my transportation to the SfN.

Speaker:

T. Lalonde;

Scintica, London, ON, CANADA.

Disclosures: T. Lalonde: None