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Product Theater

PROT04: Overcoming the High Multiplexing Barrier: 3D Spatial Omics in One Go, Powered by Leica Microsystems

Location: MCP Exhibit Hall Aisle 900

Time: Sunday, October 6, 2024, 10:00 AM - 10:30 AM

Description: We will elaborate on experimental design and considerations to perform high multiplexing imaging experiments beyond 10 fluorophores on a single sample. We will discuss appropriate fluorophore panels, sample preparation details and tools required for imaging, and show how imaging high multiplexing targets on a single sample can be exploited for 3D spatial omics analysis. Aivia, Leica's cutting-edge image analysis software, enables robust and efficient analysis of multiplexing imaging data.

Leica Microsystems

Booth #: 965

Onsite Contact:

J. Lin;

Leica Microsystems, Deerfield, IL.

Disclosures:

Speaker:

J. Roberti;

Leica Microsystems, Mannheim Baden-Württemberg, GERMANY.

Disclosures:

Speaker:

W. Choi;

Leica Microsystems, Buffalo Grove, IL.

Disclosures:

Product Theater

PROT05: Connect, Scale, Explore! Your New Inscopix Miniscope Ecosystem

Location: MCP Exhibit Hall Aisle 900

Time: Sunday, October 6, 2024, 11:30 AM - 12:00 PM

Description: Join us into the realm of integrated neuroscience. In the ever-evolving field, one must position themselves for success with new skills, technologies, and ideas. We present the latest multi-modal miniscope technologies, designed to enhance productivity and provide a unified environment to accelerate you to publication. Whether you're a scientist, a lab group, or

in biotech, choose and scale the right solution for your research, saving valuable time and effort and transform your discoveries!

Bruker Corporation

Booth #: 424

Onsite:

A. Afzal;

Bruker Corporation, Tucson, AZ

Disclosures:

Speaker:

B. Tired;

Bruker Corporation, Mountain View, CA

Disclosures:

Product Theater

PROT06: Imaging the Dynamics of the Nervous System

Location: MCP Exhibit Hall Aisle 900

Time: Sunday, October 6, 2024, 1:00 PM - 1:30 PM

Description: Two-photon microscopy in neuroscience has unraveled many mysteries of perception, computation, and connectivity. Ca²⁺ imaging has illuminated brain function with resolution and precision at the scale of small networks, single cells, dendrites, and individual spines. Join us to learn how the Bruker Ultima 2Pplus and Investigator workstations combine holographic optogenetic activation, GRIN lenses, and the NeuraLeap rapid-focusing module to advance new frontiers in neural circuit interrogation.

Bruker Corporation

Booth #: 424

Onsite Contact:

A. Afzal;

Bruker Corporation, Tucson, AZ

Disclosures:

Speaker:

K. Mann;

Bruker Corporation, Billerica, MA

Disclosures:

Product Theater

PROT08: Unlocking the Full Potential of Multi-Well High-Density Microelectrode Arrays (HD-MEAs)

Location: MCP Exhibit Hall Aisle 900

Time: Sunday, October 6, 2024, 4:00 PM - 4:30 PM

Description: This session showcases MaxTwo, a cutting-edge electrophysiology platform with densely packed microelectrodes in a multi-well format, capturing electrogenic cell signals with unprecedented resolution. It enhances experiments by combining the highest electrode density with a fast, automatic data analysis pipeline, delivering high-content, high-quality data. Also, MaxTwo can be integrated with the first dedicated perfusion system for multi-well HD-MEAs, setting a new standard in the market.

MaxWell Biosystems

Booth #: 365

Speaker:

L. D Ignazio;

Maxwell, Zurich, SWITZERLAND.

Disclosures:

Speaker:

M. J. Obien;

MaxWell Biosystems, Zuerich, SWITZERLAND.

Disclosures:

Product Theater

PROT09: The Single Cell Era, Scaled. Achieve Maximum Throughput at Minimal Cost With Scale Biosciences

Location: MCP Exhibit Hall Aisle 900

Time: Monday, October 7, 2024, 10:00 AM - 10:30 AM

Description: Scale Biosciences is pushing the boundaries of what is possible in single-cell omics. In this presentation, we will familiarize the audience with our expanding portfolio of library preparation solutions, which cover multiple cellular analytes and up to millions of cells in a single experimental output using highly parallelized analyte barcoding techniques.

Scale Biosciences

Booth #: 1414

Onsite Contact:

A. Hamilton;

Scale Biosciences, San Carlos, CA

Disclosures:

Speaker:

F. Gaiti;

Scale Biosciences, San Carlos, CA.

Disclosures: F. Gaiti: None.

Speaker:

M. Masuda;

Scale Biosciences, San Diego, CA

Disclosures:

Product Theater

PROT10: Rigorous and Reproducible Western Blots: A How-To Guide for Protein Quantification

Location: MCP Exhibit Hall Aisle 900

Time: Monday, October 7, 2024, 11:30 AM - 12:00 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 #: 1015

Onsite Contact:

E. Fitzpatrick;

MilliporeSigma, Burlington, MA

Disclosures:

Speaker:

K. Wolfe;

MilliporeSigma, Burlington, MA.

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

Product Theater

PROT11: Microscoop: A Subcellular Pickable Microscope for Proteomic Discovery

Location: MCP Exhibit Hall Aisle 900

Time: Monday, October 7, 2024, 1:00 PM - 1:30 PM

Description: Do you know most of the 80(?) protein species at primary cilia distal tips or 100(?) protein species at the lipid-mitochondria interfaces? Syncell's Microscoop™ enables precise isolation and identification of proteins at the organelle level, using automated microscopy-guided photo-biotinylation and AI image analysis. With mass spectrometry, it identifies proteins in cellular structures like cilia and synapses, enhancing subcellular proteomics with high resolution and specificity.

Syncell, Inc.

Booth #: 606

Onsite Contact:

J. Wu;

Syncell, Inc., Watertown, MA.

Disclosures:

Speaker:

J. Liao;

Syncell Inc., Taipei City, TAIWAN.

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

Product Theater

PROT12: Simple Western Capillary Immunoassays: A Game Changer in Elucidating Intracellular Signaling in Alzheimer's Disease

Location: MCP Exhibit Hall Aisle 900

Time: Monday, October 7, 2024, 2:30 PM - 3:00 PM

Description: Simple Western™ is a well-established capillary immunoassay technology that bridges the gap between ELISA and Western blot, combining protein size characterization and analytical grade quantification without matrix effects, from just 3 µL of sample. Learn how we used Simple Western to study TREM2 signaling in a model for Alzheimer's disease.

Bio-Techne

Booth #: 1165

Onsite Contact:

D. Nerburn, CMP, CTSM;
Bio-Techne, Minneapolis, MN.

Disclosures:

Onsite Contact:

J. Jacobson;
Bio-Techne, New York, NY.

Disclosures:

Speaker:

C. Haitjema;
Bio-Techne, Minneapolis, MN.

Disclosures:

Speaker:

S. Schachtele;
Bio-Techne, Minneapolis, MN.

Disclosures:

Product Theater

PROT13: Highest Plex Spatial Multiomics as a Discovery Tool for Cellular Aging and Pathogenesis in Alzheimer's Disease

Location: MCP Exhibit Hall Aisle 900

Time: Monday, October 7, 2024, 4:00 PM - 4:30 PM

Description: Alzheimer's tau forms neurofibrillary tangles (NFT), correlated with neuron loss, cognitive decline, & cellular senescence. Exploring senescence transition, cell interactions, & tissue-wide effects requires high-resolution spatial solutions. CosMx SMI reveals spatially correlated gene modules & cell niches. High-plex multiomics, (GeoMx DSP), gives insight into NFT-associated senescence & neurotoxicity. A phospho-tau signature (CellScape) demonstrates rapid scale up model for disease evaluation.

Bruker Corporation

Booth # 424

Onsite Contact:

A. Afzal;
Bruker Corporation, Tucson, AZ.

Disclosures:

Speaker:

A. Rosenbloom;

Bruker Corporation, Tucson, AZ.

Disclosures:

Speaker:

M. Orr;

Wake Forest University School of Medicine, Winston-Salem, NC.

Disclosures: M. Orr: None.

Product Theater

PROT14: Luxendo Light-Sheet and Acquirer Automated Microscopy: Smart 3D Imaging From High-Resolution to High-Throughput

Location: MCP Exhibit Hall Aisle 900

Time: Tuesday, October 8, 2024, 10:00 AM - 10:30 AM

Description: Experience 3D life across scales with Luxendo SPIMs for long-term imaging of living samples and the Acquirer IM for automated screening microscopy. Discover smart adaptive light-sheet fluorescence microscopy for long-term 3D imaging of both live, and large cleared biological samples. The Acquirer IM offers automated phenotypic screening with an intuitive imaging interface and the Acquirer HIVE is the complete solution for secure storage and processing of all imaging, sequencing, and omics data.

Bruker Corporation

Booth #: 424

Onsite Contact:

A. Afzal;

Bruker Corporation, Tucson, AZ

Disclosures:

Speaker:

M. Wachsmuth;

Bruker Corporation, Heidelberg Baden-Württemberg, Germany

Disclosures:

Product Theater

PROT15: Iconeus One: Pioneering Real-time Whole-Brain Imaging with Functional Ultrasound

Location: MCP Exhibit Hall Aisle 900

Time: Tuesday, October 8, 2024, 11:30 AM - 12:00 PM

Description: Boost your research with functional ultrasound (fUS) imaging – an innovative technique delivering unparalleled resolution and sensitivity. Delve into functional connectivity mapping, real-time brain activity monitoring, and super-resolution vascular imaging. Elevate your understanding of neural dynamics and vascular responses with Iconeus One, transforming the landscape of preclinical research.

Iconeus

Booth #: 1465

Speaker:

J. Ferrier;

Iconeus, Paris, France

Disclosures:

Product Theater

PROT16: Using Human Stem Cell-Derived Neural Organoids for Modeling Disease

Location: MCP Exhibit Hall Aisle 900

Time: Tuesday, October 8, 2024, 1:00 PM - 1:30 PM

Description: In this talk, we will introduce the various types of neural organoids offered by STEMCELL Technologies. We will review how to generate cerebral, midbrain, and spinal cord organoids, demonstrating which cell types you can expect from each. Finally, we will show how each type of organoid can be used to model different diseases such as microcephaly, epilepsy, Parkinson's disease and amyotrophic lateral sclerosis, highlighting the use of BrainPhys™ when measuring organoid activity in vitro.

STEMCELL Technologies, Inc.

Booth #: 866

Onsite Contact:

C. Liu;

STEMCELL Technologies, Inc., Vancouver, BC, CANADA.

Disclosures:

Speaker:

C. Mak;

STEMCELL Technologies Inc., Vancouver, BC, CANADA.

Disclosures: C. Mak: A. Employment/Salary (full or part-time):; STEMCELL Technologies Inc..

Product Theater

PROT18: Exploring 5mC and 5hmC Methylation Modifications in the Parkinson's Disease Brain

Location: MCP Exhibit Hall Aisle 900

Time: Tuesday, October 8, 2024, 4:00 PM - 4:30 PM

Description: Using Biomodal's duet multiomics solution evoC, we examined 5mC and 5hmC methylation marks in postmortem brain tissue from individuals with Parkinson's disease and controls. Our study reveals disease-specific alterations in methylation patterns, observed at both the genome-wide and gene-specific levels. We also analysed the methylation signatures of genes known to be associated with Parkinson's disease. This work offers comprehensive insights into the epigenetic mechanisms underlying Parkinson's disease.

biomodal

Booth#: 1279

Onsite Contact:

G. LaChapelle;

biomodal, Saffron Walden Cambridge, UNITED KINGDOM.

Disclosures: G. LaChapelle: None.

Speaker:

B. Chhatwal;

biomodal, London, UNITED KINGDOM.

Disclosures:

Speaker:

T. Beech;

Saffron Walden Cambridge, UNITED KINGDOM.

Disclosures:

Product Theater

PROT30: Unlocking Super-Resolution in Neuroscience Across Scales With the New ZEISS Lattice SIM Family

Location: MCP Exhibit Hall Aisle 1500

Time: Sunday, October 6, 2024, 2:30 PM - 3:00 PM

Description: Today's research problems require a balance of sample size, imaging speed, and super-resolution capabilities. Discover how the new ZEISS Lattice SIM Family acquires entire

brain sections at blistering speeds with SIM Apotome mode, captures dynamic events of subcellular structures with Lattice SIM, and resolves the molecular details of neurons with effortless super resolution across scales. Join us to see how ZEISS Lattice SIM Family can transform your neuroscience research.

ZEISS Microscopy

Booth #: 653

Onsite Contact:

K. Salerno;

Carl Zeiss Microscopy, Thornwood, NY.

Disclosures:

Speaker:

P. Favreau;

Carl Zeiss Microscopy, White Plains, NY.

Disclosures: P. Favreau: A. Employment/Salary (full or part-time);; Carl Zeiss Microscopy, LLC.

Product Theater

PROT34: Building a Functional Atlas of Macaque Brain Using Stereo-seq

Location: MCP Exhibit Hall Aisle 1500

Time: Monday, October 7, 2024, 1:00 PM - 1:30 PM

Description: Understanding the spatial organization of cell types in the brain is crucial for unraveling its complex functional and anatomical architecture. I will present a spatial transcriptomic atlas of a macaque hemisphere using the Stereo-seq platform combined with structural and functional magnetic resonance imaging (MRI) and histological staining. Together, these data offer insight into the spatial distribution of diverse cell types and their relationship to anatomical and functional boundaries.

STOmics Americas

Booth #1539

Onsite Contact:

W. Liao;

STOmics Americas, San Jose, CA.

Disclosures:

Speaker:

S. Seeman;

Allen Institute for Brain Science, Seattle, WA.

Disclosures: S. Seeman: None.