AMERICAN SOCIETY FOR NEUROCHEMISTRY

Portland, Oregon | April 14-18, 2024

PROGRAM BOOK

54TH ANNUAL AMERICAN SOCIETY FOR NEUROCHEMISTRY MEETING

April 14-18, 2024

Portland, Oregon

THANK YOU TO ALL OUR SUPPORTERS!

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ISN International Society for Neurochemistry

MS National Multiple Sclerosis Society

NIH National Institutes of Health
Turning Discovery Into Health

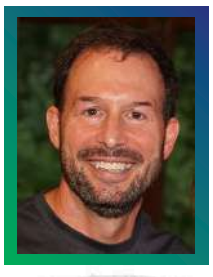
WELCOME LETTER

Dear ASN Members,

It gives me great pleasure to welcome you to the 54th Annual American Society for Neurochemistry Meeting (ASN 2024) in beautiful Portland, Oregon at the Portland Marriott Downtown Waterfront Hotel. I want to wish each of you safe travels and a wonderful, rewarding ASN 2024 meeting. ASN meetings are unique in that they bring together early-career and seasoned scientists to experience cutting edge neurochemistry and neurobiology, and enhance the careers of investigators at all levels.

The ASN 2024 Planning Committee (including our Local Host Committee), ASN Officers, and ASN Council have worked hard to put together a topflight meeting and we hope you thoroughly enjoy it and return with many ideas and collaborations. ASN 2024 will offer a dynamic and exciting scientific program with 4 internationally renowned Plenary Speakers (1 each day), 12 morning symposia (3 each day), 32 afternoon colloquia (4 early afternoon, 4 midafternoon each day), 2 poster sessions and plenty of other early-career programming.

We are very thankful for our local hosts and many ASN 2024 sponsors and grant awards including the International Society for Neurochemistry (ISN), National Institutes of Health (NIH), Sanofi, National MS Society and a variety of other organizations. As part of the NIH funding, ASN developed a Plan to Promote a Safe Environment for the ASN 2024 meeting. We are committed to fostering a safe and just environment where scientific ideas can be exchanged, and all attendees can interact and converse free from harassment and discrimination. Throughout the meeting there will be multiple social gatherings to help unite scientists with diverse expertise and backgrounds. We are happy that you have made it to Portland and we hope you enjoy the lively sessions!



Sincerely,
Michael R. Nichols, PhD
ASN President, 2023-2025

ASN COMMITTEES

Planning Committee

Michael R. Nichols, PhD
PRESIDENT, 2023-2025
Director, UMSL Biochemistry & Biotechnology (BCBT) Bachelors and Masters Program (jointly offered by the Department of Biology and the Department of Chemistry & Biochemistry)

Selva Baltan, PhD
ASN 2024 LOCAL ORGANIZING COMMITTEE CO-CHAIR
Endowed Professor
Vice Chair of Basic Research, Anesthesiology and Perioperative Medicine, Oregon Health and Science University, Portland, Oregon

Larry S. Sherman, PhD
ASN 2024 LOCAL ORGANIZING COMMITTEE CO-CHAIR
Portland, Oregon

Iryna M. Ethell, PhD
ASN 2024 PROGRAM CHAIR
Professor, Division of Biomedical Sciences
Associate Dean for Academic Affairs
School of Medicine, University of California Riverside

Donna Osterhout, PHD
SECRETARY 2023-2025
Department of Cell and Develop Biology
SUNY Upstate Medical University

Steven W. Barger, PhD
TREASURER, 2023-2025
Louise G. Hearn Endowed Chair in Dementia
Professor of Geriatrics, Professor of Neurobiology & Developmental Sciences, University of Arkansas for Medical Sciences, Research Health Scientist Geriatric Research, Education & Clinical Center, Central Arkansas Veterans Healthcare System

Program Committee Members

Iryna M. Ethell, PhD (Chair)
Selva Baltan, MD, PhD
Larry S. Sherman, PhD
Wendy B. Macklin, PhD
Joshua Burda, PhD
Alexander A. Mongin, PhD
Ukpong Eyo, PhD
Marino De Leon, PhD
Kimberley Tolias, PhD
Bettina Winckler, PhD
Verónica Martínez Cerdeño, PhD
Kimberley McAllister, PhD

Local Host Committee Members

Selva Baltan
Larry Sherman
Ursula Sandau
Corwin Butler
Julie Saugstad
Andrei Sdrulla
Elizabeth Moss
Thierno Madjou Bah
Taasin Srivastava
Kate Stout
Anusha Mishra
Ben Emery
Philip Copenhaverea
Stephen Back

ABOUT ASN ANNUAL MEETING

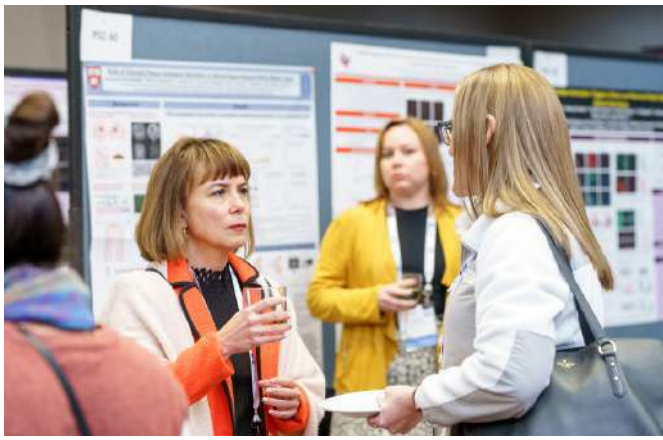
THE ASN MEETING IS A BI-ANNUAL MEETING THAT STARTED BACK IN 1970. FOR THE MOST PART, IT HAS BEEN HOSTED THROUGHOUT THE UNITED STATES WITH ONLY A FEW MEETINGS HOSTED OUTSIDE OF THE US IN CANADA AND MEXICO.

About American Society for Neurochemistry (ASN)

https://www.asneurochem.org/About-The-ASN

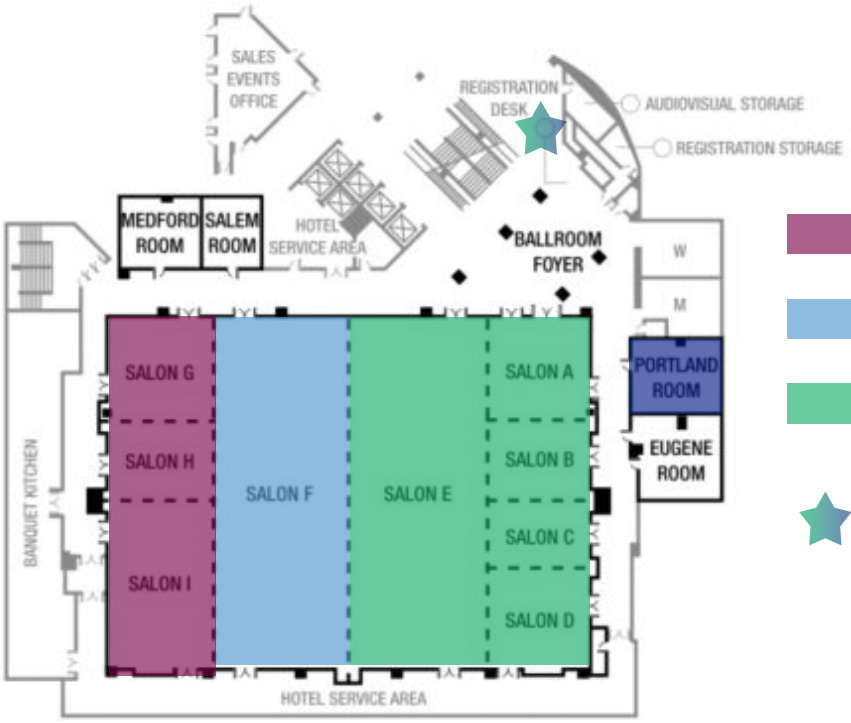
The American Society for Neurochemistry's Missions:

- To advance and promote cellular and molecular neuroscience knowledge
- To advance, promote, support, encourage and facilitate communication among investigators in neurochemistry and related neurosciences
- To promote, support, encourage and facilitate the dissemination of information concerning neurochemical research through scientific meetings, seminars, publications and related activities
- To promote, support and encourage the research of individual cellular and molecular neuroscientists and to engage in any and all other activities for the advancement of the science of neurochemistry which may be deemed advisable
- To ensure that all of its activities remain open to the full participation of scholars of all backgrounds and nationalities



VENUE FLOORPLAN

Lower Level



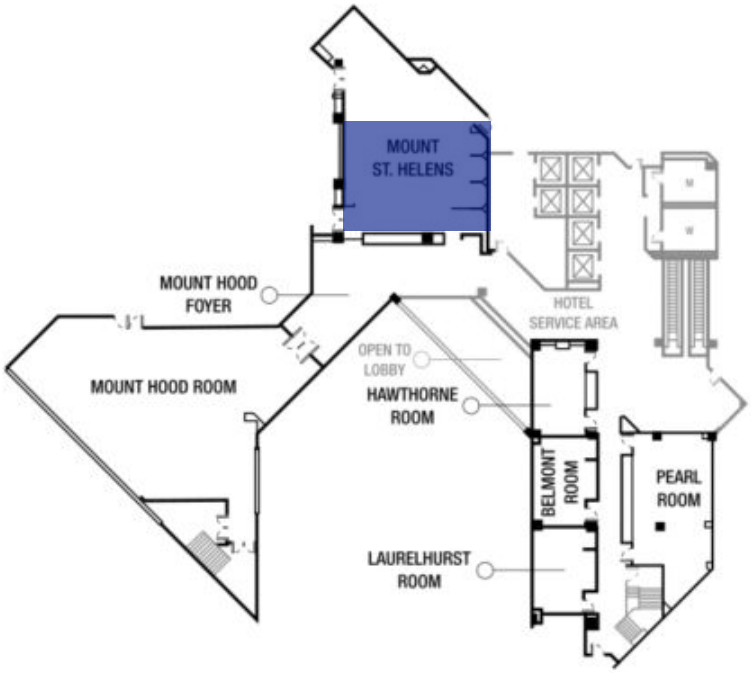
Session Room

Main Session & Session Room

Exhibit & Poster Hall
Welcome Reception & Gala Dinner

Registration Desk

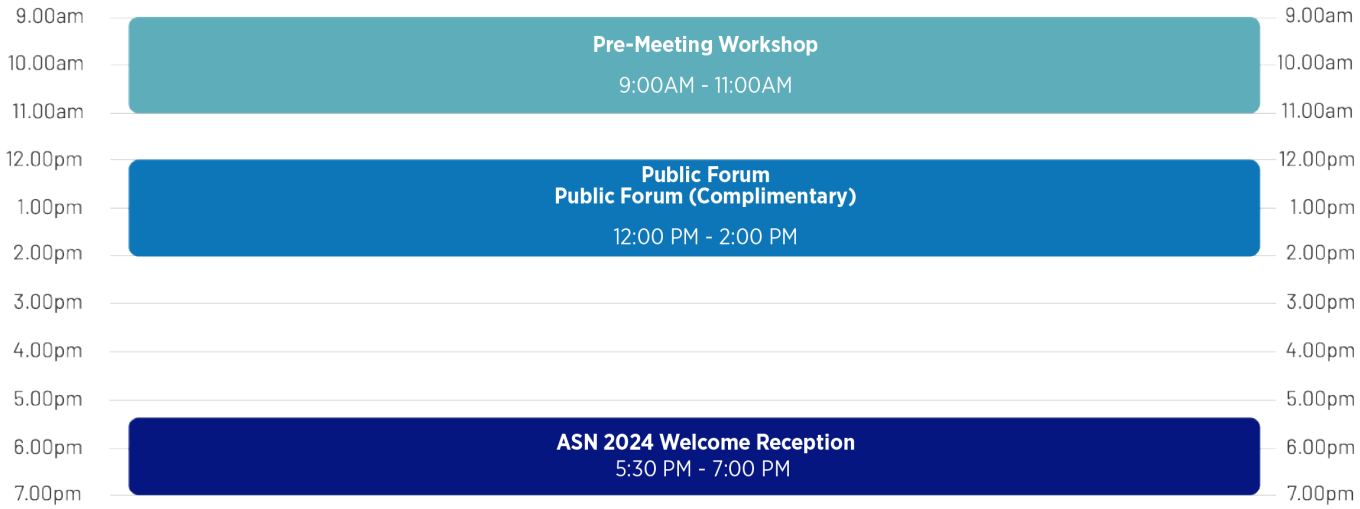
2nd Level



Meeting Room

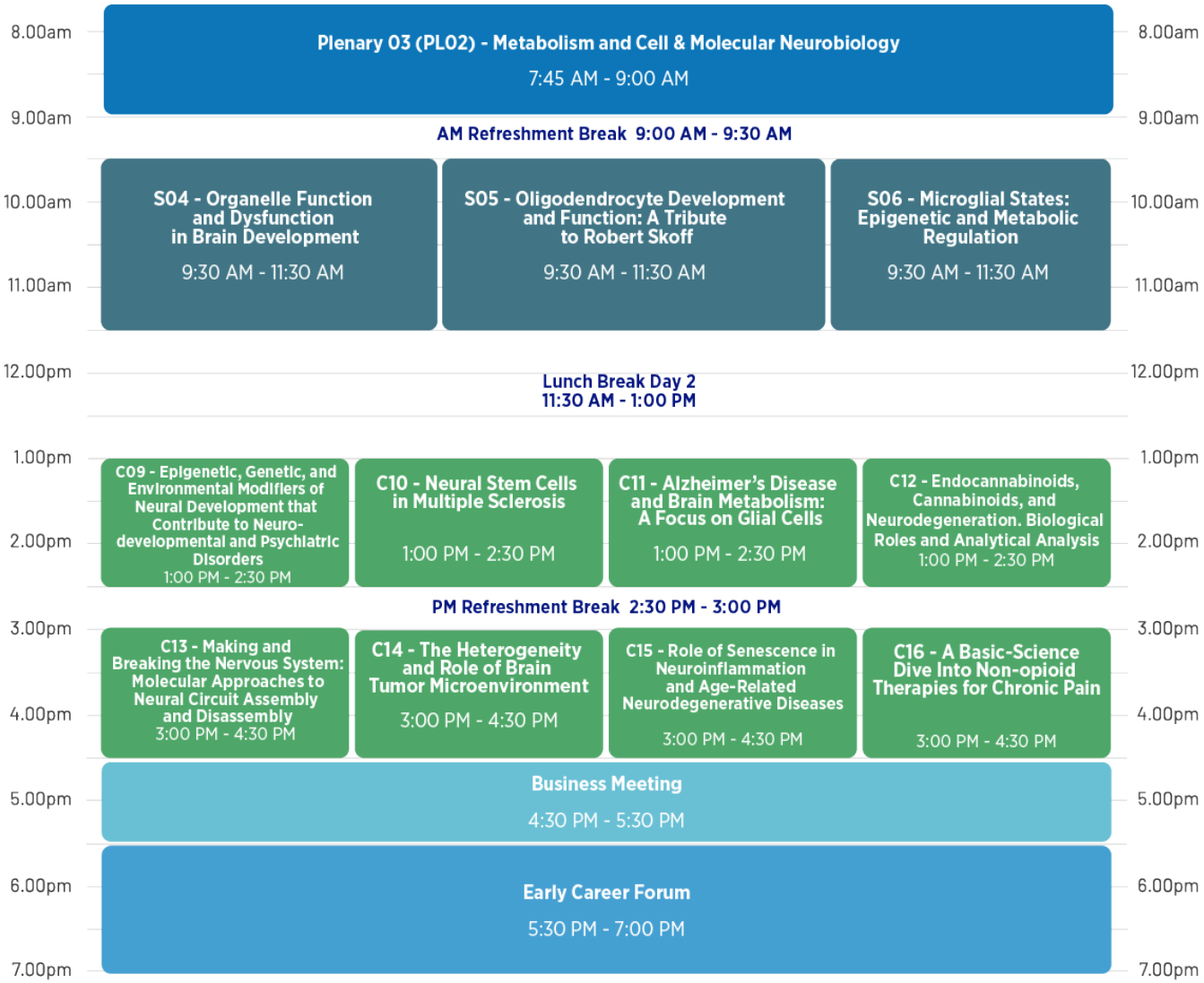
SCHEDULE AT A GLANCE

Sunday, April 14

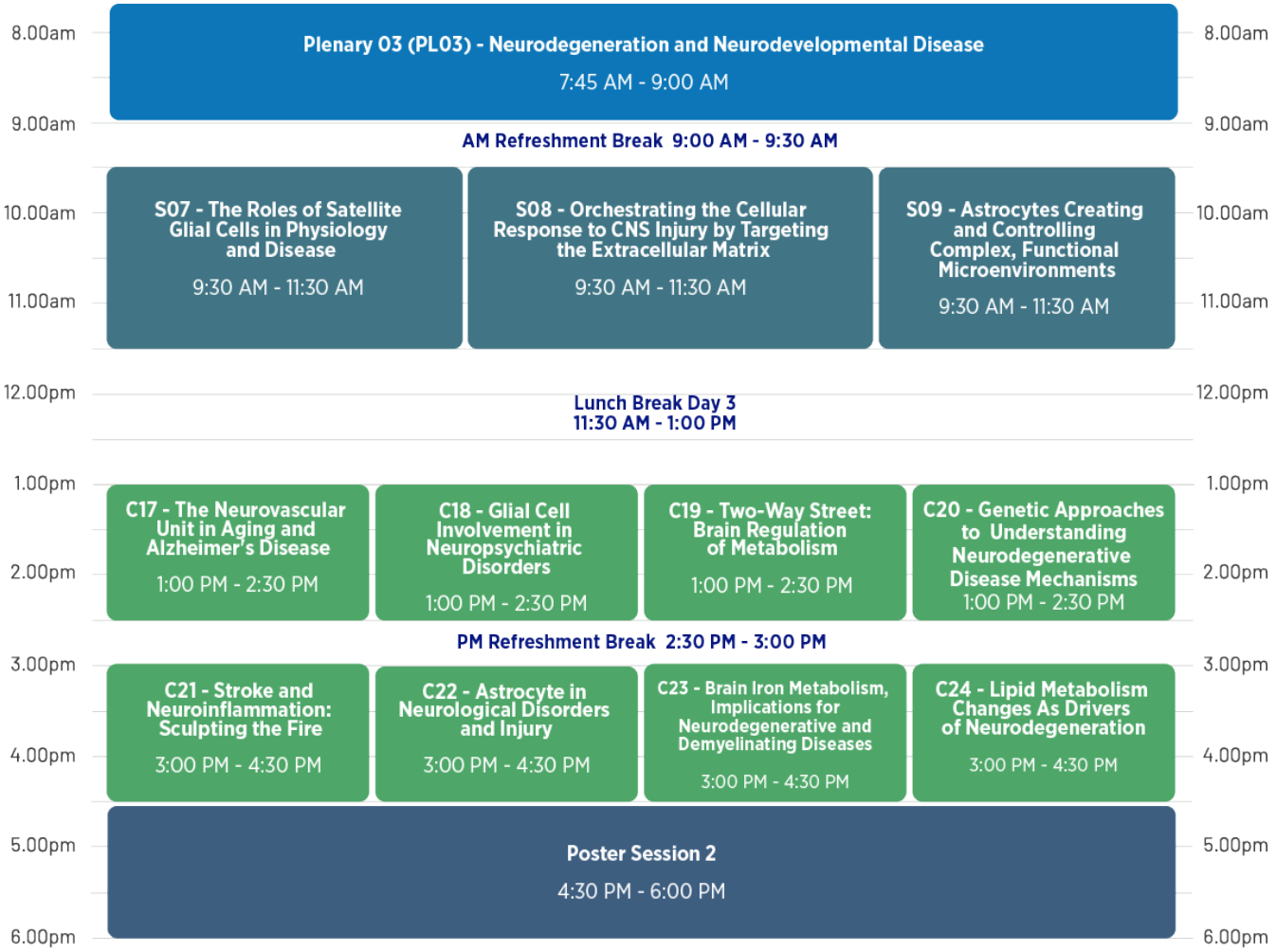


Monday, April 15

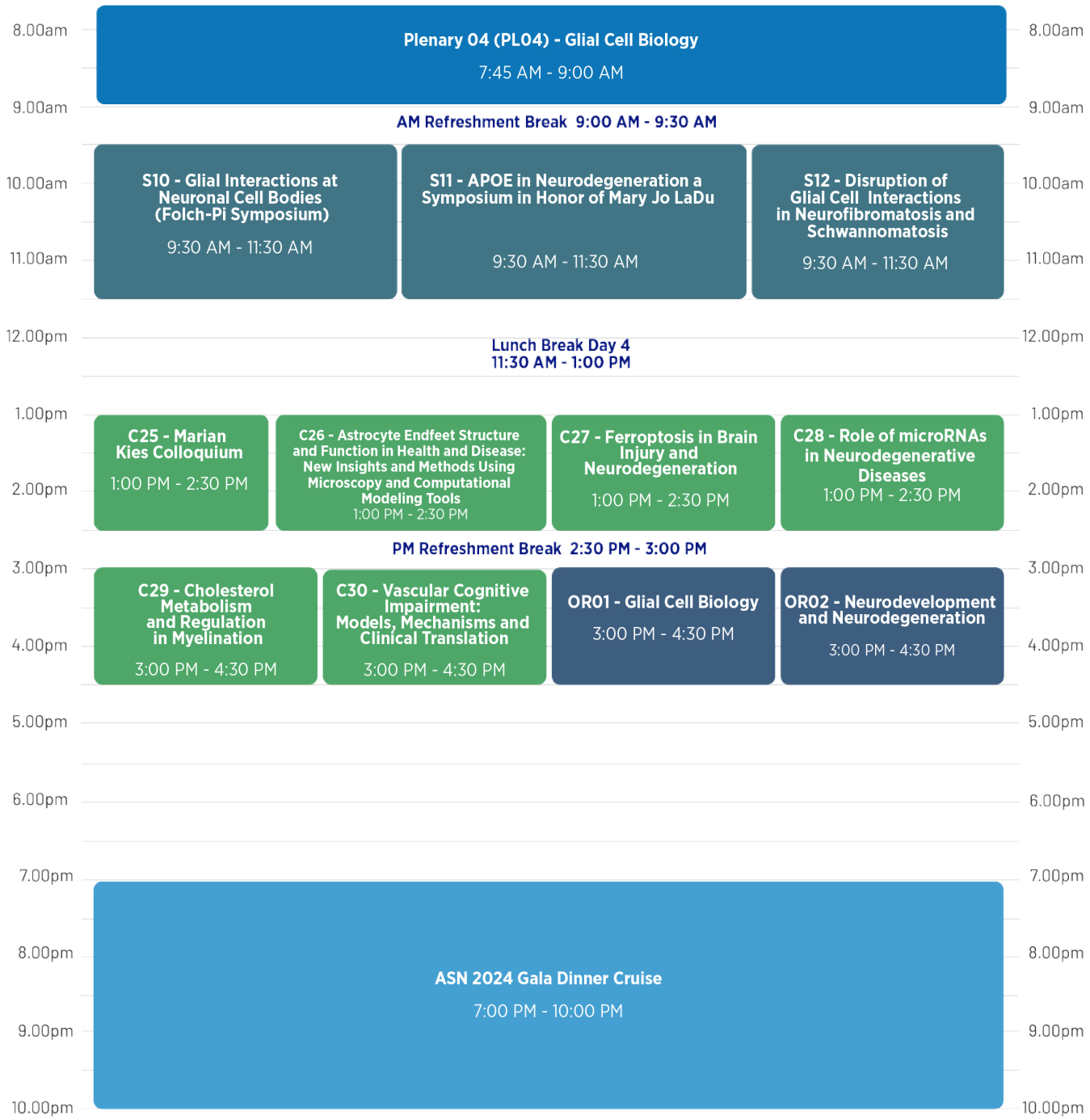
Tuesday, April 16



Wednesday, April 17



Thursday, April 18



PLENARY SPEAKERS

MICHAEL GREENBERG, PhD
Nathan Marsh Pusey Professor of Neurobiology (Harvard Medical School)

How Nature and Nurture Conspire to Regulate Brain Development and Plasticity

Experience-dependent neuronal activity plays a critical role in shaping the connectivity and function of the central nervous system. These actions are mediated in part by the action of a program of neuronal activity-driven gene expression. Investigation of these gene expression programs has uncovered important roles in dendritic growth, the development of excitatory and inhibitory synapses, the composition of protein complexes at pre- and post-synaptic sites, and the production of neuropeptides that control neural circuit development. Moreover, defects in the activity-dependent gene program contribute to disorders of human cognition. Thus, study of this transcriptional response promises new insights into neuronal plasticity and disease.
https://greenberg.hms.harvard.edu

JENNIFER LIPPINCOTT-SCHWARTZ, PhD
4D Cellular Physiology Senior Group Leader (Howard Hughes Medical Institute's Janelia Research)

Metabolism and Cell & Molecular Neurobiology

Lab studies how the different cells comprising an organ operate individually and interdependently to allow an organ to develop, remodel, heal and compute. In addressing this challenge, lab focuses on the dynamic organization of subcellular organelles and their trafficking pathways in driving the metabolic and physical states of cells and their interrelationships. Jennifer Lippincott-Schwartz's research uses live cell imaging approaches to analyze the spatio-temporal behavior and dynamic interactions of molecules in cells.

https://www.janelia.org/lab/lippincott-schwartz-lab

BRUCE LAMB, PhD
Executive Director of Paul and Carole Stark Neurosciences Research Institute (Indiana University School of Medicine)

Characterizing the Role of Innate Immune Pathways in Alzheimer's Disease in the MODEL-AD/TREAT-AD Consortia and the Lamb Lab

Lab studies microglia and neuronal-microglial communication in the development and progression of Alzheimer's pathologies; traumatic brain injury as an environmental modifier for the development of Alzheimer's pathologies.
https://medicine.iu.edu/faculty/23627/lamb-bruce

ANNA VICTORIA MOLOFSKY, MD, PhD
Department of Psychiatry (University of California san Francisco Medical School)

Neuroimmune Regulation of Brain Development and Plasticity

Molofsky's lab studies interactions between multiple cell types within the brain, including neurons, astrocytes, and microglia, and in particular, to define how innate immune signals shape healthy brain development, plasticity, and aging, both within the brain and in communication with peripheral immunity. Cellular and molecular understanding of brain-immune communication that can inform new immune-based therapies for psychiatric, neurodevelopmental, and neurodegenerative illnesses.
https://www.annamolofskylab.org

SOCIAL EVENTS

SUNDAY, APRIL 14

ASN 2024 First Timers' Reception

5:00 PM – 5:30 PM

Location: Oregon Ballroom, Salon A-E Ballroom, Exhibit and Poster Hall

Access: Open to all registered first-time attendees. Name badges must be worn and visible for entry.

Attending ASN for the first time? We welcome you to join other first-time attendees and meet new friends over drinks.

ASN 2024 Welcome Reception

5:30 PM – 7:00 PM

Location: Oregon Ballroom, Salon A-E Ballroom, Exhibit and Poster Hall

Access: Open to all registered attendees. Name badges must be worn and visible for entry.

We are excited to welcome you to ASN 2024 with a drink and some light canapes surrounded by your ASN colleagues! Join us at the Welcome Reception and catch up with some old friends or make new ones.

MONDAY, APRIL 15

Plenary Speaker Lunch 1

SOLD OUT

11:45 AM – 12:45 PM

Location: Columbia Room
Access: Pre-registration required

Supported by NIH National Institutes of Health Turning Discovery Into Health

Meet the plenary speaker, Michael Greenberg over lunch.

Women in Neurochemistry Lunch

11:45 AM - 12:45 PM

Location: Mount St. Helens Room
Access: Pre-registration required

The Women in Neurochemistry lunch will be an interactive discussion on how to navigate, enjoy and succeed in a career in neurochemistry. Come and meet others, network, and exchange tips on how to create an ever more inclusive and diverse space in which we can all be outstanding scientists and mentors. There will also be an opportunity to set up peer mentoring groups at the luncheon. Pre-registration is required.

Poster Session 1

4:30 PM – 6:00 PM

Location: Oregon Ballroom, Salon A-E Ballroom, Exhibit and Poster Hall

Access: Open to all registered attendees. Name badges must be worn and visible for entry.

Learn about new research and network with poster abstract authors.

ASN 2024 Student Post-Doc Mingler

8:00 PM – 10:00 PM

Location: Punchbowl Social. View Walking Directions

Access: Open to student/post docs. Pre-Registration required

Meet some of your fellow students or post docs while enjoying local Portland brews and old fashion arcade games.

TUESDAY, APRIL 16

ASN Highschool Day

9:00AM – 1:00 PM

One of the central missions of the ASN is to introduce academic career choices and promote diversity, equity, and inclusion at early levels of education and scientific training. As part of this effort, we have invited students from a local High School to engage with early career scientists and experience the scientific excitement of the ASN conference. This year, we will welcome students from McDaniel High School. ASN is enthusiastic about providing this opportunity for young students to experience the latest research in neurochemistry and inspiring them to pursue a scientific career.

Plenary Speaker Lunch 2

SOLD OUT

11:45 AM – 12:45 PM

Location: Columbia Room

Access: Pre-registration required

Supported by NIH National Institutes of Health Turning Discovery Into Health

Meet the plenary speaker, Jennifer Lippincott-Schwartz over lunch.

ECDC Forum - Fostering Diversity in Science: Navigating a Research Career as an Underrepresented Minority

5:30 PM - 7:00 PM

Location: Oregon Ballroom. Salon F

Supported by sanofi

The ECDC forum will feature a panel discussion focused on overcoming obstacles faced by underrepresented minorities in science careers. This session is an open discussion on how we can improve research environments for early career investigators. Both trainees and PIs are encouraged to join and contribute their perspectives to the forum.

WEDNESDAY, APRIL 17

Plenary Speaker Lunch 3 SOLD OUT

11:45 AM – 12:45 PM

Location: Columbia Room

Access: Pre-registration required

Supported by NIH National Institutes of Health Turning Discovery Into Health

Meet the plenary speaker, Bruce Lamb over lunch.

ECDC Lunch
Next Steps: Career Advice for Industry and Academia

11:45 AM - 12:45 PM

Location: Mount St. Helens Room

**Advance Sign up and Pre Payment Required*

Supported by sanofi

Lunch with academic and industry professionals. Small group discussions will allow all trainees to ask questions to PIs and industry reps of their choice. Explore your future career options with an hour of advice and mentorship focused on your goals and concerns!

Poster Session 2

4:30 PM – 6:00 PM

Location: Oregon Ballroom, Salon A-E Ballroom, Exhibit and Poster Hall

Access: Open to all registered attendees. Name badges must be worn and visible for entry.

Learn about new research and network with poster abstract authors.

THURSDAY, APRIL 18

Plenary Speaker Lunch 4 SOLD OUT

11:45 AM – 12:45 PM

Location: Columbia Room

Access: Pre-registration required

Supported by NIH National Institutes of Health Turning Discovery Into Health

Meet the plenary speaker, Anna Victoria Molofsky over lunch.

Gala Dinner Cruise

7:00 PM – 10:00 PM

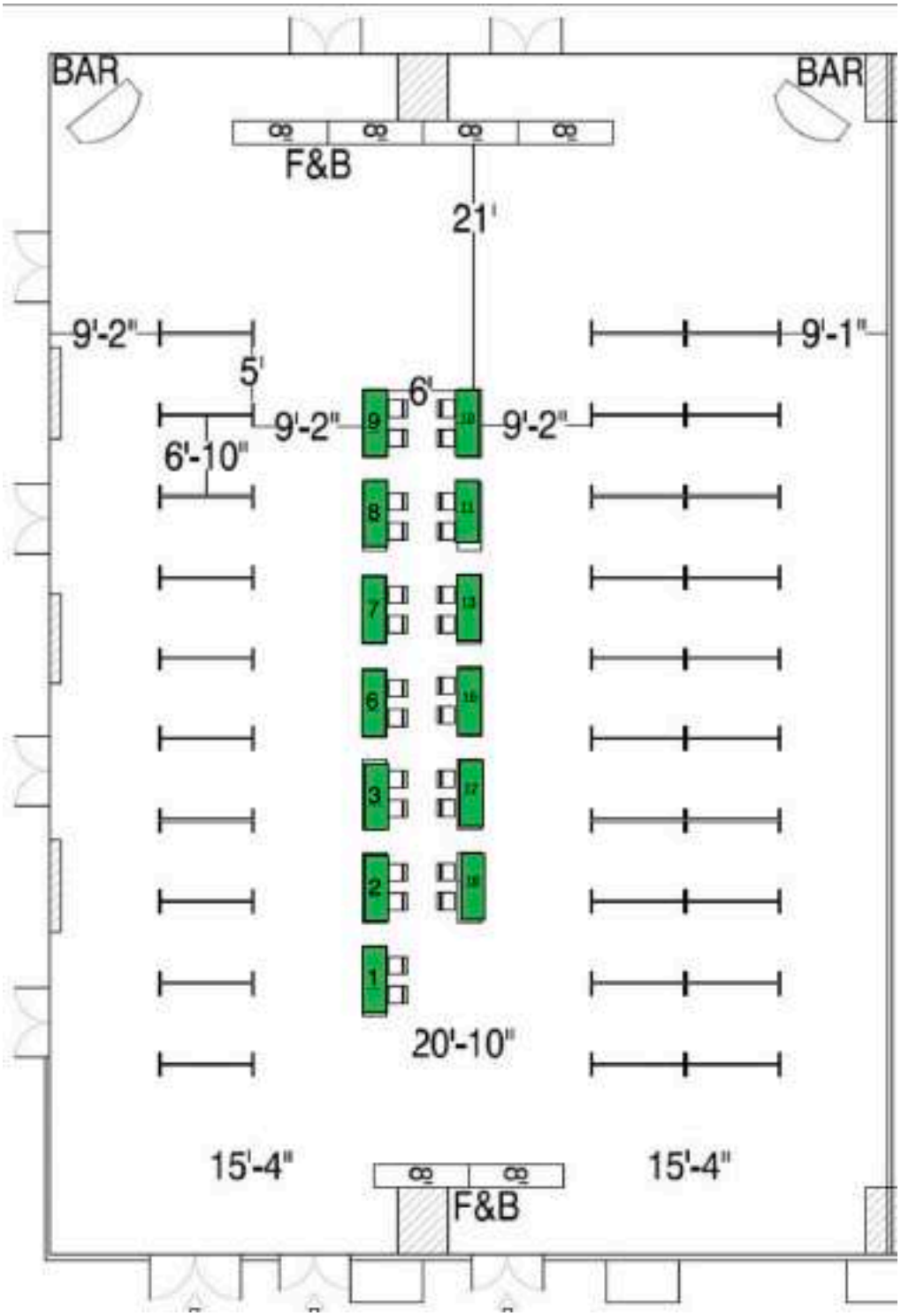
Location: Meet at the Salmon Springs Dock Departure Point at 1010 SW Naito Parkway.

View Walking Directions (5 minute walk from the Portland Marriott Downtown Waterfront Hotel)

Access: Event ticket required for entry.

Join your fellow attendees as we embark on a 2.5 hour cruise through the Williamette River and take in all of Portland's sights and sounds. Celebrate the close of ASN 2024 over a three-course dinner and live musical entertainment.

EXHIBITOR FLOORPLAN



AstraZeneca	13
Evident Scientific	8
Gene Tools, LLC	1
ISN	11
Kent Scientific Corporation	17
Lumencor, Inc.	2
NSA Labs	18
ONI	3
Pinnacle Technology	9
RWD Life Science Co., Ltd.	16
Stoelting Co	10
Thermo Fisher Scientific	6
Unchained Labs	7

EXHIBITOR INFORMATION

ASTRAZENECA — TABLE 13

AstraZeneca is a global, science-led biopharmaceutical company that focuses on the discovery, development, and commercialization of prescription medicines in Oncology, Rare Diseases, and BioPharmaceuticals, including Cardiovascular, Renal & Metabolism, and Respiratory & Immunology. AstraZeneca operates in over 100 countries and its innovative medicines are used by millions of patients worldwide.

http://www.astrazeneca.com

EVIDENT LIFE SCIENCE — TABLE 8

Evident Life Science empowers scientists and researchers through collaboration and cutting-edge life science solutions. Dedicated to meeting the challenges and supporting the evolving needs of its customers, Evident Life Science advances a comprehensive range of clinical research, educational, and premium microscopes and microscope systems.

http://www.evidentscientific.com

GENE TOOLS — TABLE 1

Gene Tools manufactures Morpholino oligos for blocking translation, modifying splicing or inhibiting miRNA activity. Morpholinos are used in cell cultures, embryos or, as Vivo-Morpholinos, in adult animals. Morpholinos are effective, specific, stable and non-toxic. Backed by Ph.D.-level customer support, Gene Tools designs and synthesizes Morpholinos and offers cytosolic delivery options.

http://www.gene-tools.com

KENT SCIENTIFIC — TABLE 17

For over 30 years Kent Scientific has served research scientists as a worldwide provider of integrated solutions for pre-clinical research and drug discovery advancement. As the world leader in noninvasive blood pressure, physiological monitoring, and anesthesia systems for small animals, we enable researchers to achieve fast, consistent, and accurate results.

http://www.kentscientific.com

LUMENCOR — TABLE 2

Lumencor fosters innovation. We thrive on technical lighting challenges and exist to show what's possible when light is used to its fullest potential. From bright, dependable Light Engines to completely custom Scanners, we do more than simple LEDs. Our tools illuminate life, clinical, and materials science, advancing life-changing research and development.

http://www.lumencor.com

NEUROSCIENCE ASSOCIATES, INC — TABLE 18

Proprietary MultiBrain® and MultiCord® technology enables NSA Labs to embed, section and stain up to 40 neuronal tissues simultaneously. NSA Labs has 35 years of experience applying classic histological stains and IHC with custom antibodies. Additionally, we offer slide digitization and remote viewing of scans via Internet (Proscia).

http://www.nsalabs.com

ONI — TABLE 3

ONI is a pioneering company dedicated to advancing human discovery through cutting-edge microscopy solutions. Our flagship product, the Nanoimager, empowers researchers to explore biological structures at 20nm resolution. With offerings like the EV profiler kit and cloud-based CODI software, ONI enhances fluorescence microscopy capabilities, supporting breakthroughs in scientific understanding.

http://www.oni.bio

PINNACLE — TABLE 9

Pinnacle offers turn-key systems for mice and rats, including systems for EEG/EMG, biosensors (for glucose, lactate or glutamate), oxygen sensors, and FSCV. Optogenetics, electrical stimulation, synchronized video, and sleep deprivation can be added to most hardware setups. Pinnacle's Sirenia software suite includes a free acquisition package with premium analysis modules.

http://www.pinnaclet.com

RWD LIFE SCIENCE CO., LTD — TABLE 16

Established in 2002, RWD is a progressive scientific equipment company introducing the up-to-date laboratory equipment to the industry. Our scientific instruments service is applicable to animal surgery and modeling, neural circuit signal, cell & molecular biology, microcirculation monitoring, pathological diagnosis,and veterinary medical science.

http://www.rwdstco.com

STOELTING — TABLE 10

Stoelting has been a leader in development, design, and sale of neuroscience research equipment since 1886. Our line of Stereotaxic Instruments is world-renowned. Moreover, our intuitive, feature-rich, and all-inclusive ANY-maze behavioral tracking software is unmatched (www.ANY-maze.com). We also offer solutions for Animal Identification including Ear Tags and Markers.

http://www.stoeltingco.com

THE INTERNATIONAL SOCIETY FOR NEUROCHEMISTRY (ISN) — TABLE 11

The International Society for Neurochemistry (ISN) is the first and only global society focused on neurochemistry, owner of Journal of Neurochemistry (JNC).

http://www.neurochemistry.org

THERMO FISCHER SCIENTIFIC — TABLE 6

Thermo Fisher Scientific is proud of our Mission: To enable our customers to make the world healthier, cleaner and safer. Through our genetic and life sciences brands, we help customers accelerate innovation and enhance productivity.

http://www.thermofisher.com

UNCHAINED LABS — TABLE 7

Here's the deal. We're all about helping EV researchers break free from tools that just don't cut it. Unleashing problem-tackling solutions that make a huge difference in the real science they do every day. That's our mantra, our promise and we own it.

http://www.unchainedlabs.com

DETAILED PROGRAM

SUNDAY, APRIL 14, 2024

Pre-Meeting Workshop

9:00 - 11:00

Room: Salons G & H

Access: Open to all attendees and general public

Public Forum

12:00 - 14:00

Room: Salons G & H

Supported by sanofi

Access: complimentary and available to registered attendees of ASN 2024 only

MONDAY, APRIL 15, 2024

PL01
How Nature and Nurture Conspire to Regulate Brain Development and Plasticity

07:45 - 09:00

Michael Greenberg, Harvard Medical School

S01
Adhesion GPCRs (A-GPCRs) and Development of the Nervous System

09:30 - 11:30

Session Room: Salon G & H

Session Chair:
Kimberley Tolias, Baylor College of Medicine
Session Co-Chair:
Joseph Duman, Baylor College Of Medicine

S01.01 - Control of Axonal Mitochondria in Glutamatergic Neurons by the Adhesion-GPCR BAI1

Joseph Duman, Baylor College Of Medicine

S01.02 - Decoding the Molecular Etiology of Neurodevelopmental Disorders Through Adhesion-GPCR Latrophilins

Antony Boucard, Centro De Investigación Y De Estudios Avanzados (cinvestav-ipn)

S01.03 - GPR56/ADGRG1 Regulates Axon Ensheathment by Pre-myelinating Oligodendrocytes

Xianhua Piao, University of California, San Fraoncisco

S01.04 - Developmental Role of ADGRF1 Activation in Mouse Brain and Human Neural Progenitor Cells

Hee-yong Kim, Nih/niaaa

S02
Cytoskeletal-Dependent Mechanisms Controlling Development, Neurotransmission, and Neurodegeneration

09:30 - 11:30

Session Room: Salon F

Session Chair: Christian Gonzalez-Billault, Universidad de Chile
Session Co-Chair: Bonnie Firestein, Rutgers University

S02.01 - Pathogenic Mechanisms in Neurodegenerative Diseases

Gerardo Morfini, University of Illinois

S02.02 - Actin in Self Defense: Pro-survival Mechanisms in Acute Neuronal Injury

Shelley Halpain, University of California San Diego

S02.03 - Dendrites: The Role of the Cytoskeleton in Development

Bonnie Firestein, Rutgers University

S02.04 - Redox Biology Mechanisms Control Axonal Elongation: A Dual Role for Rac1

Christian Gonzalez-Billault, Universidad de Chile

S03
Neuroimmune Interactions and Neurodegenerative Disorders

09:30 - 11:30

Session Room: Salon I

Session Chair:
Jasmin Herz, Washington University in St. Louis
Session Co-Chair:
NIKHIL PANICKER, Cleveland Clinic

S03.01 - Microglial-Vascular Interactions in Health and Alzheimer's Disease

Ukpong Eyo, University Of Virginia

S03.02 - Impact of Viral Infections and Infiltrating T Cells on Alzheimer's Disease Pathophysiology

Jasmin Herz, Washington University in St. Louis

S03.03 - Inflammasome Responses Amplify Neuropathology in Models of Dementia With Lewy Bodies and Parkinson's Disease

NIKHIL PANICKER, Cleveland Clinic

S03.04 - Sex-Dependent Impact of Apolipoprotein E Genotype on Meningeal Immunity and Lymphatic Drainage

Sandro Da Mesquita, Mayo Clinic

C01
Mechanisms of Glia Development and Glia-Neuron Interactions

13:00 - 14:30

Session Room: Salon F

Session Chair:
Isabella Farhy-Tselnicker, Texas A&M University

C01.01 - Astrocyte Regulation of Active and Silent Synaptogenesis

Isabella Farhy-Tselnicker, Texas A&M University

C01.02 - Wired Differently: How Biological Sex and Prenatal Drug Exposure Shape Astrocyte-Mediated Synaptic Development

W. Christopher Risher, Joan C. Edwards School Of Medicine At Marshall University

C01.03 - The Role of Exocytosis in Oligodendrocyte Development and Myelination

Ye Zhang, Ucla

C01.04 - Experience-Dependent Sonic Hedgehog Signaling in Astrocytes Regulates Expression of Synapse-Associated Genes

Anna Denise Garcia, Drexel University College of Medicine

C02
The Role of Neuronal Activity in Myelination

13:00 - 14:30

Session Room: Salon H

Session Chair: Ethan Hughes, University

Session Co-Chair: Tara DeSilva, Cleveland Clinic

C02.01 - Retinal Ganglion Cell Activity Modulates Microglia Engulfment of Oligodendrocyte Progenitor Cells to Refine Myelination

Tara DeSilva, Cleveland Clinic

C02.02 - Harnessing Neuronal Activity to Drive Remyelination and Functional Improvement

Ethan Hughes, University

C02.03 - Cellular Mechanisms of Myelin Tuning and Dynamics

Brad Zuchero, Stanford University

C02.04 - Myelination Initiates in the Developing Optic Nerve in the Absence of Dynamic Neuronal Signaling

Sonia Mayoral, Brown University

C03
Neural Circuits Underlying Neuropsychiatric Disorders

13:00 - 14:30

Session Room: Salon I

Session Chair: Iryna Ethell, University of California, Riverside

Session Co-Chair: Samantha Sutley-Koury, University of California Riverside

C03.01 - Impact of Adolescence Cannabinoid Exposure on Dopamine System Development and Cocaine-Motived Behavior

Natalie Zlebnik, University Of California, Riverside

C03.02 - Neuregulin Signaling Mediates the Acute and Sustained Antidepressant Effects of Subanesthetic Ketamine

Steven Grieco, UCI

C03.03 - Deconstructing the Psychedelic Experience: Insights Across Species

Boris Heifets, Stanford University

C03.04 - Psychedelics Promote Plasticity by Directly Binding to BDNF Receptor TrkB

Eero Castren, University Of Helsinki

C04
Brain-Organ Crosstalk in Neurodegenerative and Neurodevelopmental Disorders (NDDs)

13:00 - 14:30

Session Room: Salon G

Session Chair: Monica Carson, University Of California Riverside

Session Co-Chair: Amanda Brown, Johns Hopkins University School Of Medicine

C04.01 - Deciphering Microbiome and Neuroactive Immune Gene Interactions in Neurodevelopmental Disorders

Emily Severance, Johns Hopkins School Of Medicine

C04.02 - TBA

Monica Carson, University Of California Riverside

C04.03 - When Smoke Causes Fire: Understanding the Cascade from Wildfire Smoke Inhalation to Neuroinflammation

Matthew Campen, University Of New Mexico

C04.04 - Sex-Specific Modulation of the CNS Respiratory Circuit by Allergen-Triggered Lung Inflammation

Paula da Silva Frost, Medical University of South Carolina

C05
Dysfunctional Neural Dynamics and Atypical Sensory Processing in Fragile X Syndrome: Insights From Mouse Models

15:00 - 16:30

Session Room: Salon G

Session Chair: Anubhuti Goel, University of California Riverside

C05.01 - Treating Autism Spectrum Disorder via Therapeutic Strategies That Imitate the Effect of Fever

Michelle Antoine, NIH

C05.02 - The Visual Cortex of Fmr1 KO Mice Exhibits Impaired Oscillations and Disrupted Interareal Circuitry in Response to Visual Experience

Alexander Chubykin, Purdue University

C05.03 - Serotonin (5HT)-1A Receptor Agonists Reduce Auditory Hypersensitivity and Improve Temporal Processing in a Mouse Model of Fragile X Syndrome

KHALEEL RAZAK, UC, Riverside

C05.04 - Intercortical Dysfunction in Distractor Susceptibility in Fragile X Syndrome

Anubhuti Goel, University of California Riverside

C06
Oligodendrocyte Injury and Repair Cycle From Developmental Stage to Aging

15:00 - 16:30

Session Room: Salon F

Session Chair: Selva Baltan, Oregon Health & Science University

Session Co-Chair: Vittorio Gallo, Seattle Children's Research Institute

C06.01 - Blood at the Neurovascular Interface: Coagulation Links to Myelin Regeneration

Mark Petersen, University Of California San Francisco

C06.02 - The Oligodendrocyte-Vascular Unit: Angiogenesis, Myelination and Neuroprotection

Manideep Chavali, Oregon Health and Science University

C06.03 - Specific Molecular Responses Modulated by EGFR Targeted as a Therapeutic Strategy for Hypoxic Injury in the Neonatal Brain

Vittorio Gallo, Seattle Children's Research Institute

C06.04 - Strategies to Promote ECM Repair and Regeneration After Chronic Myelination Failure

Stephen Back, OSHU

C07
Neuronal mechanisms underlying sex and age-specific differences in reward-associated behavior

15:00 - 16:30

Session Room: Salon H

Session Chair: Anel Jaramillo, University of Kentucky

C07.01 - Targets for Age and Sex Differences for Affective Behaviors in C57BL/6J Mice

Antoniette Maldonado-Devincci, North Carolina A&t State University

C07.02 - Establishing the Lasting Impact of Adolescent Cannabinoid Exposure on Cortical Development

Sierra Stringfield, University Of Pittsburgh

C07.03 - Sex as a Variable: Cocaine Self-administration, Sex Steroids, and Nicotinic Receptors Interplay

Elizabeth Sneddon, University Of California, San Diego

C07.04 - Melanocortin 3 Receptor Has Sexually Dimorphic Effects on Feeding and Stress

Michelle Bedenbaugh, Vanderbilt University

C08
Immunologic Insights Into Vascular Dementia

15:00 - 16:30

Session Room: Salon I

Session Chair: Marion Buckwalter, Stanford School of Medicine

C08.01 - SARS-CoV-2 Infection Accelerates Neuropathology in the BCAS Model of Vascular Dementia (VaD) in Mice

Gregory Bix, Tulane University

C08.02 - Targeting Foam Cells to Improve Recovery From Ischemic Stroke

Kristian Doyle, University Of Arizona

C08.03 - Gliovascular Chemokine Signaling as a Target in White Matter Stroke

Enrique Font Belmonte, UCLA

C08.04 - The Blood-Brain Barrier Is Dysfunctional in Humans With Post-infarct Neurodegeneration

Marion Buckwalter, Stanford School of Medicine

TUESDAY, APRIL 16, 2024

PL02
Periodic ER-Plasma Membrane Junctions in Dendrites Support Long-Range Ca2+ Signal Integration

07:45 – 09:00

Jennifer Lippincott-Schwartz, HHMI Janelia Research Campus

S04
Organelle Function and Dysfunction in Brain Development

09:30 - 11:30

Session Room: Salon G & H

Session Chair: Vivian Gama, Vanderbilt University

Session Co-Chair: Lisa Julian, Simon Fraser University

S04.01 - N-Glycosylation in Neural Stem Cell Fate Decisions

Lisa Flanagan, University of California, Irvine

S04.02 - Modeling Rare Mitochondrial and Peroxisomal Diseases Using Human iPSC Models

Vivian Gama, Vanderbilt University

S04.03 - Human Cell Models Highlight ER Stress and Lysosome Dynamics As Drivers of Neural Stem Cell Fate Decisions

Lisa Julian, Simon Fraser University

S04.04 - Sex-Dependent Mitochondrial Modeling in Early Development

Thomas Hurd, University Of Toronto

S05
Oligodendrocyte Development and Function: A Tribute to Robert Skoff

09:30 - 11:30

Session Room: Salon F

Session Chair: Robert Miller, George Washington University

Session Co-Chair: Wendy Macklin, University Of Colorado School Of Medicine

S05.01 - Robert Skoff: A Visionary of Oligodendrocyte Functions

Anne Boullerne, University of Illinois at Chicago

S05.02 - Functional Consequences of Disrupting Oligodendrocyte Development in the Optic Nerve

Robert Miller, George Washington University

S05.03 - Impact of CSF Immunoglobulins in Multiple Sclerosis Pathology

Wendy Macklin, University Of Colorado School Of Medicine

S05.04 - HIV-1 Reservoirs in Brain Alter Oligodendrocyte Function and White Matter Structure

Pamela Knapp, Virginia Commonwealth University

S06
Microglial States: Epigenetic and Metabolic Regulation

09:30 - 11:30

Session Room: Salon I

Session Chair: Marianela Traetta, University of Victoria

Session Co-Chair: Marie-Eve Tremblay, University of Victoria

S06.01 - Cellular Reprogramming of Microglia in Neurodegeneration

Pinar Ayata, City University Of New York

S06.02 - Epigenetic Control of Microglial Innate Immune Memory

Annie Ciernia, University Of British Columbia

S06.03 - Lipid and Lipoprotein Processing in Microglia

Kimberley Bruce, University of Colorado Anschutz Medical School

S06.04 - The Microglial Metabolic Response in a Mouse Model of Alzheimer's Disease

Tyler Ulland, University Of Wisconsin

C09
Epigenetic, Genetic, and Environmental Modifiers of Neural Development that Contribute to Neurodevelopmental and Psychiatric Disorders

13:00 - 14:30

Session Room: Salon F

Session Chair: Steven Levison, Rutgers University
Session Co-Chair: Jessica MacDonald, Syracuse University

C09.01 - Aberrant NF-kB Pathway Activation and Neurodevelopmental Disruptions in Rett Syndrome

Jessica MacDonald, Syracuse University

C09.02 - The Role of Baf53b in Neuronal Gene Expression and Autism Spectrum Disorder

Megan Rowland, The University Of British Columbia

C09.03 - Mitochondrial Dysfunction as a Genetic Modifier in Autism

Stewart Anderson, Children's Hospital Of Philadelphia/UPenn Sch. Medicine

C09.04 - Elevated Levels of Cytokines in Late Gestation Produce a High Functioning ASD Syndrome in Mice

Fernando Janczur Velloso, NJMS Rutgers

C10
Neural Stem Cells in Multiple Sclerosis

13:00 - 14:30

Session Room: Salon H

Session Chair: Jayshree Samanta, University of Georgia

C10.01 - How Does Intrinsic Vascular and Glial Cell Dysfunction Contribute to Multiple Sclerosis Development or Severity

Kaylene Young, University Of Tasmania

C10.02 - Manipulating the Neural Stem Cell Response to Demyelination

Katrina Adams, University of Notre Dame

C10.03 - Regulation of Remyelination by TGFb1 Pathway

Jayshree Samanta, University of Georgia

C10.04 - Modulation of Remyelination Efficiency Following Cuprizone-Induced Demyelination

Tobias Merson, National Institute of Mental Health

C11
Alzheimer's Disease and Brain Metabolism: A Focus on Glial Cells

13:00 - 14:30

Session Room: Salon G

Session Chair: Wenqiang Chen, Harvard Medical School, Steno North American Fellow, Steno Diabetes Center Copenhagen

Session Co-Chair: Elizabeth Rhea, University Of Washington

C11.01 - Astrocytic Regulation of Insulin BBB Transport

Elizabeth Rhea, University Of Washington

C11.02 - Insulin Signaling Regulates Microglial Metabolism and Modulates Pathogenesis of Alzheimer's Disease in 5xFAD Mice

Wenqiang Chen, Harvard Medical School, Steno North American Fellow, Steno Diabetes Center Copenhagen

C11.03 - Microglial Derived Extracellular Vesicles Confer Alzheimer's Risk in a Sex Dependent Manner

Shannon Macauley, University Of Kentucky

C11.04 - Neuroinflammation and Alzheimer's Disease in Nonhuman Primates

Danielle Beckman, University Of California, Davis

C12
Endocannabinoids, Cannabinoids, and Neurodegeneration. Biological Roles and Analytical Analysis

13:00 - 14:30

Session Room: Salon I

Session Chair: Eric Murphy,
Session Co-Chair: Travis Denton, Washington State University

C12.01 - Liver Fatty Acid Binding Protein (FABP1): A Key Role in Brain 20:4n-6 Uptake and Endocannabinoid Biosynthesis via Phosphatidylinositol.

Eric Murphy

C12.02 - Brain Endocannabinoid Analysis by Mass Spectroscopy: Advantages and Pitfalls.

Mikhail Golovko, UND

C12.03 - Cannabinoids and Amyotrophic Lateral Sclerosis: Current State of the Science and Therapeutic Implications.

Gregory Carter, Providence St Lukes Rehabilitation Medical Center

C12.04 - Endocannabinoids in Cerebrospinal Fluid of Patients With ALS As Early Detection Biomarkers.

Megan Goddard, Washington State University Spokane

C13
Making and Breaking the Nervous System: Molecular Approaches to Neural Circuit Assembly and Disassembly

15:00 - 16:30

Session Room: Salon F

Session Chair: Martin Riccomagno, University Of California, Riverside

Session Co-Chair: Kevin Wright, Oregon Health and Science University

C13.01 - Balancing Act of Small GTPases Promotes Dendrite Elaboration in Mammalian Cortical Neurons During Circuit Assembly and Disassembly

Tracy Tran, Rutgers University

C13.02 - Functional Role for Cytoplasmic Adaptor Proteins During Cortical Axon Pathfinding

Martin Riccomagno, University Of California, Riverside

C13.03 - Deciphering Schwann Cell Reprogramming and Axon-Glia Interactions in Nerve Injury

Christopher Deppmann, University of Virginia

C13.04 - Transcriptional Regulation of Retinal Neuron Subtype Identity

Kevin Wright, Oregon Health and Science University

C14
The Heterogeneity and Role of Brain Tumor Microenvironment

15:00 - 16:30

Session Room: Salon G

Session Chair: Maria Castro, University Of Michigan

Session Co-Chair: Dolores Hambardzumyan, Icahn School Of Medicine

C14.01 - Reciprocal Interactions of Tumor Cells and Major Immune Infiltrates in Brain Tumors

Dolores Hambardzumyan, Icahn School Of Medicine

C14.02 - Epigenetic Reprogramming of the Tumor Microenvironment in Gliomas: Implication for Therapeutics

Maria Castro, University Of Michigan

C14.03 - Multi-Modal Model Systems for Tumor-Neural Microenvironment Interactions in Therapeutic Discovery for High-grade Gliomas

Renee Read, Emory University

C14.04 - Heterogeneity of Tumor Microenvironment in Brain Tumors

Alexander Tsankov, Icahn School Of Medicine At Mount Sinai

C15
Role of Senescence in Neuroinflammation and Age-Related Neurodegenerative Diseases

15:00 - 16:30

Session Room: Salon H

Session Chair: Dorothy Schafer, University of Massachusetts Chan Medical School

Session Co-Chair: Jeffrey Huang, Georgetown University

C15.01 - Regulation of Senescence in CNS Remyelination

Jeffrey Huang, Georgetown University

C15.02 - Senescent Microglia Across Brain Disease

Dorothy Schafer, University of Massachusetts Chan Medical School

C15.03 - Contribution of Cellular Senescence to Neuroimmune Responses

Stephen Crocker, University Of Connecticut School Of Medicine

C15.04 - Senescent Glial Cell Contribution to Neurodegenerative Disease

Darren Baker, Mayo Clinic

C16
A Basic-Science Dive Into Non-opioid Therapies for Chronic Pain

15:00 - 16:30

Session Room: Salon I

Session Chair: Andrei Sdrulla, Oregon Health & Science University

C16.01 - Analgesic Mechanism of Spinal Cord Stimulation – Effects on Spinal Cord Networks

Andrei Sdrulla, Oregon Health & Science University

C16.02 - Differential modulation of excitatory and inhibitory transmission by met-enkephalin in the mouse hippocampus

Natasha Warikoo, Oregon Health And Science University

C16.03 - Biomarkers of Eye Pain after Refractive Surgery

Sue Aicher, Oregon Health & Science University

C16.04 - Escalated Oxycodone Self-Administration Is Associated With Activation of Specific Gene Networks in the Rat Dorsal Striatum

Atul Daiwile, National Institute On Drug Abuse

WEDNESDAY, APRIL 17, 2024

PL03
Characterizing the Role of Innate Immune Pathways in Alzheimer's Disease in the MODEL-AD/TREAT-AD Consortia and the Lamb Lab

07:45 – 09:00

Bruce Lamb, Indiana University School of Medicine

S07
The Roles of Satellite Glial Cells in Physiology and Disease

09:30 - 11:30

Session Room: Salon G & H

Session Chair: Alison Xiaoqiao Xie, University of Colorado, Anschutz Medical Campus

S07.01 - Satellite Glial Cells in Peripheral Ganglia and Their Role in Chronic Pain

David Spray, Einstein College Of Medicine

S07.02 – The Role of Satellite Glial Signaling in Lower Urinary Tract Functions

Alison Xiaoqiao Xie, University of Colorado, Anschutz Medical Campus

S07.03 - Satellite Glial Cells in Visceral Pain

Liya Qiao, Virginia Commonwealth University

S07.04 - Satellite Glial Cells in Sensory Nervous System Health, Injury and Disease

Pauline Meriau, Washington University in St. Louis

S08
Orchestrating the Cellular Response to CNS Injury by Targeting the Extracellular Matrix

09:30 - 11:30

Session Room: Salon F

Session Chair: Larry Sherman, Oregon Natl Primate Research Center
Session Co-Chair: Fraser Sim, SUNY University At Buffalo

S08.01 - Enhancing Remyelination by Alteration of the OPC Heparanome Following Demyelination

Fraser Sim, SUNY University At Buffalo

S08.02 - TBD

Larry Sherman, Oregon Natl Primate Research Center

S08.03 -TSG-6 Mediated Extracellular Matrix Modifications Regulate Hypoxic-Ischemic Brain Injury

Taasin Srivastava

S08.04 - Deep Mining of the ECM of MS Lesion Uncovers New Regulators of Lesion Evolution and Repair

Wee Yong, University of Calgary

S09
Astrocytes Creating and Controlling Complex, Functional Microenvironments

09:30 - 11:30

Session Room: Salon I

Session Chair: Elizabeth Moss, OHSU

S09.01 - TBD

Moritz Armbruster, Tufts University

S09.02 - Astrocytes, Epigenetics, and Sense of Smell

Debosmita Sardar, Baylor College Of Medicine

S09.03 - TBD

Thomas Papouin, Washington University in St Louis, Department of Neuroscience

S09.04 - TBD

Joselyn Soto, Ucla

C17
The Neurovascular Unit in Aging and Alzheimer's Disease

13:00 - 14:30

Session Room: Salon F

Session Chair: Jerome Badaut,

Session Co-Chair: Andre Obenaus, University of California Riverside

C17.01 - Role of Perivascular Fibroblasts in Health and Cerebral Amyloid Angiopathy

Stephanie Bonney, Seattle Children's Research Institute

C17.02 - Long-term Astrocyte Phenotypic Changes in Relation With Vasculature Remodeling Post Pediatric Injury

Jerome Badaut, CNRS

C17.03 - Functional and Morphological Differences in the Cerebrovasculature of Alzheimer's Disease Mouse Models

Andre Obenaus, University of California Riverside

C17.04 - The Interplay of Amyloid Plaques and Meningeal Blood Vessels in Alzheimer's Disease Progression

Alexandra Kaloss, Virginia-Maryland College Of Veterinary Medicine

C18
Glial Cell Involvement in Neuropsychiatric Disorders

13:00 - 14:30

Session Room: Salon I

Session Chair: Cagla Akay-Espinoza, University of Pennsylvania, School of Dental Medicine

Session Co-Chair: Brigid Jensen, Thomas Jefferson University

C18.01 - Astrocyte-Microglia Interactions in HIV-Associated Neuropsychiatric Disorders

Cagla Akay-Espinoza, University of Pennsylvania, School of Dental Medicine

C18.02 - Depression and Antidepressant-Mediated Regulation of Inflammation and HIV in Myeloid Cells

Stephanie Matt, Drexel University College Of Medicine

C18.03 - Alterations in Glia Cells Derived From ALS/FTD Patients, and Their Contribution to Neuronal Dysfunction in Disease

Rita Sattler, Barrow Neurological Institute

C18.04 - Characterization of Astrocyte-Mediated Neuronal Damage in ALS/FTD Based on Cellular Regional Identity: Implications for Dementias With TDP43 Pathology

Brigid Jensen, Thomas Jefferson University

C19
Two-Way Street: Brain Regulation of Metabolism

13:00 - 14:30

Session Room: Salon G

Session Chair: Djurdjica Coss, University of California, Riverside

C19.01 - Sex Differences in Obesity-Mediated Neuroinflammation

Djurdjica Coss, University of California, Riverside

C19.02 - Unraveling a Novel Metabolic Role for G12/13 Signaling in POMC Neurons

Dhanush Haspula, NIH

C19.03 - Role of AgRP Neurons in Feeding and Metabolism

Gregory Morton, University of Washington

C19.04 - Maturational Changes in the Epigenome and Transcriptome of Hypothalamic Astrocytes: Implications for Axonal Regeneration

ABIODUN ODUFUWA, University of North Dakota

C20
Genetic Approaches to Understanding Neurodegenerative Disease Mechanisms

13:00 - 14:30

Session Room: Salon H

Session Chair: Travis Denton, Washington State University

Session Co-Chair: Jason Gerstner, Washington State University

C20.01 - Targeting Autophagy With Small Molecules to Treat Neurodegenerative Disease

Jason Gerstner, Washington State University

C20.02 - Studying Nuclear Functions of Disease-Related Mutant Tau

Doris Kretzschmar, Oregon Health And Science University

C20.03 - Natural Variation in Dopamine Neuron Degeneration is Glutathione-Dependent and Linked to Life Span

Ian Martin, Oregon Health & Science University

C20.04 - Signaling Pathways Driving Axon Degeneration

Marc Freeman, Oregon Health & Science University

C21
Stroke and Neuroinflammation: Sculpting the Fire

15:00 - 16:30

Session Room: Salon F

Session Chair: Ann Stowe, University Of Kentucky

Session Co-Chair: Marion Buckwalter, Stanford School of Medicine

C21.01 - Neurotoxic Astrocytes Drive Toxic Neuroinflammation After Stroke

Shane Liddelow, Nyu School Of Medicine

C21.02 - Improving Functional Recovery Following Stroke Through Manipulation of the Neuroinflammatory Response

Todd Peterson, University of North Carolina - Wilm

C21.03 - Age-Associated B Cells (ABCs) in the Injured and Aged Brain

Katie Colson, University of Ky

C21.04 - Peripheral Immunomodulation Prevents Post-stroke Cognitive Decline in a Mouse Model of Vascular Dementia

Kristy Zera, Stanford University

C22
Astrocyte in Neurological Disorders and Injury

15:00 - 16:30

Session Room: Salon I

Session Chair: Martin Paukert, University of Texas Health Science Center at San Antonio

Session Co-Chair: Selva Baltan, Oregon Health & Science University

C22.01 - Metabolic Reprogramming of Reactive Astrocytes in Brain Repair After Ischemic Stroke

Shinghua Ding, University of Missouri

C22.02 - Delineating the Heterogeneity and Regulation of Astrocyte Lineage Cells by Single-Cell RNA-Sequencing Provides Insight Into Spinal Cord Injury and Alzheimer's Disease

Jiaqian Wu, University of Texas McGovern Medical School at Houston

C22.03 - Astrocyte Exosome Signaling in Development and ALS

Yongjie Yang, Tufts University School Of Medicine

C22.04 - Impaired Neuromodulator Crosstalk to Cortical Astrocytes in Alzheimer's Disease

Martin Paukert, University of Texas Health Science Center at San Antonio

C23
Brain Iron Metabolism, Implications for Neurodegenerative and Demyelinating Diseases

15:00 - 16:30

Session Room: Salon G

Session Chair: Veronica Cheli, IMAGE - SUNY at Buffalo

Session Co-Chair: Pablo Paez, SUNY at Buffalo

C23.01 - Astrocytic Iron Storage and Efflux Play a Central Role in Neuroinflammation and Demyelination

Pablo Paez, SUNY at Buffalo

C23.02 - Metabolic Dysregulation in Astrocytes Leads to Reductions in Panthothenate (Vitamin B5) Metabolism

Douglas Feinstein, University of Illinois

C23.03 - Iron Overload Drives Microglia Ferroptosis in White Matter Degeneration in Aging Brains

Philip Adeniyi, Oregon Science and Health University

C23.04 - Brain Iron Metabolism, Implications for Neurodegenerative

William Ondo, Houston Methodist Hospital

C24
Lipid Metabolism Changes As Drivers of Neurodegeneration

15:00 - 16:30

Session Room: Salon H

Session Chair: Xianlin Han, UT Health San Antonio

Session Co-Chair: Stefanka Spassieva, University of Kentucky

C24.01 - Role of Lipid Homeostasis in Glial Cells

Jian Hu, UT MD Anderson Cancer Center

C24.02 - Sulfatide Loss Drives Alzheimer's Disease-Like CNS and Peripheral Phenotypes

Sijia He, Utheath San Antonio

C24.03 - Impaired Astrocytic Lipid Catabolism as a Mechanism of Neurodegeneration

Fei Yin, University Of Arizona

C24.04 - Neurotoxicity of Sphingoid Bases

Stefanka Spassieva, University of Kentucky

THURSDAY, APRIL 18, 2024

PL04
Neuroimmune Regulation of Brain Development and Plasticity

07:45 – 09:00

Anna Victoria Molofsky, University of California San Francisco Medical School

S10
Glial Interactions at Neuronal Cell Bodies (Folch-Pi Symposium)

09:30 - 11:30

Session Room: Salon G & H

Session Chair: Jaeda Coutinho-Budd, University of Virginia

S10.01 - Glial-Glial Interactions and Functional Compensation in Health and Disease

Jaeda Coutinho-Budd, University of Virginia

S10.02 - Perineuronal Nets Regulate Glial Structure and Function at Axosomatic Synapses

BHANU TEWARI, University of Virginia

S10.03 - Microglial Interactions With Neuronal Cell Bodies Through the Lifespan

Csaba Cserép, Institute Of Experimental Medicine, Laboratory of Neuroimmunology

S10.04 - Glia Interactions With Neuronal Cell Bodies During Nervous System Construction

Cody Smith, University Of Notre Dame

S11
APOE in Neurodegeneration a Symposium in Honor of Mary Jo LaDu

09:30 - 11:30

Session Room: Salon F

Session Chair: Deebika Balu, University of Illinois at chicago

Session Co-Chair: Leon Tai, University of Illinois at Chicago

S11.01 - Past Present and Future APOE Research Inspired by Dr LaDu

Leon Tai, University of Illinois at Chicago

S11.02 - APOE Genotype and Aging Impair the Motility of Microglia to Brain Damages, Including Aβ

G. William Rebeck, Georgetown University

S11.03 - Estrogen Regulation of Memory and Synaptic Plasticity Depends on APOE Genotype in the EFAD Mouse Model of Alzheimer's Disease

Karyn Frick, University Of Wisconsin-milwaukee

S11.04 - APOE Genotype Affects Protective Actions of 17alphaestradiol in Middle-aged Mice

Christian Pike, University Of Southern California

S11.05 - Sex- and ApoE4-Specific Molecular Networks and Key Drivers of Alzheimer's Disease

Donging Cai, versity Of Minnesota

S11.06 - APOE and Brain Endothelial Cell Dysfunction

Felecia Marottoli, University of Illinois at Chicago

S12
Disruption of Glial Cell Interactions in Neurofibromatosis and Schwannomatosis

09:30 - 11:30

Session Room: Salon I

Session Chair: Steven Matsumoto, Oregon Health And Sciences University

Session Co-Chair: Nancy Ratner, Cincinnati Children's Hospital Medical Center

S12.01 - Self-generated Heterogeneity in Schwann Cell Tumors

Andrea McClatchey, Mgh And Harvard Medical School

S12.02 - NF1 Inactivation in Schwann Cells Recruits Immune Cells to Drive Tumor Initiation and Growth in Peripheral Nerve

Nancy Ratner, Cincinnati Children's Hospital Medical Center

S12.03 - Dysregulated Neuron-Glial Interaction Drives Brain Tumor Initiation in Neurofibromatosis Type 1

Yuan Pan, The University Of Texas Md Anderson Cancer Center

S12.04 - Disrupted Neuron-Schwann Cell Interactions Cause Pain in Schwannomatosis

Steven Matsumoto, Oregon Health And Sciences University

C25
Glial cells and Mechanisms of Neurodegeneration

13:00 - 14:30

Session Room: Salon I

Session Chair: Larry Sherman, Oregon Natl Primate Research Center

C25.01 – Neuronal Subtype Vulnerability to Microglial-Induced Synapse Loss in Neuroinflammation

Rebecca Beiter, UMass Medical School

C25.02 – Microglia-Mediated Synaptic Dysfunction Contributes to Chemotherapy-Related Cognitive Impairment

Jeremy Wang, University of Missouri-Columbia

C25.03 – Targeting the Pathogenic Synergy of Ceramide and S1P in Alzheimer's Disease

Erhard Bieberich, University of Kentucky

C25.04 – The Effect of Neonatal Intermittent Hypoxia on Brain Lipid Metabolism

Regina Fernandez, Johns Hopkins University/ Kennedy Krieger Institute

C25.05 – High-Mobility Group Box-1 HMGB1-Mediates Isenecense And Contributes To Cognitive Dysfunctions In Tauopathies

Rakez Kayed, University of Texas Medical Branch

C26
Astrocyte Endfeet Structure and Function in Health and Disease: New Insights and Methods Using Microscopy and Computational Modeling Tools

13:00 - 14:30

Session Room: Salon F

Session Chair: Stefanie Robel, University of Alabama at Birmingham (UAB)

Session Co-Chair: Randy Stout, NYITCOM

C26.01 - Gap Junction Plaques in Astrocyte Endfeet Modulate Morphology and Astrocyte Physiology

Randy Stout, NYITCOM

C26.02 - The Role of the Astrocyte-Vascular Interface in Mild Traumatic Brain Injury/ Concussion

Samantha Golf, University Of Alabama At Birmingham

C26.03 - Dynamism of Astrocytes and Extracellular Space on Multiple Time Scales: Biophysical Experiment and Computational Modeling

Sabina Hrabetova, Suny Downstate Health Sciences University

C26.04 - Astrocyte Endfeet Channels and Mechanosensitivity

David Spray, Einstein College Of Medicine

C27
Ferroptosis in Brain Injury and Neurodegeneration

13:00 - 14:30

Session Room: Salon G

Session Chair: Rajiv Ratan,

Session Co-Chair: Alexander Mongin, Albany Medical College

C27.01 - Glutamate, Oxytosis, Ferroptosis, and the Ailing Brain

Pamela Maher, Salk Institute

C27.02 - Selenium, Selenotherapies, Ferroptosis, and Treatment of Stroke

Rajiv Ratan, Burke Neurological Institute at Weill Cornell Medicine

C27.03 - Emerging Role of Ferroptosis in Progression of Alzheimer's Pathology

Qitao Ran, UNIVERSITY OF TEXAS HEALTH SAN ANTONIO

C27.04 - Ferroptosis – A Cutting Knife at the Tumor-Brain Interface

Wei Li, Penn State College of Medicine

C28
Role of microRNAs in Neurodegenerative Diseases

13:00 - 14:30

Session Room: Salon H

Session Chair: Selva Baltan, Oregon Health & Science University

Session Co-Chair: Ranjan Dutta, Cleveland Clinic

C28.01 - miRNA Regulation of Ischemic Recovery in White Matter

Selva Baltan, Oregon Health & Science University

C28.02 - microRNA Biomarkers for Alzheimer's Disease in Human Cerebrospinal Fluid and Plasma From Living Donors

Julie Saugstad, Oregon Health & Science University

C28.03 - miRNA Changes Associated With Parkinson's Disease, Detectable in Biofluids

Kendall Van Keuren-jensen, Nia

C28.04 - microRNAs Underlying Remyelination Failure in Multiple Sclerosis

Ranjan Dutta, Cleveland Clinic

C29
Cholesterol Metabolism and Regulation in Myelination

15:00 - 16:30

Session Room: Salon I

Session Chair: Meredith Hartley, University of Kansas

C29.01 - Cholesterol Esters Are a CNS Biomarker of Myelin Damage and Repair

Meredith Hartley, University of Kansas

C29.02 - Elevating Cholesterol Precursor Levels to Promote Remyelination

Drew Adams, Case Western Reserve University

C29.03 - Regional Differences in Cholesterol Biosynthesis in Oligodendroglia and in Myelin Cholesterol Content

Terri Wood, New Jersey Med Sch, Rutgers University

C29.04 - Oxysterol Regulation of Oligodendrogenesis in the Postnatal Subventricular Zone Stem Cell Niche

Eric Benner, Duke University

C30
Vascular Cognitive Impairment: Models, Mechanisms and Clinical Translation

15:00 - 16:30

Session Room: Salon F

Session Chair: Nabil Alkayed,

Session Co-Chair: Catherine Davis, Ohsu

C30.01 - Vascular Contributions to Dementia: A Current Clinical Perspective.

Lisa Silbert, OHSUs

C30.02 - Unravelling Mechanisms Underlying VCI Using the Stenosis Mouse Model of Dementia

Thierno Bah, Oregon Health & Science University

C30.03 - The Contribution of Aging-Associated Changes in Vessel Elasticity to Dementia.

Ashley Walker, University Of Oregon

C30.04 - The Intersection Between Large and Small Vessel Disease in Dementia

Anusha Mishra, Oregon Health & Science University

OR01
Glial Cell Biology

15:00 – 16:30

Session Room: Salon G

Session Chair: Seema K. Tiwari-Woodruff, University of California, Riverside

OR01.01 – Efforts to Mitigate Neurodegeneration in a Model of Traumatic Optic Neuropathy

Micah Feri, University of California, Riverside

OR01.02 – Synaptic Input and Ca2+ Activity in Zebrafish Oligodendrocyte Precursor Cells (OPCs) Contribute to Myelin Sheath Formation

Jiaxing Li, OHSU

OR01.03 – Acidic Nanoparticles Prevent HIV Pre-exposure Prophylaxis (PrEP) Impairment of Oligodendrocyte Maturation

Caela Long, University Of Pennsylvania

OR01.04 – Characterization of a Subpopulation of Astrocyte Progenitor Cells in the Neonatal Subventricular Zone

Zila Martinez-Lozada, Children's Hospital of Philadelphia

OR01.05 – Deletion of Astrocytic Vesicular Nucleotide Transporter Increases Anxiety and Depressive-Like Behavior and Attenuates Motivation for Reward

Weikang Cai, NYITCOM

OR01.06 – An Endolysosomal Protein Mediates Neuron-to-Glia Lipid Signaling to Regulate Glial Bioenergetics and Lipid Mobilization

Ching-On Wong, Rutgers University – Newark

OR02
Neurodevelopment and Neurodegeneration

15:00 – 16:30

Session Room: Salon H

Session Chair: Iryna Ethell, University of California, Riverside

OR02.01 – Neuronal Ensemble in the Medial Orbitofrontal Cortex as a Brake to Excessive Binge Alcohol Drinking.

Pablo Gimenez Gomez, University Of Massachusetts Chan Medical School

OR02.02 – Small GTPase Rab11 Is Required for Proper Cerebellar Granule Cell Development, Anterior Lobule Formation and Adaptive Motor Function in Mice

Jack DeLucia, Rutgers - The State University of New Jersey

OR02.03 – Targeting the Meningeal Lymphatic Vasculature to Alleviate Symptoms of Autism Spectrum Disorder in a Mouse Model of Fragile X Syndrome

Gabriel Tavares, Cleveland Clinic

OR02.04 – Cerebrospinal Fluid Extracellular Vesicle miRNAs and Synaptic Dysfunction in Alzheimer's Disease

Ursula Sandau, Oregon Health & Science University

OR02.05 – Inhibition of p38α MAPK Rescues Behavior and Synaptic Function in a Mouse Model of Mixed Vascular and Amyloid Pathologies

Hilaree Frazier, University of Kentucky

OR02.06 – The Role of Wnk Kinase in Axon Degeneration

Adel Avetisyan, Vollum Institute/OHSU

POSTER LISTING

All presenters of P01 posters will be in Poster Session 1 (4:30 – 6:00 pm, Monday, April 15, 2024)

All presenters of P02 posters will be in Poster Session 2 (4:30 – 6:00 pm, Wednesday, April 17, 2024)

P01.001 – Profiling Glial Cell Surface Molecules That Enable the Engulfment of Neurons

Leire Abalde-Atristain, Oregon Health & Science University

P01.002 – Metabolic Rewiring During Remyelination: Stable Isotope Tracing Reveals Increased De Novo Lipogenesis and Identifies Serological Markers of Brain Metabolism

Kayla Adkins-Travis, Washington University In St. Louis

P01.003 – Investigating Lanthionine Ketimine Ethyl Ester's Role in Remyelination and Neuroprotection in the Cuprizone Model of De-remyelination

Intakhar Ahmad, UNIVERSITY OF ILLINOIS AT CHICAGO

P01.004 – Metabolomic Profiling of Greenhouse-Grown Cultivars of Centella asiatica, a Herb Touted for Improving Memory and Preventing Cognitive Decline

Md Nure Alam, Oregon State University

P01.005 – Downregulation of Pantothenate Kinase and Upregulation of Pantothenate in Liver Kinase B1 Deficient Mouse Astrocytes

Rebecca Alemani, University of Illinois Chicago

P01.006 – Timecourse of Activity-Dependent Endogenous Opioid Peptide Gene Transcription After Seizures in the Mouse Hippocampus

Ashley Anderson, Oregon Health and Science University

P01.007 – Targeted Overexpression of Cyclooxygenase-2 in the CA3 Region of the Hippocampus Is Sufficient to Suppress Global Hyperexcitation in the Brain

Antoaneta Andonova, Syracuse University

P01.008 – Chemogenetic Manipulation of Astrocytic Calcium Signaling and Neuroinflammation in Demyelinating Disease

Christina Angeliu, University At Buffalo

P01.009 – The Guidance Cue Receptor, PlexinA1, Plays Differential Roles in the Development of the Mouse Embryonic Spinal Commissural Neurons

Adefemi Baderinwa, Rutgers University

P01.010 – Niemann Pick Disease Type C1 Affects the Concentration and Cargo of Extracellular Vesicles in Patient Samples

Sarah Catherine Baker, Oregon Health and Science University

P01.011 – Neuronal Subtype Vulnerability to Microglial-Induced Synapse Loss in Neuroinflammation

Chun-wei Chen, UMass Chan Medical School

P01.012 – TTYH1 Regulates Autophagy in Astrocytes via Endolysosomal Processing of Neuron-Derived Signaling Lipids

Jagannatham Naidu Bhupana, Rutgers University

P01.013 – Targeting the Pathogenic Synergy of Ceramide and S1P in Alzheimer's Disease

Erhard Bieberich, University of Kentucky

P01.014 – The Effect of Astrocyte Syncytium on Neuronal Excitability and Neurovascular Coupling in the Mouse Cortex

Danica Bojovic, Oregon Health & Science University

P01.015 – Matrix Metalloproteinase-1 and Ninjurin a Govern Glial Responses to Neurodegeneration

Cole Brashaw, Oregon Health & Science University

P01.016 – Maintenance of Engrafted Human OPC Fate via Lentiviral Noggin Expression in a Rabbit Model of Chronic Demyelination

Gregory Buck, University At Buffalo

P01.017 – Lack of Functional Hippocampal Mossy Cell Inputs Accelerates Adult-Born Dentate Granule Cell Maturation

Corwin Butler, Oregon Health & Science University

P01.018 – Punishment-Associated Compulsive Methamphetamine Intake and Abstinence Are Associated With Differential Hydroxymethylation of miRNAs in the Nucleus Accumbens of Rats

Jean Lud Cadet, Molecular Neuropsychiatry Research Branch, NIDA

P01.019 – Modified Excitability and Locomotor Behavior in Mice With Conditional Deletion of the Anion Channel Subunit LRRC8A in Interneurons

Madison Chandler, Albany Medical College

P01.020 – Pediatric OSA and Stem Cell Function

Arvind Chandrakantan, Texas Childrens Hospital/ Baylor College of Medicine

P01.021 – Characterization of Aβ and Phosphorylated Tau Changes Across the Gut-Brain Axis of AD and Control Individuals

Sathiya Chandrasekaran, University of North Dakota

P01.022 – Exploring the Mechanisms of STX, a Novel Estrogen Receptor Modulator That Protects Against Amyloid-Beta Neurotoxicity in Alzheimer's Disease Models

Philip Copenhaver, Oregon Health & Science University

P01.023 – Calcium Signaling in Schwann Cells Development and Myelination

Jazmin Corral, University At Buffalo

P01.024 – Discoidin Domain Receptor Signaling Regulates Ensheathment and Caliber of Peripheral Axons

Megan Corty, University of Arizona

P01.025 – B Cell Depletion Reduces Chronic but Not Acute Cognitive Deficits After Prefrontal Stroke in Aged Female Mice

Katherine Cotter, University of Kentucky

P01.026 – The Antiretroviral Drug Dolutegravir Inhibits Oligodendrocyte Maturation In Vitro

Melanie Cruz Berrios, University Of Pennsylvania

P01.027 – Diminished Tetrahydrobiopterin (BH4) in Multiple Sclerosis and Its Effects on Oligodendrocytes and CNS Myelination

Zaenab Dhari, UConn Health , Trinity Health, Quinnipiac University

P01.028 – Dock1 Functions in Schwann Cells to Regulate the Development, Maintenance, and Repair of the Peripheral Nervous System

Ryan Doan, The Vollum Institute - Oregon Health & Science University

P01.029 – Differential Responses of Reactive Astrocytes to Antagonists of CSF1 Receptor in a CLN2 Mouse Model

Miriam Domowicz, University of Chicago

P01.030 – The Muscle-Brain Axis of Resilience Explored Through Differential Gene Expression in Muscle and Brain of the Hibernating Arctic Ground Squirrel

Kelly Drew, University of Alaska Fairbanks

P01.031 – Senolytic Therapy Maintains BBB Integrity, Alleviates Cerebral Hypometabolism and Stabilizes Microglia Homeostatic Subtype in the PS19 Mouse Model

Wenzhen Duan, Johns Hopkins University School Of Medicine

P01.032 – Harnessing Spatial Transcriptomics to Investigate the Intersection of Senescence and Inflammation in Neurodegeneration

Violeta Duran Laforet, University Of Massachusetts Chan Medical School

P01.033 – Investigating PC12 Cell Differentiation to Sympathetic Neuron-Like Phenotype Through Single-Cell Proteomics Analysis

Arpa Ebrahimi,

P01.034 – Oligodendrocyte-Derived Carnosine Protects the CNS From Lipid Peroxidation

Benayahu Elbaz, Northwestern University

P01.035 – Will Chronic Inhibition of Dual Leucine Zipper Kinase (DLK) Be Neuroprotective and Restore Neuronal Function in Aged-Demyelination?

Katie Emberley, Oregon Health & Science University

P01.036 – Investigating Astrocyte Endfoot Formation Dynamics During Development and Across Species

Raja Estes, Oregon Health & Sciences University

P01.037 – Impact of Sound Repetition Rate on Cortical Development and Behaviors in Young Fmr1 KO Mice

Iryna Ethell, University of California, Riverside

P01.038 – Global Cerebral Ischemia Decreases Dendritic Spine Density, Increases Microglial Reactivity and Microglial/Synapse Co-localization in a Mouse Model of Cardiac Arrest

Macy Falk, Univeristy Of Colorado Anschutz Medical Campus

P01.039 – Efforts to Mitigate Neurodegeneration in a Model of Traumatic Optic Neuropathy

Micah Feri, University of California, Riverside

P01.040 – The Effect of Neonatal Intermittent Hypoxia on Brain Lipid Metabolism

Regina Fernandez Fernandez, Johns Hopkins University/Kennedy Krieger Institute

P01.041 – TRPML1 Modulates the Oligodendrocyte Cytoskeleton via Rac1

Lindsay Festa, University of Pennsylvania

P01.042 – Modeling Phenotypic Onset in a Human iPSC Model of CLN3 Batten Disease

Amelinda Firdauzy, Simon Fraser University

P01.043 – A Conserved Stress Response Associated With Dark Microglia Drives Neurodegeneration in Alzheimer's Disease

Anna Flury, Cuny Graduate Center

P01.044 – ProNGF Elicits Retrograde Axonal Degeneration of Basal Forebrain Neurons via p75NTR and Induction of APP

Wilma Friedman, Rutgers University

P01.045 – Therapeutic Potential of Targeting Heparan Sulfate Proteoglycan Sulfatases in an EAE Demyelination Model

Farah Gadelkarim, University at Buffalo

P01.046 – Altered Activation in the Dentate Gyrus of Seizure-Prone CACNA2D2 Knockout Mice

Ashlynn Gallagher, Oregon Health And Sciences University

P01.047 – Mitochondrial Functional Assays in a Canine Survival Model of Hypothermic Circulatory Arrest

Bruno Gallo, Johns Hopkins / Kennedy Krieger Institute

P01.048 – Chemogenetic Manipulation of Astrocyte Functions During Postnatal Brain Development

Karissa Garbarini, State University Of New York at Buffalo

P01.049 – Centella asiatica Alters Cognition in Aged Male and Female Mice, and Anxiety and Plasma GABA and Corticosterone Only in Females

Nora Gray, Oregon Health & Science University

P01.050 – RNA Sequencing Identifies Sex-Related Differences in Transcriptional Signatures in the Female and Male Control Rats

Vaibhav Gujar, National Institute On Drug Abuse

P01.051 – Transgenic Mouse Models to Define the Role of Microglia in Glioblastoma (GBM) Progression

Payton Haak, University of Illinois

P01.052 – Delayed Phospho-BTK Inhibition Reduces the Reactive Phenotype of Microglia and Oligodendrocytes and Improves Myelin Structure After Stroke in Neonatal Mice

Isabela Harmon, OHSU

P01.053 – Characterizing Microglial Dynamics During White Matter Ischemic Injury: An Age and Sex Dependent Response

Isabela Harmon, OHSU

P01.054 – Effects of Neonatal Ethanol Exposure on Prefrontal Cortex Astrocyte Gene Expression In Vivo

Joel Hashimoto, Oregon Health & Science University

P01.055 – Receptor-Mediated Activation of G12/13 Signaling in POMC Neurons Regulates Key Metabolic Functions

Dhanush Haspula, NIH

P01.056 – What Regulates the Morphogenesis of Astrocytes?

Dongeun Heo, Vollum Institute, OHSU

P01.057 – Examining the Role of αVCAM-1 in Attenuating the Neuroinflammatory Response in High-Fat Diet Mice After Stroke

John Holsten, UNCW

P01.058 – Elucidating Downstream Pathways of the Soluble Amyloid Precursor Protein and GABAB Receptor Interaction

Samah Houmam, The University of Oklahoma Health Sciences Center

P01.059 – PAK2 Is Necessary for Myelination in the Peripheral Nerve System

Bo Hu, Houston Methodist Hospital

P01.060 – The Role of Inflammatory Oligodendrocyte Lineage Cells in CNS Demyelination

Jingwen Hu, Johns Hopkins Medicine

P01.061 – Exocytosis of ATP in Astrocytes Regulates Amyloid-Beta Pathology

Qian Huang, New York Institute of Technology Colle of Osteopathic medicine

P01.062 – Investigating the Utility of iPSC-Derived Choroid Plexus Organoids to Yield Fluid Biomarkers in SCA1 Disease Modeling

Negin Imani Farahani, Simon Fraser University

P01.063 – Parabrachial Extended Amygdala Circuit Activity Is Heightened Following Repeated Stress

Anel Jaramillo, University of Kentucky

P01.064 – How Do Glia Regulate Synapse Development?

Taylor Jay, Oregon Health & Science University

P01.065 – Myelination and Lipid Metabolism in the Adolescent HIV-1 Transgenic Rat Brain

Marisa Jeffries, Children's Hospital of Philadelphia

P01.066 – Circadian Alignment of Intermittent Fasting Is Crucial for Cerebral Ischemic Tolerance

Soomin Jeong, University of Wisconsin-Madison

P01.067 – Tweek-Dependent Formation of ER-PM Contact Sites Enables Astrocyte Phagocytic Function and Remodeling of Neurons

Yunsik Kang, Vollum Institution OHSU

P01.068 – Defining the Role of B-raf and mTOR Signaling in Spinal Cord Oligodendroglia

Divyangi Kantak, Rutgers-New Jersey Medical School

P01.069 – High-Mobility Group Box-1 HMGB1-Mediates Isenecense And Contributes To Cognitive Dysfunctions In Tauopathies

Rakez Kayed, University of Texas Medical Branch

P01.070 – Investigation of Cyp46a1 and Cholesterol Homeostasis as a Novel Therapeutic Target for Rett Syndrome Phenotypes in Mecp2-Mutant Mice

Nasim Khatibi, Syracuse University

P01.071 – Choline Transporter-Like Protein 1 (CTL1) Regulates Intracellular Choline Metabolism and Phosphoinositide Signaling in Schwann Cells

Haesun Kim, Rutgers University

P01.072 – TFEB/3 Govern Repair Schwann Cell Generation and Function Following Peripheral Nerve Injury

Haesun Kim, Rutgers University

P01.073 – Neuroprotective Properties of the Methyl Donor Betaine in EAE

Katherine Knies, Kent State University

P01.074 – Anti-PLP1 IgG1 Cloned From Patients With Multiple Sclerosis Impedes Oligodendrocyte Differentiation and Induces Myelin Pathology Independently of Demyelination

Andrew Lapato, University of Colorado School of Medicine

P01.075 – Elucidating Interactions Between Triggering Receptor Expressed on Myeloid Cells 2 and Apolipoprotein E in Microglial Activation With Molecular Dynamics Simulations

Emma Lietzke, University of Colorado, Boulder

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Lisa Lin, Simon Fraser University

P01.077 – Respiratory Infection With Influenza a Virus Alters Glial Metabolism

Allison Louie, University of Illinois at Urbana-Champaign

P01.078 – Respiratory Infection With Influenza a Virus Delays Remyelination Following Cuprizone-Induced Demyelination

Allison Louie, University of Illinois at Urbana-Champaign

P01.079 – Mice Carrying a Novel NAMPT Mutation Exhibit Metabolic Impairments

Samuel Lundt, University of Missouri

P01.080 – Analysis of Senescent Cell Development and Depletion in Mice After Experimental Autoimmune Encephalomyelitis (EAE) Induction

Zeeba Manavi, Georgetown University

P01.081 – Genetic Pathways That Drive Axon Loss

Ernesto Manzo, OHSU

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Sarah Martin, University Of Illinois At Chicago

P01.083 – Regional Differences in Oligodendroglial Cholesterol Acquisition and Myelin Lipid Composition

Marie Mather, Rutgers University - New Jersey Medical School

P01.084 – A Novel CD27+CD138+ B Cell Subset Localizes to the Brain in Aged Mice

Annabel McAtee, University of Kentucky

P01.085 – Dissection of Inter-disorder Astrocyte Reactivity Reveals a Novel Astrocyte Subtype That Regulates White Matter Repair

Sarah McCallum, Cedars Sinai Medical Center

P01.086 – Identifying Lanthionine Ketenamine (Ethyl Ester) (Phosphonate) Derivatives for Relative Maturation and Proliferation Effects in OPCs

Zachary McDonald, University of Illinois at Chicago

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Trevor McFarland, OHSU

P01.088 – Development and Characterization of a Severe, Dietary Fat-Free Cuprizone Model of Remyelination

Anna Mcgrath, Sanofi

P01.089 – Th17 Cells Reprogram Astrocytes Through a JAK1 Dependent Process That Contributes to Autoimmune Neuroinflammation.

Gordon Meares, Ohio State University

P01.090 – Müller Glia Glutamate Metabotropic Receptors Regulation Upon Excitotoxic Conditions: Correlation to the Dark Cycle

Yurixy Merari Mendoza Silva, CINVESTAV

P01.091 – Trem2 Mediates Sulfatide Deficiency-Induced Microglia-, but Not Astrocytes-Mediated Neuroinflammation or Lipid Homeostasis Disruption

Namrata Mittra, Ut Health Science Center San Antonio

P01.092 – Examining TBI-Induced Astrocyte Heterogeneity Across Spatial and Temporal Boundaries

Josh Morganti, University Of Kentucky

P01.093 – Mild Traumatic Brain Injury Induces an Astrocyte Atypical Response Astrocytes Mediated by Protein Degradation

Carmen Munoz-Ballester, University of Alabama at Birmingham

P01.094 – ER Stress Underlies Altered Cell Fate During Brain Development in a Human Model of the Cortical Malformation Syndrome Tuberous Sclerosis

Shama Nazir, Simon Fraser University

P01.095 – CRISPR Inactivation Strategies for ALS, Charcot-Marie-Tooth, and Other Dominant Neurogenetic Diseases

Zachary Nevin, Gladstone Institutes

P01.096 – CK2 Inhibition Preconditions White Matter Against Ischemia by Differentially Regulating CDK5 and AKT/GSK3β Pathways

Hung Nguyen, Oregon Health & Science University

P01.097 – The Role of NOX in Post-ischemic Protection of White Matter Against Ischemia

Hung Nguyen, Oregon Health & Science University

P01.098 – Herpes Simplex Virus Type-1 (HSV-1) Accelerates Alzheimer's Disease Progression: Targeting Vulnerable Brain Regions and Amplifying Neuroinflammation

Christy Niemeyer, University of Colorado, School of Medicine

P01.099 – The mGluR5 Agonist, CHPG, Enhances Differentiation of Developing Human Oligodendrocyte Lineage Cells

Hiroko Nobuta, Rutgers University

P01.100 – Microglial Lipoprotein Lipase Regulates Myelin Processing and Is Elevated in Multiple Sclerosis

Dean Oldham, University of Colorado Anschutz Medical Campus

P01.101 – TFEB Treatment in the Dorsal Hippocampus of Obese Female and Male 5xFAD Mice

Danielle Osborne, Legacy Research Institute

P01.102 – Aligned Nanofibrillar Collagen Scaffolds Promote Repair Schwann Cell Phenotype in Peripheral Nerve Regeneration

Ethan Oseas, Oregon Health and Science University

P01.103 – Region Specific Inflammatory Response in Cerebrovascular Patients

Keith Pennypacker, UNIVERSITY OF KENTUCKY

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Austin Peters, Oregon Health & Science University

P01.105 – Voltage-Gated Calcium Channels Regulate Developmental Myelination in Oligodendrocytes

Melanie Piller, Oregon Health and Science University

P01.106 – Loss of Carnitine Palmitoyl Transferase 2 (CPT2) Enhances Proliferation Post Traumatic Brain Injury in Adult Mice

Noelle Puleo, Johns Hopkins Medicine

P01.107 – Oxidative Stress Triggers Secretion of Neurotoxic Ceramide-Rich Extracellular Vesicles (CREVs)

Zainuddin Quadri, University of Kentucky

P01.108 – The Impact of Reduced Glial Plasma Membrane Cholesterol on Subcellular Actin Dynamics

Athira R K, UNIVERSITY OF NEVADA, RENO

P01.109 – Store-Operated Calcium Entry-Dependent Signaling in Adult OPCs Acts to Delay Oligodendrocyte Differentiation Following Demyelination

Roopa Ravichandar, University at Buffalo

P01.110 – The Function of Sex-Specific Extracellular Vesicles in the Pathology of Alzheimer's Disease

Xiaojia Ren, University of Kentucky

P01.111 – Characterization of the Inflammasome in the CLN2 Mouse Model

Kathryn Sanchez, University Of Chicago

P01.112 – A Translational Readthrough Variant of AQP4 Has Altered Gliovascular Properties and Modifies Neurological Diseases

Darshan Sapkota, University of Texas at Dallas

P01.113 – MiRNAs As Biomarkers for and Mediators of Alzheimer's Disease

Julie Saugstad, Oregon Health & Science University

P01.114 – Development and Validation of TRPML1 Assays on Automated Patch Clamp Platforms

Daniel Sauter, Sophion Bioscience

P01.115 – Increasing Adult Oligodendrogenesis Through the Deletion of Glial-Expressed Voltage-Gated Calcium Channel Subunits

Alaina Scavuzzo, The Ohio State University

P01.116 – System-Based Integrated Metabolomics and microRNA Analysis Identifies Potential Molecular Alterations in Human X-linked Cerebral Adrenoleukodystrophy Brain

Jaspreet Singh, Henry Ford Health System

P01.117 – Microglia-Mediated Synaptic Dysfunction Contributes to Chemotherapy-Related Cognitive Impairment

Jeremy Wang, University of Missouri-Columbia

P01.118 – Interactions Between TDP-43 and Amyloid Beta Pathology in a Drosophila Model of Alzheimer's Disease

Thaddeus Weigel, University of Virginia

P02.01 – Thyroid Hormone Decreases Cx43-Containing Extracellular Vesicle Production in Cultured Astrocytes

Amanda Charest, NYITCOM

P02.02 – Oxygen Availability Regulates PG Production Independently of Cyclooxygenase Induction Upon Stimulation With LPS

Brennon Schofield, University of North Dakota

P02.03 – Adhesion GPCR-Dependent Communication Across Cells

Nicole Scholz, Leipzig University, Rudolf Schönheimer Institute Of Biochemistry

P02.04 – An Alternative Fixation Method for Preventing Post-mortem Prostanoid Increase in the Brain

Drew Seeger, University of North Dakota

P02.05 – The Role of Mechanosensation in Central Nervous System Myelination

Amanda Senatore, Oregon Health and Science University

P02.06 – Facilitating Oligodendrocyte Maturation and Safeguarding Myelin Integrity in Multiple Sclerosis via the TET1-BHMT Axis

Marwan Shalih Maraicar, Integrated Science Building, Kent State University

P02.07 – A Molecular Dissection of Complement in Demyelinating Disease

Patrick Sheehan, University Of Massachusetts Medical School

P02.08 – Fever-Like Temperatures Without Immune Activation Improve Cognitive Deficits in the Scn2a Autism Mouse Model via Increases in K+ Channel Activity

Yiming Shen, NIH/NIAAA

P02.09 – Measuring ATP:ADP in Neurons and Astrocytes Using PercevalHR In Vitro

Sophiya Sims, University of Kentucky

P02.10 – Recovery of Astrocyte Calcium Signaling and Cerebrovascular Dynamic From General Anesthesia

Pradoldej Sompol, University of Kentucky

P02.11 – Multi-omics Analyses of Synapses From C9ORF72 ALS/FTD Cortical Neurons

Ashton Spillman, Barrow Neurological Institute

P02.12 – Neurochemical Perturbations and Synaptic Dysfunction Associated With Inhaled Environmental and Occupational Toxicants

Krishnan Sriram, Centers for Disease Control and Prevention (CDC), National Institute for Occupational Safety and Health (NIOSH)

P02.13 – TSG-6 Mediated Extracellular Matrix Modifications Regulate Hypoxic-Ischemic Brain Injury

Taasin Srivastava, Oregon Health & Science University

P02.14 – Reactive Astrocytes May Underlie Diminished Neurovascular Coupling After Stroke

Teresa Stackhouse, Neurology

P02.15 – Unravelling the Metabolic Changes Mediated by Ketone Body Utilization in the Nervous System

Marion Stunault, Washington University in Saint Louis

P02.16 – Cell Synchronization and Glial Neurotransmitter Transporters in Retinal Müller Cells: Role in Excitotoxicity

Temitayo Subair, CINVESTAV

P02.17 – Chronic In Vivo Calcium Imaging of Registered Spinal Neurons to Characterize Mechanical Sensitization During a Month of Inflammatory Pain

Steve Sullivan, Oregon Health And Science University

P02.18 – Extracellular Vesicles From Toxoplasma gondii Infected Neurons Decrease GLT-1 Protein Expression

Emily Tabaie, University of California, Riverside

P02.19 – Lanthionine Ketimine Ethyl Ester Increases Oligodendrocyte Proliferation Both In-Vitro and In-Vivo

Ankit Tandon, University of Illinois Chicago

P02.20 – Investigating the Roles of Dark/Clec7a+ Microglia During Early Postnatal Development in a Mouse Model of Maternal Immune Activation

Marianela Traetta, University of Victoria

P02.21 – Fluid Flow Shear Stress Induces Acid Sphingomyelinase-Mediated Secretion of Neurotoxic Ceramide-Rich Extracellular Vesicles From Cilia in Glial Cells

Priyanka Tripathi, University of Kentucky

P02.22 – Biomarker and Edema Attenuation in IntraCerebral Hemorrhage (BEACH): Phase 2a Proof-of-Concept Trial of a Novel Anti-neuroinflammatory Small Molecule Drug Candidate

Linda Van Eldik, University of Kentucky

P02.23 – HIV Antiretroviral Drugs Trigger Stress Granule Formation via the PERK Activated Integrated Stress Response in Differentiating Oligodendrocytes

Eliana von Krusenstiern, University of Pennsylvania

P02.24 – Astrocytes Dysregulate GABAergic Inhibition to Impair Auditory Processing in Fragile X Syndrome

Victoria Wagner, University Of California, Riverside

P02.25 – Investigating the Role of Copper in Oligodendrocyte Myelination

Johnathan Wong, University of Pennsylvania

P02.26 – PTEN-Induced Kinase 1 Modulates Neuronal Development and Plasticity Through Calcium/Calmodulin-Dependent Protein Kinase II and IV

Micah Woodruff, University of Nevada, Reno

P02.27 – Investigating Ischemic Vascular Dysfunction in Alzheimer's Disease

Simone Woodruff, Oregon Health & Science University

P02.28 – Delineating the Mechanisms Leading to Aberrant Lipid Storage and Trafficking Defects in Astroglia Models of Cholesterol Synthesis Disorders

Jazmine Yaeger, Sanford Research

P02.29 – Role of Autophagy and Fatty Acid Binding Protein 5 During Docosahexaenoic Acid Inhibition of Palmitic Acid-Induced Lipotoxicity

Francis Zamora, Loma Linda University

P02.30 – The Effect and Mechanism of GDNF Released From Reactive Astrocytes on Neuronal and Brain Protection After Ischemic Stroke

Zhe ZHANG, University of Missouri-Columbia

P02.31 – The Sphingosine-1-Phosphate Receptor 1 Antagonist Ponesimod Reduces Neuroinflammation via Microglial Aβ Clearance

Zhihui Zhu, University Of Kentucky

P02.32 – Effects of Centella asiatica Water Extract on Cerebrovascular Function in Mice

Benjamin Zimmerman, National University of Natural Medicine

P02.33 – Developing Tools to Study Cholesterol Metabolism in Microglia During Demyelination

Matthew Zupan, University Of Kansas

P02.34 – Kindling Epileptogenesis Induces Broad Alterations in the Hippocampal Transcriptome of Mice Lacking TIA1 Cytotoxic Granule Associated RNA Binding Protein

Antoaneta Andonova, Syracuse University

P02.35 – Metabolic Derangement Resulting From Diet-Induced Obesity Is Dependent on Estrogen in a Mouse Model of Menopause

Steven Barger, University Arkansas Med Sci

P02.36 – A Novel Mechanism for Brain Prostanoid Regulation Through Oxygen Availability Under Ischemia

Derek Besch, University of North Dakota

P02.37 – Fractalkine Overexpression via rAAVs Differentially Regulate Microglial Activation and Vascular Damage in the Diabetic Retina

Astrid Cardona, University of Texas at San Antonio

P02.38 – TMEM106B Core Deposition Associates With TDP-43 Pathology and Is Increased in Risk SNP Carriers for Frontotemporal Dementia

Casey Cook, Mayo Clinic

P02.39 – Inferring Axon Diameters in the Mouse Corpus Callosum Using Diffusion MRI: Comparison of ROI-Based and Voxel-Based Analysis

Emma Friesen, University of Winnipeg

P02.40 – Neuroactive Effects of Ashwagandha: From Ayurvedic Medicine to Cellular Bioactivity and Mass Spectrometry

Emily Georges, Oregon State University

P02.41 – A Novel Nanoparticle-Mediated Delivery of Estrogen to Protect Neurons and Improve Functional Recovery in Spinal Cord Injury

Azizul Haque, Medical University of South Carolina

P02.42 – PMP22 Null Mutant Mice Exhibit Morphological and Functional Deficits in the Respiratory System

Evan Jones, University Of Nevada, Reno - School Of Medicine

P02.43 – The Natural Compounds Oridonin and Shikonin Exert Beneficial Effects on Reactive Microglia, Independent of Their Inflammasome Inhibitory Activity

Andis Klegeris, University of British Columbia Okanagan

P02.44 – N6-Cyclohexyladenosine Is Better Than Meperidine and Buspirone at Suppressing Metabolism During TTM32 but Does Not Improve Outcome Post Cardiac Arrest

Bernard Laughlin, Institute of Arctic Biology

P02.45 – The Role of Connexin43 Mediated Coupling in Neuronal Activity

Owen Leitzel, University Of Alabama At Birmingham

P02.46 – Distinct Odor and Reward-Evoked GABAergic Neuronal Activity in the Basal Forebrain Influences Odor Perception and Decision-Making

Elizabeth Moss, OHSU

P02.47 – NMNAT2: A Guardian of Axonal Integrity and Cortical Energy Balance in the Brain

Zhen-Xian Niou, Indiana University Bloomington

P02.48 – Differentiation State Impacts the Interaction of mTOR and TFEB in Oligodendrocytes

Davin Packer, University of Colorado Anschutz Medical Campus

P02.49 – Serpina3n/SERPINA3 in LPS-Induced Neonatal Sepsis: Liver-Brain Axis

Joohyun Park, Uc Davis

P02.50 – Diiodothyropropionic Acid Facilitates Oligodendrocyte Differentiation and Myelination to Enhance Neuroprotection and Neurorepair in the Central Nervous System

Steven Petratos, Monash University

P02.51 – Delayed Administration of an angiotensin(II) type(2) Receptor Agonist for the Treatment of Ischemic Stroke: A Preclinical Trial in Hypertensive Rats

Mohammed Sayed, Lincoln Memorial University

P02.52 – Sex and Viral Infection-Induced Inflammation As Contributing Factors to Alterations in Cognitive Performance and Microglial Response in Aged C57BL6/J Mice

Eva Simoncicova, University of Victoria

P02.53 – The Beneficial Effects of NLY01 on Astrocyte Coverage and Functional Recovery in a Mouse Model of Stroke

Julia Staton, University of North Carolina Wilmington

P02.54 – Transcriptome Analysis in Lumbosacral Dorsal Root Ganglia Revealed Sex-Specific Mechanisms Underlying Visceral Hypersensitivity

Sathish Kumar Yesupatham, University of colorado

P02.55 – The Role of Oligodendrocyte Specific Serpina3n in Physiological and Pathological Condition

Meina Zhu, The Guo Laboratory at UC Davis / Shriners Hospitals for Children, Northern California

ASN AWARDS

Jordi Folch-Pi Award
Lisa Julian

Timothy Hammond

Marian Kies Award
Patrick Sheehan

Young Investigator Educational Enhancement (YIEE) Trainee Awards
Pablo Gimenez Gomez

Soomin Jeong

Gabriel A Tavares

Cory J. White

Victoria Wagner

Marwan Shalih Maraicar

Jazmine Yaeger

Micah Feri

Zhe Zhang

Eva Simoncicova

Christina Angeliu

John T. Holsten

Young Latin American Scholars (YLAS)
Subair Temitayo Idris

ASN NEURO Trainee Award
Caela Long

Sanofi Trainee Award
Sarah McCallum

sanofi

GENERAL INFORMATION

ACCESS/SECURITY

Name badges are available at the ASN2024 Registration Desk for all participants and attendees. Please wear and ensure your name badge are visible at all times as it is your admission pass to all Plenary and Concurrent sessions, the Exhibit Hall and social events. Attendees will not be able to access the annual meeting space without their badge. There is a 60 USD reprint fee for any lost or misplaced badge.

OFFICIAL LANGUAGE

The official language of the ASN2024 Meeting is English. All sessions will be conducted in English.

EXHIBITS & POSTER HALL - HOURS

Location: Salons A-E

Sunday, April 14	5:30 PM – 7:00 PM
(Welcome Reception)	
Monday, April 15	9:00 AM – 4:30 PM
Poster Session	4:30 PM – 6:00 PM
Tuesday, April 16	9:00 AM – 4:30 PM
Wednesday, April 17	9:00 AM – 4:30 PM
Poster Session 2	4:30 PM – 6:00 PM
Thursday, April 18	9:00 AM – 4:30 PM

HOTEL INFORMATION

The following restaurant outlets will be available:

Press Release - coffee, tea, and pastries

Daily from 6:30 AM – 1:30 PM

Proof Reader

Whiskey Lounge and American Restaurant

Sunday to Thursday	**Friday and Saturday**
6:30 AM – 11:00 AM	7:00 AM – 11:00 AM
4:00 PM – 11:00 PM	4:00 PM – 11:00 PM

LOST PROPERTY

Please report any lost or unattended items immediately to the ASN2024 Registration Desk located in the Portland Marriott Downtown Waterfront Hotel. If you lose an item while attending ASN2024, please enquire at the Registration Desk where any recovered lost property will be held. At the end of the meeting, all unclaimed lost and found items will be given to Portland Marriott Downtown Waterfront Hotel.

PARKING INFO

Daily Parking	54 USD
Valet Parking	54 USD

(Overnight with in and out privileges)

PHOTOGRAPHER

An official photographer will be present during the Meeting. By registering for the ASN2024 Annual Meeting, you agree to have your picture taken. Photography may be used for marketing purposes for future ASN Meetings and Events.

REFRESHMENT BREAKS

April 15 - 18

Location: Oregon Ballroom, Salon A-E, Exhibit and Poster Hall

Morning Refreshment Break

9:00 AM – 9:30 AM

Lunch Break (on own)

11:30 AM – 1:00 PM

Afternoon Refreshment Break

2:30 PM – 3:00 PM

REGISTRATION DESK HOURS

Location: **Portland Marriott Downtown Waterfront Hotel, Lower Level One Lobby**

Sunday, April 14	2:00 PM - 7:00 PM
Monday, April 15	7:00 AM - 5:00 PM
Tuesday, April 16	7:30 AM - 4:30 PM
Wednesday, April 17	7:30 AM - 4:30 PM
Thursday, April 18	7:30 AM - 4:00 PM

WiFi

High Speed Internet Access
Network: **Marriott_CONFERENCE**
Code: **ASN24**

DISCLAIMER

All reasonable endeavors will be made to hold the ASN2024 Annual Meeting and to present the program as scheduled under circumstances which assure the comfort and safety of the meeting participants. However, the American Society for Neurochemistry and its branches, and their respective directors, officers, employees, representatives or agents, shall not be liable in any manner whatsoever to any person as a result of the cancellation of the Meeting or any of the arrangements, programs or events connected therewith; nor shall any of the foregoing entities or persons be liable in any manner whatsoever for any loss, injury, sickness, damage or inconvenience which may be suffered by any person while travelling to or from, or during such person's presence in, the USA in connection with the Meeting. Participants are advised to consider procuring their own insurance against any such occurrences.

ISN-ASN MEETING

NEW YORK CITY, USA
AUGUST 19-22, 2025

Organized by:

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International Society
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