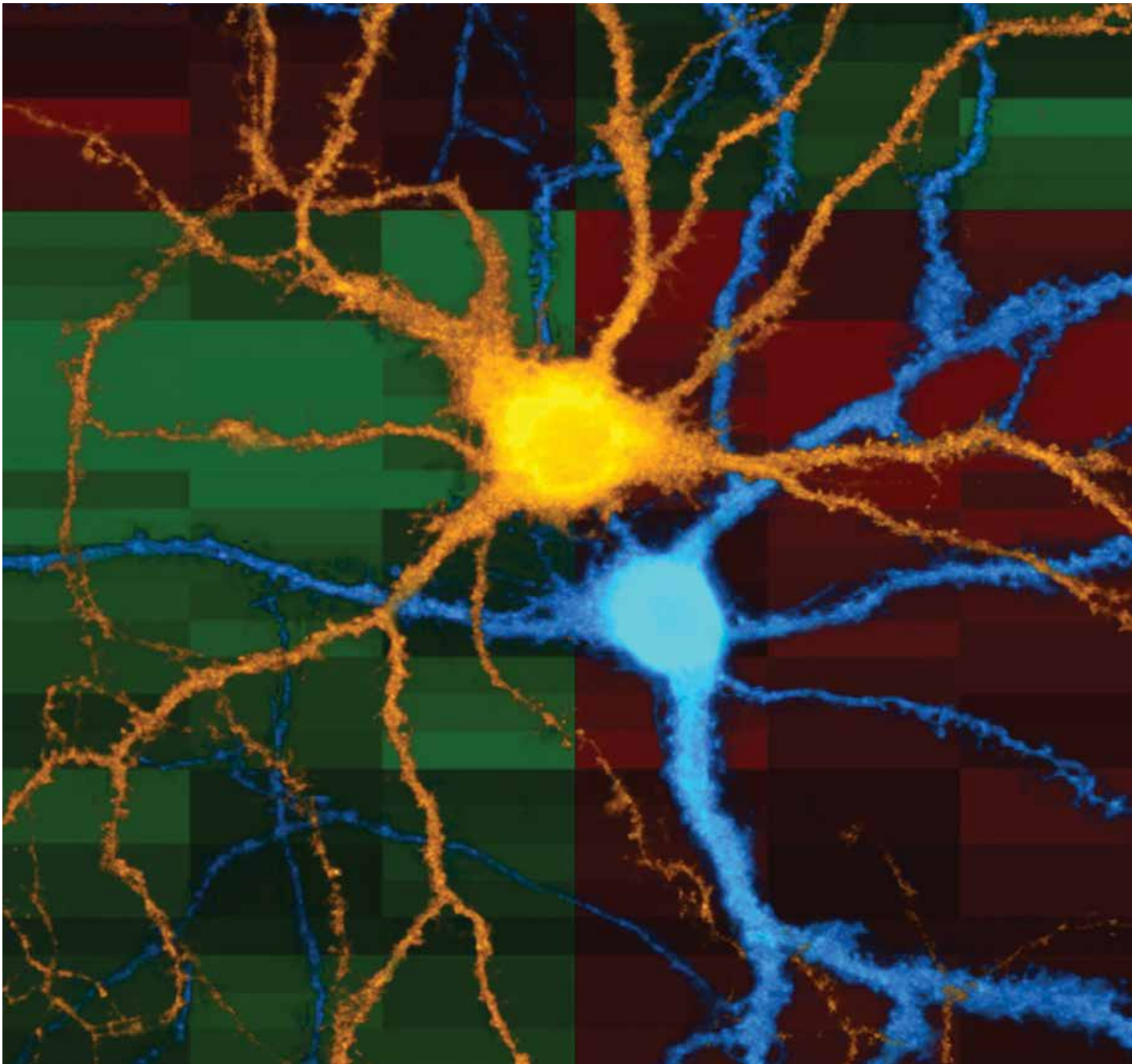
Neuroscience 2015

Chicago | October 17-21

General Information

Program

Society for Neuroscience



Information at a Glance

Important Phone Numbers

Annual Meeting Headquarters Office

Logistics and Programming

Logistics

McCormick Place: Hall A, (312) 791-6700

Programming

McCormick Place: Hall A, (312) 791-6705

Volunteer Leadership Lounge

McCormick Place: S505A, (312) 791-6735

General Information Booths

McCormick Place:

Gate 3 Lobby, (312) 791-6724

Hall A (312) 791-6725

Press Offices

Press Room

McCormick Place: Room S501ABC

(312) 791-6730

Exhibit Management

McCormick Place: Hall A, (312) 791-6740

First Aid and Hospital Numbers

First Aid Station

McCormick Place: Level 2.5S, (312) 791-6060

Mercy Hospital

2525 S Michigan Avenue

Chicago, IL 60616

(312) 567-2000

Physicians Immediate Care

811 S. State Street

Chicago, IL 60605

(312) 566-9510

Walgreens Pharmacy

(closest to McCormick Place)

3405 S. Martin Luther King Drive

Chicago, IL 60616

(312) 326-4064

Venues

McCormick Place

2301 S. Martin Luther King Drive

Chicago, IL 60616

Fairmont Chicago, Millennium Park Hotel

200 N. Columbus Drive

Chicago, IL 60601

(312) 565-8000

Hyatt Regency Chicago Downtown Hotel

(not connected to McCormick Place)

151 E. Wacker Drive

Chicago, IL 60601

(312) 565-1234

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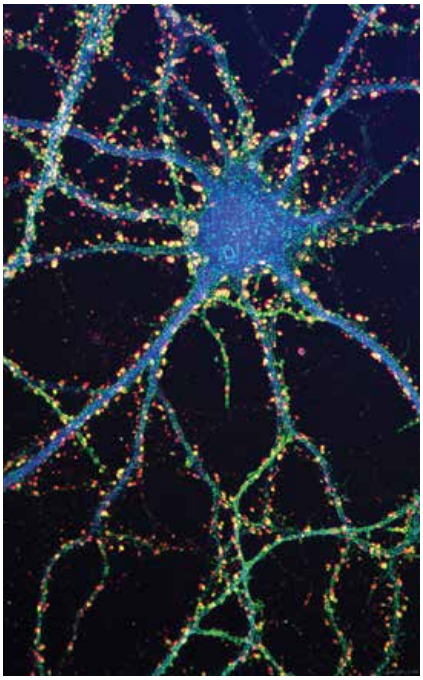

WELCOME

Experience the thrill of discovery at the 45th annual meeting of the Society for Neuroscience.

At Neuroscience 2015, you'll experience the rich breadth of neuroscience, view innovative tools and technologies, and discuss the future of the field with colleagues from around the world.

Immerse Yourself in Neuroscience
The brain remains one of the greatest mysteries in science. Explore the vast complexity of neuroscience by attending symposia, workshops, and lectures at Neuroscience 2015. Be inspired by your colleagues' research and learn new techniques and theories that can be applied to your work.

Is your smartphone or tablet permanently affixed to your hand? Then check out the meeting mobile app available for download in iTunes and the Google Play App Store and Neuroscience Meeting Planner at sfn.org/NMP, to plan your Neuroscience 2015 experience. Both resources allow you to browse abstracts and select sessions to attend. Turn to the meeting planner to build your itinerary, which can be synced with the app or downloaded and printed.

Dynamic posters return for 2015 — don't miss these interactive multimedia presentations. Each poster session will feature 10 dynamic posters. Visit the Neuroscience Meeting Planner or the mobile app to add these innovative posters to your schedule.

Experience the annual meeting in a new way with curated itineraries, which allow you to focus on a specific research area. Neuroscience 2015 features 10 curated itineraries, which include scientific sessions and SfN-Sponsored Socials about a certain topic selected by the SfN Program Committee. Use the meeting mobile app or Neuroscience Meeting Planner to view the 10 selected topics, download the entire itinerary, or add selected sessions to your schedule.

Connecting a Diverse Field
A new friend, collaborator, or mentor may be right around the corner. Neuroscience 2015 convenes the entire field of neuroscience, connecting you with peers at various stages in their careers, in different disciplines, and from all over the world. Meet colleagues and build relationships at receptions, in between sessions, or in the Exhibit Hall. Neuroscience 2015 is an unparalleled opportunity to find a new job or recruit top talent, receive unbiased professional feedback, or connect with future research partners.

Share the excitement online using hashtag **#SfN15** on Twitter. Follow @Neurosci2015 to receive important meeting updates and event information.

Commitment to Environmental Responsibility
The Society is committed to minimizing its impact on the environment we share. Free printed copies of the *Exhibit Guide* and this general information *Program* book were included in your registration packet. Please refer to the meeting mobile app or the Neuroscience Meeting Planner for additional program information. The Neuroscience Meeting Planner Viewing Area in McCormick Place allows for easy access to the online meeting planner.

A limited number of daily books are available for purchase on-site. Visit the *Program* and *Exhibit Guide* Pick-up counter for more information.

See You in San Diego!
Mark your calendars for Neuroscience 2016, Nov. 12–16, 2016, in San Diego.

Download the meeting mobile app for up-to-date session information

Annual Meeting Contributors

AbbVie, Inc.
Professional Development Workshop

Amgen, Inc.
Presidential Special Lecture

AstraZeneca
Young Investigator Award

Burroughs Wellcome Fund
Trainee Professional Development Awards

The Dana Foundation
Science Educator Award

David Kopf Instruments
David Kopf Lecture on Neuroethics

Eli Lilly and Company Foundation and Lilly USA, LLC
Julius Axelrod Prize
Special Lecture
Trainee Professional Development Awards

eLife Science Publications, Ltd.
Trainee Professional Development Awards

Elsevier
Dialogues Between Neuroscience and Society Lecture

eNeuro
Trainee Professional Development Awards Poster Session

Friends of SfN Fund and SfN Memorial Fund
Trainee Professional Development Awards

Bernice Grafstein, PhD

Bernice Grafstein, PhD
Bernice Grafstein Award for Outstanding Accomplishments in Mentoring

The Grass Foundation
Albert and Ellen Grass Lecture
Donald B. Lindsley Prize in Behavioral Neuroscience

The Gruber Foundation
Peter and Patricia Gruber International Research Award in Neuroscience
Peter and Patricia Gruber Lecture

IDEXX BioResearch
Trainee Professional Development Awards

Janssen Research & Development, LLC
Presidential Special Lecture

The Journal of Neuroscience
Trainee Professional Development Awards Poster Session

The Kavli Foundation
Fred Kavli History of Neuroscience Lecture

Lundbeck
Short Course (partial support)

MedImmune, LLC
Presidential Special Lecture

National Institute On Drug Abuse
Professional Development Workshop

National Institute Of Neurological Disorders And Stroke
Neurobiology of Disease Workshop
Neuroscience Scholars Program

National Primate Research Centers
Animals in Research Panel

The Nemko Family

The Nemko Family
Nemko Prize in Cellular or Molecular Neuroscience

Otsuka America Pharmaceutical, Inc.
Short Course (partial support)

Pfizer
Trainee Professional Development Awards

The Swartz Foundation
Swartz Prize for Theoretical and Computational Neuroscience

Takeda Pharmaceuticals International, Inc.
Presidential Special Lecture

The Trubatch Family

The Trubatch Family
Janett Rosenberg Trubatch Career Development Awards

The Waletzky Award Prize Fund and the Waletzky Family

The Waletzky Award Prize Fund and The Waletzky Family
Jacob P. Waletzky Award

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The Society for Neuroscience gratefully acknowledges the generous contributions made in the past year in memory of the following individuals through the

SfN Memorial Fund

The SfN Memorial Fund supports the Society's mission of providing professional development activities and educational resources for neuroscientists at all stages of their careers. To inquire about specific initiatives or to make a tax-deductible donation, visit SfN.org/supportsfn or e-mail development@sfn.org.

SfN Society for Neuroscience

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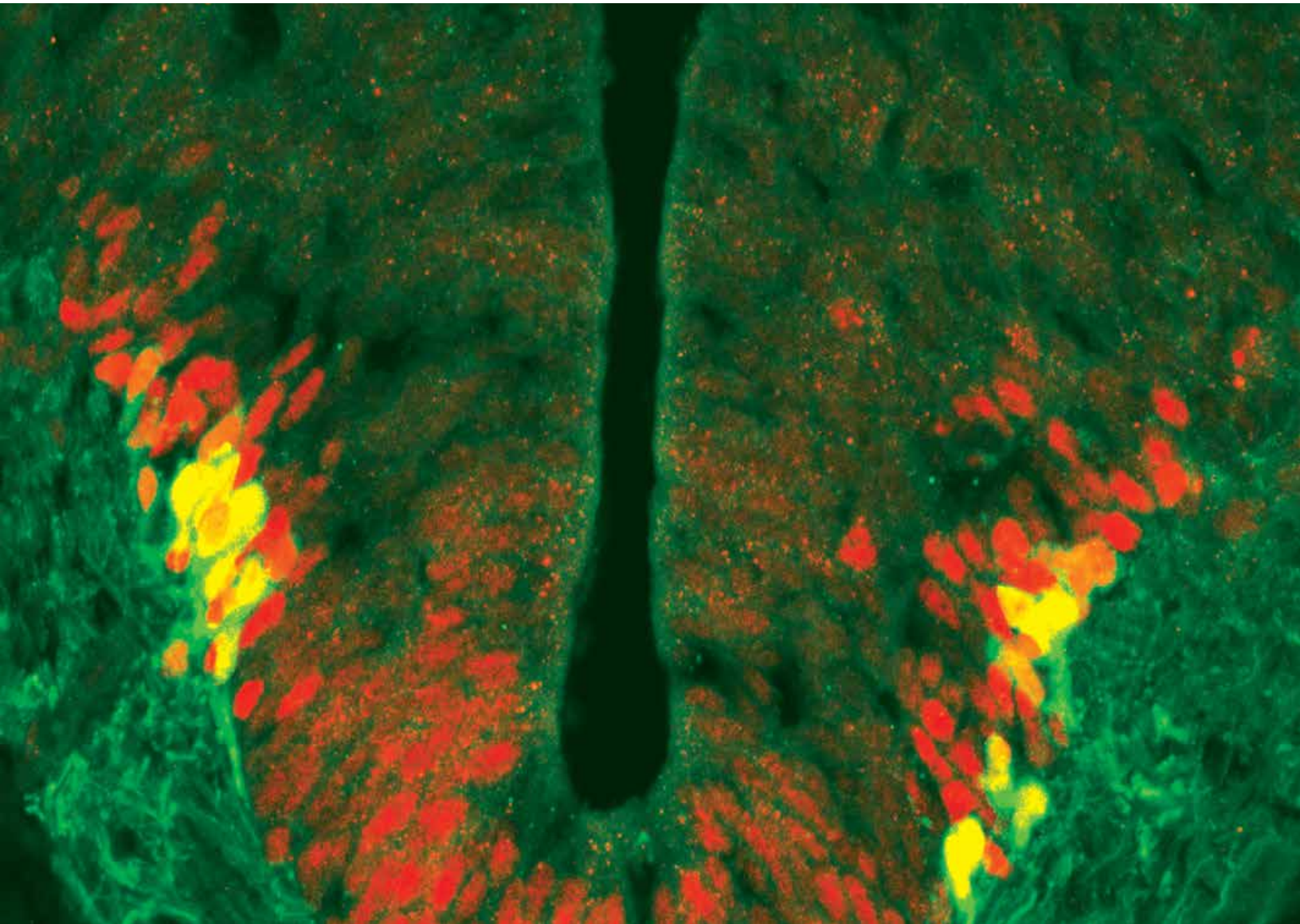
Neuroscience 2015

Scientific Content



Program at a Glance

Friday, October 16	
8 a.m.–5 p.m.	**Neurobiology of Disease Workshop (p.24)** Human Brain Malformations: From Genetics to Therapeutics Organizers: Peter Crino, MD, PhD; Mustafa Sahin, MD, PhD
8 a.m.–6 p.m.	**Short Course #1 (p.24)** Using iPS Cells and Reprogramming to Model Neural Development and Disease Organizer: Kevin Eggan, PhD
8:30 a.m.–6 p.m.	**Short Course #2 (p.24)** The Impact of Human Genetics and Genomics in Neurobiology: From Disease Discovery to Fundamental Mechanisms (and Back) Organizer: Nicholas Katsanis, PhD
1–5:30 p.m.	**Short Course #3 (p.24)** Optimizing Experimental Design for High-Quality Science Organizers: Mara Dierssen, MD, PhD; Magda Giordano, PhD; Chris McBain, PhD; Charles Mobbs, PhD; John Ngai, PhD; Rae Nishi, PhD
Saturday, October 17	
8–9:15 a.m.	**Meet-the-Expert Series: Session 1 (p.24)**
9–11 a.m.	Careers Beyond the Bench (p.26) Organizers: Elisabeth Van Bockstaele, PhD
9–11 a.m.	Success in Academia: What's Your Strategy to Thrive? (p.26) Organizer: Tracy Bale, PhD
9:30–10:45 a.m.	**Meet-the-Expert Series: Session 2 (p.25)**
11 a.m.–1 p.m.	**Dialogues Between Neuroscience and Society (p.13)** Neuroscience and the Law: Strange Bedfellows Speaker: Honorable Jed S. Rakoff, JD
1–2 p.m.	Getting the Most Out of SfN: The Annual Meeting and Beyond (p.27) Organizers: Elisabeth Van Bockstaele, PhD; Amy Jo Stavnezer, PhD; Hermes Yeh, PhD
1–3 p.m.	Graduate School Fair (p.27) Organizers: Committee on Neuroscience Departments and Programs
1–5 p.m.	Posters/Nanosymposia
1:30–4 p.m.	**Empirical Approaches to Neuroscience and Society Symposium (p.18)** Statistics and Computation for an Increasingly Quantitative Scientific Future Chair: Rita Balice-Gordon, PhD
1:30–4 p.m.	Symposia/Minisymposia CME
1:30–5 p.m.	How Do I Fund My Science? Public and Private Funding Approaches for Supporting Your Neuroscience Research Across Career Stages and Types of Research (p.27) Organizer: Kenneth Maynard, PhD
2–3:10 p.m.	**Special Lecture (p.15)** Making, Breaking, and Linking Engrams CME Speaker: Sheena A. Josselyn, PhD
2:30– 4 p.m.	**Brain Awareness Campaign Event (p.27)** Sparking Connections Through Brain Awareness Around the Globe Speaker: Bobby Heagerty
3–5 p.m.	How to Renovate Your Relationship With Your Adviser or Advisee (p.27) Organizers: Mike Levine, PhD; Ian Paul, PhD; Jennifer Raymond, PhD
5:15–6:25 p.m.	**Presidential Special Lecture** Themes and Variations in Circuits and Behavior (p.12) CME Speaker: Cori Bargmann, PhD
6:30–8:30 p.m.	Diversity Fellows Poster Session (p.27)
6:30–8:30 p.m.	International Fellows Poster Session (p.27)
6:30–8:30 p.m.	Trainee Professional Development Awards Poster Session (p.27)
7:30–9:30 p.m.	Career Development Topics: A Networking Event (p.27)
Sunday, October 18	
8 a.m.–noon	Posters/Nanosymposia
8:30–9:40 a.m.	**Special Lecture (p.14)** Genetic Dissection of Neocortical Circuits CME Speaker: Z. Josh Huang, PhD
8:30–11 a.m.	Symposia/Minisymposia CME

Download the meeting mobile app for up-to-date session information

9–11 a.m.	A Guide to Publishing in Journals (p.27) Organizer: Toby Charkin, PhD
9:30 a.m.–5 p.m.	Exhibits (p.88)
10–11:10 a.m.	**Special Lecture (p.14)** From Spontaneous Neurotransmitter Release to Rapid Antidepressant Action CME Speaker: Ege T. Kavalali, PhD
11:30 a.m.–12:40 p.m.	**Special Lecture (p.14)** Clinical Neuroscience Lecture: Neurotrophin Signaling and Epileptogenesis: Mechanistic and Therapeutic Insights CME Speaker: James O. McNamara, MD
11:30 a.m.–1 p.m.	**Chapters Workshop (p.28)** Expanding Chapter Horizons: Connecting Local and International Communities
11:30 a.m.–1 p.m.	Successful Career Advancement through Networking: Is It Who You Know? (p.28) Organizers: Mark Baxter, PhD; Rebecca Shansky, PhD
11:30 a.m.–1:30 p.m.	Creating Connections and Community in Support of Diverse Neuroscientists (p.28) Organizer: Claire Horner-Devine, PhD
noon–2 p.m.	Graduate School Fair (p.27) Organizers: Committee on Neuroscience Departments and Programs

1–2:10 p.m.	**Special Lecture (p.15)** Nanoscopy with Focused Light: Principles and Applications CME Speaker: Stefan W. Hell, PhD
1–3 p.m.	**Social Issues Roundtable (p.28)** The Income Achievement Gap: Insights from Cognitive Neuroscience Organizers: Silvia Bunge, PhD; John Gabrieli, PhD
1–5 p.m.	Posters/Nanosymposia
1:30–4 p.m.	Symposia/Minisymposia CME
2–4 p.m.	Tackling Challenges in Scientific Rigor: The (Sometimes) Messy Reality of Science (p.28) Organizers: Barbara Lom, PhD; John H. Morrison, PhD
2–5 p.m.	Internationalizing Your Research, Training, and Funding Experience (p.28) Organizer: Michael Zigmond, PhD
2:30–3:40 p.m.	**Peter and Patricia Gruber Lecture (p.12)** Nature and Nuture in Synapse Development, Maturation, and Disease Speakers: Michael E. Greenberg, PhD Signaling Networks That Regulate Synapse Development and Cognitive Function Carla J. Shatz, PhD Saving the Synapse: From Developmental Critical Periods to Alzheimer's Disease
5:15–6:25 p.m.	**Presidential Special Lecture (p.12)** The Molecular Logic of Neural Circuits: Implications for Autism and Schizophrenia CME Speaker: Thomas C. Südhof, MD

CME This activity has been approved for *AMA PRA Category 1 Credit*™. For details, see page 70 and visit SfN.org/cme.

Program at a Glance

6:45–8:45 p.m.	SfN-Sponsored Socials
Monday, October 19	
8 a.m.–noon	Posters/Nanosymposia
8:30–9:40 a.m.	**Special Lecture (p.15)** GPS Mechanisms of Migrating Monarch Butterflies CME Speaker: Steven M. Reppert, MD
8:30–11 a.m.	Symposia/Minisymposia CME
9–11 a.m.	Exploring New Communications Channels: Science Blogging (p.28) Organizer: Scott Thompson, PhD
9–11 a.m.	Teaching Neuroscience to Nonscientists (p.29) Organizer: Richard Olivo, PhD
9:30 a.m.–5 p.m.	Exhibits (p.88)
10–11:10 a.m.	**David Kopf Lecture on Neuroethics (p.12)** Giving Voice to Consciousness: Neuroethics, Human Rights, and the Indispensability of Neuroscience Speaker: Joseph J. Fins, MD
11:30 a.m.–12:40 p.m.	**Special Lecture (p.14)** Development and Reprogramming of Neuronal Diversity in the Central Nervous System CME Speaker: Paola Arlotta, PhD
noon–2 p.m.	Graduate School Fair (p.27) Organizers: Committee on Neuroscience Departments and Programs
1–5 p.m.	Posters/Nanosymposia
1:30–4 p.m.	Symposia/Minisymposia CME
3:15–4:25 p.m.	**Albert and Ellen Grass Lecture (p.12)** Receptors, Neurons, and Circuits: The Biology of Mammalian Taste CME Speaker: Charles Zuker, PhD
5:15–6:25 p.m.	**Presidential Special Lecture (p.13)** Immune Mechanisms of Synapse Loss in Health and Disease CME Speaker: Beth Stevens, PhD

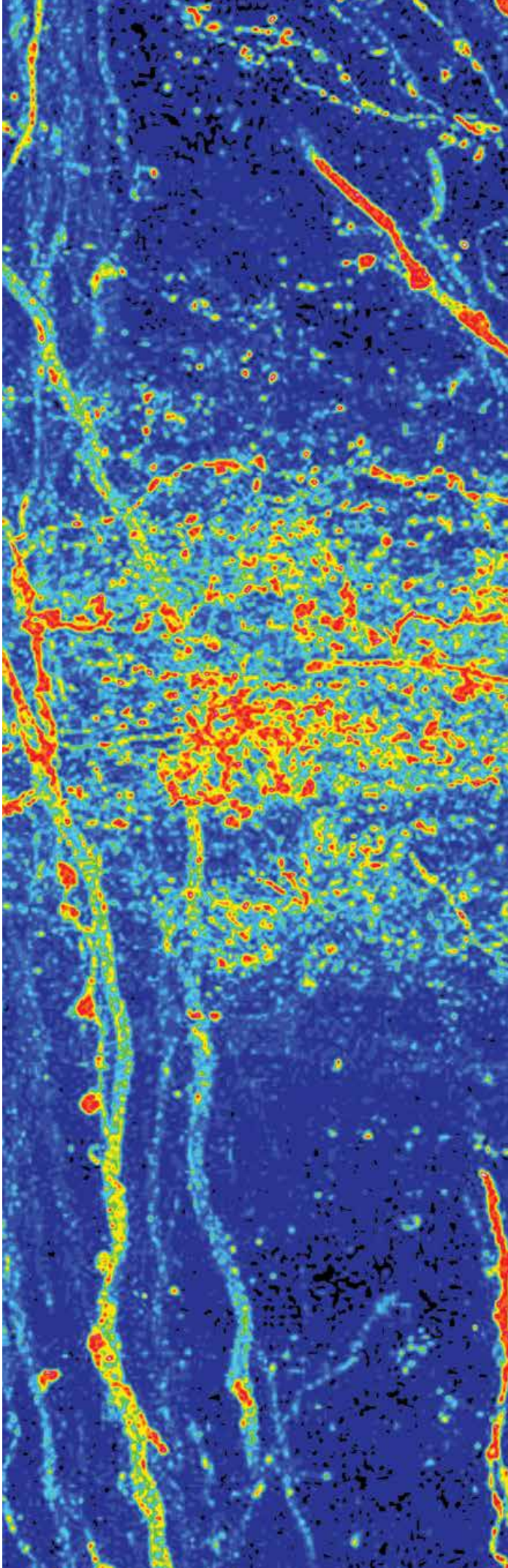
6:45–8:45 p.m.	SfN-Sponsored Socials
Tuesday, October 20	
8 a.m.–noon	Posters/Nanosymposia
8:30–9:40 a.m.	**Special Lecture (p.14)** Strange Synapses and Circuits of the Basal Ganglia CME Speaker: Bernardo Sabatini, MD, PhD
8:30–11 a.m.	Symposia/Minisymposia CME
9:30 a.m.–5 p.m.	Exhibits (p.88)
10–11:10 a.m.	**Special Lecture (p.15)** Uncertainty, Choice, and Dopamine CME Speaker: Stan B. Floresco, PhD
11:30 a.m.–12:40 p.m.	**Special Lecture (p.15)** Cortical Control of Arm Movements: A Dynamical Systems Perspective CME Speaker: Krishna V. Shenoy, PhD
noon–2 p.m.	**Animals in Research Panel (p.29)** Proactive Strategies to Increase the Positive Public Perception of Animals in Research Organizer: Michael E. Goldberg, MD
noon–2 p.m.	Celebration of Women in Neuroscience Luncheon (p.29)
noon–2 p.m.	Graduate School Fair (p.27) Organizers: Committee on Neuroscience Departments and Programs
1–2:10 p.m.	**Special Lecture (p.14)** Inhibition and Excitation in the Cerebellar Nuclei CME Speaker: Indira M. Raman, PhD
1–5 p.m.	Posters/Nanosymposia
1:30–4 p.m.	Symposia/Minisymposia CME
2–4 p.m.	**Public Advocacy Forum (p.29)** Sports-Related Brain Injuries and Their Ethical, Social, and Neuroscience Considerations Organizer: Anne Young, MD, PhD
2:30–3:40 p.m.	**Fred Kavli History of Neuroscience Lecture (p.13)** 100 Years of Stress and the HPA Axis Speaker: Mary F. Dallman, PhD

Download the meeting mobile app for up-to-date session information

4–5 p.m.	**Special Presentation (p.13)** Embracing An Era of Unprecedented Advances in Neuroscience Speaker: Francis Collins, MD, PhD
5:15–6:25 p.m.	**Presidential Special Lecture (p.13)** Grid Cells and Cortical Maps for Space CME Speaker: May-Britt Moser, PhD
6:45–7:30 p.m.	SfN Members' Business Meeting (p.29)
6:45–8:45 p.m.	SfN-Sponsored Socials
9 p.m.–midnight	Graduate Student Reception (p.29)
Wednesday, October 21	
8 a.m.–noon	Posters/Nanosymposia
8:30–9:40 a.m.	**Special Lecture (p.14)** The Genetic Logic of Synapse Formation and Axon Regeneration CME Speaker: Yishi Jin, PhD
8:30–11 a.m.	Symposia/Minisymposia CME
9–11 a.m.	**Departments and Programs Workshop** Training the Trainers: New Perspectives on Graduate Training in Neuroscience in the 21st Century (p.29) Organizer: Hermes Yeh, PhD
9:30 a.m.–5 p.m.	Exhibits (p.88)
10–11:10 a.m.	**Special Lecture (p.15)** Striatal Synaptic Dysfunction in Parkinson's and Huntington's Diseases CME Speaker: D. James Surmeier, PhD
11:30 a.m.–12:40 p.m.	**Special Lecture (p.15)** A Causal Analysis of the Attentional Network CME Speaker: Robert Desimone, PhD
1–2:10 p.m.	**Special Lecture (p.15)** Neurocircuitry Controlling Feeding and Drinking Behaviors in Mice CME Speaker: Richard Palmiter, PhD
1–5 p.m.	Posters/Nanosymposia
1:30–4 p.m.	Symposia/Minisymposia CME

CME This activity has been approved for *AMA PRA Category 1 Credit*™.

For details, see page 70 and visit SfN.org/cme.



Featured Lectures

All featured lectures will be held at McCormick Place, Hall B1.

PRESIDENTIAL SPECIAL LECTURE

Themes and Variations in Circuits and Behavior CME

Cori Bargmann, PhD
Howard Hughes Medical Institute
The Rockefeller University
Support contributed by: Amgen

Saturday, Oct. 17, 5:15–6:25 p.m.

Behavior is variable, both within and between individuals. The nematode worm *C. elegans* allows scientists to explore how genes, neurons, circuits, and the environment interact to give rise to flexible behaviors. Studies of *C. elegans* foraging behaviors have provided insights into three levels of behavioral variability: the gating of information flow by circuit state over seconds, the extrasynaptic regulation of circuits by neuropeptides and neuromodulators over minutes, and natural genetic variation.

PRESIDENTIAL SPECIAL LECTURE

The Molecular Logic of Neural Circuits: Implications for Autism and Schizophrenia CME

Thomas C. Südhof, MD
Howard Hughes Medical Institute
Stanford University School of Medicine
Support contributed by: Janssen

Sunday, Oct. 18, 5:15–6:25 p.m.

Neural circuits process information by transmitting and computing signals at synapses. The hypothesis is that interactions between trans-synaptic cell-surface molecules, such as neurexins, determine the molecular logic of neural circuits, and that some autism and schizophrenia syndromes are produced by impairments in this molecular logic, as evidenced by neurexin mutations in autism and schizophrenia. With these hypotheses, Südhol will provide a conceptual framework for understanding neural circuits in health and disease.

DAVID KOPF LECTURE ON NEUROETHICS

Giving Voice to Consciousness: Neuroethics, Human Rights, and the Indispensability of Neuroscience

Joseph J. Fins, MD
Weill Medical College, Cornell University
Support contributed by: David Kopf Instruments

Monday, Oct. 19, 10–11:10 a.m.

The ability of neuroprosthetics to restore functional communication in patients with disorders of consciousness has the potential to reintegrate patients into the nexus of family and community. As a worthy scientific pursuit, Fins will argue that this effort is a moral imperative that links respect for persons with the reemergence of voice out of covert consciousness. As such, it is a human rights issue for a population too long marginalized. For rights to come to mind, patients will need greater access to medical care and research and the skilled engagement of the neuroscience community.

ALBERT AND ELLEN GRASS LECTURE CME

Receptors, Neurons, and Circuits: The Biology of Mammalian Taste

Charles Zuker, PhD
Columbia University, Howard Hughes Medical Institute
Support contributed by: The Grass Foundation

Monday, Oct. 19, 3:15–4:25 p.m.

The taste system is one of our fundamental senses, responsible for detecting and responding to sweet, bitter, umami, salty, and sour stimuli. Zuker's laboratory studies the logic of taste coding as a platform to understand how our brain creates an internal representation of the outside world and transforms sensory signals at the periphery into percepts, actions, and behaviors.

PETER AND PATRICIA GRUBER LECTURE: NATURE AND NUTURE IN SYNAPSE DEVELOPMENT, MATURATION, AND DISEASE

Support contributed by: The Gruber Foundation

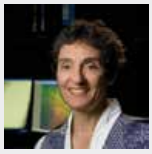
Sunday, Oct. 18, 2:30–3:40 p.m.

Signaling Networks That Regulate Synapse Development and Cognitive Function

Michael E. Greenberg, PhD
Harvard Medical School

This lecture will discuss how sensory experience controls gene expression to regulate critical steps in synapse and neural circuit development. It will also describe how mutations in components of the signaling networks that mediate sensory experience-dependent gene transcription can lead to neurological disorders such as Rett syndrome.

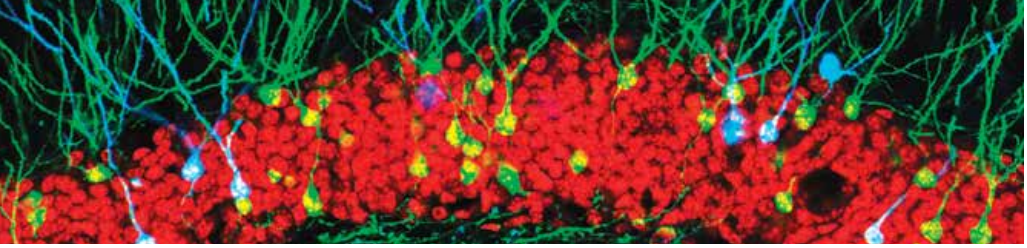
Saving the Synapse: From Developmental Critical Periods to Alzheimer's Disease



Carla J. Shatz, PhD
Stanford University

Neural activity is needed to fine tune brain circuits. MHC Class I molecules and the PirB receptor, thought to function only in immunity, act at neuronal synapses to regulate synapse pruning and plasticity. Changes in expression could contribute to autism and schizophrenia, and possibly to synapse loss in Alzheimer's disease.

CME This activity has been approved for *AMA PRA Category 1 Credit*™. For details, see page 70 and visit SfN.org/cme.



PRESIDENTIAL SPECIAL LECTURE

Immune Mechanisms of Synapse Loss in Health and Disease CME

Beth Stevens, PhD
Boston Children's Hospital
Harvard Medical School
Support contributed by: MedImmune

Monday, Oct. 19, 5:15–6:25 p.m.

How synapses are eliminated in the developing and diseased brain remains a mystery. During development, synaptic pruning is required for precise wiring and emerging evidence implicates immune-related molecules and immune cells called microglia. This talk will review research on how these pathways regulate the formation, refinement, and elimination of specific axons and synapses during development. The discoveries suggest ways of protecting synapses in neurodegenerative and psychiatric disorders involving synapse loss.

FRED KAVLI HISTORY OF NEUROSCIENCE LECTURE

100 Years of Stress and the HPA Axis

Mary F. Dallman, PhD
University of California, San Francisco
Support contributed by: The Kavli Foundation

Tuesday, Oct. 20, 2:30–3:40 p.m.

In 1915, Walter B. Cannon described responses to a variety of stressors and concluded that stress causes changes in the brain and body that are preparatory for behaviors such as fight or flight. From subcellular to psychological levels, enormous conceptual and methodological advances have occurred in understanding stress and responses of the brain-HPA and sympathetic nervous system axes in the last century. These advances tend to be isolated within, but not across, disciplines. Our current knowledge provides far greater detail of understanding and it does not change the conclusions drawn by Cannon.

SPECIAL PRESENTATION

Embracing An Era of Unprecedented Advances in Neuroscience

Francis Collins, MD, PhD
National Institutes of Health

Tuesday, Oct. 20, 4–5 p.m.

Despite many challenges, the last decade has seen tremendous progress in neuroscience. To support continued progress, the National Institutes of Health (NIH) has taken a lead role in implementing the President's Brain Research through Advancing Innovative Neurotechnologies (BRAIN) Initiative. The NIH Director will discuss how his agency, working with the neuroscience community, is catalyzing development of technologies to provide dynamic pictures of the brain, both in disease and in health. He will also examine challenges that cut across biomedical disciplines, and reflect upon opportunities for neuroscientists to face such challenges and generate tomorrow's advances.

Download the meeting mobile app for up-to-date session information

DIALOGUES BETWEEN NEUROSCIENCE AND SOCIETY

Neuroscience and the Law: Strange Bedfellows

Honorable Jed S. Rakoff, JD
U.S. District Court, Southern District of New York
Support contributed by: Elsevier
Saturday, Oct. 17, 11 a.m.–1 p.m.

Neuroscience is a hot topic with lawyers and judges, as recent advances in our understanding of the brain have raised important and unexpected implications for the development and application of legal principles. These implications, however, can be overstated, which presents a potential for abuse and warrants caution. Hear Senior U.S. District Judge Jed S. Rakoff, a founding member of the MacArthur Foundation Project on Law and Neuroscience, explore the legal and ethical questions raised as neuroscience enters the courtroom and affects the judicial system.

PRESIDENTIAL SPECIAL LECTURE

Grid Cells and Cortical Maps for Space CME

May-Britt Moser, PhD
Neuroscience and Centre for Neural Computation
Norwegian University of Science and Technology
Support contributed by: Takeda

Tuesday, Oct. 20, 5:15–6:25 p.m.

The medial entorhinal cortex (MEC) is part of the brain's circuit for dynamic representation of self-location. The metric of this representation is provided by grid cells — cells with spatial firing fields that tile environments in a periodic hexagonal pattern. This lecture will discuss the morphological identity of cells that express this pattern, how they are organized, how they interact with the environment, and how grid cells and place cells contribute to a wider circuit for goal-directed navigation.

Special Lectures

All featured lectures will be held at McCormick Place, Hall B1.

THEME A: DEVELOPMENT

Genetic Dissection of Neocortical Circuits CME

Z. Josh Huang, PhD
Cold Spring Harbor Laboratory
Sunday, Oct. 18, 8:30–9:40 a.m.

The computational power of the neocortex emerges from a basic neural architectural plan rooted in the genome and conserved across species. Whereas a set of glutamatergic projection neurons constitute inter-areal processing streams and cortical output channels, diverse GABAergic interneuorns regulate the spatiotemporal configuration of neural ensembles. Systematic cell targeting and cell fate mapping provide entry points for integrating multiple approaches toward understanding the assembly and organization of cortical circuits. This lecture will discuss the progress and prospect on genetic targeting of glutamatergic and GABAergic neurons in the mouse, focusing on the construction and function of a chandelier cell-pyramidal cell module.

Development and Reprogramming of Neuronal Diversity in the Central Nervous System CME

Paola Arlotta, PhD
Harvard University
Monday, Oct. 19, 11:30–12:40 p.m.

Support contributed by: Lilly USA, LLC

The mammalian central nervous system (CNS) contains an unparalleled diversity of neuronal subtypes, which are largely generated during embryonic development and maintained unchanged in the adult. This lecture will cover progress made in understanding the regulatory, molecular logic that shapes neuronal diversity in the embryo, consider its importance for CNS assembly and function, and discuss recent evidence for the unexpected capacity of central neurons to post-mitotically "reprogram" their class-specific features.

The Genetic Logic of Synapse Formation and Axon Regeneration CME

Yishi Jin, PhD
Howard Hughes Medical Institute
University of California, San Diego
Wednesday, Oct. 21, 8:30–9:40 a.m.

Genetic dissection in *C. elegans* has long been a powerful approach to discover the function of genes and to elucidate the molecular and cellular network underlying how synapses form and function. Recent technological innovation using laser surgery of single axons and *in vivo* imaging has also made *C. elegans* a new model for axon regeneration. Importantly, genes regulating synaptogenesis and axon regeneration are highly conserved in function across animal phyla. This lecture will focus on the key findings and discuss implications to human health.

THEME B: NEURAL EXCITABILITY, SYNAPSES, AND GLIA: CELLULAR MECHANISMS

From Spontaneous Neurotransmitter Release to Rapid Antidepressant Action CME

Ege T. Kavalali, PhD
University of Texas Southwestern Medical Center
Sunday, Oct. 18, 10–11:10 a.m.

Recent studies report a key role for spontaneous neurotransmission in regulation of synaptic plasticity, homeostasis, and behavior such as rapid antidepressant responses. There is also increasing evidence that the presynaptic basis of spontaneous neurotransmitter release events and their postsynaptic targets are segregated from those of evoked release, suggesting an autonomous role for spontaneous neurotransmission in neuronal signaling. This presentation will discuss these recent studies on the mechanisms and functions of spontaneous neurotransmitter release.

Strange Synapses and Circuits of the Basal Ganglia CME

Bernardo Sabatini, MD, PhD
Harvard Medical School
Tuesday, Oct. 20, 8:30–9:40 a.m.

The basal ganglia are a phylogenetically old and evolutionarily conserved set of nuclei crucial for goal-oriented motor action. Nevertheless, many aspects of their circuitry, function, and regulation remain mysterious. Sabatini will present recent work from his group revealing complex and unexpected interactions between nuclei of the basal ganglia. These include the surprisingly widespread use of multiple fast acting neurotransmitters by neuromodulatory systems. The results will be discussed in terms of action initiation and reinforcement.

Inhibition and Excitation in the Cerebellar Nuclei CME

Indira M. Raman, PhD
Northwestern University
Tuesday, Oct. 20, 1–2:10 p.m.

Neurons in the cerebellar nuclei integrate high-frequency inhibition from convergent Purkinje cells with excitation from diverse mossy fibers to generate cerebellar outputs that lead to regulation of precise motor behaviors. This lecture will include a discussion of the synaptic and cellular specializations of Purkinje neurons, mossy fibers, and neurons of the cerebellar nuclei that contribute to information coding by the cerebellum in mice.

THEME C: DISORDERS OF THE NERVOUS SYSTEM

Clinical Neuroscience Lecture
Neurotrophin Signaling and Epileptogenesis: Mechanistic and Therapeutic Insights CME

James O. McNamara, MD
Duke University Medical Center
Sunday, Oct. 18, 11:30 a.m.–12:40 p.m.

The lack of preventive treatments for common diseases of the nervous system is a glaring unmet medical need. Temporal lobe epilepsy is a common and devastating disease. An episode of prolonged seizures in an otherwise healthy individual is thought to cause severe temporal lobe epilepsy emerging years later. Recent discoveries have identified targets and therapies to prevent this disease in experimental animals. This presentation will review these discoveries and focus on the causal role of excessive neurotrophin signaling in development of temporal lobe epilepsy.

Download the meeting mobile app for up-to-date session information

Striatal Synaptic Dysfunction in Parkinson's and Huntington's Diseases CME

D. James Surmeier, PhD
Feinberg School of Medicine
Northwestern University
Medical School
Wednesday, Oct. 21, 10–11:10 a.m.

Traditional models of basal ganglia disorders are grounded in the assumption that network dysfunction is driven by alterations in intrinsic excitability of striatal neurons. Recent work has challenged this assumption, showing that mouse models of Parkinson's disease have profound cell-specific alterations in striatal synaptic strength and connectivity. Cell-specific synaptic dysfunction also is being found in mouse models of Huntington's disease. This talk will summarize this work and link it to the motor symptoms of these two diseases.

THEME D: SENSORY AND MOTOR SYSTEMS

Cortical Control of Arm Movements: A Dynamical Systems Perspective CME

Krishna V. Shenoy, PhD
Stanford University
Tuesday, Oct. 20, 11:30 a.m.–12:40 p.m.

Investigating the neural control of arm movements has involved, primarily, either attempts to account for single-neuron responses in terms of tuning for movement parameters or attempts to decode movement parameters from populations of tuned neurons. These have led to many seminal advances but have not produced an agreed-upon conceptual framework. This lecture will review how a dynamical systems perspective may help researchers understand why motor cortical activity evolves the way it does, how it relates to movement parameters, and how a unified conceptual framework may result.

THEME E: INTEGRATIVE SYSTEMS: NEUROENDOCRINOLOGY, NEUROIMMUNOLOGY, AND HOMEOSTATIC CHALLENGE

GPS Mechanisms of Migrating Monarch Butterflies CME

Steven M. Reppert, MD
University of Massachusetts
Medical School
Monday, Oct. 19, 8:30–9:40 a.m.

This lecture will focus on the navigational mechanisms exploited by eastern North American monarch butterflies during their iconic fall migration. This includes use of a time-compensated sun compass and of a light-dependent inclination magnetic compass. Genomic and genetic strategies have been developed to define the genetic underpinning of the migration. The monarch butterfly has emerged as a model system to study the neural, molecular, and genetic basis of long-distance animal migration.

Neurocircuitry Controlling Feeding and Drinking Behaviors in Mice CME

Richard Palmiter, PhD
University of Washington
Wednesday, Oct. 21, 1–2:10 p.m.

The development of genetic, viral, and optical technologies has revolutionized approaches for dissecting neuronal circuits that control basic behaviors and physiological process, including ingestion. Selective activation of specific neurons stimulates robust feeding or drinking, while activation of other neurons inhibits feeding or drinking. Deciphering the neuronal circuits engaged by these manipulations and the molecular phenotype of neurons involved is an ongoing endeavor.

THEME F: COGNITION AND BEHAVIOR

Making, Breaking, and Linking Engrams CME

Sheena A. Josselyn, PhD
Hospital for Sick Children
Saturday, Oct. 17, 2–3:10 p.m.

A fundamental goal of neuroscience is to understand how information is encoded, stored, linked, and used in the brain. The physical or functional representation of a memory (the memory trace or "engram") is thought to be sparsely encoded over a distributed memory network. However, identifying the precise neurons that make up a given engram has challenged scientists since Karl Lashley conceded defeat in his "search for the engram" in 1950. This lecture will discuss new insights into how engrams are formed, linked, and used.

Uncertainty, Choice, and Dopamine CME

Stan B. Floresco, PhD
University of British Columbia
Tuesday, Oct. 20, 10–11:10 a.m.

We routinely evaluate choices where decisions and actions may or may not yield different types of rewards. These situations trigger competitive decision biases that reflect interplay between different prefrontal cortical, amygdalar, striatal, and habenular nodes within dopaminergic circuitry. This lecture will discuss some of the interactions between these circuits that shape decision biases and underlie conflicting urges when evaluating options that vary in terms of potential risks and rewards.

A Causal Analysis of the Attentional Network CME

Robert Desimone, PhD
McGovern Institute for Brain Research at MIT (Massachusetts Institute of Technology)
Wednesday, Oct. 21, 11:30 a.m.–12:40 p.m.

The most behaviorally-relevant stimuli in scenes are selected for processing and control over behavior ("attention"). The effects of selection are widespread, making it difficult to distinguish cause from effect in the attentional network. However, the flow of control can be inferred through the analysis of timing and the use of "causal" methods such as pharmacological inactivation and optogenetics to establish the impact of one circuit on another. This lecture will explore the emerging new insights into the biological mechanism of attention.

THEME G: NOVEL METHODS AND TECHNOLOGY DEVELOPMENT

Nanoscopy With Focused Light: Principles and Applications CME

Stefan W. Hell, PhD
Max Planck Institute for Biophysical Chemistry
Sunday, Oct. 18, 1–2:10 p.m.

Throughout the 20th century, it was well accepted that lens-based light microscopy cannot discern details that are finer than half the wavelength of light (>200 nm). However, in the 1990s, it was discovered that this barrier can be effectively overcome such that fluorescent features can be resolved virtually down to molecular dimensions. This lecture will discuss the simple yet powerful physical principles that allowed researchers to overcome the diffraction limit with a special emphasis on STED and RESOLFT microscopy relating these nanoscopy "techniques to the neurosciences."

Symposia

THEME A: DEVELOPMENT

Understanding Neural Circuits Through Dendrite Development and Function CME

Chair: Kang Shen, MD, PhD
Co-Chair: Joshua R. Sanes, PhD
Monday, Oct. 19, 1:30–4 p.m.
McCormick Place: S100A

The complex and diverse dendritic arbors have long been recognized as a critical feature of distinct neuronal cell types. The molecular knowledge on dendrite development and cell biology is critical for our understanding of neural circuit assembly and function. In this symposium, speakers will feature several major experimental systems for dendrite research and discuss key results on development, unique cell biology, and how dendrites shape intact neural circuits.

Synapse Formation and Neurodevelopmental Disorders CME

Chair: Lin Mei, MD, PhD
Co-Chair: Claire Legay, PhD
Tuesday, Oct. 20, 8:30–11 a.m.
McCormick Place: S100A

Neural transmission and plasticity are critical to how we perceive, think, and react to the world. This relies on synapses. Inappropriate formation of synapses has been implicated in neuropsychiatric disorders and loss of synaptic connection may lead to neurodegenerative disorders. This symposium will provide insights into mechanisms that govern synapse formation and stability in various model systems and shed light on pathophysiological mechanisms.

THEME B: NEURAL EXCITABILITY, SYNAPSES, AND GLIA: CELLULAR MECHANISMS

Dysregulation of Mechanistic Target of Rapamycin Signaling in Mouse Models of Autism CME

Chair: R. Suzanne Zukin, PhD
Saturday, Oct. 17, 1:30–4 p.m.
McCormick Place: S406A

Autism is a widespread disorder characterized by deficits in social interactions, communication, and repetitive/stereotypic behaviors. Despite the wide diversity of genes implicated in autism, they appear to converge on common biological pathways to give rise to autism-relevant behaviors. Ground-breaking discoveries in this area in the past 2–3 years implicate over-activated mTOR signaling is a major player in impaired synaptic plasticity, neural networks, and behaviors in autism spectrum disorders.

New Frontiers in Understanding Glia CME

Chair: Ben A. Barres, MD, PhD
Sunday, Oct. 18, 1:30–4 p.m.
McCormick Place: S105

More than half of the cells in the mammalian nervous system are glia. Long thought to play a largely supportive role to neurons, exciting work in the past few years has overwhelmingly overturned this notion. This symposium will provide a cutting-edge view of our rapidly expanding understanding of the development and functions of glia: how they myelinate axons, control synapse formation and elimination, respond to neuronal injury, and their contribution to neurodegenerative disease.

Advanced Molecular Imaging of Synapses in Health and Disease CME

Chair: Thomas A. Blanpied, PhD
Co-Chair: Shigeo Okabe, MD, PhD
Monday, Oct. 19, 1:30–4 p.m.
McCormick Place: S406A

This symposium will present new developments in imaging and proteomic technology and discuss how they are changing the way researchers characterize synaptic function and dysfunction. Presentations will reveal new insights from multiple scales of synaptic observation including nanoscale super-resolution imaging, time-lapse *in vivo* imaging, and proximity tagging of endogenous proteins for mass spectrometric identification. From molecular screening to disease risk genes, speakers will propose new ways to understand disorders that alter neural circuit performance by disrupting synapses.

THEME C: DISORDERS OF THE NERVOUS SYSTEM

How Does the Brain Implement Adaptive Decision-Making to Eat? CME

Chair: Valérie Compan, PhD
Saturday, Oct. 17, 1:30–4 p.m.
McCormick Place: S100B

Adaptive decision-making to eat is crucial for survival, but in anorexia nervosa, the brain persistently supports reduced food intake despite a growing need for energy. How the brain persists in reducing food intake to the point of death despite the evolution of mechanisms to ensure survival by governing adaptive eating behaviors remains just as mysterious as the switch from anorexia to bulimia. Neural substrates belong to the reward-habit system and could differ from overeating-induced obesity.

Human iPSC Derived Cells for Modeling Neurodegenerative Disease and Drug Discovery CME

Chair: Eugenia M. Jones, PhD
Co-Chair: Eric Chiao, PhD
Sunday, Oct. 18, 1:30–4 p.m.
McCormick Place: S100A

Human induced pluripotent stem cells (iPSCs) provide unprecedented access to neurons and glia to study neurodegenerative disorders. For the first time, researchers have sufficient human material, derived from specific patient populations, to perform studies in the cell types of interest. This symposium will highlight research that demonstrates the broad utility of iPSC technology in developing better tools, models, and biomarkers for innate, induced, and infectious neurodegenerative disorders.

Rethinking Dogma in Thalamocortical Epilepsies CME

Chair: John R. Huguenard, PhD
Co-Chair: Hee-Sup Shin, MD, PhD
Monday, Oct. 19, 1:30–4 p.m.
McCormick Place: S100B

Generalized absence epilepsy has a unique EEG expression and behavioral correlate characterized by 3 Hz spike and wave discharge and a behavioral absence. The thalamocortical circuit is implicated in absence epilepsy, yet roles for thalamus vs neocortex remain controversial, as do roles of different regulators of thalamocortical activity such as calcium channels and GABA receptors. This symposium will present several unexpected findings that challenge existing dogma and provide a state of the art update.

EMPIRICAL APPROACHES TO NEUROSCIENCE AND SOCIETY SYMPOSIUM

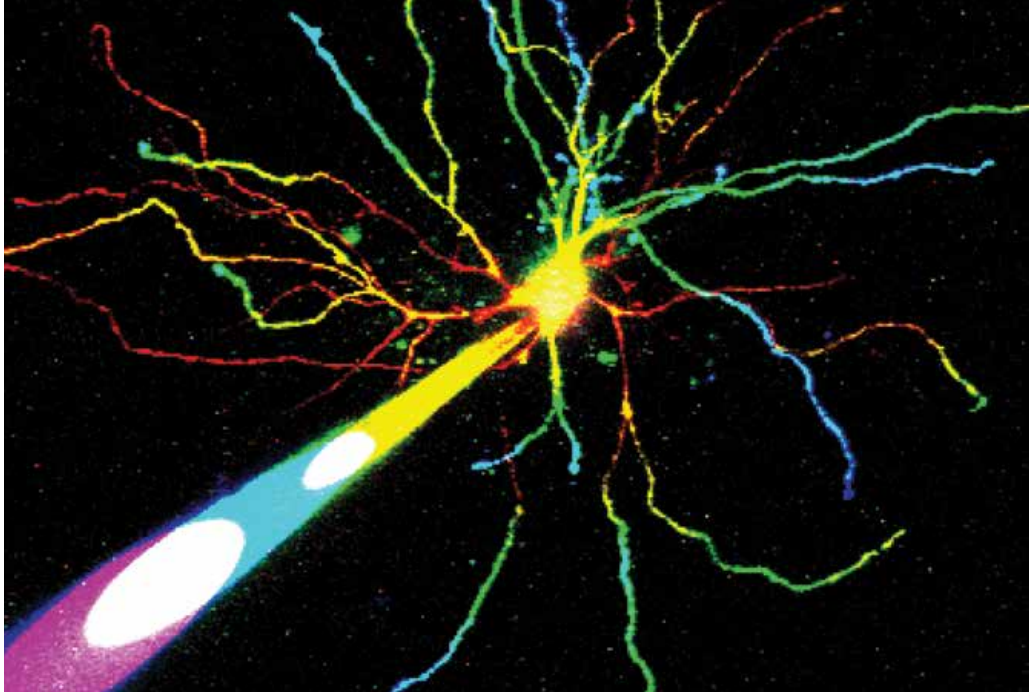
Statistics and Computation for an Increasingly Quantitative Scientific Future

Chair: Rita Balice-Gordon, PhD

Saturday, Oct. 17, 1:30–4 p.m.

McCormick Place: S100A

The replication of scientific studies is a widely-recognized challenge in neuroscience and requires practical solutions, which can impact research, funding, publishing, and training. Speakers will discuss best practices in experimental design, statistical rigor, impact on animal use, methodological descriptions, reagent validation and sharing, data sharing, and the impact these have on funding and publishing practices. This symposium will also explore the role of inherent scientific biases and how these might be mitigated to achieve higher standards of reproducibility.



Novel Ideas and Tools to Enhance the Neurobiological Study of Drug Addiction With an Eye Toward Intervention Development and Biomarker Identification CME

Chair: Rita Goldstein, PhD

Tuesday, Oct. 20, 1:30–4 p.m.

McCormick Place: S100B

This translational symposium presents exciting new scientific directions in the study of human drug addiction. Topics will include the use of integrated positron emission tomography (PET) scans and magnetic resonance imaging (MRI) to study abnormalities in blood perfusion of the brain in humans and test novel molecular targets, *in vivo*, as well as the development of cross-species analyses to guide systems-level explorations, and the potential use of brain-computer interfaces to enhance self-control in addiction.

Adolescent Alcohol Exposure: Long-Term Neurobiological and Behavioral Consequences CME

Chair: Soundar Regunathan, PhD

Co-Chair: Antonio Noronha, PhD

Wednesday, Oct. 21, 8:30–11 a.m.

McCormick Place: S105

Human studies show that morphological changes in the brain during adolescence contribute to attention, impulse control, information processing, violence, and responses to rewards. Alcohol consumption during adolescence is highly prevalent, and yet very little is known about the long-lasting consequences. The four speakers in this symposium will describe recent findings on behavioral, cellular, molecular, and structural alterations in adult animals after alcohol exposure during adolescence.

THEME D: SENSORY AND MOTOR SYSTEMS

Cellular and Circuit Mechanisms of Multisensory Integration and Plasticity CME

Chair: Hey-Kyoung Lee, PhD

Co-Chair: Patrick O. Kanold, PhD

Sunday, Oct. 18, 8:30–11 a.m.

McCormick Place: S406A

Multisensory integration occurs even at the early stages of sensory processing across diverse organisms. Such interactions also serve as substrates for cross-modal plasticity in the event of losing a sensory modality. This session will present recent evidence demonstrating synaptic and circuit mechanisms of multisensory interactions and cross-modal plasticity. Mechanisms underlying the development of multisensory circuits and their adaptive plasticity in adults will be highlighted.

CME This activity has been approved for *AMA PRA Category 1 Credit*™.

For details, see page 70 and visit SfN.org/cme.

Symposia

Retinal Microcircuits for the Computation of Motion Direction: Functional Organization, Development, and Behavior CME

Chair: H. Sebastian Seung, PhD

Monday, Oct. 19, 8:30–11 a.m.

McCormick Place: S100B

The retina has historically been a region of the mammalian central nervous system that is especially tractable. Two-photon imaging, serial electron microscopy, and genetic manipulations of specific cell types are revealing with unprecedented precision how the microcircuitry is functionally organized, emerges during development, and contributes to visually-guided behaviors. This symposium will survey recent progress using the example of retinal direction selectivity.

THEME E: INTEGRATIVE SYSTEMS: NEUROENDOCRINOLOGY, NEUROIMMUNOLOGY, AND HOMEOSTATIC CHALLENGE

New Approaches to Understanding How the Hypothalamus Controls Adaptive and Integrative Behavior CME

Chair: William Wisden, PhD

Wednesday, Oct. 21, 8:30–11 a.m.

McCormick Place: S100A

This symposium will present new genetic and ethological methods that are changing researchers' ideas about hypothalamic function. Presenters will explore how circuitry controlling the sleep-wake cycle has inbuilt local circadian clocks; how fast and slow signalling onto hypothalamic neurons allows metabolic integration; how such circuitry is also adapted to regulate emotion; and finally, speakers will examine some of the ion channels and receptors involved in governing the activity of these circuitries.

THEME F: COGNITION AND BEHAVIOR

Identifying and Manipulating the Synapses, Cells, and Circuits of Memory Engrams: Implications for Memory and Memory Disorders CME

Chair: Alcino J. Silva, PhD

Sunday, Oct. 18, 8:30–11 a.m.

McCormick Place: S100A

Ground-breaking technological developments in neuroscience have transformed efforts to identify, understand, and manipulate the engram at a synaptic, cellular and circuit level. This symposium will review these advances and discuss their implications for the understanding of memory as well as memory disorders.

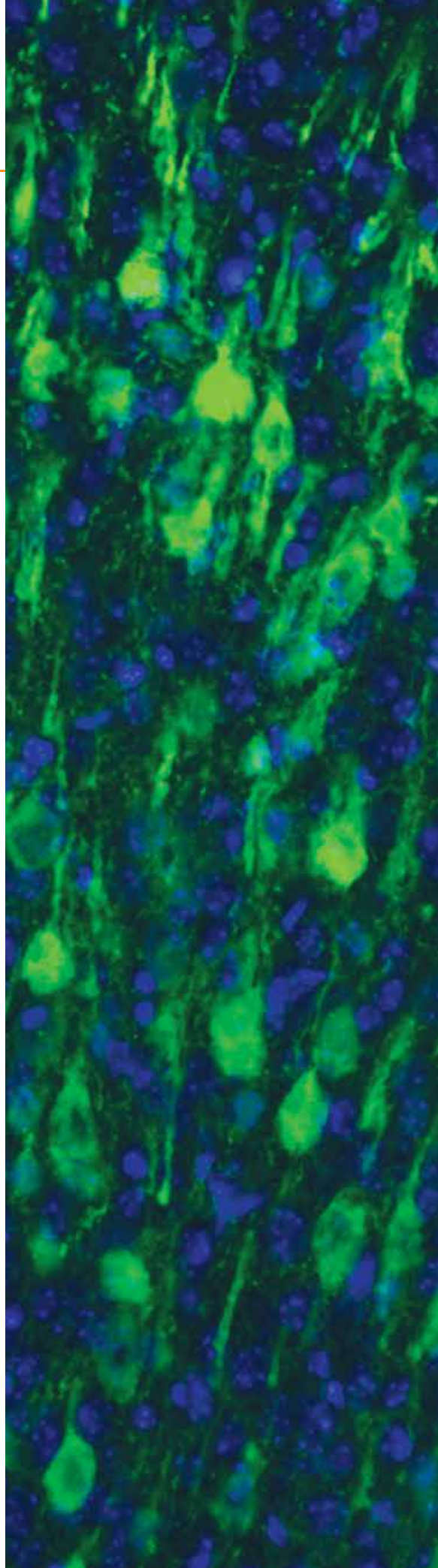
Hidden Variables of Behavior: Neuronal Parameters Underlying Brain States CME

Chair: Mark J. Schnitzer, PhD

Sunday, Oct. 18, 1:30–4 p.m.

McCormick Place: S100B

Technologies for observing and influencing large-scale neural circuit dynamics have illuminated how time-varying brain states shape vertebrate cognition and behavior. Highlighting recent work on spatial, emotional, and social forms of cognition, speakers will discuss factors acting over time scales of seconds to years — including neurophysiological dynamics, life experience, and epigenetics — to sculpt the internal dynamics and interactions of brain systems underlying brain and behavioral states.



Time in Cortical Circuits CME

Chair: Gerald T. Finnerty, PhD
Co-Chair: Dean V. Buonomano, PhD
Tuesday, Oct. 20, 1:30–4 p.m.
McCormick Place: S100A

Time is central to cognition. The relationship is complex. Cortical circuits function in the time domain. Yet, neural activity in cortical circuits is fundamental to our perception of time. This symposium will address how cortical circuits generate time-dependent cognition. Speakers will consider novel ways that cortical circuits use timing to enhance function and to tell time and will highlight progress in the understanding of how time perception expands the ability to anticipate stimuli and make decisions.

THEME G: NOVEL METHODS AND TECHNOLOGY DEVELOPMENT

Early Reports From the BRAIN Initiative Frontline: Advancing Technologies to Accelerate Our Understanding of Brain Function CME

Chair: Eve E. Marder, PhD
Co-Chair: Jane I. Roskams, PhD
Monday, Oct. 19, 8:30–11 a.m.
McCormick Place: S100A

The BRAIN Initiative was launched in 2013 to stimulate research in key areas of technology development, analysis, and big data research that will accelerate our understanding of brain function. The first funded BRAIN Initiative projects are creating new avenues to understand brain cell diversity, *in vivo* function, and connectivity. Based across a variety of organisms, this symposium will present some of the preliminary news from the first round of BRAIN-funded projects.

All-Optical Interrogation of Neural Circuits CME

Chair: Michael Hausser, PhD
Co-Chair: Valentina Emiliani, PhD
Tuesday, Oct. 20, 8:30–11 a.m.
McCormick Place: S100B

This symposium will describe the nexus of dramatic recent developments in optogenetic probes, genetically encoded activity sensors, and novel microscopies, which together allow the activity of neural circuits to be recorded and manipulated using entirely light. Such an "all-optical" approach promises to illuminate many fundamental challenges in neuroscience, including transforming our search for the neural code and the links between neural circuit activity and behavior.

CME This activity has been approved for *AMA PRA Category 1 Credit*™. For details, see page 70 and visit SfN.org/cme.

Minisymposia

THEME A: DEVELOPMENT

Genomic Views of Transcriptional Enhancers: Essential Determinants of Cellular Identity and Activity-Dependent Responses in Neurons CME

Chair: Jesse M. Gray, PhD
Co-Chair: Tae-Kyung Kim, PhD
Sunday, Oct. 18, 1:30–4 p.m.
McCormick Place: S103

Animal genomes endow nervous systems with an incredible diversity of cell types. Each cell type is defined by a unique gene expression profile that is specified by regulatory sequences sprinkled throughout the genome. It is now possible to identify thousands of these regulatory sequences, called enhancers, in a single experiment and address their neurobiological functions via genome editing. This session will address the scientific opportunities that enhancers now represent for neuroscience.

Selection and Consolidation of Neuronal Circuits: Lessons From Learning and Development CME

Chair: Kuan Hong Wang, PhD
Tuesday, Oct. 20, 1:30–4 p.m.
McCormick Place: S103

From perception to action, mental functions are mediated by the activities of neuronal circuits. A fundamental challenge in neuroscience is to understand the processes by which neuronal circuits are selected and consolidated for specific information processing tasks. Speakers will present recent studies of these processes in learning and development that afford integrative understanding across multiple levels including population activity and synaptic connection, neuromodulation, and molecular dynamics.

THEME B: NEURAL EXCITABILITY, SYNAPSES, AND GLIA: CELLULAR MECHANISMS

New Insights Into Signal Generation at the Presynaptic Active Zone CME

Chair: Annalisa Scimemi, PhD
Co-Chair: Jeremy S. Dittman, MD, PhD
Monday, Oct. 19, 8:30–11 a.m.
McCormick Place: S105

The presynaptic active zone is the site of Ca^{2+} channels localization, synaptic vesicle docking, and neurotransmitter release. Recent findings shed new light on the topography of the presynaptic active zone and on the molecular mechanisms underlying its function and plasticity in response to neural activity and pathology. This minisymposium will provide a panel of discussion of recent advances in the molecular organization of the presynaptic active zone at central and peripheral synapses.

Emerging Insight Into the Critical Role of Astrocyte Ion Channels in Homeostasis and Neuron-Glia Signaling CME

Chair: Min Zhou, MD, PhD
Co-Chair: Michelle L. Olsen, PhD
Wednesday, Oct. 21, 1:30–4 p.m.
McCormick Place: S105

The critical role of astrocyte potassium channels in central nervous system homeostasis has been reemphasized by recent studies conducted in animal disease models. Emerging evidence also supports the signaling role mediated by astrocyte ion channels, such as BEST1, hemichannels, and two-pore channels; these channels enable astrocytes to interact with neurons and regulate synaptic transmission and plasticity. This minisymposium will highlight the recent development and future perspective of these research areas.

THEME C: DISORDERS OF THE NERVOUS SYSTEM

Epigenetic Landscape of Stress and Addiction: Novel Therapeutic Possibilities CME

Chair: Jean Lud Cadet, MD
Co-Chair: Elisabeth Binder, MD, PhD
Saturday, Oct. 17, 1:30–4 p.m.
McCormick Place: S105

At this minisymposium, speakers will describe the transcriptional and epigenetic mechanisms by which stress and drugs of abuse modify the functionality of reward circuitries. They will also discuss how individual and environmental resilience factors may impact these molecular events. Behavioral and pharmacologic approaches that prevent or alter drug– and/or stress-induced epigenetic changes in the brain may promote long-term abstinence by preventing relapse to drug self-administration.

Axonal Transport Defects in Neurodegenerative Diseases: Mechanisms and Molecular Components Involved CME

Chair: Gerardo Morfini, PhD
Co-Chair: Scott Brady, PhD
Saturday, Oct. 17, 1:30–4 p.m.
McCormick Place: S406B

To date, there is significant consensus on the notion that deficits in axonal transport represent an important pathogenic event common to many neurodegenerative diseases. However, little is known about mechanisms and specific molecular components mediating these deficits. These topics will be the main subject of discussion at this minisymposium.

Transcriptomic Approaches to Neural Regeneration CME

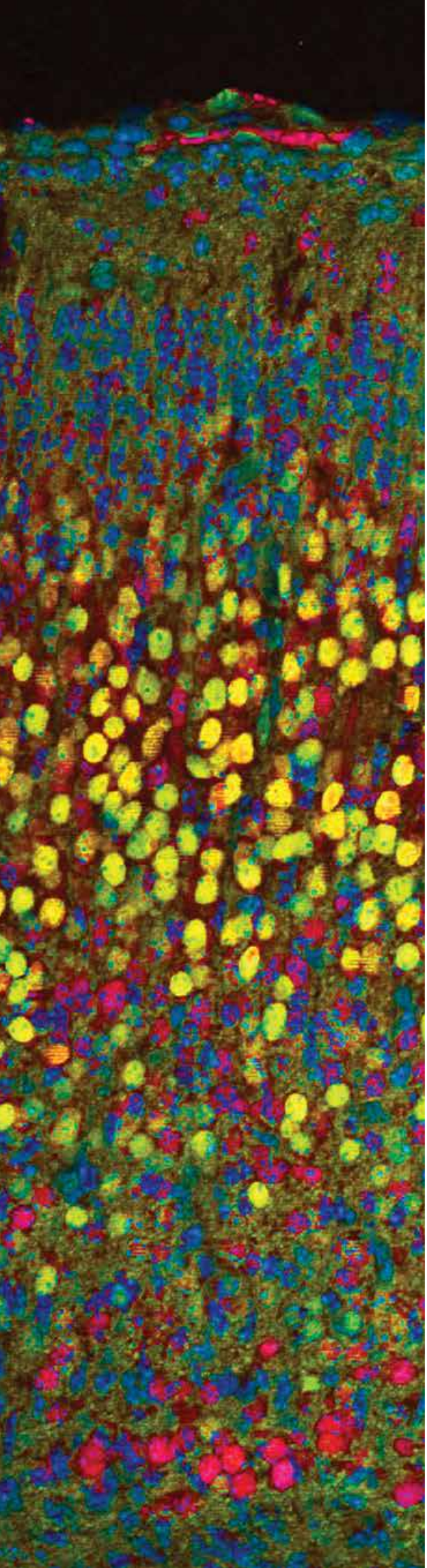
Chair: Mark H. Tuszynski, MD, PhD
Sunday, Oct. 18, 8:30–11 a.m.
McCormick Place: S105

Understanding why injured adult central nervous system axons fail to regenerate remains a central challenge of neuroscience research. Recently, the use of high-throughput genetic screening has greatly illuminated the molecular mechanisms governing neuronal regeneration programs. This minisymposium will highlight how transcriptomics approaches have led to the identification of novel regulatory networks and molecular targets that can be successfully manipulated to promote axon regeneration.

Chaperones in Neurodegeneration CME

Chair: Iris Lindberg, PhD
Monday, Oct. 19, 8:30–11 a.m.
McCormick Place: S406A

This minisymposium will present new work in the area of neuronal proteostasis with a specific focus on the involvement of cellular chaperones in neurodegenerative disease. There will be a brief discussion of protein misfolding in neurodegenerative disease. Each speaker will then present work on a different aspect of chaperone control of neuronal proteostasis with topics including chaperone engineering, blockade of protein oligomerization and cytotoxicity, as well as the rescue of neurodegenerative processes.



New Perspectives for the Rescue of Cognitive Disability in Down Syndrome CME

Chair: Renata Bartesaghi
Co-Chair: Diana Bianchi, MD
Monday, Oct. 19, 1:30–4 p.m.
McCormick Place: S105

Down syndrome is a relatively high-incidence genetic condition caused by the triplication of human chromosome 21. No therapies currently exist for the rescue of cognitive impairment in Down syndrome. This minisymposium will present exciting findings showing that it is possible to restore brain development and cognitive performance in mouse models of Down syndrome with therapies usable in humans. This knowledge provides a breakthrough for the cure and prevention of intellectual disability in Down syndrome.

Modern Approaches Toward More Predictive Mouse Models of Neurodegenerative Diseases CME

Chair: Gareth R. Howell, PhD
Co-Chair: Bruce T. Lamb, PhD
Tuesday, Oct. 20, 8:30–11 a.m.
McCormick Place: S406A

Animal models of neurodegenerative diseases have provided important insights into the pathophysiology of disease and suggested potential avenues for therapies. However, translation of these findings to the clinic has been limited. The latest advances in modeling different neurodegenerative disease processes will be presented, as well as the cutting-edge technologies/methodologies that are revolutionizing the field and should provide more predictive models for neurodegenerative diseases.

Mood and Reward Networks in Chronic Pain Conditions CME

Chair: Venetia Zachariou, PhD
Co-Chair: Ipek Yalcin, PhD
Tuesday, Oct. 20, 8:30–11 a.m.
McCormick Place: S103

This session presents new perspectives on mechanisms modulating sensory and affective components of chronic pain. The panel will emphasize studies on networks involved in mood, reward, and motivation. Speakers will cover areas of investigation related to adaptations in cortical and striatal networks under chronic pain conditions, the impact of pain in cortical plasticity and stress/anxiety disorders, the mechanisms by which the brain reward center modulates motivation under chronic pain states, and the intracellular targets of antidepressants in the brain reward center.

Redox Signaling in Neurological Dysfunction CME

Chair: Rodrigo Franco, PhD
Co-Chair: Lourdes Massieu, PhD
Tuesday, Oct. 20, 1:30–4 p.m.
McCormick Place: S406B

Oxidative stress, the imbalance between reactive oxygen species formation and detoxification, participates in the etiology of neurological disorders. Recent findings demonstrate that reductive/oxidative (redox) signaling regulates gene expression, enzyme activity, neuronal fate, and metabolism. This session will examine recent findings regarding the role of oxidative damage, redox signaling, antioxidant response, metabolism, and mitochondrial dysfunction in neurodegeneration, epilepsy, and brain hypoglycemia.

Corticospinal Motor Neurons in Health and Disease CME

Chair: Hande Ozdinler, PhD
Wednesday, Oct. 21, 1:30–4 p.m.
McCormick Place: S100B

The corticospinal motor neurons (CSMN) act as the "spokesperson" of the cerebral cortex for the initiation and modulation of voluntary movement. Their health is critical for the proper function of motor neuron circuitry and their degeneration is key in numerous motor neuron diseases in which voluntary movement is impaired. Recent developments suggest a key role for CSMN in disease progression and pathology. These neuron populations deserve better attention and understanding.

THEME D: SENSORY AND MOTOR SYSTEMS

Dorsal Striatum: From Microcircuits and Modulation to *In Vivo* Function CME

Chair: Jens Hjerling-Leffler, PhD
Co-Chair: David Robbe, PhD
Saturday, Oct. 17, 1:30–4 p.m.
McCormick Place: S103

Dorsal striatum receives sensorimotor and higher-order information through a wide range of synaptic inputs, including those from the cortex and the thalamus. The integration of this information is fine-tuned by neuromodulators affecting cortical and subcortical motor systems. This minisymposium will present data from connected areas of research that aim at

CME This activity has been approved for *AMA PRA Category 1 Credit*™.
For details, see page 70 and visit SfN.org/cme.

understanding the cellular diversity, connectivity, modulation, and *in vivo* function of the dorsal striatal network and how malfunction might lead to disease.

Behavior Diversity in Individuals: Genetic and Circuit Mechanisms CME

Chair: Brian Grone, PhD
Co-Chair: Carlos J. Pantoja, MD, PhD
Sunday, Oct. 18, 1:30–4 p.m.
McCormick Place: S406A

Consistent differences in sensorimotor behavior are found among individuals. These differences likely contribute to fitness in varied environmental conditions. However, the proximal causes that generate and control behavior variability have only recently begun to be unraveled. This minisymposium will examine mechanisms of behavior variability in vertebrates and invertebrates. Presentations will include the latest findings from genetic, molecular, and circuit-based studies.

Brainy and Handy: What Robotics and Prosthetics Can Learn From Touch Receptors in the Hand CME

Chair: Esther P. Gardner, PhD
Tuesday, Oct. 20, 8:30–11 a.m.
McCormick Place: S105

To honor Vernon Mountcastle, experts from somatosensory neurophysiology, psychophysics, and bioengineering will present studies of how the sense of touch might be translated for use in prosthetic or robotic hands. Speakers will define the components of intelligent manipulative sensors based on biological models in the hand. Touch receptors detect object shape, edges and texture, and monitor grip force. Multisensor networks enhance touch information enabling translational application to adaptive mechanical hands.

Different Brains, Common Circuits? Visual Decision Making in Rodents and Primates CME

Chair: David J. Freedman, PhD
Tuesday, Oct. 20, 8:30–11 a.m.
McCormick Place: S406B

Decision-making is a process by which sensory stimuli are evaluated and used to guide behavior. While much is known about activity within individual cortical areas during visual decision-making, recent advances are giving insight into the circuit mechanisms by which multiple brain areas interact to form decisions. This minisymposium will assemble a diverse group of researchers studying circuit mechanisms of decision-making with the goal of integrating recent findings from primate and rodent work.

Peripheral Optogenetic Neuromodulation: Progress and Challenges CME

Chair: Scott L. Delp, PhD
Tuesday, Oct. 20, 1:30–4 p.m.
McCormick Place: S105

At the border between the external and internal worlds, the peripheral nervous system is fundamental to understanding the behavior of any living being. Optogenetic control of the peripheral nervous system is a powerful tool for exploration and understanding; however, it brings with it a unique set of challenges. This minisymposium will highlight innovations in peripheral optogenetic neuromodulation and illustrate recent discoveries in pain, sensation, motor systems, and stem cell biology.

Reward-Driven Learning in Primary Sensory Cortices CME

Chair: Alfredo Kirkwood, PhD
Wednesday, Oct. 21, 8:30–11 a.m.
McCormick Place: S406B

Maximizing reward and avoiding punishment is an important behavioral drive, and animals routinely learn what stimuli and actions predict favorable and aversive outcomes. This panel will discuss the emerging idea that learning to recognize reward-predicting stimuli involves remodeling at early stages of perception in the primary sensory cortices. Covered topics will include perceptual learning in the human primary visual cortex, how cortical cells "learn" to predict attributes of the reward, and the underlying synaptic mechanisms.

Pain and Poppies: The Good, the Bad, and the Ugly of Opioid Analgesics CME

Chair: Tuan Trang, PhD
Co-Chair: Catherine Cahill, PhD
Wednesday, Oct. 21, 1:30–4 p.m.
McCormick Place: S406A

Opioid analgesics are the cornerstone of modern pain therapy. However, their use is plagued with major side effects, such as a loss of pain relieving effects (analgesic tolerance), paradoxical pain (hyperalgesia), and addiction. This session will highlight recent breakthroughs in understanding the key causes of these adverse effects and explore the cellular control of opioid systems in reward and aversion. The findings will challenge traditional views of the good, the bad, and the ugly of opioids.

THEME E: INTEGRATIVE SYSTEMS: NEUROENDOCRINOLOGY, NEUROIMMUNOLOGY, AND HOMEOSTATIC CHALLENGE

Sex-Specific Mechanisms of Stress Susceptibility CME

Chair: Debra Bangasser, PhD
Co-Chair: Mollee R. Farrell, PhD
Sunday, Oct. 18, 8:30–11 a.m.
McCormick Place: S103

Stress-related mental illnesses are twice as prevalent in women as in men. Because many factors that contribute to pathology are likely sex-dependent, the development of improved treatments for both men and women relies on preclinical studies that include both male and female animals. This minisymposium will highlight recent advances in rodent models that dissect the genes, hormones, and circuits that underpin sex differences in the brain's response to stress.

Corticotropin Releasing Factor: Novel Molecular, Cellular, and System Roles CME

Chair: Danny G. Winder, PhD
Co-Chair: Nicholas W. Gilpin, PhD
Sunday, Oct. 18, 1:30–4 p.m.
McCormick Place: S406B

Corticotropin releasing factor (CRF) is a neuropeptide that has classically been studied in the context of neuroendocrine regulation of the stress response. This minisymposium will capitalize on recent data generated by using transgenic, live imaging, electrophysiology, optogenetic, molecular, and behavioral approaches. It will highlight newly appreciated roles of CRF in modulating functions of specific neuronal populations and circuits, influencing memory, anxiety, alcohol intake, and pain.

Disrupted Sleep: From Molecules to Cognition CME

Chair: Eus J. Van Someren, PhD
Co-Chair: Chiara Cirelli, MD, PhD
Monday, Oct. 19, 1:30–4 p.m.
McCormick Place: S103

Whereas it remains enigmatic whether neuroscience can ultimately define a single key function of sleep for all organisms, it is becoming clear that disruption of sleep interferes profoundly with their normal functioning. This minisymposium will present an integrated

overview of compelling new evidence showing that sleep disruption leads to significant negative consequences for brain function across many different levels, ranging from molecules to cognition, with broad health implications.

THEME F: COGNITION AND BEHAVIOR

Learning to Generalize: Neural, Behavioral, and Computational Basis of Categorization CME

Chair: Matthew V. Chafee, PhD
Co-Chair: Hugo Merchant, PhD
Sunday, Oct. 18, 8:30–11 a.m.
McCormick Place: S406B

The ability to group objects and events into flexible categories depending on their behavioral utility is fundamental to many forms of intelligent behavior shared between human and nonhuman primates. This minisymposium will synthesize alternative views of how the brain implements categorization based on studies of statistical learning in humans, lesions in monkeys, the activity of single neurons and dynamics of cortical networks in monkeys, as well as the properties of computational models.

Can We Merge the Divergent Views of Hippocampal Function? CME

Chair: Daniela Schiller, PhD
Co-Chair: Howard B. Eichenbaum, PhD
Monday, Oct. 19, 8:30–11 a.m.
McCormick Place: S103

Two views diverge in hippocampal research. Some argue that the hippocampus calculates paths through space, whereas others claim that the hippocampus mediates declarative memory. These views emerged largely through independent fields of research. How can researchers reconcile the spatial and memory views of hippocampal function? The goal of this minisymposium is to discuss novel findings that might provide a bridging framework, paving the way for a unified understanding of hippocampal function.

Internally and Memory-Guided Behaviors: The Role of Frontal Cortical Ensembles CME

Chair: Nandakumar Narayanan, MD, PhD
Co-Chair: Alex C. Kwan, PhD
Monday, Oct. 19, 8:30–11 a.m.
McCormick Place: S406B

Organized behavior is influenced by internal representations of the external world. How mental models constructed from memory, rules, and timing influence cortical dynamics remains unclear. In this minisymposium, presenters will highlight recent studies of the frontal cortex that have leveraged large-scale recording methods and novel tasks for rodents. These studies are revealing critical roles for cortical oscillations and ensemble activity in mediating internally guided behaviors that could have relevance in understanding brain disease.

The Medial Prefrontal Cortex: Emotional Regulation Across Species CME

Chair: Hannah F. Clarke, PhD
Monday, Oct. 19, 1:30–4 p.m.
McCormick Place: S406B

The medial prefrontal cortex (mPFC) consists of multiple subregions that contribute differentially to emotional regulation and exhibit selective dysfunction in psychiatric disorders. However, uncertainty over functional homology across species hinders the translation of animal studies to those of humans. The presenters will highlight new insights into how mPFC subregions regulate emotion across three species: rodents, monkeys, and humans, and their relevance for our understanding of disease.

Optogenetic Dissection of the Basal Forebrain Neuromodulatory Control of Cortical Activation, Plasticity, and Cognition CME

Chair: Shih-Chieh Lin, MD, PhD
Co-Chair: Adam Kepecs, PhD
Wednesday, Oct. 21, 8:30–11 a.m.
McCormick Place: S100B

The basal forebrain (BF) is a major ascending arousal center and has long been implicated in cognitive functions such as attention and learning. Recent studies using optogenetics to target specific BF cell-types have led to a renaissance in this field and are beginning to yield new insights about circuit mechanisms during behavior. This minisymposium will discuss recent advances in the roles of BF cholinergic and non-cholinergic neurons in cognition via their dynamic modulation of cortical activity.

Understanding Goal-Directed Decision Making in Humans: Computations and Circuits CME

Chair: Amitai Shenhav, PhD
Co-Chair: Richard W. Morris, PhD
Wednesday, Oct. 21, 1:30–4 p.m.
McCormick Place: S406B

Goal-directed action selection is critical for adaptive behavior. But fundamental questions remain about its neural realization in humans. What circuits are functionally involved? What computations do these circuits perform? How do these systems interact with other processes that contribute to action selection, and how are these interactions impaired in clinical disorders? The work presented in this minisymposium will offer a fresh view of the computational and neural mechanisms for human goal-directed choice.

THEME G: NOVEL METHODS AND TECHNOLOGY DEVELOPMENT

Clearing and Labeling Methods for High Resolution Imaging of Intact Biological Specimens CME

Chair: Ali Erturk, PhD
Co-Chair: Viviana Gradinaru, PhD
Tuesday, Oct. 20, 1:30–4 p.m.
McCormick Place: S406A

Recent advances in tissue clearing methods paved the way for scientists to image the tissue of interest as a whole, without sectioning. These approaches are particularly powerful for tracing long neuronal connections in the healthy and diseased central nervous system. During this SfN minisymposium, experts in the field will discuss recent advances in tissue clearing methods and their applications.

3-D Retinal Organoids From Human Pluripotent Stem Cells: Promise to Alleviate Blindness or Better Disease Model? CME

Chair: Magdalene Seiler, PhD
Wednesday, Oct. 21, 8:30–11 a.m.
McCormick Place: S406A

This minisymposium will bring together translational and basic science researchers who use pluripotent stem cells and adult tissue as tools to repair vision. The promise of 3-D retinal organoids derived from stem cells is high. What is not clear is whether this presents only a better model for human retinal diseases or carries a real promise for retinal replacement as well. Speakers will discuss the potential of 3-D retinal organoid approach to generate immature human retinal sheets for vision repair.

Professional Development, Advocacy, and Networking Resources

WORKSHOP FEES

Neurobiology of Disease Workshop $35

Short Courses 1 and 2
(Includes electronic syllabus and lunch)
Student member.....$150
Student nonmember.....$225
Postdoctoral member.....$225
Faculty member.....$295
Faculty nonmember.....$445

Short Course 3
(Includes electronic syllabus)
Student member.....$100
Student nonmember.....$150
Postdoctoral member.....$150
Faculty member.....$200
Faculty nonmember.....$300
(breakfast, lunch, and reception)

Note: Preregistration is required for Short Courses and the Neurobiology of Disease Workshop. Register at SfN.org/registration.

Friday, October 16

NEUROBIOLOGY OF DISEASE WORKSHOP

Support contributed by the National Institute of Neurological Disorders and Stroke of the National Institutes of Health under Award Number R25N5054767. The content does not necessarily represent the official views of the National Institutes of Health.

Human Brain Malformations: From Genetics to Therapeutics

Organizers: Peter Crino, MD, PhD; Mustafa Sahin, MD, PhD
8 a.m.–5 p.m.
McCormick Place: S100B
Contact: training@sfn.org

Brain malformations, especially those affecting the cerebral cortex, are common causes of intellectual disability and epilepsy. Recent advances in genetics, imaging, and cell biology have substantially increased our knowledge of the mechanisms underlying cortical development and how it can go awry. In this workshop, leading experts will review some of the genes, cellular pathways, processes, and structures commonly affected in brain malformations including PI3K/mTOR signaling, tubulin, reelin, and cilia.

SHORT COURSE 1

Partially supported by an educational grant from Otsuka America Pharmaceutical, Inc and Lundbeck

Using iPS Cells and Reprogramming to Model Neural Development and Disease

Organizer: Kevin Eggan, PhD
8 a.m.–6 p.m.
McCormick Place: S401
Contact: training@sfn.org

Stem cell and reprogramming technologies offer exciting opportunities to access human brain cell types and even tissues for studies of development and disease. As methods and techniques for both stem cell differentiation and transcription factor induced reprogramming evolve, the robustness, reproducibility, and utility of these methods continues to improve. In this short course, leaders in developing and implementing these approaches will discuss their work with a view to help attendees utilize these approaches in their own research. Specifically, we will cover the generation of neural cell types from pluripotent stem cells and, by direct reprogramming/trans-differentiation, new methods for three dimensional culture, genome editing and use of these approaches in the design of disease-relevant assay systems.

SHORT COURSE 2

The Impact of Human Genetics and Genomics in Neurobiology: From Disease Discovery to Fundamental Mechanisms (and Back)

Organizer: Nicholas Katsanis, PhD
8:30 a.m.–6 p.m.
McCormick Place: S406A
Contact: training@sfn.org

The accessibility of whole exome and whole genome sequencing for a variety of clinical indications is a significant scientific achievement. These technologies have already produced thousands of exomes and partial genomes from humans and model organisms, showing the amount and types of genetic variation that exists between individuals and within populations. The sheer number of individuals sequenced has begun to offer the statistical power needed to understand the genetic architecture of both rare and complex disorders. The use of these technologies around the globe has changed the types of questions being asked and the method by which these questions are being pursued. However, significant conceptual and technical challenges remain. This short course will explore how current genomic tools and platforms are used for rare and common disorders, describe what analytic tools and approaches might be most appropriate for specific questions, and consider how genomic, phenotypic, and functional evidence can accelerate both fundamental discovery and application.

SHORT COURSE 3

Optimizing Experimental Design for High-Quality Science

Organizers: Mara Dierssen, MD, PhD; Magda Giordano, PhD; Chris McBain, PhD; Charles Mobbs, PhD; John Ngai, PhD; Rae Nishi, PhD
1–5:30 p.m.
McCormick Place: N227
Contact: mpd@sfn.org

The scientific community has become increasingly concerned about issues related to data reproducibility and experimental design. Issues include, but are not limited to: bias for positive results, the "p-hacking" effect, lack of sufficient replication of experiments, pooling data from different experiments, lack of randomization and/or blinding, chance observations, data selection, group compilation, and lack of rigorous training in statistics and analysis. Attendees will learn experimental and analytical design elements that are crucial for the interpretation of neuroscience research results, such as methodological parameters that can introduce bias, influence robustness, or may be subject to biological variability, and the biological and sociological underpinnings of scientific bias. Existing policies on data deposition and presentation will additionally be covered. Lectures will be interspersed with small group discussion opportunities to allow ample time for the examination of case studies.

Saturday, October 17

MEET-THE-EXPERT SERIES

8–9:15 a.m., 9:30–10:45 a.m.
Hyatt Regency Chicago (not connected to McCormick Place): West Tower, Bronze Level
Contact: training@sfn.org

Experts will describe their research techniques and accomplishments in a personal context that offers participants a behind-the-scenes look at factors influencing each expert's work. The

session will offer an opportunity for students and postdoctoral researchers to engage the expert in an informal dialogue over breakfast. No registration is required, but seating is limited.

SESSION 1: 8–9:15 A.M.

Ravi Allada, MD

A Journey Around the Clock and Beyond: From Bedside to Bench and Back

Room: Buckingham *

Even though humans spend one-third of our lives asleep, researchers still do not understand why. In this lecture, Ravi Allada will discuss the discovery of the core mechanisms of the circadian clock governing 24-hour rhythms of sleep and wake in the simple fruit fly. This presentation will also cover how these discoveries directly led to the conserved clock components that govern sleep in humans and how simple model organisms like the fly can be used to solve the mystery of why humans sleep.

Matteo Carandini, PhD

From One Neuron to Many: Recording From Populations in Visual Cortex and Beyond

Room: Soldier Field *

These are exciting times: Thanks to powerful new techniques, researchers have a chance to understand how populations of neurons work in concert to produce behavior. Some of these techniques are optical: not only two-photon microscopy, but also widefield imaging of calcium and voltage indicators, expressed in selected neuronal populations. Other techniques are electrical: multielectrode arrays and next-generation probes with 1,000 sites. In the laboratory, Matteo Carandini and Kenneth Harris combine these techniques to record from hundreds of neurons while mice make perceptual decisions and navigate in virtual reality. It is a journey across experimental techniques, intellectual traditions, and scientific questions, and Carandini hopes it will lead scientists to understand how the cortex guides vision, decision, and navigation.

John Cryan, PhD

The Microbiome: A Key Regulator of Brain and Behavior

Room: Gold Coast *

Over the past five years substantial advances have been made in linking alterations in microbiota to brain development and even behavior, and the concept of a microbiota-gut-brain axis has emerged. In this session, John Cryan will discuss the importance of the microbiome at key neurodevelopmental windows and in old age in maintaining brain function. The different approaches that are being used to advance the field and the emerging knowledge gaps will be outlined. A focus will be placed on ways to harness the information emerging from animal studies for therapeutic benefit in stress-related, metabolic, and neurodevelopmental disorders.

Jeff Diamond, PhD

Neurons and Glia Provide Different Perspectives on the Dynamics of Neurotransmitter Diffusion and Uptake

Room: Water Tower *

Genetic tools and advanced recording techniques have enabled scientists to study in great detail the molecules and mechanisms underlying neurotransmitter release from the presynaptic active zone and neurotranmsitter actions on postsynaptic receptors. It's been much more difficult to grasp the ephemeral step in between neurotransmitters diffusing across, and in some cases beyond, the synaptic cleft. How fast and how far does a neurotransmitter diffuse from its point of release? How well does it activate receptors within and beyond the synaptic cleft? How rapidly is it diluted into the extracellular space or taken up by transporters? This lecture will discuss different ways in which these questions have been tackled experimentally and how their answers have increased the understanding of how synapses operate.

Z. Josh Huang, PhD

Genetic Dissection of Neocortical Circuits in the Mouse

Room: Columbian *

The computational power of the neocortex emerges from a basic neural architectural plan rooted in the genome. Whereas glutamatergic projection neurons constitute inter-areal processing streams and cortical output channels, diverse GABAergic interneuorns regulate the spatiotemporal configuration of neural ensembles. Systematic genetic cell targeting and fate mapping provide entry points for integrating multiple approaches toward understanding the assembly and organization of cortical circuits. Josh Huang will discuss the progress and prospect of genetic targeting of cortical glutamatergic and GABAergic neurons in the mouse, focusing on the construction and function of a chandelier cell to pyramidal cell module.

SESSION 2: 9:30–10:45 A.M.

Erich Jarvis, PhD

Jumping the Evolutionary Divide: How Breaking Down Human Egos and Developing New Technologies Leads to Better Understanding of Complex Brain Traits, Including Convergent Evolution of Spoken Language

Room: Comiskey *

Over the past 20 years Erich Jarvis has observed how false beliefs of human superiority or racial superiority among humans has negatively influenced or hindered researchers' understanding of brain mechanisms and the evolution of complex behavioral traits. For more than a century, such thinking has influenced the questions posed, hypotheses generated, the interpretation of results, and the species scientists choose to study. As new technologies and discoveries have emerged, a counterculture has evolved that views brain evolution and function in a more balanced manner, with different species displaying a variety of simple to more complex behaviors and associated brain circuits. One prominent example is evolution of vocal learning for song and spoken language in some birds and humans. Using these lessons learned, Jarvis will propose a way forward, with checks and balances, on the use and development of new technologies for today's scientists to foster more rapid advancement of the understanding of brain function.

Frances Jensen, MD

Translational Studies in Epilepsy and Epileptogenesis: Evaluating Synaptic Function *In Vitro* and *In Vivo*

Room: Gold Coast *

Epilepsy is increasingly being recognized as a spectrum disorder, including both seizures and non-seizure (non-ictal) dysregulation of cognition and behavior. In addition, epilepsy syndromes can be age-specific, with mechanisms highly dependent upon the developmental status of particular neuronal populations and circuits. Mechanistic and translational

* Event held at the Hyatt Regency Chicago Downtown (not connected to McCormick Place)

Professional Development, Advocacy, and Networking Resources (Saturday continued)

studies examining epileptogenesis and its cognitive and behavioral components must be designed to account for developmental stage, seizure phenotype, and assessment of network and synaptic function. This event will explore available animal models of epilepsy, their human analogs, and the use of *in vitro* and *in vivo* techniques to explore signaling, synaptic, and circuit properties of epileptogenesis. Available data and methodology related to the effects of epilepsy on cognitive function will also be discussed.

William Martin, PhD
The Garden of Forking Paths: Your PhD as a Gateway into Discovery, Analytics, and Entrepreneurship
Room: Water Tower *

Jorge Luis Borges introduced us to fictional characters who, when faced with more than one possible outcome, live both outcomes. Today, a shrinking pool of academic positions and federal funding constraints present challenges to scientists. Yet people are experiencing the transformative potential of biology and there has never been a better time to earn a PhD in the field! Following the theme of multiple narratives, Bill Martin will offer perspectives and practical advice on how to prepare for and navigate change. With challenges come opportunities. Constraints help shape creativity and drive innovation. What are you working on today that will transform the landscape of tomorrow?

Guo-Li Ming, MD, PhD
Disease in a Dish: The Future of iPSCs
Room: Columbian *

The ability to generate induced pluripotent stem cells (iPSCs) from patients has revolutionized the way scientists study diseases. In this session, Guo-Li Ming will discuss the concept of reprogramming and how this technology allows researchers to study the development of brain, understand the pathogenic cellular events that might contribute to diseases in the nervous system, and explore the molecular mechanisms underlying development and diseases. Finally, Ming will discuss the potential of applying this system to the development of therapeutic strategies based on a better understanding of the disease mechanisms.

Cheryl Stucky, PhD
Adventures in Pain Biology at Many Levels and Locations
Room: Soldier Field *

Have you wondered what it's like doing science abroad? What are the advantages and disadvantages? Have you asked how you will carve out a niche for your research that is unique among many other excellent scientists? Cheryl Stucky balances state-of-the art techniques with scientific questions. Her partner is also a scientist — how will they find jobs together? How will you and your partner manage dual careers while having a family? Stucky will share her experiences and perspectives with these questions as she has navigated a 20-year path in pain and somatosensory neurobiology research. She will share her perspectives on rolling with the current changes in scientific focus, acquiring novel techniques, and finding funding by being creative, maintaining integrity, and having fun!

Catherine Woolley, PhD
Sex Differences in the Brain: What Are They, What Aren't They, and When Do They Matter?
Room: Buckingham *

Catherine Woolley has studied gonadal steroid modulation of synaptic structure and function for 25 years. For most of that time, her work focused on the hippocampus of females and she intentionally avoided the issue of sex differences. But when her team's experiments began to yield unexpected results that conflicted with the published literature, she suspected that they might have stumbled onto previously unknown sex differences. Her team then compared males and females directly, which led them to discover mechanisms of synaptic modulation in the hippocampus that differ between the sexes. These differences are particularly relevant to the development of drug therapies that work appropriately in each sex. Like this accidental discovery of sex differences, little about Woolley's career has gone according to a plan. She will share some stories to illustrate the unpredictable nature of career in science.

Careers Beyond the Bench

Support contributed by AbbVie, Inc.

Organizer: Elisabeth Van Bockstaele, PhD
Panelists: Mark Benton, PhD; Andrew Castiglioni, PhD; Daphney Jean, PhD; Victoria Prince, PhD
9–11 a.m.
McCormick Place: S106
Contact: mpd@sfn.org

The Careers Beyond the Bench workshop will highlight career paths outside of academia. This year's workshop include presentations from: 1) An NIH Broadening Experiences in Scientific Training (BEST) award recipient on how to effectively build a training program to prepare trainees for careers beyond academia, 2) A clinical research scientist discussing strategies and skill sets needed for pursuing a clinical career, 3) A fellow of the American Association for the Advancement of Science talking about guiding a career outside of academia, 4) And a scientist who moved from a PhD in Neuroscience to Global Security Science.

Success in Academia: What's Your Strategy to Thrive?

Organizer: Tracy Bale, PhD
Panelists: Huda Akil, PhD; Tom Insel, MD; Eric Nestler, MD, PhD; Carla Shatz, PhD
9–11 a.m.
McCormick Place: S104
Contact: mpd@sfn.org

Science in academia is an exciting and engaging career — no two days are the same. But how do you develop short-term and long-term plans to really succeed and make the most out of opportunities? You need to have a strategy to thrive in this environment. These leaders in neuroscience will discuss their approaches to success and offer suggestions across stages of career development. Are you wondering what grants you should be writing? How much or how little time you should spend on service and committee work? The top 10 reasons you are not getting tenure? What are the myths and legends of getting that job offer? Questions can

be electronically submitted during the session and answered by the panelists in real time!

Meeting Mobile App Tutorial

10-11 a.m., 2-3 p.m.
McCormick Place: N229
Contact: program@sfn.org

To ensure that attendees are able to take advantage of all of the newest features for the meeting mobile app, a free user tutorial led by the app's developers will be held. This tutorial is open to all meeting attendees.

Getting the Most Out of SfN: The Annual Meeting and Beyond

Organizers: Elisabeth Van Bockstaele, PhD; Amy Jo Stavnezer, PhD; Hermes Yeh, PhD
Panelists: Cara Altimus, PhD; William Carlezon, PhD; David Riddle, PhD
1–2 p.m.
McCormick Place: S101
Contact: mpd@sfn.org

Students, postdocs, and others new to the annual meeting are invited to attend this session where experienced participants will share tips on how to get the most out of the annual meeting experience, both during and after Neuroscience 2015. Whether you are looking for networking strategies or simply ways to make your experience productive and enjoyable, this session will be beneficial. Representatives from the SfN Program Committee, SfN Committee on Neuroscience Departments and Programs, SfN Trainee Advisory Committee, and the Faculty for Undergraduate Neuroscience will provide strategies for navigating the annual meeting, discuss professional development tools available during and after the meeting, suggest ways to find and use a mentor, and answer questions from session participants.

Graduate School Fair

Organizers: Committee on Neuroscience Departments and Programs
Saturday, Oct. 17, 1–3 p.m.
Sunday, Oct. 18–Tuesday, Oct. 20, noon–2 p.m.
McCormick Place: Hall A
Contact: ndp@sfn.org

Meet face-to-face with student advisers, program faculty, and graduate school representatives at the annual Graduate School Fair.

How Do I Fund My Science? Public and Private Funding Approaches for Supporting Your Neuroscience Research Across Career Stages and Types of Research

Organizer: Kenneth Maynard, PhD
Panelists: Jim Deshler, PhD; Nancy Desmond, PhD; William Martin, PhD; Hemai Parthasarathy, PhD; Heather Snyder, PhD
1:30–5 p.m.
McCormick Place: S106
Contact: mpd@sfn.org

All scientists agree that funding is an essential element of research, but not everyone appreciates that funding mechanisms can vary as much as types of research. Which mechanisms are best suited to basic neuroscience, applied research, translational science/medicine, education and career, and large-scale multidisciplinary research? Not all agencies fund all types of research and/or training. What about your research may have commercial value and when is this potential value great enough to form the basis of a company? When should you approach NIH versus NSF, or a private foundation versus a venture capital group? This workshop will address these and other questions including different funding mechanisms that contribute to successful and unsuccessful applications. Brief talks will be followed by an extensive question-and-answer session and an open fair where experts from the different types of funding organizations will be available to address your specific cases. Come hear the latest word from expert professionals from NIH, NSF, a private foundation, and a venture capital company!

BRAIN AWARENESS CAMPAIGN EVENT

Sparking Connections Through Brain Awareness Around the Globe

Speaker: Bobby Heagerty
2:30–4 p.m.
McCormick Place: N427
Contact: baw@sfn.org

Attend this event to celebrate brain awareness and share your outreach achievements with Brain Awareness Week organizers from around the world. Recognize award winners from the Brain Awareness Video Contest, the Faculty for Undergraduate Neuroscience, and National Science Olympiad. Also hear from Bobby Heagerty, director of Neuroscience Community Affairs and Education at Oregon Health & Science University's Brain Institute and winner of SfN's 2013 Science Educator Award.

How to Renovate Your Relationship With Your Adviser or Advisee

Organizers: Mike Levine, PhD; Ian Paul, PhD; Jennifer Raymond, PhD
Panelists: Samantha Sutton, PhD
3–5 p.m.
McCormick Place: S101
Contact: training@sfn.org

The adviser-advisee relationship is arguably the most important in academia. Under the guidance of their PIs, graduate students and postdocs grow into strong, successful professionals. In exchange, these advisees perform the research that builds their PI's reputation and scientific body of work. Despite the importance of the adviser-advisee relationship, relatively little instruction is given to either party on how to build a great relationship. This interactive workshop will provide that instruction.

Diversity Fellows Poster Session

6:30–8:30 p.m.
McCormick Place: Hall A
Contact: mpd@sfn.org

Join a special poster session and networking event featuring participants in the Neuroscience Scholars Program and other diversity fellowship programs.

International Fellows Poster Session

6:30–8:30 p.m.
McCormick Place: Hall A
Contact: globalaffairs@sfn.org

Meet the next generation of leading young investigators from across the globe, including award winners selected by the International Brain Research Organization and the Japan Neuroscience Society.

Trainee Professional Development Awards Poster Session

Support contributed by eNeuro and The Journal of Neuroscience
6:30–8:30 p.m.
McCormick Place: Hall A
Contact: awards@sfn.org

This networking event will honor award-winning posters from undergraduate and graduate students and postdoctoral fellows.

Career Development Topics: A Networking Event

7:30–9:30 p.m.
McCormick Place: Hall A
Contact: mpd@sfn.org

Experienced neuroscientists will offer advice on a wide range of topics in an informal, roundtable format. Topics include work-life balance, securing grants, career transitions, careers away

from the bench, choosing graduate schools and postdoctoral fellow positions, and many others. Participants from diverse backgrounds, fields, and work sectors are encouraged to attend.

Sunday, October 18

A Guide to Publishing in Journals

Organizer: Toby Charkin, PhD
Panelists: Ted Abel, PhD; Jacques Balthazart, PhD; Verity Brown, PhD; Ross Hildrew; Cindy Lustig, PhD; Kaia Motter; Michael Rugg, PhD; Gina Turrigiano, PhD
9–11 a.m.
McCormick Place: S101
Contact: mpd@sfn.org

Journals exist to disseminate new research findings and the latest thinking to scholarly and professional communities worldwide. This workshop will present a rare opportunity to gain insights into journal publishing from the editors and publishers of Elsevier journals such as Neuroscience & Biobehavioral Reviews, Neuropsychologia, and NeuroImage. Topics will include how to write and review a paper, new publishing initiatives, and publishing ethics.

CHAPTERS WORKSHOP

Expanding Chapter Horizons: Connecting Local and International Communities

Organizers: Tanea Reed, PhD; Ron Stoop, PhD
11:30 a.m.–1 p.m.
McCormick Place: N427
Contact: chapters@sfn.org

Join your fellow chapter leaders for this great opportunity to hear what other chapters are doing across the globe. The 2015 workshop will focus on helping chapters grow through communication and connections with members outside of their local communities.

Successful Career Advancement Through Networking: Is It Who You Know?

Organizers: Mark Baxter, PhD; Rebecca Shansky, PhD
Panelists: Noah Gray, PhD; Bruce McEwen, PhD; Bita Moghaddam, PhD; Benjamin Saunders, PhD; Natalie Tronson, PhD
11:30 a.m.–1 p.m.
McCormick Place: S106
Contact: mpd@sfn.org

Networking can have a powerful effect on a scientist's career trajectory. The organizers and speakers will present tips and advice for successful networking, as well as vignettes from their own careers about times when networking has been key to their success. This event will also highlight different venues for networking (conferences, social media, intradepartmental, etc). Discussion time will allow workshop participants to learn from each other's networking successes (and failures).

Creating Connections and Community in Support of Diverse Neuroscientists

Organizer: Claire Horner-Devine, PhD
Panelists: Gerald Griffin, PhD; Ebany Martinez-Finley, PhD; Antonio Nunez, PhD; Pamela Scott-Johnson, PhD; Joyce Yen, PhD
11:30 a.m.–1:30 p.m.
McCormick Place: S101
Contact: mpd@sfn.org

Developing community and a sense of belonging to the field are important in supporting diverse neuroscientists. Panelists will describe a cohort-based professional development program for early career researchers from underrepresented groups called BRAINS. The panel will share program innovations as well as stories and take-home messages from BRAINS community members. A moderated discussion will offer an opportunity to brainstorm avenues of incorporating BRAINS best practices into your own career or community.

SOCIAL ISSUES ROUNDTABLE

The Income Achievement Gap: Insights From Cognitive Neuroscience

Organizers: Silvia Bunge, PhD; John Gabrieli, PhD
Panelists: Sebastian Lipina, PhD; Helen Neville, PhD; Kim Noble, PhD; Seth Pollack, PhD
1–3 p.m.
McCormick Place: N229
Contact: advocacy@sfn.org

This Social Issues Roundtable will address a neuroscience topic that has a broad impact on society, public awareness, and social change, namely disparities in educational achievement associated with household income. With the growth of economies that are ever more dependent upon technology and information, economic opportunity is increasingly dependent upon educational preparation. Yet, with growing income disparities within and between nations, there is a correspondingly widening gap for educational attainment between children born into more versus less-affluent environments. In the past few years, the contemporary methods of cognitive neuroscience have been used to understand how socioeconomic factors may influence neurocognitive development. These studies have employed measures of cognition, psychophysics, electrophysiology (ERP), structural and functional magnetic resonance imaging (fMRI), and genetics. The studies have not only begun to characterize brain correlates of socioeconomic status, but have also related such brain correlates to academic achievement. Furthermore, some studies have pointed toward mechanisms of brain plasticity that could inform strategies for preparing children born into poverty for academic success.

Tackling Challenges in Scientific Rigor: The (Sometimes) Messy Reality of Science

Supported by the National Institute On Drug Abuse of the National Institutes of Health under Award Number R25DA041326. The content does not necessarily represent the official views of the National Institutes of Health

Organizers: Barbara Lom, PhD; John H. Morrison, PhD
Panelists: Erin C. McKiernan, PhD; Phillip G. Popovich, PhD; Peter R. Rapp, PhD; Deena M. Walker, PhD
2–4 p.m.
McCormick Place: S101
Contact: mpd@sfn.org

Rigorous conduct of science is the cornerstone of the scientific endeavor, touching on established practices for experimental design, data analysis, and transparency, as well as other issues like publishing and funding pressures. Knowing how to address these issues is critical for a successful career in science. This workshop will explore practical examples of the challenges and solutions in conducting rigorous science from the real-life examples of neuroscientists at various career stages. It will focus on development of the interpersonal, scientific, and technical skills necessary to address various issues in scientific rigor, such as what to do when you can't replicate a published result, how to get support from a mentor, and how to cope with various career pressures that might affect the quality of your science.

Internationalizing Your Research, Training, and Funding Experience

Organizer: Michael Zigmond, PhD
Panelists: Beth Fischer, PhD; Shigang He, PhD; Yuan Liu, PhD; Vijayalakshmi Ravindranath, PhD; Gonzalo Torres, PhD; Desire Tshala-Katumbay, MD, PhD
2–5 p.m.
McCormick Place: S106
Contact: mpd@sfn.org

This workshop will focus on several topics of direct relevance to anyone wishing to internationalize their training and research, with a special focus on trainees and faculty from low

or middle-income countries (LMIC) who are interested in obtaining international experiences that they can take back to their home countries. Topics will include the value of an international research experience, advice for selecting a lab and obtaining funding, how to maximize your training experience, and how to return home. The workshop will consist of brief speaker presentations with representatives from India, China, and the United States, a panel, and discussions. After the formal presentations and panel there will be an opportunity to speak with speakers and panelists as well as with public and private agencies offering training and funding.

Monday, October 19

Exploring New Communications Channels: Science Blogging

Organizer: Scott Thompson, PhD
Panelists: Bethany Brookshire, PhD; Anne Churchland, PhD; Doug Fields, PhD; Bradley Voylek, PhD
9–11 a.m.
McCormick Place: S101
Contact: mpd@sfn.org

This session will provide members with guidance on blogging about science, including how to launch a blog, write effective blog posts, and expand audience reach via social media and other online channels. Guests will include science bloggers who share their personal experiences about what works and does not work in engaging online audiences.

Teaching Neuroscience to Nonscientists

Organizer: Richard Olivo, PhD
Panelists: Laura Been, PhD; Marc Breedlove, PhD; Bevil Conway, PhD; Lisa Gabel, PhD; Leah Roesch, PhD; Christina Williams, PhD
9–11 a.m.
McCormick Place: S106
Contact: mpd@sfn.org

This event will look at the best approaches to teaching nonscience majors, topics that are most interesting to nonscientists, and will address if basic chemistry and physics should be taught to students who are not studying science. Panelists will discuss writing textbooks for science-phobic students, sex and gender, botox and behavior, using a best-seller on psychiatric cases to teach neuroscience, and how to teach neuroscience through art and music.

Tuesday, October 20

ANIMALS IN RESEARCH PANEL

Support contributed by National Primate Research Centers

Proactive Strategies to Increase the Positive Public Perception of Animals in Research

Organizer: Michael E. Goldberg, MD
Panelists: Jason Goldman, PhD; Michael Mustari, PhD; Dario Padovan, PhD; Rolf Zeller, PhD
noon–2 p.m.
McCormick Place: N427
Contact: advocacy@sfn.org

As scientists become increasingly visible and engaged with the public through blogs, citizen science, traditional media, and other outlets, there is also increasing interest in open communication to gain public support for animal research and to underscore its critical contribution to scientific and medical progress. This panel will answer questions like: How can scientists and organizations engage the public and speak effectively about animal research? What strategies and venues (both novel and time-tested) are being employed to engage different audiences and how can interested scientists learn and contribute? What challenges exist in this area and how are different groups addressing them?

Celebration of Women in Neuroscience Luncheon

noon–2 p.m.
Hyatt Regency Chicago Downtown (not connected to McCormick Place): Crystal AB
Contact: cwin@sfn.org

The annual luncheon honors women leaders in neuroscience. Maria Neimark Geffen, PhD, will deliver a keynote address followed by a roundtable group discussion on a topic related to women in neuroscience. Space is limited. Registration is required. For more information, visit SfN.org/cwinrsvp.

PUBLIC ADVOCACY FORUM

Sports-Related Brain Injuries and Their Ethical, Social, and Neuroscience Considerations

Organizer: Anne Young, MD, PhD
Panelists: Chris Borland; Cindy Parlow Cone; Dan Gould, PhD; Anne McKee, MD
2–4 p.m.
McCormick Place: N229
Contact: advocacy@sfn.org

Repeated concussions and other sports-related brain injuries have been thrust into the center of public attention recently. This forum will look at several aspects of this issue and ask how, or even if, society can reconcile its insatiable appetite for these kinds of activities with the duty owed to those who risk being harmed by them.

SfN Members' Business Meeting

6:45–7:30 p.m.
McCormick Place: N427
Contact: info@sfn.org

Participate in a key forum to share your thoughts and suggestions with the Society's leadership while learning about SfN's latest accomplishments. At the Members' Business Meeting, engage with SfN leadership, share suggestions, and raise concerns about how to improve your professional society. Also, learn how to get involved in SfN committees while enjoying camaraderie with other SfN members and light refreshments.

Graduate Student Reception

9 p.m.–midnight
Hyatt Regency Chicago Downtown (not connected to McCormick Place): Regency BCD
Contact: meetings@sfn.org

A reception will be held for graduate students and postdoctoral trainees. No invitation is required.

Wednesday, Oct. 21

DEPARTMENTS AND PROGRAMS WORKSHOP

Training the Trainers: New Perspectives on Graduate Training in Neuroscience in the 21st Century

Organizer: Hermes Yeh, PhD
Panelist: Jami K. Armbrester; Victoria Prince, PhD
9–11 a.m.
McCormick Place: S101
Contact: training@sfn.org

The Departments and Programs Workshop is intended for faculty, program directors, and chairpersons interested in enhancing their graduate programs in neuroscience in the areas of 1) broadening curricula to include preparation for career trajectories in a variety of nonacademic settings, such as through the NIH Broadening Experiences in Scientific Training (BEST) program, and 2) how to effectively use the "individual development plan" (IDP) to advise graduate students about career paths. Presentations will be accompanied by discussion, networking, and interaction with workshop participants.

SfN-Sponsored Socials

Sunday, October 18, 6:45–8:45 p.m.

Cajal Club Social

SOCIAL WITH BRIEF PRESENTATION

Chair: Christopher A. Walsh, MD, PhD
Co-chair: Arturo Alvarez-Buylla, PhD
Guests: B. Chen, U. Muller
McCormick Place: N228

Join us for informal socializing and the presentations of the Krieg Cortical Kudos Awards and the Max Cowan Award in Developmental Neuroscience (sponsored by the *Journal of Comparative Neurology*, presented by Patrick Hof). Bin Chen and Ulrich Mueller will each give a short, informal presentation on the question of heterogeneity of cortical progenitors, followed by an interactive discussion.

Cell Death and Cell Stress Social

SOCIAL WITH BRIEF PRESENTATION

Chair: Benjamin Wolozin, MD, PhD
Co-chair: Judith A. Hirsch, PhD
Guests: T. Dawson, V. Dawson, J. Nye, L. Petrucelli, T. Südhof, J. Surmier
McCormick Place: N140

Come to the Cell Death Social, where we will be "dying" to have a good time! Socialize while examining novel concepts in neurodegeneration, which pathways occur across multiple diseases, and how to translate basic mechanisms to clinical research for collaborative projects. Also, try to match amusing stories with the names of our some of our distinguished colleagues. Scientists confirmed to attend are from academia, industry, and basic and clinical neuroscience.

Clinical Neuroscience Social

PURELY SOCIAL

Chair: Allan I. Levey, MD, PhD
Co-chair: David M. Holtzman, MD
McCormick Place: N226

A social occasion to meet and greet fellow clinician scientists and those interested in clinical neuroscience.

Hearing and Balance Social

PURELY SOCIAL

Chair: Anna Lysakowski, PhD
Co-chair: Lizabeth M. Romanski, PhD
Guests: L. H. Carney, Y. E. Cohen, S. G. Lomber, G. D. Paige, C. Petkov, L. C. Populin, J. P. Rauschecker, H. Read, M. Sutter
McCormick Place: N139

This is a purely social gathering for all who are interested in questions of hearing and balance. It is an opportunity to meet and greet old friends and make new ones. Postdoctoral fellows and students are especially welcome. Bring your friends and mingle with others interested in acoustics, audition, communication, speech, language, and more!

Neuroethology/Invertebrate Neurobiology Social

PURELY SOCIAL

Chair: Wolfgang Stein, PhD
McCormick Place: N138

This is a purely social gathering celebrating neuroethology and invertebrate neuroscience research, and the role of the nervous system in producing behavior. Stop by to meet old friends and make new ones. Postdocs and students are encouraged to drop in for socializing and networking.

Neuroinformatics Social

SOCIAL WITH BRIEF PRESENTATION

Chair: David Kennedy, PhD
Guests: S. L. Hill, T. R. Insel
McCormick Place: N229

Are you interested in how common tools, standards, and collaboration can boost your research? Join us to get introduced to the BRAIN Intiaitive, Human Brain Project, and Brain/MINDS project, and the community resources that they will result in. This social will have a few short presentations and plenty of time for socializing and networking. Don't miss this opportunity to get acquainted with representatives from these projects and related organizations, and scientists in the neuroinformatics field.

Pain Neuroscience Social

PURELY SOCIAL

Chair: Michael P. Jankowski, PhD
Co-chair: Benedict J. Kolber, PhD
McCormick Place: N135

Join your fellow pain neuroscientists in a relaxing setting to wind down from the annual meeting. This is a purely social gathering that provides a common meeting place for all neuroscientists interested in pain research, whether you are actively doing pain work or are just interested in it. This forum will also provide networking opportunities for investigators at all levels of their careers

Spinal Cord Injury Social

PURELY SOCIAL

Chair: Carlos B. Mantilla, MD, PhD
McCormick Place: N231

Get ready for an evening of informal socializing, along with an exciting game of trivia. Put on your thinking caps! Get those young and old neurons firing while networking with colleagues from around the world. Awards will be presented to well-informed participants. Students, fellows, and neuroscientists at all career stages are invited. Join your colleagues in a relaxed and social atmosphere.

Synapses and Excitatory Amino Acids Social

PURELY SOCIAL

Chair: Thomas A. Blanpied, PhD
Co-chair: Seema Bhatnagar, PhD
Guests: T. Biederer, P. De Koninck, D. A DiGregorio, K. M. Harris, Y. Hayashi, R. L. Huganir, J. W. Johnson, S. D. Meriney, R. A. Nicoll, I. Perez-Otano, K. W. Roche, T. A. Ryan, S. M. Thompson, G. Turrigiano, R. S. Zukin
McCormick Place: N137

Stop actin' like a sap: Release your inhibitions and don't adhere to recycled traditions! Join 95 other monks as we toast our developing insights to the body's most plastic stable structure. Contact old friends and get a grip on prime new ones at this dynamic social. Throughout the evening, the bravest of our special guests will amaze the crowd with a favorite slide from their past, chosen for its meaning, mystery, or mirth. Come hear their stories as you plan your evening's revels.

Monday, October 19, 6:45–8:45 p.m.

Alzheimer's and Related Dementias Social

PURELY SOCIAL

Chair: Chad Dickey, PhD
Co-chair: Brian Kraemer, PhD
Guest: S. E. Gandy
McCormick Place: N136

This purely social event is an opportunity for old friends to come together to discuss the fine cuisine of Chicago, the current state of Cubs baseball, and maybe work in some of the latest breakthroughs in Alzheimer's disease research.

Behavioral Neuroendocrinology Social

SOCIAL WITH BRIEF PRESENTATION

Chair: Elizabeth Adkins-Regan, PhD

Guest: J. French

McCormick Place: N231

At this social, come meet and speak with friendly colleagues interested in hormones, brain, and behavior. Whether you are new to the field or an old-timer, this is a fun opportunity to socialize with others studying these oh-so-powerful molecules. The winners of the Society for Behavioral Neuroendocrinology's 2015 Frank A. Beach and W.C. Young Awards will be announced.

Developmental Neurobiology Social

PURELY SOCIAL

Chair: Raj Awatramani, PhD

Co-chair: Shubha Tole, PhD

McCormick Place: N137

This social is for scientists interested in the development of the nervous system, including neurogenesis, migration, neuron fate determination, and establishment of circuitry.

Faculty for Undergraduate Neuroscience (FUN) Social

SOCIAL WITH BRIEF PRESENTATION

Chair: Jeffrey S. Smith, PhD

Guests: L. A. Gabel, A. Stavnezer

McCormick Place: N228

Socialize and exchange ideas with others interested in undergraduate neuroscience research and education. Undergraduates will present posters of their research, and FUN Student Travel Awards and the Educator of the Year Award will be presented. See the FUN website for travel award information and registration for poster presentations at the FUN Social (funfaculty.org).

Hippocampus Social

SOCIAL WITH BRIEF PRESENTATION

Chair: Kate Jeffery, PhD

Co-chair: Dori Derdikman, PhD

McCormick Place: N138

This social is an opportunity for hippocampal researchers to meet and mingle. To start, there will be a short nonscientific presentation, followed by a speed-dating event allowing junior researchers to have a short "ask-me-anything" conversation with senior scientists.

Ingestive Behavior Social

PURELY SOCIAL

Chair: Alan G. Watts, PhD

Co-chair: Alexxai V. Kravitz, PhD

Guest: J. W. Young

McCormick Place: N135

Socialize, network, and take a break with friends and colleagues from the hectic SfN annual meeting. We expect a wide range of internationally established investigators from academia and industry, students, and postdoctoral fellows working in ingestive behavior and allied fields of obesity, diabetes, and eating disorders. Please plan to attend, for a few hours or a few minutes, to mix and mingle.

Music Social

PURELY SOCIAL

Chair: William J. Pearce, PhD

Co-chair: Joseph C. LaManna, PhD

Guest: C. Ammonis

McCormick Place: N427

SfN member musicians will provide an evening of music. All musical types from rock to country to opera are welcome, with an emphasis on variety and enthusiasm. Accompaniment is available given at least two weeks advance notice. The program fills quickly, and there are no walk-ons, so contact us as soon as possible to get a place on the program. Each performance is typically allotted 10 minutes. Please join us for another informal and fun evening of neuroscientists enjoying music.

Neural Control of Autonomic and Respiratory Function Social

PURELY SOCIAL

Chair: Thomas E. Dick, PhD

McCormick Place: N226

This purely social event is a gathering of scientists interested in autonomic and/or respiratory functions in health, disease and social functions at international meetings. The intent of this social is to facilitate uninterrupted, commercial-free interaction amongst colleagues at each and every career level. We will attempt to have a very informal event.

Psychopharmacology Social

PURELY SOCIAL

Chair: Stan B. Floresco, PhD

Co-chair: Jared W. Young, PhD

Guests: A. Abi-Dargham, K. C. Berridge, B. A. Carlezon, K. A. Cunningham, H. DeWit, B. J. Everitt, A. Frazer, P. H. Janak, J. D. Jentsch

McCormick Place: N139

Please join us for an informal evening socializing with psychopharmacologists — people who know a thing or two about mind-altering substances. Catch up with friends and colleagues, meet others in the field, loosen up with a refreshing beverage with your well-dressed hosts after a hard day of science while grooving to a psychopharmacologically inspired playlist. Intermingling between more senior investigators and trainees is strongly encouraged, and all are welcome.

SfN-Sponsored Socials

Vision Social

PURELY SOCIAL

Chair: Ione Fine, PhD

Guests: M. Bedny, J. A. Hirsch

McCormick Place: N140

Join us for the 2015 Vision Social quiz night. Create a team of your eight most learned colleagues or come along and be assigned to a team led by an eminent visionary in your area. The top team will not only win glory but signed copies of very boring vision books.

Tuesday, October 20, 6:45–8:45 p.m.

Cognitive Neuroscience Social

PURELY SOCIAL

Chair: Kalanit Grill-Spector, PhD

Co-chair: Jesse Gomez

McCormick Place: N140

This is the most inclusive of all socials! If you are interested in behavior, cognition, and the brain, we want you. Swing by and mingle over drinks with the best, the brightest, or just the most boisterous of the cognitive neuroscience field. It is thought that a majority of the human cortex evolved for social interaction; come put it to good use!

Computational Neuroscience Social

PURELY SOCIAL

Chair: Viola Priesemann, PhD

Co-chair: Timothy O'Leary, PhD

Guests: J. Beggs, S. Ganguli, M. Geffen, J. Gjorgjieva, M. S. Goldman, G. J. Gutierrez, A. E. Lazar, W. Maass, E. E. Marder, C. O'Donnell, A. B. Stepanyants, J. D. Victor, F. Wolf

McCormick Place: N139

Join us for an evening with elegant models, great spirits, networking theories, and billions of action potentials! Reunite with old friends, make new ones, mingle with top researchers and special guests, and learn about upcoming CompNeuro events. Everyone is welcome!

Epilepsy Social

PURELY SOCIAL

Chair: Mark Beenhakker, PhD

Guests: C. Dulla, L. Isom, A. Kriegstein, E. Krook-Magnuson, K. Staley, K. Wilcox

McCormick Place: N138

Roughly one in 26 people in the United States will develop epilepsy in their lifetime. Meet the researchers who work hard to find cures for this major neurological disorder. At this social, you will find both pioneers in the field of epilepsy, as well as junior faculty who are moving the field in exciting new directions. Also, representatives from NIH, Citizens United for Research in Epilepsy (CURE), and other agencies will be in attendance. Come enjoy fun conversation and networking — everyone with an interest in epilepsy is invited!

Eye Movement and Vestibular System Social

PURELY SOCIAL

Chair: Sascha du Lac, PhD

Co-chair: Martha W. Bagnall, PhD

McCormick Place: N137

Join us for a purely social evening and a chance to catch up with all your colleagues in vestibular and oculomotor systems. Come have a drink, meet new friends and old, and chat about the best-functioning circuits in the brain.

Neuroendocrinology Social

PURELY SOCIAL

Chair: Rebecca M. Shansky, PhD

Co-chair: Matthew Hill, PhD

Guests: S. Bhatnagar, L. A. Galea, K. M. Lenz, M. M. McCarthy, J. M. Schwarz, V. G. Viau

McCormick Place: N226

It's time for Neuroendocrine Family Feud! Watch as the descendants of neuroendocrinology's matriarchs and patriarchs battle it out — which lineage is most in touch with the random opinions of other neuroendocrinologists? McEwen? McCarthy? Dallman? Guillemin?

Neuroethics Social

SOCIAL WITH BRIEF PRESENTATION

Chair: Barbara J. Sahakian, PhD

Co-chair: Verity J. Brown, PhD

Guests: H. DeWit, J. Grant, J. Illes, G. F. Koob, B. J. Mason, D. Nutt, A. Phillips, T. W. Robbins

McCormick Place: N229

In this neuroethics panel, we will have experts defining the top ethical issues in their area of behavioural and drug addiction research and treatment and why they think it is important. Come and join in the discussion on ethical considerations of neuroscience research and the effects of neuroscience research on society.

Neuron-Glia Interactions Social

SOCIAL WITH BRIEF PRESENTATION

Chair: Douglas Fields, PhD

McCormick Place: N136

The social will begin with brief talks on the history of glia and pioneers in glial research, followed by a purely social interaction. Helmut Kettenmann will give a brief account of the origin of the word "glia." Alfonso Araque will discuss Ramón y Cajal's pioneering studies of glia. Douglas Fields will recount the discovery of myelin structure. Bruce Ransom will lead a discussion with the panel and audience. Akiko Nishiyama will take the role of facilitator in the informal social. All are welcome to attend! Meet the field's current and future leaders!

Optogenetics Social

PURELY SOCIAL

Chair: Nicolas Tritsch, PhD

Co-chair: Yevgenia Kozorovitskiy, PhD

Guests: E. S. Boyden, R. M. Costa, K. Deisseroth, M. Hausser, J. Isaac, R. H. Kramer, A. V. Kravitz, R. C. Malenka, G. Miesenbock, B. L. Sabatini, G. M. G. Shepherd, G. D. Stuber, K. Tye

McCormick Place: N231

Put some spark in your SfN experience with the Optogenetics Social! Whether you started the field, would like to implement optogenetics in your favorite system, or are simply looking for a place to kick back and have a drink, this purely social event is perfect for you! Come see old friends and make new ones.

Sensorimotor Social

PURELY SOCIAL

Chair: Rachael D. Seidler, PhD

Guests: D. Corcos, S. H. Scott

McCormick Place: N135

This is a purely social gathering for all members of the sensorimotor research community. Come to catch up with old friends and make new ones.

Songbird Social

PURELY SOCIAL

Chair: Sarah C. Woolley, PhD

Co-chair: Jon T. Sakata, PhD

McCormick Place: N132

This is a purely social gathering for people interested in songbirds.

Satellite Events and Non-SfN Socials

Full descriptions and the latest details on these satellite events and socials not sponsored by SfN are available online at SfN.org/satellites. These events are also available in the Neuroscience Meeting Planner (NMP), which is accessible on-site or at SfN.org/nmp, and in the meeting mobile app, available for download on Apple and Android mobile devices. The Hyatt Regency Chicago Downtown is not connected to McCormick Place.

SPONSOR CATEGORY KEY	
1	Commercial
2	University/Nonprofit
3	Individual

TITLE	TIME	MORE INFORMATION	FACILITY	ROOM	KEY
Wednesday, October 14					
Nicotinic Acetylcholine Receptors as Therapeutic Targets **	8 a.m.–5 p.m.	cmpinc.net/nicotinic2015	Loyola University	Kasbeer Hall	3
Thursday, October 15					
The J.B. Johnston Club for Evolutionary Neuroscience **	7:30 a.m.–7:30 p.m.	jbjclub.org	The Congress Plaza Hotel		2
ASNR and TCMC Joint Annual Meeting **	8 a.m.–5 p.m.	LeslieOrvedahl@llmsi.com	InterContinental		2
Cell Symposia: Engineering the Brain-Technologies for Neurobiological Applications **	8 a.m.–6 p.m.	cell-symposia-engineeringthebrain.com	Drake Hotel		3
Nicotinic Acetylcholine Receptors as Therapeutic Targets **	8 a.m.–5 p.m.	cmpinc.net/nicotinic2015	Loyola University	Kasbeer Hall	
7th Annual Meeting of the Society for the Neurobiology of Language **	8:30 a.m.–6:30 p.m.	dronkers@ucdavis.edu	Drake Hotel		2
8th Workshop on Advances in Electrocorticography **	8:30 a.m.–6 p.m.	ecog.info	Hyatt Regency McCormick Place		2
10th Brain Research Conference: RNA Metabolism in Neurological Disease **	8:30 a.m.–6 p.m.	R.Hart@elsevier.com	The Westin Chicago River North		1
Barrels XVIII **	8:30 a.m.–10 p.m.	regonline.com/barrels28	Northwestern University School of Medicine	Lincoln Hall	2
25th Annual Neuropharmacology Conference 2015: From Biology to Therapy **	9 a.m.–5 p.m.	neuropharmacology-conference.elsevier.com/	The Westin Chicago River North		1
BESA Research Hands-On Workshop **	9 a.m.–5 p.m.	office@brainvision.com	Hyatt Regency McCormick Place		1
2015 International Neuroethics Society Annual Meeting **	5–7:30 p.m.	kgraham@neuroethicssociety.org	Northwestern University, 303 E. Superior	Hughes Auditorium	2
14th Annual Molecular and Cellular Cognition Society (MCCS) Social and Poster Session **	6:30–9:30 p.m.	eklann@cns.nyu.edu	Hyatt Regency Chicago Downtown*	Regency Ballroom CD West Tower	2
Friday, October 16					
Society for Social Neuroscience (S4SN) 2015 Annual Meeting	7 a.m.–8 p.m.	zeakno1@nyu.edu	Hyatt Regency Chicago Downtown*	Regency Ballroom A	2
The J.B. Johnston Club for Evolutionary Neuroscience **	7 a.m.–9 p.m.		The Congress Plaza Hotel		
Satellite Meeting of Comparative Cognition Society	7:30 a.m.–5:30 p.m.	comparativecognition.org/fallmeeting.php	Hyatt Regency Chicago Downtown*	Wrigley	3
Advances and Perspectives in Auditory Neurophysiology (APAN)	8 a.m.–7 p.m.	med.upenn.edu/apan	Renaissance Blackstone Chicago Hotel	Crystal Ballroom and Foyer	2
ASNR and TCMC Joint Annual Meeting **	8 a.m.–7 p.m.	LeslieOrvedahl@llmsi.com	InterContinental		
Cell Symposia: Engineering the Brain-Technologies for Neurobiological Applications **	8 a.m.–6 p.m.	cell-symposia-engineeringthebrain.com	Drake Hotel		
Frontiers in Addiction Research: 2015 Joint NIDA-NIAAA Mini-Convention	8 a.m.–5 p.m.	apps1.seiservices.com/NIDA-NIAAA/frontiers2015/default.aspx	McCormick Place	N230	2
7th Annual Meeting of the Society for the Neurobiology of Language **	8:30 a.m.–7:30 p.m.	dronkers@ucdavis.edu	Drake Hotel		
8th Workshop on Advances in Electrocorticography **	8:30 a.m.–6 p.m.	ecog.info	Hyatt Regency McCormick Place		
10th Brain Research Conference: RNA Metabolism in Neurological Disease **	8:30 a.m.–6 p.m.	R.Hart@elsevier.com	The Westin Chicago River North		
Barrels XVIII **	8:30 a.m.–5 p.m.	regonline.com/barrels28	Northwestern University School of Medicine	Lincoln Hall	

** multiday event | * Event held at the Hyatt Regency Chicago Downtown (not connected to McCormick Place)

TITLE	TIME	MORE INFORMATION	FACILITY	ROOM	KEY
NEI Audacious Goals Initiative (AGI) Panel Discussion: Reconnecting Neurons in the Visual System	8:30 a.m.–12:30 p.m.	michael.crair@yale.edu	Hyatt Regency Chicago Downtown*	Crystal Ballroom A	2
Neural Mechanisms of Feeding and Swallowing and Their Applications to Rehabilitation	8:30 a.m.–6 p.m.	://home.uchicago.edu/~kazutaka/sfn2015satellite.html	see website		1
SPINES Neuroscience Symposium	8:30 a.m.–8 p.m.	pattycoen@att.net	Hyatt Regency Chicago Downtown*	Plaza Ballroom	2
14th Annual Molecular and Cellular Cognition Society (MCCS) Meeting **	8 a.m.–5 p.m.	eklann@cns.nyu.edu	McCormick Place	N228	2
2015 International Neuroethics Society Annual Meeting **	8 a.m.–7:30 p.m.	kgraham@neuroethicssociety.org	Art Institute of Chicago, 111 S. Michigan	Rubloff Auditorium & Chicago Stock Exchange Trade Room	2
25th Annual Neuropharmacology Conference 2015: From Biology to Therapy **	9 a.m.–5 p.m.	neuropharmacology-conference.elsevier.com/	The Westin Chicago River North		1
BESA Research Hands-On Workshop **	9 a.m.–5 p.m.	office@brainvision.com	Hyatt Regency McCormick Place		1
Brain Stimulation Based Neural Circuit Modeling: Linking Levels of Analysis	9 a.m.–5:30 p.m.	vicentica@mail.nih.gov	Fairmont Chicago	Ambassador	2
The Virtual Brain: Node #3 Workshop	9 a.m.–5:30 p.m.	tbrown@research.baycrest.org	Hyatt Regency Chicago Downtown*	Regency Ballroom C	2
Using NEURON to Model Cells and Networks	9 a.m.–5 p.m.	ted.carnevale@yale.edu	neuron.yale.edu/neuron/courses		2
SfN Turkey Chapter Satellite Meeting	9:30 a.m.–5 p.m.	burak.guclu@boun.edu.tr	Northwestern University	Feinberg School of Medicine	2
Neuroimmunity: Evolving Role of the Immune System in Brain Protection and Repair	12–6 p.m.	isniweb.org	Hyatt Regency Chicago Downtown*	Crystal Ballroom B	2
Illumina Discovery Symposium	1–8 p.m.	dkremer@illumina.com	Hyatt Regency McCormick Place		1
Inscopix Solutions for Understanding the Brain in Action	1:30–6 p.m.	vania@inscopix.com	Hyatt Regency Chicago Downtown*	Acapulco & Hong Kong	1
Joint NIDA-NIAAA Young Investigator Symposium	5–6 p.m.	http://apps1.seiservices.com/NIDA-NIAAA/frontiers2015/default.aspx	McCormick Place	N230	2
Saturday, October 17					
7th Annual Meeting of the Society for the Neurobiology of Language **	8–10 a.m.	dronkers@ucdavis.edu	Drake Hotel		2
Promoting Your Research with Impact!	8:30–10:30 a.m.	kornstein@wiley.com	Hyatt Regency McCormick Place		1
Using the Neuroscience Gateway Portal (NSG) for Parallel Simulations	9–10:30 a.m.	ted.carnevale@yale.edu	nsgportal.org/workshop.html		2
Examining Nervous System Functions From a First-Person Frame of Reference Using Semblance Hypothesis	9:30–10:30 a.m.	kunjumon.vadakkan@utoronto.ca	McCormick Place	S502B	3
Investigating Neurodegenerative Pharmacology Using Kinetic Live-Cell Phenotypic Assays	9:30–10:30 a.m.	sofia.nordenstam@essenbio.com	McCormick Place	S101	1
Big Data Opportunities Using the NIMH Data Archive (NDA)	6:30–10 p.m.	novikovas@mail.nih.gov	Hyatt Regency Chicago Downtown*	Toronto	2
Chinese Neuroscientists Social	6:30–9 p.m.	bingye@umich.edu	McCormick Place	S103	3
Friends of Case Western and Cleveland Clinic Social	6:30–8:30 p.m.	cmiller@hb.edu	Fairmont Chicago	Crystal	2
g.tec's Brain-Computer Interface Workshop for Control, Assessment, and Rehabilitation	6:30–10 p.m.	guger@gtec.at	McCormick Place	N229	1
Sunday, October 18					
Arab Neuroscientists Social	6:30–8 p.m.	arabneuroscientists.org	McCormick Place	S502B	3
ASPET's Neuropharmacology Division Social	6:30–8 p.m.	Michael.Wood@azneuro.com	Hyatt Regency Chicago Downtown*	Acapulco	2

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TITLE	TIME	MORE INFORMATION	FACILITY	ROOM	KEY
Boston University Graduate Program for Neuroscience Reception	7–10 p.m.	neurosci@bu.edu	Hyatt Regency Chicago Downtown*	Buckingham	2
Decision-Making Social: Society for Neuroeconomics	6:30–8 p.m.	shaw@cns.nyu.edu	Hyatt Regency Chicago Downtown*	Toronto	2
Dutch Neuroscience Social	7–10 p.m.	guus.smit@cncr.vu.nl	Hyatt Regency Chicago Downtown*	Regency Ballroom C	3
Ernst Strüngmann Forum Social	6:30–9:30 p.m.	lupp@esforum.de	Hyatt Regency Chicago Downtown*	Regency Ballroom A	2
Evelyn F. McKnight Brain Research Foundation Poster Reception	6:30–8:30 p.m.	vhixon@uab.edu	Hyatt Regency Chicago Downtown*	Crystal Ballroom B	2
Filling Unmet Medical Need in CNS Diseases: Systems Biology for Fun(ding) & Profit	6:30–8:30 p.m.	Larry.Hardy@Sunovion.com	Hyatt Regency Chicago Downtown*	Crystal Ballroom A	1
g.tec's Functional Mapping With the ECoG Workshop	6:30–8:30 p.m.	guger@gtec.at	McCormick Place	S101	1
HEKA Electrophysiology Update	6:30–8:30 p.m.	jtatem@harvardbiosciences.com	Hyatt Regency Chicago Downtown*	Columbian	1
How Can Understanding Protein Structure Help Us Unravel the Mysteries of Neurodegenerative Disease	6:30–10 p.m.	meetings.ninds.nih.gov/meetings/ninndsstructuralbiologicaland neurodegenerativediseaseworkshop/	Fairmont Chicago	Regent Room	2
International Behavioral Neuroscience Society (IBNS) Social	6:30–8 p.m.	ibns@ibnsconnect.org	Hyatt Regency Chicago Downtown*	Gold Coast	2
Mayo Clinic Alumni Association Reception	6:30–8:30 p.m.	mayoalumni@mayo.edu	Hyatt Regency Chicago Downtown*	Haymarket	2
New Techniques in Electro-and Optophysiology	6:30–8 p.m.	andyp@alascience.com	McCormick Place	S402	1
Quantitative Microscopy: Enhancing the Reproducibility of Your Research Results with Stereology	6:30–10 p.m.	susan@mbfbioscience.com	McCormick Place	S403	1
Rutgers Brain Health Institute Reception	6:30–10 p.m.	aston.jones@rutgers.edu	Hyatt Regency Chicago Downtown*	Water Tower	2
Schizophrenia Social	6:30–8:30 p.m.	hakon@schizophreniaforum.org	Hyatt Regency Chicago Downtown*	Comiskey	2
The NWB Neurophysiology Data Format (Alpha Version)	6:30–7:30 p.m.	jteeters@berkeley.edu	Fairmont Chicago	Ambassador	2
University of Chicago 12th Annual SfN Social	8–10 p.m.	chansel@uchicago.edu	Shedd Aquarium		2
UW-Madison Neuroscience Training Program Social	6:30–8:30 p.m.	musolf@wisc.edu	Hyatt Regency Chicago Downtown*	Wrigley	2
Monday, October 19					
12th Annual Christopher Reeve "Hot Topics" in Stem Cell Biology	6:30–9:30 p.m.	towens@sbpdiscovery.org	McCormick Place	S105	1
Association of Korean Neuroscientists: Annual Meeting and Social	6:30–9:30 p.m.	leed1@ohio.edu	Contact Organizer		2
Current EEG Electrode Digitization Techniques-Importance of EEG Source Localization	6:30–8 p.m.	Office@brainvision.com	Hyatt Regency Chicago Downtown*	Columbian	1
European Network of Neuroscience Institutes (ENI-NET): Mini-Symposium on Methods & Get-Together	7–9 p.m.	eva.helmstaedter@eninet.uni-freiburg.de	McCormick Place	S503a	3
Friends of Ohio State University Social	6:30–8:30 p.m.	dana.mctigue@osumc.edu	Hyatt Regency Chicago Downtown*	Toronto & Hong Kong	2
Future of Rodent Research: Plug 'N' Play and High-Channel-Count Ephys	6:30–8:30 p.m.	eestheimer@blackrockmicro.com	Fairmont Chicago	Regent	1

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TITLE	TIME	MORE INFORMATION	FACILITY	ROOM	KEY
Hunting for Neurodegenerative Disease Biomarkers: New Mechanisms, New Biomarkers	6:30–10 p.m.	jaclyn.nguyen@emdmillipore.com	Fairmont Chicago	Ambassador	1
Imaging Neuronal Activity in Freely-Moving Animals: Linking Neural Circuit Dynamics to Behaviors	6:30–9 p.m.	yvonne@noldus.com	Hyatt Regency Chicago Downtown*	Comiskey	1
In vitro Microelectrode Array Recording Techniques	6:30–7:30 p.m.	bellack@multichannelsystems.com	McCormick Place	S403	1
Knockout Rats: Generation and Characterizations of more Translational Animal Models for Parkinson's	6:30–9:30 p.m.	m.cavanagh@horizondiscovery.com	McCormick Place	S405	1
LGBT Social	7– 9 p.m.	Andrew.Murtishaw@unlv.edu	Downtown Bar & Lounge		3
Neurorehabilitation Social	6:30–8 p.m.	w-rymer@northwestern.edu	Northwestern University	RIC Bldg., 345 East S.	2
NIH and Early Career Investigators: What You Need to Know	6:30–9 p.m.	http://apps1.seiservices.com/NIDA-NIAAA/frontiers2015/events.aspx	Hyatt Regency Chicago Downtown*	Regency Ballroom B	2
Scientists Empowering Scientists	6:30–7:30 p.m.	sutter.eventbrite.com	McCormick Place	S104	1
Simons Foundation Autism Research Initiative (SFARI) Social	6:30–8 p.m.	agreenebaum@simonsfoundation.org	Hyatt Regency Chicago Downtown*	Regency Ballroom A	2
Sleep and Circadian Biology DataBlitz	8–10 p.m.	laposkya@nhlbi.nih.gov	Hyatt Regency Chicago Downtown*	Regency Ballroom C	2
Sleep Research Society Club Hypnos Reception	6:30–8 p.m.	jnoel@srsnet.org	Hyatt Regency Chicago Downtown*	Acapulco	2
Taiwan Night	6:30–9:30 p.m.	taiwan.neuroscience@gmail.com	Hyatt Regency Chicago Downtown*	Regency Ballroom D	3
The Fifth Annual International Society for Serotonin Research Mixer	6:30–8 p.m.	berg@uthscsa.edu	Highline Bar and Lounge	169 W. Kinzie St.	1
The Grass Foundation and Marine Biological Laboratory (MBL) Social	6:30–8 p.m.	execassist@grassfoundation.org	Fairmont Chicago	Crystal	2
Washington University in St. Louis Neuroscience Reception	6:30–9:30 p.m.	tayler.sheahan@wustl.edu	Timothy O'Toole's Pub	622 N Fairbanks Ct	2
Wireless *In Vivo* Neural Recording and Stimulation	6:30–7:30 p.m.	bellack@multichannelsystems.com	McCormick Place	S402	1
Tuesday, October 20					
Applications of Wearable Sensing's Dry Sensor EEG Systems in BCI and Cognitive Neuroscience Research	6:30–9 p.m.	walid@wearablesensing.com	Hyatt Regency Chicago Downtown*	Burnham	1
The BRAIN Initiative in 2015: Updates and Outreach Town Hall and Reception	6:30–8:30 p.m.	braininitiative.nih.gov/meetings/SFNOct2015.htm	McCormick Place	S103	2
Thursday, October 22					
Chicago Neuroimaging Workshop on the Dynamic Social Brain **	8 a.m.–7 p.m.	cacioppos@uchicago.edu	The University of Chicago		2
Friday, October 23					
Chicago Neuroimaging Workshop on the Dynamic Social Brain **	8 a.m.–7 p.m.	cacioppos@uchicago.edu	The University of Chicago		2

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List of Sessions by Theme and Day

All posters will be presented in McCormick Place, Hall A. All lecture, symposium, minisymposium, and nanosymposium rooms are in McCormick Place. Note: Theme H Posters will be on display in Hall A beginning at 1 p.m. on Saturday, Oct. 17, and will remain posted until 5 p.m. on Sunday, Oct. 18. One-hour presentation times will occur either Saturday afternoon or Sunday morning.

Theme Descriptions

- **A** Development
- **B** Neural Excitability, Synapses, and Glia: Cellular Mechanisms
- **C** Disorders of the Nervous System
- **D** Sensory and Motor Systems
- **E** Integrative Systems: Neuroendocrinology, Neuroimmunology, and Homeostatic Challenge
- **F** Cognition and Behavior
- **G** Novel Methods and Technology Development
- **H** History, Teaching, Public Awareness, and Societal Impacts in Neuroscience

SESSION #	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
Featured Lectures							
9	Themes and Variations in Circuits and Behavior	Presidential Special Lecture		Hall B1	17 Sat	5:15–6:25 p.m.	1.25
191	Nature and Nuture in Synapse Development, Maturation, and Disease	Peter and Patricia Gruber Lecture		Hall B1	18 Sun	2:30–3:40 p.m.	
192	The Molecular Logic of Neural Circuits: Implications for Autism and Schizophrenia	Presidential Special Lecture		Hall B1	18 Sun	5:15–6:25 p.m.	1.25
277	Giving Voice to Consciousness: Neuroethics, Human Rights, and the Indispensability of Neuroscience	David Kopf Lecture on Neuroethics		Hall B1	19 Mon	10–11:10 a.m.	
366	Receptors, Neurons, and Circuits: The Biology of Mammalian Taste	Albert and Ellen Grass Lecture		Hall B1	19 Mon	3:15–4:25 p.m.	1.25
367	Immune Mechanisms of Synapse Loss in Health and Disease	Presidential Special Lecture		Hall B1	19 Mon	5:15–6:25 p.m.	1.25
552	100 Years of Stress and the Hypothalamic, Pituitary, Adrenal Axis	Fred Kavli History of Neuroscience Lecture		Hall B1	20 Tues	2:30–3:40 p.m.	
553	Embracing an Era of Unprecedented Advances in Neuroscience	Special Presentation		Hall B1	20 Tues	4–5 p.m.	
554	Grid Cells and Cortical Maps for Space	Presidential Special Lecture		Hall B1	20 Tues	5:15–6:25 p.m.	1.25
Theme A: Development							
10	Postnatal Neurogenesis	Nanosymposium		N426A	17 Sat	1–4:30 p.m.	
28	Neurogenesis and Gliogenesis: Lineage and Cell Fate	Poster	A1-A14	Hall A	17 Sat	1–5 p.m.	
29	Axon Growth and Guidance: Extrinsic Mechanisms	Poster	A15-A32	Hall A	17 Sat	1–5 p.m.	
30	Activity-Dependent Neural Circuit Development and Plasticity	Poster	A33-A47	Hall A	17 Sat	1–5 p.m.	
31	Transplantation and Regeneration	Poster	A48-A61	Hall A	17 Sat	1–5 p.m.	
32	Adolescent Development: Mechanisms of Vulnerability	Poster	A62-A87	Hall A	17 Sat	1–5 p.m.	
96	Genetic Dissection of Neocortical Circuits	Special Lecture		Hall B1	18 Sun	8:30–9:40 a.m.	1.25
104	Synaptogenesis and Activity-Dependent Development	Nanosymposium		N426A	18 Sun	8–11:15 a.m.	
116	Embryonic Neurogenesis	Poster	A1-A21	Hall A	18 Sun	8 a.m.–noon	
117	Molecular Mechanisms of Neural Differentiation	Poster	A22-A51	Hall A	18 Sun	8 a.m.–noon	
189	Genomic Views of Transcriptional Enhancers: Essential Determinants of Cellular Identity and Activity-Dependent Responses in Neurons	Minisymposium		S103	18 Sun	1:30–4 p.m.	2.5
193	Neuronal Lineage Reprogramming	Nanosymposium		N426A	18 Sun	1–3 p.m.	
203	Oligodendrocyte Differentiation	Poster	A1-A22	Hall A	18 Sun	1–5 p.m.	
204	Molecular Mechanisms of Synapse Formation	Poster	A23-A51	Hall A	18 Sun	1–5 p.m.	

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SESSION #	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
276	Development and Reprogramming of Neuronal Diversity in the Central Nervous System	Special Lecture		Hall B1	19 Mon	11:30 a.m.–12:40 p.m.	1.25
278	Dendritic Growth and Branching	Nanosymposium		N426A	19 Mon	8–10:45 a.m.	
289	Postnatal Neurogenesis: Temporal and Spatial Patterns	Poster	A1-A16	Hall A	19 Mon	8 a.m.–noon	
290	Development of Sensory Systems	Poster	A17-A38	Hall A	19 Mon	8 a.m.–noon	
291	Peripheral Nervous System Regeneration	Poster	A39-A69	Hall A	19 Mon	8 a.m.–noon	
360	Understanding Neural Circuits through Dendrite Development and Function	Symposium		S100A	19 Mon	1:30–4 p.m.	2.5
368	New Progresses in Nerve Regeneration and Transplantation	Nanosymposium		S102	19 Mon	1–3:15 p.m.	
379	Cell Cycle Control in Neurogenesis	Poster	A1-A11	Hall A	19 Mon	1–5 p.m.	
380	Induced Pluripotent Stem Cells: Modeling Development and Disease	Poster	A12-A38	Hall A	19 Mon	1–5 p.m.	
381	Intrinsic Mechanisms of Axon Growth and Guidance	Poster	A39-A63	Hall A	19 Mon	1–5 p.m.	
453	Synapse Formation and Neurodevelopmental Disorders	Symposium		S100A	20 Tues	8:30–11 a.m.	2.5
472	Molecular Mechanisms of Proliferation	Poster	A1-A19	Hall A	20 Tues	8 a.m.–noon	
473	Role of Adhesion in the Development of Neuronal Wiring	Poster	A20-A27	Hall A	20 Tues	8 a.m.–noon	
474	Dendritic Growth and Branching	Poster	A28-A57	Hall A	20 Tues	8 a.m.–noon	
475	Neuronal Differentiation: Activity-Dependent Mechanisms	Poster	A58-A67	Hall A	20 Tues	8 a.m.–noon	
550	Selection and Consolidation of Neuronal Circuits: Lessons from Learning and Development	Minisymposium		S103	20 Tues	1:30–4 p.m.	2.5
566	Cytoskeletal Functions in Neurodevelopment	Poster	A1-A25	Hall A	20 Tues	1–5 p.m.	
567	Development of Neuronal and Circuit Excitability	Poster	A26-A43	Hall A	20 Tues	1–5 p.m.	
568	Central Nervous System Regeneration	Poster	A44-A71	Hall A	20 Tues	1–5 p.m.	
569	Adolescent Development: Animal Models	Poster	A72-A101	Hall A	20 Tues	1–5 p.m.	
570	Adolescent Development: Human Imaging	Poster	A102-B22	Hall A	20 Tues	1–5 p.m.	
639	The Genetic Logic of Synapse Formation and Axon Regeneration	Special Lecture		Hall B1	21 Wed	8:30–9:40 a.m.	1.25
658	Adult Neurogenesis	Poster	A1-A11	Hall A	21 Wed	8 a.m.–noon	
659	Cell Fate Mechanisms	Poster	A12-A28	Hall A	21 Wed	8 a.m.–noon	
660	Molecular Mechanisms of Neuronal Identity	Poster	A29-A36	Hall A	21 Wed	8 a.m.–noon	
661	Cell Migration in Neurodevelopment	Poster	A37-A64	Hall A	21 Wed	8 a.m.–noon	
662	Patterning and Cell Death	Poster	A65-A75	Hall A	21 Wed	8 a.m.–noon	
663	Postnatal Neurogenesis: Molecular Mechanisms	Poster	A76-A105	Hall A	21 Wed	8 a.m.–noon	
664	Postnatal Neurogenesis: Environmental and Pharmacologic Regulation	Poster	A106-B26	Hall A	21 Wed	8 a.m.–noon	
665	Induced Pluripotent Stem Cells: Neural Differentiation	Poster	B27-B56	Hall A	21 Wed	8 a.m.–noon	
666	Synapse Refinement	Poster	B57-B66	Hall A	21 Wed	8 a.m.–noon	
752	Modeling Disease with Induced Pluripotent Stem Cells	Poster	A1-A21	Hall A	21 Wed	1–5 p.m.	
753	Development of Motor Systems	Poster	A22-A50	Hall A	21 Wed	1–5 p.m.	
754	Development of Sensory Systems: Vision	Poster	A51-A62	Hall A	21 Wed	1–5 p.m.	
755	Development of Limbic, Olfactory, and Gustatory Systems	Poster	A63-A72	Hall A	21 Wed	1–5 p.m.	
756	Evolution of Development	Poster	A73-A84	Hall A	21 Wed	1–5 p.m.	

SESSION #	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
Theme B: Neural Excitability, Synapses, and Glia: Cellular Mechanisms							
4	Dysregulation of Mechanistic Target of Rapamycin Signaling in Mouse Models of Autism	Symposium		S406A	17 Sat	1:30–4 p.m.	2.5
33	Synaptic Signaling: Retrograde Messengers	Poster	A88-A99	Hall A	17 Sat	1–5 p.m.	
34	Opioid and Peptide Receptors	Poster	A100-B11	Hall A	17 Sat	1–5 p.m.	
35	Sodium Channels, Hearing and Communication Neuroscience, and Other Non-Selective Cation Channels	Poster	B12-B39	Hall A	17 Sat	1–5 p.m.	
36	Presynaptic Structure and Neurotransmitter Release I	Poster	B40-B59	Hall A	17 Sat	1–5 p.m.	
37	Synaptic Organization in Hippocampus	Poster	B60-B71	Hall A	17 Sat	1–5 p.m.	
38	Short-term Plasticity	Poster	B72-B87	Hall A	17 Sat	1–5 p.m.	
102	From Spontaneous Neurotransmitter Release to Rapid Antidepressant Action	Special Lecture		Hall B1	18 Sun	10–11:10 a.m.	1.25
105	Role of Immune System Molecules in Synaptic Plasticity	Nanosymposium		S404	18 Sun	8–11:15 a.m.	
118	Brain Cholinergic Mechanisms	Poster	A52-A71	Hall A	18 Sun	8 a.m.–noon	
119	GPCR I	Poster	A72-A83	Hall A	18 Sun	8 a.m.–noon	
120	Metabotropic Glutamate Receptors and GABAB Receptors	Poster	A84-A106	Hall A	18 Sun	8 a.m.–noon	
121	Potassium Channels I	Poster	A107-B27	Hall A	18 Sun	8 a.m.–noon	
122	Monoamine Transporter	Poster	B28-B53	Hall A	18 Sun	8 a.m.–noon	
123	Other Transporters	Poster	B54-B64	Hall A	18 Sun	8 a.m.–noon	
124	Presynaptic Structure and Neurotransmitter Release II	Poster	B65-B93	Hall A	18 Sun	8 a.m.–noon	
125	Synaptic Modulation	Poster	B94-B109	Hall A	18 Sun	8 a.m.–noon	
126	Cholinergic Modulation	Poster	B110-C7	Hall A	18 Sun	8 a.m.–noon	
127	Signal Propagation	Poster	C8-C35	Hall A	18 Sun	8 a.m.–noon	
128	Astrocytes: Profiling and Modulation	Poster	C36-C61	Hall A	18 Sun	8 a.m.–noon	
187	New Frontiers in Understanding Glia	Symposium		S105	18 Sun	1:30–4 p.m.	2.5
194	Synaptic Plasticity: Mechanisms and Modulation	Nanosymposium		N226	18 Sun	1–3:45 p.m.	
205	Invertebrate Transmitter Signaling	Poster	A52-A62	Hall A	18 Sun	1–5 p.m.	
206	NMDA Receptors I	Poster	A63-A76	Hall A	18 Sun	1–5 p.m.	
207	Non-NMDA Receptors	Poster	A77-A103	Hall A	18 Sun	1–5 p.m.	
208	Potassium Channels II	Poster	A104-B11	Hall A	18 Sun	1–5 p.m.	
209	Synaptic Transmission: Pharmacology	Poster	B12-B33	Hall A	18 Sun	1–5 p.m.	
210	Synaptic transmission: Modulation	Poster	B34-B58	Hall A	18 Sun	1–5 p.m.	
211	Long-Term Depression (LTD)	Poster	B59-B77	Hall A	18 Sun	1–5 p.m.	
212	Spike Timing-Dependent Plasticity (STDP)	Poster	B78-B96	Hall A	18 Sun	1–5 p.m.	
213	Oligodendrocytes: Myelination and Remyelination	Poster	B97-C1	Hall A	18 Sun	1–5 p.m.	
273	New Insights into Signal Generation at the Presynaptic Active Zone	Minisymposium		S105	19 Mon	8:30–11 am.	2.5
279	Transcription and Translation in Plasticity I	Nanosymposium		N230	19 Mon	8–11:30 a.m.	
292	Nicotinic Acetylcholine Receptors: Physiology and Function	Poster	A70-A89	Hall A	19 Mon	8 a.m.–noon	
293	Oscillations and Synchrony: Other I	Poster	A90-B3	Hall A	19 Mon	8 a.m.–noon	
294	Dendritic Excitability and Synaptic Integration	Poster	B4-B25	Hall A	19 Mon	8 a.m.–noon	
295	Astrocyte Cell Biology and Modulation	Poster	B26-B55	Hall A	19 Mon	8 a.m.–noon	
296	Astrocyte-Neuron Interactions I	Poster	B56-B85	Hall A	19 Mon	8 a.m.–noon	
297	Astrocyte-Neuron Interactions II	Poster	B86-B104	Hall A	19 Mon	8 a.m.–noon	

SESSION #	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
298	Microglia	Poster	B105-C13	Hall A	19 Mon	8 a.m.–noon	
362	Advanced Molecular Imaging of Synapses in Health and Disease	Symposium		S406A	19 Mon	1:30–4 p.m.	2.5
369	Presynaptic Structure and Neurotransmitter Release III	Nanosymposium		S405	19 Mon	1–3:30 p.m.	
382	Synaptic Structure and Glutamate Receptors	Poster	A64-A79	Hall A	19 Mon	1–5 p.m.	
383	NMDA II	Poster	A80-A104	Hall A	19 Mon	1–5 p.m.	
384	Calcium Channels I	Poster	A105-B11	Hall A	19 Mon	1–5 p.m.	
385	Calcium Channels II	Poster	B12-B27	Hall A	19 Mon	1–5 p.m.	
386	Glutamate Transporters	Poster	B28-B46	Hall A	19 Mon	1–5 p.m.	
387	Monoaminergic Transmission	Poster	B47-B69	Hall A	19 Mon	1–5 p.m.	
388	Monoaminergic Signaling	Poster	B70-B79	Hall A	19 Mon	1–5 p.m.	
389	Homeostatic Plasticity I	Poster	B80-B107	Hall A	19 Mon	1–5 p.m.	
390	Synaptic Structure	Poster	B108-C24	Hall A	19 Mon	1–5 p.m.	
391	Synaptic and Other Structural Plasticity	Poster	C25-C48	Hall A	19 Mon	1–5 p.m.	
392	Transcription and Translation in Plasticity II	Poster	C49-C72	Hall A	19 Mon	1–5 p.m.	
393	Oscillations and Synchrony: Other II	Poster	C73-D5	Hall A	19 Mon	1–5 p.m.	
394	Schwann Cells and Peripheral Nerve	Poster	D6-D21	Hall A	19 Mon	1–5 p.m.	
452	Strange Synapses and Circuits of the Basal Ganglia	Special Lecture		Hall B1	20 Tues	8:30–9:40 a.m.	1.25
476	Opiate, Cytokines, and Other Neuropeptides	Poster	A68-A76	Hall A	20 Tues	8 a.m.–noon	
477	GABAA Receptors	Poster	A77-A104	Hall A	20 Tues	8 a.m.–noon	
478	Ion Channels	Poster	A105-B13	Hall A	20 Tues	8 a.m.–noon	
479	Oscillations and Synchrony: EEG Studies	Poster	B14-B42	Hall A	20 Tues	8 a.m.–noon	
480	Neural Oscillators and Activity-Dependent Plasticity of Intrinsic Membrane Properties	Poster	B43-B52	Hall A	20 Tues	8 a.m.–noon	
481	Oligodendrocytes and Progenitor Biology	Poster	B53-B69	Hall A	20 Tues	8 a.m.–noon	
545	Inhibition and Excitation in the Cerebellar Nuclei	Special Lecture		Hall B1	20 Tues	1–2:10 p.m.	1.25
555	Sigma Receptors: Emerging Roles in Health and Disease	Nanosymposium		S405	20 Tues	1–3:15 p.m.	
571	Amino Acids	Poster	B23-B33	Hall A	20 Tues	1–5 p.m.	
572	Neurotrophins	Poster	B34-B55	Hall A	20 Tues	1–5 p.m.	
573	Long-Term Potentiation Signaling Mechanisms I	Poster	B56-B73	Hall A	20 Tues	1–5 p.m.	
574	Homeostatic Plasticity II	Poster	B74-B87	Hall A	20 Tues	1–5 p.m.	
575	The Dynamic Synapse	Poster	B88-B102	Hall A	20 Tues	1–5 p.m.	
576	Oscillations and Synchrony: Unit Studies	Poster	B103-C1	Hall A	20 Tues	1–5 p.m.	
577	Modulation of Neuronal Firing Properties I	Poster	C2-C18	Hall A	20 Tues	1–5 p.m.	
578	Glia, *In Vivo* Approaches	Poster	C19-C30	Hall A	20 Tues	1–5 p.m.	
667	Nicotinic Acetylcholine Receptors: Structure and Function	Poster	B67-B86	Hall A	21 Wed	8 a.m.–noon	
668	Nicotinic Acetylcholine Receptors: Structure and Pharmacology	Poster	B87-B96	Hall A	21 Wed	8 a.m.–noon	
669	Ligand Gated Ion Channels: Glycine and 5-Hydroxytryptamine Receptors	Poster	B97-B106	Hall A	21 Wed	8 a.m.–noon	
670	GABAergic Synapses	Poster	B107-C7	Hall A	21 Wed	8 a.m.–noon	
671	Long-Term Potentiation Signaling Mechanisms II	Poster	C8-C33	Hall A	21 Wed	8 a.m.–noon	
672	Modulation of Neuronal Firing Properties II	Poster	C34-C58	Hall A	21 Wed	8 a.m.–noon	
740	Emerging Insight Into the Critical Role of Astrocyte Ion Channels in Homeostasis and Neuron-Glia Signaling	Minisymposium		S105	21 Wed	1:30–4 p.m.	2.5
742	Structural Plasticity	Nanosymposium		N230	21 Wed	1–3:30 p.m.	
757	GPCR II	Poster	A85-A107	Hall A	21 Wed	1–5 p.m.	

SESSION #	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
758	GABAergic Synapses and Inhibitory Transmission	Poster	A108-B9	Hall A	21 Wed	1–5 p.m.	
759	Synaptic Integration	Poster	B10-B25	Hall A	21 Wed	1–5 p.m.	
760	Neuron-glia Interactions	Poster	B26-B46	Hall A	21 Wed	1–5 p.m.	
Theme C: Disorders of the Nervous System							
3	How Does the Brain Implement Adaptive Decision Making to Eat?	Symposium		S100B	17 Sat	1:30–4 p.m.	2.5
5	Epigenetic Landscape of Stress and Addiction: Novel Therapeutic Possibilities	Minisymposium		S105	17 Sat	1:30–4 p.m.	2.5
7	Axonal Transport Defects in Neurodegenerative Diseases: Mechanisms and Molecular Components Involved	Minisymposium		S406B	17 Sat	1:30–4 p.m.	2.5
11	Alzheimer's Disease: Experimental Therapeutics	Nanosymposium		S403	17 Sat	1–4:15 p.m.	
12	Therapeutics of Parkinson's Disease: Clinical Studies	Nanosymposium		N230	17 Sat	1–3:30 p.m.	
13	Rett Syndrome	Nanosymposium		S102	17 Sat	1–3 p.m.	
39	Neuroinflammation and Alzheimer's Disease	Poster	B88-C5	Hall A	17 Sat	1–5 p.m.	
40	Alzheimer's Disease: Beyond Abeta and Tau	Poster	C6-C34	Hall A	17 Sat	1–5 p.m.	
41	Mechanisms of Cell Death and Dysfunction in Parkinson's Disease	Poster	C35-C57	Hall A	17 Sat	1–5 p.m.	
42	Huntington's Disease Clinical	Poster	C58-C69	Hall A	17 Sat	1–5 p.m.	
43	Traumatic Brain Injury: Cellular and Molecular Mechanisms	Poster	C70-D3	Hall A	17 Sat	1–5 p.m.	
44	Traumatic Brain Injury: Human Studies I	Poster	D4-D14	Hall A	17 Sat	1–5 p.m.	
45	Traumatic Brain Injury: Therapeutic Strategies I	Poster	D15-D27	Hall A	17 Sat	1–5 p.m.	
46	Spinal Cord Injury: Restorative Therapeutic Strategies	Poster	D28-D40	Hall A	17 Sat	1–5 p.m.	
47	HIV Neuroinflammation	Poster	D41-E22	Hall A	17 Sat	1–5 p.m.	
48	Schizophrenia: Developmental Animal Models	Poster	E23-F1	Hall A	17 Sat	1–5 p.m.	
49	Schizophrenia: Molecular and Cellular Mechanisms	Poster	F2-F15	Hall A	17 Sat	1–5 p.m.	
50	Alcohol Seeking, Reward, and Relapse	Poster	F16-F36	Hall A	17 Sat	1–5 p.m.	
51	Cocaine: Neural Mechanisms of Reinforcement and Relapse I	Poster	F37-G19	Hall A	17 Sat	1–5 p.m.	
52	Learning, Memory, Dependence, and Addiction	Poster	G20-G41	Hall A	17 Sat	1–5 p.m.	
53	Neurodegeneration Drug Discovery: Other	Poster	G42-H23	Hall A	17 Sat	1–5 p.m.	
54	Neurodegeneration Drug Discovery	Poster	H24-I1	Hall A	17 Sat	1–5 p.m.	
55	Neurodegeneration Drug Discovery: AD, PD, and Gene Therapy	Poster	I2-I22	Hall A	17 Sat	1–5 p.m.	
56	Pain, Headache and Migraine	Poster	I23-I42	Hall A	17 Sat	1–5 p.m.	
99	Transcriptomic Approaches to Neural Regeneration	Minisymposium		S105	18 Sun	8:30–11 am.	2.5
103	SfN Clinical Neuroscience Lecture: Neurotrophin Signaling and Epileptogenesis: Mechanistic and Therapeutic Insights	Special Lecture		Hall B1	18 Sun	11:30 a.m.–12:40 p.m.	1.25
106	Tauopathy and Dementia	Nanosymposium		S403	18 Sun	8–10 a.m.	
107	Cell Dysfunction and Degeneration in Parkinson's Disease	Nanosymposium		N230	18 Sun	8–10:45 a.m.	
108	Molecular Mechanisms Associated with Ischemia	Nanosymposium		S401	18 Sun	8–10 a.m.	
109	Stress and Anxiety	Nanosymposium		S102	18 Sun	8–11:30 a.m.	
129	Brain Wellness	Poster	C62-C83	Hall A	18 Sun	8 a.m.–noon	
130	Alzheimer's Disease: *In Vivo* Experimental Therapeutics	Poster	C84-D8	Hall A	18 Sun	8 a.m.–noon	
131	Alzheimer's Disease: Synaptic and Neuronal Dysfunction	Poster	D9-D31	Hall A	18 Sun	8 a.m.–noon	
132	Parkinson's Models	Poster	D32-E13	Hall A	18 Sun	8 a.m.–noon	

SESSION #	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
133	Gait Disturbances and Freezing	Poster	E14-E29	Hall A	18 Sun	8 a.m.–noon	
134	Therapeutics of Parkinson's Disease: Preclinical Studies	Poster	E30-F7	Hall A	18 Sun	8 a.m.–noon	
135	Non-Huntington's Disease Ataxias and Other Repeat Diseases	Poster	F8-F19	Hall A	18 Sun	8 a.m.–noon	
136	Ischemia: Perinatal	Poster	F20-F29	Hall A	18 Sun	8 a.m.–noon	
137	Sensory Disorders: Auditory	Poster	F30-F43	Hall A	18 Sun	8 a.m.–noon	
138	Sensory Disorders: Visual System	Poster	F44-G9	Hall A	18 Sun	8 a.m.–noon	
139	Major Mental Disorders: Imaging	Poster	G10-G34	Hall A	18 Sun	8 a.m.–noon	
140	Role of the Habenula in Drug Addiction	Poster	G35-H3	Hall A	18 Sun	8 a.m.–noon	
141	Alcohol: Molecular Mechanisms	Poster	H4-H32	Hall A	18 Sun	8 a.m.–noon	
142	Nicotine: Neural Mechanisms	Poster	H33-I7	Hall A	18 Sun	8 a.m.–noon	
143	Nicotine Seeking, Reward, and Relapse	Poster	I8-I37	Hall A	18 Sun	8 a.m.–noon	
144	Cocaine: Neural Mechanisms of Reinforcement and Relapse II	Poster	I38-J12	Hall A	18 Sun	8 a.m.–noon	
145	Perinatal Brain Injury: Acute Therapy	Poster	J13-J28	Hall A	18 Sun	8 a.m.–noon	
185	Human iPSC Derived Cells for Modeling Neurodegenerative Disease and Drug Discovery	Symposium		S100A	18 Sun	1:30–4 p.m.	2.5
195	Alzheimer's Disease: Synaptic and Neuronal Dysfunction	Nanosymposium		S401	18 Sun	1–4 p.m.	
214	Amyloid Precursor Protein Processing and Abeta Toxicity	Poster	C2-C25	Hall A	18 Sun	1–5 p.m.	
215	Alzheimer's Disease: Amyloid Precursor Protein Function and Processing	Poster	C26-C43	Hall A	18 Sun	1–5 p.m.	
216	Alzheimer's Disease: *In vitro* and *In Vivo* Experimental Therapeutics	Poster	C44-C60	Hall A	18 Sun	1–5 p.m.	
217	Therapeutics of Parkinson's Disease: Target Validation	Poster	C61-C83	Hall A	18 Sun	1–5 p.m.	
218	Mitochondrial and Other Neuronal-Glial Mechanisms in Parkinson's Disease	Poster	C84-D9	Hall A	18 Sun	1–5 p.m.	
219	Motor Neuron Disease	Poster	D10-D39	Hall A	18 Sun	1–5 p.m.	
220	Aging: Metabolism, Diet, and Oxidative Stress	Poster	D40-E19	Hall A	18 Sun	1–5 p.m.	
221	Genetic Models of Autism Spectrum Disorder	Poster	E20-F17	Hall A	18 Sun	1–5 p.m.	
223	Demyelinating Disorders: Human and Animal Studies	Poster	F18-G2	Hall A	18 Sun	1–5 p.m.	
224	Demyelinating Disorders: Animal Studies	Poster	G3-G32	Hall A	18 Sun	1–5 p.m.	
225	Traumatic Brain Injury: Human Studies II	Poster	G33-H10	Hall A	18 Sun	1–5 p.m.	
226	Spinal Cord Injury: Restorative Strategies	Poster	H11-H40	Hall A	18 Sun	1–5 p.m.	
227	Psychosis: Mechanism	Poster	H41-I11	Hall A	18 Sun	1–5 p.m.	
228	Stroke Imaging and Diagnostic Studies	Poster	I12-I41	Hall A	18 Sun	1–5 p.m.	
272	Chaperones in Neurodegeneration	Minisymposium		S406A	19 Mon	8:30–11 am.	2.5
280	Alzheimer's Disease: Beyond Abeta and Tau	Nanosymposium		N226	19 Mon	8–10:45 a.m.	
281	Mechanisms of Epilepsy	Nanosymposium		S403	19 Mon	8–11:15 a.m.	
282	Neuropathology: Mechanisms and Biomarkers	Nanosymposium		S102	19 Mon	8–10:45 a.m.	
299	Neuropharmacology and Neurotransmission in Dementia	Poster	C14-C33	Hall A	19 Mon	8 a.m.–noon	
300	Synaptic Pathology in Alzheimer's Disease	Poster	C34-C56	Hall A	19 Mon	8 a.m.–noon	
301	Alpha-Synuclein, LRRK2, and Other Molecular Mechanisms: Human Studies	Poster	C57-C82	Hall A	19 Mon	8 a.m.–noon	
302	Circuit Mechanisms in Parkinson's Disease	Poster	C83-D3	Hall A	19 Mon	8 a.m.–noon	

SESSION #	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
303	Huntington's Disease *In Vivo*	Poster	D4-D29	Hall A	19 Mon	8 a.m.–noon	
304	Frontotemporal Dementia and Other Neurodegenerative Disease	Poster	D30-E11	Hall A	19 Mon	8 a.m.–noon	
305	Aging: Animal and Cellular Models	Poster	E12-E40	Hall A	19 Mon	8 a.m.–noon	
306	Behavioral Analyses in Autism Spectrum Disorder	Poster	E41-F22	Hall A	19 Mon	8 a.m.–noon	
307	Ischemia: Molecular Mechanisms and Neuroprotection	Poster	F23-G6	Hall A	19 Mon	8 a.m.–noon	
308	Ischemia: Human and Translational Studies and Cell-Based Therapies	Poster	G7-G17	Hall A	19 Mon	8 a.m.–noon	
309	Traumatic Brain Injury: Therapeutic Strategies II	Poster	G18-G43	Hall A	19 Mon	8 a.m.–noon	
310	Spinal Cord Injury: Animal Models and Human Studies	Poster	G44-H29	Hall A	19 Mon	8 a.m.–noon	
311	Major Mental Disorders: Clinical Studies	Poster	H30-I3	Hall A	19 Mon	8 a.m.–noon	
312	Major Mental Disorders: Human Postmortem Studies	Poster	I4-I25	Hall A	19 Mon	8 a.m.–noon	
313	Mechanisms of Withdrawal from Alcohol, Nicotine and Morphine	Poster	I26-I44	Hall A	19 Mon	8 a.m.–noon	
314	Alcohol and Stress	Poster	I45-J10	Hall A	19 Mon	8 a.m.–noon	
315	Cocaine: Mechanisms of Reinforcement and Relapse	Poster	J11-J30	Hall A	19 Mon	8 a.m.–noon	
316	Amphetamine and Related drugs: Neural Mechanisms of Addiction	Poster	J31-K5	Hall A	19 Mon	8 a.m.–noon	
317	Amphetamines and Cocaine	Poster	K6-K26	Hall A	19 Mon	8 a.m.–noon	
318	Cannabinoids	Poster	K27-K41	Hall A	19 Mon	8 a.m.–noon	
319	Opioids	Poster	K42-L18	Hall A	19 Mon	8 a.m.–noon	
320	Striatal Plasticity in Addiction	Poster	L19-L42	Hall A	19 Mon	8 a.m.–noon	
321	Cortical Plasticity in Addiction	Poster	L43-M12	Hall A	19 Mon	8 a.m.–noon	
322	Behavioral Pharmacology and Modeling in Addiction	Poster	M13-M28	Hall A	19 Mon	8 a.m.–noon	
323	Neuropeptides and Behavior	Poster	M29-M41	Hall A	19 Mon	8 a.m.–noon	
324	Stroke Recovery	Poster	M4-N23	Hall A	19 Mon	8 a.m.–noon	
361	Rethinking Dogma in Thalamocortical Epilepsies	Symposium		S100B	19 Mon	1:30–4 p.m.	2.5
363	New Perspectives for the Rescue of Cognitive Disability in Down Syndrome	Minisymposium		S105	19 Mon	1:30–4 p.m.	2.5
370	Structural and Signaling Changes in Aging and Alzheimer's Disease	Nanosymposium		N426A	19 Mon	1–3:45 p.m.	
371	Alpha-Synuclein, LRRK2, and Other Molecular Mechanisms in Parkinson's Disease	Nanosymposium		N230	19 Mon	1–4:30 p.m.	
395	Therapeutic Strategies for Alzheimer's Disease	Poster	D22-D40	Hall A	19 Mon	1–5 p.m.	
396	Neuroinflammation, Immunity, and Alzheimer's Disease	Poster	D41-E9	Hall A	19 Mon	1–5 p.m.	
397	Deep Brain Stimulation Mechanisms and Treatments in Parkinson's Disease	Poster	E10-E23	Hall A	19 Mon	1–5 p.m.	
398	Connectivity, Physiologic Mechanisms and Computational Models of Parkinson's Disease	Poster	E24-F1	Hall A	19 Mon	1–5 p.m.	
399	Huntington's Disease: *In Vivo* and Methods	Poster	F2-F26	Hall A	19 Mon	1–5 p.m.	
400	Ataxias	Poster	F27-G4	Hall A	19 Mon	1–5 p.m.	
401	Human Aging	Poster	G5-G15	Hall A	19 Mon	1–5 p.m.	
402	Cellular Mechanisms Associated with Ischemia	Poster	G16-G37	Hall A	19 Mon	1–5 p.m.	
403	Ischemia: Recovery	Poster	G38-H22	Hall A	19 Mon	1–5 p.m.	
404	Ischemia: *In Vivo* Studies	Poster	H23-I3	Hall A	19 Mon	1–5 p.m.	
405	Traumatic Brain Injury: Human Studies III	Poster	I4-I23	Hall A	19 Mon	1–5 p.m.	
406	Peripheral Nerve Injury	Poster	I24-J2	Hall A	19 Mon	1–5 p.m.	
407	Cell Death Mechanisms: Excitotoxicity and Calcium	Poster	J3-J13	Hall A	19 Mon	1–5 p.m.	

SESSION #	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
408	Psychosis: Genomics	Poster	J14-J31	Hall A	19 Mon	1–5 p.m.	
409	Mood Disorders: Biomarkers and Therapeutics	Poster	J32-K13	Hall A	19 Mon	1–5 p.m.	
410	Mood Disorders: Preclinical Models	Poster	K14-K42	Hall A	19 Mon	1–5 p.m.	
411	Cocaine: Self-Administration and Other Behavioral Studies	Poster	L1-L25	Hall A	19 Mon	1–5 p.m.	
412	Amphetamine and Related Drugs: Reinforcement and Relapse	Poster	L26-M5	Hall A	19 Mon	1–5 p.m.	
455	Modern Approaches Toward More Predictive Mouse Models of Neurodegenerative Diseases	Minisymposium		S406A	20 Tues	8:30–11 am.	2.5
457	Mood and Reward Networks in Chronic Pain Conditions	Minisymposium		S103	20 Tues	8:30–11 am.	2.5
461	Alzheimer's Disease: Risk Factors	Nanosymposium		S403	20 Tues	8–11 a.m.	
462	Imaging and Biomarkers in Neurodegenerative Disease	Nanosymposium		N226	20 Tues	8–11:30 a.m.	
463	Therapeutics of Parkinson's Disease: Preclinical Studies	Nanosymposium		N230	20 Tues	8–10:15 a.m.	
464	Neuroprotection: *In Vivo* Studies	Nanosymposium		N426A	20 Tues	8–10:45 a.m.	
465	Stress and Anxiety: Animal Models	Nanosymposium		S102	20 Tues	8–11:15 a.m.	
482	Alzheimer's Disease: Risk Factors and Biomarkers	Poster	B70-B98	Hall A	20 Tues	8 a.m.–noon	
483	Alzheimer's Disease: Tau	Poster	B99-C8	Hall A	20 Tues	8 a.m.–noon	
484	Abeta Toxicity	Poster	C9-C38	Hall A	20 Tues	8 a.m.–noon	
485	Alzheimer's disease: The Secretases	Poster	C39-C54	Hall A	20 Tues	8 a.m.–noon	
486	Tau and Tauopathies	Poster	C55-C79	Hall A	20 Tues	8 a.m.–noon	
487	Molecular and Protein Abnormalities in Neurodegeneration	Poster	C80-D3	Hall A	20 Tues	8 a.m.–noon	
488	Network Oscillations in Parkinson's Disease: Human Studies	Poster	D4-D26	Hall A	20 Tues	8 a.m.–noon	
489	Huntington's Disease Mechanisms I	Poster	D27-E1	Hall A	20 Tues	8 a.m.–noon	
490	Autism Spectrum Disorder Models: Novel and Emerging	Poster	E2-E18	Hall A	20 Tues	8 a.m.–noon	
491	Fragile X Syndrome	Poster	E19-E43	Hall A	20 Tues	8 a.m.–noon	
492	Epilepsy Network and Synaptic Mechanisms	Poster	E44-F17	Hall A	20 Tues	8 a.m.–noon	
493	Human Clinical Neurophysiology	Poster	F18-F31	Hall A	20 Tues	8 a.m.–noon	
494	Epilepsy Mechanisms	Poster	F32-G14	Hall A	20 Tues	8 a.m.–noon	
495	*In Vivo* and *In vitro* Models of Acute and Chronic Seizures	Poster	G15-G44	Hall A	20 Tues	8 a.m.–noon	
496	Antiseizure Therapies	Poster	H1-H12	Hall A	20 Tues	8 a.m.–noon	
497	Anticonvulsant Pharmacological Therapies	Poster	H13-H40	Hall A	20 Tues	8 a.m.–noon	
498	Human Epilepsy	Poster	H41-I9	Hall A	20 Tues	8 a.m.–noon	
499	Ischemia: Inflammation	Poster	I10-I34	Hall A	20 Tues	8 a.m.–noon	
500	Traumatic Brain Injury: Therapeutic Strategies III	Poster	I35-J9	Hall A	20 Tues	8 a.m.–noon	
501	Cell Death Mechanisms: Oxidative Stress	Poster	J10-J28	Hall A	20 Tues	8 a.m.–noon	
502	Major Mental Disorders: Experimental Therapeutics	Poster	J29-J47	Hall A	20 Tues	8 a.m.–noon	
503	Cognition and Anxiety: Human Studies	Poster	J48-K19	Hall A	20 Tues	8 a.m.–noon	
504	Mood Disorders Animal Models I	Poster	K20-L4	Hall A	20 Tues	8 a.m.–noon	
505	Mood Disorders Animal Models II	Poster	L5-L33	Hall A	20 Tues	8 a.m.–noon	
506	Cocaine: Reward, Sensitization, and Locomotion	Poster	L34-M13	Hall A	20 Tues	8 a.m.–noon	
547	Novel Ideas and Tools to Enhance the Neurobiological Study of Drug Addiction with an Eye Toward Intervention Development and Biomarker Identification	Symposium		S100B	20 Tues	1:30–4 p.m.	2.5
551	Redox Signaling in Neurological Dysfunction	Minisymposium		S406B	20 Tues	1:30–4 p.m.	2.5

SESSION #	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
556	Huntington's Disease Mechanisms II	Nanosymposium		N426A	20 Tues	1–4:15 p.m.	
557	Motor Neuron Disease	Nanosymposium		N230	20 Tues	1–4 p.m.	
558	Major Mental Disorders: Novel Approaches for Patient Evaluation	Nanosymposium		S102	20 Tues	1–3:30 p.m.	
559	Mood Disorders: Preclinical Models and Therapeutic Approaches	Nanosymposium		S403	20 Tues	1–4:30 p.m.	
560	Stroke Recovery	Nanosymposium		S404	20 Tues	1–3 p.m.	
579	Tau in Cellular and Biochemical Models	Poster	C31-C59	Hall A	20 Tues	1–5 p.m.	
580	Amyloid Precursor Protein: Apolipoprotein E and Cholesterol	Poster	C60-C80	Hall A	20 Tues	1–5 p.m.	
581	Human Imaging Studies in Parkinson's Disease	Poster	C81-D12	Hall A	20 Tues	1–5 p.m.	
582	Therapeutics of Parkinson's Disease: Clinical Studies	Poster	D13-D26	Hall A	20 Tues	1–5 p.m.	
583	Dystonia and Parkinson's Disease	Poster	D27-E3	Hall A	20 Tues	1–5 p.m.	
584	Autism: Synaptic and Cellular Mechanisms I	Poster	E4-E24	Hall A	20 Tues	1–5 p.m.	
585	Autism: Environment and Pathology	Poster	E25-E40	Hall A	20 Tues	1–5 p.m.	
586	Rett Syndrome	Poster	E41-F15	Hall A	20 Tues	1–5 p.m.	
587	Mechanisms of Epilepsy Poster Session	Poster	F16-F35	Hall A	20 Tues	1–5 p.m.	
588	Animal Models of Epilepsy: Comorbidities	Poster	F36-G10	Hall A	20 Tues	1–5 p.m.	
589	Traumatic Brain Injury: Animal Models I	Poster	G11-G37	Hall A	20 Tues	1–5 p.m.	
590	Spinal Cord Injury: Therapeutic Strategies	Poster	G38-H23	Hall A	20 Tues	1–5 p.m.	
591	Cell Death Mechanisms: Apoptosis and Mitochondria	Poster	H24-H35	Hall A	20 Tues	1–5 p.m.	
592	Neuro-Oncology I	Poster	H36-I16	Hall A	20 Tues	1–5 p.m.	
593	Schizophrenia: Circuitry Models	Poster	I17-I29	Hall A	20 Tues	1–5 p.m.	
594	Alcohol: Effects of Prenatal Exposure	Poster	I30-J3	Hall A	20 Tues	1–5 p.m.	
595	Drug Delivery	Poster	J4-J13	Hall A	20 Tues	1–5 p.m.	
641	Adolescent Alcohol Exposure: Long-Term Neurobiological and Behavioral Consequences	Symposium		S105	21 Wed	8:30–11 a.m.	2.5
645	Striatal Synaptic Dysfunction in Parkinson's and Huntington's Diseases	Special Lecture		Hall B1	21 Wed	10–11:10 a.m.	1.25
647	Parkinson's Disease: Rodent Models I	Nanosymposium		S405	21 Wed	8–11:30 a.m.	
648	Ataxias and Non-Huntington's Disease Neurodegenerative Diseases	Nanosymposium		N426A	21 Wed	8–11:15 a.m.	
649	Ischemia: Cellular Mechanisms	Nanosymposium		S404	21 Wed	8–11 a.m.	
650	Spinal Cord Injury: Therapeutic Strategies	Nanosymposium		S102	21 Wed	8–10:45 a.m.	
651	Neurodegeneration Drug Discovery: Gene Therapy and others	Nanosymposium		S403	21 Wed	8–11:15 a.m.	
673	Alzheimer's Disease: Animal Models	Poster	C59-C74	Hall A	21 Wed	8 a.m.–noon	
674	Alzheimer's Disease: Neurodegeneration	Poster	C75-C84	Hall A	21 Wed	8 a.m.–noon	
675	Alzheimer's Disease: Clinical Detection and Biomarkers	Poster	C85-D7	Hall A	21 Wed	8 a.m.–noon	
676	Parkinson's Disease: Rodent Models II	Poster	D8-D35	Hall A	21 Wed	8 a.m.–noon	
677	Alpha-Synuclein Mechanisms in Parkinson's Disease	Poster	D36-E10	Hall A	21 Wed	8 a.m.–noon	
678	Therapeutics of Parkinson's Disease: Neuroprotection	Poster	E11-E36	Hall A	21 Wed	8 a.m.–noon	
679	Autism: Synaptic and Cellular Mechanisms II	Poster	E37-F9	Hall A	21 Wed	8 a.m.–noon	
680	Autism: Physiology and Systems	Poster	F10-F34	Hall A	21 Wed	8 a.m.–noon	
681	Down Syndrome	Poster	F35-G7	Hall A	21 Wed	8 a.m.–noon	
682	Developmental Disorders: Angelman's	Poster	G8-G22	Hall A	21 Wed	8 a.m.–noon	
683	Developmental Disorders: Other	Poster	G23-H8	Hall A	21 Wed	8 a.m.–noon	
684	Developmental Disorders: Animal Models I	Poster	H9-H33	Hall A	21 Wed	8 a.m.–noon	

SESSION #	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
685	Developmental Disorders: Animal Models II	Poster	H34-I6	Hall A	21 Wed	8 a.m.–noon	
686	Developmental Disorders: Animal Models III	Poster	I7-I32	Hall A	21 Wed	8 a.m.–noon	
687	Ischemia and Hemorrhage: Animal Models	Poster	I33-J12	Hall A	21 Wed	8 a.m.–noon	
688	Traumatic Brain Injury: Animal Models II	Poster	J13-J41	Hall A	21 Wed	8 a.m.–noon	
689	Neurotoxicity: Protective Mechanisms	Poster	J42-K23	Hall A	21 Wed	8 a.m.–noon	
690	Models of Neurodegeneration	Poster	K24-L6	Hall A	21 Wed	8 a.m.–noon	
691	Oxidative Stress-Induced and Other Mechanisms of Neurodegeneration	Poster	L7-L23	Hall A	21 Wed	8 a.m.–noon	
692	Methamphetamine and Drug Induced Toxicity	Poster	L24-M9	Hall A	21 Wed	8 a.m.–noon	
693	Somatosensory and Pain Disorders	Poster	M10-M38	Hall A	21 Wed	8 a.m.–noon	
694	Fear and Anxiety: Behavior	Poster	M39-N11	Hall A	21 Wed	8 a.m.–noon	
695	Alcohol: Neural Mechanisms	Poster	N12-N41	Hall A	21 Wed	8 a.m.–noon	
696	Genetics of Addiction	Poster	N42-O6	Hall A	21 Wed	8 a.m.–noon	
738	Corticospinal Motor Neurons in Health and Disease	Minisymposium		S100B	21 Wed	1:30–4 p.m.	2.5
743	Traumatic Brain Injury: Cellular and Mechanisms	Nanosymposium		S403	21 Wed	1–4 p.m.	
744	Perioperative Neurotoxicty	Nanosymposium		S404	21 Wed	1–4:15 p.m.	
745	New Findings in Neural Mechanism of Addiction	Nanosymposium		S401	21 Wed	1–3:15 p.m.	
761	Alzheimer's Neurodegeneration: Animal Models	Poster	B47-B75	Hall A	21 Wed	1–5 p.m.	
762	Parkinson's Disease: Rodent Models III	Poster	B76-B101	Hall A	21 Wed	1–5 p.m.	
763	LRRK2 and Other Mechanisms in Parkinson's Disease	Poster	B102-C14	Hall A	21 Wed	1–5 p.m.	
764	Neuroprotective Mechanisms in Parkinson's Disease	Poster	C15-C39	Hall A	21 Wed	1–5 p.m.	
765	Epilepsy Genetics and Seizure Dynamics	Poster	C40-C53	Hall A	21 Wed	1–5 p.m.	
766	Epilepsy Networks and Channels	Poster	C54-C78	Hall A	21 Wed	1–5 p.m.	
767	Neurotoxicity: Neuroprotective Mechanisms	Poster	C79-D7	Hall A	21 Wed	1–5 p.m.	
768	Cellular Mechanisms of Degeneration and Inflammation in Models of Neurodegenerative Disease	Poster	D8-D19	Hall A	21 Wed	1–5 p.m.	
769	Neuro-Oncology II	Poster	D20-D33	Hall A	21 Wed	1–5 p.m.	
770	Psychosis: Animal Models	Poster	D34-E15	Hall A	21 Wed	1–5 p.m.	
771	Psychosis: Biochemistry	Poster	E16-E42	Hall A	21 Wed	1–5 p.m.	
772	Schizophrenia: Antipsychotics	Poster	E43-F18	Hall A	21 Wed	1–5 p.m.	
773	Mood Disorders: Antidepressants I	Poster	F19-G4	Hall A	21 Wed	1–5 p.m.	
774	Mood Disorders: Antidepressants II	Poster	G5-G29	Hall A	21 Wed	1–5 p.m.	
775	Antidepressants: Animal Models	Poster	G30-H4	Hall A	21 Wed	1–5 p.m.	
776	Mood Disorders: Antidepressant III	Poster	H5-H32	Hall A	21 Wed	1–5 p.m.	
777	Alcohol and Cannabis: Effects of Exposure During Adolescence	Poster	H33-I4	Hall A	21 Wed	1–5 p.m.	
778	Cocaine: Cellular and Synaptic Studies	Poster	I5-I25	Hall A	21 Wed	1–5 p.m.	
779	Amphetamines: Mechanisms of Addiction and Sensitization	Poster	I26-I46	Hall A	21 Wed	1–5 p.m.	
780	Translational Studies of Treatments for Addiction	Poster	I47-J16	Hall A	21 Wed	1–5 p.m.	
781	Hedonia, Feeding, and Addictive Drugs	Poster	J17-J31	Hall A	21 Wed	1–5 p.m.	
782	Monoaminergic Plasticity in Addiction	Poster	J32-K1	Hall A	21 Wed	1–5 p.m.	
783	Adolescence and Addiction	Poster	K2-K17	Hall A	21 Wed	1–5 p.m.	
784	Monoamines and Behavior: Serotonin and Histamine	Poster	K18-K27	Hall A	21 Wed	1–5 p.m.	
785	Monoamines and Behavior: Dopamine and Norepinephrine	Poster	K28-L1	Hall A	21 Wed	1–5 p.m.	

SESSION #	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
Theme D: Sensory and Motor Systems							
6	Dorsal Striatum: From Microcircuits and Modulation to *In Vivo* Function	Minisymposium		S103	17 Sat	1:30–4 p.m.	2.5
14	Auditory System: Sensory Transduction and Hair Cell Differentiation	Nanosymposium		S402	17 Sat	1–2:45 p.m.	
15	Insula: Somatotopy, Emotion, and Cognition	Nanosymposium		S401	17 Sat	1–2:45 p.m.	
16	Oral Motor and Speech	Nanosymposium		N226	17 Sat	1–4 p.m.	
57	Auditory Processing: Adaptation, Learning, and Memory	Poster	I43-J11	Hall A	17 Sat	1–5 p.m.	
58	Retina: Photoreceptors	Poster	J12-J35	Hall A	17 Sat	1–5 p.m.	
59	Population Coding in Striate Cortex	Poster	J36-K9	Hall A	17 Sat	1–5 p.m.	
60	Visual cognition: Decision Making	Poster	K10-K33	Hall A	17 Sat	1–5 p.m.	
61	Eye Movements and Perception	Poster	K34-L8	Hall A	17 Sat	1–5 p.m.	
62	Persistent Pain Treatment	Poster	L9-L31	Hall A	17 Sat	1–5 p.m.	
63	Pain Models: Behavior I	Poster	L32-M14	Hall A	17 Sat	1–5 p.m.	
64	Pain Models: Behavior II	Poster	M15-M36	Hall A	17 Sat	1–5 p.m.	
65	Somatosensory Thalamocortical Processes	Poster	M37-N5	Hall A	17 Sat	1–5 p.m.	
66	Spinal Cord Injury: Neuroplasticity	Poster	N6-N22	Hall A	17 Sat	1–5 p.m.	
67	Reflexes and Reflex Modulation	Poster	N23-O2	Hall A	17 Sat	1–5 p.m.	
68	Motoneuron Disease: Cellular Mechanisms I	Poster	O3-O24	Hall A	17 Sat	1–5 p.m.	
69	Motoneuron Disease	Poster	O25-O47	Hall A	17 Sat	1–5 p.m.	
70	Gait and Posture: Afferent Control	Poster	O48-P12	Hall A	17 Sat	1–5 p.m.	
71	Cortical Planning and Execution: Electroencephalogram	Poster	P13-P24	Hall A	17 Sat	1–5 p.m.	
72	Cortical Planning and Execution: Neuroimaging	Poster	P25-P41	Hall A	17 Sat	1–5 p.m.	
98	Cellular and Circuit Mechanisms of Multisensory Integration and Plasticity	Symposium		S406A	18 Sun	8:30–11 a.m.	2.5
110	Eye Movements: Visual-Motor Transformations and Updating	Nanosymposium		S402	18 Sun	8–9:45 a.m.	
111	Decoding Brain Machine Interfaces	Nanosymposium		S100B	18 Sun	8–11:15 a.m.	
146	Auditory Temporal, Frequency, and Spectral Processing: Neurophysiology	Poster	J29-K7	Hall A	18 Sun	8 a.m.–noon	
147	Retinal Ganglion Cells: Classification and Responses	Poster	K8-K26	Hall A	18 Sun	8 a.m.–noon	
148	Visual Thalamus	Poster	K27-L12	Hall A	18 Sun	8 a.m.–noon	
149	Visual Processing: Representation of Faces and Bodies	Poster	L13-L37	Hall A	18 Sun	8 a.m.–noon	
150	TrpA1	Poster	L38-M3	Hall A	18 Sun	8 a.m.–noon	
151	Pain: Descending Modulation	Poster	M4-M25	Hall A	18 Sun	8 a.m.–noon	
152	Mechanisms of Neuropathic Pain I	Poster	M26-N7	Hall A	18 Sun	8 a.m.–noon	
153	Diabetic Neuropathy	Poster	N8-N18	Hall A	18 Sun	8 a.m.–noon	
154	Pain Imaging and Perception	Poster	N19-N47	Hall A	18 Sun	8 a.m.–noon	
155	Processing and Modulation of Pain: Neuroimaging, Psychophysiology, and Neurochemistry	Poster	N48-O12	Hall A	18 Sun	8 a.m.–noon	
156	Somatosensory Neural Coding	Poster	O13-O37	Hall A	18 Sun	8 a.m.–noon	
157	Spinal Cord Injury: Motoneuron Excitability	Poster	O38-O47	Hall A	18 Sun	8 a.m.–noon	
158	Amyotrophic Lateral Sclerosis: Motor Neuron Disease	Poster	O48-P9	Hall A	18 Sun	8 a.m.–noon	
159	Motoneuron Disease: Cellular Mechanisms II	Poster	P10-P37	Hall A	18 Sun	8 a.m.–noon	
160	Motor Unit Recruitment	Poster	P38-Q10	Hall A	18 Sun	8 a.m.–noon	
188	Behavior Diversity in Individuals: Genetic and Circuit Mechanisms	Minisymposium		S406A	18 Sun	1:30–4 p.m.	2.5

SESSION #	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
196	Cortical Visual Representations of Scenes	Nanosymposium		S102	18 Sun	1–3:45 p.m.	
197	Advances in Spinal Cord Injury Research	Nanosymposium		S403	18 Sun	1–3:45 p.m.	
229	Olfaction: Olfactory Bulb	Poster	I42-J12	Hall A	18 Sun	1–5 p.m.	
230	Olfaction: Higher Order Processing	Poster	J13-J28	Hall A	18 Sun	1–5 p.m.	
231	Auditory Processing: Neural Coding, Experiment, and Theory	Poster	J29-K6	Hall A	18 Sun	1–5 p.m.	
232	Striate Cortex: Receptive Field Organization	Poster	K7-K24	Hall A	18 Sun	1–5 p.m.	
233	Extrastriate Cortex: Motion Processing	Poster	K25-K38	Hall A	18 Sun	1–5 p.m.	
234	Eye Movements: Saccades	Poster	K39-L9	Hall A	18 Sun	1–5 p.m.	
235	Vestibular Hair Cells, End Organs, and Nerve	Poster	L10-L19	Hall A	18 Sun	1–5 p.m.	
236	Vestibular Central Physiology, Anatomy, and Behavior	Poster	L20-L31	Hall A	18 Sun	1–5 p.m.	
237	Spinal Cord Processing: Anatomy and Physiology	Poster	L32-M13	Hall A	18 Sun	1–5 p.m.	
238	Visceral Pain	Poster	M14-M31	Hall A	18 Sun	1–5 p.m.	
239	Musculoskeletal Pain	Poster	M32-M41	Hall A	18 Sun	1–5 p.m.	
240	Somatosensory Functional Organization	Poster	M42-N23	Hall A	18 Sun	1–5 p.m.	
241	Spinal Cord Injury and Plasticity	Poster	N24-N43	Hall A	18 Sun	1–5 p.m.	
242	Motor Control: Novel Techniques	Poster	N44-O14	Hall A	18 Sun	1–5 p.m.	
243	Posture: Muscle Activity, Exercise and Biomechanics	Poster	O15-O27	Hall A	18 Sun	1–5 p.m.	
244	Cortical Planning and Execution: Primary Motor Cortex	Poster	O28-P8	Hall A	18 Sun	1–5 p.m.	
271	Retinal Microcircuits for the Computation of Motion Direction: Functional Organization, Development, and Behavior	Symposium		S100B	19 Mon	8:30–11 a.m.	2.5
283	Perception and Auditory Cortex	Nanosymposium		S402	19 Mon	8–10:15 a.m.	
284	Visual Processing: Representation of Faces and Bodies	Nanosymposium		S401	19 Mon	8–10:45 a.m.	
325	Olfactory Receptors and Sensory Detection	Poster	N24-N37	Hall A	19 Mon	8 a.m.–noon	
326	Olfaction: Behavior, Perception, and Neurophysiology	Poster	N38-O5	Hall A	19 Mon	8 a.m.–noon	
327	Taste System	Poster	O6-O24	Hall A	19 Mon	8 a.m.–noon	
328	Auditory Processing: Mechanoreceptors and Cochlea	Poster	O25-O36	Hall A	19 Mon	8 a.m.–noon	
329	Cross-Modal Processing in Humans	Poster	O37-P10	Hall A	19 Mon	8 a.m.–noon	
330	Visual Signals in Retinal Circuits	Poster	P11-P38	Hall A	19 Mon	8 a.m.–noon	
331	Striate Cortex: Population Dynamics and Behavior.	Poster	P39-Q16	Hall A	19 Mon	8 a.m.–noon	
332	Extrastriate Cortex: Representing Objects and Texture	Poster	Q17-R18	Hall A	19 Mon	8 a.m.–noon	
333	Visual Processing: Object and Scene Representation	Poster	R19-S14	Hall A	19 Mon	8 a.m.–noon	
334	Eye Movements: Neurophysiology of Saccades	Poster	S15-T11	Hall A	19 Mon	8 a.m.–noon	
335	Vestibular Perception, Posture, and Spatial Orientation	Poster	T12-U13	Hall A	19 Mon	8 a.m.–noon	
336	Trigeminal Processing	Poster	U14-U32	Hall A	19 Mon	8 a.m.–noon	
337	Spinal Cord Injury I	Poster	U33-V17	Hall A	19 Mon	8 a.m.–noon	
338	Spinal Cord Injury II	Poster	V18-V44	Hall A	19 Mon	8 a.m.–noon	
339	Neuromuscular Disorders	Poster	V45-W25	Hall A	19 Mon	8 a.m.–noon	
340	Basal Ganglia output	Poster	W26-W35	Hall A	19 Mon	8 a.m.–noon	
341	Gait and Posture: Higher Order Control, Multi-Task Integration and Theory	Poster	W36-X17	Hall A	19 Mon	8 a.m.–noon	
342	Reach Control: Selection Mechanisms	Poster	X18-X33	Hall A	19 Mon	8 a.m.–noon	
343	Cortical Planning and Execution: Behaviour	Poster	X34-Y4	Hall A	19 Mon	8 a.m.–noon	
372	The Nature and Significance of Neuronal Variation	Nanosymposium		S401	19 Mon	1–3:45 p.m.	
373	Visual Processing: Object Representation	Nanosymposium		S402	19 Mon	1–3:45 p.m.	
374	Posture and Gait: Health and Disease	Nanosymposium		N226	19 Mon	1–4:15 p.m.	

SESSION #	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
413	Auditory Processing: Vocalizations and Natural sounds – Cortex and human studies	Poster	M6-M23	Hall A	19 Mon	1–5 p.m.	
414	Subcortical Pathways	Poster	M24-M42	Hall A	19 Mon	1–5 p.m.	
415	Striate Cortex in Rodents	Poster	M43-N14	Hall A	19 Mon	1–5 p.m.	
416	Striate Cortex: Imaging Studies	Poster	N15-N34	Hall A	19 Mon	1–5 p.m.	
417	Eye Movements: Central Mechanisms	Poster	N35-O1	Hall A	19 Mon	1–5 p.m.	
418	Spinal Cord Processing: Pharmacology	Poster	O2-O12	Hall A	19 Mon	1–5 p.m.	
419	Plasticity of Somatosensory System	Poster	O13-O32	Hall A	19 Mon	1–5 p.m.	
420	Rhythmic Motor Patterns: Interneurons and Motor Neurons	Poster	O33-P14	Hall A	19 Mon	1–5 p.m.	
421	Rhythmic Motor Pattern Connectivity	Poster	P15-Q1	Hall A	19 Mon	1–5 p.m.	
422	Rhythmic Motor Patterns: Neuromodulation	Poster	Q2-R1	Hall A	19 Mon	1–5 p.m.	
423	Motoneuron Disease: Cellular Mechanisms III	Poster	R2-S6	Hall A	19 Mon	1–5 p.m.	
424	Motoneuron: Muscle Interaction	Poster	S7-T8	Hall A	19 Mon	1–5 p.m.	
425	Cerebellum: Anatomy and *In vitro* models	Poster	T9-T18	Hall A	19 Mon	1–5 p.m.	
426	Cerebellum: Plasticity and Climbing Fibers	Poster	T19-U12	Hall A	19 Mon	1–5 p.m.	
427	Cortical Planning and Execution: Motor Cortex	Poster	U13-U38	Hall A	19 Mon	1–5 p.m.	
428	Sensorimotor Neuroprosthetics	Poster	U39-V11	Hall A	19 Mon	1–5 p.m.	
429	Comparative Anatomy and Evolution	Poster	V12-V41	Hall A	19 Mon	1–5 p.m.	
430	Neural Control of Respiration	Poster	V42-W21	Hall A	19 Mon	1–5 p.m.	
456	Brainy and Handy: What Robotics and Prosthetics Can Learn from Touch Receptors in the Hand	Minisymposium		S105	20 Tues	8:30–11 am.	2.5
458	Different Brains, Common Circuits? Visual Decision Making in Rodents and Primates	Minisymposium		S406B	20 Tues	8:30–11 am.	2.5
460	Cortical Control of Arm Movements: A Dynamical Systems Perspective	Special Lecture		Hall B1	20 Tues	11:30 a.m.–12:40 p.m.	1.25
466	Auditory Processing: Cortical Encoding of Complex Sounds	Nanosymposium		S402	20 Tues	8–10 a.m.	
467	Visual-Motor Processing: Prediction and Adaptation	Nanosymposium		S401	20 Tues	8–10 a.m.	
507	Auditory Processing: Subcortical Circuits	Poster	M14-M31	Hall A	20 Tues	8 a.m.–noon	
508	Auditory Perception, Cognition, and Action	Poster	M32-N13	Hall A	20 Tues	8 a.m.–noon	
509	Cross-Modal Processing: Temporal Factors	Poster	N14-N36	Hall A	20 Tues	8 a.m.–noon	
510	Striate Cortex Circuitry	Poster	N37-O3	Hall A	20 Tues	8 a.m.–noon	
511	Mapping Connectivity and Function of Extrastriate Cortex	Poster	O4-O19	Hall A	20 Tues	8 a.m.–noon	
512	Sensorimotor Transformation: Higher Order Functional Organization	Poster	O20-O31	Hall A	20 Tues	8 a.m.–noon	
513	Inflammatory Pain	Poster	O32-P13	Hall A	20 Tues	8 a.m.–noon	
514	Opioids and other Analgesics	Poster	P14-P38	Hall A	20 Tues	8 a.m.–noon	
515	Somatosensory Cortex	Poster	P39-R4	Hall A	20 Tues	8 a.m.–noon	
516	Somatosensory Response Properties	Poster	R5-R15	Hall A	20 Tues	8 a.m.–noon	
517	Axonal Regeneration	Poster	R16-S7	Hall A	20 Tues	8 a.m.–noon	
518	Cerebellum: Cortex and Nuclei Neurophysiology	Poster	S8-T9	Hall A	20 Tues	8 a.m.–noon	
519	Gait: Muscle Activity, Exercise and Biomechanics	Poster	T10-U7	Hall A	20 Tues	8 a.m.–noon	
520	Gait and Posture: Aging, Injury, and Disease	Poster	U8-U34	Hall A	20 Tues	8 a.m.–noon	
521	Reaching and Motor Learning	Poster	U35-V11	Hall A	20 Tues	8 a.m.–noon	
522	Neuroprosthetics for Limb Control	Poster	V12-V35	Hall A	20 Tues	8 a.m.–noon	

SESSION #	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
549	Peripheral Optogenetic Neuromodulation: Progress and Challenges	Minisymposium		S105	20 Tues	1:30–4 p.m.	2.5
561	Olfactory Processing	Nanosymposium		N226	20 Tues	1–4 p.m.	
562	Cortical Planning and Execution: Neurophysiology	Nanosymposium		S402	20 Tues	1–4 p.m.	
563	Comparative Anatomy and Evolution	Nanosymposium		S401	20 Tues	1–3 p.m.	
596	Auditory Processing: Cortex and Cortical Circuits	Poster	J14-J30	Hall A	20 Tues	1–5 p.m.	
597	Interactions between Auditory and Non-Auditory Modalities	Poster	J31-J44	Hall A	20 Tues	1–5 p.m.	
598	Identifying Circuits in Striate Cortex	Poster	J45-K24	Hall A	20 Tues	1–5 p.m.	
599	Striate Cortex Plasticity	Poster	K25-L4	Hall A	20 Tues	1–5 p.m.	
600	Motion Processing	Poster	L5-L22	Hall A	20 Tues	1–5 p.m.	
601	Sensorimotor Transformation: Neurophysiology	Poster	L23-L42	Hall A	20 Tues	1–5 p.m.	
602	Peripheral Pain: Transient Receptor Potential (TRP) Receptors	Poster	L43-M14	Hall A	20 Tues	1–5 p.m.	
603	Thalamic and Cortical Processing	Poster	M15-M34	Hall A	20 Tues	1–5 p.m.	
604	Pain Physiology	Poster	M35-N16	Hall A	20 Tues	1–5 p.m.	
605	Somatosensory Signaling Mechanisms	Poster	N17-N38	Hall A	20 Tues	1–5 p.m.	
606	Motoneuron Excitability	Poster	N39-O10	Hall A	20 Tues	1–5 p.m.	
607	Motoneuron Excitability: Afferent Input	Poster	O11-O24	Hall A	20 Tues	1–5 p.m.	
608	Cerebellum: Circuits and Function	Poster	O25-O35	Hall A	20 Tues	1–5 p.m.	
609	Bimanual and Interlimb Control	Poster	O36-P5	Hall A	20 Tues	1–5 p.m.	
610	Stroke: Impairments and Recovery	Poster	P6-P34	Hall A	20 Tues	1–5 p.m.	
611	Brain Machine Interface: Methods and Technology	Poster	P35-Q15	Hall A	20 Tues	1–5 p.m.	
612	Brain-Machine Interface Grasping Devices	Poster	Q16-R15	Hall A	20 Tues	1–5 p.m.	
644	Reward-Driven Learning in Primary Sensory Cortices	Minisymposium		S406B	21 Wed	8:30–11 am.	2.5
652	Auditory System: Temporal, Frequency, and Spectral Processing	Nanosymposium		N226	21 Wed	8–10 a.m.	
653	Cerebellum: Learning and Cognition	Nanosymposium		S402	21 Wed	8–11:30 a.m.	
654	Basal Ganglia and Basal Forebrain: Behavioral Control	Nanosymposium		S401	21 Wed	8–11 a.m.	
697	Cross-Modal Processing: Spatial Factors	Poster	O7-O18	Hall A	21 Wed	8 a.m.–noon	
698	Adaptation and Plasticity in Visual Cortex	Poster	O19-O34	Hall A	21 Wed	8 a.m.–noon	
699	Striate Cortex: Response Properties	Poster	O35-O43	Hall A	21 Wed	8 a.m.–noon	
700	Organization of ExtraStriate Cortex	Poster	O44-P8	Hall A	21 Wed	8 a.m.–noon	
701	Binocular Vision: Stereopis and Amblyopia	Poster	P9-P19	Hall A	21 Wed	8 a.m.–noon	
702	Eye Movements and Perception	Poster	P20-P33	Hall A	21 Wed	8 a.m.–noon	
703	Dorsal Root Ganglion Neuron Modulation and Function	Poster	P34-Q5	Hall A	21 Wed	8 a.m.–noon	
704	Peripheral Mechanisms: Pain and Touch	Poster	Q6-R1	Hall A	21 Wed	8 a.m.–noon	
705	Pain Models: Pharmacology	Poster	R2-S1	Hall A	21 Wed	8 a.m.–noon	
706	Tactile Sensation	Poster	S2-T5	Hall A	21 Wed	8 a.m.–noon	
707	Basal Ganglia: Input Integration	Poster	T6-U1	Hall A	21 Wed	8 a.m.–noon	
708	Basal Ganglia Anatomy and Physiology	Poster	U2-U23	Hall A	21 Wed	8 a.m.–noon	
709	Finger and Grasp: Age, Pathology, and Physiology	Poster	U24-U41	Hall A	21 Wed	8 a.m.–noon	
710	Motor Learning: Mechanisms	Poster	U42-V27	Hall A	21 Wed	8 a.m.–noon	
711	Oral Motor and Speech	Poster	V28-V41	Hall A	21 Wed	8 a.m.–noon	
712	Voluntary Movement and Motor Plasticity	Poster	V42-W22	Hall A	21 Wed	8 a.m.–noon	
713	Brain Machine Interfaces: Invasive Applications	Poster	W23-X16	Hall A	21 Wed	8 a.m.–noon	

SESSION #	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
739	Pain and Poppies: the Good, the Bad, and the Ugly of Opioid Analgesics	Minisymposium		S406A	21 Wed	1:30–4 p.m.	2.5
746	Visual Motion	Nanosymposium		S102	21 Wed	1–4:15 p.m.	
747	Spatial and Feature Based Attention	Nanosymposium		S402	21 Wed	1–3 p.m.	
748	Controlling Prostheses with Brain Machine Interfaces	Nanosymposium		N226	21 Wed	1–4:15 p.m.	
786	Olfaction: Olfactory Bulb	Poster	L2-L21	Hall A	21 Wed	1–5 p.m.	
787	Sound Localization and Binaural Interactions	Poster	L22-L35	Hall A	21 Wed	1–5 p.m.	
788	Cross-Modal Processing: Neural Circuitry and Development	Poster	L36-M15	Hall A	21 Wed	1–5 p.m.	
789	Architecture of Extrastriate Cortex	Poster	M16-M29	Hall A	21 Wed	1–5 p.m.	
790	Color Vision	Poster	M30-M43	Hall A	21 Wed	1–5 p.m.	
791	Visual Behavior in Different Species	Poster	M44-N5	Hall A	21 Wed	1–5 p.m.	
792	Visual Processing: Learning, Memory, and Categorization	Poster	N6-N15	Hall A	21 Wed	1–5 p.m.	
793	Spatial and Feature-Based Attention	Poster	N16-N37	Hall A	21 Wed	1–5 p.m.	
794	Sensorimotor Transformation: Behavior and Whole Animal	Poster	N38-O3	Hall A	21 Wed	1–5 p.m.	
795	Visually Guided Reaching and Eye Movements	Poster	O4-O33	Hall A	21 Wed	1–5 p.m.	
796	Itch	Poster	O34-O45	Hall A	21 Wed	1–5 p.m.	
797	Mechanisms of Neuropathic Pain II	Poster	O46-P26	Hall A	21 Wed	1–5 p.m.	
798	Rhythmic Motor Patterns: Afferent and Descending Control	Poster	P27-P39	Hall A	21 Wed	1–5 p.m.	
799	Rhythmic Motor Patterns: Models	Poster	P40-Q11	Hall A	21 Wed	1–5 p.m.	
800	Striatal Dopamine Neurotransmission	Poster	Q12-R3	Hall A	21 Wed	1–5 p.m.	
801	Basal Ganglia: Dopamine Neuron Physiology	Poster	R4-R13	Hall A	21 Wed	1–5 p.m.	
802	Systems and Behavior	Poster	R14-S14	Hall A	21 Wed	1–5 p.m.	
803	Finger and Grasp Behavior and Kinematics	Poster	S15-T17	Hall A	21 Wed	1–5 p.m.	
804	Finger and Grasp Mechanisms	Poster	T18-U9	Hall A	21 Wed	1–5 p.m.	
805	Reach Control: Selection and Strategy	Poster	U10-U34	Hall A	21 Wed	1–5 p.m.	
806	Motor Learning: Behavior	Poster	U35-V22	Hall A	21 Wed	1–5 p.m.	
807	Brain Machine Interface: Non-Invasive Approaches	Poster	V23-W1	Hall A	21 Wed	1–5 p.m.	
808	Neural Control of Respiratory Rhythm	Poster	W2-W13	Hall A	21 Wed	1–5 p.m.	
Theme E: Integrative Systems: Neuroendocrinology, Neuroimmunology, and Homeostatic Challenge							
17	Circadian Entrainment Mechanisms and Consequences	Nanosymposium		S404	17 Sat	1–3:45 p.m.	
73	Neuroendocrine Anatomy and Physiology	Poster	P42-R1	Hall A	17 Sat	1–5 p.m.	
74	Neuroinflammation: Endogenous and Exogenous Modulation	Poster	R2-S11	Hall A	17 Sat	1–5 p.m.	
75	Cells and Circuits of Stress	Poster	S12-U1	Hall A	17 Sat	1–5 p.m.	
76	Stress in Juveniles and Adolescents	Poster	U2-U12	Hall A	17 Sat	1–5 p.m.	
77	Thermoregulation and Energy Metabolism	Poster	U13-U33	Hall A	17 Sat	1–5 p.m.	
100	Sex-Specific Mechanisms of Stress Susceptibility	Minisymposium		S103	18 Sun	8:30–11 am.	2.5
112	Food Intake and Energy Regulation Nano	Nanosymposium		S405	18 Sun	8–10:45 a.m.	
161	Social Behavior: Aggression	Poster	Q11-R4	Hall A	18 Sun	8 a.m.–noon	
162	Microbiota and Stress	Poster	R5-R17	Hall A	18 Sun	8 a.m.–noon	
163	Social Stress	Poster	R18-S15	Hall A	18 Sun	8 a.m.–noon	
164	Thirst and Water Balance	Poster	S16-T10	Hall A	18 Sun	8 a.m.–noon	
165	Molecular Biology and Physiology of Circadian Clocks	Poster	T11-U3	Hall A	18 Sun	8 a.m.–noon	
166	Sleep: Molecular, Cellular, and Pharmacology	Poster	U4-U33	Hall A	18 Sun	8 a.m.–noon	

SESSION #	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
167	Sleep: Behavior	Poster	U34-V21	Hall A	18 Sun	8 a.m.–noon	
168	Suprachiasmatic Nucleus Anatomy, Physiology, and Neurochemistry	Poster	V22-V34	Hall A	18 Sun	8 a.m.–noon	
190	Corticotropin Releasing Factor: Novel Molecular, Cellular, and System Roles	Minisymposium		S406B	18 Sun	1:30–4 p.m.	2.5
198	Neuroinflammation and Diseases	Nanosymposium		S404	18 Sun	1–4:30 p.m.	
199	Sleep System and Regulation	Nanosymposium		S405	18 Sun	1–4:30 p.m.	
245	Sexual Differentiation	Poster	P9-P20	Hall A	18 Sun	1–5 p.m.	
246	Sexual Behavior	Poster	P21-Q6	Hall A	18 Sun	1–5 p.m.	
247	Parental Behavior	Poster	Q7-R13	Hall A	18 Sun	1–5 p.m.	
248	Parental and Gestational Influences on Stress Vulnerability	Poster	R14-S19	Hall A	18 Sun	1–5 p.m.	
249	Food Intake and Energy Balance: Integration of Peripheral Signals I	Poster	S20-T13	Hall A	18 Sun	1–5 p.m.	
250	Brain Blood Flow	Poster	T14-U10	Hall A	18 Sun	1–5 p.m.	
269	Global Positioning System Mechanisms of Migrating Monarch Butterflies	Special Lecture		Hall B1	19 Mon	8:30–9:40 a.m.	1.25
285	Energy Metabolism and Cardiovascular Regulation	Nanosymposium		S405	19 Mon	8–10:30 a.m.	
286	Blood Brain Barrier, Blood Flow, and Imaging	Nanosymposium		S404	19 Mon	8–10:30 a.m.	
344	Steroids and Plasticity	Poster	Y5-Y22	Hall A	19 Mon	8 a.m.–noon	
345	Neuroimmunology: Regulatory Systems	Poster	Y23-Y42	Hall A	19 Mon	8 a.m.–noon	
346	Neuroimmunology: Regulating Systems	Poster	Y43-Z21	Hall A	19 Mon	8 a.m.–noon	
347	Neuroinflammation: Multiple Sclerosis and Related Models	Poster	Z22-Z31	Hall A	19 Mon	8 a.m.–noon	
348	Gastrointestinal, Renal/Urinary, and Reproductive Regulation	Poster	Z32-AA11	Hall A	19 Mon	8 a.m.–noon	
349	Developmental Regulators of Stressful Experiences	Poster	AA12-AA35	Hall A	19 Mon	8 a.m.–noon	
350	Food Intake and Energy Balance: Neuropeptide Regulators	Poster	AA36-BB10	Hall A	19 Mon	8 a.m.–noon	
364	Disrupted Sleep: From Molecules to Cognition	Minisymposium		S103	19 Mon	1:30–4 p.m.	2.5
375	Persistent Effects of Early Life Adversity	Nanosymposium		S404	19 Mon	1–4:30 p.m.	
431	HPG Axis: Gonadotropin-Releasing Hormone Cells, Gonadotrophins and Neurosteroids	Poster	W22-W43	Hall A	19 Mon	1–5 p.m.	
432	Cardiovascular Regulation	Poster	W44-X23	Hall A	19 Mon	1–5 p.m.	
433	Peptides and Factors in Stress and Anxiety	Poster	X24-Y3	Hall A	19 Mon	1–5 p.m.	
434	Food Intake and Energy Balance: Integration of Peripheral Signals II	Poster	Y4-Y26	Hall A	19 Mon	1–5 p.m.	
435	Diet and Exercise: Effects on Behavior and Cognition	Poster	Y27-Y37	Hall A	19 Mon	1–5 p.m.	
436	Blood Brain Barrier	Poster	Y38-Z20	Hall A	19 Mon	1–5 p.m.	
468	Hormones, Neurotransmitters and Social Behavior	Nanosymposium		S405	20 Tues	8–10 a.m.	
523	Stress: Factors Affecting Sensitivity, Protection, and Recovery	Poster	V36-W17	Hall A	20 Tues	8 a.m.–noon	
524	Food Intake and Energy Balance: Monoamines and Other Regulators	Poster	W18-W42	Hall A	20 Tues	8 a.m.–noon	
613	Hypothalamic?Pituitary?Gonadal Axis: Neural Control	Poster	R16-S19	Hall A	20 Tues	1–5 p.m.	
614	Estrogen Signaling and Cognition	Poster	S20-U5	Hall A	20 Tues	1–5 p.m.	
615	Sex and Social Factors in Fear and Anxiety	Poster	U6-U32	Hall A	20 Tues	1–5 p.m.	
616	Food Intake and Energy Balance: Anatomy and Development	Poster	U33-V15	Hall A	20 Tues	1–5 p.m.	
617	Blood Flow Functional Imaging	Poster	V16-V28	Hall A	20 Tues	1–5 p.m.	

* Event held at the Hyatt Regency Chicago Downtown (not connected to McCormick Place)

SESSION #	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
640	New Approaches to Understanding How the Hypothalamus Controls Adaptive and Integrative Behavior	Symposium		S100A	21 Wed	8:30–11 a.m.	2.5
655	New Insight into Neural Circuitry Controlling Inflammation	Nanosymposium		N230	21 Wed	8–9:45 a.m.	
715	Estrogen Signaling and Behavior	Poster	X17-X29	Hall A	21 Wed	8 a.m.–noon	
716	Social Behavior: Oxytocin and Vasopressin	Poster	X30-X48	Hall A	21 Wed	8 a.m.–noon	
717	Social Behavior	Poster	Y1-Y10	Hall A	21 Wed	8 a.m.–noon	
718	Social Behavior: Genetic and Molecular Basis	Poster	Y11-Y20	Hall A	21 Wed	8 a.m.–noon	
737	Neurocircuitry Controlling Feeding and Drinking Behaviors in Mice	Special Lecture		Hall B1	21 Wed	1–2:10 p.m.	1.25
749	Stress Peptides and Factors	Nanosymposium		S405	21 Wed	1–4:30 p.m.	
809	Neuroinflammation: General	Poster	W14-W44	Hall A	21 Wed	1–5 p.m.	
810	Neuroinflammation: Cellular mechanisms	Poster	W45-X7	Hall A	21 Wed	1–5 p.m.	
811	Neuroimmunology: Behavioral Effects	Poster	X8-X33	Hall A	21 Wed	1–5 p.m.	
812	Stress and Cognitive Function	Poster	X34-X43	Hall A	21 Wed	1–5 p.m.	
813	Circadian Entrainment and Phase Shift	Poster	X44-Y18	Hall A	21 Wed	1–5 p.m.	
814	Sleep: Regulators	Poster	Y19-Z2	Hall A	21 Wed	1–5 p.m.	
815	Sleep: Systems	Poster	Z3-Z31	Hall A	21 Wed	1–5 p.m.	
Theme F: Cognition and Behavior							
8	Making, Breaking, and Linking Engrams	Special Lecture		Hall B1	17 Sat	2–3:10 p.m.	1.25
18	Multivariate Approaches to Studying Medial Temporal and Prefrontal Contributions to Human Memory	Nanosymposium		N227	17 Sat	1–3:30 p.m.	
19	Social Cognition: Neural Processes and Disorders	Nanosymposium		S405	17 Sat	1–4 p.m.	
20	Reward and Uncertainty	Nanosymposium		N228	17 Sat	1–3 p.m.	
78	Motor and Sequence Learning	Poster	U34-V9	Hall A	17 Sat	1–5 p.m.	
79	Human Cognition and Behavior: Functional Mechanisms of Attention	Poster	V10-V35	Hall A	17 Sat	1–5 p.m.	
80	Human Cognition: Control and Flexibility	Poster	V36-W15	Hall A	17 Sat	1–5 p.m.	
81	Value-Based Human Decision Making	Poster	W16-W36	Hall A	17 Sat	1–5 p.m.	
82	Social Decision Making	Poster	W37-X6	Hall A	17 Sat	1–5 p.m.	
83	Memory Consolidation and Reconsolidation: Behavior	Poster	X7-X21	Hall A	17 Sat	1–5 p.m.	
84	Learning and Memory: Aging I	Poster	X22-X40	Hall A	17 Sat	1–5 p.m.	
85	Temporal Processing in Septal, Prefrontal, and Hippocampal Circuits	Poster	X41-Y13	Hall A	17 Sat	1–5 p.m.	
86	Cortical and Hippocampal Circuits: Spatial Navigation	Poster	Y14	Hall A	17 Sat	1–5 p.m.	
87	Emotion: Brain Imaging	Poster	Y38-Z16	Hall A	17 Sat	1–5 p.m.	
88	Emotion: Information Processing	Poster	Z17-Z35	Hall A	17 Sat	1–5 p.m.	
89	Emotion Processing: Neurophysiology	Poster	Z36-AA8	Hall A	17 Sat	1–5 p.m.	
90	Sensory and Motor Systems in Vertebrates	Poster	AA9-AA27	Hall A	17 Sat	1–5 p.m.	
97	Identifying and Manipulating the Synapses, Cells, and Circuits of Memory Engrams: Implications for Memory and Memory Disorders	Symposium		S100A	18 Sun	8:30–11 a.m.	2.5
101	Learning to Generalize: Neural, Behavioral, and Computational Basis of Categorization	Minisymposium		S406B	18 Sun	8:30–11 am.	2.5
113	Influence of Memory on Perception	Nanosymposium		N227	18 Sun	8–10:15 a.m.	
114	Reward Processing and Reinforcement Learning in the Human Brain	Nanosymposium		N228	18 Sun	8–11:30 a.m.	
115	Individual Differences	Nanosymposium		N226	18 Sun	8–10:45 a.m.	

SESSION #	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
169	Perception and Imagery	Poster	V35-W15	Hall A	18 Sun	8 a.m.–noon	
170	Face, Body, and Action	Poster	W16-W33	Hall A	18 Sun	8 a.m.–noon	
171	Human Memory Encoding Processes	Poster	W34-X10	Hall A	18 Sun	8 a.m.–noon	
172	Functional Mechanisms of Attention and Disorders of Attention	Poster	X11-X40	Hall A	18 Sun	8 a.m.–noon	
173	Language I	Poster	X41-Y5	Hall A	18 Sun	8 a.m.–noon	
174	Language II	Poster	Y6-Y29	Hall A	18 Sun	8 a.m.–noon	
175	Modulating Fear, Learning, and Memory	Poster	Y30-Z15	Hall A	18 Sun	8 a.m.–noon	
176	Decision Making: Primates	Poster	Z16-Z43	Hall A	18 Sun	8 a.m.–noon	
177	Learning and Memory: Physiology	Poster	Z44-AA18	Hall A	18 Sun	8 a.m.–noon	
178	Learning and memory: Pharmacology	Poster	AA18-AA43	Hall A	18 Sun	8 a.m.–noon	
179	Learning and Memory: Aging II	Poster	AA44-BB18	Hall A	18 Sun	8 a.m.–noon	
180	Reward: Dopamine	Poster	BB19-BB45	Hall A	18 Sun	8 a.m.–noon	
181	Song Circuit and Motor Control	Poster	BB46-BB60	Hall A	18 Sun	8 a.m.–noon	
186	Hidden Variables of Behavior: Neuronal Parameters Underlying Brain States	Symposium		S100B	18 Sun	1:30–4 p.m.	2.5
200	Assessment and Modulation of Human Working Memory	Nanosymposium		N227	18 Sun	1–4:30 p.m.	
201	Executive Function: Learning and Memory	Nanosymposium		N228	18 Sun	1–3 p.m.	
251	Higher Cognition	Poster	U11-U37	Hall A	18 Sun	1–5 p.m.	
252	Cognitive Development	Poster	U38-V18	Hall A	18 Sun	1–5 p.m.	
253	Mechanisms of Attention I	Poster	V19-V48	Hall A	18 Sun	1–5 p.m.	
254	Anatomy of Stress, Anxiety, and Fear	Poster	W1-W30	Hall A	18 Sun	1–5 p.m.	
255	Appetitive and Incentive Learning and Memory I	Poster	W31-X6	Hall A	18 Sun	1–5 p.m.	
256	Molecular Mechanisms of Memory Consolidation	Poster	X7-X34	Hall A	18 Sun	1–5 p.m.	
257	Temporal Processing in Entorhinal and Hippocampal Circuits	Poster	X35-Y11	Hall A	18 Sun	1–5 p.m.	
258	Reward: Motivational Mechanisms I	Poster	Y12-Y31	Hall A	18 Sun	1–5 p.m.	
259	Dynamic Circuitry of Stress and Anxiety	Poster	Y32-Z5	Hall A	18 Sun	1–5 p.m.	
260	Song Learning and Auditory Processing	Poster	Z6-Z30	Hall A	18 Sun	1–5 p.m.	
274	Can We Merge the Divergent Views of Hippocampal Function?	Minisymposium		S103	19 Mon	8:30–11 am.	2.5
275	Internally and Memory-Guided Behaviors: The Role of Frontal Cortical Ensembles	Minisymposium		S406B	19 Mon	8:30–11 am.	2.5
287	Stress and Negative Emotion	Nanosymposium		N227	19 Mon	8–11:30 a.m.	
351	Perceptual and Spatial Learning	Poster	BB11-B40	Hall A	19 Mon	8 a.m.–noon	
352	Reinforcement and Feedback Learning in Humans	Poster	BB41-BB66	Hall A	19 Mon	8 a.m.–noon	
353	Human Memory: Episodic and Semantic Memory Processes	Poster	BB67-BB85	Hall A	19 Mon	8 a.m.–noon	
354	Human Executive Function: Clinical and Translational	Poster	BB86-CC17	Hall A	19 Mon	8 a.m.–noon	
355	Hippocampal Circuits in Fear and Anxiety	Poster	CC18-CC44	Hall A	19 Mon	8 a.m.–noon	
356	Learning and Memory: Prefrontal and Retrosplenial Cortex	Poster	CC45-CC70	Hall A	19 Mon	8 a.m.–noon	
357	Learning and Memory: Cortical Circuits	Poster	CC71-DD18	Hall A	19 Mon	8 a.m.–noon	
358	Reward: Motivational Mechanisms II	Poster	DD19-DD37	Hall A	19 Mon	8 a.m.–noon	
365	The Medial Prefrontal Cortex: Emotional Regulation Across Species	Minisymposium		S406B	19 Mon	1:30–4 p.m.	2.5
376	Neuroimaging of Language	Nanosymposium		N227	19 Mon	1–3:45 p.m.	

SESSION #	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
377	Learning and Memory: Aging and Alzheimer's Disease	Nanosymposium		N228	19 Mon	1–4:15 p.m.	
378	Striatal Circuits in Psychiatric Diseases	Nanosymposium		S403	19 Mon	1–4:15 p.m.	
437	Human Memory: Medial Temporal Lobe	Poster	Z21-Z37	Hall A	19 Mon	1–5 p.m.	
438	Human Decision Making and Reasoning	Poster	Z38-AA18	Hall A	19 Mon	1–5 p.m.	
439	Human Cognition: Temporal Processing	Poster	AA19-AA46	Hall A	19 Mon	1–5 p.m.	
440	Amydala Circuits in Aversive Learning and Memory	Poster	AA47-BB21	Hall A	19 Mon	1–5 p.m.	
441	Working Memory	Poster	BB22-BB32	Hall A	19 Mon	1–5 p.m.	
442	Executive Function: Behavior and Pharmacology	Poster	BB33-BB57	Hall A	19 Mon	1–5 p.m.	
443	Neuronal Mechanisms of Memory Consolidation	Poster	BB58-BB84	Hall A	19 Mon	1–5 p.m.	
444	Cortical and Hippocampal Circuits: Spatial Navigation and Head Direction Cells	Poster	BB85-CC15	Hall A	19 Mon	1–5 p.m.	
445	Learning and Memory: Hippocampal Circuits	Poster	CC16-CC34	Hall A	19 Mon	1–5 p.m.	
446	Reward: Neuropharmacology	Poster	CC35-CC52	Hall A	19 Mon	1–5 p.m.	
447	Basal Ganglia and Error Detection in Songbirds	Poster	CC53-CC66	Hall A	19 Mon	1–5 p.m.	
448	Vocal/social Communication in Non-Avian Models	Poster	CC67-CC77	Hall A	19 Mon	1–5 p.m.	
459	Uncertainty, Choice, and Dopamine	Special Lecture		Hall B1	20 Tues	10–11:10 a.m.	1.25
469	Human Cognition and Behavior: Functional Mechanisms of Attention	Nanosymposium		N228	20 Tues	8–11:30 a.m.	
470	Cognitive Changes During Ageing	Nanosymposium		S404	20 Tues	8–11:30 a.m.	
525	Hippocampus, Functional Networks, and Human Memory	Poster	W43-X15	Hall A	20 Tues	8 a.m.–noon	
526	Human Memory Retrieval and Reactivation	Poster	X16-X40	Hall A	20 Tues	8 a.m.–noon	
527	Human Cognition: Networks and Dynamics	Poster	X41-Y3	Hall A	20 Tues	8 a.m.–noon	
528	Working Memory Assessment and Modulation	Poster	Y4-Y18	Hall A	20 Tues	8 a.m.–noon	
529	Social Cognition: Behavior, Neural Basis and Pharmacology	Poster	Y19-Y34	Hall A	20 Tues	8 a.m.–noon	
530	Pharmacology of Executive Function	Poster	Y35-Z4	Hall A	20 Tues	8 a.m.–noon	
531	Decision Making and Attention: Prefrontal Cortex	Poster	Z5-Z33	Hall A	20 Tues	8 a.m.–noon	
532	Decision Making: Rodents	Poster	Z34-AA10	Hall A	20 Tues	8 a.m.–noon	
533	Executive Function: Neurophysiology	Poster	AA11-AA25	Hall A	20 Tues	8 a.m.–noon	
534	Learning and Memory: Hippocampal Circuits	Poster	AA26-BB5	Hall A	20 Tues	8 a.m.–noon	
535	Learning and Memory: Modulation and Pharmacology	Poster	BB6-BB34	Hall A	20 Tues	8 a.m.–noon	
536	Learning and Memory: Genes, Signaling, and Neurogenesis I	Poster	BB35-BB53	Hall A	20 Tues	8 a.m.–noon	
537	Prefrontal and Striatal Systems: Molecular Mechanisms and Connectivity	Poster	BB54-BB74	Hall A	20 Tues	8 a.m.–noon	
538	Motivation and Emotion: Reward I	Poster	BB75-BB93	Hall A	20 Tues	8 a.m.–noon	
539	Songbird Communication: Genetic, Neuroendocrine, and Environmental Influences	Poster	CC1-CC16	Hall A	20 Tues	8 a.m.–noon	
546	Time in Cortical Circuits	Symposium		S100A	20 Tues	1:30–4 p.m.	2.5
564	Emotional Processing and Regulation	Nanosymposium		N228	20 Tues	1–4 p.m.	
618	Spatial Memory	Poster	V29-W6	Hall A	20 Tues	1–5 p.m.	
619	Language III	Poster	W7-W32	Hall A	20 Tues	1–5 p.m.	
620	Human Decision Making: Perception, Motor, and Attention	Poster	W33-X10	Hall A	20 Tues	1–5 p.m.	
621	Memory and Cognition: Influence by Aging	Poster	X11-X40	Hall A	20 Tues	1–5 p.m.	
622	Changes of Functional Network Activity: Physiology, Normal Ageing and Neurodegenerative Disease	Poster	X41-Y18	Hall A	20 Tues	1–5 p.m.	
623	Cognition and Anxiety: Animal Models	Poster	Y19-Y37	Hall A	20 Tues	1–5 p.m.	

SESSION #	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
624	Decision Making: Rodents II	Poster	Y38-Z5	Hall A	20 Tues	1–5 p.m.	
625	Executive Function: Models of Disorders	Poster	Z6-Z35	Hall A	20 Tues	1–5 p.m.	
626	Learning and Memory: Hippocampal Circuits	Poster	Z36-AA35	Hall A	20 Tues	1–5 p.m.	
628	Learning and Memory: Aging III	Poster	AA36-BB11	Hall A	20 Tues	1–5 p.m.	
629	Invertebrate Learning and Memory I	Poster	BB12-BB32	Hall A	20 Tues	1–5 p.m.	
630	Invertebrate Learning and Memory II	Poster	BB33-BB48	Hall A	20 Tues	1–5 p.m.	
631	Cortical and Hippocampal Circuits: Spatial Navigation	Poster	BB49-BB74	Hall A	20 Tues	1–5 p.m.	
632	Cortical and Hippocampal Circuits: Spatial Navigation	Poster	BB75-CC4	Hall A	20 Tues	1–5 p.m.	
633	Functions of Prefrontal, Striatal, and Thalamic Circuits	Poster	CC5-CC29	Hall A	20 Tues	1–5 p.m.	
634	Optogenetic and Chemogenetic Manipulation of Motivation and Emotion	Poster	CC30-CC57	Hall A	20 Tues	1–5 p.m.	
635	Fear and Anxiety: Molecular and Cellular Mechanisms	Poster	CC58-DD6	Hall A	20 Tues	1–5 p.m.	
636	Motivation and Emotion: Reward II	Poster	DD7-DD27	Hall A	20 Tues	1–5 p.m.	
637	Sensory and Motor Systems in Invertebrates	Poster	DD28-DD46	Hall A	20 Tues	1–5 p.m.	
642	Optogenetic Dissection of the Basal Forebrain Neuromodulatory Control of Cortical Activation, Plasticity, and Cognition	Minisymposium		S100B	21 Wed	8:30–11 am.	2.5
646	A Causal Analysis of the Attentional Network	Symposium		Hall B1	21 Wed	11:30 a.m.–12:40 p.m.	1.25
656	Human Brain Networks	Nanosymposium		N228	21 Wed	8–10:15 a.m.	
657	Learning and Memory: Hippocampal Circuits	Nanosymposium		N227	21 Wed	8–10:45 a.m.	
719	Human Memory Processes: Encoding, Retrieval, and Pattern Separation	Poster	Y21-Y44	Hall A	21 Wed	8 a.m.–noon	
720	Human Decision Making: Risk and Impulsivity	Poster	Z1-Z13	Hall A	21 Wed	8 a.m.–noon	
721	Social Cognition: Neural Processes and Disorders	Poster	Z14-Z40	Hall A	21 Wed	8 a.m.–noon	
722	Mechanisms of Attention II	Poster	Z41-AA11	Hall A	21 Wed	8 a.m.–noon	
723	Appetitive and Incentive Learning and Memory II	Poster	AA12-AA32	Hall A	21 Wed	8 a.m.–noon	
724	Learning and Memory: Hippocampus, Rhinal, and Parietal Cortex	Poster	AA33-BB9	Hall A	21 Wed	8 a.m.–noon	
725	Learning and Memory: Hippocampal Circuits	Poster	BB10-BB38	Hall A	21 Wed	8 a.m.–noon	
726	Learning and Memory: Genes, Signaling, and Neurogenesis II	Poster	BB39-BB50	Hall A	21 Wed	8 a.m.–noon	
727	Cortical and Hippocampal Circuits: Models of Spatial Navigation	Poster	BB51-BB69	Hall A	21 Wed	8 a.m.–noon	
728	Fear Memory: Molecular Mechanisms	Poster	BB70-BB81	Hall A	21 Wed	8 a.m.–noon	
729	Fear and Aversion Learning	Poster	BB82-CC4	Hall A	21 Wed	8 a.m.–noon	
730	Decision Making: Neurocircuitry	Poster	CC5-CC33	Hall A	21 Wed	8 a.m.–noon	
731	Motivation and Emotion: Reward III	Poster	CC34-CC53	Hall A	21 Wed	8 a.m.–noon	
741	Understanding Goal-Directed Decision Making in Humans: Computations and Circuits	Minisymposium		S406B	21 Wed	1:30–4 p.m.	2.5
750	Visual Imagery	Nanosymposium		N228	21 Wed	1–3:45 p.m.	
751	Human Cognition: Cognitive Control and Flexibility	Nanosymposium		N227	21 Wed	1–4:15 p.m.	
816	Motor Learning	Poster	Z32-AA15	Hall A	21 Wed	1–5 p.m.	
817	Human Memory Processes: Encoding, Retrieval, and Consolidation	Poster	AA16-AA37	Hall A	21 Wed	1–5 p.m.	
818	Human Cognition and Behavior: Attentional Networks	Poster	AA38-BB14	Hall A	21 Wed	1–5 p.m.	
819	Human Cognition: Attentional Networks	Poster	BB15-BB26	Hall A	21 Wed	1–5 p.m.	
820	Cognition and Behavior: Human Working Memory	Poster	BB27-BB56	Hall A	21 Wed	1–5 p.m.	
821	Individual Differences	Poster	BB57-BB78	Hall A	21 Wed	1–5 p.m.	
822	Behavioral Training and Social Cognition	Poster	BB79-BB90	Hall A	21 Wed	1–5 p.m.	

* Event held at the Hyatt Regency Chicago Downtown (not connected to McCormick Place)

SESSION #	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
823	Learning and Memory: Neurotransmitter-Receptor Systems	Poster	BB91-CC22	Hall A	21 Wed	1–5 p.m.	
824	Fear Memory: Neural Circuits	Poster	CC23-CC35	Hall A	21 Wed	1–5 p.m.	
825	Decision Making: Neuropharmacology	Poster	CC36-CC45	Hall A	21 Wed	1–5 p.m.	
Theme G: Novel Methods and Technology Development							
91	Biochemical Techniques	Poster	AA28-BB8	Hall A	17 Sat	1–5 p.m.	
92	Bioinformatics	Poster	BB9-BB25	Hall A	17 Sat	1–5 p.m.	
93	Computation	Poster	BB26-BB45	Hall A	17 Sat	1–5 p.m.	
94	Computation: Other	Poster	BB46-BB75	Hall A	17 Sat	1–5 p.m.	
95	Computation: Networks and Experimentation	Poster	BB76-CC7	Hall A	17 Sat	1–5 p.m.	
182	Genetic Techniques	Poster	BB61-BB81	Hall A	18 Sun	8 a.m.–noon	
183	Optical Methods I	Poster	BB82-CC12	Hall A	18 Sun	8 a.m.–noon	
184	Nanoscopy with Focused Light: Principles and Applications	Special Lecture		Hall B1	18 Sun	1–2:10 p.m.	1.25
202	Genomic and Systems Level Analyses of Neurologic Disease	Nanosymposium		N230	18 Sun	1–4:15 p.m.	
261	Molecular Techniques	Poster	Z31-Z42	Hall A	18 Sun	1–5 p.m.	
262	Genomics, Proteomics, and Systems Neurobiology	Poster	Z43-AA20	Hall A	18 Sun	1–5 p.m.	
263	Optical methods II	Poster	AA21-AA42	Hall A	18 Sun	1–5 p.m.	
264	Optical Methods III	Poster	AA43-BB17	Hall A	18 Sun	1–5 p.m.	
265	Electrophysiology: Cellular	Poster	BB18-BB30	Hall A	18 Sun	1–5 p.m.	
266	Methods: Electrophysiology	Poster	BB31-BB43	Hall A	18 Sun	1–5 p.m.	
267	Electrode Arrays I	Poster	BB44-BB73	Hall A	18 Sun	1–5 p.m.	
268	Neuron Stimulation Methods	Poster	BB74-CC6	Hall A	18 Sun	1–5 p.m.	
270	Early Reports from the BRAIN Initiative Frontline: Advancing Technologies to Accelerate Our Understanding of Brain Function	Symposium		S100A	19 Mon	8:30–11 a.m.	2.5
288	Electrode Arrays II	Nanosymposium		N228	19 Mon	8–11:30 a.m.	
449	Combining Optogenetics with Electrophysiology or Functional Magnetic Resonance Imaging	Poster	CC78-DD19	Hall A	19 Mon	1–5 p.m.	
450	Computation: Tools	Poster	DD20-DD46	Hall A	19 Mon	1–5 p.m.	
451	Computation: Tools (Other)	Poster	DD47-DD71	Hall A	19 Mon	1–5 p.m.	
454	All-Optical Interrogation of Neural Circuits	Symposium		S100B	20 Tues	8:30–11 a.m.	2.5
471	Molecular, Biochemical, and Genetic Techniques	Nanosymposium		N227	20 Tues	8–11:15 a.m.	
540	Electrodes Arrays II	Poster	CC17-CC41	Hall A	20 Tues	8 a.m.–noon	
541	Novel Assays	Poster	CC42-CC59	Hall A	20 Tues	8 a.m.–noon	
542	Data Analysis	Poster	CC60-DD6	Hall A	20 Tues	8 a.m.–noon	
543	Data Analysis: Neuronal Networks	Poster	DD7-DD36	Hall A	20 Tues	8 a.m.–noon	
544	Data Analysis: Networks and Software Tools, other	Poster	DD37-DD57	Hall A	20 Tues	8 a.m.–noon	
548	Clearing and Labeling Methods for High Resolution Imaging of Intact Biological Specimens	Minisymposium		S406A	20 Tues	1:30–4 p.m.	2.5
565	Electrode Arrays III	Nanosymposium		N227	20 Tues	1–4:15 p.m.	
638	Whole-Brain Imaging and Atlasing I	Poster	DD47-DD62	Hall A	20 Tues	1–5 p.m.	
643	3D Retinal Organoids From Human Pluripotent Stem Cells: Promise to Alleviate Blindness or Better Disease Model?	Minisymposium		S406A	21 Wed	8:30–11 am.	2.5
732	*In Vivo* Imaging Methods	Poster	CC54-DD4	Hall A	21 Wed	8 a.m.–noon	
733	Technology Development: Projection Mapping	Poster	DD5-DD16	Hall A	21 Wed	8 a.m.–noon	
734	Whole-Brain Imaging and Atlasing II	Poster	DD17-DD32	Hall A	21 Wed	8 a.m.–noon	

* Event held at the Hyatt Regency Chicago Downtown (not connected to McCormick Place)

SESSION #	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
735	Neuroanatomy: Automated Analysis	Poster	DD33-DD47	Hall A	21 Wed	8 a.m.–noon	
736	Optogenetic Studies of Neural Circuits	Poster	DD48-DD67	Hall A	21 Wed	8 a.m.–noon	
826	Technology Development: DNA and Protein Imaging	Poster	CC46-CC58	Hall A	21 Wed	1–5 p.m.	
827	Tracing and Imaging Methods	Poster	CC59-CC73	Hall A	21 Wed	1–5 p.m.	
828	Technology Development: Magnetic Resonance Imaging and Positron Emission Tomography	Poster	CC74-DD7	Hall A	21 Wed	1–5 p.m.	
829	Data Analysis: Human and Networks	Poster	DD8-DD32	Hall A	21 Wed	1–5 p.m.	
830	Data Analysis: Human	Poster	DD33-DD57	Hall A	21 Wed	1–5 p.m.	
Theme H: History, Teaching, Public Awareness, and Societal Impacts in Neuroscience							
2	Statistics and Computation for an Increasingly Quantitative Scientific Future	Empirical Approaches to Neuroscience and Society Symposium		S100A	17 Sat	1:30–4 p.m.	
21	History of Neuroscience	Theme H Poster	CC15-CC24	Hall A	17 Sat	1–5 p.m.	
22	Teaching Neuroscience in K–12	Theme H Poster	CC25-CC48	Hall A	18 Sun	8–11 a.m.	
23	Teaching Neuroscience to Undergraduates: Simulations and Social Media	Theme H Poster	CC49-CC70	Hall A	17 Sat	1–5 p.m.	
24	Teaching Neuroscience to Undergraduates: Courses and Programs	Theme H Poster	CC71-DD21	Hall A	17 Sat	1–5 p.m.	
25	Teaching Neuroscience to Graduate Students	Theme H Poster	DD22-DD30	Hall A	17 Sat	1–5 p.m.	
26	Teaching Neuroscience: Community Outreach	Theme H Poster	DD31-DD58	Hall A	18 Sun	8–11 a.m.	
27	Ethical and Policy Issues in Neuroscience	Theme H Poster	DD58-DD65	Hall A	17 Sat	1–5 p.m.	
Workshops, Meetings, and Events							
PDW01	NEUROBIOLOGY OF DISEASE WORKSHOP: Human Brain Malformations: From Genetics to Therapeutics	Professional Development Workshop		S100B	16 Fri	8 a.m.–5 p.m.	
PDW02	SHORT COURSE #1: Using iPS Cells and Reprogramming to Model Neural Development and Disease	Professional Development Workshop		S401	16 Fri	8 a.m.–6 p.m.	
PDW03	SHORT COURSE #2: The Impact of Human Genetics and Genomics in Neurobiology: From Disease Discovery to Fundamental Mechanisms (and Back)	Professional Development Workshop		S406A	16 Fri	8 a.m.–6 p.m.	
PDW04	SHORT COURSE #3: Optimizing Experimental Design for High-Quality Science	Professional Development Workshop		N227	16 Fri	1–5:30 p.m.	
PDW05	Meet-the-Expert: Session 1	Professional Development Workshop		Hyatt Regency Chicago Downtown*	17 Sat	8–9:15 a.m.	
PDW06	Careers Beyond the Bench	Professional Development Workshop		S106	17 Sat	9–11 a.m.	
PDW07	Success in Academia: What's Your Strategy to Thrive?	Professional Development Workshop		S104	17 Sat	9–11 a.m.	
PDW08	Meet-the-Expert: Session 2	Professional Development Workshop		Hyatt Regency Chicago Downtown*	17 Sat	9:30–10:45 a.m.	
ME01	Meeting Mobile App Tutorial	Meetings and Events		N229	17 Sat	10–11 a.m.	
PDW10	How Do I Fund My Science? Public and Private Funding Approaches for Supporting Your Neuroscience Research Across Career Stages and Types of Research	Professional Development Workshop		S106	17 Sat	1:30–5 p.m.	
ME02	Meeting Mobile App Tutorial	Meetings and Events		N229	17 Sat	2–3 p.m.	
ME03	BRAIN AWARENESS CAMPAIGN EVENT: Sparking Connections Through Brain Awareness Around the Globe	Meetings and Events		N427	17 Sat	2:30–4 p.m.	
ME11	How to Renovate Your Relationship With Your Advisor or Advisee	Professional Development Workshop		S101	17 Sat	3–5 p.m.	
ME04	Diversity Fellows Poster Session	Meetings and Events		Hall A	17 Sat	6:30–8:30 p.m.	
ME05	International Fellows Poster Session	Meetings and Events		Hall A	17 Sat	6:30–8:30 p.m.	

* Event held at the Hyatt Regency Chicago Downtown (not connected to McCormick Place)

SESSION #	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
ME06	Trainee Professional Development Awards Poster Session	Meetings and Events		Hall A	17 Sat	6:30–8:30 p.m.	
PDW12	Career Development Topics: A Networking Event	Professional Development Workshop		Hall A	17 Sat	7:30–9:30 p.m.	
PDW13	A Guide to Publishing in Journals	Professional Development Workshop		S101	18 Sun	9–11 a.m.	
ME07	CHAPTERS WORKSHOP: Expanding Chapter Horizons: Connecting Local and International Communities	Meetings and Events		N427	18 Sun	11:30 a.m.–1 p.m.	
PDW14	Successful Career Advancement through Networking: Is It Who You Know?	Professional Development Workshop		S106	18 Sun	11:30 a.m.–1 p.m.	
PDW15	Creating Connections and Community in Support of Diverse Neuroscientists	Professional Development Workshop		S101	18 Sun	11:30 a.m.– 1:30 p.m.	
ME08	Graduate School Fair	Meetings and Events		Hall A	18 Sun	noon–2 p.m.	
PDW16	The Income Achievement Gap: Insights from Cognitive Neuroscience	Social Issues Roundtable		N229	18 Sun	1–3 p.m.	
PDW17	Tackling Challenges in Scientific Rigor: The (Sometimes) Messy Reality of Science	Professional Development Workshop		S101	18 Sun	2–4 p.m.	
PDW18	Internationalizing Your Research, Training, and Funding Experience	Professional Development Workshop		S106	18 Sun	2–5 p.m.	
PDW19	Exploring New Communications Channels: Science Blogging	Professional Development Workshop		S101	19 Mon	9–11 a.m.	
PDW20	Teaching Neuroscience to Nonscientists	Professional Development Workshop		S106	19 Mon	9–11 a.m.	
ME10	ANIMALS IN RESEARCH PANEL: Proactive Strategies to Increase the Positive Public Perception of Animals in Research	Meetings and Events		N427	20 Tues	noon–2 p.m.	
ME11	Celebration of Women in Neuroscience Luncheon	Meetings and Events		Hyatt Regency ChicagoDowntown*: Crystal AB	20 Tues	noon–2 p.m.	
ME09	Graduate School Fair	Meetings and Events		Hall A	19 Mon	noon–2 p.m.	
ME12	Graduate School Fair	Meetings and Events		Hall A	20 Tues	noon–2 p.m.	
ME13	PUBLIC ADVOCACY FORUM: Sports Related Brain Injuries and Their Ethical, Social, and Neuroscience Considerations	Meetings and Events		N229	20 Tues	3–5 p.m.	
ME14	SfN Members' Business Meeting	Meetings and Events		N427	20 Tues	6:45–7:30 p.m.	
ME15	Graduate Student Reception	Meetings and Events		Hyatt Regency ChicagoDowntown*: Regency BCD	20 Tues	9 p.m.-midnight	
PDW21	Training the Trainers: New Perspectives on Graduate Training in Neuroscience in the 21st Century	Departments and Programs Workshop		S101	21 Wed	9–11 a.m.	

* Event held at the Hyatt Regency Chicago Downtown (not connected to McCormick Place)

Clinician-Scientists and Continuing Medical Education (CME)

Clinical Neuroscience Content at Neuroscience 2015

Recognizing the value of basic discovery and its application to curing disease, SfN has always served clinician-scientists, and is continuing that focus now more than ever. Neuroscience 2015 will feature the Clinical Neuroscience Lecture, designed to offer the clinician-scientist perspective about a particular disease or disorder (p.14). SfN will also provide a clinical neuroscience curated itinerary highlighting sessions that focus on translational research. Clinician-scientist attendees can take advantage of select programming while earning Continuing Medical Education (CME) credits. Remember to sign up for the SfN CME Program during registration or on-site at the meeting.

Feature Clinical Content at Neuroscience 2015

- Clinical Neuroscience Lecture: Neurotrophin Signaling and Epileptogenesis: Mechanistic and Therapeutic Insights by James O. McNamara, MD; Sunday, Oct. 18, 11:30 a.m.–12:40 p.m. (p.14)
- Curated itinerary geared toward clinicians (available in the Neuroscience Meeting Planner and meeting mobile app)
- Clinical Neuroscience Social (p.30)

The Society for Neuroscience (SfN) annual meeting is a forum for the education of physicians in the field of neuroscience. By attending lectures, symposia, and minisymposia, physicians will receive both a broad overview of the field and information about the most recent, detailed research on the topic of the session. The abstract of each plenary session contains a brief description of the material to be presented. By attending any of the activities, physicians will better understand the basic science that underlies clinical practice.

Statement of Need

It is important that physicians comprehend the basic science that underlies clinical medicine. The SfN annual meeting is the premier venue for this educational opportunity. Physicians learn about the most up-to-date, cutting-edge discoveries regarding the nervous system.

Global Learning Objective

Given a patient with a neurological or psychiatric condition, physicians will integrate the most up-to-date information and research about the mechanism, treatment, and diagnosis of conditions related to neurological and psychiatric disorders into their diagnostic and therapeutic modalities of practices in order to determine the best course of action in treating the patient.

Accreditation

The SfN is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

Credit Designation by Format

Symposium

SfN designates this live activity for a maximum of 2.5 *AMA PRA Category 1 Credits*™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Minisymposium

SfN designates this live activity for a maximum of 2.5 *AMA PRA Category 1 Credits*™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Albert and Ellen Grass Lecture

SfN designates this live activity for a maximum of 1.25 *AMA PRA Category 1 Credits*™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Presidential Special Lecture

SfN designates this live activity for a maximum of 1.25 *AMA PRA Category 1 Credits*™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Special Lecture

SfN designates this live activity for a maximum of 1.25 *AMA PRA Category 1 Credits*™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

A meeting attendee seeking Continuing Medical Education (CME) credit may use a combination of the activities described above to gain a maximum of 35.25 *AMA PRA Category 1 Credits*™.

CME Registration

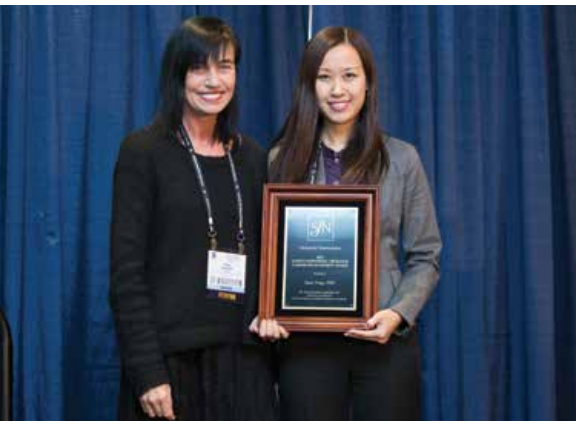
CME registration must be completed before or during the annual meeting. An on-site processing fee of $100 is charged in addition to the meeting registration fee. Purchase orders will not be accepted as payment. To register for CME, check the appropriate box on the annual meeting registration form and include the CME processing fee.

Those who do not register at these times will not receive the necessary documentation and it cannot be provided after the meeting. CME registrants will receive, via email two weeks before the meeting, the CME Supplemental Program, which contains important information regarding the CME program, including disclosure information and instructions for obtaining a CME certificate.

CME Credit for Exhibitors

Exhibitors with medical degrees can earn *AMA PRA Category 1 Credits*™ by registering for the CME program and attending lectures, symposia, and minisymposia. Call Convention Data Services at (888) 736-6690 or (508) 743-8563 to add CME to your exhibitor registration.

Awards in Neuroscience



Award for Education in Neuroscience

The Award for Education in Neuroscience recognizes individuals who have made outstanding contributions to neuroscience education and training. The award will be presented during the Local Leaders Reception on Monday, Oct. 19.

Bernice Grafstein Award for Outstanding Accomplishments in Mentoring

Support contributed by Bernice Grafstein, PhD

The Bernice Grafstein Award is given to an individual who has shown dedication to, and success in, mentoring women neuroscientists and facilitating their entry or retention in the field. The award will be presented during the Celebration of Women in Neuroscience Luncheon.

Donald B. Lindsley Prize in Behavioral Neuroscience

Support contributed by The Grass Foundation

The Donald B. Lindsley Prize recognizes a young neuroscientist for his or her outstanding PhD thesis in the general area of behavioral neuroscience. The prize will be presented prior to the Albert and Ellen Grass Lecture at 3:15 p.m. on Monday, Oct. 19, in McCormick Place, Hall B1.

Jacob P. Waletzky Award

Support contributed by The Waletzky Award Prize Fund and The Waletzky Family

The Jacob P. Waletzky Award is given to a scientist each year to conduct research in the area of substance abuse and the brain and nervous system. In addition, the recipient must have received an advanced degree of a PhD or MD within the past 15 years. The award will be presented prior to the Presidential Special Lecture at 5:15 p.m. on Saturday, Oct. 17, in McCormick Place, Hall B1. The recipient also will deliver the Jacob P. Waletzky Memorial Lecture at the Frontiers in Addiction Research: 2015 Joint NIDA-NIAAA Mini-Convention from 8:00am–5p.m. on Friday, Oct. 16, in McCormick Place, N230.

Janett Rosenberg Trubatch Career Development Award

Support contributed by The Trubatch Family

The Career Development Award recognizes individuals who have demonstrated originality and creativity in research. It is intended to promote success during academic transitions prior to tenure. The awards will be presented during the Celebration of Women in Neuroscience Luncheon.

Julius Axelrod Prize

Support contributed by Eli Lilly and Company Foundation

The Julius Axelrod Prize honors a scientist with distinguished achievements in the field of neuropharmacology, or a related area, and exemplary efforts in mentoring young scientists. The award will be presented prior to the Presidential Special Lecture at 5:15 p.m. on Saturday, Oct. 17, in McCormick Place, Hall B1.

Louise Hanson Marshall Special Recognition Award

The Louise Hanson Marshall Special Recognition Award honors an individual who has significantly promoted the professional development of women in neuroscience through teaching, organizational leadership, public

Awards in Neuroscience

advocacy, or other efforts. The award will be presented during the Celebration of Women in Neuroscience Luncheon.

Mika Salpeter Lifetime Achievement Award

The Mika Salpeter Lifetime Achievement Award recognizes an individual with outstanding career achievements in neuroscience who also has significantly promoted the professional advancement of women in neuroscience. The award will be presented prior to the Presidential Special Lecture at 5:15 p.m. on Tuesday, Oct. 20, in McCormick Place, Hall B1.

Nemko Prize in Cellular or Molecular Neuroscience

Support contributed by The Nemko Family

The Nemko Prize recognizes a young neuroscientist's outstanding PhD thesis that advances the understanding of molecular, genetic, or cellular mechanisms underlying brain function, including higher function and cognition. The prize will be presented prior to the Albert and Ellen Grass Lecture at 3:15 p.m. on Monday, Oct. 19, in McCormick Place, Hall B1.

Next Generation Award

The Next Generation Award recognizes SfN chapter members who have made outstanding contributions to public communication, outreach, and education about neuroscience. The award will be presented prior to the Presidential Special Lecture at 5:15 p.m. on Monday, Oct. 19, in McCormick Place, Hall B1.

Peter and Patricia Gruber International Research Award in Neuroscience

Support contributed by The Gruber Foundation

The Peter and Patricia Gruber International Research Award in Neuroscience is presented each year to two young neuroscientists for outstanding research and educational pursuit in an international setting. The awards will be presented prior to the Peter and Patricia Gruber Lecture at 2:30 p.m. on Sunday, Oct. 18, in McCormick Place, Hall B1.

Ralph W. Gerard Prize in Neuroscience

The Ralph W. Gerard Prize, the highest recognition conferred by the Society, honors an outstanding scientist who has made significant contributions to neuroscience throughout his or her career. This prize is named after Ralph W. Gerard, who was instrumental in founding SfN and served as honorary president from 1970 until his death in 1974. The prize will be presented prior to the Presidential Special Lecture at 5:15 p.m. on Sunday, Oct. 18, in McCormick Place, Hall B1.

Science Educator Award

Support contributed by The Dana Foundation

The Science Educator Award honors two outstanding neuroscientists who have made significant contributions to educating the public about neuroscience: one who conducts education activities fulltime and one who devotes his/her time primarily to research while conducting outreach, policy, and education activities. The award will be presented prior to the Presidential Special Lecture at 5:15 p.m. on Monday, Oct. 19 in McCormick Place, Hall B1.

SfN Chapter-of-the-Year Award

This award is given to a SfN chapter that has engaged in exceptional, innovative activities at a local and community level and advanced the mission of the Society for Neuroscience. The award will be presented at the Chapters Workshop at 11:30 a.m., on Sunday, Oct. 18, in McCormick Place, Room N427.

Swartz Prize for Theoretical and Computational Neuroscience

Support contributed by The Swartz Foundation

The Swartz Prize honors an individual who has made noteworthy contributions in the field of theoretical or computational neuroscience. The prize will be presented prior to the Presidential Special Lecture at 5:15 p.m. on Saturday, Oct. 17, in McCormick Place, Hall B1.

Young Investigator Award

Support contributed by AstraZeneca

The Young Investigator Award recognizes the outstanding achievements and contributions by a young neuroscientist who has received his or her advanced professional degree in the past 10 years. The award will be presented prior to the Albert and Ellen Grass Lecture at 3:15 p.m. on Monday, Oct. 19, in McCormick Place, Hall B1.

SfN PROFESSIONAL DEVELOPMENT AWARDS

Trainee Professional Development Awards

Support contributed by the Friends of SfN Fund and SfN Memorial Fund, Burroughs Wellcome Fund, eLife Sciences Publications Ltd., IDEXX BioResearch, Pfizer, and Lilly USA

These awards honor outstanding undergraduate and graduate students and postdoctoral fellows. Recipients are chosen on the basis of the scientific merit of their abstract, CV, a letter of recommendation, and an essay. Awardees will present a poster during the Trainee Professional Development Awards Poster Session and will be recognized during the Celebration of Women in Neuroscience Luncheon.

SfN/IBRO International Travel Awards

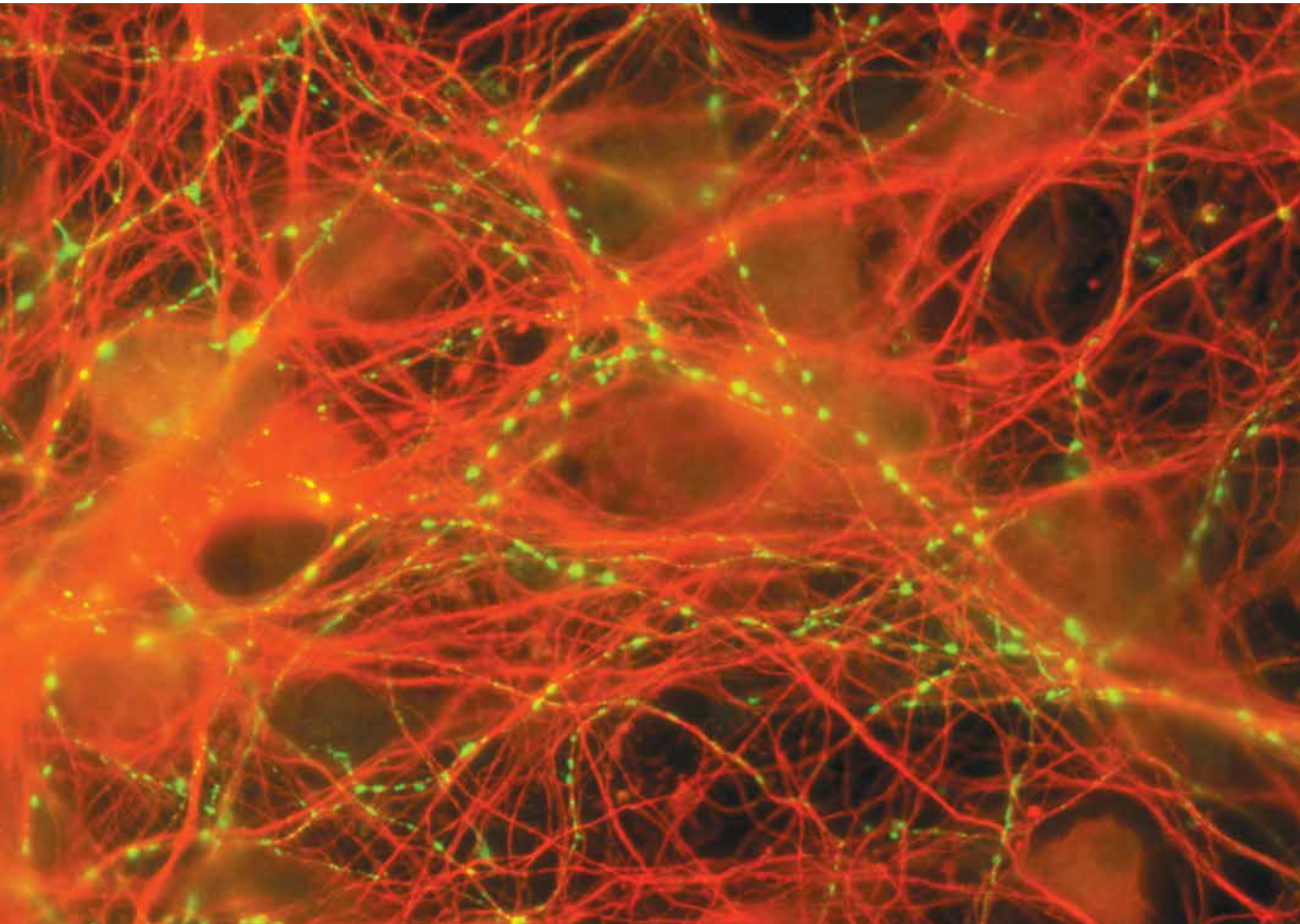
Sponsored by SfN and selected by the International Brain Research Organization (IBRO), these awards recognize young investigators from developing countries. This year, 30 awardees (from 14 countries) will attend Neuroscience 2015.

SfN/JNS Travel Award

SfN and the Japan Neuroscience Society (JNS) sponsor a joint award program allowing trainees from Japan to attend the SfN annual meeting and North American trainees from SfN to attend the JNS meeting in Japan. This year, SfN will send four trainees from North America to the JNS meeting in September. The program is administered by SfN's International Affairs Committee and JNS.

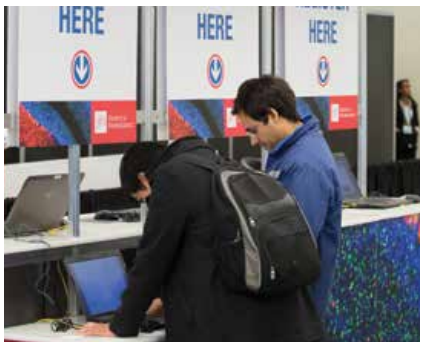
Neuroscience 2015

Registration, Hotel, and Travel



Registration

Registration Categories and Fees



Online Discount	Opens at midnight EDT on Sept. 17 and continues through the annual meeting.
On-Site In Line	Opens at 7:30 a.m. CDT on Oct. 17 and continues through the annual meeting

Registration Category	Online Discount	On-Site In Line
Member	$405	$485
Member, Category II	$170	$205
Member, Category III	$230	$265
Postdoctoral Member	$305	$365
Postdoctoral Member, Category II	$110	$130
Postdoctoral Member, Category III	$170	$205
Student Member	$205	$245
Student Member, Category II	$75	$90
Student Member, Category III	$115	$135
Student Member, Undergraduate	$105	$125
Student Member, Undergraduate Category II	$40	$45
Student Member, Undergraduate Category III	$60	$70
Nonmember	$730	$875
Student Nonmember	$370	$440
Guest – Nonscientific	$55	$65
CME Accreditation	$100	$100

All members must be in good standing at the time of registering for the annual meeting in order to receive member rates. Membership status will be verified at the time of registration. Refunds are not issued for incorrect registration category. If uncertain about your membership status, contact membership@sfn.org or call SfN's membership department at (202) 962-4000. Fees vary based on registration categories and registration options.

Badge Reprint Fee

Attendees will incur a $25 fee for badge reprints. If you require a badge reprint, visit the Registration Assistance counter in Hall A of McCormick Place.

Accepted Forms of Payment

MasterCard, Visa, American Express, Discover Card, checks or money orders in U.S. dollars drawn on a U.S. bank made payable to the Society for Neuroscience. Cash accepted on-site only.

WHEN TO REGISTER

Online Discount

From Thursday, Sept. 17, through the duration of the annual meeting, discounted fees are available by using the online registration system. Avoid waiting in line and bring your confirmation number to any Express Badge Pick-Up location to claim your meeting materials.

On-Site In Line Registration

Discounted registration fees are available through the online registration system. If you prefer to register at an on-site counter, higher registration rates apply. On-site and online registration will be available for the duration of the meeting.

On-Site Registration Hours

Friday, Oct. 16*, 2–5 p.m.
Saturday, Oct. 17–Wednesday, Oct. 21, 7:30 a.m.–5 p.m.

*Express Badge Pick-Up stations available only. Full registration services will begin Saturday, Oct. 17, at 7:30 a.m. CDT.

Navigating the Meeting

With a meeting that includes thousands of presentations from top neuroscientists from all over the world, SfN continues to develop new and improved ways for attendees to find their way around the annual meeting.

Curated Itineraries

Curated itineraries tailor the annual meeting to your area of interest. These itineraries are created by experts from the SfN Program Committee and link topics across lectures, symposia, and socials. Download the itineraries using the meeting mobile app or the Neuroscience Meeting Planner.

- Clinical Neuroscience: Neurotherapeutics
- Clocks and Sleep
- Decision Making
- Molecular Neuropharmacology
- Neurobiology of Vision and Perception
- Neurodegeneration
- Neuron-Glia Interactions
- Neuroscience of Drug Addiction
- Sex Differences and Stress
- Synaptic Development

Meeting Mobile App

Download the meeting mobile app to your Apple or Android devices and access annual meeting content on the go. With improved search functionality, an updated schedule view, and enhanced integration with the Neuroscience Meeting Planner, the 2015 meeting mobile app will make navigating the annual meeting easier than ever. The app is available in iTunes™ and the Google Play™ App Store.

To ensure that attendees are able to take advantage of all of the newest features for the meeting mobile app, free user tutorials led by the app's developers will be held during the meeting.

Meeting Mobile App Tutorial Sessions

Saturday, Oct. 17
Location: N229
Time: 10–11 a.m., 2–3 p.m.

Neuroscience Meeting Planner

The Neuroscience Meeting Planner (NMP) allows attendees to explore all sessions happening during the annual meeting. Use the NMP to view full text abstracts, create your personalized itinerary, search an author index, and more. Attendees can access the NMP at SfN.org/NMP or on-site in the Neuroscience Meeting Planner Viewing Area.

Use the meeting mobile app and the Neuroscience Meeting Planner and save!

SfN is committed to helping the environment by reducing waste, so starting this year, SfN will print fewer program books. Attendees will receive free, printed copies of the general information book and the *Exhibit Guide*. The printed daily books and the author index will be available for a minimal fee. Information from the daily books and author index will be available in the meeting mobile app and the Neuroscience Meeting Planner. Attendees may also opt to download PDF versions of the printed books from SfN.org.

Daily Book Fees	Online and On-Site
Full Set of five Daily Books and Author Index, Member	$25
Full Set of five Daily Books and Author Index, Nonmember	$35
Individual Daily Books, Member	$10
Individual Daily Books, Nonmember	$15

Hotel Map

The Society's housing company, Convention Management Resources, will be on-site to assist with any housing questions during the meeting. Representatives will be located in McCormick Place, South Hall A, Oct. 17–21 during the following hours:

Friday, Oct. 16	2–5 p.m.	Sunday, Oct. 18	7:30 a.m.–5 p.m.	Tuesday, Oct. 20	7:30 a.m.–5 p.m.
Saturday, Oct. 17	7:30 a.m.–5 p.m.	Monday, Oct. 19	7:30 a.m.–5 p.m.	Wednesday, Oct. 21	7:30 a.m.–3 p.m.

On-site phone: (312) 791-6715

CHOOSE CHICAGO

Neuroscience 2015

Hotel List

The Fairmont Chicago, Millennium Park, and the Hyatt Regency Chicago Downtown (not connected to McCormick Place) are the official co-headquarter hotels.

#	HOTEL NAME / ADDRESS	SHUTTLE ROUTE	PICK UP POINT	TRANSPORTATION / STOP / LINE / DISTANCE
	Co-Headquarters Hotels			
1	Fairmont Chicago, Millennium Park 200 N. Columbus Dr.	D	Curbside on Columbus Drive	CTA: State & Lake / Orange / 4 blocks Metra: Millennium / Electric / 3 blocks
2	Hyatt Regency Chicago Downtown 151 E. Wacker Dr.	D	Curbside on Wacker Drive	CTA: State & Lake / Orange & Green / 4 blocks Metra: Millennium / Electric / 3 blocks
	Attendee Hotels			
3	Aloft Chicago City Center 515 N. Clark St.	C	Walk to Hampton Inn / Front Entrance	CTA: State & Grand / Red / 2 blocks
4	Chicago Marriott Downtown Magnificent Mile 540 N. Michigan Ave.	F	SW Corner Ohio & Rush Streets	CTA: State & Grand / Red / 2 blocks Metra: Millennium / Electric / 7 blocks
5	Courtyard Chicago Downtown Magnificent Mile 165 E. Ontario St.	G	Walk to Hyatt Mag Mile / SE Corner of St. Clair & Erie Street	CTA: State & Grand / Red / 6 blocks
6	Courtyard Chicago Downtown River North 30 E. Hubbard St.	C	Walk to Hampton Inn / Front Entrance	CTA: State & Grand / Red / 1 block Metra: Millennium / Electric / 7 blocks
7	Chicago's Essex Inn 800 S. Michigan Ave.	B	Walk to Hilton Chicago / 8th Street Side Entrance	CTA: Harrison & Polk / Red / 4 blocks Metra: Van Buren / Electric / 4 blocks
8	Crowne Plaza Chicago Metro Downtown 733 W. Madison St.	K	Halsted Side Entrance	CTA: UIC-Halsted / Blue / 5 blocks
9	Embassy Suites Downtown 600 North State St.	F	SW Corner of Ohio & Rush Streets	CTA: State & Grand / Red / 1 block
10	Fairfield Inn & Suites Chicago Downtown / River North 60 W. Illinois St.	C	Walk to Hampton Inn / Front Entrance	CTA: State & Grand / Red / 2 blocks
11	Freehand Chicago 19 E. Ohio St.	F	SW Corner Ohio & Rush Streets	CTA: State & Grand / Red / 2 blocks
12	Hampton Inn & Suites Chicago Downtown 33 W. Illinois St.	C	Curbside / Front Entrance on Illinois	CTA: State & Grand / Red / 2 blocks
13	Hilton Chicago 720 South Michigan Ave.	B	8th Street Side Entrance	CTA: Harrison & Polk / Red / 4 blocks Metra: Van Buren / Electric / 3 blocks
14	Hilton Suites Chicago Magnificent Mile 198 E. Delaware Pl.	H	Across the Street from Westin / on Delaware Place	CTA: State & Chicago / Red / 4 blocks
15	Holiday Inn Hotel & Suites Chicago Downtown 506 W. Harrison St.	K	Curbside on Harrison	CTA: Clinton / Blue / 1 block
16	Holiday Inn Chicago Mart Plaza River North 350 W. Mart Center Dr.	C	Across the Street on Orleans Street	CTA: Merchandise Mart / Brown / 1 block CTA - Clark & Lake / Green / 4 blocks
17	Hotel Cass / A Holiday Inn Express at Magnificent Mile 640 N. Wabash Ave.	F	SW Corner of Ohio & Rush Streets	CTA: State & Grand / Red / 3 blocks
18	Hotel Felix Chicago 111 W. Huron St.	G	Across the Street front Entrance / on Huron Street	CTA: Chicago & State / Red / 4 blocks

#	HOTEL NAME / ADDRESS	SHUTTLE ROUTE	PICK UP POINT	TRANSPORTATION / STOP / LINE / DISTANCE
19	Hotel Indigo Chicago Downtown Gold Coast 1244 N. Dearborn Pkwy.	J	Curbside / Front Entrance on Dearborn	CTA: Clark & Division / Red / 2 blocks
20	Hyatt Chicago Magnificent Mile 633 N. St. Clair St.	G	SE Corner of St. Clair & Erie Streets	CTA: State & Grand / Red / 4 blocks
21	Hyatt Place Chicago / River North 66 W. Illinois St.	C	Walk to Hampton Inn / Front Entrance	CTA: State & Grand / Red / 2 blocks
22	Hyatt Regency McCormick Place 2233 S. Martin Luther King Dr.	Walk	Walk to McCormick Place	Adjacent to McCormick Place
23	Inn of Chicago 162 E. Ohio St.	G	Walk to Hyatt Mag Mile / SE Corner of St. Clair & Erie Streets	CTA: State & Grand / Red / 3 blocks
24	InterContinental Chicago Magnificent Mile 505 N. Michigan Ave.	E	Upper Illinois Side Entrance	CTA: State & Grand / Red / 2 blocks Metra: Millennium / Electric / 7 blocks
25	Omni Chicago Hotel 676 N. Michigan Ave.	G	Across the Street front Entrance / on Huron Street	CTA: State & Chicago / Red / 3 blocks
26	Palmer House A Hilton Hotel 17 E. Monroe St.	I	Wabash Avenue Door	CTA: Adams & Wabash / Orange & Green / 1 block Metra: Millennium / Electric / 4 blocks
27	Radisson Blu Aqua Hotel Chicago 221 N. Columbus Dr.	D	Walk to Fairmont / Curbside on Columbus	CTA: State & Lake / Orange / 4 blocks Metra: Millennium / Electric / 3 blocks
28	Renaissance Blackstone Chicago Hotel 636 S. Michigan Ave.	B	Walk to Hilton Chicago / 8th Street Side Entrance	CTA: Harrison & Polk / Red / 4 blocks Metra: Van Buren / Electric / 4 blocks
29	Renaissance Chicago Downtown Hotel 1 W. Wacker Dr.	C	Walk to Wyndham / Front Entrance on Wacker Drive	CTA: State & Lake / Orange / 1 block Metra: Van Buren / Electric / 4 blocks
30	Residence Inn Chicago Downtown / Magnificent Mile 201 E. Walton Pl.	H	Across the Street from Westin / on Delaware Place	CTA: State & Chicago / Red / 4 blocks
31	Sheraton Chicago Hotel & Towers 301 E. North Water St.	E	Convention Center Entrance	CTA: State & Grand / Red / 6 blocks Metra: Millennium / Electric / 6 blocks
32	Silversmith Hotel Chicago Downtown 10 S. Wabash Ave.	I	Walk to Palmer House Hilton / Wabash Avenue Door	CTA: Randolph & Wabash / Orange & Green / 2 blocks Metra: Millennium / Electric / 3 blocks
33	Sofitel Chicago Water Tower 20 E. Chestnut St.	J	Curbside / Front Entrance on Chestnut	CTA: State & Chicago / Red / 2 blocks
34	Swissotel Chicago 323 E. Wacker Dr.	D	Walk to Hyatt / Curbside on Wacker Drive	CTA: State & Lake / Orange / 4 blocks Metra: Millennium / Electric / 3 blocks
35	The Talbott Hotel 20 E. Delaware Pl.	J	Walk to Sofitel / Curbside on Chestnut	CTA: State & Chicago / Red / 4 blocks
36	W Chicago Lakeshore 44 N. Lake Shore Dr.	H	Curbside on Inner Lake Shore Drive	CTA: State & Grand / Red / 8 blocks
37	Westin Michigan Avenue 909 N. Michigan Ave	H	Across the Street Front Entrance / on Delaware Place	CTA: State & Chicago / Red / 4 blocks
38	Wyndham Grand Chicago Riverfront 71 E. Wacker Dr.	C	Front Entrance on Wacker Drive	CTA: State & Lake / Orange & Green / 4 blocks Metra: Millennium / Electric / 3 blocks

Current sales and occupancy taxes total 16.4 percent per room, per night. Hotel rates include a nominal $15 fee to help defray the cost of the shuttle service, which will be provided to McCormick Place from most of the hotels throughout the day.

Travel Information

Air Travel

Chicago is accessible by two major airports. Transportation options, approximate travel times, and approximate fares to and from the airports are listed below. Fares are subject to change.

CHICAGO O'HARE INTERNATIONAL AIRPORT

Chicago O'Hare Airport is served by 43 commercial airlines and is located 17 miles from downtown Chicago and McCormick Place. Chicago O'Hare Airport is the best option for international travel.

Phone
(773) 686-2200

Time/Distance
Approximate 40-minute drive (17 miles) to downtown Chicago and McCormick Place.

Taxis
Taxis are available at the lower levels (outside of baggage claim) at each terminal. Fares are based on traffic conditions, but an average fare is $30–$40.

MIDWAY INTERNATIONAL AIRPORT

Midway Airport is served by 8 commercial airlines and is located 11 miles from downtown Chicago and McCormick Place. Midway Airport is the best option for domestic travel.

Phone
(773) 838-0600

Time/Distance
Approximate 20-minute drive (11 miles) to downtown Chicago and McCormick Place.

Taxis
Taxis are available at the lower levels (outside of baggage claim) at each terminal. Fares are based on traffic conditions, but an average fare is $28–$30.

ADDITIONAL TRANSPORTATION OPTIONS:

GO Airport Express: GO Airport Express offers daily, door-to-door service to and from Chicago O'Hare and Midway International. Shuttles operate on a shared-ride-on-demand basis. Advance notice is strongly urged. For more information, call 1-800-284-3826 or visit Go Airport Express.

Subway: The Chicago Transit Authority (CTA), Chicago's light rail system, known as the "L", provides service throughout the city including to and from Chicago O'Hare and Midway International. The Cermak - McCormick station (on the Green line) is currently the closest CTA stop to McCormick Place.

Shuttle Schedule

Date	Times	Service
Friday, October 16	6:30 a.m.–7 p.m.	Roosevelt Station Service Only
Saturday, October 17	7 a.m.–4 p.m. 4–10 p.m.	20-minute service 10-minute service
Sunday, October 18	6:30–10:30 a.m. 10:30 a.m.–4 p.m. 4–8 p.m. 8–9:30 p.m.	10-minute service 20-minute service 10-minute service 20 minute service
Monday, October 19	7–10:30 a.m. 10:30 a.m.–4 p.m. 4–8 p.m. 8–9:30 p.m.	10-minute service 20-minute service 10-minute service 20-minute service
Tuesday, October 20	7–10:30 a.m. 10:30 a.m.–4 p.m. 4–8 p.m. 8–9:30 p.m.	10-minute service 20-minute service 10-minute service 20-minute service
Wednesday, October 21	7–10:30 a.m. 10:30 a.m.–3:30 p.m. 3:30–6 p.m.	10-minute service 20-minute service 10-minute service

SfN provides complimentary shuttle services between McCormick Place and all of the official SfN meeting hotels, with the exception of Hyatt Regency McCormick Place, adjacent to the convention center.

The shuttle schedule varies daily, with shuttles departing between the hotels and the convention center every 10 minutes during peak time or every 20 minutes during off-peak time. Each shuttle route is coded with a unique color and number.

For questions or concerns about shuttle routes and schedules while at the annual meeting, call the shuttle information desk at (312) 791-6745 or stop by the SfN Hotel Shuttle Information desk located in McCormick Place: South Hall across from Gates 1–3. For questions regarding the SfN Hotel Shuttle Services, contact meetings@sfn.org.

Hotel Shuttles

Routes A–H will board at Gates 1–3 located in the South Hall. Routes I, J, and K will load at the East Transportation Lobby (Gates 26 and 27) located under the Grand Concourse.

Roosevelt Station Shuttle

The Roosevelt Station Shuttle will run from McCormick Place to the Roosevelt CTA Station (Red, Orange, and Green lines) every 20 minutes on Friday, October 16 and during regular shuttle service hours from Saturday, October 17–Wednesday, October 21. Check the on-site shuttle schedule for updates to this service.

Getting Around Chicago is as Easy as 1, 2, 3

With years of experience in hosting large gatherings and a state-of-the-art convention center, Chicago is ready to welcome Neuroscience 2015! SfN has made navigating Chicago a breeze! Whether you choose to take the dedicated SfN shuttle bus directly from your hotel, hop on Metra or the world-famous elevated "L" train system, or grab a taxi, McCormick Place is a quick trip from your hotel.

1 — 2 — 3

Complimentary SfN Shuttle Service

With shuttle bus service operating every 10 minutes during peak time, and 20 minutes during off-peak time, you can conveniently travel between your official SfN meeting hotel and the convention center. For Neuroscience 2015, SfN offers a fleet of shuttle buses dedicated to your travel. With the exception of the Hyatt Regency McCormick Place, adjacent to the convention center, shuttle service will be available to all SfN contracted hotels. Additionally, because of Chicago's commitment to successful large meetings, most shuttle routes operate on a dedicated travel-free "busway" from downtown to the convention center.

Public Transportation

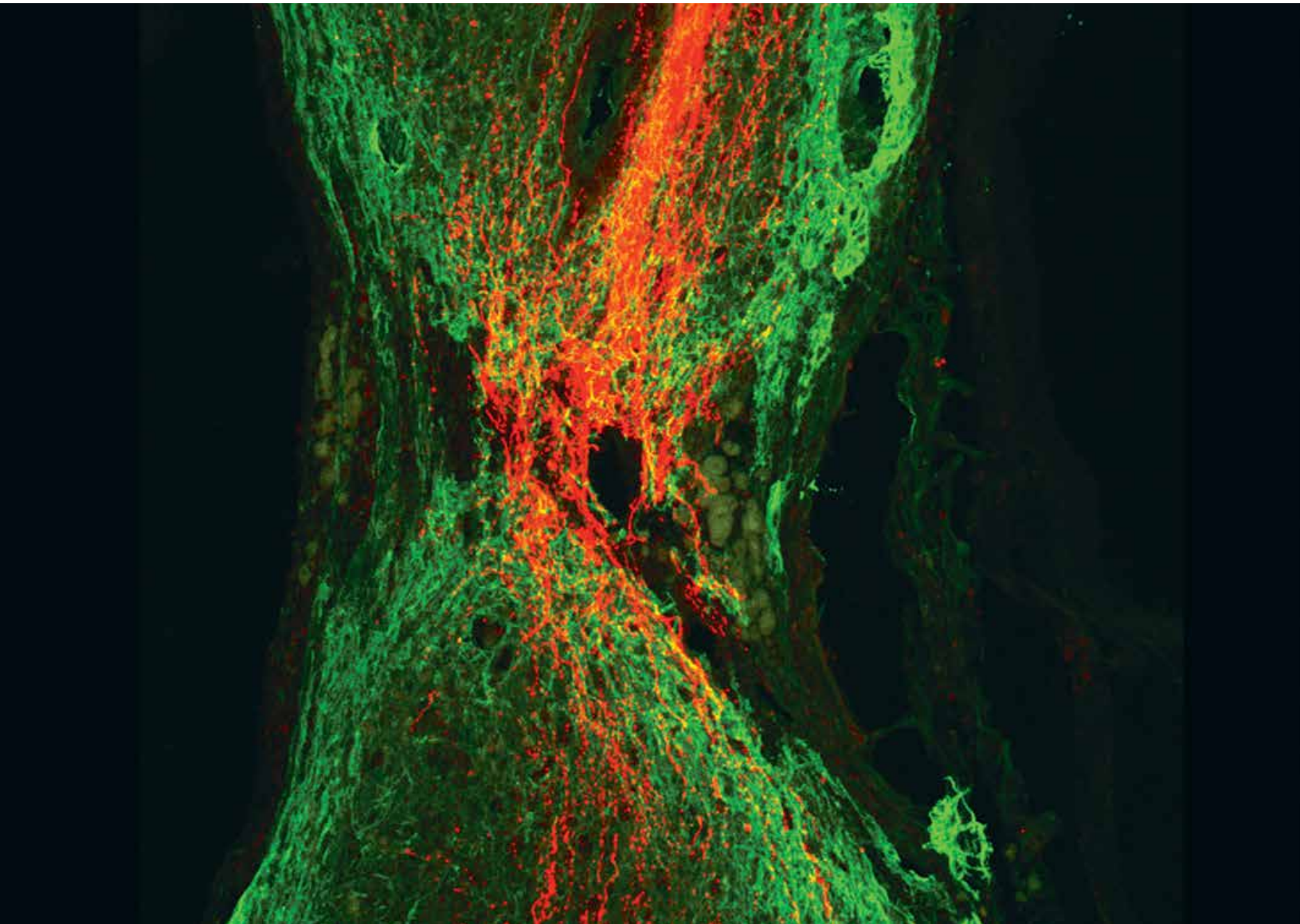
Chicago offers two options for public transportation: Metra (the commuter train system) and CTA (the "L" light rail system). Metra — with stops within walking distance to 50 percent of SfN-contracted hotel rooms, has a stop inside the McCormick Place Convention Center. SfN has contracted with Metra to provide additional train service for Neuroscience 2015. Free Metra passes will be available to all attendees. Metra passes will be included in the badge mailings and will be available on-site at the Metra Desk and SfN information booths in McCormick Place. If you opt to take the L train, also convenient to many SfN hotels, the Roosevelt Road Station is near the convention center and is accessible from the Red, Green, and Orange Lines. SfN will run a complimentary looping shuttle from this station to McCormick Place.

Taxi

With more than 6,500 vehicles, Chicago has the second largest taxi fleet in the country. Discounted shared rides are available between the convention center and downtown. A taxi dispatch center is located in McCormick Place to ensure cabs are readily available to meet demand.

Neuroscience 2015

Resources



Attendee Resources

SfN aims to provide high service levels. The Society has compiled a series of resources to help all attendees navigate Neuroscience 2015.

Airport Shuttle

GO Airport Express offers transportation to and from downtown Chicago and the two major airports. Fares will vary according to your final destination. For more detailed information, or to make your reservation early, call (800) 284-3826 or visit airportexpress.com.

Annual Meeting Offices

LOGISTICS AND PROGRAMMING

McCormick Place: Hall A

Hours:

Friday, Oct. 16
8 a.m.–5 p.m.
Saturday, Oct. 17–Wednesday, Oct. 21
7 a.m.–6 p.m.

The Annual Meeting Headquarters Office addresses all questions concerning annual meeting logistics and programming for the 2015 and 2016 annual meetings.

ATM Machines

There are several ATMs located within McCormick Place. Cash machines are available in each building: South Level 2.5 in the Convenience Center; North Level 2, near McDonalds; West Level 1 near the Transportation Center and Lakeside Level 2, near the Arie Crown Theater box office. All cash machines accept American Express, VISA, MasterCard, Cirrus, and Plus.

Business Center

FedEx Office, a full service company, is conveniently located on level 2.5 of the Grand Concourse in the South Building. FedEx Office offers copying, mailing, faxing, as well as other services. They also provide fast and efficient shipping and receiving services for our attendees. For your added convenience, there are satellite stores located on Level 2 in the North and West Buildings and on Level 2 in the Lakeside Center.

The Hyatt Regency Chicago Downtown (not connected to McCormick Place) and the Fairmont Chicago, Millennium Park Hotels also operate full-service business centers.

Certificate of Attendance

McCormick Place: Hall A

Every attendee is advised to obtain a certificate, available at a designated booth in the registration area. Signed and sealed by SfN staff, certificates of attendance are proof to home institutions that attendees were present at the meeting. The document is often required for reimbursement of meeting expenses. Attendees must pick up the certificate in person at the meeting. There are no exceptions.

Chicago Resources and Attractions

For visitor's information,
visit choosechicago.com/AM2015/

Child Care

McCormick Place: Room S504 BCD

On-site child care and youth programs will be available at Neuroscience 2015 for children ages 6 months to 12 years. This service is provided through KiddieCorp, a national firm with more than 20 years of experience in on-site conference child care. KiddieCorp services provide attendees with flexibility in meeting schedules and with a reliable, affordable, and trustworthy option for child care during the annual meeting.

Details, pricing, and reservation information are available on the KiddieCorp/Neuroscience 2015 Web page, kiddiecorp.com/neurokids. All policies and fees are established by KiddieCorp, and all questions should be directed to them. Space is limited.

Coat & Luggage Check

McCormick Place

Hours:

Near Gate 4 Entrance
Friday, Oct. 16–Tuesday, Oct. 20
7:30 a.m.–7 p.m.
Wednesday, Oct. 21
7:30 a.m.–6 p.m.

West Transportation Lobby, near Gate 1
Saturday, Oct. 17–Monday Oct. 19
7:30 a.m.–7 p.m.

S104
Tuesday, Oct. 20
7:30 a.m.–7 p.m.
Wednesday, Oct. 21
7:30 a.m.–6 p.m.

Limited space will be available for coat & luggage check on a first-come, first-served basis at the convention center. Please do not bring luggage into the meeting rooms.

Continuing Medical Education

CME registration must be completed before or during the annual meeting. Those who do not register at these times will not receive the necessary documentation should they request it after the meeting. CME registrants will receive, via email, two weeks before the meeting, the CME Supplemental Program, which contains important information regarding the CME Program, including disclosure information and instructions for obtaining CME credits. Visit SfN.org/cme or see page 70 for details.

Disabilities and Special Needs

For assistance with special needs or disabilities on-site, visit the SfN headquarters office in Hall A of McCormick Place. SfN staff will provide information and assistance, but without prior notification of need, SfN cannot ensure availability of appropriate accommodations. Scooter and wheelchair rentals are available by contacting ScootAround, Inc by phone at (888) 441-7575, by email at info@scootaround.com or by fax at (204) 478-1172. For additional information, email meetings@sfn.org.

Event Locations

Lectures, exhibits, scientific sessions, symposia, poster sessions, registration, and headquarters office will be located in the McCormick Place Convention Center. SfN-sponsored socials will be held at the McCormick Place Convention Center. Satellite and ancillary events will be held at McCormick Place, the Hyatt Regency Chicago Downtown Hotel (not connected to McCormick Place), the Fairmont Chicago, and other Chicago facilities.

McCormick Place
2301 S. Martin Luther King Drive
Chicago, IL 60616

Fairmont Chicago, Millennium Park Hotel
200 N. Columbus Drive
Chicago, IL 60601

Hyatt Regency Chicago Downtown Hotel (not connected to McCormick Place)
151 E. Wacker Drive
Chicago, IL, 60601

Exhibits

McCormick Place: Hall A

Hours:

Sunday, Oct. 18–Wednesday, Oct. 21
9:30 a.m.–5 p.m.

Exhibits provide attendees an opportunity to learn about the latest products, publications, and services available. Pick up a copy of the *Exhibit Guide* at any program pick-up kiosk. The *Exhibit Guide* includes a listing of exhibiting companies and a cross-referenced listing of companies by type of product exhibited. Links to exhibiting company websites are available through the Neuroscience 2015 website, SfN.org/exhibits. The hyperlinks will remain live through June 30, 2016.

Inquiry cards: Your badge will serve a double purpose: (1) as a name badge and (2) an exhibit inquiry card. Your demographic information will be encoded onto the front of the badge. Email addresses will only be included if you selected the option box when registering. Council encourages all annual meeting attendees to present their badge at each exhibit booth they visit. Exhibitors determine the success of their participation in the annual meeting by the number of leads they accumulate from attendees visiting their exhibit booths. We appreciate your cooperation — a successful exhibit program helps defray the cost of running the annual meeting and keeps registration fees at a minimum.

For further information, visit the exhibits section of the SfN website at SfN.org/exhibits or contact Allison Burns, Senior Meeting Planner, at exhibits@sfn.org or (202) 962-4000.

First Aid and Emergencies

McCormick Place: Level 2.5S

During session hours, the first aid room at the convention center will be open and staffed by certified medical providers.

First Aid and Hospital Numbers

First Aid Station: Level 2.5S
(312) 791-6060

Mercy Hospital
(closest to McCormick Place)
2525 S. Michigan Avenue
Chicago, IL 60616
(312) 567-2000

Physicians Immediate Care
811 S. State Street
Chicago, IL 60605
(312) 566-9510

Walgreens Pharmacy
(closest to McCormick Place)
3405 S. Martin Luther King Drive
Chicago, IL 60616
(312) 326-4064

Food Courts

McCormick Place: Hall A

Hours:

Saturday, Oct.17
11 a.m.–2 p.m.
Sunday, Oct. 18–Wednesday, Oct. 21
7:30 a.m.–3 p.m.

Important Phone Numbers

HEADQUARTERS OFFICE

HQ Office/Logistics
(312) 791-6700

HQ Office/Programming
(312) 791-6705

PRESS OFFICE
(312) 791-6730

EXHIBIT MANAGEMENT
(312) 791-6740

Infant Changing Facilities

McCormick Place: Room S400B

An infant changing room designated for the privacy of parents and guardians caring for infants is available at McCormick Place.

The room is equipped with chairs and tables in private areas for changing diapers or nursing, as well as electricity and a water cooler (room temperature). Parents and guardians are responsible for providing infant care supplies. The infant changing room is unsupervised. SfN is not responsible for accidents or injuries that may occur in this room.

Information Booths

McCormick Place
Gate 4 Lobby
Hall A
West Transportation Lobby

Hours:

Friday, Oct. 16
2–6 p.m.
Saturday, Oct.17–Tuesday, Oct. 20
7:30 a.m.–6 p.m.

Wednesday, Oct. 21
8 a.m.–5 p.m.

International Attendees

International attendees should refer to the U.S. State Department website at travel.state.gov for more information regarding visas.

Literature Displays

McCormick Place: Hall A

Keep your eyes open for important annual meeting event updates on display in the registration area of McCormick Place. Approval is required to place announcements on displays. Attendees can get approval before the meeting by contacting meetings@sfn.org or onsite in the Headquarters Office.

Lost and Found

McCormick Place: Hall A

Direct inquiries about lost items to the lost and found counter in the registration area of McCormick Place.

Mobile Resources

Several resources are available that allow meeting attendees to access meeting information on electronic mobile devices. PDF versions of the General Information book and individual daily books are available for download at SfN.org. The Neuroscience Meeting Planner, SfN's online resource for all annual meeting sessions, is available at SfN.org/nmp and can be accessed on any device with an Internet connection. The annual meeting mobile app, available for download to Apple and Android devices, allows attendees to explore annual meeting sessions and exhibitors on-the-go. Once downloaded, the app can be used without an internet connection. Learn how to take advantage of all of the features of the app at one of the annual meeting mobile app tutorial sessions.
See p.27 for details.

Annual Meeting Mobile App
Tutorial Sessions
Location: N229
Saturday, Oct. 17, 10–11 a.m., 2–3 p.m.

My Neuroscience Marketplace

Build your list of preferred exhibitors through My Neuroscience Marketplace, SfN.org/exhibits, a virtual directory of vendors offering products and services to the neuroscience community. My Neuroscience Marketplace is searchable by exhibitor names, booth numbers, products, or keywords.

NeuroJobs Career Center

McCormick Place: Hall A

Hours:

Saturday, Oct.17–Tuesday, Oct. 20
8 a.m.–5 p.m.
Wednesday, Oct. 21
8 a.m.–3 p.m.

The on-site SfN NeuroJobs Career Center connects employers with a pool of well-qualified candidates seeking opportunities ranging from postdoctoral and faculty positions to neuroscience-related jobs in industry and other areas. Job seekers and employers can take advantage of interview booths and computers for posting jobs and scheduling interviews. For prices and more information on how to set up a NeuroJobs account, visit SfN.org/neurojobs. On-site payment can only be made by credit card.

Neuroscience Meeting Planner Viewing Area

McCormick Place: Hall A

Hours:

Saturday, Oct.17–Tuesday, Oct. 20
7:30 a.m.–5 p.m.
Wednesday, Oct. 21
7:30 a.m.–3 p.m.

The Neuroscience Meeting Planner (NMP) contains the full text of abstracts and allows attendees to plan an itinerary for Neuroscience 2015. It can be accessed online at SfN.org/nmp or on-site in the NMP viewing area.

Online Content

Some events will be recorded and posted on sfn.org or neuronline.sfn.org after SfN 2015. Neuronline is SfN's new members-only home for learning resources and discussion. Visit neuronline.sfn.org to view SfN's full library of digital content. See pg. 24 for a listing of events that will have online content.

Parking

Events held in the North and South Buildings designate Lot A as the primary parking location. Lot A is a six-level garage located on Martin Luther King Drive, adjacent to the West Building. Covered walkways from Lot A leading directly into McCormick Place and the Hyatt Regency McCormick Place Hotel provide added convenience. The parking rate is $21 for up to 16 hours and $34 from 16 to 24 hours. There are no in-and-out privileges. Overnight parking is available in Lot A only. Lost tickets will pay the $34 (overnight) fee per day. Credit cards are accepted at the parking ticket kiosks.

Photography and Electronic Recording Restrictions/Cell Phones

Photography, video, filming, tape recording, and all other forms of recording are prohibited during the poster sessions, lectures, symposia, minisymposia, nanosymposia, courses, workshops, and on the exhibit floor. Such recording is only permitted during press conferences. Other arrangements must be made in advance in the Press Room. Cell phone use in sessions is prohibited. For arrangements to photograph the exhibit floor, contact Allison Burns, Senior Meeting Planner, at exhibits@sfn.org or (202) 962-4000.

Poster Sessions

McCormick Place: Hall A

Hours:

Saturday, Oct.17
1–5 p.m.
Sunday, Oct. 18–Wednesday, Oct. 21
8 a.m.–noon, 1–5 p.m.

Press Offices

McCormick Place
Press Room, S501ABC
Press Conference Room, S501D
Press Interview Room, S502A

Hours:

Saturday, Oct. 17–Wednesday, Oct. 21
8 a.m.–5 p.m.

Members of the press must register and pick up their badges in the Press Room.

Program and *Exhibit Guide* Pick-Up

McCormick Place: Hall A and West Transportation Lobby

Hours:

Friday, Oct. 16
2–5 p.m.
Saturday, Oct.17–Sunday, Oct. 18
7:30 a.m.–5 p.m.
Monday, Oct. 19
7:30 a.m.–noon

Attendees will receive free printed copies of the general information book and the *Exhibit Guide*. Attendees can pick up a copy of these materials at any *Program* and *Exhibit Guide* pick-up location in McCormick Place. The printed daily books and the Author Index are available for purchase for a minimal fee, see page 75 for details. The *Program* and daily books are also available online at SfN.org/am2015 as downloadable PDFs.

Restaurant Reservations

McCormick Place: Level 2.5S

Hours:

Saturday, Oct.17
Noon–6 p.m.
Sunday, Oct. 18–Tuesday, Oct. 20
10 a.m.–6 p.m.
Wednesday, Oct. 21
10 a.m.–5 p.m.

SfN Booth

McCormick Place: Hall B, Booth #1005

As you experience Neuroscience 2015's Exhibit Hall, stop by the SfN Booth to learn about new member resources and services offered by your professional society.

Speaker Ready Room

McCormick Place: Room N426C

Hours:

Friday, Oct. 16–Wednesday, Oct. 21
7 a.m.–5 p.m.

Presenters are urged to check their media at least 24 hours in advance of presentation in the Speaker Ready Room to confirm compatibility with the session room computers. See page 87 for more information.

Transportation to and from McCormick Place/Hotels

Shuttle

The Society for Neuroscience will provide complimentary shuttle service between the McCormick Place and all SfN-contracted hotels with the exception of the Hyatt Regency McCormick Place, adjacent to the convention center. Shuttle service will operate during the annual meeting dates of Saturday, October 17 to Wednesday, October 21. For questions, visit the shuttle desk located at McCormick Place: South Hall, across from Gates 1–3. See page 80 for more information.

Metra

The Metra, Chicago's commuter train system, runs from downtown directly into the convention center. Located on Level 2.5 of the Grand Concourse in the South Building, the Metra provides direct service within seven minutes to and from downtown Chicago. A Metra schedule is available at SfN.org/metra. SfN will provide free Metra passes to attendees for travel between McCormick Place and the downtown station.

The "L"
The CTA, Chicago's light rail system known as the "L," provides service throughout the city and to O'Hare and Midway airports. SfN will run a complimentary shuttle from the Roosevelt Road station (Red, Orange, and Green lines) to McCormick Place during regular shuttle hours.

Taxis
There are several companies that provide taxicab service in Chicago. Taxicabs are easily accessible at the convention center, major hotels, and other downtown locations and attractions.

Volunteer Leadership Lounge

McCormick Place: S505A

Hours:

Saturday, Oct. 17–Wednesday, Oct. 21
7:30 a.m.–5 p.m.

The Volunteer Leadership Lounge addresses matters for the Council, committees, and past presidents.

Wireless Internet

As a service to annual meeting registrants, SfN provides free wireless Internet access in designated areas of McCormick Place during Neuroscience 2015. To take advantage of this free service, bring a laptop, smartphone, or tablet with a built-in wireless network card or with an external wireless card that is 802.11a, 802.11g, or 802.11n compatible, and set your network card to use DHCP ("or Acquire address automatically"). Wireless network users should reference the FAQs and disclaimers at SfN.org/wireless before accessing the network. SfN will provide support for wireless users at the Wireless Support booth in the Attendee Services area.

Speaker Resources

Nanosymposia, minisymposia, symposia, dynamic poster, and lecture presenters are encouraged to check their media at least 24 hours in advance of their presentation in the Speaker Ready Room, located in the McCormick Place, Room N426C, to confirm compatibility with the session room computers. Presenters should arrive in their session room at least 30 minutes prior to the start of their session to download their presentations onto the in-room computer hard drive.

Presenters using their own laptops MUST have a VGA 15 pin HD female video output cable. If the cable is not brought with the laptop computer being used, there is no way to connect it to the session room data/video projector.

NOTE: Many laptop computers use a special interface cable (e.g., DVI to VGA) to attach video out to the session room data/video projector.

Available Audiovisual Equipment for Nanosymposia, Minisymposia, Symposia, and Lectures

Although presenters are welcome to use a personal laptop for their presentation (see: Tips for Presenter Using a Personal Laptop Computer), the following audiovisual equipment will be set up in all session rooms:

- Audio system with microphones
- One data/video projector
- One laser pointer
- One PC computer with an open USB port for flash drives
- One screen (multiple screens for lectures)
- Projectionist to assist with audiovisual equipment set-up and operation

Presentation Software for Nanosymposia, Minisymposia, Symposia, and Lectures

The only available presentation software in each session room will be PowerPoint 2013 and Adobe Acrobat Reader 11 (PDF-based). Presenters using other software (e.g., Apple Keynote or PC Corel Draw 12) should save their presentation in PowerPoint 2013 or Adobe Acrobat Reader 11. When saving a presentation into the recommended formats, remember to include the extension .ppt or .pdf, or the session room computers will not recognize the file format.

Recommended Presentation Storage Media

Presenters are urged to bring their presentation on a USB flash drive to avoid setup delays between presentations. Macintosh users should note that Macs can write a PC-formatted readable USB flash drive. Presenters also must have a copy of all external files, such as movie or sound files (e.g., .wav, avi., mpeg, etc.), contained within their PowerPoint presentations.

Tips for Presenters Using a Personal Laptop Computer

Presenters using their own laptop computers must be set up prior to the session start time to avoid setup time that will decrease their allotted presentation time. Presenters should be certain to have the most recent version/update of drivers installed.

Those who use a personal laptop must also know how to get the image to the external port of the laptop. Instructions are in each laptop operator's manual. (If the external port is not always "on," it is usually a function key, or combination of shift plus a function key, that may turn on the external port, or possible cycle through laptop screen, external port, or both).

NOTE: The laptop output resolution should be no more than XGA (1024 x 768). The native resolution on the data projectors are 1024 x 768, so higher resolutions will force the data projectors into a compression mode, possibly losing some information or interfering with projection.

Poster Sessions

Projection equipment will not be available in the poster area. No audiovisual orders will be accepted on-site.

For more information,
visit SfN.org/presenterresources.

Exhibitor List

As of August 10, 2015

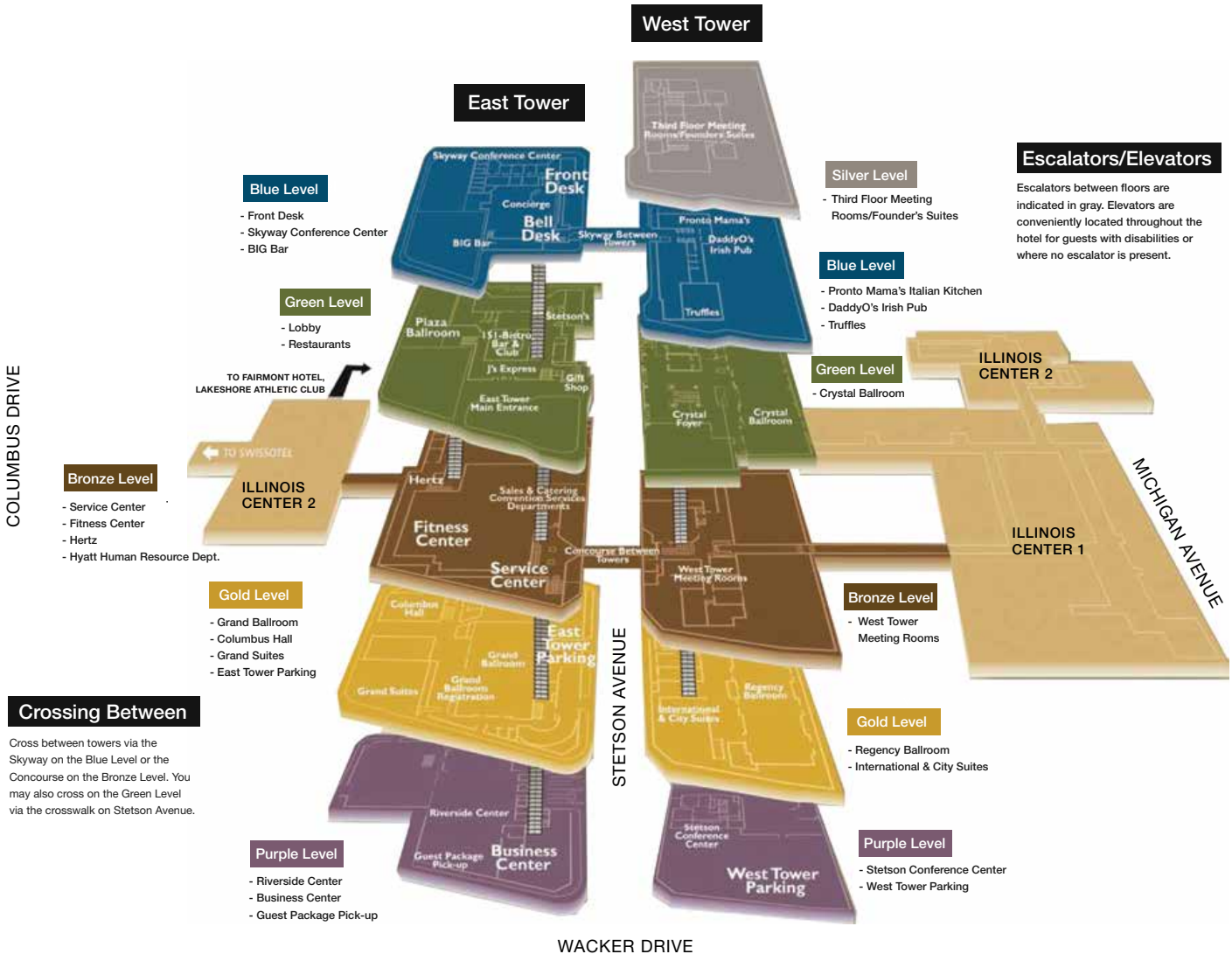
Exhibitor	Booth Number
3Brain GmbH	467
3DHISTECH Kft.	1805
3i - Intelligent Imaging Innovations	742
89 North	1717
A - M Systems, Inc.	1362
A.M.P.I.	1017
AAAS/Science and Technology Policy Fellowships	2015
Abcam	601
Accuscan	968
Acris Antibodies Inc.	2056
ACS Publications	2012
Active Motif	501
ADInstruments, Inc.	962, 1905
Advanced Brain Monitoring	2052
Advanced Cell Diagnostics Inc.	1810
Advanced Platform Technology (APT) Center	2129
Advanced Targeting Systems, Inc.	662
Agilent Technologies, Inc.	1934
ALA Scientific Instruments, Inc.	1465
Alembic Instruments Inc.	1168
Alfa Wassermann Separation Technologies	447
Allele Biotechnology & Pharmaceuticals Inc.	1744
Allen Institute for Brain Science	309
Alpha MED Scientific Inc.	463
ALS Association, The	2038
ALZET Osmotic Pumps/Durect Corp	1116
Alzheimer Drug Discovery Foundation	2028
Alzheimer's Association	152
Alzheimer's Research UK	2165
Am Qualex Antibodies Signal Transduction (AQSP)	573
American Association of Neuroscience Nurses (AANN)	2054
American Physiological Society, The	2016
American Radiolabled Chemicals, Inc.	1803
American Society for Pharmacology & Experimental Therapeutics	2017
amsbio LLC	1637
AnaSpec, EGT Group	1556
Andor Technology	1730
Animal Care Systems, Inc.	1634
Animal Identification & Marking Systems, Inc.	324
Annual Reviews	107
ANS Biotech SA	566
ANT neuro	332
Antec bv	473
Araclon Biotech	648
Arbor Assays	774
Arrington Research, Inc.	1636
ArunA Biomedical, Inc.	266
ARVO - Association for Research in Vision and Ophthamology	2162
ASI/Applied Scientific Instrumentation	724
ATCC	408
Atlas Antibodies AB	315
ATLAS Neuroengineering	1742
Autism Speaks	2036
AutoMate Scientific, Inc.	1273
Aves Labs	1773
Aviva Systems Biology Corporation	304
Axion Biosystems	370
Axol Bioscience Ltd.	410
Azure Biosystems	515
Bachem Americas, Inc.	1974
Backyard Brains	1902
Basel Declaration Society	2066
BASi	1511
Beckman Coulter, Inc.	1601
Bentham Science Publishers, Ltd.	106
Bertin Corp	545
BESA GmbH	1924
Bethyl Laboratories, Inc.	518
BINDER Inc.	1614
Bio - Rad Laboratories	617
Bio - Serv	804
Bio Research Center Co., Ltd.	1906
Biochemical Society	226
Biocompare	712
Biocytogen, LLC	1468
BioLegend	401
BIOPAC Systems, Inc.	1063
BioPhotonics, a Photonics Media Publication	1504
Biorbyt Ltd.	210
Biosearch Technologies, Inc.	1969
BIOSEB	2055
biosensis Pty Ltd.	162
Bioss Inc.	319
Bio-Techne	209
BioTechniques	528
BioTek Instruments, Inc.	1809
Biotrial	570
BioVision, Inc.	1766
Bitplane Inc.	1731
BKIN Technologies Ltd.	2073
Blackfynn, Inc.	1846
Blackrock Microsystems	1843
Boster Immunoleader	1866
Boulder Nonlinear Systems, Inc.	533
Brain Networks Laboratory, Texas A&M University	2145
Brain Products	437
Brain Vision LLC	435
BrainBits LLC	562
BRAINS	2168
Brains On-Line	1917
BrightFocus	2172
Bruker Corporation	525
BSCS Systems Neuroscience	2167
BTX, a division of Harvard Bioscience, Inc.	1043
Caliber Imaging and Diagnostics	649
Cambridge Electronic Design Ltd.	1763
Cambridge NeuroTech	1466
Cambridge Research Systems Ltd.	442
Canadian Association for Neuroscience	2034
Caputron Medical	335
Carl Zeiss Microscopy, LLC	711
Cayman Chemical Company	1772
CEDARLANE	425
Cell Biologics, Inc.	250
Cell MicroControls	1562
Cell Signaling Technology, Inc.	1616
Cellectricon	871
Cellular Dynamics International	1170
Centre for Brain Research, Indian Institute of Science	2150
Changchun New industries Optoelectronics Technology Co., Ltd.	1907

Hotel Floor Plans

HYATT REGENCY CHICAGO DOWNTOWN

(not connected to McCormick Place)

151 E. Wacker Drive
Chicago, IL 60601



Blue Level
- Front Desk
- Skyway Conference Center
- BIG Bar

Green Level
- Lobby
- Restaurants

Bronze Level
- Service Center
- Fitness Center
- Hertz
- Hyatt Human Resource Dept.

Gold Level
- Grand Ballroom
- Columbus Hall
- Grand Suites
- East Tower Parking

Purple Level
- Riverside Center
- Business Center
- Guest Package Pick-up

Silver Level
- Third Floor Meeting Rooms/Founder's Suites

Blue Level
- Pronto Mama's Italian Kitchen
- DaddyO's Irish Pub
- Truffles

Green Level
- Crystal Ballroom

Bronze Level
- West Tower Meeting Rooms

Gold Level
- Regency Ballroom
- International & City Suites

Purple Level
- Stetson Conference Center
- West Tower Parking

Escalators/Elevators

Escalators between floors are indicated in gray. Elevators are conveniently located throughout the hotel for guests with disabilities or where no escalator is present.

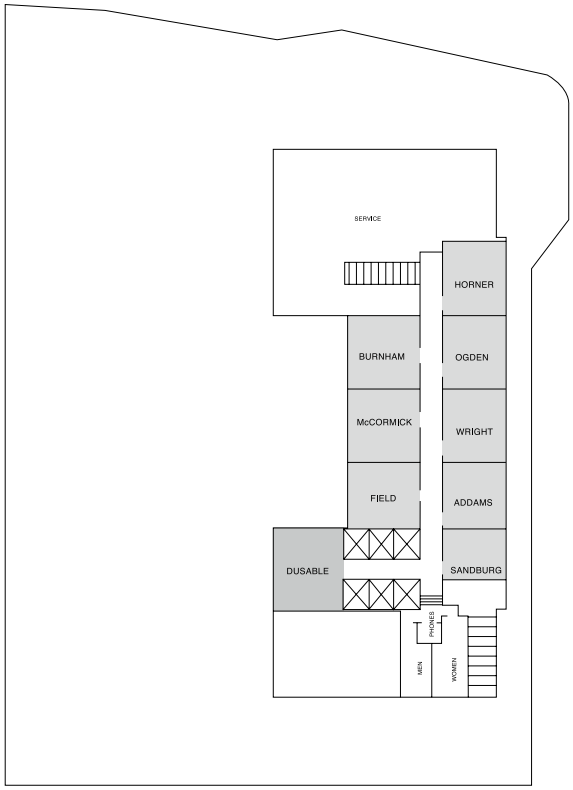
Crossing Between

Cross between towers via the Skyway on the Blue Level or the Concourse on the Bronze Level. You may also cross on the Green Level via the crosswalk on Stetson Avenue.

HYATT REGENCY CHICAGO DOWNTOWN

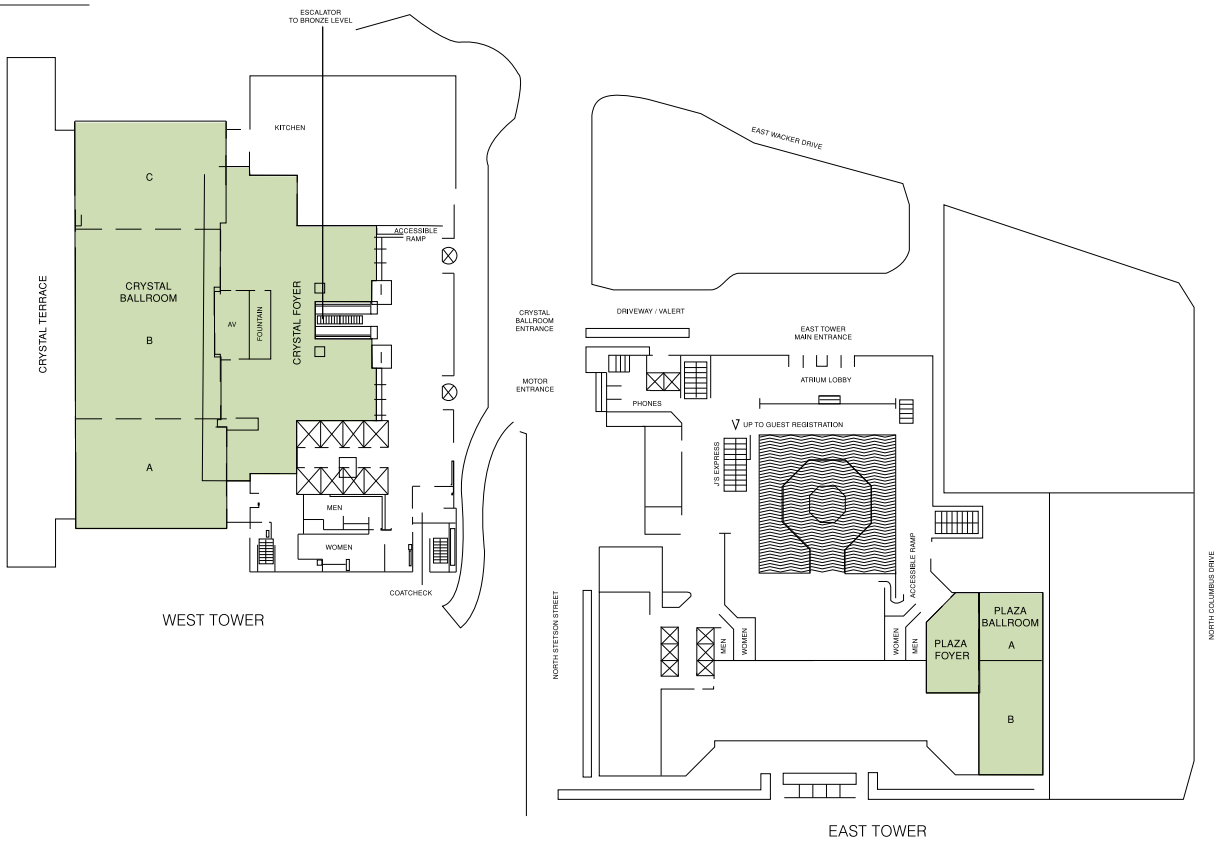
(continued)

SILVER LEVEL



WEST TOWER

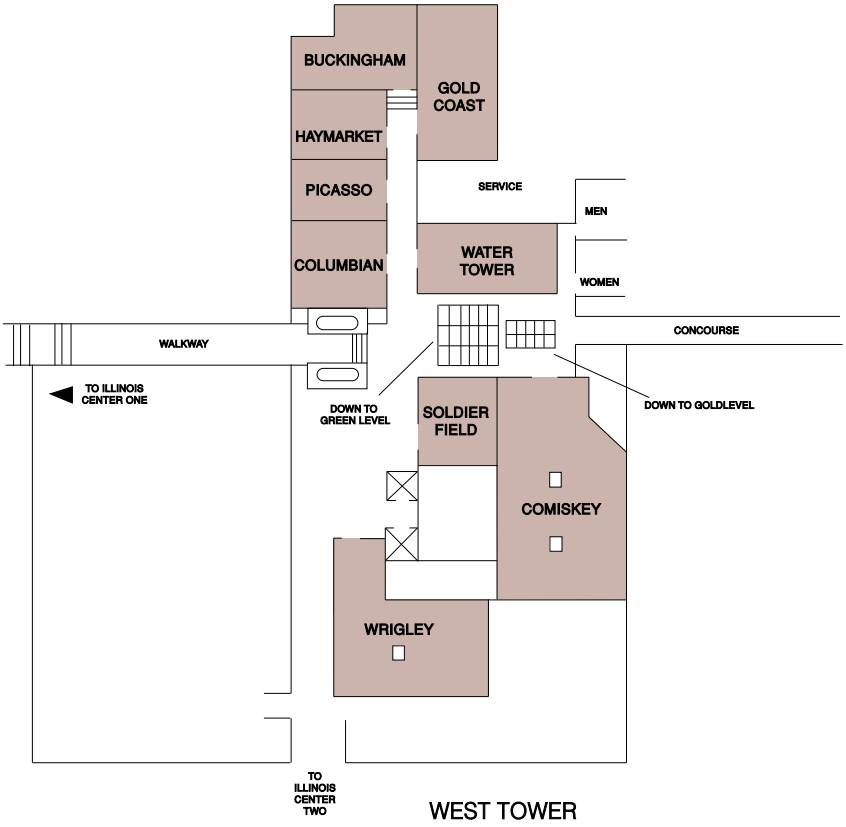
GREEN LEVEL



HYATT REGENCY CHICAGO DOWNTOWN

(continued)

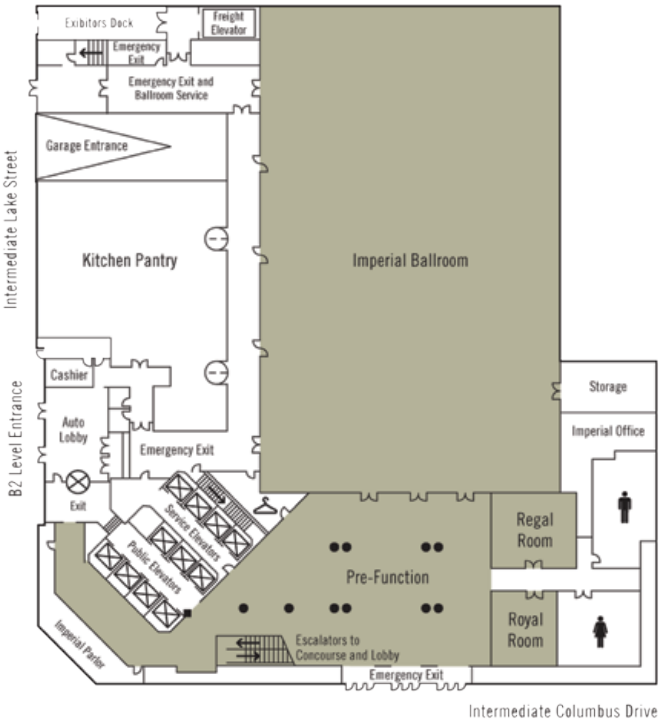
BRONZE LEVEL

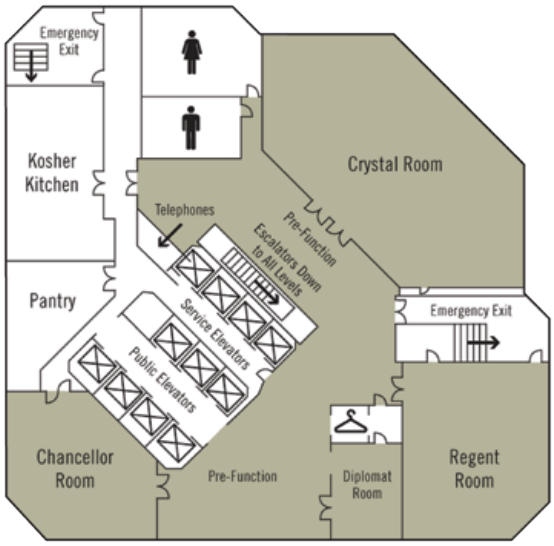


GOLD LEVEL

FAIRMONT CHICAGO, MILLENNIUM PARK

200 N. Columbus Drive
Chicago, IL 60601

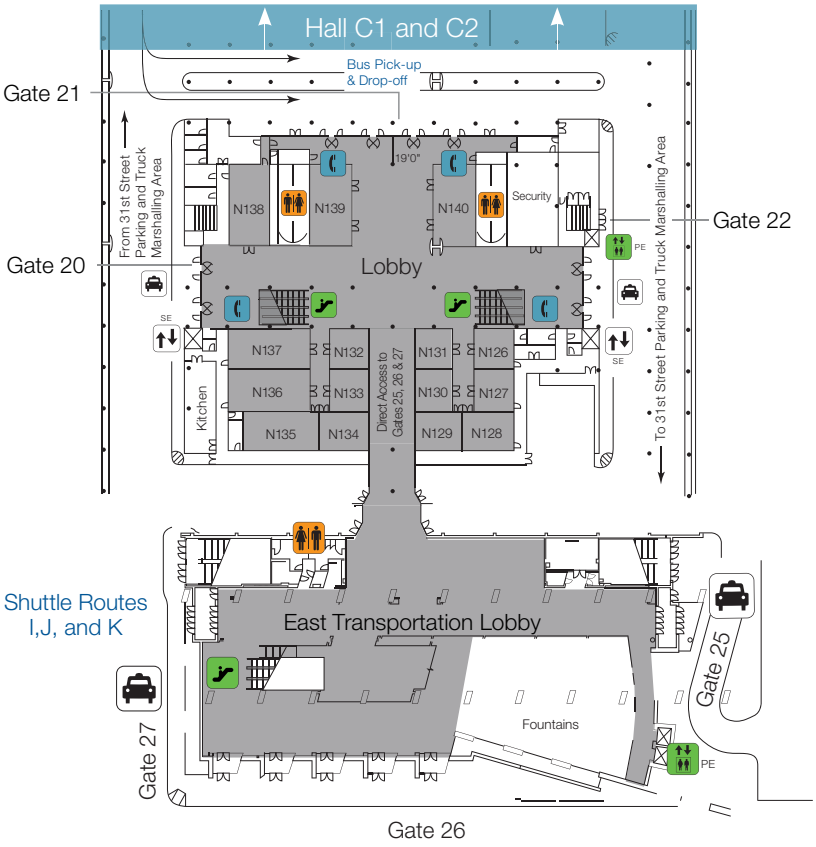




McCORMICK PLACE

2301 S. Martin Luther King Drive
Chicago, IL 60616

LEVEL 1 NORTH

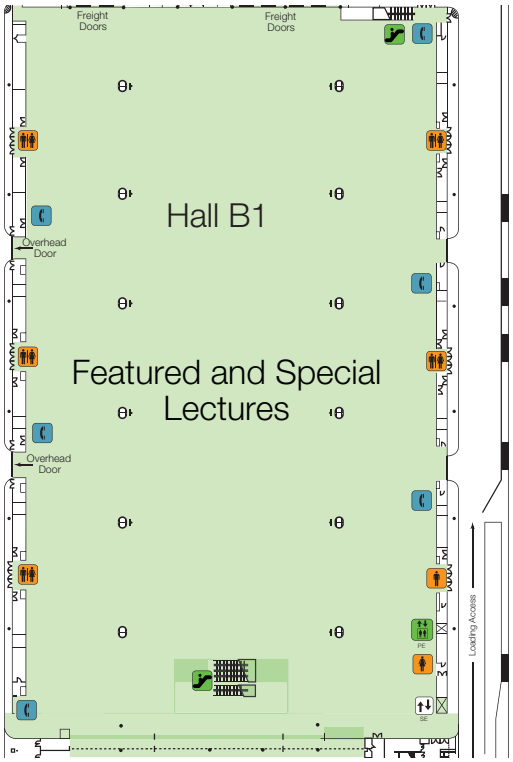


LEVEL 2 NORTH

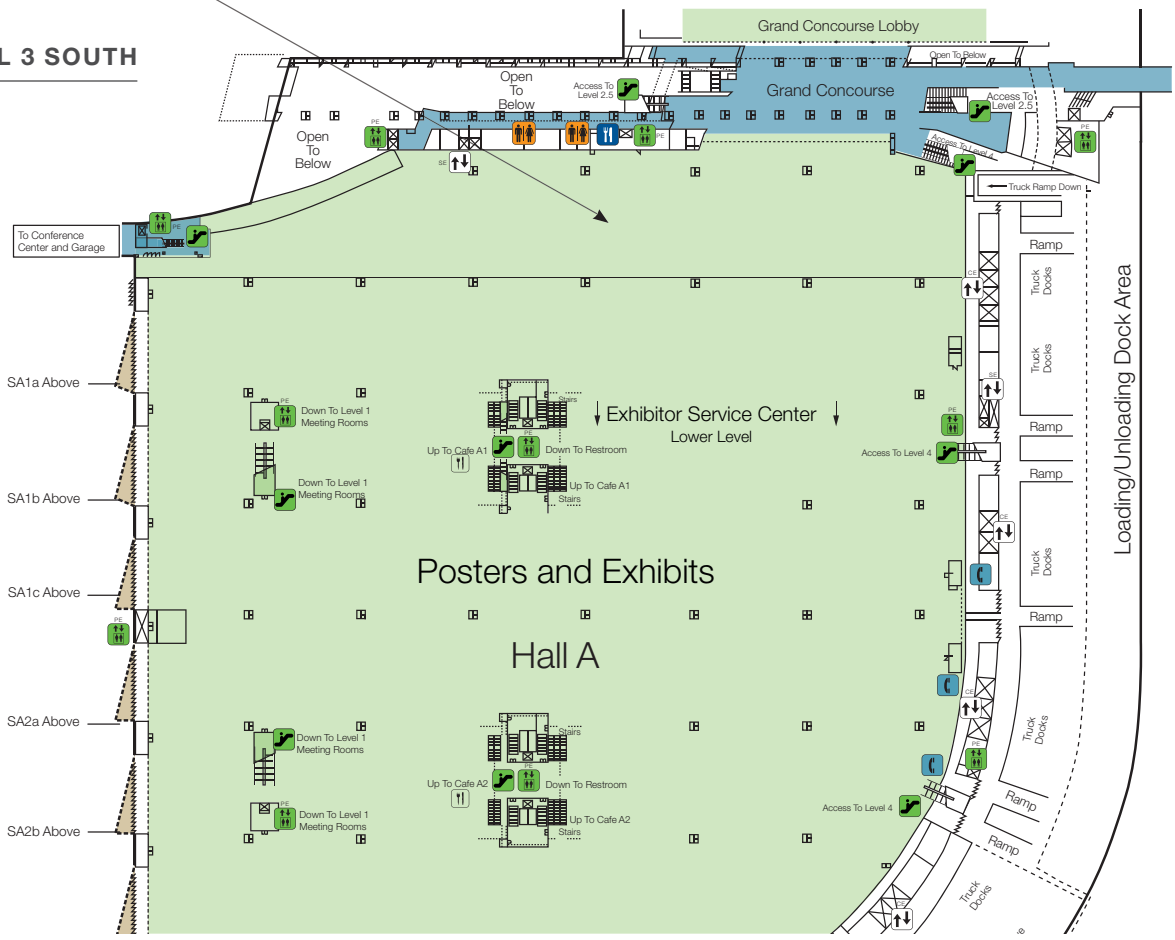
LEVEL 3 NORTH

Registration and Attendee Resources Located in Hall A:

- Certificates of Attendance
- Express Badge Pick-up
- Graduate School Fair
- Headquarters-Logistics and Programming
- Housing Desk
- Lost and Found
- Membership
- Mobile App Help Center
- NeuroJobs
- Neuroscience Meeting Planner Viewing Area
- Program and Exhibit Guide Pick-up
- Registration
- SfN Information Booth
- Wireless Assistance



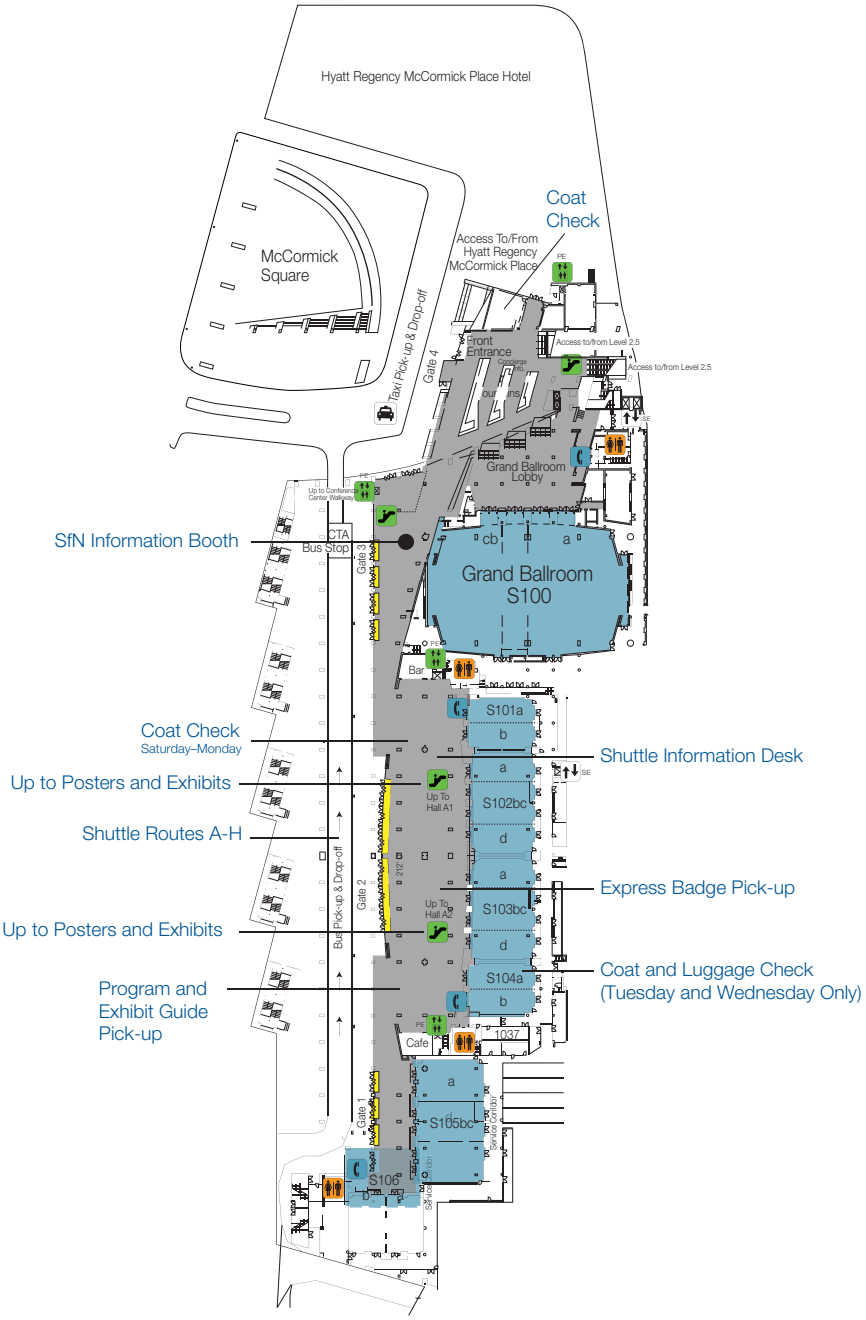
LEVEL 3 SOUTH



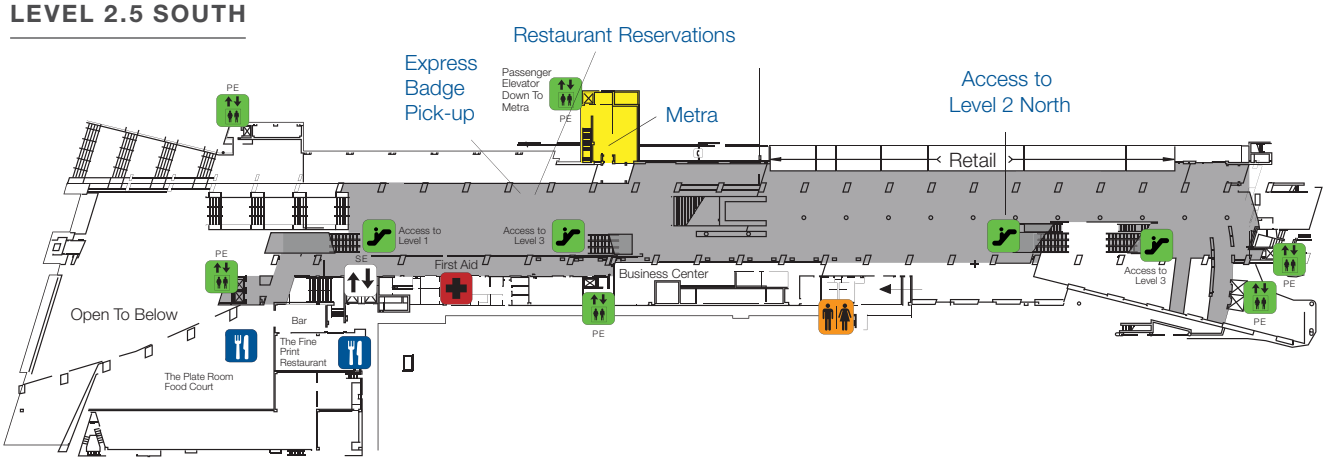
McCORMICK PLACE

(continued)

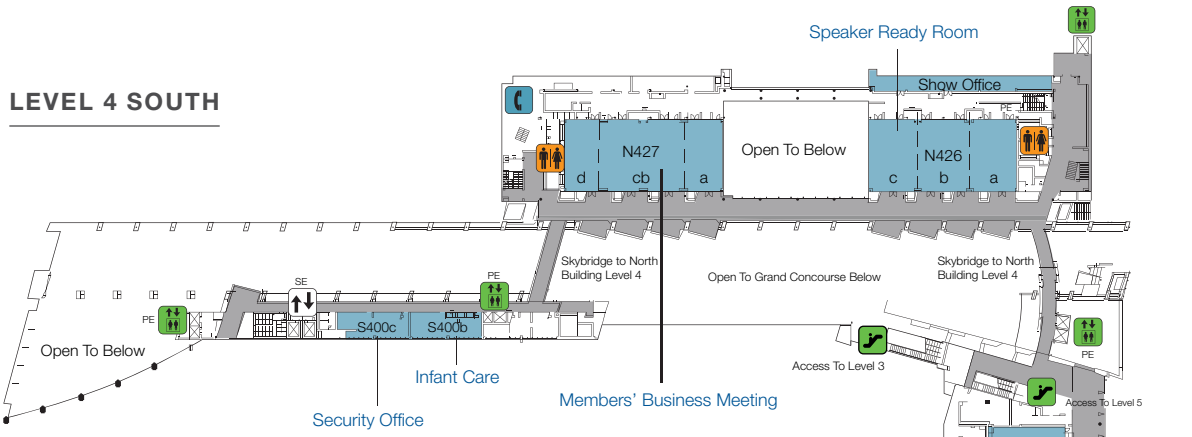
LEVEL 1 SOUTH



LEVEL 2.5 SOUTH



LEVEL 4 NORTH



LEVEL 4 SOUTH

LEVEL 5 SOUTH

Neuroscience 2015

Exhibits and Poster Sessions

McCormick Place, South Building

Meeting Dates: Oct. 17–21

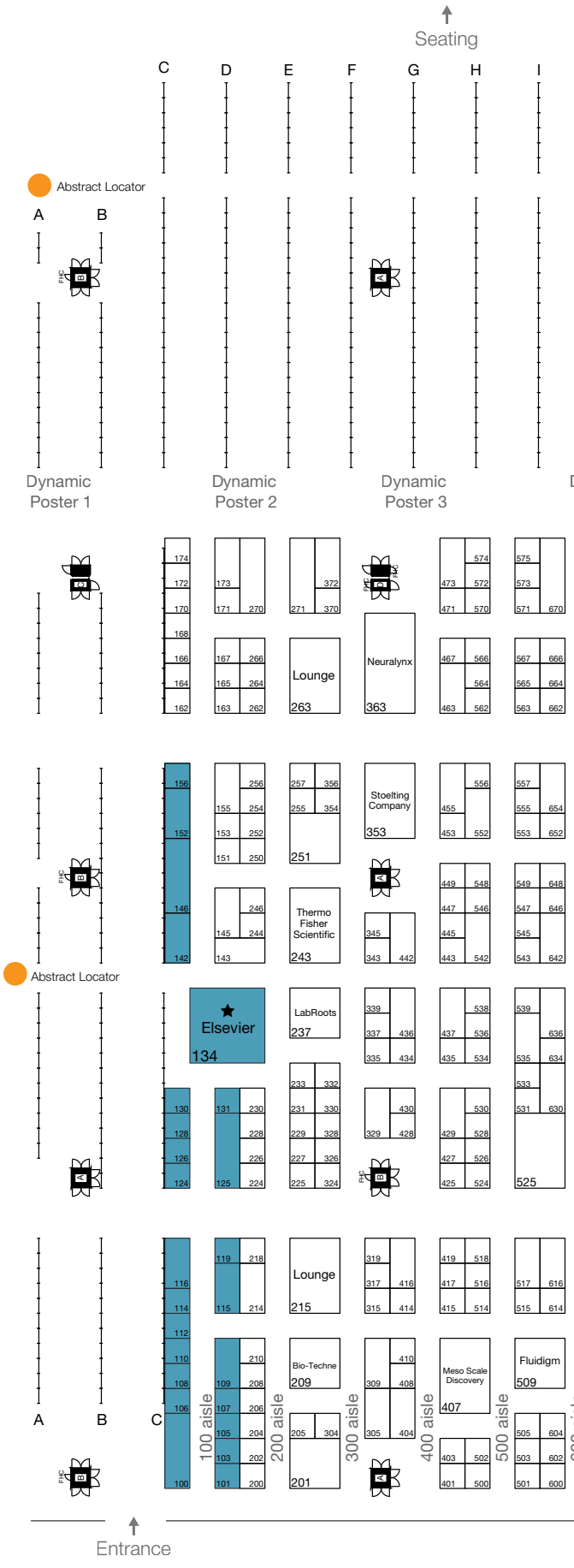
Exhibit Dates: Oct. 18–21

Note: Entrances will open at noon on Saturday and at 7 a.m. Sunday through Wednesday for poster presenter setup only. Poster sessions are open for all attendees at 1 p.m. on Saturday and 8 a.m. Sunday through Wednesday.

Floor plans subject to change.

For current floor plan, visit SfN.org/exhibits.

- Publisher's Row
- Nonprofit / Institutes
- SfN
- Exhibitor Service Center
- Sustaining Associate Members
- Food Court
- Abstract Locator
- Column / Fire Hydrant (FHC)




Abstract Locator
Seating
Graduate School Fair
Abstract Locator
J K L M N O P
Q R S T
U V W X Y Z AA BB
CC DD
Dynamic Poster 4
Dynamic Poster 5
Dynamic Poster 6
Dynamic Poster 7
Dynamic Poster 8
Dynamic Poster 9
Dynamic Poster 10
Abstract Locator
Eppendorf 763
Plexon 1163
Lonza 1473
1563
Tucker-Davis Technologies
Lounge 1863
TSE 753
Taconic Biosciences 743
EMD Millipore 843
Harvard Apparatus, a div. of Harvard Bioscience 1043
Sigma-Aldrich 1153
Jackson Laboratory 1255
Clever Sys 1355
1851
Blackrock Microsystems
Coherent 1943
Thorlabs 633
Nikon Instruments 1033
Sutter
Kopf Instruments 1025
Food Court
Exhibitor Service Center
2033
2025
National Science Foundation
Abstract Locator
Bio-Rad Laboratories 617
Carl Zeiss Microscopy 711
Society for Neuroscience 1005
Olympus 1312
Charles River 1415
Lounge 1815
Epic Medical Concepts & Innovations 1505
Leica Microsystems 1601
National Institutes of Health 2001
Hamamatsu 1201
1000 aisle
1100 aisle
1200 aisle
1300 aisle
1400 aisle
1500 aisle
1600 aisle
1700 aisle
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600 aisle
700 aisle
800 aisle
900 aisle
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Entrance
Entrance

Photo Credits

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Photo Credits

Program Cover
Composite image of immunofluorescence-labeled cultured neurons from lethargic (CaV β4-null mutant) mice reconstituted with specific splice variants of the calcium channel β4 subunit (shown on the background of a gene expression heat map). β4b (blue) and β4e (orange) both functionally interact with calcium channels in the membrane but possess strikingly different abilities to target into the nucleus and to regulate expression of neuronal genes including that of CaV2.1, the primary channel partner of b4 subunits in cerebellar synapses.

Courtesy, with permission: Solmaz Etemad, Gerald J. Obermair, Daniel Bindreither, Ariane Benedetti, Ruslan Stanika, Valentina Di Biase, Verena Burtscher, Alexandra Koschak, Reinhard Kofler, Stephan Geley, Alexandra Wille, Alexandra Lusser, Veit Flockerzi, and Bernhard E. Flucher, 2014, *The Journal of Neuroscience 34(4): 1446-1461.*

Page 2

Photo by Songquan Deng

Page 3
This hippocampal neuron, 14 d in vitro, lacks NMDA receptor subunit GluN2B. It was immunostained for the AMPA receptor subunit GluA1 (green), the vesicular glutamate transporter VGLUT1 (red), and the microtubule-associated protein MAP2 (blue). An edge-detect filter was used to enhance color and cluster contour. In the absence of the GluN2B subunit, synaptic clustering of AMPA receptors is increased as a result of impaired anchoring of the synaptic proteasome.

Courtesy, with permission: Joana S. Ferreira, Jeannette Schmidt, Pedro Rio, Rodolfo Águas, Amanda Rooyakkers, Ka Wan Li, August B. Smit, Ann Marie Craig, and Ana Luisa Carvalho, 2015, *The Journal of Neuroscience* 35(22): 8462-8479.

Photo by Rudolf Balasko

Page 7
Confocal immunofluorescence image shows the overlapping expression of Lmx1b (red) and 5-HT (green) in the rostral part of the hindbrain of wild-type mice at embryonic day 11.0. Yellow color indicates double staining of Lmx1b and 5-HT.

Courtesy, with permission: Zhong-Qiu Zhao, Michael Scott, Santina Chiechio, Jin-Shan Wang, Kenneth J. Renner, Robert W. Gereau IV, Randy L. Johnson, Evan S. Deneris, and Zhou-Feng Chen, 2006, *The Journal of Neuroscience* 26(49): 12781-12788.

Page 11
Thalamic axonal arbors from corticothalamic neurons of the primary somatosensory (S1) cortex. Colorized fluorescent image from an in vitro slice containing EYFP-expressing corticothalamic fibers originating from a small injection of virus transducing channelrhodopsin2-EYFP into deep S1 cortex.

Courtesy, with permission: Seung-Chan Lee, Saundra L. Patrick, Kristen A. Richardson, and Barry W. Connors, 2014, *The Journal of Neuroscience* 34(39): 13170-13182.

Page 13
Fluorescent image of the dentate gyrus of triple mutant mice: ArpC3f/f; SlickV-CreER;Loxstop-lox Rosa26 Tomato Fluorescent protein. Image shows the mosaic distribution within the same tissue of wild-type neurons (green) and knock-out neurons (blue) after tamoxifen treatment. Nuclei are labeled with DAPI (red). Disruption of the Arp2/3 complex by loss of the ArpC3 subunit leads to progressive loss of dendritic spines over time in vivo, which is associated with schizophrenia-like endophenotypes. Cover design by Il Hwan Kim.

Courtesy, with permission: Il Hwan Kim, Bence Racz, Hong Wang, Lauren Burianek, Richard Weinberg, Ryohei Yasuda, William C. Wetsel, and Scott H. Soderling, 2013, *The Journal of Neuroscience* 33(14): 6081-6092.

Page 17
NMDA spike/plateau potentials can be elicited locally in distal dendrites of thalamocortical neurons (two-photon reconstruction, color encodes depth) in dorsal lateral geniculate nucleus. Through these dendritic potentials, cortical feedback can regulate the flow of visual information by shifting the functional firing mode of thalamocortical neurons from burst to tonic and by facilitating retinal signal transmission in tonic mode.

Courtesy, with permission: Sigita Augustinaite, Bernd Kuhn, Paul Johannes Helm, and Paul Heggelund, 2014, *The Journal of Neuroscience* 34(33): 10892-10905.

Page 18
Striatal neurons from embryonic day 17.5 Frizzled3 knock-out mice, stained for dopamineand cAMP-regulated phosphoprotein of 32 kDa (DARPP-32; green). The striatum is normally heavily innervated by meso-diencephalic axons at this developmental stage, but the neurons shown here still await innervation by these projections.

Courtesy, with permission: Ali G. Fenstermaker, Asheeta A. Prasad, Ahmad Bechara, Youri Adolfs, Fadel Tissir, Andre Goffinet, Yimin Zou, and R. Jeroen Pasterkamp, 2010, *The Journal of Neuroscience* 30(47): 16053-16064.

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This image of a coronal section of the dorsal telencephalon from an embryonic day 18.5 mouse shows excitatory neurons of different layers (yellow and red). Haploinsufficiency for Rbm8a, a component of the exon junction complex, causes severe microcephaly and defective neurogenesis.

Courtesy, with permission: Hanqian Mao, Louis-Jan Pilaz, John J. McMahon, Christelle Golzio, Danwei Wu, Lei Shi, Nicholas Katsanis, and Debra L. Silver, 2015, *The Journal of Neuroscience* 35(18): 7003-7018.

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Cultured rat hippocampal neurons (7 d in vitro) 1.5 h after excitotoxic stimulation with glutamate. The cells are stained for vesicular GABA transporter (green) and βtubulin (red). Although hippocampal cultures are enriched in glutamatergic neurons, they also contain a small percentage of GABAergic neurons, which project axons throughout the culture.

Courtesy, with permission: João R. Gomes, Andrea C. Lobo, Carlos V. Melo, Ana R. Inácio, Jiro Takano, Nobuhisa Iwata, Takaomi C. Saido, Luís P. de Almeida, Tadeusz Wieloch, and Carlos B. Duarte, 2011, *The Journal of Neuroscience* 31(12): 4622-4635.

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This sagittal section shows the regeneration of mouse corticospinal tract axons (red) 7 months after Pten deletion was initiated in motor cortex. Pten deletion was initiated 1 year after spinal cord injury in this mouse. Green labels glial fibrillary acidic protein.

Courtesy, with permission: Kaimeng Du, Susu Zheng, Qian Zhang, Songshan, Xin Gao, Juan Wang, Liwen Jiang, and Kai Liu, 2015, *The Journal of Neuroscience* 35(26): 9754-9763.

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