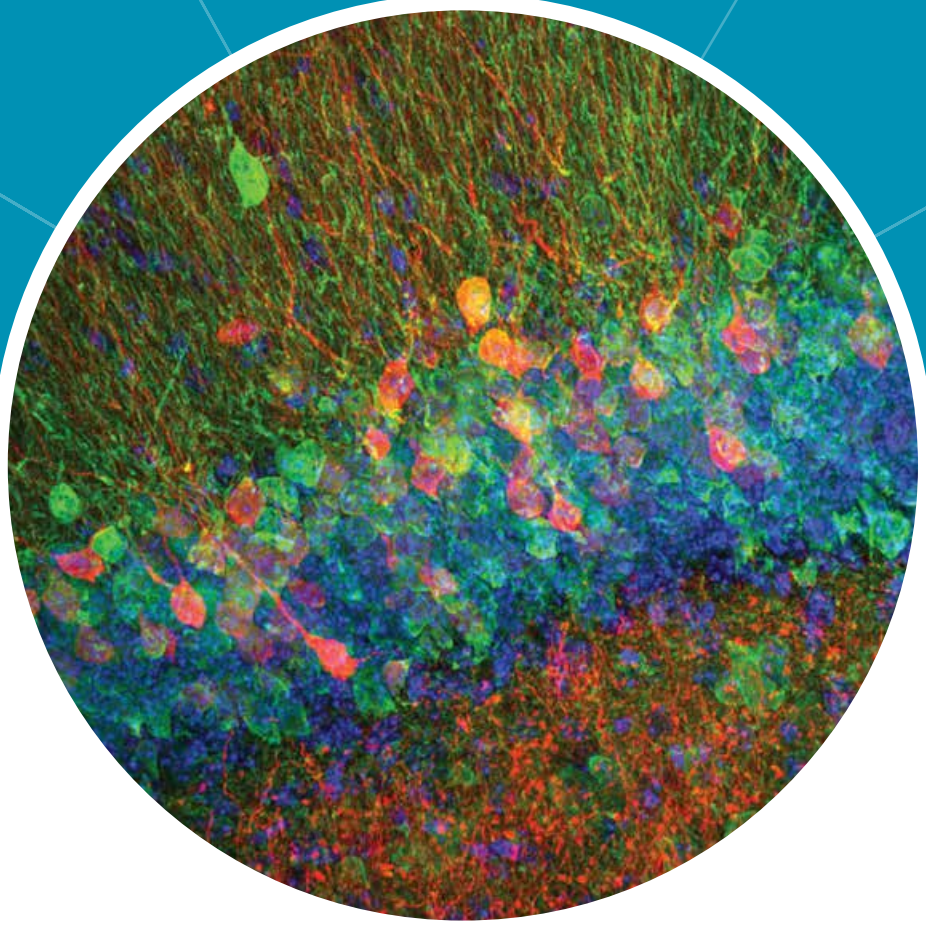
NEUROSCIENCE 2017

GENERAL INFORMATION PROGRAM



Washington, DC

Society for Neuroscience

Nov. 11–15

INFORMATION AT A GLANCE

IMPORTANT PHONE NUMBERS

Annual Meeting Headquarters Office

Logistics & Programming
Walter E. Washington Convention Center:
Room 102
Logistics, (202) 249-4200
Programming, (202) 249-4205

Volunteer Leadership Lounge
Walter E. Washington Convention Center:
Salon F, (202) 249 - 4235

Annual Meeting Information Booths

Walter E. Washington Convention Center

Grand Lobby, (202) 249-4224
L Street Bridge, (202) 249-4225
L Street Concourse, (202) 249-4226

Press Office

Walter E. Washington Convention Center:
Room 202A, (202) 249-4230

Exhibit Management

Walter E. Washington Convention Center:
Show Office B, (202) 249-4240

First Aid and Hospital Numbers

First Aid Room
Walter E. Washington Convention Center:
Hall A, (202) 249-3108
Hall D, (202) 249-3109

George Washington University Hospital
900 23rd Street, NW
Washington, DC 20037
(202) 715-4000

Medics USA Urgent Care Services
1700 17th Street, NW, Suite A
Washington, DC 20009
(202) 483-4400

Key to Poster Floor by Themes

The poster floor begins with Theme A in Hall C and ends with Theme J in Hall A. Refer to the poster floor map at the end of this booklet.

Theme
A ....Development
B.....Neural Excitability, Synapses, and Glia
C ....Neurodegenerative Disorders and Injury
D ....Sensory Systems
E.....Motor Systems
F .....Integrative Physiology and Behavior
G....Motivation and Emotion
H ....Cognition
I.....Techniques
J.....History and Education

NOTE: Theme J Posters will be on display in Hall A beginning at 1 p.m. on Saturday, Nov. 11, and will remain posted until 5 p.m., Sunday, Nov. 12. One-hour presentations will occur either Saturday afternoon or Sunday morning.

Code of Conduct at SfN Events

SfN is committed to supporting discovery and scientific dialogue, and to fostering a welcoming community in which all scientists are able to contribute fully. The Society asserts that sexual harassment and other harassing behaviors have no place in a healthy scientific enterprise. We expect all attendees, media, speakers, volunteers, organizers, venue staff, guests, and exhibitors at SfN-organized events to help us ensure a safe and positive environment. At the convention center, onsite medical and security personnel are available directly or through the SfN headquarters office.

If attendees experience unwelcome or unsafe situations anywhere in the city, attendees should swiftly contact local authorities (dial 9-1-1), and additional local social services resources are listed in one convenient location at the federal website www.changingourcampus.org. Any official report of sexual harassment should be brought to the designated Human Resources Officer in the SfN headquarters office at each meeting convention center, or sent via email to hrofficer@sfn.org. The HR Officer will facilitate the completion of a report by a complainant.

For more information on SfN's policy, please go to: www.sfn.org/Member-Center/Professional-Conduct/Code-of-Conduct-at-SfN-Events.

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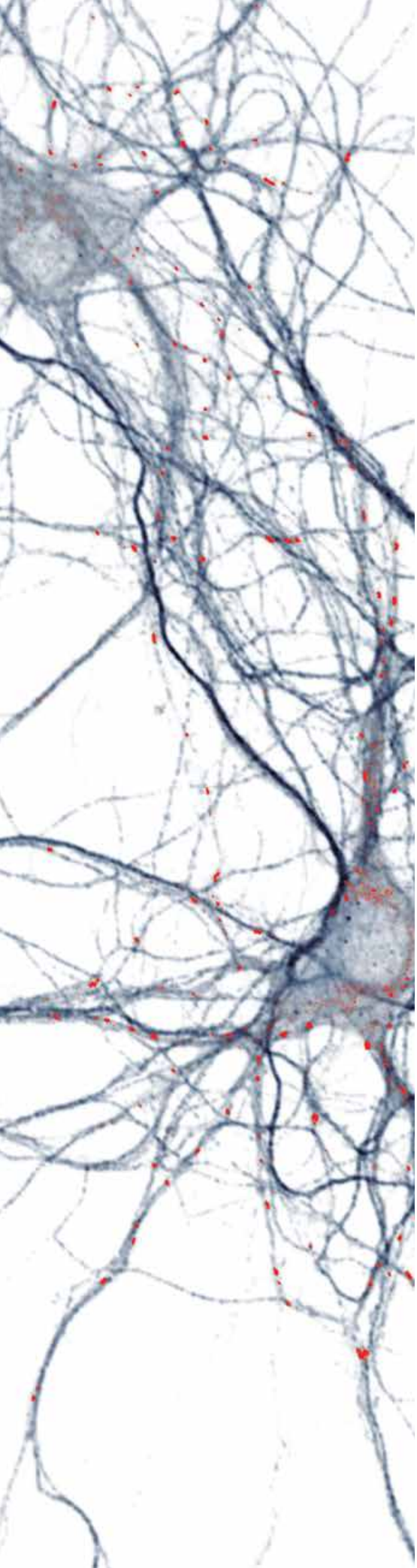


PRESIDENT'S LETTER

The Society for Neuroscience's annual meeting delivers an unparalleled venue for sharing in the most cutting-edge scientific advances offered by our exciting field and for forming the professional connections that can lead to partnerships across labs, experimental approaches, and global borders.

While you are here, I encourage you to not only network with colleagues from your specific research area or your home region, but to also engage with peers in other disciplines and from around the world. Think about the ways in which your work overlaps or benefits one another. By building these interdisciplinary, global collaborations and taking advantage of the best and brightest minds across the entire spectrum of neuroscience, we can continue to advance the understanding of the brain and the nervous system to discoveries.

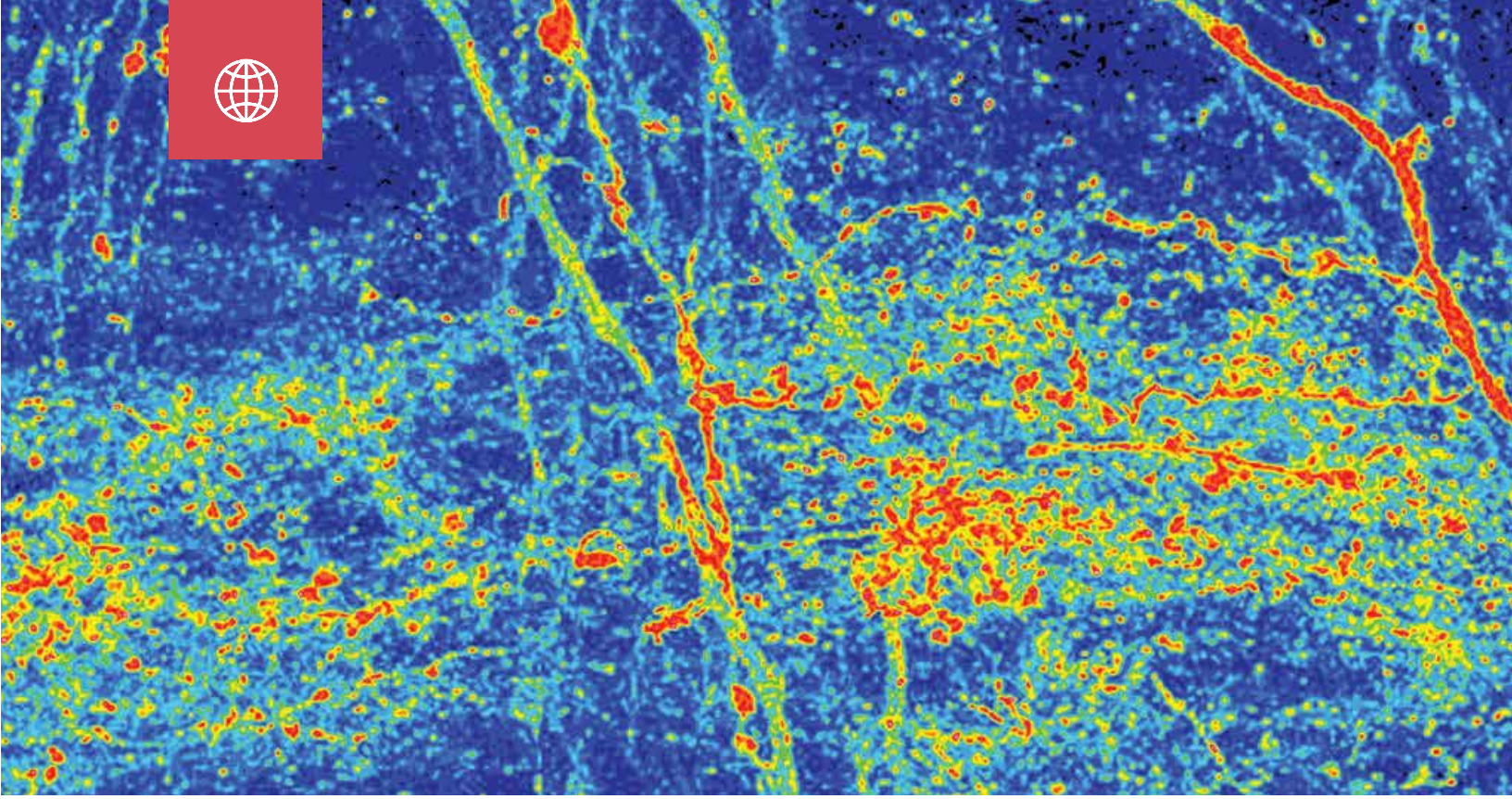
Our success in advancing the study of the brain is predicated on our ability to incorporate diverse perspectives that help us to expand beyond narrow approaches and fields of interest and embrace the spectacularly interdisciplinary nature of modern neuroscience. Take the time to explore the fascinating complexities of our field by attending Neuroscience 2017's array of symposia, workshops, lectures, and events. Hear from leading minds on the most topical issues in the field in an exhilarating and dynamic set of Presidential, Featured and Special Lectures. Find inspiration in your peers' research, learn new techniques and theories that can be applied to your work, and discuss the future of scientific research with colleagues from around the world.

Thank you for being a part of Neuroscience 2017. Each unique voice and perspective adds breadth and depth to our work, and your participation strengthens our community and our field.

Sincerely,

Eric J. Nestler, MD, PhD
President, Society for Neuroscience

SfN Society for Neuroscience



WELCOME

Plan Your Neuroscience 2017 Experience

Keep the Neuroscience 2017 Program at your fingertips with these convenient tools for navigating sessions and building your personal itinerary:

- Neuroscience Meeting Planner (NMP), available at the convention center's NMP Viewing Area in the West Salon or by navigating to SfN.org/NMP.
- Neuroscience 2017 Mobile App, available to download from the iTunes™ or Google Play™ app stores. Easily sync your NMP-created itinerary with the mobile app by logging in to both resources with your SfN username and password.
- Curated Itineraries, available through the NMP or mobile app. Plan your experience around a specific research area with curated tracks selected by SfN's Program Committee.

Providing these user-friendly electronic alternatives for navigating Program content is just one of the ways in which the Society upholds its commitment to fulfill its mission in a socially, economically, and environmentally responsible fashion. Printed copies of the *Exhibit Guide* and this general information *Program* book continue to be available free of change, and a limited number of daily books are available for purchase on-site. Visit the *Program* and *Exhibit Guide* Pick-Up counter for details.

Check Out Dynamic Posters

Our program offerings continue to grow, and dynamic posters give Neuroscience 2017 presenters a fresh way to display their data. This year, each poster session will feature 15 interactive multimedia presentations — use the NMP or mobile app to add these to your schedule.

Stay Up to Date on Social Media

Share the excitement of Neuroscience 2017 by using the Twitter hashtag #SfN17. Keep abreast of the latest news from across the meeting by liking SfN on Facebook and following Twitter handles @SfNtweets and @Neurosci2017.

See You Next Year in San Diego!

Mark your calendars for Neuroscience 2018, November 3–7 in San Diego.

ANNUAL MEETING CONTRIBUTORS AND ADVERTISERS

The Society for Neuroscience would like to recognize the generous contribution from the following annual meeting program contributors and advertisers:

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- Dialogues Between Neuroscience and Society Lecture

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- Neurobiology of Disease Workshop

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- Neurobiology of Disease Workshop

National Institute of Neurological Disorders and Stroke
- Neurobiology of Disease Workshop
- Neuroscience Scholars Program
- Short Course #3

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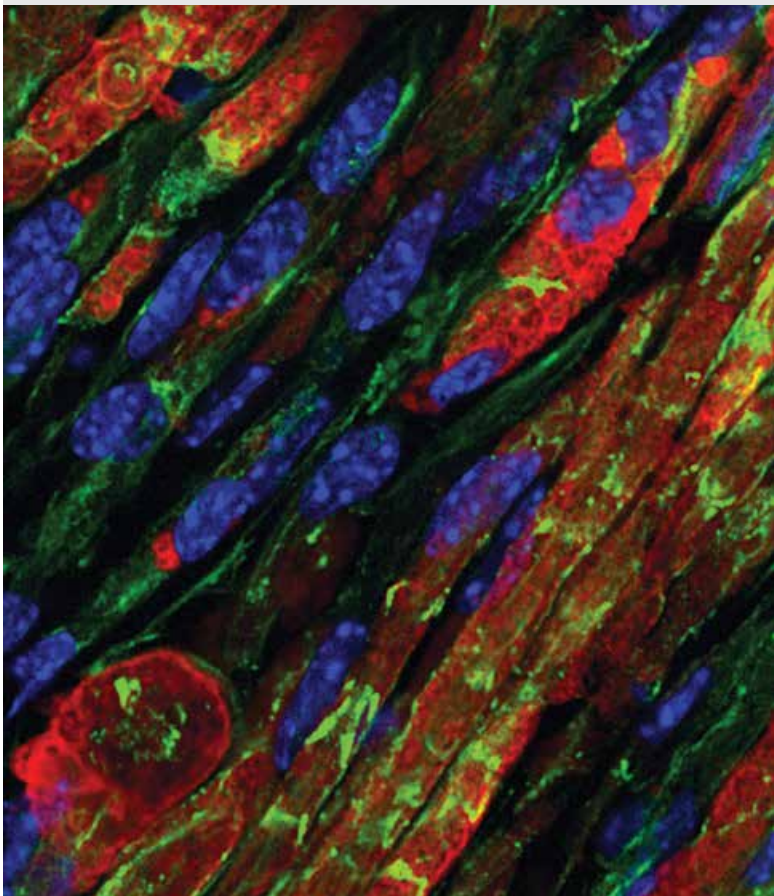

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Friends of SfN Fund

Donations to the Friends of SfN Fund support the Society's mission of advancing the understanding of the brain and nervous system.

Visit SfN.org/donate to give or contact development@sfn.org to learn more.

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NeuroJobs

SfN's Online Career Center

Are you a job seeker or an employer?

During Neuroscience 2017 visit the West Salon to apply for or post an open position and to schedule job interviews.

Saturday, November 11–Tuesday, November 14
7:30 a.m.–5 p.m.

Wednesday, November 15
7:30 a.m.–3 p.m.

NeuroJobs.sfn.org

SCIENTIFIC CONTENT

PROGRAM AT A GLANCE

FRIDAY, NOV. 10	
8 a.m.–5 p.m.	**Neurobiology Of Disease Workshop** Gene Therapy to Address Unmet Needs in Neurology (p.30) Organizers: Xandra Breakefield, PhD Florian Eichler, MD
8 a.m.–6 p.m.	**Short Course #2** Neuroinformatics in the Age of Big Data: Working With the Right Data and Tools (p.30) Organizers: A. Jane Roskams, PhD; Katja Brose, PhD
8:30 a.m.–6 p.m.	**Short Course #1** Intersections Between the Brain and Immune System in Health and Disease (p.30) Organizers: Carla Shatz, PhD; Beth A. Stevens, PhD
1–5:30 p.m.	**Short Course #3** Neuroethics and Public Engagement: Why, How, and Best Practices (p.30) Moderators: Laura Cabrera, PhD; Emily Cloyd; Martha J. Farah, PhD
SATURDAY, NOV. 11	
8–9:15 a.m.	**Meet-the-Expert Series Session 1 (p. 31)**
9–11 a.m.	Careers in Translational Drug Discovery (p.34) Organizer: Janet Clark, PhD
9–11 a.m.	Global Approaches for Collaboration and Networking (p.34) Organizer: Emmeline Edwards, PhD
9:30–10:45 a.m.	**Meet-the-Expert Series Session 2 (p. 31)**
10–11 a.m.	Meeting Mobile App Tutorial (p.34)
11 a.m.–1 p.m.	**Dialogues Between Neuroscience and Society (p.15)**
Noon–2 p.m.	Incorporating Public Engagement Into Your Professional Portfolio: A Practical Guide (p.34) Organizer: John Meitzen, PhD
Noon–2 p.m.	News You Can Use in Writing Grant Applications: Updates from NIH (p.34) Organizer: Bruce Reed, PhD
1–3 p.m.	Graduate School Fair (p.35)
1–5 p.m.	Posters / Nanosymposia (p. 51-69)
1:30–4 p.m.	Symposia / Minisymposia (p.20-28) CME
2–3:10 p.m.	**Special Lecture** From Mechanisms of Neurogenesis to Neural Repair: Turning Scar-Forming Glia Into Neurons CME (p.15) Lecturer: Magdalena Götz, PhD
2:30–4 p.m.	**Brain Awareness Campaign Event** Opening Channels to Brain Awareness (p.35) Organizer: Jayatri Das, PhD
3–5 p.m.	Research Mentor Training for Neuroscience Faculty (p.35) Organizer: Kevin Jones, PhD
3–5 p.m.	How to be Successful in a Career in Academia (p.35) Organizer: Lique Coolen, PhD
5:15–6:30 p.m.	**Presidential Special Lecture** Insights From Nonhuman Animals Into the Neurobiology of Language (p.14) CME Lecturer: Erich D. Jarvis, PhD
6:30–8:30 p.m.	Diversity Fellows Poster Session (p.35)
6:30–8:30 p.m.	International Fellows Poster Session (p.35)
6:30–8:30 p.m.	Trainee Professional Development Awards Poster Session (p.35)

CME These activities have been approved for *AMA PRA Category 1 Credit.™* See page 72 and visit SfN.org/CME.

7:30–9:30 p.m.	Career Development Topics: A Networking Event (p.35)
SUNDAY, NOV. 12	
8 a.m.–noon	Posters / Nanosymposia (p. 51-69)
8:30–9:40 a.m.	**Special Lecture** Molecular Architecture of the Circadian Clock in Mammals (p.18) CME Lecturer: Joseph S. Takahashi, PhD
8:30–11 a.m.	Symposia / Minisymposia (p.20-28) CME
9–11 a.m.	FAIR Data, Metadata, and Data Sharing in Neurotrauma (p.36) Organizer: Adam Ferguson, PhD
9–11 a.m.	Navigating Career Transitions in Neuroscience (p.36) Organizer: Georgia Hodes, PhD
9:30 a.m.–5 p.m.	Exhibits (p.90)
10–11:10 a.m.	**Special Lecture** Using Memory to Guide Decisions (p.18) CME Lecturer: Daphna Shohamy, PhD
11:30 a.m.–12:40 p.m.	**Special Lecture** Carving the World Into Useful Task Representations (p.18) CME Lecturer: Yael Niv, PhD
11:30 a.m.–1 p.m.	**SfN Chapters Workshop** Strategic Messaging via Social Media: How to Disseminate Neuroscience to the Public and Policymakers (p.36) Organizer: Chapters Subcommittee
Noon–2 p.m.	A Practical Guide to Science Communication (p.36) Organizer: Torrey Truszkowski
Noon–2 p.m.	Funding Opportunities to Build Interdisciplinary Neuroscience Research for the Future (p.36) Organizer: Edda "Floh" Thiels, PhD
Noon–2 p.m.	Graduate School Fair (p.35)
1–2:10 p.m.	**Special Lecture** Genetic Dissection of Neural Circuit Assembly and Organization (p.16) CME Lecturer: Liqun Luo, PhD
1–3 p.m.	**Social Issues Roundtable** Engaging Neuroscientists in Dialogue With Religious Communities (p.36) Organizer: Se Kim, PhD
1–5 p.m.	Posters / Nanosymposia (p. 51-69)
1:30–4 p.m.	Symposia / Minisymposia (p.20-28) CME
2:30–3:40 p.m.	**Peter and Patricia Gruber Lecture** Assembling Neural Circuits: Cells and Synapses (p.14) Lecturer: Joshua R. Sanes, PhD
3–5 p.m.	Addressing Issues Facing Women in the Early Stages of Their Scientific Career (p.37) Organizers: Courtney Miller, PhD; Ghazaleh Sadri-Vakili, PhD
3–5 p.m.	**Neuroscience Departments and Programs Workshop** Trends in Neuroscience Training: A Discussion of the SfN NDP Survey Results (p.37) Organizers: Elisabeth Van Bockstaele, PhD; Alan Sved, PhD
5:15–6:30 p.m.	**Presidential Special Lecture** Illuminating Neurobiology at the Nanoscale and Systems Scale by Imaging (p.14) CME Lecturer: Xiaowei Zhuang, PhD
6:45–8:45 p.m.	SfN-Sponsored Socials (p.40)

PROGRAM AT A GLANCE

MONDAY, NOV. 13	
8 a.m.–noon	Posters / Nanosymposia (p. 51-69)
8:30–9:40 a.m.	**Special Lecture** Neural Circuits Controlling the Selection and Persistence of Sensory Information (p.17) CME Lecturer: Tirin Moore, PhD
8:30–11 a.m.	**Basic-Translational Clinical Roundtable #1** Hearing Loss, Brain Function, and Healthy Aging (p.23) CME Organizer: Frank R. Lin, MD, PhD
8:30–11 a.m.	Symposia / Minisymposia (p.20-28) CME
9–11 a.m.	Evidence-Based Approaches to Teaching Neuroscience (p.37) Organizers: Monica Linden, PhD; Richard Olivo, PhD
9–11 a.m.	The Power of Effective Storytelling: Communicating the Value of Brain Research (p.37) Organizer: Frances Jensen, MD
9:30 a.m.–5 p.m.	Exhibits (p.90)
10–11:10 a.m.	**David Kopf Lecture on Neuroethics** The Fallacy of Fairness: Diversity in Academic Science (p.14) Lecturer: Jo Handelsman, PhD
11:30 a.m.–12:40 p.m.	**Special Lecture** Clinical Neuroscience Lecture: Insights Into Neural Degeneration From *Drosophila* Genetics (p.17) CME Lecturer: Nancy M. Bonini, PhD
Noon–2 p.m.	**Animals in Research Panel** How to Effectively Communicate Your Animal Research: Elevator Speech, Social Media and Best Practices (p.37) Organizer: Mar Sanchez, PhD
Noon–2 p.m.	Graduate School Fair (p.35)
Noon–2 p.m.	Improving Your Science: Sample-Size Planning, Pre-Registration, and Reproducible Data Analysis (p.37) Organizer: Robert Calin-Jageman, PhD
1–5 p.m.	Posters / Nanosymposia (p. 51-69)
1:30–4 p.m.	Symposia / Minisymposia (p.20-28) CME
3:15–4:25 p.m.	**Albert and Ellen Grass Lecture** On Balance: Fine-Tuning Protein Levels for Neurological Health (p.15) Lecturer: Huda Y. Zoghbi, MD
5:15–6:30 p.m.	**Presidential Special Lecture** The Gut Microbiota and Childhood Undernutrition: Looking at Human Development From a Microbial Perspective (p.15) CME Lecturer: Jeffrey I. Gordon, MD
6:45–8:45 p.m.	SfN-Sponsored Socials (p.40)
TUESDAY, NOV. 14	
8 a.m.–noon	Posters / Nanosymposia (p. 51-69)
8:30–9:40 a.m.	**Special Lecture** Bridge Over Troubled Synapses: C1q Proteins, GluD Receptors, and Beyond (p.16) CME Lecturer: Michisuke Yuzaki, MD, PhD
8:30–11 a.m.	**Basic-Translational-Clinical Roundtable #2** Advances and Challenges in Deep Brain Stimulation (p.23) CME Organizer: Andres M. Lozano, MD, PhD
8:30–11 a.m.	Symposia / Minisymposia (p.20-28) CME
9:30 a.m.–5 p.m.	Exhibits (p.90)

CME These activities have been approved for *AMA PRA Category 1 Credit.™* See page 72 and visit SfN.org/CME.

10–11:10 a.m.	**Special Lecture** Processing Gustatory Information in *Drosophila* (p.17) CME Lecturer: Kristin Scott, PhD
11:30 a.m.–12:40 p.m.	**Special Lecture** Diversified Spinal and Brain Circuits for Locomotor Behavior (p.18) CME Lecturer: Ole Kiehn, PhD
Noon–2 p.m.	Celebration of Women in Neuroscience Luncheon (p. 38)
Noon–2 p.m.	Graduate School Fair (p. 35)
1–2:10 p.m.	**Special Lecture** Artificial Intelligence and Imagination: Exploring the Frontiers of Knowledge (p.19) CME Lecturer: Demis Hassabis, PhD
1–5 p.m.	Posters / Nanosymposia (p. 51-69)
1:30–4 p.m.	Symposia / Minisymposia (p.20-28) CME
2:30–3:40 p.m.	**History of Neuroscience Lecture** Neuronal Migration and Brain Map Formation During Evolution, Development, and Disease (p.15) Lecturer: Pasko Rakic, MD, PhD
2:30–4:00 p.m.	**Public Advocacy Forum** Advocating for Basic Science in a Disease-Focused World (p.38) Organizer: William Martin, PhD
5:15–6:30 p.m.	**Presidential Special Lecture** Polymorphous Polygenicity: The Story of the Genome in Schizophrenia (p.15) CME Lecturer: Pamela Sklar, MD, PhD
6:45–7:30 p.m.	SfN Members' Business Meeting (p.38)
6:45–8:45 p.m.	SfN-Sponsored Socials (p.40)
8:30–11:30 p.m.	Graduate Student Reception (p.38)
WEDNESDAY, NOV. 15	
8 a.m.–noon	Posters / Nanosymposia (p. 51-69)
8:30–9:40 a.m.	**Special Lecture** Tools for Optically Monitoring Neural Activity and Signaling Pathways (p.19) CME Lecturer: Loren Looger, PhD
8:30–11 a.m.	**Basic-Translational-Clinical Roundtable #3** Emerging Neuroimaging Biomarkers for Schizophrenia (p.23) CME Organizer: John Krystal, MD
8:30–11 a.m.	Symposia / Minisymposia (p.20-28) CME
9:30 a.m.–5 p.m.	Exhibits (p.90)
10–11:10 a.m.	**Special Lecture** Spontaneous Activity in Developing Sensory Systems (p.16) CME Lecturer: Dwight E. Bergles, PhD
11:30 a.m.–12:40 p.m.	**Special Lecture** Building Models of the World for Behavioral Control (p.19) CME Lecturer: Timothy E.J. Behrens, PhD
1–2:10 p.m.	**Special Lecture** Neuroepigenetic Pathways in Learning and Memory in Mouse and Ant (p.16) CME Lecturer: Shelley L. Berger, PhD
1–5 p.m.	Posters / Nanosymposia (p. 51-69)
1:30–4 p.m.	Symposia / Minisymposia (p.20-28) CME

FEATURED LECTURES

All lectures will take place in Hall D of the Walter E. Washington Convention Center.

PRESIDENTIAL SPECIAL LECTURE / *Support contributed by: Tianqiao & Chrissy Chen Institute*

Insights From Nonhuman Animals Into the Neurobiology of Language

Erich D. Jarvis, PhD

The Rockefeller University and Howard Hughes Medical Institute / Saturday, Nov. 11, 5:15–6:30 p.m.

Understanding language can be considered a final frontier toward understanding brain mechanisms of complex behaviors. Language was once considered unique to humans. However, the past several decades have seen a surge in nonhuman animal studies that inform us about language. This lecture will present a modern synthesis of these studies, from molecular, circuit, and behavior levels. A key new concept is that components of language, such as vocal learning, are continuous among species and therefore can provide insight into the mechanisms and evolution of language. CME

PETER AND PATRICIA GRUBER LECTURE / *Support contributed by: The Gruber Foundation*

Assembling Neural Circuits: Cells and Synapses

Joshua R. Sanes, PhD

Harvard University / Sunday, Nov. 12, 2:30–3:40 p.m.

The retina is emerging as a leading model system for elucidating mechanisms that govern neural circuit assembly and function. Visual information is passed from retinal photoreceptors to interneurons to retinal ganglion cells (RGCs) and finally to the rest of the brain. Each of the more than 40 types of RGCs responds to specific visual features, and the features to which each RGC type responds depend on which of the more than 70 types of interneurons synapse on it. This lecture will describe genetic, morphological, and physiological studies that have led to identification of some molecules and mechanisms that underlie assembly of these circuits. The lecture will then discuss new molecular methods that are enabling a comprehensive cataloging of neuronal cell types and the recognition molecules they use.

PRESIDENTIAL SPECIAL LECTURE / *Support contributed by: Janssen Research & Development LLC*

Illuminating Neurobiology at the Nanoscale and Systems Scale by Imaging

Xiaowei Zhuang, PhD

Harvard University and Howard Hughes Medical Institute / Sunday, Nov. 12, 5:15–6:30 p.m.

Imaging has helped to advance many areas of neurobiology. This lecture will describe super-resolution imaging methods that allow fluorescence imaging of cells and tissues with nanometer-scale resolution, as well as discoveries of novel cellular structures in neurons enabled by this approach. The lecture will also highlight a single-cell transcriptome imaging approach that allows the expression of thousands of genes to be profiled *in situ* in a spatially resolved manner. The application of this method to neurobiology studies will also be discussed. CME

DAVID KOPF LECTURE ON NEUROETHICS / *Support contributed by: David Kopf Instruments*

The Fallacy of Fairness: Diversity in Academic Science

Jo Handelsman, PhD

University of Wisconsin-Madison / Monday, Nov. 13, 10–11:10 a.m.

Most people carry unconscious biases about other people that shape their evaluations of them and their work. Evidence shows scientists are no exception and, despite our belief in objectivity, we apply substantial prejudice to many decisions. There are, however, proven methods and best practices that mitigate the impact of bias.

DIALOGUES BETWEEN NEUROSCIENCE AND SOCIETY / *Support Contributed by: Elsevier*

Siddhartha Mukherjee, MD, DPhil

Columbia University / Saturday, Nov. 11, 11 a.m.–1 p.m.

Mukherjee, a physician and researcher, wrote the Pulitzer Prize–winning book *The Emperor of All Maladies: A Biography of Cancer*, which explores the disease that has plagued humans for thousands of years. His new book, *The Gene: An Intimate History*, examines the quest to decipher how human heredity combines with life experiences to control our lives. In this lecture, Dr. Mukherjee will engage in a conversation with SfN President Eric Nestler about the excitement and importance of communicating the promise of scientific inquiry to the public.

ALBERT AND ELLEN GRASS LECTURE / *Support contributed by: The Grass Foundation*

On Balance: Fine-Tuning Protein Levels for Neurological Health

Huda Y. Zoghbi, MD

Baylor College of Medicine and Howard Hughes Medical Institute / Monday, Nov. 13, 3:15–4:25 p.m.

When we think of the genetics of neurodevelopmental and neurodegenerative disorders, we tend to think about mutations that alter a protein's function. An emerging theme among both classes of disorders, however, is the vulnerability of neurons to modest increases or decreases in protein levels — even when those proteins are wild type. This sensitivity to protein levels provides a new avenue to understanding pathogenesis and suggests we should search for regulators of disease-driving proteins that could provide therapeutic entry points for various neuropsychiatric disorders. CME

PRESIDENTIAL SPECIAL LECTURE

The Gut Microbiota and Childhood Undernutrition: Looking at Human Development From a Microbial Perspective

Jeffrey I. Gordon, MD

Washington University School of Medicine / Monday, Nov. 13, 5:15–6:30 p.m.

Human postnatal development is typically viewed from the perspective of our human organs. As we come to appreciate how our microbial communities are assembled following birth, there is an opportunity to determine how this microbial facet of our developmental biology is related to healthy growth as well as to the risk for and manifestations of disorders that produce abnormal growth. This lecture will describe how this hypothesis is being examined in the context of childhood undernutrition. CME

HISTORY OF NEUROSCIENCE LECTURE

Neuronal Migration and Brain Map Formation During Evolution, Development, and Disease

Pasko Rakic, MD, PhD

Yale School of Medicine / Tuesday, Nov. 14, 2:30–3:40 p.m.

Neuronal position is fundamental to a neuron's identity, synaptic connections, and ultimately, function. For example, cortical neurons are not generated locally and acquire their areal, laminar, and columnar positions by migration from multiple distant sites of origin. Over the years, new experimental approaches have enabled identification of cellular mechanisms, genes, and molecular pathways that control neuronal production, fate, and migration to the proper position. These findings provide insight into brain evolution and development and the pathogenesis of its congenital disorders.

PRESIDENTIAL SPECIAL LECTURE

Polymorphous Polygenicity: The Story of the Genome in Schizophrenia

Pamela Sklar, MD, PhD

Icahn School of Medicine at Mount Sinai / Tuesday, Nov. 14, 5:15–6:30 p.m.

Advances in human genetics are reshaping the way we understand many mental illnesses, including schizophrenia. We know infinitely more about the DNA changes that are part of the risk of becoming ill, with a key finding being their overall number, type, and pleiotropy. This lecture will explore the genetic factors leading to schizophrenia, their biological follow-up, and implications for neuroscientists. CME

SPECIAL LECTURES

All lectures will take place in Hall D of the Walter E. Washington Convention Center.

THEME A: DEVELOPMENT

Genetic Dissection of Neural Circuit Assembly and Organization

Liqun Luo, PhD

Stanford University and Howard Hughes Medical Institute / Sunday, Nov. 12, 1–2:10 p.m.

This lecture will discuss recent work on the development and function of neural circuits in flies and mice. Discussion of development will focus on cellular and molecular mechanisms that mediate the establishment of wiring specificity between pre- and postsynaptic partners. Discussion of function will focus on applications of viral-genetic tracing and TRAP methods developed to interrogate circuits involved in neuromodulation and remote memory. CME

Neuroepigenetic Pathways in Learning and Memory in Mouse and Ant

Shelley L. Berger, PhD

Perelman School of Medicine, University of Pennsylvania / Wednesday, Nov. 15, 1–2:10 p.m.

Epigenetic pathways are important for controlling learning and memory. Epigenetics encompasses mechanisms that alter the structure of chromatin, composed of DNA and packaging proteins called histones, and these alterations in turn modulate neuronal gene expression in ways that shape behavior. This lecture will present findings from studies of epigenetic transcriptional mechanisms in mice and ants, eusocial insects living in complex societies, to explore the functional consequences of neuroepigenetics for behavioral plasticity. CME

THEME B: NEURAL EXCITABILITY, SYNAPSES, AND GLIA

Bridge Over Troubled Synapses: C1q Proteins, GluD Receptors, and Beyond

Michisuke Yuzaki, MD, PhD

Keio University School of Medicine / Tuesday, Nov. 14, 8:30–9:40 a.m.

The C1q complement family has emerged as a new class of synaptic organizers. C1q is shown to regulate synapse elimination. In the cerebellum, Cbln1 binds to its pre- and postsynaptic receptors neurexin (Nrx) and the δ2 glutamate receptor (GluD2), respectively. The Nrx/Cbln1/GluD2 tripartite complex across the synaptic gap is essential not only for synapse formation but also for synaptic plasticity. Similar mechanisms are beginning to be revealed for other Cbln- and C1q-like proteins in various circuits in the forebrain. CME

Spontaneous Activity in Developing Sensory Systems

Dwight E. Bergles, PhD

Johns Hopkins University School of Medicine / Wednesday, Nov. 15, 10–11:10 a.m.

Spontaneous electrical activity within developing sensory systems promotes the maturation and survival of neurons as well as the refinement of nascent circuits. This sensory-independent activity is initiated within immature sensory organs, providing a highly structured version of sensory experience with features that ensure propagation of activity from the periphery to the cortex. This lecture will describe the diverse mechanisms used to initiate this stereotyped activity, highlighting the unexpected role of glial cells in stimulating sensory neurons. CME

THEME C: NEURODEGENERATIVE DISORDERS AND INJURY

From Mechanisms of Neurogenesis to Neural Repair: Turning Scar-Forming Glia Into Neurons

Magdalena Götz, PhD

Ludwig Maximilian University and Helmholtz Center's Institute of Stem Cell Research / Saturday, Nov. 11, 2–3:10 p.m.

Much is known about molecular and cellular mechanisms of neurogenesis, but it is not clear how to trigger these mechanisms after brain injury. This lecture will review some of the key regulators of neurogenesis and discuss to what extent neurogenesis in the adult mammalian brain differs from neurogenesis in development. The lecture will also address our knowledge about scar formation, direct *in vivo* reprogramming that turns glia into neurons after brain injury, and the state-of-the-art efficiency and maturity of neurons. The lecture will close with data on how new neurons can functionally integrate and connect in brain regions that normally never integrate new neurons. CME

Clinical Neuroscience Lecture: Insights Into Neural Degeneration From *Drosophila* Genetics

Nancy M. Bonini, PhD

University of Pennsylvania / Monday, Nov. 13, 11:30 a.m.–12:40 p.m.

Generating models of key human neurodegenerative diseases in *Drosophila* is leading to discoveries about the molecular genetic pathways that modulate neural integrity. This lecture will illustrate how using the fly as a model for disease provides insight into modifier pathways. This lecture will also highlight the fundamental biological pathways of neural maintenance as well as reveal the weak links and processes that can serve as protective players. This research highlights the importance of proper protein folding and stress pathways and identifies new players critical for protection of the brain for the long term. CME

THEME D: SENSORY SYSTEMS

Neural Circuits Controlling the Selection and Persistence of Sensory Information

Tirin Moore, PhD

Stanford University and Howard Hughes Medical Institute / Monday, Nov. 13, 8:30–9:40 a.m.

The processing and retention of sensory input is influenced by a number of endogenous factors, such as arousal, motivation, and cognitive control. These factors appear to constrain the sensory information guiding adaptive behavior. This lecture will discuss recent evidence on the neural circuits involved in the modulation, filtering, and persistence of sensory information and their relation to basic cognitive functions such as attention and working memory. The lecture will include evidence from a range of model systems and approaches as well as a discussion on the relevance to mental disorders. CME

Processing Gustatory Information in *Drosophila*

Kristin Scott, PhD

University of California, Berkeley / Tuesday, Nov. 14, 10–11:10 a.m.

The gustatory system is intimately associated with feeding decisions, allowing animals to identify food that is caloric and to avoid toxic substances. *Drosophila melanogaster* detects many of the same taste compounds as do mammals and provides an excellent model system for comparative studies of gustatory processing. This lecture will discuss how taste information is encoded in neural circuits and how activity in taste circuits is modulated by internal states to regulate feeding behavior. CME

CME These activities have been approved for *AMA PRA Category 1 Credit.™*
See page 72 and visit SfN.org/CME.

SPECIAL LECTURES (CONT.)

All lectures will take place in Hall D of the Walter E. Washington Convention Center.

THEME E: MOTOR SYSTEMS

Diversified Spinal and Brain Circuits for Locomotor Behavior

Ole Kiehn, PhD

Karolinska Institutet and University of Copenhagen / Tuesday, Nov. 14, 11:30 a.m.–12:40 p.m.

The capacity for movement is at the center of most behaviors. Of movements, locomotion is one of the most fundamental. It requires complex coordination, temporal alteration, and dynamic control. This lecture will focus on recent work that has elucidated the functional diversification of locomotor circuits needed to perform these roles. The lecture will show that spinal locomotor networks are composed of molecularly defined circuit modules adapted to produce changes in timing and coordination of locomotion. The lecture will also address the role of designated brainstem circuits involved in gating or context-dependent selection of the motor behavior. CME

THEME F: INTEGRATIVE PHYSIOLOGY AND BEHAVIOR

Molecular Architecture of the Circadian Clock in Mammals

Joseph S. Takahashi, PhD

University of Texas Southwestern Medical Center and Howard Hughes Medical Institute

Sunday, Nov. 12, 8:30–9:40 a.m.

Circadian rhythms are an adaptation to the cyclic environment on Earth. In animals, circadian behavior can be analyzed as an integrated system, beginning with genes and ultimately leading to behavioral outputs. The mechanism of circadian clocks in mammals is cell-autonomous and generated by a set of genes forming a transcriptional autoregulatory feedback loop. The cellular autonomy of clocks has raised a number of questions concerning synchronization and coherence of rhythms at the cellular level as well as circadian organization at the systems level. CME

THEME G: MOTIVATION AND EMOTION

Carving the World Into Useful Task Representations

Yael Niv, PhD

Princeton University / Sunday, Nov. 12, 11:30 a.m.–12:40 p.m.

Studies in reinforcement learning have famously explained the role of dopamine in learning. However, reinforcement learning relies on representations of tasks as a sequence of "states." Where do these states come from? This lecture will first demonstrate that by learning the latent structure of a task, animals and humans form a state of space through experience. The lecture will then show that the frontoparietal attention network interacts with valuation in the basal ganglia to learn these representations. Finally, the lecture will suggest that the orbitofrontal cortex represents a cognitive map of learned states for decision-making. CME

THEME H: COGNITION

Using Memory to Guide Decisions

Daphna Shohamy, PhD

Columbia University / Sunday, Nov. 12, 10–11:10 a.m.

From robots to humans, the ability to learn from experience turns a rigid response system into a flexible, adaptive one. This lecture will discuss the neural and cognitive mechanisms by which learning shapes decisions. The lecture will focus on how multiple brain regions interact to support learning, what this means for how memories are built, and the consequences for how decisions are made. Results emerging from this work challenge the traditional view of separate learning systems and advance understanding of how memory biases decisions in both adaptive and maladaptive ways. CME

Building Models of the World for Behavioral Control

Timothy E.J. Behrens, PhD

University of Oxford / Wednesday, Nov. 15, 11:30 a.m.–12:40 p.m.

This lecture will discuss how basic models of the world might be stored in the brain to allow flexible control of behavior. Relevant studies try to investigate neural codes and mechanisms that are used to organize this knowledge into a form that can be used efficiently and flexibly. The lecture will mostly focus on interactions between the frontal cortex and the medial temporal lobe. The neuronal codes and mechanisms discussed are often measured in both humans and model species, so there may be methodological interest in how to measure these mechanistic types of signals in humans. CME

THEME I: TECHNIQUES

Artificial Intelligence and Imagination: Exploring the Frontiers of Knowledge

Demis Hassabis, PhD

DeepMind / Tuesday, Nov. 14, 1–2:10 p.m.

Artificial intelligence (AI) research has been advancing at an incredible pace. Neuroscience plays a big role in both inspiring and validating AI architectures and algorithms. This lecture will look at the deep connection between AI and neuroscience and how both fields can help each other, drawing on examples of work in areas such as imagination, memory, and planning. CME

Tools for Optically Monitoring Neural Activity and Signaling Pathways

Loren Looger, PhD

Howard Hughes Medical Institute, Janelia Research Campus / Wednesday, Nov. 15, 8:30–9:40 a.m.

This lecture will discuss recent progress in reagents for the study of neural circuit structure and function. Topics will include genetically encoded calcium indicators (GECIs) like GCaMP; red GECIs like RCaMP and RGECO; and neurotransmitter sensors for glutamate (iGluSnFR), GABA, acetylcholine, serotonin, norepinephrine, dopamine, etc. The lecture will also show reagents and techniques for connectomic mapping and sequencing, and for construction of whole-brain atlases. CME

SYMPOSIA

All symposia will be held in the Walter E. Washington Convention Center.

THEME A: DEVELOPMENT

Developmental Origins of Neuronal Diversity in the Cerebral Cortex CME

Chair: Oscar Marin, PhD
Sunday, Nov. 12, 8:30–11 a.m.
Room: Ballroom B

The function of the cerebral cortex relies on a large variety of cell types, yet the developmental origins of this diversity are largely unknown. The symposium will discuss the role of developmental mechanisms in the generation of cellular diversity in the cortex of mice and humans. The session will focus on current efforts to reveal the diversity of progenitor cells and the identity of neuron-specific transcriptional programs as they dynamically unfold during development.

Impact of Zika Virus Infection in the Nervous System and Its Underlying Mechanisms CME

Chair: Guo-li Ming, MD, PhD
Co-Chair: Nenad Sestan, MD, PhD
Monday, Nov. 13, 8:30–11 a.m.
Room: Ballroom A

The World Health Organization declared a public health emergency of international concern on Feb. 1, 2016, due to a potential link between Zika virus and microcephaly and/or other neurological diseases. This symposium will discuss recent advances in our understanding of how Zika virus affects nervous system development and the underlying mechanisms that have been revealed using different model systems, including human fetal tissue, human pluripotent stem cell–derived organoids and neurospheres, and animal models.

Social Origins of Developmental Risk for Mental and Physical Illnesses CME

Chair: Judy L. Cameron, PhD
Co-Chair: Pat Levitt, PhD
Tuesday, Nov. 14, 1:30–4 p.m.
Room: Ballroom A

Young children experiencing intense adversity show profound changes in neural systems that regulate behavior and cardiovascular, metabolic, and immune function. This symposium will show the importance of timing of stress exposure, critical periods of intervention, and sex on various brain systems in young children, monkeys, and mice. The session will also focus on how changes in parental interaction with children can modify the long-term consequences of early-life stress exposure across species.

THEME B: NEURAL EXCITABILITY, SYNAPSES, AND GLIA

Assembly and Maintenance of the Peripheral Nerve Node of Ranvier in Development, Health, and Disease CME

Chair: Hugh J. Willison, PhD
Co-Chair: Peter J. Brophy, PhD
Monday, Nov. 13, 8:30–11 a.m.
Room: 146A

Nodes of Ranvier are the sites of saltatory conduction, a fundamental adaption of myelinated axons. Our understanding of the molecular organization of the nodal region has rapidly advanced. Many components have been identified, as have the interactions among the axonal and glial molecules, accounting for the specialized features of nodal, paranodal, and juxtaparanodal domains. Human autoimmune neuropathies are diseases that target glial and axonal nodal proteins and glycolipids, leading to nodal disruption and conduction block. The symposium will comprise a broad overview of this area, including descriptions of the latest research findings from presenters' laboratories.

Unconventional NMDA Receptor Signalling CME

Chair: Per Jesper Sjostrom, PhD
Co-Chair: Karen Zito, PhD
Tuesday, Nov. 14, 1:30–4 p.m.
Room: Ballroom C

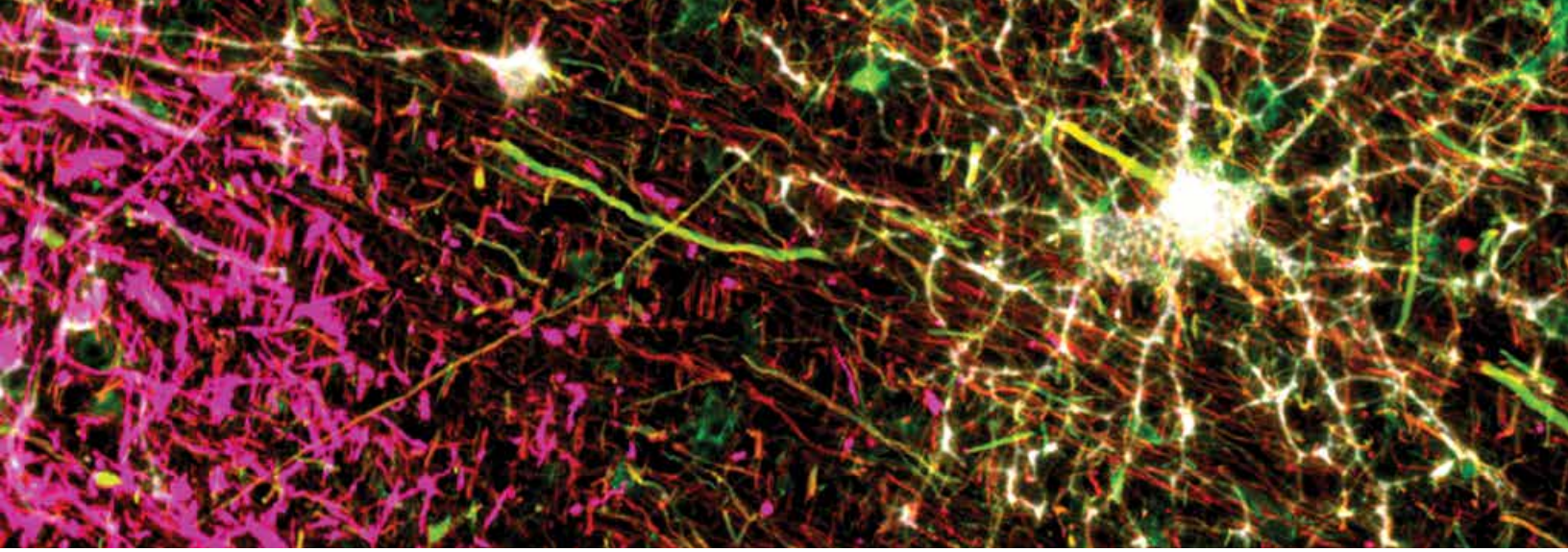
In the classical view, postsynaptic NMDA receptors (NMDARs) act via calcium to signal coincidence detection in Hebbian learning. However, growing evidence shows that NMDARs can signal metabotropically, without the need for calcium influx. Moreover, NMDARs have been found presynaptically, where they do not act as Hebbian coincidence detectors. This symposium will highlight novel findings indicating how the NMDAR field needs to be expanded to include unconventional modes of NMDAR action.

THEME C: NEURODEGENERATIVE DISORDERS AND INJURY

The Role of RNA Biology in Neurological Disease CME

Chair: Wenzhen Duan, MD, PhD
Sunday, Nov. 12, 8:30–11 a.m.
Room: Ballroom A

It has been increasingly recognized that RNA plays a pivotal role in the regulation of gene expression and neuronal function. This symposium will highlight advances in RNA biology and discuss the roles of RNA in neurological diseases, including repeat associated non-ATG translation, RNA metabolism, non-coding regulatory RNAs, and splicing factors. The symposium will provide new perspectives on how RNA biology guides strategies for therapeutic development in neurological diseases.



Neuroimmune Interactions: A Status Change CME

Chair: Jorge Ivan Alvarez, PhD
Co-Chair: Jonathan Kipnis, PhD
Sunday, Nov. 12, 1:30–4 p.m.
Room: Ballroom A

Identifying the mechanisms regulating the influence of the immune system on the nervous system is critical to understanding brain health, behavior, cognition, and disease processes. In this symposium, a panel of expert scientists will describe how peripheral immune elements activate unique signaling pathways regulating neuronal function and how unique neurointrinsic signals shape the activity of leukocytes entering the central and peripheral nervous systems during homeostasis and disease.

Tau Homeostasis and Toxicity in Neurodegeneration CME

Chair: Li Gan, PhD
Co-Chair: Karen Ashe, MD, PhD
Tuesday, Nov. 14, 8:30–11 a.m.
Room: Ballroom A

Microtubule-binding protein tau has emerged as a central player in neurodegenerative diseases. Imbalanced tau proteostasis, characterized with accumulation and spread, is linked with neuronal and synaptic toxicity. The aim of the symposium is to discuss how tau proteostasis becomes dysregulated and how tau becomes toxic. The symposium will focus on the post-translational mechanisms as well as cell autonomous and non–cell autonomous forms of regulation in both animal models and human stem cells.

Experimental Models Versus Reality of Neurological Disease CME

Chair: Werner Paulus, MD
Wednesday, Nov. 15, 8:30–11 a.m.
Room: Ballroom A

Experimental models of neurological disease are essential to better understanding pathomechanisms and to finding more effective treatments. Since models cannot reflect all aspects of human disease, they must be carefully selected, and results must be validated with human tissues. This symposium will outline the most recent neuropathological developments; discuss new models for Alzheimer´s disease, ALS/FTLD, prion disease, and stroke; and compare experimental models with real (human) disease.

Illuminating Neural Circuits: From Molecules to MRI CME

Chair: Jin Hyung Lee, PhD
Co-Chair: Anatol C. Kreitzer, PhD
Wednesday, Nov. 15, 1:30–4 p.m.
Room: Ballroom A

The symposium will introduce cutting-edge experimental approaches for visualizing and manipulating neural circuits, novel circuit mechanisms, the role of circuit defects in neurological disease, and therapeutic approaches aimed at manipulating circuit mechanisms. The goal is to better understand the role of neural circuits in normal brain function and how their impairment underlies neurological disease as well as to discuss our emerging ability to use this knowledge to develop therapeutics.

THEME D: SENSORY SYSTEMS

Cortical Plasticity Following Sensory Loss and Restoration CME

Chair: Stephen G. Lomber, PhD
Co-Chair: Amir Amedi, PhD
Sunday, Nov. 12, 1:30–4 p.m.
Room: Ballroom B

Studies of sensory loss and restoration are changing traditional views of cortical organization. Integrating animal and human models in addition to insight from the study of blindness and deafness, this symposium will discuss mechanisms of crossmodal plasticity in visual and auditory cortices throughout the lifespan, the role of critical periods, impact on perception and cognition, and how these changes influence the outcomes of sensory prosthetics.

THEME E: MOTOR SYSTEMS

Neural Mechanisms of Voluntary Action Control: From Habits to Intentionality in Animals and Humans CME

Chair: Itzhak Fried, MD, PhD
Monday, Nov. 13, 1:30–4 p.m.
Room: Ballroom A

This symposium will address the neural mechanisms underlying the capacity for internally-generated, voluntary action, that characterizes the motor systems of humans and some animals. Recent experimental

SYMPOSIA (CONT.)

All symposia will be held in the Walter E. Washington Convention Center.

and modeling advances have rekindled neuroscientific interest in this classic topic. The symposium will cover animal models that have identified mechanisms for habitual and intentional action, as well as human studies that have both recorded and manipulated frontal processes underlying conscious volition. These advances are enabling the first computational models of volition.

THEME F: INTEGRATIVE PHYSIOLOGY AND BEHAVIOR

Central Network Dynamics Regulating Visceral and Humoral Functions CME

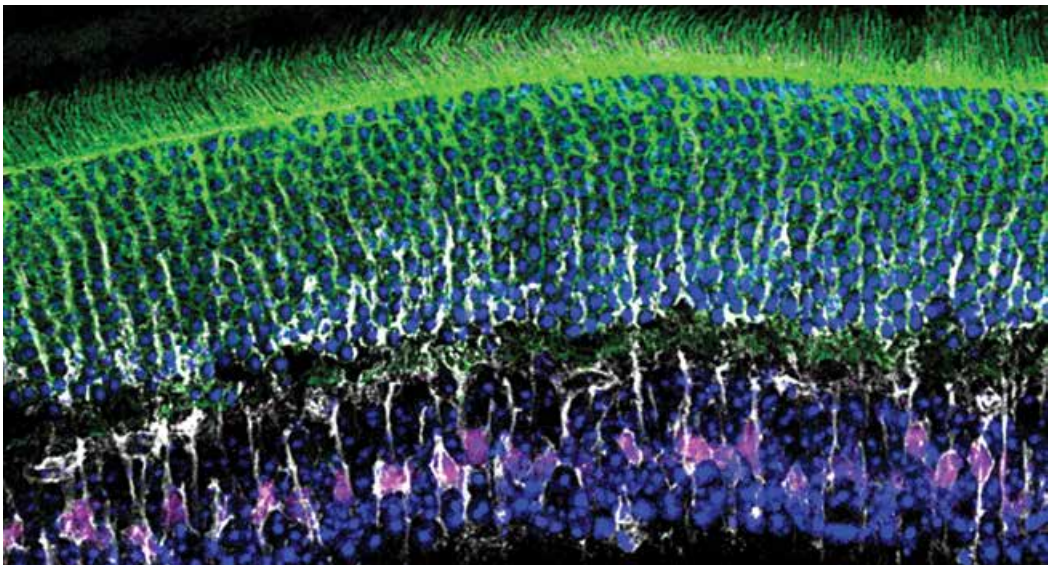
Chair: Rita J. Valentino, PhD
Co-Chair: Patrice G. Guyenet, PhD
Saturday, Nov. 11, 1:30–4 p.m.
Room: Ballroom B

The brain regulates visceral and immune functions to maintain internal homeostasis, optimally respond to a dynamic external environment, and integrate these functions with ongoing behavior. Using urological, gastrointestinal, and immune systems as examples, this symposium will show how advances in circuit dissection and manipulation and neural recordings across networks linking viscera to cortical regions are revealing how the brain performs this complex integration.

The Role of Extra-Suprachiasmatic Nucleus Brain Clocks in Circadian Regulation of Brain Function: Time Matters! CME

Chair: Robert L. Spencer, PhD
Wednesday, Nov. 15, 8:30–11 a.m.
Room: Ballroom B

Although much has been learned about the operation of the "master clock" within the hypothalamic suprachiasmatic nucleus (SCN), only recently has there been significant progress in understanding how the SCN orchestrates circadian regulation of various brain processes. This symposium will present recent advances concerning the presence of operational molecular clocks throughout the brain, mechanisms by which they are aligned with the SCN, and their functional relevance for learning, memory, and affective behavior.



THEME G: MOTIVATION AND EMOTION

From Salient Experience to Learning and Memory: Instructive Signals for Aversion and Reward CME

Chair: Joshua P. Johansen, PhD
Monday, Nov. 13, 1:30–4 p.m.
Room: Ballroom B

Aversive and rewarding experiences are translated by the nervous system into instructive signals that alter brain connectivity, producing learning and changes in behavior. Using modern circuit mapping, manipulation, and recording approaches, great progress has been made in understanding the neural mechanisms of instructive signaling. This symposium will provide an updated and interactive view on how aversive and rewarding instructive signals are constructed, coded, and transmitted.

Circuit and Synaptic Plasticity Mechanisms of Drug Relapse CME

Chair: Yavin Shaham, PhD
Tuesday, Nov. 14, 1:30–4 p.m.
Room: Ballroom B

Relapse is a core feature of drug addiction and a subject of intense basic research investigation. The symposium will highlight new developments in our understanding of circuits and synaptic plasticity mechanisms of drug relapse from studies combining established and novel animal models with state-of-the-art cellular, electrophysiological, anatomical, chemogenetic, and optogenetic methods. The speakers will also discuss the translational implications of these new developments.

THEME H: COGNITION

Neuronal Adaptation and Behavioral Performance in Perceptual and Economic Decisions CME

Chair: Camillo Padoa-Schioppa, PhD
Saturday, Nov. 11, 1:30–4 p.m.
Room: Ballroom A

The implications of neuronal adaptation are more complex than classically recognized. In sensory systems, ambiguous firing rates may result in a "coding catastrophe". In the representation of subjective values, uncorrected adaptation would induce arbitrary choice biases. These observations raise the question of whether adaptation is beneficial to the organism. The symposium will present recent work on perceptual and economic decisions showing that neuronal adaptation ensures optimal coding and thus increases behavioral performance.

Neural Correlates of Consciousness: Progress and Problems CME

Chair: Johan Storm, PhD
Co-Chair: Melanie Boly, MD, PhD
Wednesday, Nov. 15, 1:30–4 p.m.
Room: Ballroom B

Consciousness research is developing rapidly. Using evidence from brain injury in patients and physiological and behavioral studies in humans and related animals (single neuron, fMRI, EEG, TMS, intracranial recordings), the symposium will highlight how different conscious states and contents arise in the brain. Speakers will discuss different experimental approaches and theoretical frameworks as well as the medical and ethical relevance of this area.

THEME I: TECHNIQUES

Exciting New Tools and Technologies Emerging From the BRAIN Initiative CME

Chair: Joshua A. Gordon, MD, PhD
Tuesday, Nov. 14, 8:30–11 a.m.
Room: Ballroom C

The BRAIN Initiative seeks to reveal how brain cells and circuits dynamically interact in time and space to shape our perceptions and behavior. BRAIN investigators are accelerating the development and application of new tools and neurotechnologies to tackle these challenges. This symposium highlights advances that will enable exploration of how the brain records, stores, and processes vast amounts of information, shedding light on the complex links between brain function and behavior.

Hearing Loss, Brain Function, and Healthy Aging CME

Organizer: Frank R. Lin, MD, PhD
Monday, Nov. 13, 8:30-11 a.m.
Walter E. Washington Convention Center
Room: 206

Strategies to optimize healthy aging are imperative. From 2000 to 2050, the proportion of the world's population over age 60 will double from 11 percent to 22 percent. For the first time in history, the older adult population will be larger than the population of children under 14 years old. This session will discuss what constitutes healthy aging, explore hearing loss as an exemplar of a potential intervention target for optimizing healthy aging, and discuss the current and future role of neuroprostheses for hearing.

Advances and Challenges in Deep Brain Stimulation CME

Organizer: Andres M. Lozano, MD, PhD
Tuesday, Nov. 14, 8:30-11 a.m.
Walter E. Washington Convention Center
Room: 206

More than 160,000 patients have received deep brain stimulation (DBS), mostly for Parkinson's disease. This session will provide an overview of new DBS applications and discuss some of the emerging mechanisms of action and biological effects being discovered. The overall aim is to identify areas that require further exploration to optimize the DBS therapy and to develop novel indications for this technology.

Emerging Neuroimaging Biomarkers for Schizophrenia CME

Organizer: John Krystal, MD
Wednesday, Nov. 15, 8:30-11 a.m.
Walter E. Washington Convention Center
Room: 206

This session will introduce the development of neuroimaging biomarkers for schizophrenia. It will cover diagnostic and subtyping biomarkers, biomarkers of genetic risk for schizophrenia, neurochemical and molecular markers of pathophysiology, and pathophysiological biomarkers related to illness progression and treatment.

MINISYMPOSIA

All minisymposia will be held in the Walter E. Washington Convention Center.

THEME A: DEVELOPMENT

Short-Circuiting Neurodevelopmental Disorders: Novel Insights and Treatment Strategies CME

Chair: Michela Fagiolini, PhD
Co-Chair: Tommaso Pizzorusso, PhD
Saturday, Nov. 11, 1:30–4 p.m.
Room: Ballroom C

Neurodevelopmental disorders are often associated with aberrant sensory processing and epilepsy, yet the way such deficits contribute to the etiology of the disorders is unknown. This minisymposium will demonstrate how studies of selective central and peripheral neuronal circuits at the micro and macro levels allow a new understanding beyond single genes that can be exploited to design interventions and to establish biomarkers that can be translated from animal models to humans.

The Structure and Function of Specific Cell-Cell Interactions in Neural Development: Protocadherins and Atypical Cadherins CME

Chair: James D. Jontes, PhD
Co-Chair: Joshua A. Weiner, PhD
Tuesday, Nov. 14, 8:30–11 a.m.
Room: 145B

Cell-cell interactions control nearly every process underlying neural circuit assembly. Protocadherins and atypical cadherins comprise a large and diverse group of molecules within the cadherin superfamily that mediates intercellular interactions in a broad range of developmental contexts. This minisymposium will explore recent advances in understanding the structure, function, and disease-associated disruption of these diverse cell-surface proteins.

Epigenetic Etiology of Intellectual Disability CME

Chair: Shigeki Iwase, PhD
Co-Chair: Angel Barco, PhD
Wednesday, Nov. 15, 8:30–11 a.m.
Room: 151B

Intellectual disability (ID) is a prevailing condition associated with impaired cognitive and adaptive behavior. Many epigenetic regulators have been genetically associated with ID. Investigations have begun to reveal the molecular and cellular basis of IDs that are linked to epigenetic dysregulation. In this minisymposium, experts will discuss how the altered functions of histone modifiers, chromatin remodelers, and methyl-DNA binding proteins contribute to impaired neurodevelopment.

THEME B: NEURAL EXCITABILITY, SYNAPSES, AND GLIA

Big News From a Little Region — Hippocampal Area CA2 CME

Chair: Serena M. Dudek, PhD
Sunday, Nov. 12, 8:30–11 a.m.
Room: Ballroom C

Known to be resistant to cell death, neurons in hippocampal area CA2 have only recently been appreciated as having distinct synaptic and firing properties and playing distinct roles in behavior such as social recognition and aggression. In this minisymposium, speakers will discuss how CA2 may be important in diseases such as schizophrenia and epilepsy as well as provide attendees with an overview of this small but exciting module of the hippocampus and its relation to many brain functions.

Emerging Mechanisms Underlying Dynamics of Gabaergic Synapses CME

Chair: Shiva K. Tyagarajan, PhD
Co-Chair: Arianna Maffei, PhD
Sunday, Nov. 12, 1:30–4 p.m.
Room: 145B

In recent years, it has emerged that GABAergic inhibition is flexible, allowing input-specific adaptations at excitatory connections. This minisymposium will address several novel mechanisms for "plastic" GABAergic neurotransmission and highlight mechanisms that are operational during development and in mature neuronal circuits. This event will also showcase a tight molecular interplay between glutamatergic and GABAergic neurotransmission systems.

The Dentate Gyrus: From Microcircuit Function to Information Processing During Behavior CME

Chair: Marlene Bartos, PhD
Co-Chair: Peter Jonas, MD
Wednesday, Nov. 15, 8:30–11 a.m.
Room: 145B

The dentate gyrus (DG) is the input gate of the hippocampus and translates the rich input stream from the entorhinal cortex into sparse nonoverlapping memories. However, the network mechanisms underlying sparse coding are unknown. This minisymposium bridges the gap between recent *in vivo* and *in vitro* studies to highlight new insight on the role of granule, mossy, and GABAergic cell; their output synapses in sparse coding; and the spatio-temporal emergence of DG population activity during learning.

Dendritic Computation: Linking Dendritic Mechanisms to Circuits and Behavior CME

Chair: Wei Wei, PhD
Co-Chair: Jun Ding, PhD
Wednesday, Nov. 15, 1:30–4 p.m.
Room: 146A

A key function of neuronal dendrites is integrating and transforming synaptic inputs to drive appropriate outputs. This minisymposium will focus on the complexity and physiological relevance of dendritic computations in the brain and will explore dendritic processing in various cell types of the sensory and motor systems as well as spatial navigation. The session will also highlight emerging studies

that directly link dendritic mechanisms to neural circuit function and behavior.

THEME C: NEURODEGENERATIVE DISORDERS AND INJURY

In Vivo Imaging of CNS Injury and Disease CME

Chair: Binhai Zheng, PhD
Co-Chair: Katerina Akassoglou, PhD
Monday, Nov. 13, 1:30–4 p.m.
Room: Ballroom C

In vivo optical imaging with advanced microscopy (e.g., multiphoton) has emerged as a powerful tool to study cellular responses to injury and disease in the mammalian CNS. Important new insight has been gained on axon degeneration and regeneration, glial responses, changes in the neurovascular unit, and neural transplants. This minisymposium will present recent advances in understanding the neuronal, glial, and other cellular responses to CNS injury and disease with *in vivo* imaging of the brain or spinal cord.

THEME D: SENSORY SYSTEMS

Emerging Roles of Somatostatin Inhibitory Neurons in Sensory Cortex Processing and Plasticity CME

Chair: Hirofumi Morishita, MD, PhD
Co-Chair: Hillel Adesnik, PhD
Saturday, Nov. 11, 1:30–4 p.m.
Room: 145B

Somatostatin-expressing (SOM) neurons are one of the principal classes of GABAergic inhibitory neurons. This minisymposium brings together researchers applying advanced *in vivo* techniques to monitoring and manipulating selective neural circuitries in the sensory cortex to discuss novel findings on how behavioral states and sensory inputs uniquely modulate the activity and rhythm of SOM neurons, and how SOM neurons in turn determine sensory processing and plasticity through specific molecular mechanisms.

State-Dependent Cortical Processing CME

Chair: Yuval Nir, PhD
Co-Chair: Katja Wiech, PhD
Monday, Nov. 13, 1:30–4 p.m.
Room: 145B

How do behavioral states and cognitive factors affect cortical processing? States of wakefulness, sleep, and anesthesia affect neuronal excitability, perception, and plasticity. Vigilance, attention, expectation, and task context dynamically affect local cortical circuits during wakefulness. This minisymposium will discuss recent findings, highlight governing principles, and explore whether behavioral states and cognitive factors may locally modulate cortical processing via common mechanisms.

Good Vibrations: Genetic, Neural, and Behavioral Links Between Auditory and Tactile Perception CME

Chair: Jeffrey M. Yau, PhD
Co-Chair: Saskia Haegens, PhD
Tuesday, Nov. 14, 8:30–11 a.m
Room: 146A

While the neural systems underlying perception have been well studied, it remains debatable whether our senses rely on supramodal mechanisms. Recent evidence suggests that circuits traditionally considered modality-dedicated may support multiple senses. This minisymposium addresses the relationship between audition and touch — senses that signal by mechanotransduction. The speakers will consider cross-species evidence for links between audition and touch spanning genetics, neurophysiology, and behavior.

Sensation in Action CME

Chair: Aman B. Saleem, PhD
Co-Chair: Laura Busse, PhD
Tuesday, Nov. 14, 1:30–4 p.m.
Room: 151B

Under natural conditions, humans constantly engage the sensory system during myriad everyday actions: finding food, detecting threats, or exploring. How do sensory systems work during active behaviors? This minisymposium will share novel perspectives of sensory processing during active, multidimensional behavior in different systems (fly vision, rodent vision, audition, somatosensation) and at different processing levels (fly lobula plate, mammalian thalamus and cortex).

Stratification of Visceral Pain: New Insight Into the Mechanisms of Peripheral Sensitisation From Animal Models and Human Tissue CME

Chair: David Bulmer, PhD
Co-Chair: Guy Boeckxstaens, MD, PhD
Wednesday, Nov. 15, 8:30–11 a.m
Room: 146A

Visceral pain is a common complaint inadequately treated by current analgesics. This minisymposium will describe the stratification of patients with visceral pain by the identification of novel, lipid, and protease mediators of peripheral sensitization using patient tissue samples. The session will also describe their novel endosomal and biased GPCR signaling pathways and report how visceral pain may be further stratified by the presence of discrete populations of visceral nociceptors.

THEME E: MOTOR SYSTEMS

Individual or Group Patterns of Human Sensorimotor Control and Learning? When the Whole May Not Be Greater Than the Sum of Its Parts CME

Chair: Randy Flanagan, PhD
Co-Chair: Tyler Cluff, PhD
Sunday, Nov. 12, 8:30–11 a.m
Room: 151B

Despite its being widely acknowledged that human sensory and motor function can vary between individuals, studies typically focus on average patterns of behavior in groups of healthy people. Individual patterns of sensorimotor function are thus poorly

All minisymposia will be held in the Walter E. Washington Convention Center.

understood and have only recently begun to be unraveled. This minisymposium will highlight recent behavioral, neuroimaging, and modeling work that is helping to explain individual patterns of sensory and motor function in healthy and patient groups.

Advances in Parkinson's Disease Biomarkers and Disease Modeling CME

Chair: Margaret L. Sutherland, PhD
Co-Chair: David J. Stone, PhD
Sunday, Nov. 12, 1:30–4 p.m.
Room: 146A

Parkinson's disease (PD), a chronic movement disorder with no cure, is benefiting from coordinated efforts around high-quality standardized clinical data acquisition and biosample collections that are being broadly shared with the research community to promote biomarker development and disease modeling. Academic and industry researchers will highlight advances in PD genetics, imaging, transcriptomics, wearable technology, and data integration.

Modulation of Spinal Motor Networks: New Perspectives in the Control of Movement CME

Chair: Patrick J. Whelan, PhD
Monday, Nov. 13, 8:30–11 a.m.
Room: 151B

Over the past decade, technological advances have provided tools to identify and activate circuits within the brain and spinal cord. This has led to conceptual advances in our understanding of network connectivity and intracellular properties that contribute to rhythmogenesis. This minisymposium will explore these findings in topics ranging from the descending control of locomotion to changes in pacemaker cells following spinal cord injury.

Delineating the Diversity of Spinal Interneurons in Locomotor Circuits CME

Chair: Ying Zhang, PhD
Co-Chair: Simon Gosgnach, PhD
Tuesday, Nov. 14, 1:30–4 p.m.
Room: 145B

Spinal interneuronal circuits control locomotion. One important breakthrough in understanding the organization of locomotor circuits was the discovery of genetically-defined interneuron classes. However, the recent identification of distinct subsets of interneurons within each cardinal class has posed urgent questions that will be addressed in this minisymposium, including how to discern and define these subpopulations, the specific role each plays during locomotion, and how they are formed during development.

THEME F: INTEGRATIVE PHYSIOLOGY AND BEHAVIOR

Peripheral Neural Modulation of Inflammation, Immunity, and Host Defense CME

Chair: Isaac Ming-Cheng Chiu, PhD
Co-Chair: Valentin A. Pavlov, PhD
Sunday, Nov. 12, 8:30–11 a.m.
Room: 145B

The peripheral nervous system (PNS) and immune system actively communicate to regulate homeostasis and inflammation in health and disease. Nodose/jugular ganglia and DRG sensory neurons detect immune and bacterial mediators to signal danger, and release neuropeptides that regulate immunity. Vagal autonomic neurons potently modulate immune cell activation in sepsis, arthritis, colitis, and other inflammatory conditions. Thus, defining peripheral neuroimmune signaling can improve treatment of inflammatory diseases.

Neuroethology of Listening: Learning, Perception, and Preference in Female Songbirds CME

Chair: Leslie S. Phillmore, PhD
Co-Chair: Sarah C. Woolley, PhD
Monday, Nov. 13, 1:30–4 p.m.
Room: 146A

Songbirds are a diverse order known for producing learned vocalizations. Young songbirds must learn from a tutor to produce species-typical vocalizations as adults. Early research on the neurobiology of song learning focused primarily on males, presumably because males of many species tend to sing more than do the females. More recently, researchers have recognized the importance of females beyond response to male song. This minisymposium will highlight the neuroethology of new female songbird research.

Glia-Neuron Interactions Regulate Sleep CME

Chair: Priyattam J. Shiromani, PhD
Co-Chair: Marcos Frank, PhD
Tuesday, Nov. 14, 8:30–11 a.m.
Room: Ballroom B

Current models of sleep-wake regulation are neuron-centric and cannot explain key aspects of sleep. This minisymposium will present research showing that sleep network models need to be revised to include glia. The session will present new evidence gathered using innovative methods that prove a glial-neuron network modulates sleep architecture and homeostatic sleep drive. This also explains why sleep is necessary, a topic of interest to everyone.

Deep-Layer Projection Neurons of the Neocortex: Specialized Subpopulations Exhibiting Distinct Integration and Output CME

Chair: Nikolai C. Dembrow, PhD
Co-Chair: Arielle Leigh Baker
Wednesday, Nov. 15, 1:30–4 p.m.
Room: 151B

Charting the six-layered cortical microcircuit dates back to the days of Ramón y Cajal, yet how information is processed by this network remains elusive. This minisymposium will focus on recent advances regarding the distinct

subpopulations of deep-layer pyramidal neurons that provide output from this network to various cortical and subcortical targets. Comparing across multiple cortices, this session aims to identify fundamental mechanisms that contribute to the diversity of cortical output channels.

THEME G: MOTIVATION AND EMOTION

Adolescence and Reward: Making Sense of Neural and Behavioral Changes Amid the Chaos CME

Chair: Deena M. Walker, PhD
Co-Chair: Matthew J. Paul, PhD
Saturday, Nov. 11, 1:30–4 p.m.
Room: 151B

Adolescence is a time of significant change in the brain and behavior. Evidence suggests that many adolescent-typical changes in behavior are related to increased value placed on rewards and are driven by interactions between pubertal hormones, dopaminergic reward circuitry, and the prefrontal cortex. This minisymposium highlights recent developments in our understanding of neural and hormonal contributions to adolescent-typical reward-associated behaviors and increased vulnerability to neurological disorders.

Neuroscience of Maternal Psychopathology CME

Chair: Jodi Pawluski, PhD
Co-Chair: Joseph S. Lonstein, PhD
Monday, Nov. 13, 8:30–11 a.m.
Room: Ballroom B

Motherhood involves striking structural and chemical neuroplasticity, which is associated with increased susceptibility to anxiety and depression. These disorders have unique profiles of neural activation when experiencing postpartum, and because the underlying systems overlap with those for caregiving, mother-infant interactions can be disrupted. Therefore, there is intricate interplay among maternal mental health, the mother-infant relationship, and neurobiological mechanisms mediating them.

Functional Diversity of Prefrontal Cortical Regions and Networks CME

Chair: David E. Moorman, PhD
Co-Chair: Sarah Heilbronner, PhD
Tuesday, Nov. 14, 8:30–11 a.m.
Room: 151B

The prefrontal cortex (PFC) is a complex structure that plays diverse roles in cognition and emotion and is disrupted in multiple diseases. Despite decades of research into rodent PFC, there is no formal model of how its heterogeneous anatomy predicts its multifaceted role in behavior and disease. This minisymposium will present recent research using a range of modern techniques to advance new perspectives on the intersection between structure and function in medial and orbital PFC networks.

Updated Perspectives on the Direct and Indirect Pathways in Neuropsychiatric Disorders CME

Chair: Meaghan Creed, PhD
Co-Chair: Yonatan Michael Kupchik, PhD
Wednesday, Nov. 15, 8:30–11 a.m.
Room: Ballroom C

The striatum is implicated in emotional processing; its dysfunction is linked to addiction, depression, and schizophrenia. Striatal projection neurons (SPNs) are segregated into either the Dopamine D1R-expressing direct pathway or the D2-expressing indirect pathway. Molecular, electrophysiological, and imaging tools have yielded surprising discoveries about how these two pathways drive emotional behavior and how this function is perturbed in disease states that give rise to maladaptive behavior.

THEME H: COGNITION

Computational Psychiatry: Multiscale Models of Mental Illnesses CME

Chair: Michele Ferrante, PhD
Co-Chair: Xiao-Jing Wang, PhD
Sunday, Nov. 12, 8:30–11 a.m.
Room: 146A

This minisymposium will provide an in-depth introduction to the nascent and burgeoning field of computational psychiatry (CP). CP applies cutting-edge quantitative methods and theoretical models to investigating neural or cognitive phenomena relevant to psychiatric diseases. Talks will cover practical examples of theory- and data-driven computational models of cognitive deficits associated with schizophrenia, emotion regulation, anxiety, and drug addiction.

New Breakthroughs in Understanding the Role of Functional Interactions Between the Neocortex and the Claustrum CME

Chair: Solange P. Brown, MD, PhD
Co-Chair: Brian N. Mathur, PhD
Sunday, Nov. 12, 1:30–4 p.m.
Room: Ballroom C

The claustrum is highly interconnected with almost all areas of the neocortex, yet the function of this corticoclaustral system has remained largely mysterious. Recent work has sparked new hypotheses regarding the corticoclaustral system based on analyses from the microcircuit to the behavioral level. This minisymposium will bring together a diverse array of researchers to discuss emerging views of the claustrum's influence on cortical activity and its role in cognitive function.

Beyond Place Cells: Recent Surprises From Hippocampal Neurophysiology CME

Chair: Mayank R. Mehta, PhD
Co-Chair: Carol A. Barnes, PhD
Monday, Nov. 13, 8:30–11 a.m.
Room: Ballroom C

Hippocampal neurons called place cells show spatially selective responses. This minisymposium will highlight recent advances that elucidate the mechanisms governing place cells and demonstrate hippocampal responses beyond allocentric spatial selectivity. This knowledge is obtained using diverse species — mice, rats, bats, and primates — and a range of behavioral, physiological, and computational techniques.

MINISYMPOSIA (CONT.)

All minisymposia will be held in the Walter E. Washington Convention Center.

The results provide significant new insight into hippocampal function.

Neural Circuits Supporting Cognitive Maps for Goal-Directed Behavior CME

Chair: Thorsten Kahnt, PhD
Co-Chair: Erie D. Boorman, PhD
Tuesday, Nov. 14, 1:30–4 p.m.
Room: 146A

Animals must represent various types of information, such as associations between events and outcomes and contextual and spatial contingencies. These features constitute a cognitive map for goal-directed behavior. Different brain regions including the hippocampus, entorhinal cortex, orbitofrontal cortex, and ventromedial prefrontal cortex have been shown to encode aspects of this map. This session will bring together recent findings across methods and species to discuss how maps observed in different brain areas may converge to guide behavior.

THEME I: TECHNIQUES

Nonhuman Primate Optogenetics: Recent Advances and Future Directions CME

Chair: Adriana Galván, PhD
Co-Chair: William R. Stauffer, PhD
Saturday, Nov. 11, 1:30–4 p.m.
Room: 146A

Nonhuman primates (NHP) are the best animal model for studying human cognition and mental health disorders, yet because of their size, complexity, and genetic intractability, the application of optogenetics to NHP studies has been slow. Nevertheless, optogenetic methods are critical to understanding the circuit and systems basis for cognition and mental health disorders. This minisymposium will highlight scientific advances using optogenetics in NHPs, demonstrate technical achievements, and identify the challenges ahead.

Open-Source Hardware for Neuroscience Research CME

Chair: Alexxai Kravitz, PhD
Monday, Nov. 13, 8:30–11 a.m.
Room: 145B

Neuroscientists often invent new devices to further their experiments. In recent years, neuroscientists have published several open-source inventions that rival commercial solutions. In this minisymposium, attendees will learn from the creators of six open-source projects including a head-mounted mini-microscope, a high-channel count electrophysiology system, multiple operant behavioral systems, and novel experiment control software, all of which are freely available to be built, used, and modified.

Innovative Approaches for Multimodal Neural Interfaces CME

Chair: Flavia Vitale, PhD
Co-Chair: Samantha Rose Santacruz, PhD
Monday, Nov. 13, 1:30–4 p.m.
Room: 151B

The generation and transmission of neural potentials involves multiple chemical and physical processes. Traditional neurotechnologies interact with neural circuits electrically, and many issues in their implementation, such as achieving a stable tissue interface and adequate spatiotemporal resolution, still exist. Focusing on emergent principles for recording and manipulating neural activity, this minisymposium will present state-of-the-art multimodal neural interfaces.

After the Data Deluge: Grappling With Transcriptional Complexity in the Brain CME

Chair: Jesse Gillis, PhD
Co-Chair: Vilas Menon, PhD
Wednesday, Nov. 15, 1:30–4 p.m.
Room: Ballroom C

Advances in gene expression analysis have vastly improved the scale and diversity of information that can be used to characterize neurons in the brain. In this minisymposium, we will describe how sophisticated analytical approaches exploit large-scale data, particularly at the cellular level, to provide novel insights into the regulation of neuronal identity. A focus will be on how the lessons learned from big data can improve the design and interpretation of smaller-scale experiments.

THEME J: HISTORY AND EDUCATION

The Science of Storytelling and Storytelling in Science

Chair: Paula L. Croxson, PhD
Co-Chair: Daniela Schiller, PhD
Sunday, Nov. 12, 1:30–4 p.m.
Room: 151B

Now more than ever, it is essential that scientists actively engage with the public. Through storytelling, the use of a personal narrative to bringe science to life, we can improve communication not only with the public, but also within the community, promoting better scientific progress. Through presentations about the science of storytelling, why and how to do it, and three powerful personal stories, this session aims to demonstrate how storytelling can transform science communication.


Society for Neuroscience

SfN PRECONFERENCE SESSIONS

✍ Preregistration Required $ Course Fee 🕮 Professional Development ⊂⊃ Networking ✻ Public Outreach

SfN Pre-Conference Session Fees

SfN pre-conference sessions are sponsored by the Society and occur prior to the official start of the annual meeting. Paid registration is required for Short Courses and the Neurobiology of Disease Workshop. To attend, add the appropriate course to your annual meeting registration.

Short Courses #1 and #2

(Includes electronic syllabus and lunch)

Student member $150
Student nonmember $225
Postdoctoral member $225
Faculty member $295
Nonmember $445

Short Course #3

(Includes electronic syllabus)

Student member $100
Student nonmember $150
Postdoctoral member $150
Faculty member $200
Nonmember $300

Neurobiology of Disease Workshop

(Includes electronic syllabus, breakfast, and lunch)

Student attendee $85
Postdoctoral attendee $150
Faculty attendee $300

*Registration is not required for the Meet-the-Expert Series

FRIDAY, NOV. 10

Neurobiology Of Disease Workshop

Gene Therapy to Address Unmet Needs in Neurology ✍ $ 🕮

8 a.m.–5 p.m.
Walter E. Washington Convention Center: Room: 146C
Organizers: Xandra Breakefield, PhD
Florian Eichler, MD
Contact: training@sfn.org
Support contributed by: The National Institute of Neurological Disorders and Stroke, NIH; the National Institute on Alcohol Abuse and Alcoholism, NIH; and the National Center for Complementary and Integrative Health, NIH

This workshop embraces the breadth of "gene therapy" including viral vectors, oligonucleotides, and cell therapies used in promising preclinical studies and clinical trials for a variety of neurologic disorders long thought to be incurable. These new methods involve DNA engineering, gene replacement using virus vectors and the patient's own genetically modified cells, oligonucleotides that can "revive" beneficial gene functions or suppress toxic ones, and viruses and cells armed to tackle brain tumors.

Short Course #1

Intersections Between the Brain and Immune System in Health and Disease ✍ $ 🕮

8:30 a.m.–6 p.m.
Walter E. Washington Convention Center: Ballroom A
Organizers: Carla Shatz, PhD; Beth A. Stevens, PhD
Contact: training@sfn.org
Support contributed by: Lilly USA

The goal of this short course is to bring together researchers to discuss the mediators, mechanisms, and functional implications of neural-immune crosstalk in health and disease. Faculty will highlight new tools and approaches with which to study and model neural-immune signaling in different contexts, including human disease. Topics include interactions between the brain and the periphery, reactive gliosis and glymphatic-lymphatic connections, microglia function and dysfunction, the microbiome and gut-brain axis, and immune mechanisms of synapse loss in development and disease.

Short Course #2

Neuroinformatics in the Age of Big Data: Working With the Right Data and Tools ✍ $ 🕮

8 a.m.–6 p.m.
Walter E. Washington Convention Center: Ballroom B
Organizers: Katja Brose, PhD; A. Jane Roskams, PhD
Contact: training@sfn.org

We are at a unique time in history where global large-scale projects are generating unprecedented amount of data. Although much of this data is "open" and available — with analysis tools developed by a new generation of neuroinformaticians — some is still just beyond the reach of many neuroscientists. Here we bring together leaders in the neuroinformatics field to guide attendees (armed with a laptop) through a hands-on course highlighting some of the most broadly accessible open datasets and to guide their independent scientific voyage of discovery.

Short Course #3

Neuroethics and Public Engagement: Why, How, and Best Practices ✍ $ 🕮

1–5:30 p.m.
Room: 206
Moderators: Laura Cabrera, PhD; Emily Cloyd; Martha J. Farah, PhD
Contact: training@sfn.org
Support contributed by: The National Institute of Neurological Disorders and Stroke, NIH

Public education and engagement are crucial in the process of assessing and applying societal

values to the risks and benefits of neuroscience and the ethical dimensions they involve. Through lectures, case study discussion, and hands-on practice, attendees will explore what neuroethics is and why public engagement is a key component of the field, as well as develop ideas for how to engage with the public regarding their own research.

SATURDAY, NOV. 11

Meet-the-Expert Series: Session 1, 8–9:15 a.m 🕮 ⊂⊃

Renaissance Washington, DC Downtown Hotel
Contact: profdev@sfn.org

Experts will describe their own research techiques and accomplishments in a personal context that offers participants a behind-the-scenes look at factors influencing each expert's work. The sessions will offer students and postdoctoral researchers an opportunity to engage with the expert in an informal dialogue over continental breakfast. No registration is required, but seating is limited. Attendees are encouraged to arrive early for their priority session.

Examining the Development of the Functional Connectome With Non-Invasive Neuroimaging

Room: 2
Damien A. Fair, PhD
Theme A: Development

Damien Fair's laboratory focuses on mechanisms and principles that underlie the developing brain. The majority of his work uses functional MRI techniques, along with computational tools, such as graph theory, to assess typical and atypical populations. His work cuts across both human and animal models using these non-invasive tools as a bridge between species. A second focus involves testing the feasibility of using these techniques in translational studies of development. Dr. Fair is exploring ways to better characterize individuals to help guide future diagnostic, therapeutic, and genetic studies. He will discuss his research and the moments and people that have influenced his career trajectory.

Shifting the Bench to Bedside Paradigm Towards Translational Validity

Room: 4
Roberta Brinton, PhD
Theme C: Neurodegenerative Disorders and Injury
Support contributed by: MilliporeSigma

In the 21st century, there is not a single cure for a single neurodegenerative disease. The translational success of basic science discovery to clinical efficacy has been highly variable, with failure as the most consistent outcome. The failure rate of Phase 2 to Phase 3 clinical trials for nervous system diseases ranges from 85–100 percent depending on the neurological disease, mechanistic target, and therapeutic goal (disease modifying to recovery of function). Neurodegenerative diseases are complex systems biology challenges that typically have multiple stages of progression from early prodromal to end-stage incapacity. The time course for neurodegeneration can progress rapidly, as in ALS, or can span decades, as in Alzheimer's. Dr. Brinton will discuss her translational science experiences that include systems biology discovery science to translational IND enabling research to clinical trials. She will share lessons learned and strategies to conduct discovery science with greater translational validity.

Closing the Loop: From Motor Neuroscience to Rehabilitation

Room: 9
Amy J. Bastian, PhD
Theme E: Motor Systems

Amy Bastian's group focuses on understanding how humans learn and control movement. Her laboratory works to identify how new movement patterns are normally acquired, retained, and generalized, and how distinct brain lesions alter these processes. The ultimate goal of her work is to use this information to improve rehabilitation for individuals with neurological damage. In this session, she will discuss how she built a research program aimed at defining a mechanistic approach to neurorehabilitation and some of the advantages and challenges of studying human behavior.

Insights Into Hippocampal Circuitry and Function From Studies of Synaptic Plasticity

Room: 8
Serena M. Dudek, PhD
Theme F: Integrative Physiology and Behavior
Support contributed by: MilliporeSigma

Serena Dudek is perhaps best known for her work establishing long-term depression (LTD) as a legitimate form of synaptic plasticity in the hippocampus. These studies were initially aimed at determining how excitatory synapses are systematically weakened and eventually lost in normal development and in response to sensory manipulation during critical periods of postnatal development. Although Dr. Dudek continued to study synapse pruning and activity-dependent gene transcription, she will discuss how her interest in critical period plasticity has led her to an unexpected place: the long-neglected and enigmatic hippocampal area CA2.

SfN PRECONFERENCE SESSIONS (CONT.)

✍ Preregistration Required $ Course Fee 🕮 Professional Development 🎟 Networking ✻ Public Outreach

Meet-the-Expert Series:
Session 2, 9:30–10:45 a.m.

Renaissance Washington, DC Downtown Hotel
Contact: profdev@sfn.org

Meet-the-Clinician-Expert: Microdissecting the Function of Human Speech Cortex
Room: 5
Edward Chang, MD

Dr. Chang will discuss the unique role of neurologists, neurosurgeons, and neuroscientists in human intracranial research. He will give highlights from his own work on speech mechanisms but also discuss ethics and training related to the field in general.

Found in Transduction: Neurons and Ion Channels That Sense Touch
Room: 2
Miriam B. Goodman, PhD
Theme D: Sensory Systems
Support contributed by: MilliporeSigma

Touch is the earliest sense to develop and the last to fade and helps to define our sense of the world. Dr. Goodman investigates the biophysics of neuron-skin complexes and ion channels that give rise to tactile perceptions. She works with engineers and physicists to develop new experimental tools, and her research integrates studies of molecules, cells, and animals. Dr. Goodman will discuss her passion for sensory physiology and the importance and joy of being a maker in the neuroscience laboratory.

Serotonin Matters: Novel Strategies for NeuroTherapeutics in Addictive Disorders
Room 4
Kathryn A. Cunningham, PhD
Theme G: Motivation and Emotion
Support contributed by: ACS Chemical Neuroscience

Kathryn Cunningham is a pharmacologist and neuroscientist with a focus on advancing the biological understanding of addictive disorders and developing effective and safe

therapeutics to maximize human function. Her cross-disciplinary team of chemists, cell biologists and clinical scientists has identified that vulnerability to addiction and relapse are mechanistically linked to an imbalance of serotonin signaling through localized to corticostriatal circuitry.
Dr. Cunningham will discuss the evolution of this research from animals to humans and the ongoing drug discovery initiatives to restore homeostasis and mitigate deleterious behaviors that promote relapse.

Chasing Neuronal Images in the Human Cerebral Cortex
Room: 8
Rafael Malach, PhD
Theme H: Cognition

Formal scientific publications typically report the final conclusions of what, in reality, is a process full of dead-ends, depressing no-goes, and a mix of thrilling and painful outcomes often contradicting beloved theories. Dr. Malach will describe examples from such behind-the-scenes drama that took place while his group chased after the neuronal events underlying the emergence of a visual object in the mind of a human observer. It is his hope that such examples may be helpful to young scientists.

Life Balance in Academic Medicine: Confessions of a Physician-Scientist
Room: 9
Emery N. Brown, MD, PhD
Theme I: Techniques

Emery Brown is an anesthesiologist-statistician who combines the clinical practice of anesthesiology with research on the neuroscience mechanisms of general anesthesia and on the development of signal processing algorithms to analyze neuroscience data. In this session, Dr. Brown will discuss his career trajectory as a physician-scientist; balancing work and family; his use of clinical practice to stimulate research and vice versa; and how in today's big data era, scientists and clinicians should train in data analysis and statistical reasoning.

"We will continue to advocate for sustained, robust funding for neuroscience, the free exchange of scientific ideas, and global scientific collaboration...in all of our efforts, SfN remains deeply committed to its core value of supporting, engaging, and welcoming diverse voices and scientific exchange between scientists of all nationalities."

Hollis Cline, Past President of the Society for Neuroscience (SfN)

SfN Society for Neuroscience

These 120 flags represent countries that reflect the nationalities of both SfN members and annual meeting attendees in the past 5 years.

WORKSHOPS, MEETINGS, AND EVENTS

✍ Preregistration Required $ Course Fee 🕮 Professional Development ⊏⊐ Networking ✻ Public Outreach

SATURDAY, NOV. 11

NeuroJobs Career Center 🕮 ⊏⊐

Saturday, Nov. 11–Tuesday, Nov. 14, 7:30 a.m.–5 p.m.
Wednesday, Nov. 15, 7:30 a.m.–3 p.m.
Walter E. Washington Convention Center: West Salon
Contact: neurojobs@sfn.org

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 be made by credit card only.

Careers in Translational Drug Discovery 🕮

9–11 a.m.
Walter E. Washington Convention Center: Room: 207A
Organizer: Janet Clark, PhD
Contact: profdev@sfn.org
Support contributed by: AbbVie

Careers in translational drug discovery offer exciting opportunities to apply your biomedical research training to the development of much-needed treatments for disease. While pursuing a career in drug discovery in the past has meant exiting the academic setting to join the pharmaceutical industry, this is no longer the case. Translational drug discovery efforts are occurring in a variety of settings, including those in academia and the government. This workshop will provide an overview of career opportunities in the pharmaceutical industry, in academic drug discovery centers, and in the NIH Intramural Research Programs and will showcase examples of how basic and innovative biology can be turned into a drug discovery program in a variety of research settings that will lead to new medicines for patients who need them.

Global Approaches for Collaboration and Networking 🕮 ⊏⊐

9–11 a.m.
Walter E. Washington Convention Center: Room: 207B
Organizer: Emmeline Edwards, PhD
Contact: profdev@sfn.org

This workshop will be conducted by Women in World Neuroscience (WWN), an independent mentoring and networking organization aimed at providing opportunities for neuroscientists across the world. The goal of this workshop is to expand the connections among neuroscientists across the globe, to highlight the potential of developing strategic collaborations, to identify funding sources, and to provide strategies for successful grant establishment of research networks.

Meeting Mobile App Tutorial

10–11 a.m.
Walter E. Washington Convention Center: Room: 103
Contact: program@sfn.org

To ensure that attendees are able to take advantage of the 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. The meeting mobile app is available in the Google Play™ App Store and on iTunes™.

Incorporating Public Engagement Into Your Professional Portfolio: A Practical Guide 🕮 ✻

Noon–2 p.m.
Walter E. Washington Convention Center: Room: 207B
Organizer: John Meitzen, PhD
Contact: profdev@sfn.org

Engagement is hugely rewarding for both individual neuroscientists and our field as a whole, but it can be challenging to effectively organize and perform. This workshop will offer resources and hard-won perspectives on how to incorporate meaningful neuroscience public

engagement into your professional portfolio without sacrificing other responsibilities. Panelists will first make brief presentations and then offer an interactive forum to help audience members apply best practices.

News You Can Use in Writing Grant Applications: Updates from NIH 🕮

Noon–2 p.m.
Walter E. Washington Convention Center: Room: 207A
Organizer: Bruce Reed, PhD
Contact: profdev@sfn.org

The premise of this workshop is that understanding current NIH policy and priorities is advantageous to grant applicants. Much has changed at NIH, including an emphasis on rigor and transparency that is now influencing scores in review; new policies on clinical trials; evolving scientific priorities at the Institutes; and new funding opportunities. In this workshop, senior representatives of CSR, NINDS, NIA, NIDA, and NIMH will highlight implications of these changes for neuroscience grant applications.

Professional Development Workshop Tracks

Professional Development Workshops are categorized by tracks to help attendees quickly identify the workshops that are of the greatest interest to them.

Career Paths | Career Skills | Funding | Teaching and Program Development

Graduate School Fair 2017

Saturday, Nov. 11, 1–3 p.m.
Sunday, Nov. 12–Tuesday, Nov. 14, Noon–2 p.m.
Walter E. Washington Convention Center: Room: Hall E
Organizer: Neuroscience Training Committee
Contact: training@sfn.org

Prospective graduate students can meet face-to-face with student advisors, program faculty, and graduate school representatives from 85 national and international institutions at the Graduate School Fair.

BRAIN AWARENESS CAMPAIGN EVENT

Opening Channels to Brain Awareness

2:30–4 p.m.
Walter E. Washington Convention Center: Room: Hall E
Organizer: Jayatri Das, PhD
Contact: baw@sfn.org

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. Hear from Jayatri Das, chief bioscientist at the Franklin Institute, on how museums can be channels for connecting scientists to new audiences through neuroscience outreach.

How to be Successful in a Career in Academia

3–5 p.m.
Walter E. Washington Convention Center: Room: 207A
Organizer: Lique Coolen, PhD
Contact: profdev@sfn.org

Navigating a successful career in academia requires multiple levels of planning, training, and reaching key milestones. In this workshop, four speakers will discuss best practices and share experiences about key elements of success in academia, including obtaining extramural funding at all stages of training and career, high profile publications, receiving mentoring, and the need to negotiate. Each speaker will talk for 10 minutes, followed by questions and discussion involving the entire panel.

Research Mentor Training for Neuroscience Faculty

3–5 p.m.
Walter E. Washington Convention Center: Room: 207B
Organizer: Kevin Jones, PhD
Contact: nsp@sfn.org

This seminar based on the *Entering Mentoring* series is designed for mentors of diverse trainees. Through case studies and small-group discussion, participants will engage in an interactive experience aimed at promoting discovery, learning effective strategies, and understanding best practices in mentoring. The workshop will be led by Master Facilitators from the NIH National Research Mentoring Network (NRMN), the mission of which is to provide all trainees across the biomedical sciences with evidence-based mentorship and professional development programming. Advance registration is required at nsp@sfn.org.

Diversity Fellows Poster Session

6:30–8:30 p.m.
Walter E. Washington Convention Center: Hall E
Contact: nsp@sfn.org
Support contributed by: eNeuro and The Journal of Neuroscience

Join a poster session and networking event featuring participants of the Neuroscience Scholars Program, ENDURE, and other diversity fellowship programs.

International Fellows Poster Session

6:30–8:30 p.m.
Walter E. Washington Convention Center: Room: Hall E
Contact: globalaffairs@sfn.org
Support contributed by: eNeuro and The Journal of Neuroscience

Meet the next generation of leading young investigators from the Latin American Training Program and award winners selected by the International Brain Research Organization, the Federation of European Neuroscience Societies, and the Japan Neuroscience Society.

Trainee Professional Development Awards Poster Session

6:30–8:30 p.m.
Walter E. Washington Convention Center: Room: Hall E
Contact: awards@sfn.org
Support contributed by: eNeuro and The Journal of Neuroscience

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.
Walter E. Washington Convention Center: Room: Hall E
Contact: profdev@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.

WORKSHOPS, MEETINGS, AND EVENTS (CONT.)

✍ Preregistration Required $ Course Fee 🕮 Professional Development 🎟 Networking ✻ Public Outreach

SUNDAY, NOV. 12

FAIR Data, Metadata, and Data Sharing in Neurotrauma 🎟 🕮

9–11 a.m.
Walter E. Washington Convention Center:
Room: 207B
Organizer: Adam Ferguson, PhD
Contact: profdev@sfn.org

The National Institutes of Health (NIH) and other funding bodies have recently focused on increasing sharing, publication, and citation of research data and metadata to improve scholarly communication, reproducibility, and translation. Major journals are responding by demanding that data and metadata underlying publications be made available in public repositories for reuse to fuel novel discoveries from pooled information. We will review progress toward these goals in neuroscience, using traumatic brain injury and spinal cord injury as illustrating examples.

Navigating Career Transitions in Neuroscience 🕮

9–11 a.m.
Walter E. Washington Convention Center:
Room: 207A
Organizer: Georgia Hodes, PhD
Contact: profdev@sfn.org

This workshop will provide insight for participants who are approaching a career transition, either as progression in the academic pipeline or from one career path to another. We have selected scientists at various stages of their careers across academia, industry, government, and science social media to discuss the paths they have taken and what helped them obtain their positions. Our goal is to highlight the number of different opportunities that neuroscience offers and provide information on how to choose and prepare for these career transitions.

SfN CHAPTERS WORKSHOP

Strategic Messaging via Social Media: How to Disseminate Neuroscience to the Public and Policymakers 🕮 ✻

11:30 a.m.–1 p.m.
Walter E. Washington Convention Center:
Room: 103
Organizer: Chapters Subcommittee
Contact: chapters@sfn.org

In a time when communication of neuroscience information to the public and policymakers is especially important, this workshop will focus on using social media to communicate with your chapter members, other local SfN chapters, government representatives, industry and the public. Perspectives from science advocacy and policy groups, individual members, and international chapters will be presented in a panel discussion. Participants will leave with strategies on how to engage with others, using several social media platforms including Facebook and Twitter.

A Practical Guide to Science Communication 🕮 ✻

Noon–2 p.m.
Walter E. Washington Convention Center:
Room: 207B
Organizer: Torrey Truszkowski
Contact: profdev@sfn.org

Participants will develop science communication skills during this active workshop. First, participants will create a short, compelling story for their research. Then, participants will develop a flexible strategy to share their scientific story with any audience. Strategies for being clear, concise, and compelling will be discussed. This workshop will provide a short introduction to the core skills needed to successfully communicate science with anyone.

Funding Opportunities to Build Interdisciplinary Neuroscience Research for the Future 🕮

Noon–2 p.m.
Walter E. Washington Convention Center:
Room: 207A
Organizer: Edda "Floh" Thiels, PhD
Contact: profdev@sfn.org

As the field of Neuroscience evolves, the National Science Foundation (NSF) is focusing its training and research support towards team-based interdisciplinary strategies to understand how healthy brains and neural circuits function. This workshop is designed to inform educational and research leaders of all career stages about funding opportunities that emphasize interdisciplinary neuroscience training and research. Since the NSF is leading efforts to coordinate neuroscience research globally, international funding opportunities will also be presented.

SOCIAL ISSUES ROUNDTABLE

Engaging Neuroscientists in Dialogue With Religious Communities 🕮 ✻

1–3 p.m.
Walter E. Washington Convention Center:
Room: 201
Organizer: Se Kim, PhD
Contact: baw@sfn.org

Neuroscience research regularly intersects with concepts of human nature, identity, free will, and other philosophical and religious

Professional Development Workshop Tracks

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Career Paths | Career Skills | Funding | Teaching and Program Development

topics. This roundtable will explore paradigms for constructive engagement with diverse (and largely religious) publics. Presenters will examine tensions and domains of confluence between scientific and faith perspectives, the underlying values and assumptions in scientific research, and the role of cross-cultural dialogue on science education, practice and policy.

Addressing Issues Facing Women in the Early Stages of Their Scientific Career 🕮
3–5 p.m.
Walter E. Washington Convention Center: Room: 207A
Organizers: Courtney Miller, PhD; Ghazaleh Sadri-Vakili, PhD
Contact: profdev@sfn.org
Support contributed by: AbbVie

The Professional Women's Nexus (PWN) will address several topics that are relevant to women in the early stages of their scientific career. Workshop attendees will have the opportunity to hear from a journal editor, an associate director of global medical strategic operations in industry, a department chair, a professor, and two assistant professors. The panel will address topics such as key components for a successful career path, managing stress, work/life balance, scientific insight, and accurate (self) valuation.

NEUROSCIENCE DEPARTMENTS AND PROGRAMS WORKSHOP

Trends in Neuroscience Training: A Discussion of the SfN NDP Survey Results 🕮
3–5 p.m.
Walter E. Washington Convention Center: Room: 207B
Organizers: Elisabeth Van Bockstaele, PhD; Alan Sved, PhD
Contact: training@sfn.org

Join members of the neuroscience training community (training program directors, faculty, department chairs) to discuss the implications of SfN's most recent NDP Survey. Network with other NDP representatives and discuss new trends in undergraduate and graduate training, student and faculty demographics, and how different training programs are adapting to 21st century learning styles and evolving priorities. The workshop will include a formal presentation of survey results, followed by small group discussions and report outs to the larger group for a facilitated discussion.

MONDAY, NOV. 13

Evidence-Based Approaches to Teaching Neuroscience 🕮
9–11 a.m.
Walter E. Washington Convention Center: Room: 207A
Organizers: Monica Linden, PhD; Richard Olivo, PhD
Contact: profdev@sfn.org

This year's workshop on teaching neuroscience will review evidence-based practices that have been shown to improve student learning. Amy Chang, Director of Education for the American Society for Microbiology, will summarize validated instructional strategies. Lee Zia (NSF), David Asai (HHMI), and Brian Couch (ARISE Program) will discuss implementing these proven approaches to good teaching, and Dan Willingham (University of Virginia) will review practices that students themselves can use to improve their own learning.

The Power of Effective Storytelling: Communicating the Value of Brain Research 🕮 ✻
9–11 a.m.
Walter E. Washington Convention Center: Room: 207B
Organizer: Frances Jensen, MD
Contact: profdev@sfn.org

Never has it been more important to increase understanding of the value of science for improving health for humankind. Communicating the exciting implications of neuroscience discoveries to an audience of non-scientists, however, requires thought, skill, and a bit of theater to achieve that "aha!" moment. In this workshop, experienced scientists will give TED-style talks and science press will share insight so that you walk away knowing how to present complicated research in ways that engage an audience and establish rapport while also translating the impact of incremental discoveries.

ANIMALS IN RESEARCH PANEL

How to Effectively Communicate Your Animal Research: Elevator Speech, Social Media and Best Practices ✻
Noon–2 p.m.
Walter E. Washington Convention Center: Room: 103A
Organizer: Mar Sanchez, PhD
Contact: advocacy@sfn.org
Support contributed by: National Primate Research Centers

In today's environment, animal researchers need to engage with different audiences to promote the understanding of and need for animal models. However, scientists often face specific challenges when discussing this matter with the public, policymakers, and the press. This interactive panel will provide a basic understanding of, and show attendees strategies to engage with, various audiences on the importance and benefits of animal research.

Improving Your Science: Sample-Size Planning, Pre-Registration, and Reproducible Data Analysis 🕮
Noon–2 p.m.
Walter E. Washington Convention Center: Room: 207B
Organizer: Robert Calin-Jageman, PhD
Contact: profdev@sfn.org
Support contributed by: AbbVie

This workshop introduces three emerging best practices to improve the rigor and

WORKSHOPS, MEETINGS, AND EVENTS (CONT.)

✍ Preregistration Required $ Course Fee 🕮 Professional Development 🗀 Networking ✻ Public Outreach

reproducibility of neuroscience research: 1) sample size planning, 2) pre-registration, and 3) the Project Tier protocol for conducting reproducible data analysis. Each discussion will provide a rapid overview of the topic (30 minutes) but will provide resources and tips for advancing towards mastery. The workshop will end with a 30-minute open-ended discussion. After the meeting, download all the materials here: https://osf.io/5awp4/.

TUESDAY, NOV. 14

A Celebration of Women in Neuroscience Luncheon ✍ 🕮
Noon–2 p.m.
Renaissance Washington, DC Downtown Hotel: Grand Ballroom North and Central
Contact: cwin@sfn.org
Support contributed by: GlaxoSmithKline

The annual luncheon honors female leaders in neuroscience. Marina Picciotto, PhD, will moderate a panel discussion focused on the role of advocacy in overcoming past, present, and future challenges of female neuroscientists. The panel will consist of three distinguished leaders in neuroscience: Tracy Bale, PhD, Joanne Berger-Sweeney, PhD, and Indira Raman, PhD. Space is limited. Registration is required. For more information, visit SfN.org/cwinrsvp.

PUBLIC ADVOCACY FORUM

Advocating for Basic Science in a Disease-Focused World ✻
2:30–4 p.m.
Walter E. Washington Convention Center: Room: 201
Organizer: William Martin, PhD
Contact: advocacy@sfn.org

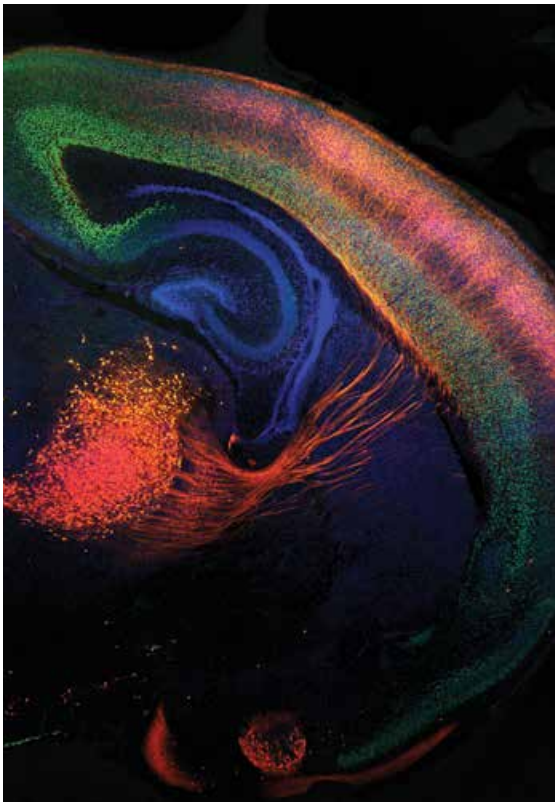
Basic research is the foundation for all biomedical advances. For policymakers accustomed to the immediate impact of federal investments, the lag between scientific discoveries and medical breakthroughs clouds the long-term value of basic research. This panel will discuss the essential role of basic scientific research to the research continuum. Attendees will learn how this research continuum influences advocacy and gain tips for advocating to policymakers to secure financial and political support.

SfN Members' Business Meeting 🗀
6:45–7:30 p.m.
Walter E. Washington Convention Center: Room: 202B
Contact: info@sfn.org

Join us at the Members' Business Meeting! Take advantage of this opportunity to share your thoughts and suggestions with the Society's leadership to learn more about SfN's latest accomplishments and how to get involved in SfN committees, and to enjoy light refreshments while networking with your peers.

Graduate Student Reception 🗀
8:30–11:30 p.m.
Renaissance Washington, DC Downtown Hotel: Grand Ballroom
Contact: meetings@sfn.org
Support contributed by: eNeuro and the Journal of Neuroscience

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




Society for Neuroscience
STUDENT MEMBER

SfN-SPONSORED SOCIALS

All SfN-Sponsored Socials will be held in the Renaissance Washington, DC Downtown Hotel. These events are open to all registered annual meeting attendees.

SUNDAY, NOV. 12, 6:45–8:45 P.M.

Cajal Club Social

Social with Brief Presentation

Room: Renaissance Ballroom East
Chair: Arturo Alvarez-Buylla, PhD
Co-Chair: Oscar Marin, PhD

Neural Bases of Visual Perception: In Memory of Vivien Casagrande

An evening to socialize and discuss the neurobiology of vision from comparative studies to polemic recent work on behavioral states modulating visual perception. We will have short presentations by Jon Kaas (Vanderbilt) and Nathalie Rochefort (U. Edinburgh), followed by an open discussion. The 2017 Krieg Cortical Kudos Awards and Cowan Award in Structural Neuroscience will also be presented. The social will honor Vivien Casagrande, a distinguished visual system neuroscientist and beloved member of the neuroscience community.

Cognitive Neuroscience Social

Purely Social

Room: Renaissance Ballroom West A
Chair: Suzy Scherf, PhD

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 with the best, the brightest, or just the most boisterous of the cognitive neuroscience field over drinks. It is thought that a majority of the human cortex evolved for social interaction come put it to good use!

Faculty for Undergraduate Neuroscience Poster Session and Social

Social with Brief Presentation

Room: Grand Ballroom Central and North
Chair: Amy Jo Stavnezer, PhD
Co-Chair: Leah A. Chase, PhD

Socialize and exchange ideas with those interested in undergraduate neuroscience research and education. Undergraduates will present their research; Faculty for Undergraduate Neuroscience (FUN) Student Travel Awards and Educator of the Year Awards will also be presented. See the FUN website (www.funfaculty.org) for travel award information and to register to present a poster at the FUN Social.

Hearing and Balance Social

Social with Brief Presentation

Rooms: 10 and 11
Chair: Jonathan B. Fritz, PhD
Co-Chair: Shihab A. Shamma, PhD

In addition to the usual joys of networking with fellow researchers, there will be a game show with illustrious auditory neuroscientists presenting their mystery acoustic stimuli to the audience, who will attempt to identify it for prizes.

The Marmoset Social

Social with Brief Presentation

Rooms: 8 and 9
Chair: Elias B. Issa, PhD
Co-Chair: David A. Leopold, PhD

This event serves as an excellent opportunity to meet members of the growing marmoset neuroscience community, exchange practical information, and get to know each other. The social will start with brief presentations by three investigators, each recounting some positive and negative experiences. Following this initial 20–25 minute discussion, attendees will engage freely in social and scientific interaction, along with other forms of primate behavior.

Neuroethology/Invertebrate Neurobiology Social

Social with Brief Presentation

Rooms: 12, 13, and 14
Chair: Wolfgang Stein, PhD
Co-Chair: Carola Staedele, PhD

Join us to celebrate neuroethology and the role the nervous system plays in producing behaviors. All members of the neuroscience community are welcome, and in particular those who work on the neural basis of behavior. If you are looking for an opportunity to discuss new and interesting concepts or are simply looking to meet old friends and make new ones, this social is for you. Postdocs and students are encouraged to drop in for socializing and networking.

Pain and Itch Social

Purely Social

Room: Mount Vernon Square
Chair: Steve Davidson, PhD
Co-Chair: Jennifer DeBerry, PhD

Join your fellow "pain and itch" neuroscientists in a relaxing setting to unwind and connect with peers. All are invited to this purely social gathering, where leaders and early-career investigators can reconnect with old friends and make new ones.

Spinal Cord Injury Social

Purely Social

Room: Congressional Ballroom C
Chair: Dana M. McTigue, PhD
Co-Chair: Michele Basso, PhD

This purely social event is open to anyone interested in spinal cord injury research.

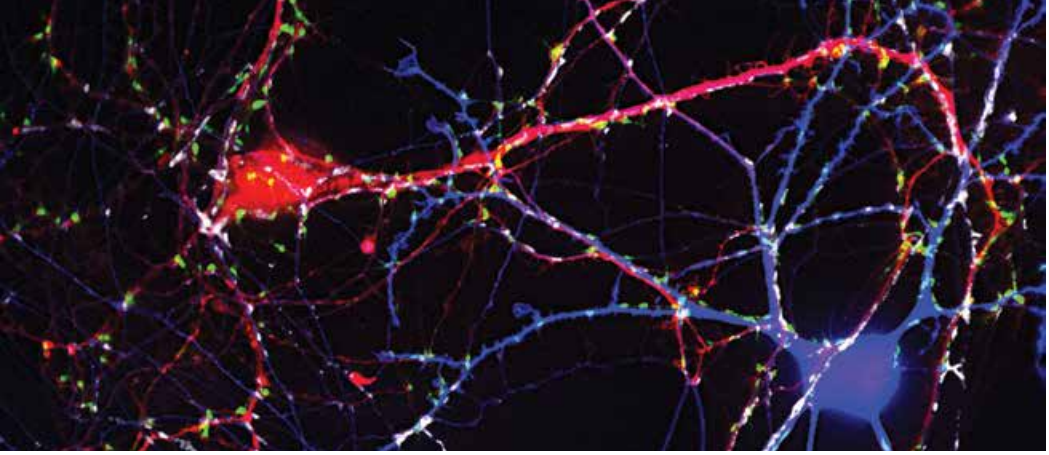
MONDAY, NOV. 13, 6:45–8:45 P.M.

Behavioral Neuroendocrinology Social

Social with Brief Presentation

Room: Grand Ballroom South
Chair: Rae Silver, PhD

This event is an excellent opportunity to connect with members of the growing "hormones and behavior" neuroscience community. All members of the neuroscience community are welcome for socializing and networking. Once everyone has had a chance to meet, Rae Silver will introduce Frances A. Champagne, who will give a brief presentation, "Looking



to the Future: Opportunities for Behavioral Neuroendocrinology." This talk will be followed by the announcement of the winners of the 2017 Daniel S. Lehrman, Frank A. Beach, and W.C. Young awards.

Developmental Neurobiology Social

Purely Social
Room: 16
Chair: Patricia Jensen, PhD

Come have a drink, relax, and meet with friendly colleagues with a common interest in developmental neurobiology. This purely social event is an excellent opportunity for students and postdoctoral fellows to interact with prominent neuroscientists in a relaxed atmosphere. Everyone is welcome!

Hippocampus Social

Social with Brief Presentation
Room: Grand Ballroom Central
Chair: Helen Scharfman, PhD

We plan to play a short game which will be followed by a purely social occasion. The game is to pair luminaries with junior investigators and have the junior investigator guess what the luminary would say is the most important finding related to the hippocampus that occurred in the career of the luminary. We will have luminaries and junior investigators who represent diverse demographics and areas of neuroscience.

Ingestive Social

Purely Social
Room: Renaissance Ballroom East
Chair: Qingchun Tong, PhD
Co-Chair: Kevin W. Williams, PhD

This is purely social. Special guests include Alan Watts, Richard Simerly, Bob Ritter, Minmin Luo, Satchin Panda, and others. After a daylong assimilation of numerous new developments in research frontiers, come and enjoy some light food and drinks. Enter a warm and relaxing environment as you reconnect with old friends and make new friends. All SfN participants, within and outside the ingestive field, are welcome.

Music Social

Purely Social
Room: Mount Vernon Square
Chair: William J. Pearce, PhD
Co-Chair: Joseph C. LaManna, PhD

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-ins, so contact us at wpearce@llu.edu as soon as possible to get a place on the program. Each performance is typically allotted 10 minutes. Please join us for another casual, informal, and fun evening of music.

Neural Control of Autonomic and Respiratory Function Social

Purely Social
Rooms: 8 and 9
Chair: Gary C. Sieck, PhD

The goal of this social is to bring together neuroscientists with an interest in autonomic and respiratory control.

Neuroethics Social

Social with Brief Presentation
Rooms: 10 and 11
Chair: Laura Cabrera, PhD
Co-Chair: Edith Brignoni-Perez, Judy Illes, PhD

Please join your neuroethics colleagues and friends for an interactive and dynamic evening focused on brain and ethics, culture and language, and education and policy. The event will be co-hosted by Edith Brignoni-Perez (Georgetown) and Laura Cabrera (Michigan State), with special guests Steve Hyman (Broad Institute) and others.

Neuron-Glia Interactions Social

Purely Social
Rooms: 12, 13, and 14
Chair: Matthew N. Rasband, PhD
Co-Chair: Elior Peles, PhD

Join us for an informal social for those interested in the "other half" of the brain and what it is doing. This will be an excellent opportunity for trainees and junior scientists to meet and network with established investigators.

Psychopharmacology Social

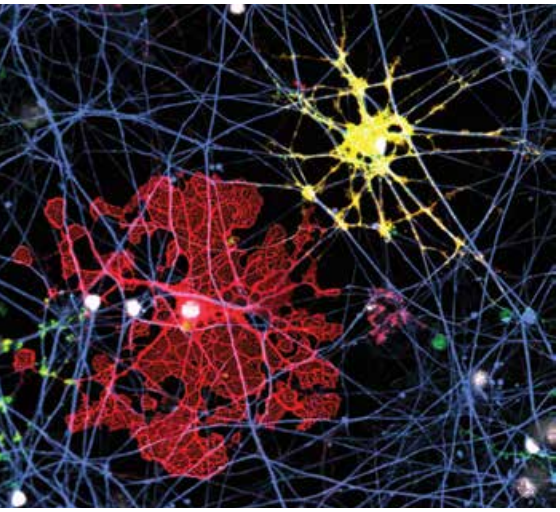
Purely Social
Room: Renaissance Ballroom West
Chair: Stan B. Floresco, PhD
Co-Chair: Jared Young, PhD

Your Brain on Drugs

Please join us as we socialize with people who know a thing or two about mind-altering substances. For five years, your well-dressed hosts have enjoyed enabling SfN attendees to catch up with colleagues, meet others in the field, loosen up with a refreshing beverage after a hard day of science, and groove to a psychopharmacologically inspired playlist. Intermingling between more senior scientists and trainees is strongly encouraged, and all are welcome.

SfN-SPONSORED SOCIALS (CONT.)

All SfN-Sponsored Socials will be held in the Renaissance Washington, DC Downtown Hotel. These events are open to all registered annual meeting attendees.



Vision Social

Social with Brief Presentation

Room: Grand Ballroom North

Chair: Susana Martinez-Conde, PhD

Co-Chair: Stephen L. Macknik, PhD

Join us for an evening of vision, misperception and illusion. Plus a few surprises. You may never trust your eyes again!

TUESDAY, NOV. 14, 6:45–8:45 P.M.

Alzheimer's and Related Dementias Social

Social with Brief Presentation

Rooms: 10 and 11

Chair: Brian C. Kraemer, PhD

Co-Chair: Donna M. Wilcock, PhD

Social event to relax, catch up, and meet new people with your common interest in ADRD. A game night mix of trivia and Family Feud will be a highlight of the event.

Cerebellum Social

Social with Brief Presentation

Room: Mount Vernon Square

Chair: Roy Sillitoe, PhD

This social will bring together researchers and clinicians from all areas of cerebellar neuroscience. The social will facilitate collaborations between principal investigators and provide networking and career opportunities for students and postdoctoral fellows. The event will predominantly be a social gathering, although it will also provide opportunities to discuss future events such as SfN symposia and minisymposia. The goal is to foster participation from the field at large.

Computational Neuroscience Social

Social with Brief Presentation

Room: Congressional Ballroom AB

Chair: Gabrielle Gutierrez, PhD

Co-Chair: Alexander Williams

We welcome all those interested, particularly experimentalists and newcomers to the field. It is a purely social/networking event in a relaxed venue for people to chat, have a drink with friends and colleagues, and meet leading computational and theoretical neuroscientists. As in previous years, we will have a number of special guests and particularly encourage senior researchers to mingle with students, postdocs, and newcomers.

Epilepsy Social

Purely Social

Room: Congressional Ballroom C

Chair: Amy L. Brewster, PhD

Co-Chair: Mark P. Beenhakker, PhD

We welcome everyone with an interest in epilepsy to come join an evening of social gathering alongside leading experts, rising stars in this dynamic field, as well as representatives from the National Institutes of Health (NIH) and Citizens United for Research in Epilepsy. This is a great opportunity for scientists at every level to engage in exciting discussions and to network in a relaxed environment.

Eye Movement and Vestibular System Social

Social with Brief Presentation

Room: 16

Chair: Paul J. May, PhD

This social provides an opportunity for old members of the oculomotor and vestibular communities to see old friends and for new members in the field. Mickey Goldberg and Bob Wurtz have agreed to drop by and reminisce about how the field began.

Neuroendocrinology Social

Purely Social

Room: Renaissance Ballroom East

Chair: Matthew J. Paul, PhD

Co-Chair: Benedetta Leuner, PhD

Come relax and enjoy an evening of socializing and revelry with your fellow neuroendocrinologists. Say hi to old friends, meet new ones, and compete in this year's neuroendocrine trivia game! This is a great opportunity for newcomers and trainees to mingle with current and future leaders in the field.

Optogenetics Social

Purely Social

Rooms: 8 and 9

Chair: Garrett Stuber, PhD

Join us for an informal social for those interested in using photons and genetic manipulations to study the nervous system. We hope to have strong interactions between junior and senior scientists.

Sensorimotor Social

Purely Social

Rooms: 12, 13, and 14

Chair: Tyler Cluff, PhD

A social gathering for members of the sensorimotor research community. Come by to catch up with old friends and make new ones.

Songbird Social

Purely Social

Room: 15

Chair: Mimi Kao, PhD

You don't need a neocortex to be social! This is a gathering for people interested in songbirds (and other avians).

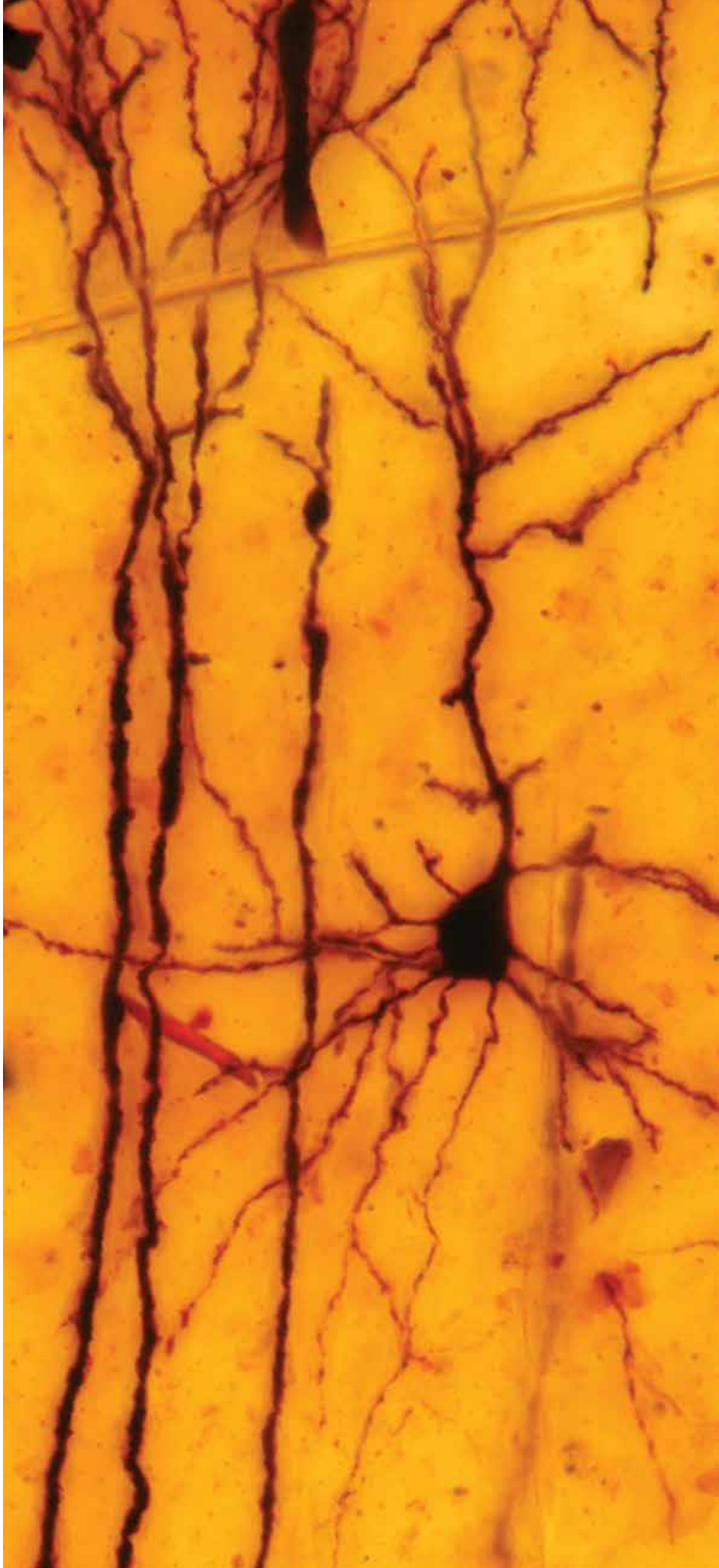
Synapses and Excitatory Amino Acids Social

Purely Social

Room: Renaissance Ballroom West A

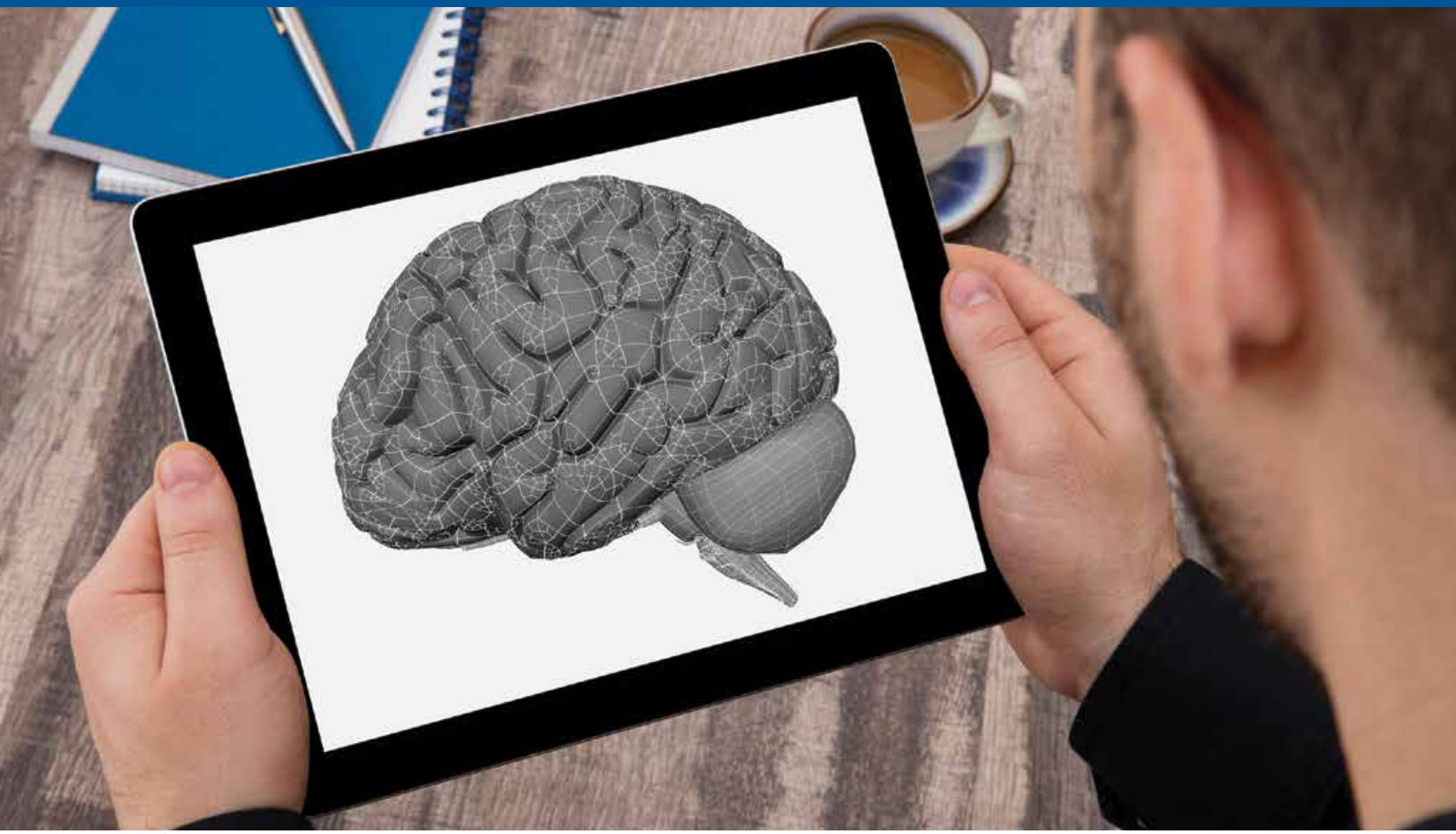
Chair: Samuel M. Young, PhD

Cross the cleft and join us in celebration of the synapse — the fundamental structure that drives neuronal circuit function. Observe in real time how the pre- and post-synapse associate with astrocytes to regulate information transmission. Come and strengthen old connections while also making new connections. Interact with our special guests to get their perspective on the latest developments in the field. This evening promises to be dynamic with lots of excitation. All synaptic types welcome!




STUDENT MEMBER

Know Your Brain. Know Yourself.



Take a Look Inside Our Interactive Brain Model on the New *BrainFacts.org*
www.BrainFacts.org/3DBrain
Powered by the Wellcome Trust

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SATELLITE EVENTS AND NON-SfN SOCIALS

Full descriptions and the latest details on these satellite events and socials not sponsored or organized by SfN are available online at SfN.org/satellites. These events are also available in the Neuroscience Meeting Planner (NMP), which is accessible at SfN.org/nmp, and in the meeting mobile app, available for download on Apple and Android mobile devices.

SPONSOR KEY	
1	Commercial
2	University/Nonprofit
3	Individual

TITLE	TIME	CONTACT	LOCATION	SPONSOR KEY
TUESDAY, NOV. 7				
* Integrative Multimodality Methods for Studying Brain Function	9 a.m.–5 p.m.	http://www.neurometrika.org/MultimodalityNOV2017	Johns Hopkins School of Medicine	2
WEDNESDAY, NOV. 8				
* 9th Annual Meeting of the Society for the Neurobiology of Language	8 a.m.–7 p.m.	shauney@neurolang.org	Sheraton Inner Harbor Hotel, Baltimore, MD	2
* 50th Annual International Society for Developmental Psychobiology Meeting — ISDP Symposium	5–9 p.m.	isdp@isdp.org	Westin City Center	2
* Integrative Multimodality Methods for Studying Brain Function	9 a.m.–5 p.m.	http://www.neurometrika.org/MultimodalityNOV2017	Johns Hopkins School of Medicine	2
THURSDAY, NOV. 9				
* 9th Annual Meeting of the Society for the Neurobiology of Language	8 a.m.–7 p.m.	shauney@neurolang.org	Sheraton Inner Harbor Hotel, Baltimore, MD	2
* 50th Annual International Society for Developmental Psychobiology Meeting — ISDP Symposium	8 a.m.–9 p.m.	isdp@isdp.org	Westin City Center	2
* Barrels XXX	8:30 a.m.–9 p.m.	joshua.brumberg@qc.cuny.edu	Johns Hopkins University in Baltimore: Glass Pavilion	2
* Cell Symposia: Big Questions in Neuroscience	8 a.m.–6 p.m.	c.alman@elsevier.com	Sheraton Pentagon	3
* IEEE Brain Initiative Workshop on Advanced NeuroTechnologies for BRAIN	8 a.m.–5 p.m.	makay58@gmail.com	The Hamilton Crown Plaza, Washington, DC	2
* International Neuroethics Society Annual Meeting	1–5 p.m.	kgraham@neuroethicssociety.org	AAAS, 1200 New York Ave, Washington, DC	2
International Neuroethics Society Public Program	5–7 p.m.	kgraham@neuroethicssociety.org	AAAS, 1200 New York Ave, Washington, DC	2
* J.B. Johnston Club for Evolutionary Neuroscience — Karger Workshop	7 a.m.–7:30 p.m.	jbjclub1980@gmail.com	College Park Marriott Hotel, College Park, MD	3
* Molecular and Cellular Cognition Society Poster Session	6:30–9:30 p.m.	ted-abel@uiowa.edu	Almas Club, Washington, DC	3
FRIDAY, NOV. 10				
* 9th Annual Meeting of the Society for the Neurobiology of Language	8 a.m.–1 p.m.	shauney@neurolang.org	Sheraton Inner Harbor Hotel, Baltimore, MD	2
10th Annual Symposium on Motor Systems	7 a.m.–6 p.m.	odonovm@ninds.nih.gov	Porter Neuroscience Center, NIH Campus, Bethesda, MD	2
12th International Workshop on Advances in Electrocorticography	8:30 a.m.–5:30 p.m.	gschalk@neurotechcenter.org	Renaissance Washington, DC Downtown Hotel: Renaissance Ballroom East	2
* 50th Annual International Society for Developmental Psychobiology Meeting — ISDP Symposium	8 a.m.–5 p.m.	isdp@isdp.org	Westin City Center	2
* 50th Annual International Society for Developmental Psychobiology Meeting — ISDP Poster Session	5–7 p.m.	isdp@isdp.org	Westin City Center	2
Advances in Motor Control and Motor Learning	1–7 p.m.	mas@seas.harvard.edu	Walter E. Washington Convention Center: Room 152A	2

* multiday event

TITLE	TIME	CONTACT	LOCATION	SPONSOR KEY
APAN-Advances and Perspectives in Auditory Neuroscience	8 a.m.–5 p.m.	ycohen@mail.med.upenn.edu	Renaissance Washington Dupont Circle Hotel, 1143 New Hampshire Avenue NW	2
Arts and Mind PTSD and TBI Research Convening	10 a.m.–3 p.m.	smagsam1@jhu.edu	Walter E. Washington Convention Center: Room 152B	2
* Barrels XXX	8:30 a.m.–5 p.m.	joshua.brumberg @qc.cuny.edu	Johns Hopkins University in Baltimore: Glass Pavilion	2
Birdsong 7 Communication in Context — The Relation Between Perception and Production	9 a.m.–5:30 p.m.	GBALL@UMD.EDU	University of Maryland, College Park MD	3
* Cell Symposia: Big Questions in Neuroscience	8 a.m.–6 p.m.	c.alman@elsevier.com	Sheraton Pentagon	3
FAIR-SCI Ahead	8:30 a.m.–5 p.m.	karim.fouad@ualberta.ca	Renaissance Washington, DC Downtown Hotel: Room 5	2
* IEEE Brain Initiative Workshop on Advanced NeuroTechnologies for BRAIN	8 a.m.–5 p.m.	makay58@gmail.com	The Hamilton Crown Plaza Washington, DC	2
* International Neuroethics Society Annual Meeting	8 a.m.–8 p.m.	kgraham@ neuroethicssociety.org	AAAS, 1200 New York Ave, Washington, DC	2
* J.B. Johnston Club for Evolutionary Neuroscience	7 a.m.–9 p.m.	jbjclub1980@gmail.com	College Park Marriott Hotel, College Park, MD	3
* Molecular and Cellular Cognition Society Symposium	9 a.m.–5 p.m.	ted-abel@uiowa.edu	Marriott Marquis Washington, DC: Liberty Salons MNOP	3
Neural Mechanisms of Feeding and their Applications to Neural Rehabilitation	8:30 a.m.–5 p.m.	kazutaka@uchicago.edu	The George Washington University Campus	1
NIDA-NIAAA Frontiers in Addiction Mini-Convention	8 a.m.–6 p.m.	rsorense@mail.nih.gov	Walter E. Washington Convention Center: Room 207A	2
S4SN 2017 Annual Meeting	9 a.m.–7:30 p.m.	kbosch@taramillerevents.com	Renaissance Washington, DC Downtown Hotel: Renaissance Ballroom West AB	2
Symposium on Vision and the Brain Sponsored by the National Eye Institute	9 a.m.–6 p.m.	bob@lsr.nei.nih.gov	Marriott Marquis Washington, DC: Liberty Salons IJKL	2
* Training for Reproducible Neuroimaging	8 a.m.–7 p.m.	jgrethe@ucsd.edu	Marriott Marquis Washington, DC: Georgetown University Room	2
Using NEURON to Model Cells and Networks	9 a.m.–5 p.m.	ted.carnevale@yale.edu	Visit: neuron.yale.edu/neuron/courses	2
SATURDAY, NOV. 11				
Characterization of Mouse and Human Cortical Cells — The Allen Cell Types Database	8–10:30 a.m.	ashleyb@alleninstitute.org	Marriott Marquis Washington, DC: Monument Room	2
Chinese Neuroscientists Social	6:30–9 p.m.	yzhu@childrensnational.org	Renaissance Washington, DC Downtown Hotel: Renaissance Ballroom West AB	3
Friends of Case Western Reserve University and Cleveland Clinic Social	6:30–8:30 p.m.	cmiller@hb.edu	Renaissance Washington, DC Downtown Hotel: Congressional Ballroom B	2
FTD Social	6:30–8:30 p.m.	dniehoff@theaftd.org	Renaissance Washington, DC Downtown Hotel: Room 3	2
g.tec Brain-Computer Interface Workshop	6:30–9:30 p.m.	guger@gtec.at	Marriott Marquis Washington, DC: Salon 15	1
High Performance Computing (HPC) Resources for Parallel Simulation and Data Analysis: NSG and HPAC	9–10:30 a.m.	ted.carnevale@yale.edu	Visit: nsgportal.org/workshop.html	2
Middle Eastern Neuroscience Social	7:30–9 p.m.	nelly.alia-klein@mssm.edu	Renaissance Washington, DC Downtown Hotel: Room 5	3
Science Communication and Engagement with Religious Audiences	7–10:30 a.m.	skim@aaas.org	AAAS, 1200 New York Ave, Washington, DC	2
* Training for Reproducible Neuroimaging	8–10:30 a.m.	jgrethe@ucsd.edu	Marriott Marquis Washington, DC: Georgetown University Room	2

* multiday event

TITLE	TIME	CONTACT	LOCATION	SPONSOR KEY
SUNDAY, NOV. 12				
2nd Symposium: Multiple Slice Recordings: An Essential Tool for Brain Slice Electrophysiology	6:30–8:30 p.m.	horst.lohmann@t-online.de	Marriott Marquis Washington, DC: Archives Room	2
5th Annual Boston University Graduate Program for Neuroscience Reception	7–10 p.m.	sgrasso@bu.edu	Marriott Marquis Washington, DC: Magnolia Room	2
Arab Neuroscientists Social	6:30–9 p.m.	yasmine@arabneuroscientists.org	Walter E. Washington Convention Center: Room 209B	1
ASPET's Neuropharmacology Division Social	6:30–8:30 p.m.	michael.wood@neupharm.net	Marriott Marquis Washington, DC: Salon 7	3
BRAIN Initiative Social	6:30–9:30 p.m.	kscobie@simonsfoundation.org	Marriott Marquis Washington, DC: Salons 2,3,4	2
Dutch Neuroscience Social	7–10 p.m.	guus.smit@cncr.vu.nl	Marriott Marquis Washington, DC: Salon 9	2
Ernst Strüngmann Forum Social	6:30–9:30 p.m.	lupp@esforum.de	Marriott Marquis Washington, DC: Salon 10	1
g.tec RecoveriX and MindBEAGLE Workshop	6:30–9:30 p.m.	guger@gtec.at	Marriott Marquis Washington, DC: Salon 15	2
International Behavioral and Neuroscience Society Reception/Social	6:30–8:30 p.m.	ibns@ibnsconnect.org	Marriott Marquis Washington, DC: Scarlet Oak Room	2
MilliporeSigma Presents: 5th Annual Satellite Symposium on Neuroinflammation, Degeneration, and Disease	6:30–8:30 p.m.	brian.snead@emdmillipore.com	Marriott Marquis Washington, DC: Salon 6	1
Neuroimmunology Social	6:30–8:30 p.m.	Jonathan.Godbout@osumc.edu	Marriott Marquis Washington, DC: Salon 1	2
Publishing Your Research: Enhancing Transparency and Rigor	6:30–8:30 p.m.	jderoche@wiley.com	Marriott Marquis Washington, DC: Georgetown University Room	2
PWN — Breaking Barriers for Young Women in Science	6:30–8:30 p.m.	cmiller@scripps.edu	Renaissance Washington, DC Downtown Hotel: Congressional Ballroom A	3
Stanford Neurosciences Reception	7–9 p.m.	kdiamond@stanford.edu	Marriott Marquis Washington, DC: Salon 8	2
The FENS-Kavli Network of Excellence Social	7:30–9:30 p.m.	filippo.del-bene@inserm.fr	Renaissance Washington, DC Downtown Hotel: Room 15	2
The University of Chicago Neuroscience Annual Social	6:30–8:30 p.m.	neurograd@uchicago.edu	Marriott Marquis Washington, DC: Silver Linden Room	2
University of Illinois Neuroscience Program Reception	7:30–9:30 p.m.	beshers@life.illinois.edu	Renaissance Washington, DC Downtown Hotel: Congressional Ballroom B	2
MONDAY, NOV. 13				
2017 Taiwan Night	6:30–8:30 p.m.	yihungchen@mail.cmu.edu.tw	Tony Cheng's Restaurant in Chinatown, Washington, DC	2
3rd Thomas RECORDING Multichannel Recording Workshop	6:30–8:30 p.m.	info@thomasrecording.com	Marriott Marquis Washington, DC: Congress Room	1
14th Annual Christopher Reeve "Hot Topics" in Stem Cell Biology	6:30–9:30 p.m.	esnyder@sanfordburnham.org	Walter E. Washington Convention Center: Room 146AB	3
Advances in *In Vitro* Microelectrode Array Recording Technique	6:30–8:30 p.m.	bellack@multichannelsystems.com	Marriott Marquis Washington, DC: Treasury Room	2
Association of Korean Neuroscientists: Annual Meeting and Social	6:30–9:30 p.m.	leed1@ohio.edu	Contact Organizer	1
DFG Leibniz Lecture with Prof. Dr. Frank Bradke: "Mechanisms of Axon Growth and Regeneration"	6:30–7:30 p.m.	emily.formica@dfg.de	Washington Plaza Hotel: National Ballroom A	2
Getting the Most out of Your Experiments with pCLAMP and HumSilencer Technology	6:30–8 p.m.	jared.chapa@moldev.com	Marriott Marquis Washington, DC: Salon 15	2

TITLE	TIME	CONTACT	LOCATION	SPONSOR KEY
Green and Open Neurosciences Symposium & Soiree	6:30–10 p.m.	alam@pcrm.org	Busboys and Poets @ 5th and K	1
Grass Foundation and Marine Biological Laboratory Social	6:30–8 p.m.	execassist@grassfoundation.org	Marriott Marquis Washington, DC: Salons 12 and 13	2
In Memory of Ray Guillery	6:30–8 p.m.	lamantia@gwu.edu	Renaissance Washington, DC Downtown Hotel: Room 2	2
IRNSC Annual Social Event	6:30–8:30 p.m.	mkiaei@uams.edu	Renaissance Washington, DC Downtown Hotel: Room 4	2
LGBT Social	7–10 p.m.	Andrew.Murtishaw@unlv.edu	Number Nine 1435 P St NW, Washington, DC 20005	2
My Love Affair With the Brain: The Life and Science of Dr. Marian Diamond	6:30–8 p.m.	rtknight@berkeley.edu	Marriott Marquis Washington, DC: Salon 5	3
Neurorehabilitation Social	6:30–8:30 p.m.	kingla@ohsu.edu	Marriott Marquis Washington, DC: Salons 9 and 10	2
Neuroscience in Germany XXIV Social	7:30–10 p.m.	emily.formica@dfg.de	Washington Plaza Hotel: National Ballroom B	3
Novel Research Models for Neurodegenerative Diseases	6:30–8:30 p.m.	Amy.Cowan@horizondiscovery.com	Marriott Marquis Washington, DC: Salons 7 and 8	1
Nu Rho Psi — The National Honor Society in Neuroscience Social & Member Meeting	6:30–8 p.m.	mkerchner2@washcoll.edu	Marriott Marquis Washington, DC: Salons 1 and 2	2
Parkinson's Disease Social	6:30–8:30 p.m.	jbeck@pdf.org	Renaissance Washington, DC Downtown Hotel: Room 3	2
Pavlovian Society Social	6:30–8:30 p.m.	john-freeman@uiowa.edu	Renaissance Washington, DC Downtown Hotel: Room 15	2
Simons Foundation Autism Research Initiative (SFARI) Social	6:30–8:30 p.m.	agreenebaum@simonsfoundation.org	Marriott Marquis Washington, DC: Liberty Salons IJK	2
Sleep and Circadian Biology DataBlitz	8–10 p.m.	laposkya@nhlbi.nih.gov	Marriott Marquis Washington, DC: Liberty Salons LM	2
Sleep Research Society Club Hypnos Membership Reception	6:30–8 p.m.	Coordinator@srsnet.org	Marriott Marquis Washington, DC: Liberty Salons NOP	2
Sleuthing out NIH Grant Opportunities for Fellows, Scholars and Early Career Investigators	6:30–9:30 p.m.	rsorense@mail.nih.gov	Walter E. Washington Convention Center: Room: 152A	2
Society for NeuroEconomics Social	6:30–8:30 p.m.	http://brixtondc.com/	The Brixton Pub, 901 U St. NW Washington, DC	1
The Next Generation of Scientific Data Management: Challenges and Solutions	6:30–9:30 p.m.	joost@blackfynn.com	Marriott Marquis Washington, DC: Archives Room	2
Wearable Sensing Solutions for Integrated Dry Electrode EEG/EXG, Motion Capture, and Eye Tracking	6:30–9:30 p.m.	walid.soussou@gmail.com	Renaissance Washington, DC Downtown Hotel: Room 6	1
Washington University in St. Louis Neuroscience Reception	6:30–9:30 p.m.	kristinasakers@wustl.edu	Fadó Irish Pub, 808 7th St. NW	1
Wireless *In Vivo* Neural Recording and Stimulation	6:30–8:30 p.m.	bellack@multichannelsystems.com	Marriott Marquis Washington, DC: Mint Room	2
TUESDAY, NOV. 14				
Friends of Iowa Reception & Introduction of Iowa Neuroscience Institute	7–10 p.m.	megan-meyer@uiowa.edu	Union Station, Presidential Suite	2
The 7th Annual International Society for Serotonin Research (ISSR) Mixer	6:30–8 p.m.	berg@uthscsa.edu	Fadó Irish Pub, 808 7th St. NW	2

LIST OF SESSIONS BY THEME AND DAY

All posters will be presented in the Walter E. Washington Convention Center: Halls A–C. All lecture, symposium, minisymposium, and nanosymposium rooms are also in the convention center.
Note: Theme J posters will be on display in Hall A beginning at 1 p.m. on Saturday, Nov. 11 and will remain posted until 5 p.m. on Sunday, Nov. 12. One-hour presentation times will occur either Saturday afternoon or Sunday morning.

THEME DESCRIPTIONS

A Development
B Neural Excitability, Synapses, and Glia
C Neurodegenerative Disorders and Injury
D Sensory Systems
E Motor Systems
F Integrative Physiology and Behavior
G Motivation and Emotion
H Cognition
I Techniques
J History and Education

SESSION #	SESSION TITLE	SESSION TYPE	LOCATION	TIME	CME HOURS
FEATURED LECTURE / SATURDAY, NOV. 11					
001	Dialogues Between Neuroscience and Society	Lecture	Hall D	11 a.m.–1 p.m	
009	Presidential Special Lecture: Insights From Nonhuman Animals Into the Neurobiology of Language	Lecture	Hall D	5:15–6:30 p.m.	1.25
FEATURED LECTURE / SUNDAY, NOV. 12					
184	Peter and Patricia Gruber Lecture: Assembling Neural Circuits: Cells and Synapses	Lecture	Hall D	2:30–3:40 p.m	
185	Presidential Special Lecture: Illuminating Neurobiology at the Nanoscale and Systems Scale by Imaging	Lecture	Hall D	5:15–6:30 p.m.	1.25
FEATURED LECTURE / MONDAY, NOV. 13					
269	David Kopf Lecture on Neuroethics: The Fallacy of Fairness: Diversity in Academic Science	Lecture	Hall D	10–11:10 a.m.	
353	Albert and Ellen Grass Lecture: On Balance: Fine-Tuning Protein Levels for Neurological Health	Lecture	Hall D	3:15–4:25 p.m.	1.25
354	Presidential Special Lecture: The Gut Microbiota and Childhood Undernutrition: Looking at Human Development from a Microbial Perspective	Lecture	Hall D	5:15–6:30 p.m.	1.25
FEATURED LECTURE / TUESDAY, NOV. 14					
540	History of Neuroscience Lecture: Neuronal Migration and Brain Map Formation During Evolution, Development, and Disease	Lecture	Hall D	2:30–3:40 p.m	
541	Presidential Special Lecture: Polymorphous Polygenicity: The Story of the Genome in Schizophrenia	Lecture	Hall D	5:15–6:30 p.m.	1.25

SESSION#	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	TIME	CME HOURS
THEME A: DEVELOPMENT / SATURDAY, NOV. 11						
005	Short-Circuiting Neurodevelopmental Disorders: Novel Insights and Treatment Strategies	Minisymposium		Ballroom C	1:30–4 p.m.	2.5
010	Stem Cell Reprogramming and Differentation	Nanosymposium		150A	1–3:30 p.m.	
029	Genetic Mechanisms of Neurogenesis	Poster	A1–A10	Halls A–C	1–5 p.m.	
030	Glial Modulation of Neurogenesis	Poster	B1–B21	Halls A–C	1–5 p.m.	
031	Adult Hippocampal Neurogenesis: Molecular Mechanisms and Behavior	Poster	B22–B42	Halls A–C	1–5 p.m.	
032	iPSCs: Disease Models	Poster	B43–C6	Halls A–C	1–5 p.m.	
033	Axon Growth and Guidance: Extrinsic Mechanisms	Poster	C7–C19	Halls A–C	1–5 p.m.	
034	Autism: Behavioral Analysis	Poster	C20–C38	Halls A–C	1–5 p.m.	
035	Neurodevelopmental Disorders: Transmitter Systems	Poster	C39–C49	Halls A–C	1–5 p.m.	
036	Brain Evolution	Poster	C50–D14	Halls A–C	1–5 p.m.	
THEME A: DEVELOPMENT / SUNDAY, NOV. 12						
096	Developmental Origins of Neuronal Diversity in the Cerebral Cortex	Symposium		Ballroom B	8:30–11 a.m.	2.5
103	iPSCs: Disease Models I	Nanosymposium		152A	8–10:45 a.m.	
104	iPSCs: Disease Models II	Nanosymposium		140A	8–10:15 a.m.	
114	Neural Progenitor and Stem Cell Development	Poster	A1–B8	Halls A–C	8 a.m.–noon	
115	Postnatal Neurogenesis: Environmental and Pharmacological Modification	Poster	B9–B37	Halls A–C	8 a.m.–noon	
116	Neural Circuit Maturation and Remodeling I	Poster	B38–C2	Halls A–C	8 a.m.–noon	
117	Cellular and Molecular Mechanisms of Autism	Poster	C3–C15	Halls A–C	8 a.m.–noon	
118	Fragile X: Mechanisms of Pathophysiology	Poster	C16–C41	Halls A–C	8 a.m.–noon	
119	Neurodevelopmental Disorders: Behavioral Studies	Poster	C42–C63	Halls A–C	8 a.m.–noon	
120	Neurodevelopmental Disorders: Human Studies	Poster	D1–D25	Halls A–C	8 a.m.–noon	
121	Animal Models: Impact of Environment on the Brain	Poster	D26–D46	Halls A–C	8 a.m.–noon	
177	Genetic Dissection of Neural Circuit Assembly and Organization	Lecture		Hall D	1–2:10 p.m.	1.25
186	Neurodevelopmental Disorders: Mechanisms	Nanosymposium		152A	1–4:30 p.m.	
197	Neuronal Differentiation Mechanisms	Poster	A1–B11	Halls A–C	1–5 p.m.	
198	Axon: Adhesion and Cytoskeleton	Poster	B12–B26	Halls A–C	1–5 p.m.	
199	Axon: Intrinsic Mechanisms	Poster	B27–B53	Halls A–C	1–5 p.m.	
THEME A: DEVELOPMENT / MONDAY, NOV. 13						
262	Impact of Zika Virus Infection in the Nervous System and Its Underlying Mechanisms	Symposium		Ballroom A	8:30–11 a.m.	2.5
271	Cellular Mechanisms in Neurogenesis	Nanosymposium		152B	8–9:45 a.m.	
272	Postnatal Neurogenesis and Stem Cell Functions	Nanosymposium		146C	8–10 a.m.	
273	Transplantation and Regeneration	Nanosymposium		147B	8–10 a.m.	
282	Fate Specification and Generation of Neuronal Diversity	Poster	A1–B13	Halls A–C	8 a.m.–noon	
283	Autism Genetic Models	Poster	B14–B42	Halls A–C	8 a.m.–noon	
284	Neurodevelopmental Disorders: Environmental Exposures	Poster	B43–C4	Halls A–C	8 a.m.–noon	
285	Development of Visual, Auditory, and Somatosensory Circuits	Poster	C5–C30	Halls A–C	8 a.m.–noon	
366	Fate Specification and Development of Glia	Poster	A1–B1	Halls A–C	1–5 p.m.	
367	Dendrite Growth and Branching	Poster	B2–C25	Halls A–C	1–5 p.m.	
368	Synapse Formation	Poster	B26–B55	Halls A–C	1–5 p.m.	
369	Autism: Physiology and Systems	Poster	B56–C13	Halls A–C	1–5 p.m.	
370	Rett Syndrome and MECP2	Poster	C14–C25	Halls A–C	1–5 p.m.	
371	Imaging of Human Brain Maturation and Mental Health	Poster	C26–C48	Halls A–C	1–5 p.m.	
372	Insights Into Developmental Vulnerabilities	Poster	C49–C59	Halls A–C	1–5 p.m.	

SESSION#	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	TIME	CME HOURS
THEME A: DEVELOPMENT / TUESDAY, NOV. 14						
442	The Structure and Function of Specific Cell-Cell Interactions in Neural Development: Protocadherins and Atypical Cadherins	Minisymposium		145B	8:30–11 a.m.	2.5
448	Neuronal Differentiation Mechanisms	Nanosymposium		156	8–11:15 a.m.	
449	Dendrite Morphogenesis	Nanosymposium		152A	8–10:15 a.m.	
450	Advances in Understanding Rett Syndrome Pathophysiology	Nanosymposium		140A	8–11:15 a.m.	
459	Cell Cycle Mechanisms in Neurogenesis I	Poster	A1–A10	Halls A–C	8 a.m.–noon	
460	Migration During Neurogenesis	Poster	B1–B18	Halls A–C	8 a.m.–noon	
461	Stem Cell Applications and Neural Reprograming	Poster	B19–B43	Halls A–C	8 a.m.–noon	
462	Autism: Environment and Pathology	Poster	B44–C1	Halls A–C	8 a.m.–noon	
463	Neurodevelopmental Disorders: Molecular and Cellular Mechanisms I	Poster	C2–C27	Halls A–C	8 a.m.–noon	
464	Animal Models of Brain: Environment Interactions	Poster	C28–C46	Halls A–C	8 a.m.–noon	
534	Social Origins of Developmental Risk for Mental and Physical Illnesses	Symposium		Ballroom A	1:30–4 p.m.	2.5
553	Synapse Maturation	Poster	A1–B7	Halls A–C	1–5 p.m.	
554	Neural Circuit Maturation and Remodeling II	Poster	B8–B28	Halls A–C	1–5 p.m.	
555	Genetics of Neurodevelopmental Disease	Poster	B29–B39	Halls A–C	1–5 p.m.	
556	Fragile X: Disease Predictors and Treatments	Poster	B40–B52	Halls A–C	1–5 p.m.	
557	Neurodevelopmental Disorders: Models and Mechanisms	Poster	B53–C17	Halls A–C	1–5 p.m.	
THEME A: DEVELOPMENT / WEDNESDAY, NOV. 15						
633	Epigenetic Etiology of Intellectual Disability	Minisymposium		151B	8:30–11 a.m.	2.5
637	Brain Evolution	Nanosymposium		146C	8–9:45 a.m.	
648	Cell Cycle Mechanisms in Neurogenesis II	Poster	A1–A10	Halls A–C	8 a.m.–noon	
649	Adult and Developmental Neurogenesis	Poster	B1–B19	Halls A–C	8 a.m.–noon	
650	Postnatal Neurogenesis in an Array of Models	Poster	B20–B31	Halls A–C	8 a.m.–noon	
651	Modeling Neurodevelopmental Disease	Poster	B32–B59	Halls A–C	8 a.m.–noon	
652	Autism: Synapses and Circuits	Poster	B60–C12	Halls A–C	8 a.m.–noon	
653	Neurodevelopmental Disorders: Molecular and Cellular Mechanisms II	Poster	C13–C40	Halls A–C	8 a.m.–noon	
654	Development of Olfactory and Taste Circuits	Poster	C40–C54	Halls A–C	8 a.m.–noon	
655	Limbic System Development	Poster	C55–D3	Halls A–C	8 a.m.–noon	
656	Comparative Neuroanatomy, Physiology, and Behavior	Poster	D4–D12	Halls A–C	8 a.m.–noon	
722	Neuroepigenetic Pathways in Learning and Memory in Mouse and Ant	Lecture		Hall D	1–2:10 p.m.	1.25
728	Autism: Physiology and Behavior	Nanosymposium		152A	1–3:15 p.m.	
740	Transplantation for Neural Repair	Poster	A1–B7	Halls A–C	1–5 p.m.	
741	Regeneration in the Peripheral Nervous System	Poster	B8–B21	Halls A–C	1–5 p.m.	
742	Transplantation and Regeneration	Poster	B22–B43	Halls A–C	1–5 p.m.	
THEME B: NEURAL EXCITABILITY, SYNAPSES, AND GLIA / SATURDAY, NOV. 11						
011	Autophagy and Degradation	Nanosymposium		150B	1–2:45 p.m.	
037	Nicotinic Acetylcholine Receptors: Structure and Regulation	Poster	D15–D25	Halls A–C	1–5 p.m.	
038	GPCRs: 5-HT, mGlu, and Other Metabotropic Receptors	Poster	D26–D49	Halls A–C	1–5 p.m.	
039	Cholinergic Modulation	Poster	D50–D60	Halls A–C	1–5 p.m.	
040	LTP: Pre- and Postsynaptic Mechanisms I	Poster	D61–F1	Halls A–C	1–5 p.m.	
041	Long-Term Depression	Poster	F2–G7	Halls A–C	1–5 p.m.	
042	Effects of Neuron and Glia Interaction	Poster	G8–J4	Halls A–C	1–5 p.m.	
043	Role of Glia in Synapse Formation and Function	Poster	J5–7	Halls A–C	1–5 p.m.	

SESSION#	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	TIME	CME HOURS
THEME B: NEURAL EXCITABILITY, SYNAPSES, AND GLIA / SUNDAY, NOV. 12						
097	Big News From a Little Region: Hippocampal Area CA2	Minisymposium		Ballroom C	8:30–11 a.m.	2.5
122	HCN, TRP, and Other Ion Channels	Poster	D47–E6	Halls A–C	8 a.m.–noon	
123	Structural Plasticity: Spines	Poster	E7–F8	Halls A–C	8 a.m.–noon	
124	Epilepsy: Anticonvulsant Therapies: Novel Interventions, Strategies, and Mechanisms	Poster	F9–H3	Halls A–C	8 a.m.–noon	
125	Molecular and Cellular Mechanisms of Demyelination and Remyelination	Poster	H4–I9	Halls A–C	8 a.m.–noon	
181	Emerging Mechanisms Underlying Dynamics of Gabaergic Synapses	Minisymposium		145B	1:30–4 p.m.	2.5
187	Current Perspectives on Homeostatic Plasticity and Activity-Dependent Remodeling	Nanosymposium		140A	1–3 p.m.	
200	GABAA and Other Ligand-Gated Ion Channels	Poster	B54–C17	Halls A–C	1–5 p.m.	
201	Structural Plasticity: Circuit Function	Poster	C18–C33	Halls A–C	1–5 p.m.	
202	Neuronal Firing Properties and Regulation	Poster	C34–C54	Halls A–C	1–5 p.m.	
203	Epilepsy: Channels — Ion Channels and Receptors	Poster	C55–D1	Halls A–C	1–5 p.m.	
204	Epilepsy: *In Vivo* and Behavior — Identifying and Targeting Seizure Mechanisms	Poster	D2–D11	Halls A–C	1–5 p.m.	
205	Epilepsy: Human Studies — Seizure Analysis and Modeling	Poster	D12–D38	Halls A–C	1–5 p.m.	
206	Astrocytes: Disease Mechanisms	Poster	D39–E2	Halls A–C	1–5 p.m.	
THEME B: NEURAL EXCITABILITY, SYNAPSES, AND GLIA / MONDAY, NOV. 13						
263	Assembly and Maintenance of the Peripheral Nerve Node of Ranvier in Development, Health, and Disease	Symposium		146A	8:30–11 a.m.	2.5
274	Cellular and Subcellular Synapse Organization: From Super-Resolution Imaging to Circuit Function	Nanosymposium		140A	8–10 a.m.	
286	Monamines	Poster	C31–C59	Halls A–C	8 a.m.–noon	
287	GPCRs: Metabotropic Glutamate Receptors and Muscarinic Acetylcholine Receptors	Poster	C60–D21	Halls A–C	8 a.m.–noon	
288	Sodium Channels	Poster	D22–D49	Halls A–C	8 a.m.–noon	
289	Monamine Transporters	Poster	D50–E7	Halls A–C	8 a.m.–noon	
290	LTP: Pre- and Postsynaptic Mechanisms II	Poster	E8–G1	Halls A–C	8 a.m.–noon	
291	Signal Propagation	Poster	G2–H6	Halls A–C	8 a.m.–noon	
292	Epilepsy: Synaptic Mechanisms	Poster	H7–J5	Halls A–C	8 a.m.–noon	
293	Epilepsy: Animal Models: Consciousness, Novel Models, and Mechanisms	Poster	J6–K7	Halls A–C	8 a.m.–noon	
294	Epilepsy: Animal Models — Genetic Strategies, Optogenetics, and Mechanisms	Poster	K8–M8	Halls A–C	8 a.m.–noon	
295	Biology of Microglia	Poster	M9–O7	Halls A–C	8 a.m.–noon	
296	Oligodendrocyte and Schwann Cells Development and Myelination	Poster	O8–P9	Halls A–C	8 a.m.–noon	
355	Presynaptic Mechanisms	Nanosymposium		147B	1–2:45 p.m.	
373	Regulation and Function of Neurotrophic Factors	Poster	C60–D15	Halls A–C	1–5 p.m.	
374	NMDA Receptors I	Poster	D16–D39	Halls A–C	1–5 p.m.	
375	Potassium Channels I	Poster	D40–E6	Halls A–C	1–5 p.m.	
376	Potassium Channels II	Poster	E7–F6	Halls A–C	1–5 p.m.	
377	Synaptic and Dendritic Integration	Poster	F7–G9	Halls A–C	1–5 p.m.	
378	Neuronal Physiology	Poster	G10–J7	Halls A–C	1–5 p.m.	
379	Homeostatic Synaptic Plasticity: Cellular and Model Systems	Poster	J8–K8	Halls A–C	1–5 p.m.	
380	Dendritic Properties and Activity	Poster	K9–L10	Halls A–C	1–5 p.m.	
381	Network Interactions: Other	Poster	M1–O8	Halls A–C	1–5 p.m.	
382	Epilepsy: Networks — Human and Animal Studies	Poster	O9–Q1	Halls A–C	1–5 p.m.	
383	Epilepsy: EEG signatures and Animal models	Poster	Q2–R4	Halls A–C	1–5 p.m.	
384	Astrocytes	Poster	R5–U8	Halls A–C	1–5 p.m.	

SESSION#	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	TIME	CME HOURS
THEME B: NEURAL EXCITABILITY, SYNAPSES, AND GLIA / TUESDAY, NOV. 14						
438	Bridge Over Troubled Synapses: C1q Proteins, Glud Receptors, and Beyond	Lecture		Hall D	8:30–9:40 a.m.	1.25
451	Astrocytes: Disease Mechanisms	Nanosymposium		150B	8–9:45 a.m.	
465	Nicotinic Acetylcholine Receptors: Physiology and Function	Poster	C47–D2	Halls A–C	8 a.m.–noon	
466	Non-NMDA Receptors	Poster	D3–D15	Halls A–C	8 a.m.–noon	
467	Calcium Channel Modulation	Poster	D16–D30	Halls A–C	8 a.m.–noon	
468	Calcium Channels	Poster	D31–D50	Halls A–C	8 a.m.–noon	
469	CNS Co-Transporters	Poster	D51–D61	Halls A–C	8 a.m.–noon	
470	Synaptic Connectivity: Organization and Function	Poster	D62–F3	Halls A–C	8 a.m.–noon	
471	Short-Term Plasticity	Poster	F4–G6	Halls A–C	8 a.m.–noon	
472	Transcription and Translation in Plasticity: Gene Expression	Poster	G7–I6	Halls A–C	8 a.m.–noon	
473	Transcription and Translation in Plasticity: mRNA and Protein Dynamics	Poster	I7–J10	Halls A–C	8 a.m.–noon	
474	Hippocampal and Entorhinal Neuronal Activity and Firing Properties	Poster	J11–L6	Halls A–C	8 a.m.–noon	
475	Demyelinating Disorders: Mechanisms and Treatment	Poster	L7–N9	Halls A–C	8 a.m.–noon	
536	Unconventional NMDA Receptor Signalling	Symposium		Ballroom C	1:30–4 p.m.	2.5
542	Control of Neuronal Firing	Nanosymposium		150A	1–3:30 p.m.	
558	NMDA Receptors II	Poster	C18–C34	Halls A–C	1–5 p.m.	
559	Amino Acid Transporters	Poster	C35–C51	Halls A–C	1–5 p.m.	
560	Epilepsy: Genetics — Phenotype Modelling of Human Mutations	Poster	C52–D3	Halls A–C	1–5 p.m.	
561	Epilepsy: Post-Seizure Modifications — Novel Genes and Inflammation	Poster	D4–D13	Halls A–C	1–5 p.m.	
562	Epilepsy: *In Vivo* and Behavior — *In Vivo* Imaging, Seizure Mapping, and Mechanisms	Poster	D14–D26	Halls A–C	1–5 p.m.	
563	Epilepsy: Interneurons and Animal Models	Poster	D27–D36	Halls A–C	1–5 p.m.	
564	Microglia in Disease	Poster	D37–D62	Halls A–C	1–5 p.m.	
565	Oligodendrocytes	Poster	D63–F5	Halls A–C	1–5 p.m.	
566	Brain Tumor Biology	Poster	F6–H10	Halls A–C	1–5 p.m.	
THEME B: NEURAL EXCITABILITY, SYNAPSES, AND GLIA / WEDNESDAY, NOV. 15						
631	The Dentate Gyrus: From Microcircuit Function to Information Processing During Behavior	Minisymposium		145B	8:30–11 a.m.	2.5
635	Spontaneous Activity in Developing Sensory Systems	Lecture		Hall D	10–11:10 a.m.	1.25
657	Peptide Receptors	Poster	D13–D25	Halls A–C	8 a.m.–noon	
658	Postsynaptic Receptors and Scaffolds	Poster	D26–D45	Halls A–C	8 a.m.–noon	
659	Central Modulation	Poster	D46–E12	Halls A–C	8 a.m.–noon	
660	Spike Timing Dependent Plasticity	Poster	F1–F12	Halls A–C	8 a.m.–noon	
661	Homeostatic Synaptic Plasticity: *In Vivo* Activity Manipulation	Poster	G1–H5	Halls A–C	8 a.m.–noon	
662	Structural Plasticity: Cellular	Poster	H6–J3	Halls A–C	8 a.m.–noon	
663	Synaptic and Neuronal Plasticity Mechanisms	Poster	J4–K12	Halls A–C	8 a.m.–noon	
664	Networks: Thalamus, Cortex, and Brainstem	Poster	L1–M2	Halls A–C	8 a.m.–noon	
665	Epilepsy: Anticonvulsant Therapies — Novel Screens, Drugs, and Mechanisms	Poster	M3–O3	Halls A–C	8 a.m.–noon	
726	Dendritic Computation: Linking Dendritic Mechanisms to Circuits and Behavior	Minisymposium		146A	1:30–4 p.m.	2.5
743	Opiates, Cytokines, and Other Neuropeptides	Poster	B44–B60	Halls A–C	1–5 p.m.	
744	GABAA Receptors	Poster	B61–C13	Halls A–C	1–5 p.m.	
745	Transmitters and Messengers	Poster	C14–C23	Halls A–C	1–5 p.m.	
746	Presynaptic Structure and Function	Poster	C24–C49	Halls A–C	1–5 p.m.	
747	Presynaptic Ultrastructure and Calcium Channels	Poster	C50–C55	Halls A–C	1–5 p.m.	

SESSION#	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	TIME	CME HOURS
748	Presynaptic Organization	Poster	C56–D9	Halls A–C	1–5 p.m.	
749	LTP: Kinases and Intracellular Mechanisms	Poster	D10–D34	Halls A–C	1–5 p.m.	
750	Forebrain Neuron Cell Types and Firing Properties	Poster	D35–D46	Halls A–C	1–5 p.m.	
751	Oscillations and Synchrony: Unit Studies	Poster	D47–D61	Halls A–C	1–5 p.m.	
752	Oscillations and Synchrony: EEG Studies	Poster	D62–F7	Halls A–C	1–5 p.m.	
753	Oscillations and Synchrony: LFP Studies	Poster	F8–H5	Halls A–C	1–5 p.m.	
THEME C: NEURODEGENERATIVE DISORDERS AND INJURY / SATURDAY, NOV. 11						
002	From Mechanisms of Neurogenesis to Neural Repair: Turning Scar-Forming Glia Into Neurons	Lecture		Hall D	2–3:10 p.m.	1.25
012	Cognitive Dysfunction in Alzheimer's Disease and Related Dementias	Nanosymposium		152B	1–3 p.m.	
013	Alpha-Synuclein, Tau, and PRP Aggregation and Transmission: Models and Therapeutics	Nanosymposium		140A	1–4:15 p.m.	
014	Neuroinflammation: Virus and Infections	Nanosymposium		147B	1–2:45 p.m.	
044	APP: Animal and Cellular Models	Poster	L8–O5	Halls A–C	1–5 p.m.	
045	Amyloid-Beta as a Therapeutic Target	Poster	O6–P6	Halls A–C	1–5 p.m.	
046	Tau: Animal and Cellular Models	Poster	P7–Q12	Halls A–C	1–5 p.m.	
047	Dopamine and Non-Dopamine Pathways in Parkinson's Disease Models	Poster	R1–T10	Halls A–C	1–5 p.m.	
048	Alpha-Synuclein Disease Models and Therapeutic Approaches	Poster	T11–V16	Halls A–C	1–5 p.m.	
049	Neuromuscular Diseases	Poster	V17–W2	Halls A–C	1–5 p.m.	
050	Neuroinflammation	Poster	W3–W26	Halls A–C	1–5 p.m.	
051	Stroke: Role of Non-Neuronal Cells and Other Factors in Pathogenesis	Poster	W27–X1	Halls A–C	1–5 p.m.	
052	Stroke: Automated Assessment, Treatment, and Rehabilitation Tools	Poster	X2–X29	Halls A–C	1–5 p.m.	
053	Spinal Cord Injury: Recovery and Repair	Poster	X30–Z5	Halls A–C	1–5 p.m.	
THEME C: NEURODEGENERATIVE DISORDERS AND INJURY / SUNDAY, NOV. 12						
095	The Role of RNA Biology in Neurological Disease	Symposium		Ballroom A	8:30–11 a.m.	2.5
105	Alzheimer's Disease and Neuroinflammation	Nanosymposium		152B	8–10:30 a.m.	
106	Stroke Rehab and Imaging: Novel Approaches	Nanosymposium		147A	8–11 a.m.	
107	Brain Injury: Cellular and Molecular Mechanisms	Nanosymposium		156	8–10:45 a.m.	
126	Alzheimer's Disease: Neuroinflammation and Immune Action	Poster	I10–K12	Halls A–C	8 a.m.–noon	
127	Preclinical Therapeutic Strategies for Neurodegenerative Disease I	Poster	L1–N1	Halls A–C	8 a.m.–noon	
128	Biomarkers for Alzheimer's Disease and Related Dementias	Poster	N2–P7	Halls A–C	8 a.m.–noon	
129	Cognitive Dysfunction in Alzheimer's Disease	Poster	P8–R4	Halls A–C	8 a.m.–noon	
130	Dopamine and Non-Dopamine Pathways in Parkinson's Disease	Poster	R5–T1	Halls A–C	8 a.m.–noon	
131	Alpha-Synuclein Aggregation and Transmission	Poster	T2–V7	Halls A–C	8 a.m.–noon	
132	Parkinson's Disease: Models, Mechanisms, and Targets	Poster	V8–V20	Halls A–C	8 a.m.–noon	
133	Parkinson's Disease: Rodent Toxin and Behavior Models	Poster	V21–W24	Halls A–C	8 a.m.–noon	
134	Dystonia	Poster	W25–X3	Halls A–C	8 a.m.–noon	
135	Motor Neuron Disease: *In vitro* Studies	Poster	X4–X28	Halls A–C	8 a.m.–noon	
136	Mechanisms of Neurodegeneration I	Poster	X29–Z7	Halls A–C	8 a.m.–noon	
137	Perinatal Ischemia	Poster	Z8–Z19	Halls A–C	8 a.m.–noon	
138	Therapeutic, Interventional, and Translational Studies in Ischemia	Poster	Z20–AA3	Halls A–C	8 a.m.–noon	
139	Brain Injury: Cellular Mechanisms	Poster	AA4–AA31	Halls A–C	8 a.m.–noon	
140	Animal Models of Brain Injury: Anatomy, Physiology, and Pathology	Poster	AA32–BB25	Halls A–C	8 a.m.–noon	
141	Brain: Animal Models of Brain Injury and Behaviors	Poster	BB26–CC15	Halls A–C	8 a.m.–noon	
142	Spinal Cord Injury: Stimulation and Rehabilitation	Poster	CC16–CC23	Halls A–C	8 a.m.–noon	
143	Spinal Cord Injury: Animal Models and Human Studies	Poster	DD1–DD23	Halls A–C	8 a.m.–noon	
178	Neuroimmune Interactions: A Status Change	Symposium		Ballroom A	1:30–4 p.m.	2.5
188	Novel Therapeutics for Neurodegenerative Disorders	Nanosymposium		146C	1–3:15 p.m.	

SESSION#	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	TIME	CME HOURS
189	Parkinson's Disease: Human Therapeutic Studies	Nanosymposium		143A	1–3:45 p.m.	
190	Mechanisms of Neurotoxicity and Degeneration	Nanosymposium		147A	1–3 p.m.	
191	Spinal Cord Injury: Mechanisms and Repair	Nanosymposium		144A	1–4:30 p.m.	
207	Alzheimer's Disease: –Omics Approaches	Poster	E3–F8	Halls A–C	1–5 p.m.	
208	Synaptic Deficits in Alzheimer's Disease and Neurodegeneration I	Poster	F9–H6	Halls A–C	1–5 p.m.	
209	Parkinson's Disease: Neuroprotective Mechanisms	Poster	H7–I8	Halls A–C	1–5 p.m.	
210	Parkinson's Disease: Preclinical Therapeutic Development	Poster	I9–L3	Halls A–C	1–5 p.m.	
211	Parkinson's Disease: Human Therapeutic Studies	Poster	L4–N12	Halls A–C	1–5 p.m.	
212	Molecular Mechanisms of Huntington's Disease	Poster	O1–P1	Halls A–C	1–5 p.m.	
213	Ataxia	Poster	P2–R2	Halls A–C	1–5 p.m.	
214	Cell Biology of Ischemia	Poster	R3–S3	Halls A–C	1–5 p.m.	
215	Ischemia and Hemorrhage	Poster	S4–T10	Halls A–C	1–5 p.m.	
216	Traumatic Brain Injury: Human Studies I	Poster	T11–V1	Halls A–C	1–5 p.m.	
217	Traumatic Brain Injury: Therapeutic Interventions I	Poster	V2–W5	Halls A–C	1–5 p.m.	
218	Spinal Cord Injury: Models and Mechanisms	Poster	W6–W35	Halls A–C	1–5 p.m.	
THEME C: NEURODEGENERATIVE DISORDERS AND INJURY / MONDAY, NOV. 13						
268	Hearing Loss, Brain Function, and Healthy Aging	Basic–Translational Clinical Roundtable		206	8:30–11 a.m.	2.5
270	Clinical Neuroscience Lecture — Insights Into Neural Degeneration From *Drosophila* Genetics	Lecture		Hall D	11:30 a.m.–12:40 p.m.	1.25
275	Proteinopathy Other Than Abeta and Tau	Nanosymposium		150B	8–10 a.m.	
276	Tauopathies	Nanosymposium		147A	8–10:15 a.m.	
297	Amyloid-Beta Tau Interaction	Poster	P10–Q9	Halls A–C	8 a.m.–noon	
298	Dementia: Proteinopathy and Pathology Other Than Abeta and Tau	Poster	Q10–R6	Halls A–C	8 a.m.–noon	
299	LRRK2 Mechanisms, Targets, and Pathways	Poster	R7–T7	Halls A–C	8 a.m.–noon	
300	Movement Disorders I	Poster	T8–U12	Halls A–C	8 a.m.–noon	
301	Motor Neuron Disease: Animal Models I	Poster	V1–V24	Halls A–C	8 a.m.–noon	
302	Mechanisms of Neuroprotection	Poster	V25–W28	Halls A–C	8 a.m.–noon	
303	Neuroinflammation: Animal Models	Poster	W29–X22	Halls A–C	8 a.m.–noon	
304	Neuroinflammation in Neurodegenerative Diseases	Poster	X23–Y16	Halls A–C	8 a.m.–noon	
305	Inflammation in Ischemia	Poster	Y17–Z12	Halls A–C	8 a.m.–noon	
306	Stroke: Imaging Assessments	Poster	Z13–Z27	Halls A–C	8 a.m.–noon	
307	Stroke: Neuroprotection	Poster	Z28–AA25	Halls A–C	8 a.m.–noon	
308	Spinal Cord Injury: Cellular and Molecular Mechanisms	Poster	AA26–BB19	Halls A–C	8 a.m.–noon	
349	*In Vivo* Imaging of CNS Injury and Disease	Minisymposium		Ballroom C	1:30–4 p.m.	2.5
356	APP and Tau: Animal and Cellular Models	Nanosymposium		147A	1–4:30 p.m.	
357	Amyloid-Beta Tau Interaction	Nanosymposium		152A	1–3 p.m.	
358	Synaptic Signaling Deficits in Alzheimer's Disease I	Nanosymposium		150B	1–3:45 p.m.	
359	LRRK2 Mechanisms, Targets, and Pathways	Nanosymposium		152B	1–3 p.m.	
385	Brain Wellness and Aging	Poster	U9–V25	Halls A–C	1–5 p.m.	
386	Alzheimer's Disease: Genetics and Functional Genomics	Poster	V26–W20	Halls A–C	1–5 p.m.	
387	Amyloid-Beta Biochemistry and Toxicity	Poster	W21–X6	Halls A–C	1–5 p.m.	
388	Cell Biology of Huntington's Disease I	Poster	X7–X33	Halls A–C	1–5 p.m.	
389	Movement Disorders II	Poster	Y1–Z1	Halls A–C	1–5 p.m.	
390	Glia-Neuronal Communication in Health and Disease	Poster	Z2–Z23	Halls A–C	1–5 p.m.	
391	Molecular Mechanisms of Ischemia	Poster	Z24–AA20	Halls A–C	1–5 p.m.	
392	Animal Models of Brain Injury: Molecular Mechanisms — Inflammation	Poster	AA21–BB8	Halls A–C	1–5 p.m.	
393	Animal Models of Brain Injury: Molecular Mechanisms, Biomarkers, and Pharmacology	Poster	BB9–CC10	Halls A–C	1–5 p.m.	
394	Traumatic Brain Injury: Human Studies II	Poster	CC11–C33	Halls A–C	1–5 p.m.	

SESSION#	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	TIME	CME HOURS
395	Traumatic Brain Injury: Therapeutic Interventions II	Poster	DD1–DD23	Halls A–C	1–5 p.m.	
396	CNS and PNS Injury and Therapeutics	Poster	DD24–EE15	Halls A–C	1–5 p.m.	
THEME C: NEURODEGENERATIVE DISORDERS AND INJURY / TUESDAY, NOV. 14						
439	Tau Homeostasis and Toxicity in Neurodegeneration	Symposium		Ballroom A	8:30–11 a.m.	2.5
445	Advances and Challenges in Deep Brain Stimulation	Basic–Translational Clinical Roundtable		206	8:30–11 a.m.	2.5
452	Cognitive Aging and Memory	Nanosymposium		143A	8–11:30 a.m.	
453	Alzheimer's Disease: Neuroinflammation and Immune Actions	Nanosymposium		146C	8–10:45 a.m.	
454	Preclinical Therapeutic Strategies for Neurodegenerative Disease I	Nanosymposium		144A	8–10:45 a.m.	
455	Alpha-Synuclein: Models and Mechanisms	Nanosymposium		147A	8–10:30 a.m.	
456	Application of Imaging Techniques in Neurodegenerative Diseases	Nanosymposium		152B	8–10:15 a.m.	
476	The Role of ApoE in Mechanisms of Neurotoxicity	Poster	N10–O10	Halls A–C	8 a.m.–noon	
477	Synaptic Deficits in Alzheimer's Disease and Neurodegeneration II	Poster	P1–Q11	Halls A–C	8 a.m.–noon	
478	Preclinical Therapeutic Strategies for Neurodegenerative Disease II	Poster	Q12–T11	Halls A–C	8 a.m.–noon	
479	Preclinical Therapeutic Strategies for Neurodegenerative Disease III	Poster	T12–V12	Halls A–C	8 a.m.–noon	
480	Parkinson's Disease: Human Diagnostics and Molecular Genetics	Poster	V13–W2	Halls A–C	8 a.m.–noon	
481	Motor Neuron Disease: Animal Models II	Poster	W3–W20	Halls A–C	8 a.m.–noon	
482	Neuroinflammation: Virus and Infections I	Poster	W21–X3	Halls A–C	8 a.m.–noon	
483	Recovery After Ischemia	Poster	X4–X18	Halls A–C	8 a.m.–noon	
543	Brain Wellness and Aging	Nanosymposium		143A	1–3:45 p.m.	
545	Synaptic Signaling Deficits in Alzheimer's Disease II	Nanosymposium		144A	1–3:45 p.m.	
546	Models, Mechanisms, and Modifiers of Amyotrophic Lateral Sclerosis (ALS)	Nanosymposium		146C	1–2:30	
547	Tautopathies: Mechanisms	Nanosymposium		140A	1–4:15 p.m.	
567	Alzheimer's Disease: Biochemistry Approaches and Mechanisms	Poster	H11–K2	Halls A–C	1–5 p.m.	
568	Tau Biochemistry and Physiology	Poster	K3–L2	Halls A–C	1–5 p.m.	
569	Neuroinflammation and Alzheimer's Disease	Poster	L3–M6	Halls A–C	1–5 p.m.	
570	Mechanisms of Alzheimer's Disease	Poster	M7–P5	Halls A–C	1–5 p.m.	
571	Alpha-Synuclein Normal Function	Poster	P6–Q4	Halls A–C	1–5 p.m.	
572	Parkinson's Disease: Neuroprotective Therapeutic Strategies	Poster	Q5–T1	Halls A–C	1–5 p.m.	
573	Parkinson's Disease: Therapeutic Strategies	Poster	T2–V1	Halls A–C	1–5 p.m.	
574	Cell Biology of Huntington's Disease II	Poster	V2–V15	Halls A–C	1–5 p.m.	
575	Animal Models of Huntington's Disease	Poster	V16–W6	Halls A–C	1–5 p.m.	
576	Mechanisms of Neurodegeneration II	Poster	W7–W36	Halls A–C	1–5 p.m.	
577	Brain and Neuronal Injury: Cellular and Molecular Mechanisms	Poster	X1–X19	Halls A–C	1–5 p.m.	
578	Spinal Cord Injury: Therapeutic Strategies	Poster	X20–Y16	Halls A–C	1–5 p.m.	
THEME C: NEURODEGENERATIVE DISORDERS AND INJURY / WEDNESDAY, NOV. 15						
628	Experimental Models Versus Reality of Neurological Disease	Symposium		Ballroom A	8:30–11 a.m.	2.5
638	Preclinical Therapeutic Strategies for Neurodegenerative Disease II	Nanosymposium		140A	8–10:45 a.m.	
639	Parkinson's Disease: Cell Biology, Mechanisms, and Targets	Nanosymposium		147B	8–10:30 a.m.	
640	Risk Factors for Diseases of the CNS	Nanosymposium		150B	8–10:15 a.m.	
666	Alzheimer's Disease: Biomarkers, Metabolism, and Proteomics	Poster	O4–Q6	Halls A–C	8 a.m.–noon	
667	Therapeutic Development for Neurodegenerative Diseases	Poster	Q7–T10	Halls A–C	8 a.m.–noon	
668	Parkinson's Disease: Circuit Mechanisms	Poster	T11–V5	Halls A–C	8 a.m.–noon	
669	Parkinson's Disease: Human Brain Imaging and Recording	Poster	V6–W8	Halls A–C	8 a.m.–noon	
670	Motor Neuron Disease: Therapeutics	Poster	W9–W35	Halls A–C	8 a.m.–noon	
671	Mitochondrial Dynamics and Function in Neurodegenerative Diseases	Poster	W36–X24	Halls A–C	8 a.m.–noon	
672	Mechanisms of Neurotoxicity	Poster	X25–Z4	Halls A–C	8 a.m.–noon	
673	Stroke: Functional Connectivity Changes in Animals and Humans	Poster	Z5–Z21	Halls A–C	8 a.m.–noon	

SESSION#	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	TIME	CME HOURS
674	Stroke: Non-Pharmacological Treatment and Activity-Dependent Plasticity and Recovery	Poster	Z22–AA5	Halls A–C	8 a.m.–noon	
675	Traumatic Brain Injury: Therapeutic Interventions III	Poster	AA6–AA20	Halls A–C	8 a.m.–noon	
676	Peripheral Nerve Injury and Repair	Poster	AA21–BB11	Halls A–C	8 a.m.–noon	
677	Tauopathies, Tau-Dementias, and Prion Diseases II	Poster	BB12–BB27	Halls A–C	8 a.m.–noon	
678	Tauopathies, Tau-Dementias, and Prion Diseases I	Poster	CC1–CC25	Halls A–C	8 a.m.–noon	
723	Illuminating Neural Circuits: From Molecules to MRI	Symposium		Ballroom A	1:30–4 p.m.	2.5
729	Protective and Pathogenetic Mechanisms in Alzheimer's Disease	Nanosymposium		140A	1–4 p.m.	
730	Amyloid-Beta and Tau Biochemistry and Toxicity	Nanosymposium		150A	1–4 p.m.	
731	Motor Neuron Disease Mechanisms	Nanosymposium		150B	1–3:30 p.m.	
754	Brain Wellness	Poster	H6–J12	Halls A–C	1–5 p.m.	
755	Alzheimer's Disease: APP and Its Processing	Poster	K1–L6	Halls A–C	1–5 p.m.	
756	Imaging Studies in Neurodegenerative Diseases	Poster	L7–M10	Halls A–C	1–5 p.m.	
757	Cellular Mechanisms of Parkinson's Disease I	Poster	N1–P1	Halls A–C	1–5 p.m.	
758	Cellular Mechanisms of Parkinson's Disease II	Poster	P2–R1	Halls A–C	1–5 p.m.	
759	The Pathogenesis Mechanisms of Mitochondria in Parkinson's Disease	Poster	R2–T3	Halls A–C	1–5 p.m.	
760	ALS: Disease Mechanisms	Poster	T4–U12	Halls A–C	1–5 p.m.	
761	Neuroinflammation: Disease Models	Poster	V1–W1	Halls A–C	1–5 p.m.	
762	Neuroinflammation: Activation, Inhibition, and Depletion	Poster	W2–W26	Halls A–C	1–5 p.m.	
763	Neuroinflammation: Beyond Microglia	Poster	W27–X14	Halls A–C	1–5 p.m.	
764	Neuroinflammation: Virus and Infections II	Poster	X15–X31	Halls A–C	1–5 p.m.	
765	Stroke: Molecular Targets, Pathogenesis, and Recovery	Poster	X32–Z5	Halls A–C	1–5 p.m.	
THEME D: SENSORY SYSTEMS / SATURDAY, NOV. 11						
006	Emerging Roles of Somatostatin Inhibitory Neurons in Sensory Cortex Processing and Plasticity	Minisymposium		145B	1:30–4 p.m.	2.5
015	Touch, Itch, and Pain	Nanosymposium		147A	1–4 p.m.	
016	Spatial and Feature-Based Attention	Nanosymposium		156	1–3:30 p.m.	
054	Trigeminal Processing	Poster	Z6–Z18	Halls A–C	1–5 p.m.	
055	Olfactory Processing I	Poster	Z19–AA5	Halls A–C	1–5 p.m.	
056	Neuronal Cell Types: Classification	Poster	AA6–AA19	Halls A–C	1–5 p.m.	
057	Cortical Coding and Oscillations	Poster	AA20–BB11	Halls A–C	1–5 p.m.	
058	Visual Cognition: Decision-Making	Poster	BB12–CC13	Halls A–C	1–5 p.m.	
THEME D: SENSORY SYSTEMS / SUNDAY, NOV. 12						
108	Somatosensory Cortex	Nanosymposium		144A	8–10:30 a.m.	
144	Descending Modulation of Pain	Poster	DD24–EE11	Halls A–C	8 a.m.–noon	
145	Pain Models: Pharmacology	Poster	EE12–FF11	Halls A–C	8 a.m.–noon	
146	Motion: Physiology	Poster	FF12–GG5	Halls A–C	8 a.m.–noon	
147	Visual System: Responses During Behavior	Poster	GG6–GG21	Halls A–C	8 a.m.–noon	
148	Visual Cortex: Circuits and Populations	Poster	GG22–HH15	Halls A–C	8 a.m.–noon	
149	Spatial and Feature-Based Attention	Poster	HH16–HH32	Halls A–C	8 a.m.–noon	
179	Cortical Plasticity Following Sensory Loss and Restoration	Symposium		Ballroom B	1:30–4 p.m.	2.5
192	Representation of Faces and Bodies	Nanosymposium		147B	1–4:30 p.m.	
219	Somatosensation: TRP Channels	Poster	W36–X18	Halls A–C	1–5 p.m.	
220	Inflammatory Pain	Poster	X19–Y12	Halls A–C	1–5 p.m.	
221	Mechanisms of Diabetic Neuropathic Pain	Poster	Y13–Z6	Halls A–C	1–5 p.m.	
222	Cancer Pain and Chemotherapy-Evoked Pain	Poster	Z7–Z24	Halls A–C	1–5 p.m.	
223	Barrel Cortex: Tactile Discrimination	Poster	Z25–AA3	Halls A–C	1–5 p.m.	
224	Somatosensation: Stimulus Features and Response Properties	Poster	AA4–AA18	Halls A–C	1–5 p.m.	
225	Auditory and Vestibular Systems: Periphery	Poster	AA19–AA31	Halls A–C	1–5 p.m.	
226	Auditory Processing: Neural Coding, Experiment, and Theory	Poster	AA32–BB21	Halls A–C	1–5 p.m.	

SESSION#	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	TIME	CME HOURS
227	Visual System: Response Modulation and Adaptation	Poster	BB22–CC19	Halls A–C	1–5 p.m.	
228	Superior Colliculus: Sensory and Motor Functions	Poster	CC20–DD4	Halls A–C	1–5 p.m.	
THEME D: SENSORY SYSTEMS / MONDAY, NOV. 13						
261	Neural Circuits Controlling the Selection and Persistence of Sensory Information	Lecture		Hall D	8:30–9:40 a.m.	1.25
277	Representation of Objects and Scenes	Nanosymposium		150A	8–11:30 a.m.	
309	Opioids and the Treatment of Pain	Poster	BB20–CC22	Halls A–C	8 a.m.–noon	
310	Somatosensation: Transduction Mechanisms	Poster	CC23–CC32	Halls A–C	8 a.m.–noon	
311	Auditory Processing: Circuits, Synapses, and Neurotransmitters I	Poster	CC33–DD19	Halls A–C	8 a.m.–noon	
312	Visual Cortical Streams: Mouse and Primate	Poster	DD20–EE2	Halls A–C	8 a.m.–noon	
313	Sensorimotor Transformation: Behavior and Whole-Animal Processing	Poster	EE3–EE20	Halls A–C	8 a.m.–noon	
350	State-Dependent Cortical Processing	Minisymposium		145B	1:30–4 p.m.	2.5
360	Neuro-Immune Interactions in Pain, Migraine, and Itch	Nanosymposium		146C	1–3:45 p.m.	
361	Gating Olfactory Information	Nanosymposium		140A	1–3:30 p.m.	
397	Nociceptors	Poster	EE16–FF14	Halls A–C	1–5 p.m.	
398	Pain Imaging	Poster	FF15–GG20	Halls A–C	1–5 p.m.	
399	Auditory Processing: Circuits, Synapses, and Neurotransmitters II	Poster	GG21–HH3	Halls A–C	1–5 p.m.	
400	Auditory System Plasticity	Poster	HH4–HH19	Halls A–C	1–5 p.m.	
401	Retina: Motion	Poster	HH20–HH29	Halls A–C	1–5 p.m.	
402	Visual Cortex: Functional Architecture and Circuits	Poster	HH30–II14	Halls A–C	1–5 p.m.	
403	Visual Cortical Streams: Primate and Human	Poster	II15–JJ15	Halls A–C	1–5 p.m.	
404	Vestibular System: Central Processing	Poster	JJ16–KK5	Halls A–C	1–5 p.m.	
THEME D: SENSORY SYSTEMS / TUESDAY, NOV. 14						
443	Good Vibrations: Genetic, Neural, and Behavioral Links Between Auditory and Tactile Perception	Minisymposium		146A	8:30–11 a.m.	2.5
446	Processing Gustatory Information in *Drosophila*	Lecture		Hall D	10–11:10 a.m.	1.25
484	Pain Models: Physiology and Behavior I	Poster	X19–Y15	Halls A–C	8 a.m.–noon	
485	Pain Models: Physiology and Behavior II	Poster	Y16–Z27	Halls A–C	8 a.m.–noon	
486	Thalamic and Cortical Pain Processing and Treatment	Poster	Z28–AA14	Halls A–C	8 a.m.–noon	
487	Somatosensory System Plasticity	Poster	AA15–AA24	Halls A–C	8 a.m.–noon	
488	Auditory Processing: Temporal, Frequency, and Spectral Processing	Poster	AA25–BB16	Halls A–C	8 a.m.–noon	
489	Auditory Processing: Perception, Cognition, and Action I	Poster	BB17–CC17	Halls A–C	8 a.m.–noon	
490	Visual System: New Tools and New Views	Poster	CC18–DD7	Halls A–C	8 a.m.–noon	
491	Visual Pathways: To and From the Cortex	Poster	DD8–DD36	Halls A–C	8 a.m.–noon	
492	Representation of Faces and Bodies	Poster	EE1–EE20	Halls A–C	8 a.m.–noon	
493	Eye Movements and Perception	Poster	EE21–FF9	Halls A–C	8 a.m.–noon	
494	Sensorimotor Transformation: Neuroprocessing	Poster	FF10–FF21	Halls A–C	8 a.m.–noon	
495	Visually-Guided Reaching	Poster	FF22–GG15	Halls A–C	8 a.m.–noon	
539	Sensation in Action	Minisymposium		151B	1:30–4 p.m.	2.5
548	Hair Cells	Nanosymposium		156	1–2:45 p.m.	
549	Visually-Guided Reach and Grasp	Nanosymposium		152B	1–3:45 p.m.	
579	Headache and Migraine	Poster	Y17–Z10	Halls A–C	1–5 p.m.	
580	Mechanisms of Peripheral Neuropathic Pain II	Poster	Z11–AA4	Halls A–C	1–5 p.m.	
581	Mechanisms of Peripheral Neuropathic Pain I	Poster	AA5–AA31	Halls A–C	1–5 p.m.	
582	Mechanisms of Central Neuropathic Pain	Poster	AA32–BB16	Halls A–C	1–5 p.m.	
583	Somatosensation: Thalamocortical Processing	Poster	BB17–CC1	Halls A–C	1–5 p.m.	
584	Barrel Cortex	Poster	CC1–CC20	Halls A–C	1–5 p.m.	
585	Auditory Processing: Sound Localization and Binaural Interactions	Poster	CC21–CC31	Halls A–C	1–5 p.m.	
586	Auditory System: Cortical Processing and Perception	Poster	CC32–DD23	Halls A–C	1–5 p.m.	
587	Auditory Processing: Perception, Cognition, and Action II	Poster	DD24–EE16	Halls A–C	1–5 p.m.	

SESSION#	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	TIME	CME HOURS
588	Visual Cortex: Development and Plasticity	Poster	EE17–FF17	Halls A–C	1–5 p.m.	
589	Representation of Objects and Scenes	Poster	FF18–GG19	Halls A–C	1–5 p.m.	
590	Visual Learning, Memory, and Categorization	Poster	GG20–HH4	Halls A–C	1–5 p.m.	
THEME D: SENSORY SYSTEMS / WEDNESDAY, NOV. 15						
632	Stratification of Visceral Pain: New Insight Into the Mechanisms of Peripheral Sensitisation From Animal Models and Human Tissue	Minisymposium		146A	8:30–11 a.m.	2.5
641	Advances in Pain Neuroimaging	Nanosymposium		144A	8:30–11 a.m.	
679	Somatosensation: Spinal Circuits	Poster	CC26–DD14	Halls A–C	8 a.m.–noon	
680	Somatosensory Cortex	Poster	DD15–DD24	Halls A–C	8 a.m.–noon	
681	Somatosensory System: Human and Non-Human Primates	Poster	DD25–EE5	Halls A–C	8 a.m.–noon	
682	Taste Coding	Poster	EE6–EE19	Halls A–C	8 a.m.–noon	
683	Retina: Photoreceptors and Outer Circuits	Poster	EE20–FF3	Halls A–C	8 a.m.–noon	
684	Retina: Inner Circuits and Ganglion Cells	Poster	FF4–GG8	Halls A–C	8 a.m.–noon	
685	Motion: Psychophysics	Poster	GG9–GG20	Halls A–C	8 a.m.–noon	
686	Cross-Modal Processing: Spatial Factors	Poster	GG21–HH3	Halls A–C	8 a.m.–noon	
687	Cross-Modal Processing: Temporal Factors	Poster	HH4–HH16	Halls A–C	8 a.m.–noon	
688	Cross-Modal Processing: Humans	Poster	HH17–II7	Halls A–C	8 a.m.–noon	
732	Chronic Pain and Trigeminal Processing	Nanosymposium		143A	1–4:15 p.m.	
733	Development of Sensory Systems	Nanosymposium		152B	1–2:45 p.m.	
766	Nociceptive Circuits	Poster	Z6–Z16	Halls A–C	1–5 p.m.	
767	Treatments for Persistent Pain	Poster	Z17–AA14	Halls A–C	1–5 p.m.	
768	Visceral and Musculoskeletal Pain	Poster	AA15–AA23	Halls A–C	1–5 p.m.	
769	Somatosensation: Neural Prostheses	Poster	AA24–AA29	Halls A–C	1–5 p.m.	
770	Primary Olfactory and Taste Transduction	Poster	AA30–BB11	Halls A–C	1–5 p.m.	
771	Olfactory Coding I	Poster	BB12–CC13	Halls A–C	1–5 p.m.	
772	Olfactory Coding II	Poster	CC14–CC23	Halls A–C	1–5 p.m.	
773	Olfactory Processing II	Poster	CC24–DD10	Halls A–C	1–5 p.m.	
774	Color and Contrast	Poster	DD11–DD25	Halls A–C	1–5 p.m.	
775	Cross-Modal Processing: Neural Circuitry and Development	Poster	DD26–EE17	Halls A–C	1–5 p.m.	
THEME E: MOTOR SYSTEMS / SATURDAY, NOV. 11						
059	Eye Movements: Smooth Pursuit	Poster	CC14–CC24	Halls A–C	1–5 p.m.	
060	Eye Movements: Saccades	Poster	CC25–DD16	Halls A–C	1–5 p.m.	
061	Cortical Planning and Execution: Human Neurophysiology	Poster	DD17–EE5	Halls A–C	1–5 p.m.	
062	Motor Planning in Humans	Poster	EE6–EE22	Halls A–C	1–5 p.m.	
063	Posture and Gait: Injury and Disease	Poster	EE23–FF15	Halls A–C	1–5 p.m.	
064	Posture and Gait: Healthy Development and Aging	Poster	FF16–GG5	Halls A–C	1–5 p.m.	
065	CPGs: Neuromodulation, Sensory Input, and Descending Control	Poster	GG6–GG23	Halls A–C	1–5 p.m.	
THEME E: MOTOR SYSTEMS / SUNDAY, NOV. 12						
100	Individual or Group Patterns of Human Sensorimotor Control and Learning? When the Whole May Not Be Greater Than the Sum of Its Parts	Minisymposium		151B	8:30–11 a.m.	2.5
109	Cellular Mechanisms Underlying Cerebellum Plasticity	Nanosymposium		143A	8–9:45 a.m.	
150	Eye Movements	Poster	HH33–II13	Halls A–C	8 a.m.–noon	
151	Cerebellum Interactions With Other Brain Regions	Poster	II14–JJ7	Halls A–C	8 a.m.–noon	
152	Motor Coordination and Bimanual Control	Poster	JJ8–KK3	Halls A–C	8 a.m.–noon	
153	Posture and Gait: Higher-Order Control	Poster	KK4–KK17	Halls A–C	8 a.m.–noon	
154	Reflexes and Reflex Modulation	Poster	KK18–KK29	Halls A–C	8 a.m.–noon	
155	Motor Systems: Neuromodulation	Poster	KK30–LL3	Halls A–C	8 a.m.–noon	

SESSION#	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	TIME	CME HOURS
182	Advances in Parkinson's Disease Biomarkers and Disease Modeling	Minisymposium		146A	1:30–4 p.m.	2.5
229	Limb Brain-Machine Interfaces	Poster	DD5–DD20	Halls A–C	1–5 p.m.	
230	Limb Brain-Machine Interfaces: Neurophysiology	Poster	DD21–EE1	Halls A–C	1–5 p.m.	
231	Posture and Gait: Afferent Control	Poster	EE2–EE27	Halls A–C	1–5 p.m.	
232	Motor Systems: Sensory Input and Descending Control	Poster	EE28–FF12	Halls A–C	1–5 p.m.	
233	Respiratory Rhythm and Pattern Generation	Poster	FF13–GG9	Halls A–C	1–5 p.m.	
234	Spinal Cord Injury: Posture and Locomotion	Poster	GG10–GG22	Halls A–C	1–5 p.m.	
THEME E: MOTOR SYSTEMS / MONDAY, NOV. 13						
267	Modulation of Spinal Motor Networks: New Perspectives in the Control of Movement	Minisymposium		151B	8:30–11 a.m.	2.5
314	Cerebellum Purkinje Cells and Plasticity	Poster	EE21–FF2	Halls A–C	8 a.m.–noon	
315	Striatal Physiology	Poster	FF3–GG6	Halls A–C	8 a.m.–noon	
316	The Control of Reaching Movements I	Poster	GG7–GG32	Halls A–C	8 a.m.–noon	
317	Motor Learning and Recovery	Poster	GG33–HH17	Halls A–C	8 a.m.–noon	
347	Neural Mechanisms of Voluntary Action Control: From Habits to Intentionality in Animals and Humans	Symposium		Ballroom A	1:30–4 p.m.	2.5
362	Cerebellum: Circuitry to Function	Nanosymposium		144A	1–2:45 p.m.	
405	The Control of Reaching Movements II	Poster	KK6–KK23	Halls A–C	1–5 p.m.	
406	Cortical Planning and Execution: Neural Correlates of Behavior	Poster	KK24–LL1	Halls A–C	1–5 p.m.	
407	Cortical Planning and Execution: Animal Neurophysiology	Poster	LL2–LL28	Halls A–C	1–5 p.m.	
408	From Brain to Mouth: Oral Motor Speech Control	Poster	LL29–MM19	Halls A–C	1–5 p.m.	
409	Posture and Gait: Kinematics, Muscle Activity, Exercise, and Fatigue	Poster	MM20–NN20	Halls A–C	1–5 p.m.	
410	Posture and Gait: Animal Models	Poster	NN21–NN33	Halls A–C	1–5 p.m.	
411	CPGs: Circuit Mechanisms	Poster	OO1–OO10	Halls A–C	1–5 p.m.	
412	Motor Unit Recordings	Poster	OO11–OO32	Halls A–C	1–5 p.m.	
THEME E: MOTOR SYSTEMS / TUESDAY, NOV. 14						
447	Diversified Spinal and Brain Circuits for Locomotor Behavior	Lecture		Hall D	11:30 a.m.–12:40 p.m.	1.25
496	Cortical Planning and Execution: Behavior	Poster	GG16–GG27	Halls A–C	8 a.m.–noon	
497	Cortical Planning and Execution: Reach and Grasp Neurophysiology	Poster	GG27–HH14	Halls A–C	8 a.m.–noon	
498	Neurophysiology: Implanted Electrodes and Direct Interactions With Neurons — Stimulation and Closed-Loop	Poster	HH15–II1	Halls A–C	8 a.m.–noon	
499	Brain-Machine Interface: Sensory Systems	Poster	II2–II11	Halls A–C	8 a.m.–noon	
500	CPGs: Non-Mammalian	Poster	II12–II25	Halls A–C	8 a.m.–noon	
501	Spinal Cord Injury: Training, Rehabilitation, and Recovery	Poster	II26–JJ28	Halls A–C	8 a.m.–noon	
502	Motor Neurons: Functional Relationships	Poster	JJ28–KK17	Halls A–C	8 a.m.–noon	
537	Delineating the Diversity of Spinal Interneurons in Locomotor Circuits	Minisymposium		145B	1:30–4 p.m.	2.5
550	Motor Control and Internal Representations	Nanosymposium		147A	1–3:15 p.m.	
591	Cerebellum: Physiology and Circuit Function	Poster	HH5–HH27	Halls A–C	1–5 p.m.	
592	Transmitters and Modulators	Poster	HH28–II11	Halls A–C	1–5 p.m.	
593	Human Motor Learning: Behavior and Models	Poster	II12–JJ11	Halls A–C	1–5 p.m.	
594	Neurophysiology: Implanted Electrodes and Direct Interactions With Neurons — Recording	Poster	JJ12–KK3	Halls A–C	1–5 p.m.	
595	Neurophysiology: Implanted Electrodes and Direct Interactions With Neurons — Tissue Reactions	Poster	KK4–KK17	Halls A–C	1–5 p.m.	
596	Motor Systems, Variability, and Stability	Poster	KK18–KK29	Halls A–C	1–5 p.m.	
597	Motor Neuron: Muscle Exercise and Movement	Poster	KK30–LL8	Halls A–C	1–5 p.m.	
598	Motor Neuron: Development	Poster	LL9–LL19	Halls A–C	1–5 p.m.	

SESSION#	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	TIME	CME HOURS
THEME E: MOTOR SYSTEMS / WEDNESDAY, NOV. 15						
642	Prosthetics: Peripheral Neural Interfaces for Reach and Grasp	Nanosymposium		150A	8–11:30 a.m.	
689	Subcortical Physiology and Regulation of Behavior	Poster	II8–JJ2	Halls A–C	8 a.m.–noon	
690	Corticostriatal and Pallidal Physiology	Poster	JJ3–JJ25	Halls A–C	8 a.m.–noon	
691	The Control of Grasp and Grip I	Poster	JJ26–KK19	Halls A–C	8 a.m.–noon	
692	The Control of Grasp and Grip II	Poster	KK20–KK36	Halls A–C	8 a.m.–noon	
693	Human Motor Learning: Neural and Clinical	Poster	LL1–LL16	Halls A–C	8 a.m.–noon	
694	Human Motor Learning: Cognitive and Proprioceptive Influences	Poster	LL17–LL31	Halls A–C	8 a.m.–noon	
776	Brain Computer Interface: Implementations and Methods	Poster	EE18–FF9	Halls A–C	1–5 p.m.	
777	Neural Representations and Brain Machine Interface (BMI)	Poster	FF10–GG12	Halls A–C	1–5 p.m.	
778	Motor Systems: Molecular, Synaptic, and Cellular Mechanisms	Poster	GG13–GG26	Halls A–C	1–5 p.m.	
779	Respiratory Control	Poster	GG27–HH8	Halls A–C	1–5 p.m.	
780	Spinal Cord and Peripheral Nerve Injury: Neurophysiology	Poster	HH9–HH27	Halls A–C	1–5 p.m.	
781	Motor Neuron: Muscle Interface	Poster	HH28–II6	Halls A–C	1–5 p.m.	
THEME F: INTEGRATIVE PHYSIOLOGY AND BEHAVIOR / SATURDAY, NOV. 11						
005	Central Network Dynamics Regulating Visceral And Humoral Functions	Symposium		Ballroom B	1:30–4 p.m.	2.5
066	Vocal Learning Across Avian Models	Poster	GG23–HH6	Halls A–C	1–5 p.m.	
067	Neural Control of Social Interactions: Sexual Behavior	Poster	HH7–HH27	Halls A–C	1–5 p.m.	
068	Stress-Modulated Pathways: Cortex to Brainstem	Poster	HH28–II4	Halls A–C	1–5 p.m.	
069	Stress-Modulated Pathways: Behavior and Cognition	Poster	II5–II22	Halls A–C	1–5 p.m.	
070	Stress-Modulated Pathways: Molecular, Endocrine, and Electrophysiological Outcomes	Poster	II23–JJ16	Halls A–C	1–5 p.m.	
071	Gulf War Illness: Mechanisms, Diagnostics, and Potential Treatments	Poster	JJ17–KK4	Halls A–C	1–5 p.m.	
072	Sleep: Molecular Mechanisms	Poster	KK5–KK31	Halls A–C	1–5 p.m.	
THEME F: INTEGRATIVE PHYSIOLOGY AND BEHAVIOR / SUNDAY, NOV. 12						
093	Molecular Architecture of the Circadian Clock in Mammals	Lecture		Hall D	8:30–9:40 a.m.	1.25
097	Peripheral Neural Modulation of Inflammation, Immunity, and Host Defense	Minisymposium		145B	8:30–11 a.m.	2.5
156	Neuroethology: Circuits and Behavioral Analyses	Poster	LL4–LL32	Halls A–C	8 a.m.–noon	
157	Communicating Vocally in Non-Avian Model Systems	Poster	LL33–MM16	Halls A–C	8 a.m.–noon	
158	Neural Control of Social Interactions	Poster	MM17–NN22	Halls A–C	8 a.m.–noon	
159	Hormones and Cognition: Estrogens	Poster	NN23–OO9	Halls A–C	8 a.m.–noon	
160	HPG Axis	Poster	OO10–OO30	Halls A–C	8 a.m.–noon	
161	Thirst and Water Balance	Poster	OO31–PP2	Halls A–C	8 a.m.–noon	
193	Sleep: Key Advances	Nanosymposium		156	1–3:15 p.m.	
235	Neuromodulation and New Approaches in Monitoring Vocal Learning	Poster	GG23–HH15	Halls A–C	1–5 p.m.	
236	Microbiota, Immunity, and Behavior	Poster	HH16–HH31	Halls A–C	1–5 p.m.	
237	Circadian: Synchronization	Poster	HH32–II16	Halls A–C	1–5 p.m.	
238	Circadian: Cellular and Molecular Mechanisms	Poster	II17–JJ4	Halls A–C	1–5 p.m.	
239	Sleep: Regulators	Poster	JJ5–JJ30	Halls A–C	1–5 p.m.	
240	Sleep: Systems	Poster	KK1–KK28	Halls A–C	1–5 p.m.	
241	Sleep: Behavior	Poster	KK29–LL22	Halls A–C	1–5 p.m.	
THEME F: INTEGRATIVE PHYSIOLOGY AND BEHAVIOR / MONDAY, NOV. 13						
318	Neuroethology: Development and Anatomy	Poster	HH18–II2	Halls A–C	8 a.m.–noon	
319	Birdsong: From Neurogenesis to Genetics and Epigenetics	Poster	II3–II17	Halls A–C	8 a.m.–noon	
320	Stress-Modulated Pathways: Networks, Circuits, and Morphology	Poster	II18–JJ17	Halls A–C	8 a.m.–noon	

SESSION#	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	TIME	CME HOURS
321	Stress-Modulated Pathways: Physiological and Behavioral Outcomes	Poster	JJ18–KK13	Halls A–C	8 a.m.–noon	
322	Stress and Cognition: Clinical Studies	Poster	KK14–KK26	Halls A–C	8 a.m.–noon	
323	Stress and Cognition: Animal Studies	Poster	KK27–LL12	Halls A–C	8 a.m.–noon	
324	Energy Metabolism and Blood Brain Barrier	Poster	LL13–MM3	Halls A–C	8 a.m.–noon	
325	Blood Flow: Assessment and Basic-Translational Relevance	Poster	MM4–NN3	Halls A–C	8 a.m.–noon	
326	Metabolism Control and Obesity	Poster	NN4–NN32	Halls A–C	8 a.m.–noon	
351	Neuroethology of Listening: Learning, Perception and Preference in Female Songbirds	Minisymposium		146A	1:30–4 p.m.	2.5
413	Stress, Inflammation, and Behavior	Poster	OO33–PP17	Halls A–C	1–5 p.m.	
414	Thermoregulation and Other	Poster	PP18–PP24	Halls A–C	1–5 p.m.	
415	Early Life and Intergenerational Effects on Feeding	Poster	PP25–QQ3	Halls A–C	1–5 p.m.	
416	Neuropeptide Regulators	Poster	QQ4–QQ20	Halls A–C	1–5 p.m.	
THEME F: INTEGRATIVE PHYSIOLOGY AND BEHAVIOR / TUESDAY, NOV. 14						
441	Glia-Neuron Interactions Regulate Sleep	Minisymposium		Ballroom B	8:30–11 a.m.	2.5
503	Neuroethology: Social Behaviors	Poster	KK18–KK31	Halls A–C	8 a.m.–noon	
504	Early-Life Stress: Neurophysiological and Neurochemical Consequences	Poster	KK32–L24	Halls A–C	8 a.m.–noon	
505	Early-Life Stress: Molecular Mechanisms	Poster	KK25–MM7	Halls A–C	8 a.m.–noon	
506	Cardiovascular Regulation I	Poster	MM8–NN8	Halls A–C	8 a.m.–noon	
507	Cardiovascular Regulation II	Poster	NN9–NN22	Halls A–C	8 a.m.–noon	
508	Gastrointestinal, Renal, Urinary, and Reproductive Regulation I	Poster	NN23–NN31	Halls A–C	8 a.m.–noon	
509	Gastrointestinal, Renal, Urinary, and Reproductive Regulation II	Poster	NN32–OO27	Halls A–C	8 a.m.–noon	
510	Control of Feeding and Satiety	Poster	OO28–PP19	Halls A–C	8 a.m.–noon	
599	Neuroethology: Navigation and Locomotion	Poster	LL20–LL31	Halls A–C	1–5 p.m.	
600	Early-Life Stress: Clinical Studies	Poster	LL32–MM9	Halls A–C	1–5 p.m.	
601	Early-Life Stress: Anxiety, Motivation, and Depression	Poster	MM10–NN9	Halls A–C	1–5 p.m.	
602	Adolescent Stress: Neurological and Neurobehavioral Outcomes	Poster	NN10–NN27	Halls A–C	1–5 p.m.	
603	Technical Developments and Assessing Pharmacological Influences on Neuroimaging Responses	Poster	NN28–OO16	Halls A–C	1–5 p.m.	
604	Mapping Central Hypothalamic Pathways	Poster	OO17–OO27	Halls A–C	1–5 p.m.	
THEME F: INTEGRATIVE PHYSIOLOGY AND BEHAVIOR / WEDNESDAY, NOV. 15						
629	The Role of Extra-Suprachiasmatic Nucleus Brain Clocks in Circadian Regulation of Brain Function: Time Matters!	Symposium		Ballroom B	8:30–11 a.m.	2.5
643	Hormonal and Neuropeptide Control of Physiology and Behavior	Nanosymposium		152A	8–10:30 a.m.	
695	Neuroimmune Responses and Behavior	Poster	LL32–MM21	Halls A–C	8 a.m.–noon	
696	The Blood Brain Barrier in Health and Disease	Poster	MM22–NN20	Halls A–C	8 a.m.–noon	
727	Deep-Layer Projection Neurons of the Neocortex: Specialized Subpopulations Exhibiting Distinct Integration and Output	Minisymposium		151B	1:30–4 p.m.	2.5
734	Interrogating Neurovascular-Coupling in Functional Imaging	Nanosymposium		147B	1–3:15 p.m.	
782	Neural Control of Social Interactions: Parental Behavior	Poster	II7–JJ2	Halls A–C	1–5 p.m.	
783	Neural Control of Social Interactions: Role of Oxytocin and Vasopressin	Poster	JJ3–JJ20	Halls A–C	1–5 p.m.	
784	Hormones and Cognition	Poster	JJ21–KK17	Halls A–C	1–5 p.m.	
785	Neuroendocrine Anatomy, Physiology, and Plasticity	Poster	KK18–LL11	Halls A–C	1–5 p.m.	
786	Sexual Differentiation	Poster	LL12–MM8	Halls A–C	1–5 p.m.	
787	Cellular and Endocrine Basis for the Effects of Stress on the Brain	Poster	MM9–NN15	Halls A–C	1–5 p.m.	
THEME G: MOTIVATION AND EMOTION / SATURDAY, NOV. 11						
008	Adolescence and Reward: Making Sense of Neural and Behavioral Changes Amid the Chaos	Minisymposium		151B	1:30–4 p.m.	2.5
017	Cellular Adaptations Produced by Cocaine	Nanosymposium		144A	1–3:15 p.m.	
073	Human Studies of Stress, PTSD, and Anxiety	Poster	KK32–LL18	Halls A–C	1–5 p.m.	

SESSION#	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	TIME	CME HOURS
074	Molecules and Circuits in Preclinical Models of Anxiety	Poster	LL19–LL31	Halls A–C	1–5 p.m.	
075	Addiction Genetics	Poster	LL32–MM18	Halls A–C	1–5 p.m.	
076	Alcohol-Related Behavior	Poster	MM19–NN13	Halls A–C	1–5 p.m.	
077	Neural Effects of Ethanol Use	Poster	NN14–OO7	Halls A–C	1–5 p.m.	
078	Cannabinoids and Marijuana	Poster	OO8–OO24	Halls A–C	1–5 p.m.	
07	Nicotine: Reinforcement, Seeking, and Reinstatement	Poster	OO25–PP2	Halls A–C	1–5 p.m.	
THEME G: MOTIVATION AND EMOTION / SUNDAY, NOV. 12						
102	Carving the World Into Useful Task Representations	Lecture		Hall D	11:30 a.m. –12:40 p.m.	1.25
110	Animal Models for Depression: Molecular and Genetic Approaches	Nanosymposium		146C	8–9:45 a.m.	
162	Motivation: Social Communication	Poster	PP3–QQ3	Halls A–C	8 a.m.–noon	
163	Treatment Mechanisms for Alcohol Use Disorder	Poster	QQ4–QQ19	Halls A–C	8 a.m.–noon	
164	Animal Models: Obsessive-Compulsive Disorder	Poster	QQ20–RR13	Halls A–C	8 a.m.–noon	
165	Animal Models of Trauma, Stress, and Anxiety I	Poster	RR14–RR33	Halls A–C	8 a.m.–noon	
242	Appetitive and Incentive Learning and Memory I	Poster	LL23–MM13	Halls A–C	1–5 p.m.	
243	Fear and Aversive Learning and Memory: Acquisition	Poster	MM14–NN4	Halls A–C	1–5 p.m.	
244	Motivation: Neural Circuits I	Poster	NN5–NN30	Halls A–C	1–5 p.m.	
245	Affective Disorders: Human Studies	Poster	NN31–OO21	Halls A–C	1–5 p.m.	
246	Animal Models for Affective Disorders: Mechanisms II	Poster	OO22–PP15	Halls A–C	1–5 p.m.	
247	Animal Models of Trauma, Stress, and Anxiety II	Poster	PP16–QQ5	Halls A–C	1–5 p.m.	
THEME G: MOTIVATION AND EMOTION / MONDAY, NOV. 13						
264	Neuroscience of Maternal Psychopathology	Minisymposium		Ballroom B	8:30–11 a.m.	2.5
278	Neurobiology of Motivated Behavior	Nanosymposium		143A	8–10:30 a.m.	
327	Appetitive and Incentive Learning and Memory II	Poster	NN33–OO14	Halls A–C	8 a.m.–noon	
328	Fear and Aversive Learning and Memory: Neural Circuits I	Poster	OO15–PP4	Halls A–C	8 a.m.–noon	
329	Motivation: Neural Circuits II	Poster	PP5–QQ5	Halls A–C	8 a.m.–noon	
330	Animal Models for Affective Disorders: Mechanisms I	Poster	QQ6–RR13	Halls A–C	8 a.m.–noon	
331	Amphetamines: Reinforcement, Seeking, and Reinstatement	Poster	RR14–SS5	Halls A–C	8 a.m.–noon	
332	Cocaine and Behavior	Poster	SS6–SS31	Halls A–C	8 a.m.–noon	
333	Cocaine and Neurotransmission	Poster	SS32–SS61	Halls A–C	8 a.m.–noon	
334	Brain Circuits Affected by Cocaine	Poster	SS62–TT25	Halls A–C	8 a.m.–noon	
348	From Salient Experience to Learning and Memory: Instructive Signals for Aversion and Reward	Symposium		Ballroom B	1:30–4 p.m.	2.5
363	Corticolimbic Circuits in Emotion and Psychiatric Disorders	Nanosymposium		150A	1–3:15 p.m.	
417	Fear and Aversive Learning and Memory: Modulation	Poster	QQ21–RR16	Halls A–C	1–5 p.m.	
418	Reward: Dopamine and Learning	Poster	RR17–SS9	Halls A–C	1–5 p.m.	
419	Eating Disorders	Poster	SS10–SS22	Halls A–C	1–5 p.m.	
420	Circuit and Molecular Mechanisms of Memory in Addiction	Poster	SS23–SS38	Halls A–C	1–5 p.m.	
421	Opioids and Behavior	Poster	SS39–SS54	Halls A–C	1–5 p.m.	
422	Opioid Cellular Physiology	Poster	SS55–TT11	Halls A–C	1–5 p.m.	
THEME G: MOTIVATION AND EMOTION / TUESDAY, NOV. 12						
444	Functional Diversity of Prefrontal Cortical Regions and Networks	Minisymposium		151B	8:30–11 a.m.	2.5
457	Therapeutics for Affective Disorders: Development, Delivery, and Animal Models	Nanosymposium		147B	8–10:15 a.m.	
511	Striatal Circuits in Behavior	Poster	PP20–QQ11	Halls A–C	8 a.m.–noon	
512	Reward: Motivational Mechanisms	Poster	QQ12–RR9	Halls A–C	8 a.m.–noon	
513	Fear and Aversive Learning and Memory: Neural Circuits II	Poster	RR10–RR25	Halls A–C	8 a.m.–noon	
514	Circuits Underlying Emotional States	Poster	RR26–SS18	Halls A–C	8 a.m.–noon	
515	Treatment Mechanisms for Substance Use Disorders	Poster	SS19–SS32	Halls A–C	8 a.m.–noon	
516	Regulation of Ethanol Intake	Poster	SS32–SS44	Halls A–C	8 a.m.–noon	

SESSION#	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	TIME	CME HOURS
517	Comorbidity and Risk Factors for Alcohol Use Disorder	Poster	SS45–SS58	Halls A–C	8 a.m.–noon	
518	Sexual Dimorphism and Reproductive-Cycle Effects on Alcohol Use	Poster	SS59–TT3	Halls A–C	8 a.m.–noon	
535	Circuit and Synaptic Plasticity Mechanisms of Drug Relapse	Symposium		Ballroom B	1:30–4 p.m.	2.5
551	Animal Models for Depression: Behavioral and Chemical Approaches	Nanosymposium		147B	1–3 p.m.	
605	Fear and Aversive Learning and Memory: Extinction	Poster	OO28–PP3	Halls A–C	1–5 p.m.	
606	Reward: Neuropharmacology	Poster	PP4–PP17	Halls A–C	1–5 p.m.	
607	Motivation: Cortical Neurocircuitry	Poster	PP18–PP27	Halls A–C	1–5 p.m.	
608	Emotional Processes	Poster	PP28–QQ22	Halls A–C	1–5 p.m.	
609	Ketamine as an Antidepressant	Poster	RR1–RR18	Halls A–C	1–5 p.m.	
610	Novel Drugs and Treatments for Affective Disorders	Poster	RR19–SS11	Halls A–C	1–5 p.m.	
611	Depression and Antidepressants: Mechanism	Poster	SS12–SS35	Halls A–C	1–5 p.m.	
612	Drug Delivery	Poster	SS36–SS48	Halls A–C	1–5 p.m.	
613	Animal Models for Affective Disorders: Therapeutics	Poster	SS49–TT12	Halls A–C	1–5 p.m.	
THEME G: MOTIVATION AND EMOTION / WEDNESDAY, NOV. 15						
630	Updated Perspectives on the Direct– and Indirect– Pathways in Neuropsychiatric Disorders	Minisymposium		Ballroom C	8:30–11 a.m.	2.5
644	Translational Studies With Opioids	Nanosymposium		143A	8–9:45 a.m.	
697	Motivation: Subcortical Neurocircuitry	Poster	NN21–OO9	Halls A–C	8 a.m.–noon	
698	Emotional States: Anxiety and Pain	Poster	OO10–OO32	Halls A–C	8 a.m.–noon	
699	Emotional States	Poster	OO33–PP19	Halls A–C	8 a.m.–noon	
700	Emotional States: Empathy	Poster	PP20–PP29	Halls A–C	8 a.m.–noon	
701	Behavioral Effects in Preclinical Models of Anxiety	Poster	QQ1–QQ12	Halls A–C	8 a.m.–noon	
702	Developmental Effects of Addictive Drugs	Poster	QQ13–RR7	Halls A–C	8 a.m.–noon	
703	Amphetamines: Neural Mechanisms of Addiction	Poster	RR8–RR27	Halls A–C	8 a.m.–noon	
704	Cocaine Seeking and Reinstatement I	Poster	RR28–SS17	Halls A–C	8 a.m.–noon	
735	Motivation: Subcortical Neurocircuitry	Nanosymposium		146C	1–4:30 p.m.	
788	Reward: Dopamine, Pharmacology, and Pathophysiology	Poster	NN16–NN32	Halls A–C	1–5 p.m.	
789	Motivation: Primates	Poster	NN32–OO12	Halls A–C	1–5 p.m.	
790	Circuits Underlying Emotional States: Amygdala	Poster	OO13–OO36	Halls A–C	1–5 p.m.	
791	Emotional States: Fear	Poster	PP1–PP22	Halls A–C	1–5 p.m.	
792	Treatment Mechanisms for Anxiety Disorders	Poster	PP23–QQ4	Halls A–C	1–5 p.m.	
793	Addiction and Behavior	Poster	QQ5–RR5	Halls A–C	1–5 p.m.	
794	Learning, Memory, and Addiction: Behavioral Studies	Poster	RR6–RR26	Halls A–C	1–5 p.m.	
795	Cocaine Reinforcement	Poster	RR27–SS7	Halls A–C	1–5 p.m.	
796	Cocaine Seeking and Reinstatement II	Poster	SS8–SS22	Halls A–C	1–5 p.m.	
797	Nicotine: Neural Mechanisms of Addiction	Poster	SS23–SS47	Halls A–C	1–5 p.m.	
THEME H: COGNITION / SATURDAY, NOV. 11						
003	Neuronal Adaptation and Behavioral Performance in Perceptual and Economic Decisions	Symposium		Ballroom A	1:30–4 p.m.	2.5
018	Perceptual and Spatial Human Learning	Nanosymposium		143A	1–3:15 p.m.	
019	Learning and Memory in Aging	Nanosymposium		152A	1–4:30 p.m.	
020	Genetic and Genomic Studies of Schizophrenia	Nanosymposium		146C	1–3:30 p.m.	
080	Working Memory: How Memory Works	Poster	PP3–PP26	Halls A–C	1–5 p.m.	
081	Learning and Memory: Physiology	Poster	PP27–QQ8	Halls A–C	1–5 p.m.	
082	Learning and Memory: Aging, Circuits, and Molecules	Poster	QQ9–RR8	Halls A–C	1–5 p.m.	
083	Hippocampal Circuits and Oscillations in Learning and Memory	Poster	RR9–RR35	Halls A–C	1–5 p.m.	
084	Cortical and Hippocampal Circuits: Spatial Navigation	Poster	RR36–SS28	Halls A–C	1–5 p.m.	
085	Perception and Imagery	Poster	SS29–SS59	Halls A–C	1–5 p.m.	
086	Human Long-Term Memory in Children and in the Elderly	Poster	SS60–TT7	Halls A–C	1–5 p.m.	
087	Understanding and Producing Language in Health and Disease	Poster	TT8–TT25	Halls A–C	1–5 p.m.	

SESSION#	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	TIME	CME HOURS
088	Computational Models of Decision Making	Poster	TT26–TT51	Halls A–C	1–5 p.m.	
089	Individual Differences	Poster	TT52–UU8	Halls A–C	1–5 p.m.	
THEME H: COGNITION / SUNDAY, NOV. 12						
099	Computational Psychiatry: Multiscale Models of Mental Illnesses	Minisymposium		146A	8:30–11 a.m.	2.5
101	Using Memory to Guide Decisions	Lecture		Hall D	10–11:10 a.m.	1.25
111	Attention Networks	Nanosymposium		150A	8–10:45 a.m.	
112	Mapping Language Onto Structure	Nanosymposium		147B	8–11 a.m.	
166	Learning and Memory: Hippocampal-Prefrontal-Basal Forebrain Interactions	Poster	RR34–SS15	Halls A–C	8 a.m.–noon	
167	Human Long-Term Memory: Declarative	Poster	SS16–SS27	Halls A–C	8 a.m.–noon	
168	Human Long-Term Memory: Brain Stimulation and Neural Prostheses	Poster	SS28–SS45	Halls A–C	8 a.m.–noon	
169	Human Long-Term Memory: Encoding	Poster	SS46–TT8	Halls A–C	8 a.m.–noon	
170	Memory Modulation: From Stimulation to Functional Connectivity	Poster	TT9–TT27	Halls A–C	8 a.m.–noon	
171	Decision Making and Reasoning: Value and Effort-Based Decisions	Poster	TT28–TT56	Halls A–C	8 a.m.–noon	
172	Social Cognition	Poster	TT57–UU4	Halls A–C	8 a.m.–noon	
173	Schizophrenia: Pathophysiology and Therapeutics	Poster	UU5–UU21	Halls A–C	8 a.m.–noon	
180	New Breakthroughs in Understanding the Role of Functional Interactions Between the Neocortex and the Claustrum	Minisymposium		Ballroom C	1:30–4 p.m.	2.5
194	Memory Retrieval	Nanosymposium		150A	1–3 p.m.	
195	Corticolimbic Circuits in Decision Making	Nanosymposium		150B	1–3:45 p.m.	
248	Cortical Circuits and Behavior	Poster	QQ6–QQ18	Halls A–C	1–5 p.m.	
249	Prefrontal Cortex: Physiology of Decision Making	Poster	QQ19–RR20	Halls A–C	1–5 p.m.	
250	Prefrontal Cortex and Reward	Poster	RR21–SS1	Halls A–C	1–5 p.m.	
251	Prefrontal Cortex and Decision Making	Poster	SS2–SS26	Halls A–C	1–5 p.m.	
252	Learning and Memory: Hippocampal Circuits	Poster	SS27–SS55	Halls A–C	1–5 p.m.	
253	Learning and Memory: Hippocampal Representations	Poster	SS56–TT10	Halls A–C	1–5 p.m.	
254	Learning and Memory: Limbic Circuits	Poster	TT11–TT36	Halls A–C	1–5 p.m.	
255	Cognitive Control in a Clinical Population	Poster	TT37–TT53	Halls A–C	1–5 p.m.	
256	Rhythm and Timing	Poster	TT54–UU2	Halls A–C	1–5 p.m.	
257	Timing, Rhythm, and Sequencing	Poster	UU3–UU15	Halls A–C	1–5 p.m.	
258	Schizophrenia: Developmental Models	Poster	UU16–UU41	Halls A–C	1–5 p.m.	
THEME H: COGNITION / MONDAY, NOV. 13						
265	Beyond Place Cells: Recent Surprises From Hippocampal Neurophysiology	Minisymposium		Ballroom C	8:30–11 a.m.	2.5
279	Chemogenetics in Rodents and Primates	Nanosymposium		144A	8–10:45 a.m.	
280	Perception and Imagery: Semantic and Abstract Representation	Nanosymposium		152A	8–10:45 a.m.	
281	Mechanisms of Working Memory	Nanosymposium		156	8–10 a.m.	
335	Cortical and Allocortical Mechanisms of Attention	Poster	TT26–TT50	Halls A–C	8 a.m.–noon	
336	Cortical Systems and Mechanisms of Disease	Poster	TT51–TT61	Halls A–C	8 a.m.–noon	
337	Executive Function: Inhibitory Control	Poster	TT62–UU7	Halls A–C	8 a.m.–noon	
338	Human Long-Term Memory: Medial Temporal Lobe	Poster	UU8–UU34	Halls A–C	8 a.m.–noon	
339	Computational Approaches to Understanding Interactions Between Short- and Long-Term Memory	Poster	UU35–UU49	Halls A–C	8 a.m.–noon	
340	The Human Language Singularity	Poster	UU50–UU74	Halls A–C	8 a.m.–noon	
341	Pharmacology in Schizophrenia Models	Poster	UU75–VV13	Halls A–C	8 a.m.–noon	
364	Network, Synaptic, and Molecular Mechanisms of Learning and Memory	Nanosymposium		143A	1–3 p.m.	
365	Perception and Imagery: Visual Awareness	Nanosymposium		156	1–4 p.m.	
423	Information Processing, Decision Making, and Reinforcement	Poster	TT12–TT37	Halls A–C	1–5 p.m.	
424	Memory Consolidation and Reconsolidation: From Epigenetics to Gestation	Poster	TT38–TT53	Halls A–C	1–5 p.m.	

SESSION#	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	TIME	CME HOURS
425	Learning and Memory: Hippocampal-Parahippocampal-Limbic Interactions	Poster	TT54–UU13	Halls A–C	1–5 p.m.	
426	Learning and Memory: Hippocampal CA2 and Social Learning	Poster	UU14–UU26	Halls A–C	1–5 p.m.	
427	Hippocampal and Cortical Circuits Mediating Learning and Memory	Poster	UU27–UU38	Halls A–C	1–5 p.m.	
428	Learning and Memory: Molecules and Mechanisms I	Poster	UU39–UU63	Halls A–C	1–5 p.m.	
429	Learning and Memory: Pharmacology	Poster	UU64–VV1	Halls A–C	1–5 p.m.	
430	Neuromodulation and Working Memory	Poster	VV2–VV14	Halls A–C	1–5 p.m.	
431	Memory Encoding and Retrieval Processes	Poster	VV15–VV43	Halls A–C	1–5 p.m.	
432	Visual Working Memory	Poster	VV44–VV55	Halls A–C	1–5 p.m.	
433	Working Memory	Poster	VV56–VV74	Halls A–C	1–5 p.m.	
434	Genetic and Genomic Studies of Schizophrenia	Poster	VV75–VV87	Halls A–C	1–5 p.m.	
435	Human and Animal Studies of Circuits and Systems in Schizophrenia	Poster	VV88–WW16	Halls A–C	1–5 p.m.	
THEME H: COGNITION / TUESDAY, NOV. 14						
458	Social Decision-Making	Nanosymposium		150A	8–11 a.m.	
519	The Hippocampal Horizon: Memory Consolidation and Reconsolidation Across Structures	Poster	TT4–TT33	Halls A–C	8 a.m.–noon	
520	Modeling Cognitive Impairments: Mechanistic Insights and New Interventions	Poster	TT34–TT54	Halls A–C	8 a.m.–noon	
521	Invertebrate Learning and Memory	Poster	TT55–UU3	Halls A–C	8 a.m.–noon	
522	Learning and Memory: Neural Circuits	Poster	UU4–UU32	Halls A–C	8 a.m.–noon	
523	Spatial Navigation: Grid and Place Cells	Poster	UU33–UU61	Halls A–C	8 a.m.–noon	
524	Cognitive Development	Poster	UU62–UU79	Halls A–C	8 a.m.–noon	
525	Human Motor and Sequence Learning	Poster	UU80–VV15	Halls A–C	8 a.m.–noon	
526	Aging and Memory	Poster	VV16–VV25	Halls A–C	8 a.m.–noon	
527	Cognitive Aging	Poster	VV26–VV52	Halls A–C	8 a.m.–noon	
538	Neural Circuits Supporting Cognitive Maps for Goal-Directed Behavior	Minisymposium		146A	1:30–4 p.m.	2.5
552	Functional Basis of Attention	Nanosymposium		150B	1–3:15 p.m.	
614	Learning and Memory: Molecules and Mechanisms II	Poster	TT13–TT38	Halls A–C	1–5 p.m.	
615	Cortical and Hippocampal Circuits: Timing and Temporal Processing	Poster	TT39–UU2	Halls A–C	1–5 p.m.	
616	Navigating Through Space: Grid and Place Cells	Poster	UU3–UU22	Halls A–C	1–5 p.m.	
617	Human Perceptual and Spatial Learning	Poster	UU23–UU38	Halls A–C	1–5 p.m.	
618	Functional Mechanisms of Attention	Poster	UU38–UU59	Halls A–C	1–5 p.m.	
619	Cognitive Control and Performance	Poster	UU60–VV6	Halls A–C	1–5 p.m.	
620	Decision Making and Reasoning	Poster	VV7–VV30	Halls A–C	1–5 p.m.	
THEME H: COGNITION / WEDNESDAY, NOV. 15						
634	Emerging Neuroimaging Biomarkers for Schizophrenia	Basic–Translational Clinical Roundtable		206	8:30–11 a.m.	
636	Building Models of the World for Behavioral Control	Lecture		Hall D	11:30 a.m.–12:40 p.m.	1.25
645	Cognitive Development and Numerical Cognition	Nanosymposium		156	8–10 a.m.	
646	Human Studies of Circuits and Systems in Schizophrenia and in First Episode Psychosis	Nanosymposium		147A	8–10:45 a.m.	
705	Cortical and Thalamic Circuits	Poster	SS18–SS34	Halls A–C	8 a.m.–noon	
706	Executive Function in Learning and Memory	Poster	SS35–SS56	Halls A–C	8 a.m.–noon	
707	Learning: From Model Systems to Modeling	Poster	SS57–TT4	Halls A–C	8 a.m.–noon	
708	Focal and Brain-Wide Network Activity	Poster	TT5–TT15	Halls A–C	8 a.m.–noon	
709	Learning and Memory: Cortical-Hippocampal Interactions	Poster	TT16–TT41	Halls A–C	8 a.m.–noon	
710	Hippocampal Circuits Involved in Learning and Memory	Poster	TT42–UU4	Halls A–C	8 a.m.–noon	
711	Learning and Memory: Hippocampal Circuits in Disease Models	Poster	UU5–UU15	Halls A–C	8 a.m.–noon	

SESSION#	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	TIME	CME HOURS
712	Learning and Memory: Aging and Behavior	Poster	UU16–UU42	Halls A–C	8 a.m.–noon	
713	Perceptual Decision Making	Poster	UU43–UU57	Halls A–C	8 a.m.–noon	
714	Social and Emotional Processes	Poster	UU58–UU79	Halls A–C	8 a.m.–noon	
715	Clinical and Animal Studies of the Symptoms of Schizophrenia	Poster	UU80–VV19	Halls A–C	8 a.m.–noon	
724	Neural Correlates of Consciousness: Progress and Problems	Symposium		Ballroom B	1:30–4 p.m.	2.5
736	Self-Control and Decision Making	Nanosymposium		145B	1–4:30 p.m.	
737	Individual Differences in Cognition and Behavior	Nanosymposium		144A	1–4:15 p.m.	
738	Schizophrenia: The Immune System	Nanosymposium		156	1–3:15 p.m.	
798	Molecules, Mechanisms, and Models for Memory Consolidation and Reconsolidation	Poster	SS48–SS61	Halls A–C	1–5 p.m.	
799	Neural Circuit Mechanisms for Memory	Poster	SS62–TT12	Halls A–C	1–5 p.m.	
800	Neuromolecular Clues to Learning and Memory	Poster	TT13–TT31	Halls A–C	1–5 p.m.	
801	Learning: Reward, Feedback, and Neurofeedback	Poster	TT32–TT61	Halls A–C	1–5 p.m.	
802	Human Medial Temporal Lobe and Spatial Learning	Poster	TT62–UU7	Halls A–C	1–5 p.m.	
803	Memory Processes	Poster	UU8–UU37	Halls A–C	1–5 p.m.	
804	Visual and Auditory Attention	Poster	UU38–UU50	Halls A–C	1–5 p.m.	
805	Attention Circuits	Poster	UU51–UU69	Halls A–C	1–5 p.m.	
806	Executive Processes	Poster	UU70–VV3	Halls A–C	1–5 p.m.	
807	Schizophrenia and Bipolar Disorder: Cellular and Circuit Mechanisms	Poster	VV4–VV25	Halls A–C	1–5 p.m.	
THEME I: TECHNIQUES / SATURDAY, NOV. 11						
007	Nonhuman Primate Optogenetics: Recent Advances and Future Directions	Minisymposium		146A	1:30–4 p.m.	2.5
090	Electrode Arrays	Poster	UU8–8837	Halls A–C	1–5 p.m.	
091	Modeling	Poster	UU38–UU50	Halls A–C	1–5 p.m.	
092	Spiking and Oscillation Models	Poster	UU51–UU74	Halls A–C	1–5 p.m.	
093	Functional Monitoring and Stimulation	Poster	UU75–VV13	Halls A–C	1–5 p.m.	
THEME I: TECHNIQUES / SUNDAY, NOV. 12						
113	Optical Methods for Connectivity	Nanosymposium		150B	8–10:15 a.m.	
174	Systems Biology and Bioinformatics	Poster	UU22–UU52	Halls A–C	8 a.m.–noon	
175	Connectomics: Automatic Tracing Techniques	Poster	UU53–UU77	Halls A–C	8 a.m.–noon	
176	Neurocomputational Limits	Poster	UU78–VV4	Halls A–C	8 a.m.–noon	
196	Methods for Combined Analysis of Genetic Information	Nanosymposium		152B	1–3:15 p.m.	
259	Mouse Connectomics	Poster	UU42–UU60	Halls A–C	1–5 p.m.	
260	Data Analysis and Statistics: Human Data I	Poster	UU61–VV3	Halls A–C	1–5 p.m.	
THEME I: TECHNIQUES / MONDAY, NOV. 13						
266	Open-Source Hardware for Neuroscience Research	Minisymposium		145B	8:30–11 a.m.	2.5
342	Connectomics: Anatomical Techniques	Poster	VV14–VV40	Halls A–C	8 a.m.–noon	
343	Electrophysiological Techniques	Poster	VV41–VV68	Halls A–C	8 a.m.–noon	
344	Large-Scale, Deep, and High-Speed Functional Light Microscopy	Poster	VV69–WW3	Halls A–C	8 a.m.–noon	
345	Methods: Physiology and Circuitry I	Poster	WW4–WW20	Halls A–C	8 a.m.–noon	
346	Data Analysis and Statistics: Neuronal Networks	Poster	WW21–WW50	Halls A–C	8 a.m.–noon	
352	Innovative Approaches for Multimodal Neural Interfaces	Minisymposium		151B	1:30–4 p.m.	2.5
436	Staining and Imaging Techniques	Poster	WW17–WW29	Halls A–C	1–5 p.m.	
437	Optical Methods for Functional Circuit Analysis *In Vivo*	Poster	WW30–WW54	Halls A–C	1–5 p.m.	
THEME I: TECHNIQUES / TUESDAY, NOV. 14						
440	Exciting New Tools and Technologies Emerging From the BRAIN Initiative	Symposium		Ballroom C	8:30–11 a.m.	2.5

SESSION#	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	TIME	CME HOURS
528	Optical Physiology, Electrodes, and Light Shaping	Poster	VV53–VV65	Halls A–C	8 a.m.–noon	
529	Methods: Physiology and Circuitry II	Poster	VV66–VV82	Halls A–C	8 a.m.–noon	
530	Machine Learning	Poster	VV83–WW4	Halls A–C	8 a.m.–noon	
531	Computational Tools for Circuit Mapping	Poster	WW5–WW17	Halls A–C	8 a.m.–noon	
532	Software Tools I	Poster	WW18–WW42	Halls A–C	8 a.m.–noon	
533	Artificial Intelligence and Imagination: Exploring the Frontiers of Knowledge	Lecture		Hall D	1–2:10 p.m.	1.25
621	RNA and Gene Expression Techniques	Poster	VV31–VV42	Halls A–C	1–5 p.m.	
622	Connectomics: Molecular Techniques	Poster	VV43–VV56	Halls A–C	1–5 p.m.	
623	Neurophysiology: Humans	Poster	VV57–VV76	Halls A–C	1–5 p.m.	
624	Histological Approaches: Brain Clearing, Expansion, and Reconstruction	Poster	VV77–WW7	Halls A–C	1–5 p.m.	
625	Novel Approaches in Neurodegeneration and Stroke	Poster	WW8–WW33	Halls A–C	1–5 p.m.	
626	Data Analysis and Statistics: Human Data II	Poster	WW34–WW54	Halls A–C	1–5 p.m.	
THEME I: TECHNIQUES / WEDNESDAY, NOV. 15						
627	Tools for Optically Monitoring Neural Activity and Signaling Pathways	Lecture		Hall D	8:30–9:40 a.m.	1.25
647	Methods: Non-Invasive Stimulation	Nanosymposium		152B	8–10:30 a.m.	
716	Biochemical and Signaling Techniques	Poster	VV20–VV32	Halls A–C	8 a.m.–noon	
717	Optogenetics Methods	Poster	VV33–VV62	Halls A–C	8 a.m.–noon	
718	Clinical Computational Models	Poster	VV63–VV73	Halls A–C	8 a.m.–noon	
719	Cortical and Hippocampal Network Models	Poster	VV74–VV88	Halls A–C	8 a.m.–noon	
720	Simple Biological Models for Neurocomputational Analysis	Poster	VV89–WW6	Halls A–C	8 a.m.–noon	
721	Software Tools II	Poster	WW7–WW28	Halls A–C	8 a.m.–noon	
725	After the Data Deluge: Grappling With Transcriptional Complexity in the Brain	Minisymposium		Ballroom C	1:30–4 p.m.	2.5
739	Transcranial Magnetic Stimulation	Nanosymposium		147A	1–4:30 p.m.	
808	Methods: Non-Invasive Stimulation	Poster	VV26–VV42	Halls A–C	1–5 p.m.	
809	Optical Probes: Functional Readouts	Poster	VV43–VV69	Halls A–C	1–5 p.m.	
810	Optical Methods: Unlabeled Tissues, Endogenous Probes, and Imaging-Differentiated Stem Cells	Poster	VV70–VV83	Halls A–C	1–5 p.m.	
811	CRISPR-Cas9 Mediated Genome Editing Techniques	Poster	VV84–WW2	Halls A–C	1–5 p.m.	
812	Viral Techniques and Monitoring Neuronal Function	Poster	WW3–WW17	Halls A–C	1–5 p.m.	
813	Biophysically-Detailed Models	Poster	WW18–WW37	Halls A–C	1–5 p.m.	
814	Database Tools	Poster	WW38–WW47	Halls A–C	1–5 p.m.	
THEME J: HISTORY AND EDUCATION / SATURDAY, NOV. 11						
021	History of Neuroscience	Theme J Poster	VV14–VV29	Halls A–C	1–5 p.m.	
022	Teaching of Neuroscience: K–12	Theme J Poster	VV30–VV42	Halls A–C	1–5 p.m.	
023	Teaching Neuroscience in College I	Theme J Poster	VV43–VV67	Halls A–C	1–5 p.m.	
024	Teaching Neuroscience in College II	Theme J Poster	VV68–VV88	Halls A–C	1–5 p.m.	
025	Teaching Neuroscience As A Part of Graduate Education	Theme J Poster	VV89–WW6	Halls A–C	1–5 p.m.	
026	Neuroscience Outreach Activities I	Theme J Poster	WW7–WW31	Halls A–C	1–5 p.m.	
THEME J: HISTORY AND EDUCATION / SUNDAY, NOV. 12						
027	Neuroscience Outreach Activities II	Theme J Poster	WW32–WW48	Halls A–C	8 a.m.–noon	
028	Ethical and Policy Issues in Neuroscience	Theme J Poster	WW49–WW61	Halls A–C	8 a.m.–noon	
183	The Science of Storytelling and Storytelling in Science	Minisymposium		151B	1:30–4 p.m.	

SESSION #	SESSION TITLE	SESSION TYPE	LOCATION	TIME
SFN PRE-CONFERENCE SESSIONS / FRIDAY, NOV. 10				
SPC01	Neurobiology of Disease Workshop: Gene Therapy to Address Unmet Needs in Neurology	SfN Pre-Conference Session	146C	8 a.m.–5 p.m.
SPC02	Short Course 2: Neuroinformatics in the Age of Big Data: Working With the Right Data and Tools	SfN Pre-Conference Session	Ballroom B	8 a.m.–6 p.m.
SPC03	Short Course 1: Intersections Between the Brain and Immune System in Health and Disease	SfN Pre-Conference Session	Ballroom A	8:30 a.m.–6 p.m.
SPC04	Short Course 3: Neuroethics and Public Engagement: Why, How, and Best Practices	SfN Pre-Conference Session	206	1–5:30 p.m.
SFN PRE-CONFERENCE SESSIONS / SATURDAY, NOV. 11				
SPC05	Meet-the-Expert, Session 1	SfN Pre-Conference Session	Renaissance Washington, DC Downtown Hotel	8–9:15 a.m.
SPC06	Meet-the-Expert, Session 2	SfN Pre-Conference Session	Renaissance Washington, DC Downtown Hotel	9:30–10:45 a.m.
PROFESSIONAL DEVELOPMENT WORKSHOPS / SATURDAY, NOV. 11				
PDW01	Careers in Translational Drug Discovery	Professional Development Workshop	207A	9–11 a.m.
PDW02	Global Approaches for Collaboration and Networking	Professional Development Workshop	207B	9–11 a.m.
PDW03	Incorporating Public Engagement Into Your Professional Portfolio: A Practical Guide	Professional Development Workshop	207B	Noon–2 p.m.
PDW04	News You Can Use in Writing Grant Applications: Updates From NIH	Professional Development Workshop	207A	Noon–2 p.m.
PDW05	How to be Successful in a Career in Academia	Professional Development Workshop	207A	3–5 p.m.
PDW06	Research Mentor Training for Neuroscience Faculty	Professional Development Workshop	207B	3–5 p.m.
PROFESSIONAL DEVELOPMENT WORKSHOPS / SUNDAY, NOV. 12				
PDW07	FAIR Data, Metadata, and Data Sharing in Neurotrauma	Professional Development Workshop	207B	9–11 a.m.
PDW08	Navigating Career Transitions in Neuroscience	Professional Development Workshop	207A	9–11 a.m.
PDW09	A Practical Guide to Science Communication	Professional Development Workshop	207B	Noon–2 p.m.
PDW10	Funding Opportunities to Build Interdisciplinary Neuroscience Research for the Future	Professional Development Workshop	207A	Noon–2 p.m.
PDW11	Addressing Issues Facing Women in the Early Stages of Their Scientific Career	Professional Development Workshop	207A	3–5 p.m.
PDW12	Neuroscience Department and Programs Workshop: Trends in Neuroscience Training: A Discussion of the SfN NDP Survey Results	Professional Development Workshop	207B	3–5 p.m.
PROFESSIONAL DEVELOPMENT WORKSHOPS / MONDAY, NOV. 13				
PDW13	Evidence-Based Approaches to Teaching Neuroscience	Professional Development Workshop	207A	9–11 a.m.
PDW14	The Power of Effective Storytelling: Communicating the Value of Brain Research	Professional Development Workshop	207B	9–11 a.m.
PDW15	Improving Your Science: Sample-Size Planning, Pre-Registration, and Reproducible Data Analysis	Professional Development Workshop	207B	Noon–2 p.m.

SESSION #	SESSION TITLE	SESSION TYPE	LOCATION	TIME
MEETINGS AND EVENTS / SATURDAY, NOV. 11				
ME01	NeuroJobs Career Center	Meetings and Events	West Salon	7:30 a.m.–5 p.m.
ME02	Meeting Mobile App Tutorial	Meetings and Events	103A	10–11 a.m.
ME03	Graduate School Fair	Meetings and Events	Hall E	1–3 p.m.
ME04	Brain Awareness Campaign Event: Opening Channels to Brain Awareness	Meetings and Events	Hall E	2:30–4 p.m.
ME05	Diversity Fellows Poster Session	Meetings and Events	Hall E	6:30–8:30 p.m.
ME06	International Fellows Poster Session	Meetings and Events	Hall E	6:30–8:30 p.m.
ME07	Trainee Professional Development Awards Poster Session	Meetings and Events	Hall E	6:30–8:30 p.m.
ME08	Career Development Topics: A Networking Event	Meetings and Events	Hall E	7:30–9:30 p.m.
MEETINGS AND EVENTS / SUNDAY, NOV. 12				
ME09	NeuroJobs Career Center	Meetings and Events	West Salon	7:30 a.m.–5 p.m.
ME10	SfN Chapters Workshop: Strategic Messaging Via Social Media: How to Disseminate Neuroscience to the Public and Policymakers	Meetings and Events	103A	11:30 a.m.–1 p.m.
ME11	Graduate School Fair	Meetings and Events	Hall E	Noon–2 p.m.
ME12	Social Issues Roundtable: Engaging Neuroscientists in Dialogue With Religious Communities	Meetings and Events	201	1–3 p.m.
MEETINGS AND EVENTS / MONDAY, NOV. 13				
ME13	NeuroJobs Career Center	Meetings and Events	West Salon	7:30 a.m.–5 p.m.
ME14	Animals In Research Panel: How to Effectively Communicate Your Animal Research: Elevator Speech, Social Media, and Best Practices	Meetings and Events	103A	Noon–2 p.m.
ME15	Graduate School Fair	Meetings and Events	Hall E	Noon–2 p.m.
MEETINGS AND EVENTS / TUESDAY, NOV. 14				
ME16	NeuroJobs Career Center	Meetings and Events	West Salon	7:30 a.m.–5 p.m.
ME17	Celebration of Women in Neuroscience Luncheon	Meetings and Events	Renaissance Washington, DC, Downtown Hotel, Grand Ballroom North	Noon–2 p.m.
ME18	Graduate School Fair	Meetings and Events	Hall E	Noon–2 p.m.
ME19	Public Advocacy Forum: Advocating for Basic Science in a Disease-Focused World	Meetings and Events	201	2:30–4 p.m.
ME20	SfN Members' Business Meeting	Meetings and Events	202B	6:45–7:30 p.m.
ME21	Graduate Student Reception	Meetings and Events	Renaissance Washington, DC, Downtown Hotel, Grand Ballroom	8:30–11:30 p.m.
MEETINGS AND EVENTS / WEDNESDAY, NOV. 15				
ME22	NeuroJobs Career Center	Meetings and Events	West Salon	7:30 a.m.–3 p.m.

CLINICIAN-SCIENTISTS AND CONTINUING MEDICAL EDUCATION (CME)

Continuing Medical Education

The Society for Neuroscience (SfN) annual meeting is a forum for the education of physicians in the field of neuroscience.

By attending select lectures, symposia, minisymposia, and roundtables physicians can receive both a broad overview of the field and detailed information about the most recent advances and 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 these events, physicians can 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

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

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

Credit Designation by Format

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.

Basic-Translational Clinical Roundtables

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.

Minisymposia

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.

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.

Symposia

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.

A meeting attendee seeking Continuing Medical Education (CME) credit may use a combination of the activities described above to claim a maximum of 35 *AMA PRA Category 1 Credits™*.

CME Registration

CME registration must be completed before or during the annual meeting. An on-site processing fee of $130 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 for CME before the conclusion of the meeting will not be able to request CME credits. CME registration cannot be completed after the annual meeting. Two weeks prior to the start of the meeting, CME registrants will receive the CME Supplemental Program, which contains important information regarding the CME program, including disclosure information and instructions for how to obtain the 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, minisymposia, and clinical roundtable sessions. Call Convention Data Services at (888) 736-6690 or (508) 743-8563 to add CME to your exhibitor registration.

ACCME ACCREDITED

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 prior to the Presidential Special Lecture at 5:15 p.m. on Monday, Nov. 13, in the Walter E. Washington Convention Center, Hall D.

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 and success in mentoring female neuroscientists and facilitating their entry or retention in the field. The award will be presented during the Celebration of Women in Neuroscience Luncheon on Tuesday, Nov. 14.

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, Nov. 13, in the Walter E. Washington Convention Center, Hall D.

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, Nov. 11, in the Walter E. Washington Convention Center, Hall D. The recipient will also deliver the Jacob P. Waletzky Memorial Lecture at the NIDA mini-convention at 10:30–11:30 a.m. on Friday, Nov. 10, in the Walter E. Washington Convention Center, Room 207A.

Janett Rosenberg Trubatch Career Development Award

Support contributed by: The Trubatch Family

The Career Development Award recognizes two 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 on Tuesday, Nov. 14.

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, November 11 in the Walter E. Washington Convention Center, Hall D.

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. The award will be presented during the Celebration of Women in Neuroscience Luncheon on Tuesday, Nov. 14.

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 Monday, Nov. 13, in the Walter E. Washington Convention Center, Hall D.

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, Nov. 13, in the Walter E. Washington Convention Center, Hall D.

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 Tuesday, Nov. 14, in the Walter E. Washington Convention Center, Hall D.

Patricia Goldman-Rakic Hall of Honor Award

The Patricia Goldman-Rakic Hall of Honor is a posthumous award for a neuroscientist who pursued career excellence and exhibited dedication to the advancement of women in neuroscience. The recipient will be recognized during the Celebration of Women in Neuroscience Luncheon on Tuesday, Nov. 14.

AWARDS IN NEUROSCIENCE (CONT.)

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, Nov. 12, in the Walter E. Washington Convention Center, Hall D.

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, Nov. 12, in the Walter E. Washington Convention Center, Hall D.

Science Educator Award

Support contributed by: The Dana Foundation

The Science Educator Award honors up to two outstanding neuroscientists who have made significant contributions to educating the public about neuroscience: one who conducts education activities full-time and one who devotes his or 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 Tuesday, Nov. 14, in the Walter E. Washington Convention Center, Hall D.

SfN Chapter-of-the-Year Award

This award is given to an SfN chapter that has engaged in exceptional, innovative activities at the local and community levels and advanced the mission of the Society for Neuroscience. Awardees are selected by the Global Membership Committee. The award will be presented at the Chapters Workshop at 11:30 a.m. on Sunday, Nov. 12, in the Walter E. Washington Convention Center, Room 103.

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, Nov. 11, in the Walter E. Washington Convention Center, Hall D.

Young Investigator Award

Support contributed by: Sunovion

The Young Investigator Award recognizes the outstanding achievement 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, Nov. 13, in the Walter E. Washington Convention Center, Hall D.

SfN Professional Development Awards

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 11 countries will attend Neuroscience 2017.

SfN/JNS Travel Award

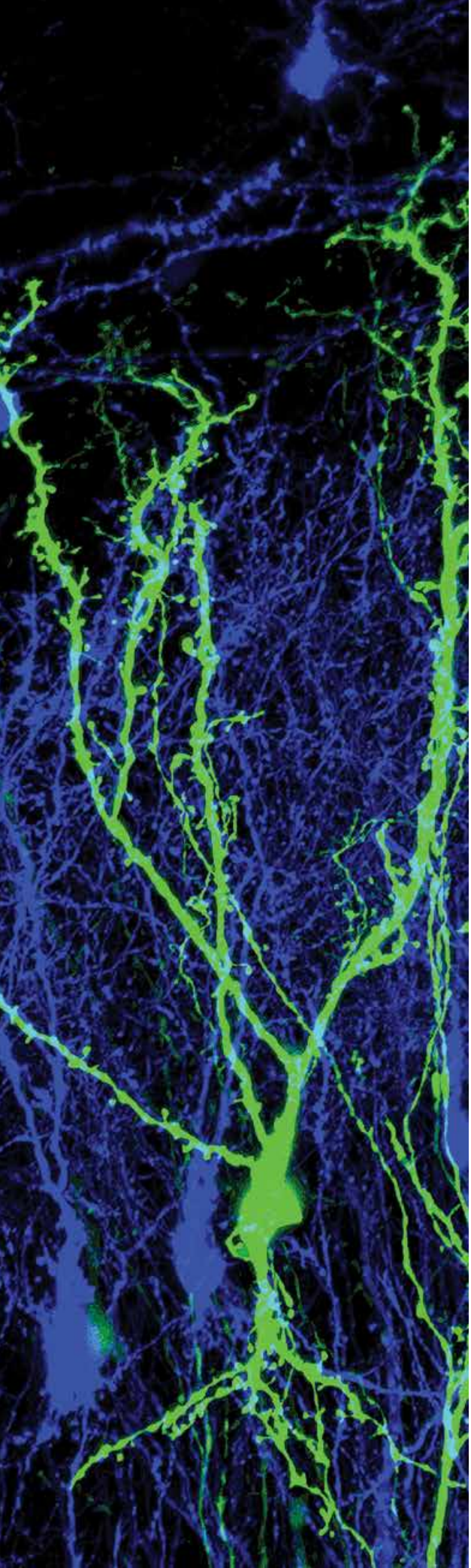
Support contributed by: John Simpson, PhD

SfN and the Japan Neuroscience Society (JNS) sponsor a joint award program allowing five trainees from Japan to attend the SfN annual meeting and five 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 Global Membership Committee and JNS.

Trainee Professional Development Awards

Support contributed by: AbbVie, Burroughs Wellcome Fund, the Friends of SfN Fund, Genentech, Inscopix, Lilly USA, Nancy Rutledge Zahniser Fund, Novartis Institutes for BioMedical Research, Pfizer, and Sanofi

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



REGISTRATION, HOTEL, AND TRAVEL

REGISTRATION

Online Discount	Opens October 4, midnight EST, and continues through the annual meeting
On-Site	Opens Nov. 11, 7:30 a.m. EST, and continues through the annual meeting

REGISTRATION CATEGORY	ONLINE DISCOUNT	ON-SITE
Member	$460	$550
Member, Category II	$195	$235
Member, Category III	$260	$305
Postdoctoral Member	$345	$415
Postdoctoral Member, Category II	$125	$145
Postdoctoral Member, Category III	$190	$230
Student Member	$230	$275
Student Member, Category II	$80	$100
Student Member, Category III	$130	$155
Student Member, Undergraduate	$115	$140
Student Member, Undergraduate Category II	$40	$50
Student Member, Undergraduate Category III	$65	$80
Nonmember	$830	$995
Student Nonmember	$415	$495
Guest, Non-Scientific	$65	$75
Continuing Medical Education CME	$110	$130

All members must be in good standing at the time of registering for the annual meeting to receive member rates. Membership status will be verified. Fees vary based on registration categories and options. Refunds will not be issued for incorrect registration category. If you choose to register under another category before your membership status is verified, the difference will not be refunded. No exceptions. If you are uncertain about your membership status, contact membership@sfn.org or call (202) 962-4911.

Accepted Forms of Payment: MasterCard, Visa, American Express, Discover, checks, or money orders in U.S. dollars drawn on a U.S. bank made payable to the Society for Neuroscience, and cash (on-site only).

Badge Reprint Fee

Attendees will incur a $25 fee for badge reprints. If you require a badge reprint, visit the Attendee Resources counter in East Salon of the Walter E. Washington Convention Center.

When to Register

Online Discount

From Wednesday, Oct. 4 through the duration of the annual meeting, discounted fees are available through 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, Nov. 10*, 2–5 p.m. EST

Saturday, Nov. 11—Wednesday, Nov. 15, 7:30 a.m.–5 p.m. EST

*Express Badge Pick-Up stations available only. Full registration services will begin Saturday, Nov. 11 at 7:30 a.m. EST.

Contact Information

sfnregistration@xpressreg.net
(888) 736-6690 (U.S. and Canada)
+1 (508) 743-8563 (International)
9 a.m.–5 p.m. EST

NAVIGATING THE MEETING

Explore all that this year's meeting has to offer with SfN's electronic meeting resources!

Curated Itineraries

Topical itineraries in the following subject areas tailor the annual meeting to your interests. Download the itineraries using the Neuroscience Meeting Planner or the annual meeting mobile app.

- Advancing Innovative Neurotechnology
- Brain and Spinal Cord Injury
- Clinical Curated Itinerary: Neurodevelopment and Disease
- Clocks and Sleep
- Decision-Making
- Mechanisms of Pain
- Microbiome/Microbiota
- Neurodegeneration
- Neuroscience of Drug Addiction
- Stress and Cognition
- Synapses

New for 2017: Trainee-Focused Curated Itineraries

New this year are two additional curated itineraries.

- Undergraduate
- Graduate/Postdoc

Created specifically for trainees by SfN's Trainee Advisory Committee, these itineraries are intended to complement the scientific itineraries. Look for them in the Neuroscience Meeting Planner and on the annual meeting mobile app.

Neuroscience Meeting Planner

Use the online Neuroscience Meeting Planner (NMP) to browse full-text abstracts, explore sessions, create itineraries, and more. Attendees can access the NMP at SfN.org/NMP or on-site in the Neuroscience Meeting Planner Viewing Area (Walter E. Washington Convention Center, East Salon).

Meeting Mobile App

Download the annual meeting mobile app to your Apple or Android devices and access annual meeting content on the go. With offline functionality, you can use the app to explore sessions and presentations and to plan your time at the annual meeting without an internet connection. The app is available in the iTunes™ Store and the Google Play™ App Store.

Meeting Mobile App Tutorial Session

Saturday, November 11, 10–11 a.m. Walter E. Washington Convention Center, 103A

To ensure attendees are able to take full advantage of the annual meeting mobile app, a user tutorial will be led by the app's developers during the meeting.

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

SfN is committed to helping the environment by reducing waste, so continuing 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.

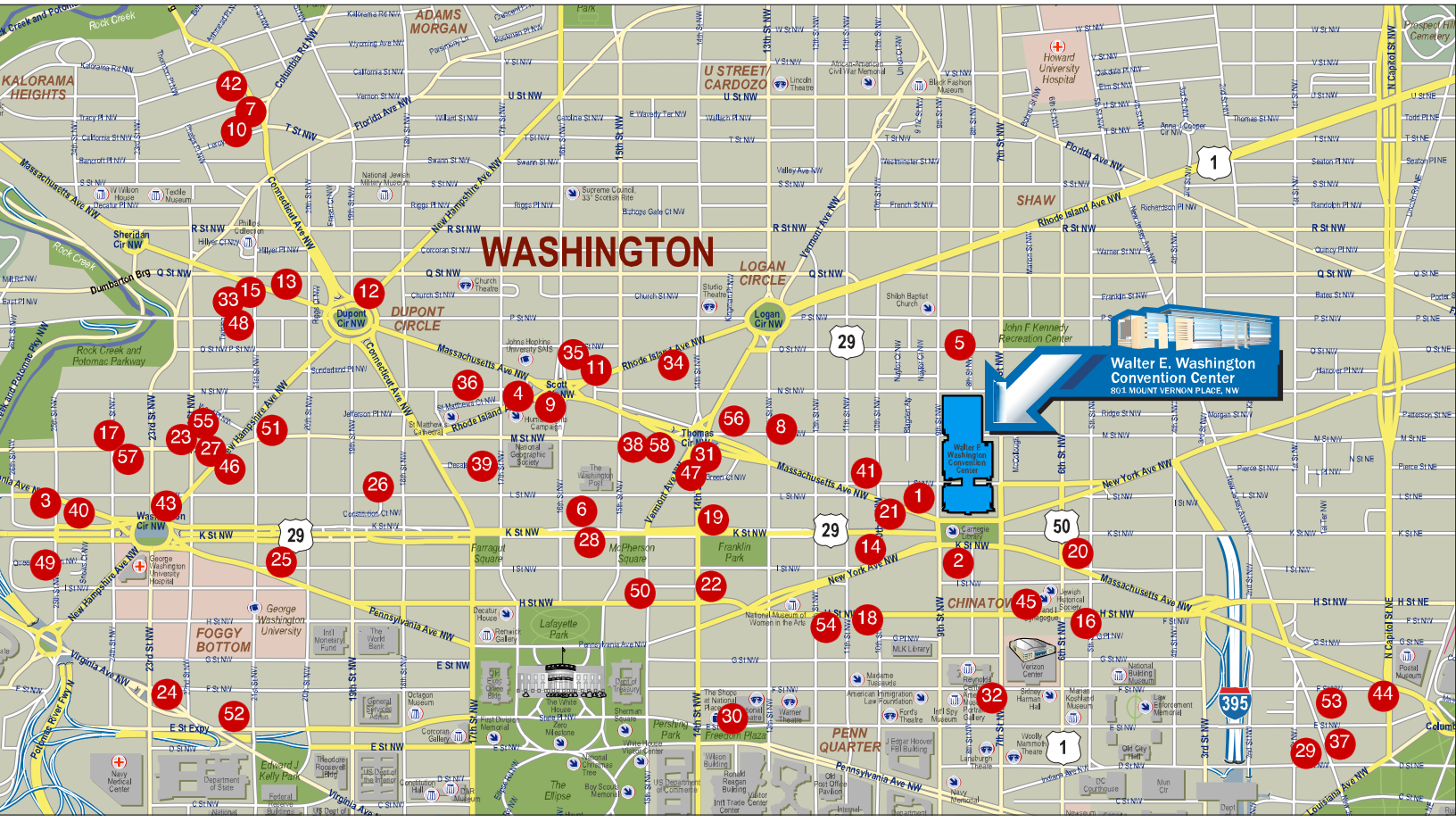
DAILY BOOK FEES	ONLINE AND ON-SITE
Full Set of Five Daily Books and Author Index, Member	$35
Full Set of Five Daily Books and Author Index, Nonmember	$45
Individual Daily Books, Member	$15
Individual Daily Books, Nonmember	$20

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 the Walter E. Washington Convention Center, East Salon, Nov. 11–15 during the following hours:

Friday, Nov. 10	2–5 p.m.	Monday, Nov.13	7:30 a.m.–5 p.m.
Saturday, Nov. 11	7:30 a.m.–5 p.m.	Tuesday, Nov.14	7:30 a.m.–5 p.m.
Sunday, Nov. 12	7:30 a.m.–5 p.m.	Wednesday, Nov.15	7:30 a.m.–3 p.m.

ON-SITE PHONE: (202) 249-4245



HOTEL LIST

#	HOTEL NAME / ADDRESS	SHUTTLE ROUTE	PICK UP POINT	METRO STATION / LINE
	CO-HEADQUARTERS HOTELS			
1	Marriott Marquis Washington, DC 901 Massachusetts Ave., NW	Walk	Walk to Washington Convention Center	Mt. Vernon Square/Green & Yellow/2 blocks
2	Renaissance Washington, DC Downtown Hotel 999 9th St., NW	Walk	Walk to Washington Convention Center	Mt. Vernon Square/Green & Yellow/2 blocks
	NON-HEADQUARTER HOTELS			
3	Avenue Suites Georgetown 2500 Pennsylvania Ave., NW	8	Walk to Melrose–on Pennsylvania Avenue	Foggy Bottom/Blue, Silver, & Orange/4 blocks
4	Beacon Hotel and Corporate Quarters 1615 Rhode Island Ave., NW	5	Front Entrance on Rhode Island Avenue	Farragut North/Red/3 blocks
5	Cambria Hotel & Suites Washington Convention Center 899 O Street St., NW	Walk	Walk to Washington Convention Center	Mt. Vernon Square/Green & Yellow/3 blocks
6	Capital Hilton 1001 16th St., NW	3	On K Street at 16th Street	Farragut North/Red/3 blocks
7	Churchill Hotel 1914 Connecticut Ave., NW	9	Curbside on Connecticut Avenue	Dupont Circle/Red/4 blocks
8	Comfort Inn Downtown DC/Convention Center 1201 13th St., NW	4	Walk to Washington Plaza	McPherson Square/Blue, Silver, & Orange/5 blocks
9	Courtyard Washington DC/Dupont Circle 1900 Connecticut Ave., NW	9	Walk to Churchill Hotel–on Connecticut Avenue	Dupont Circle/Red/4 blocks
10	Courtyard Washington Embassy Row 1600 Rhode Island Ave., NW	5	Walk to Beacon Hotel–on Rhode Island Avenue	Dupont Circle/Red/4 blocks
11	Darcy Washington DC, Curio Collection by Hilton 1515 Rhode Island Ave., NW	5	Front Entrance on Rhode Island Avenue	Dupont Circle/6 blocks
12	Dupont Circle Washington, DC 1500 New Hampshire Ave., NW	6	On Dupont Circle at New Hampshire Avenue	Dupont Circle/Red/1 block
13	Embassy Row Hotel 2015 Massachusetts Ave., NW	6	On Massachusetts Avenue at 21st Street	Dupont Circle/Red/1 block
14	Embassy Suites Washington, DC Convention Center 900 10th St., NW	Walk	Walk to Washington Convention Center	Mt. Vernon Square/Green & Yellow/3 blocks
15	Fairfax at Embassy Row 2100 Massachusetts Ave., NW	6	On Massachusetts Avenue at 21st Street	Dupont/Red/2 blocks
16	Fairfield Inn & Suites Washington, DC/Downtown 500 H St., NW	Walk	Walk to Washington Convention Center	Gallery Place/Green, Red, & Yellow/2 blocks
17	Fairmont Washington, DC, Georgetown 2401 M St., NW	8	On M Street at Side Entrance	Foggy Bottom/Blue, Silver, & Orange/5 blocks
18	Grand Hyatt Washington 1000 H St., NW	Walk	Walk to Washington Convention Center	Metro Center/Blue, Silver, Orange, & Red/2 blocks
19	Hamilton Crowne Plaza 1001 14th St, NW	3	On K Street at 14th Street	McPherson Square/Blue, Silver, & Orange/2 blocks

#	HOTEL NAME / ADDRESS	SHUTTLE ROUTE	PICK UP POINT	METRO STATION / LINE
20	Hampton Inn Washington Downtown–Convention Center 901 6th St., NW	Walk	Walk to Washington Convention Center	Mt. Vernon Square/Green & Yellow/3 blocks
21	Henley Park Hotel 926 Massachusetts Ave., NW	Walk	Walk to Washington Convention Center	Mt. Vernon Square/Green & Yellow/3 blocks
22	Hilton Garden Inn Washington, DC–Downtown 815 14th St., NW	1	Front Entrance on 14th Street	McPherson Square/Blue, Silver, & Orange/1 block
23	Hilton Garden Inn Washington, DC–Georgetown 2201 M St., NW	8	Walk to Hyatt Place– on M Street	Foggy Bottom/Blue, Silver, & Orange/5 blocks
24	Hotel Hive Micro-Hotel 2224 F St., NW	7	Walk to State Plaza Hotel	Foggy Bottom/Blue, Silver, & Orange/3 blocks
25	Hotel Lombardy 2019 Pennsylvania Ave., NW	7	Front Entrance on I Street	Foggy Bottom/Blue, Silver, & Orange/4 blocks
26	Hotel RL by Red Lion 1823 L St., NW	3	Walk to Mayflower–on Desales	Farragut North/Red/2 blocks
27	Hyatt Place Washington, DC/Georgetown 2121 M St., NW	8	Front Entrance on M Street	Foggy Bottom/Blue, Silver, & Orange/4 blocks
28	Hyatt Place Washington, DC/White House 1522 K St., NW	3	Walk to Hilton–on K Street & 16th	McPherson Square/Blue, Silver, & Orange/3 blocks
29	Hyatt Regency Washington on Capitol Hill 400 New Jersey Ave., NW	2	Front of hotel on New Jersey Avenue	Union Station/Red/3 blocks
30	JW Marriott Washington, DC 1331 Pennsylvania Ave., NW	1	Pennsylvania Avenue Entrance	Metro Center/Blue, Silver, Orange, & Red/4 blocks
31	Kimpton Donovan Hotel 1155 14th Street, NW	4	Walk to Washington Plaza	McPherson Square/Blue, Silver, & Orange/4 blocks
32	Kimpton Hotel Monaco Washington, DC 700 F St., NW	Walk	Walk to Washington Convention Center	Gallery Place/Red, Green, & Yellow/1 block
33	Kimpton Hotel Palomar 2121 P St., NW	6	On P Street at 21st Street	Dupont Circle/Red/4 blocks
34	Kimpton Mason & Rook Hotel–Downtown 1430 Rhode Island Ave., NW	5	Walk to Darcy–on Rhode Island Avenue	Dupont Circle/Red/5 blocks
35	Kimpton Rouge 1315 16th St., NW	5	Walk to Darcy–on Rhode Island Avenue	Dupont Circle/Red/4 blocks
36	Kimpton Topaz 1733 N St., NW	5	Walk to Beacon Hotel- on Rhode Island Avenue	Dupont Circle/Red/2 blocks
37	Liaison Capitol Hill DC 415 New Jersey Ave., NW	2	Walk to Hyatt–Front of Hotel	Union Station/Red/3 blocks
38	Loews Madison Hotel 1177 15th St. NW	4	Corner of M Street & 15th	McPherson Square/Blue, Silver, & Orange/3 blocks
39	Mayflower Hotel, Autograph Collection 1127 Connecticut Ave., NW	3	On Desales Street Entrance	Farragut North/Red/2 blocks

#	HOTEL NAME / ADDRESS	SHUTTLE ROUTE	PICK UP POINT	METRO STATION / LINE
40	Melrose Georgetown Hotel 2430 Pennsylvania Ave., NW	8	Front of Hotel on Pennsylvania Avenue	Foggy Bottom/Blue, Silver, & Orange/3 blocks
41	Morrison-Clark 1011 L St., NW	Walk	Walk to Washington Convention Center	Mt. Vernon Square/Green & Yellow/3 blocks
42	Normandy Hotel 2118 Wyoming Ave., NW	9	Walk to Churchill Hotel–on Connecticut Avenue	Dupont Circle/Red/5 blocks
43	One Washington Circle Hotel 1 Washington Cir., NW	8	Walk to Hyatt Place–on M Street	Foggy Bottom/Blue, Silver, & Orange/2 blocks
44	Phoenix Park Hotel 520 N. Capitol St., NW	2	Walk to Hyatt–Front of Hotel	Union Station/Red/1 block
45	Pod DC Micro-Hotel 627 H St., NW	Walk	Walk to Washington Convention Center	Gallery Place/Red, Green, & Yellow/1 block
46	Renaissance Washington, DC Dupont Circle 1143 New Hampshire Ave., NW	8	Walk to Hyatt Place–on M Street	Foggy Bottom/Blue, Silver, & Orange/4 blocks
47	Residence Inn Washington, DC Downtown 1199 Vermont Ave., NW	4	Walk to Washington Plaza	McPherson Square/Blue, Silver, & Orange/5 blocks
48	Residence Inn Washington, DC/Dupont Circle 2120 P St., NW	6	On P Street at 21st Street	Dupont Circle/Red/2 blocks
49	River Inn 924 25th St., NW	8	Walk to Melrose–on Pennsylvania Avenue	Foggy Bottom/Blue, Silver, & Orange/3 blocks
50	Sofitel Washington, DC Lafayette Square 806 15th St., NW	1	Walk to Hilton Garden Inn–on 14th Street	McPherson Square/Blue, Silver, & Orange/2 blocks
51	St. Gregory Hotel 2033 M St., NW	8	M Street Entrance	Dupont Circle/Red/3 blocks
52	State Plaza Hotel 2117 E St., NW	7	Curbside on E Street	Foggy Bottom/Blue, Silver, & Orange/3 blocks
53	Washington Court Hotel 525 New Jersey Ave., NW	2	Walk to Hyatt–Front of Hotel	Union Station/Red/3 blocks
54	Washington Marriott at Metro Center 775 12th St., NW	Walk	Walk to Washington Convention Center	Metro Center/Blue, Silver, Orange, & Red/1 block
55	Washington Marriott Georgetown 1221 22nd St., NW	8	Walk to Hyatt Place–on M Street	Foggy Bottom/Blue, Silver, & Orange/5 blocks
56	Washington Plaza 10 Thomas Cir., NW	4	Front Entrance on Vermont Avenue	McPherson Square/Blue, Silver, & Orange/5 blocks
57	Westin Georgetown, Washington, DC 2350 M St., NW	8	Walk Across Street to Fairmont–M Street	Foggy Bottom/Blue, Silver, & Orange/4 blocks
58	Westin Washington, DC City Center 1400 M St., NW	4	Corner of M Street & 15th	McPherson Square/Blue, Silver, & Orange/5 blocks

Current sales and occupancy taxes total 14.8 percent per room, per night. Hotel rates include a nominal $18 fee to help defray the high cost of the shuttle service, which will be provided to the Walter E. Washington Convention Center from most of the hotels throughout the day.

TRAVEL INFORMATION

Airports

Ronald Reagan Washington National Airport (DCA)
flyreagan.com/dca/reagan-national-airport
(703) 417-8000
Located five miles from downtown Washington, DC

Washington Dulles International Airport (IAD)
flydulles.com/iad/dulles-international-airport
(703) 572-2700
Located 39 miles from downtown Washington, DC

Baltimore Washington International Thurgood Marshall Airport (BWI)
bwiairport.com
(410) 859-7111
Located 32 miles from downtown Washington, DC

Public Transportation

Metro

The Washington Metropolitan Area Transit Authority's Metrorail system is available in the downtown area. For assistance in locating the Metro stop closest to your desired location, visit Metro's Trip Planner at wmata.com.

Taxis

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

The Circulator

The Circulator is a public transit system designed to take riders to the city's cultural, shopping, dining, and business destinations including the Walter E. Washington Convention Center. There are two routes near the convention center as well as one that travels around the National Mall. At just $1 and with buses arriving every 10 minutes, the Circulator provides daily bus service throughout Washington, DC. For more information, visit dccirculator.com.

Parking

Parking is not available at the Walter E. Washington Convention Center. However, there are parking spaces near the convention center, available on a first-come, first-served basis. Exhibitors and attendees are strongly encouraged to use the public parking facilities. Ticketing is heavily enforced in the convention center's surrounding residential area.

Airport Shuttle Service

Production Transport provides express shuttle service to Dulles Airport from the Walter E. Washington Convention Center from 11 a.m. to 6 p.m. on Tuesday, Nov. 14, and Wednesday, Nov. 15. Tickets can be purchased for $35 per person (cash or credit card) at the shuttle information desk in L St. Concourse from Monday, Nov. 13, through Wednesday, Nov. 15, during shuttle service hours.

To make your reservation early and secure a seat, email mponce@prodtrans.com. Shuttles will depart every 30 minutes on the hour and the half hour. For questions regarding the shuttle services, contact meetings@sfn.org.

Additionally, SuperShuttle offers transportation to and from downtown Washington, DC and the three major airports. Fares will vary according to your final destination. When you arrive at the airport, claim your luggage and visit the SuperShuttle counter in the baggage claim area of your respective airport. For more information, call (800) 258-3826, or visit supershuttle.com.

SHUTTLE SCHEDULE

Shuttle

SfN provides complimentary shuttle services between the Walter E. Washington Convention Center and most of the official SfN meeting hotels, with the exception of hotels within walking distance 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, call the shuttle information desk at (202) 249-4091 or stop by the shuttle information desk located in the Walter E. Washington Convention Center, L St. Concourse.

DATE	TIMES	SERVICE
Saturday, Nov. 11	7 a.m.–4 p.m.	20-minute service
	4–10 p.m.	10-minute service
Sunday, Nov. 12	6:30 a.m.–10:30 a.m.	10-minute service
	10:30 a.m.–4 p.m.	20-minute service
	4–8 p.m.	10-minute service
	8–9:30 p.m.	20-minute service
Monday, Nov. 13	7–10:30 a.m.	10-minute service
	10:30 a.m.–4 p.m.	20-minute service
	4–8 p.m.	10-minute service
	8–9:30 p.m.	20-minute service
Tuesday, Nov. 14	7–10:30 a.m.	10-minute service
	10:30 a.m.–4 p.m.	20-minute service
	4–8 p.m.	10-minute service
	8–9:30 p.m.	20-minute service
Wednesday, Nov. 15	7–10:30 a.m.	10-minute service
	10:30 a.m.–3:30 p.m.	20-minute service
	3:30–6 p.m.	10-minute service

Innovators | Collaborators | Advocates | Lifelong Learners

Together...

We are

SfN

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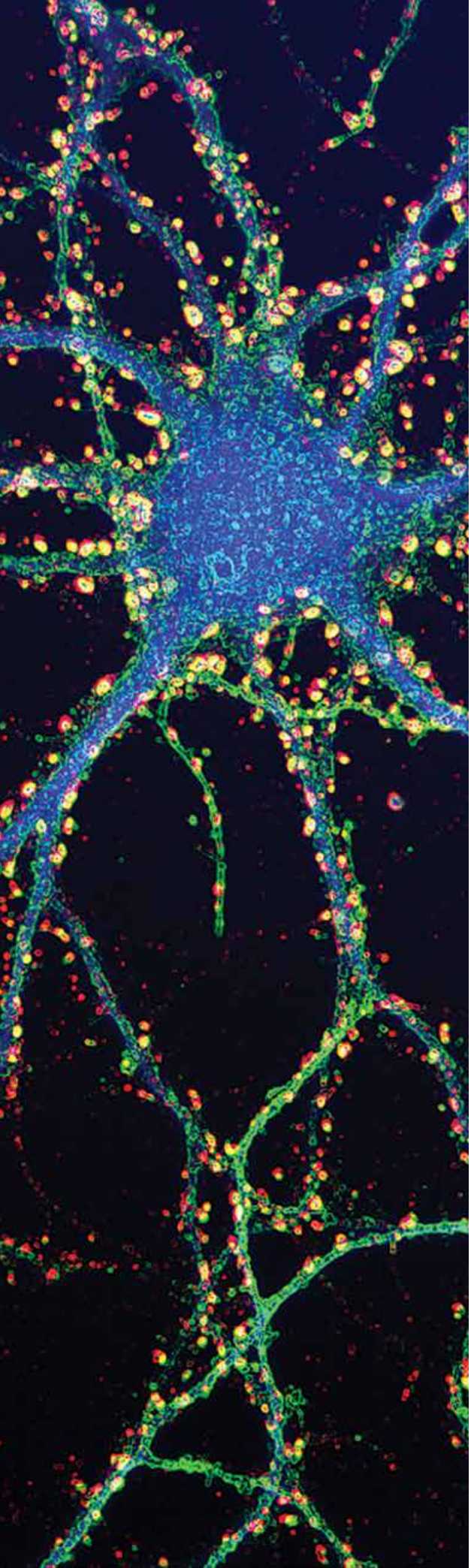


RESOURCES

ATTENDEE RESOURCES

Annual Meeting Headquarters Office

Walter E. Washington Convention Center:
Room: 102
HOURS:
Friday, Nov. 10
8 a.m.–5 p.m.

Saturday, Nov. 11–Wednesday, Nov. 15
7 a.m.–6 p.m.

The office addresses all questions concerning logistics and programming for the 2017 and 2018 annual meetings.

ATM Machines

There are three automatic teller machines (ATMs) in the Walter E. Washington Convention Center:

- Outside of Room 140A on the L Street Bridge on Level 1
- Outside of Halls D and E on Level 2
- In the south lobby

The lobbies of the Marriott Marquis Washington, DC and Renaissance Washington, DC Downtown hotels also have ATMs.

Business Center

Conveniently located in the main lobby of the convention center, Capital Business Center offers copying, mailing, faxing, and other services. It also provides fast and efficient shipping and receiving services for attendees. The Marriott Marquis Washington, DC, and Renaissance Washington, DC Downtown Hotel, also operate full-service business centers.

Certificate of Attendance

Walter E. Washington Convention Center:
East Salon and L Street Bridge

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 and are often required for reimbursement of meeting expenses. Attendees must pick up the certificate in person at the meeting. There are no exceptions.

Child Care

Walter E. Washington Convention Center:
Room 204 BC

On-site child care and youth programs are available for children ages six months to 12 years. This service is provided through KiddieCorp, a national firm with more than 30 years of experience, including eight with SfN, 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 2017 webpage, jotform.com/KiddieCorp/neurokids. All policies and fees are established by KiddieCorp, and all questions should be directed to them. Space is limited. For a list of activities in the SfN children's program, visit http://jotform.com/kiddieCorp/neurokidsactivities.

Coat & Luggage Check

Walter E. Washington Convention Center:
Room: 149
HOURS:
Friday, Nov. 10–Tuesday, Nov. 14
7:30 a.m.–7 p.m.

Wednesday, Nov. 15
7:30 a.m.–6 p.m.

Room: 103AB
HOURS:
Tuesday, Nov. 14
7:30 a.m.–7 p.m.

Wednesday, Nov. 15
7:30 a.m.–6 p.m.

Coat and luggage check is on a first-come, first-served basis, and space is limited. Please do not bring luggage into meeting rooms.

Continuing Medical Education

Walter E. Washington Convention Center:
East Salon

CME registration must be completed before or during the annual meeting. Those who do not register before the conclusion of the meeting will not be eligible to claim CME credits. CME registrants will receive the CME Supplemental Program via email two weeks before the meeting. It contains important information regarding the CME Program, including disclosure information and instructions for obtaining CME credits. Visit SfN.org/cme or see page 72 for details.

Event Locations

Lectures, exhibits, scientific sessions, symposia, poster sessions, registration, and headquarters offices are located in the Walter E. Washington Convention Center. SfN-sponsored socials take place at the Renaissance Washington, DC Downtown Hotel. Satellite and ancillary events take place at Walter E. Washington Convention Center, the Marriott Marquis Washington, DC, and the Renaissance Washington, DC Downtown Hotel, and other area facilities. Download the annual meeting mobile app or visit the Neuroscience Meeting Planner at SfN.org/NMP for up-to-date event information.

Walter E. Washington Convention Center
801 Mt. Vernon Place NW
Washington, DC 20001

Marriott Marquis Washington, DC, Hotel
901 Massachusetts Avenue NW
Washington, DC 20001

Renaissance Washington, DC Downtown Hotel
999 Ninth Street NW
Washington, DC 20001

Exhibits

Walter E. Washington Convention Center:
Halls A-C
HOURS:
Sunday, Nov. 12–Wednesday, Nov. 15
9:30 a.m.–5 p.m.

Exhibits provide attendees an opportunity to learn about the latest products, publications, and services. Pick up a copy of the *Exhibit Guide* at any program kiosk. The *Exhibit Guide* includes a listing of exhibiting companies and a cross-referenced listing of companies by type of product exhibited. A listing of exhibitors and their company descriptions can also be searched via the annual meeting mobile app. Links to exhibiting company websites are available at SfN.org/exhibits. The hyperlinks will remain live through June 30, 2018.

Inquiry cards: Your badge serves a double purpose: (1) as a name badge and (2) as an exhibit inquiry card. Your demographic information is encoded onto the front of the badge. Email addresses are only included if you selected the option box when registering. SfN encourages 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 as a successful exhibit program helps defray the cost of running the annual meeting and keeps registration fees at a minimum.

For further information, visit SfN.org/exhibits or contact exhibits@sfn.org.

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.

First Aid and Emergencies

Walter E. Washington Convention Center: Hall A and Hall D

During session hours, the first aid rooms at the Walter E. Washington Convention Center will be open and staffed by certified medical providers. George Washington University Hospital can be reached at (202) 715-4000.

First Aid and Hospital Numbers
First Aid Room #1, Hall A
(202) 249-3108

First Aid Room #2, Hall D
(202) 249-3109

George Washington University Hospital
900 23rd Street, NW
Washington, DC 20037
(202) 715-4000

Medics USA Urgent Care Services
1700 17th Street, NW, Suite A
Washington, DC 20009
(202) 483-4400

Food Courts

Walter E. Washington Convention Center: Hall E
HOURS:
Saturday, Nov. 11
11 a.m.–2 p.m.

Sunday, Nov. 12–Wednesday, Nov. 15
7:30 a.m.–3 p.m.

Important Phone Numbers

Headquarters Office
HQ Office/Logistics
(202) 249-4200

HQ Office/Programming
(202) 249-4205

Press Office
(202) 249-4230

Exhibit Management
(202) 249-4240

Infant Care Facilities

Walter E. Washington Convention Center: Room: 204A

The infant care room, designated for the privacy of parents and guardians caring for infants, 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 their own infant care supplies. The infant care room is unsupervised. SfN is not responsible for accidents or injuries that may occur in this room.

Information Booths

Information booths, operated by members of SfN staff, are available in the following areas of the Walter E. Washington Convention Center:

Grand Lobby
L Street Bridge
L Street Concourse
HOURS:
Friday, Nov. 10
2–6 p.m.

Saturday, Nov. 11–Tuesday, Nov. 14
7:30 a.m.–6 p.m.

Wednesday, Nov. 15
8 a.m.–5 p.m.

International Attendees

International (non-U.S.) attendees should review U.S. travel regulations on the U.S. State Department website at travel.state.gov early to ensure compliance.

Literature Displays

Walter E. Washington Convention Center: East Salon

Keep your eyes open for important annual meeting event updates on display in the registration area. Approval is required to place announcements on displays. Attendees can get approval before the meeting by contacting meetings@sfn.org or on-site in the Headquarters Office (Room 102).

Lost and Found

Walter E. Washington Convention Center: East Salon

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

ATTENDEE RESOURCES

NeuroJobs Career Center

Walter E. Washington Convention Center: West Salon

HOURS:

Saturday, Nov. 11–Tuesday, Nov. 14
7:30 a.m.–5 p.m.

Wednesday, Nov. 15
7:30 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

Walter E. Washington Convention Center: West Salon

HOURS:

Saturday, Nov. 11–Tuesday, Nov. 14
7:30 a.m.–5 p.m.

Wednesday, Nov. 15
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 2017. The itinerary can also be synced with the annual meeting mobile app. It can be accessed online at SfN.org/nmp or on-site in the NMP Viewing Area.

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,and workshops and on the exhibit floor. Such

recording is only permitted during press conferences and in the Press Interview Room. 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 exhibits@sfn.org.

Poster Sessions

Walter E. Washington Convention Center: Halls A-C

HOURS:

Saturday, Nov. 11
1–5 p.m.

Sunday, Nov. 12–Wednesday, Nov. 15
8 a.m.–noon, 1–5 p.m.

Prayer Room

Walter E. Washington Convention Center: Room 142

There will be a prayer room available for attendee use at Neuroscience 2017. The prayer room is unsupervised, and SfN is not responsible for the loss of any personal property left unattended in the room.

Press Offices

Walter E. Washington Convention Center
Press Room, 202A
Press Conference Room, 202B
Press Interview Room, 203

HOURS:

Saturday, Nov. 11–Wednesday, Nov. 15
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* Pickup

Walter E. Washington Convention Center: West Salon

HOURS:

Friday, Nov. 10
2–5 p.m.

Saturday, Nov. 11–Sunday, Nov. 12
7:30 a.m.–5 p.m.

Monday, Nov. 13
7:30 a.m.–noon

The final *Program* and daily books will be available on-site at the Walter E. Washington Convention Center and online at SfN.org/am2017 as a downloadable PDF. Attendees can pick up a copy of the final *Program* or *Exhibit Guide* at any *Program* and *Exhibit Guide* pickup location in the convention center. To obtain printed versions of the daily books, attendees must have purchased the books during registration. Limited quantities will be available for purchase on-site.

Real-Time Captioning Services

New this year, SfN will provide real-time captioning services in a designated area for the lectures scheduled in Hall D. Please visit sfn.org/attendeeresources or contact meetings@sfn.org for additional information.

Restaurant Reservations

Walter E. Washington Convention Center:
Grand Lobby
HOURS:
Saturday, Nov. 11
Noon–6 p.m.

Sunday, Nov. 12–Tuesday, Nov. 14
10 a.m.–6 p.m.

Wednesday, Nov. 15
10 a.m.–5 p.m.

Restaurant reservation services are available at the Walter E. Washington Convention Center.

SfN Booth and Store

Walter E. Washington Convention Center:
Hall B, Booth #1303
As you experience Neuroscience 2017's Exhibit Hall, stop by the SfN Booth to learn about SfN member resources and services. Gift items are also available for purchase.

Speaker Ready Room

Walter E. Washington Convention Center:
Room: 209C
HOURS:
Friday, Nov. 10–Wednesday, Nov. 15
7 a.m.–5 p.m.

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

Special Accommodations for Attendees

The Society for Neuroscience recognizes the importance of making its educational activities accessible to all interested participants of the neuroscience community. For assistance with special needs or disabilities on-site, visit the SfN headquarters office in Room 102 of the Walter E. Washington Convention Center. SfN staff will provide information and assistance, but without prior notification of need, SfN cannot ensure availability of appropriate accommodations.

For scooter and wheelchair rentals, please contact either vendor below:

BW Surgical Supply Inc.
(800) 976-0105 (toll free)
(301) 946-1888 (local)
email bwsurgical@yahoo.com
bwmedi.com

ScootAround Inc.
(888) 441-7575
email: info@scootaround.com
fax: (204) 478-1172
scootaround.com

For additional information, email meetings@sfn.org.

Transportation

Airport Shuttle (SuperShuttle)

SuperShuttle offers transportation to and from downtown Washington, DC, and the three major airports. Fares will vary according to your final destination. When you arrive at the airport, claim your luggage and visit the SuperShuttle counter in the baggage claim area of your respective airport. Return trips to the airport may be prearranged by calling (800) 258-3826.

Metro

The Washington Metropolitan Area Transit Authority's Metrorail system is available in the downtown area. For assistance in locating the Metro stop closest to your desired location, visit Metro's Trip Planner at wmata.com.

Taxis

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

The Circulator

The Circulator is a public transit system designed to take riders to the city's cultural, shopping, dining, and business destinations, including the Walter E. Washington Convention Center. There are two routes near the convention center as well as one that travels around the National Mall. At just $1 and with buses arriving every 10 minutes, the Circulator provides daily bus service throughout Washington, DC. For more information, visit dccirculator.com.

Parking

Parking is not available at the Walter E. Washington Convention Center. However, there are parking spaces near the convention center, available on a first-come, first-served basis. Exhibitors and attendees are strongly encouraged to use the public parking facilities. Ticketing is heavily enforced in the convention center's surrounding residential area.

Volunteer Leadership Lounge

Walter E. Washington Convention Center:
Salon F
HOURS:
Saturday, Nov. 11
7:30 a.m.–5 p.m.

Sunday, Nov. 12–Wednesday, Nov. 15
7:30 a.m.–5 p.m.

The Volunteer Lounge is available for use by the Council, committee members, and past presidents.

Washington, DC, Resources and Attractions

For visitor information, visit https://washington.org/meetings/neuroscience-2017.

Wireless Internet

As a service to annual meeting registrants, SfN provides free wireless internet access in designated areas of the Walter E. Washington Convention Center. 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/B/G/N 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 in East Salon.

EXHIBITOR LIST

AS OF AUGUST 30, 2017

Exhibitor	Booth Number
10x Genomics	2309
3Brain GmbH	2013
3i - Intelligent Imaging Innovations	3014
89 NORTH	2717
A - M Systems, Inc.	2317
A.M.P.I.	1918
Abberior Instruments America LLC	2603
Abcam	1037
Abgent	1031
ACCU-Scope Inc.	2907
ACS Publications	3219
Active Motif	3035
Actuated Medical, Inc.	2302
Addgene	3317
ADInstruments, Inc.	1423
Advanced Targeting Systems, Inc.	722
Agarose Bead Technologies	2004
Agency for Toxic Substances and Disease Registry	3209
Agilent Technologies, Inc.	3005
ALA Scientific Instruments, Inc.	2734
Alembic Instruments Inc.	3222
Allen Institute for Brain Science	501
Alpha MED Scientific Inc.	836
Alpha Omega	2111
ALZET Osmotic Pumps/Durect Corp.	1316
Alzheimer's Association	3323
Alzheimer's Drug Discovery Foundation	3338
Am Qualex Antibodies Signal Transduction (AQSP)	339
American Physiological Society, The	3322
American Radiolabled Chemicals, Inc.	2304
American Society for Pharmacology & Experimental Therapeutics	3201
Amplitude	934
Amuza Inc, dba Elcom USA	2903
Analytik Jena	923
Andor Technology	2811
Animal Care Systems, Inc.	1809
Animal Identification & Marking Systems, Inc.	418
ANS Biotech SA	2132
ANT Neuro	1101
Antec bv	1937
APDM Wearable Technologies	810
Applied Physics & Electronics, Inc.	2507
Applied StemCell Inc.	831
Araclon Biotech	725
Arbor Assays	319
Aries FilterWorks	706
arivis AG	3015
Arrington Research, Inc.	2208
ARVO - Association for Research in Vision and Ophthalmology	3316
ASI/Applied Scientific Instrumentation	3123
Association of Migraine Disorders	3206
Atlas Antibodies AB	1024
ATLAS Neuroengineering	431
Atuka Inc.	3235
AUM BioTech, LLC	931
AutoMate Scientific, Inc.	3036
Aviva Systems Biology Corporation	707
Axiom Optics	411
Axion Biosystems	1914
Axol Bioscience Ltd.	2109
Azure Biosystems	3112
Bachem Americas, Inc.	2204
Backyard Brains	936
BASi	2303
Battelle	3607
Bentham Science Publishers, Ltd.	116
Berg Health	2129
Bertin Corp	515
BESA GmbH	900
Bio - Rad Laboratories	2523
Bio - Serv	1806
Bio Research Center. Co., Ltd.	2307
bioBubble, Inc.	2311
Biochemical Society	3205
Biocompare	723
Biocytogen, LLC	2937
BioLegend	2101
BIOPAC Systems, Inc.	1337
BIOSEB	438, 439
biosensis Pty Ltd.	338
Bio-Signal Technologies, LLC	1029
Bioss Inc.	1106
Bio-Techne	223
BioTechniques	1211
BioTek Instruments, Inc.	2211
Biotrial	1014
BITPLANE IMARIS	2811
Bittium Biosignals Ltd. / Mega Electronics Ltd.	803
BKIN Technologies Ltd.	2936
Black Dog Technical Services	123
Blackfynn, Inc.	3109
Blackrock Microsystems	2731
Boca Scientific Inc.	2131
Boster Biological Technology	702
Brain Architecture Project	3614
Brain Observatory, The,	3437
Brain Products	423, 537, 700
Brain Vision LLC	703
Brain VTA (Wuhan) Co., Ltd.	1808
BrainBits LLC	619
BRAINS	3438
Brains On-Line	935
Bridge The Gap - Syngap Education and Research Foundation	3529
BrightFocus Foundation	3217
Bruker Corporation	2401
BTX / Biochrom, Divisions of Harvard Bioscience, Inc.	1623
Bulldog Bio Inc.	2601
Caliber Imaging & Diagnostics, Inc.	2228
Cambridge Electronic Design Ltd.	2117
Cambridge NeuroTech	835
Cambridge Research Systems Ltd.	2837
Cambridge University Press	202
Canadian Association for Neuroscience	3639
Canadian Neurophotonics Platform, The	3637
Canopy Biosciences	806
Caputron	625
Carbosynth LLC	524
Carl Zeiss Microscopy, LLC	2923
Cayman Chemical Company	1023
CEDARLANE	2628
Cell Signaling Technology, Inc.	1800
Cellectricon	1328
Cellular Dynamics International, a FUJIFILM Company	1934
Center for the Neurobiology of Learning and Memory	3428

EXHIBITOR LIST

AS OF AUGUST 30, 2017

Walter E. Washington Convention Center: Halls A–C

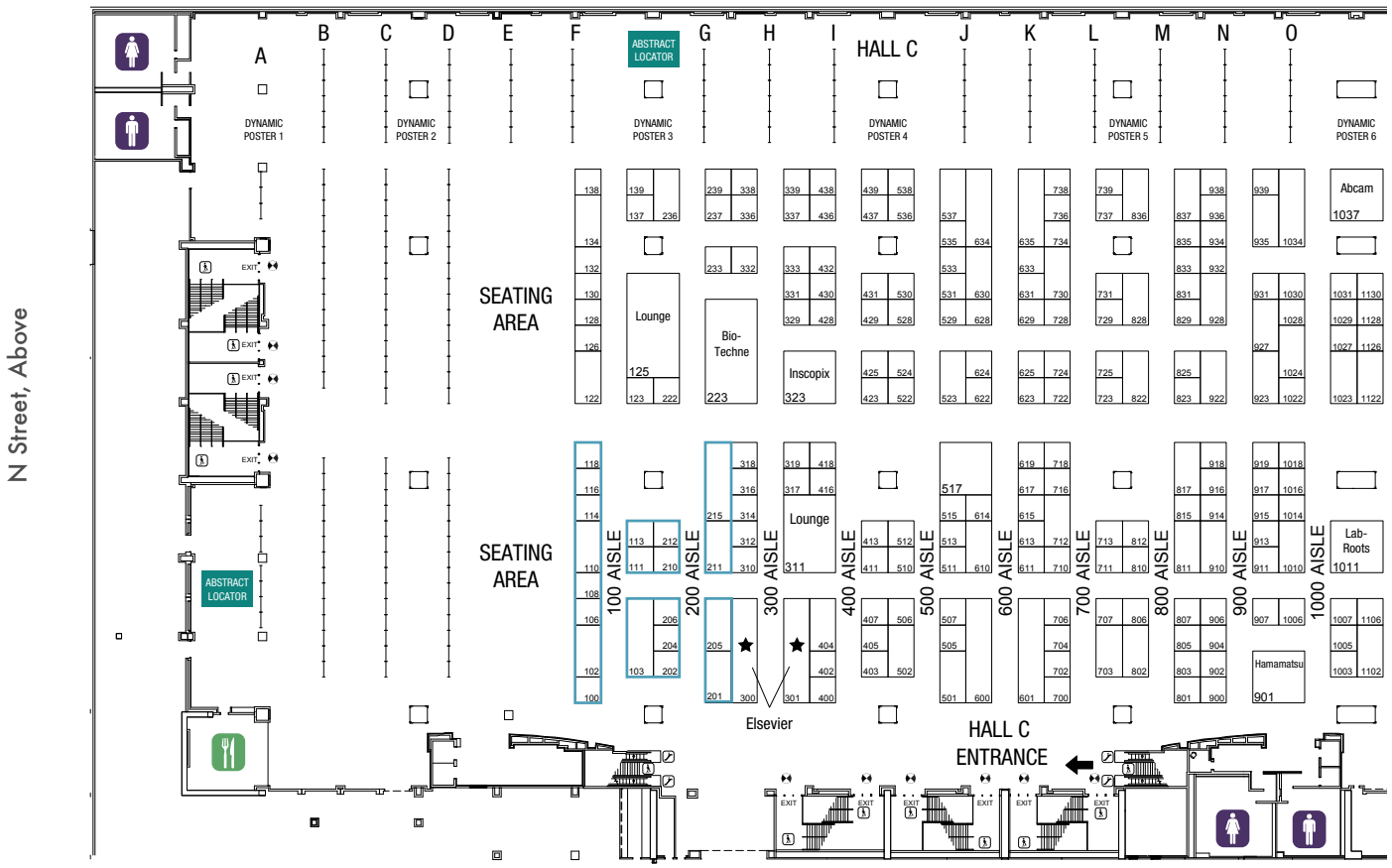
Meeting Dates: Nov. 11–15
Exhibit Dates: Nov. 12–15

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.**

KEY

- Institutions / Nonprofits
- Publishers Row
- ★ Sustaining Associate Members
- Abstract Locators
- SfN Booth
- \+ First Aid Station
- Concession Areas
- Restrooms
- Emergency Exit



7TH ST., Above

9TH ST., Above

KEY

- Institutions/ Nonprofits
- Publishers Row
- Sustaining Associate Members
- Abstract Locators
- SfN Booth
- First Aid Station
- Concession Areas
- Restrooms
- Emergency Exit

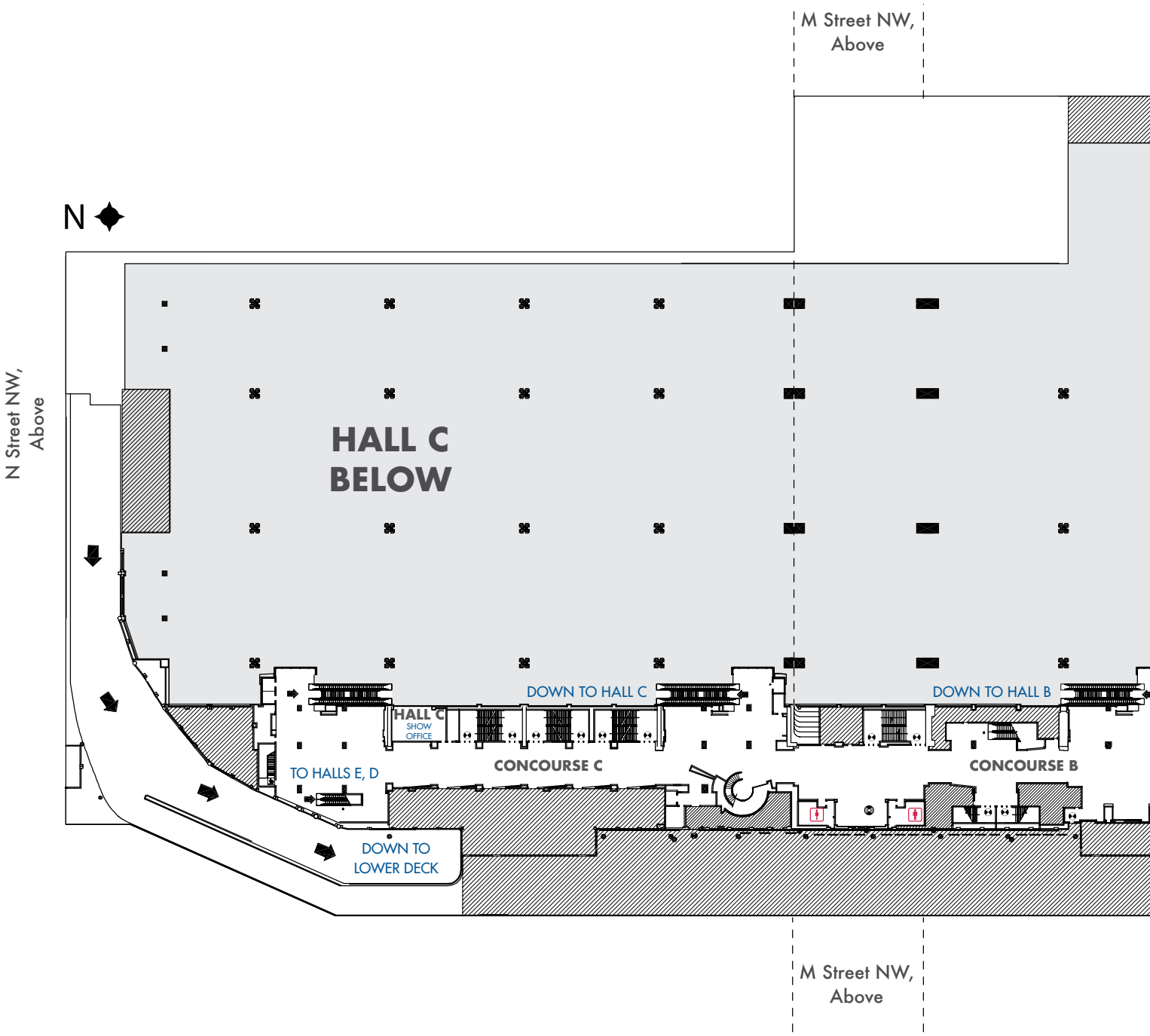
NOTE: Floor plans subject to change. For current floor plan, visit SfN.org/exhibits

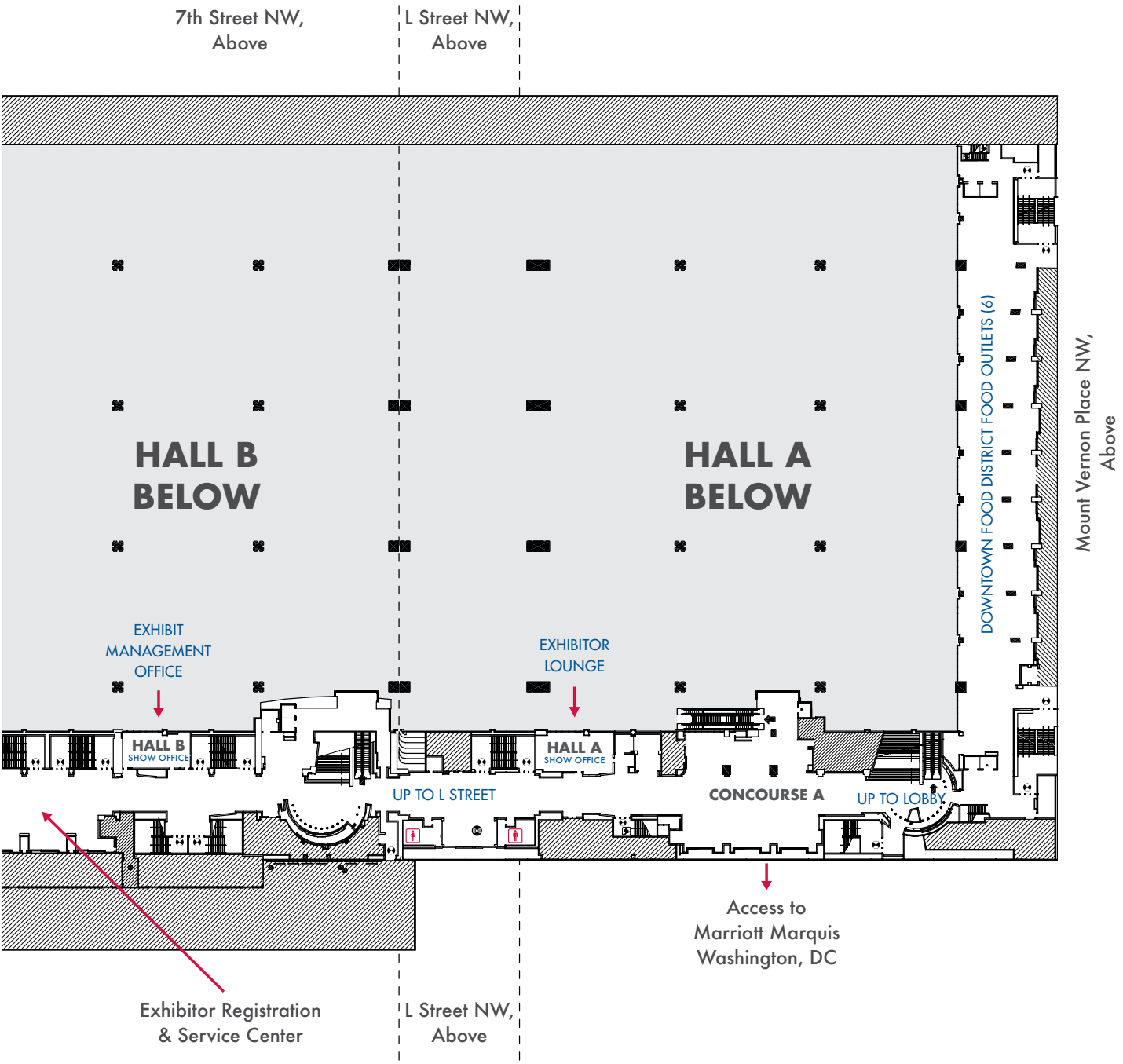
CONVENTION CENTER FLOOR PLANS

Concourse Level

Access to Exhibit Halls A–C

Show Offices A–C

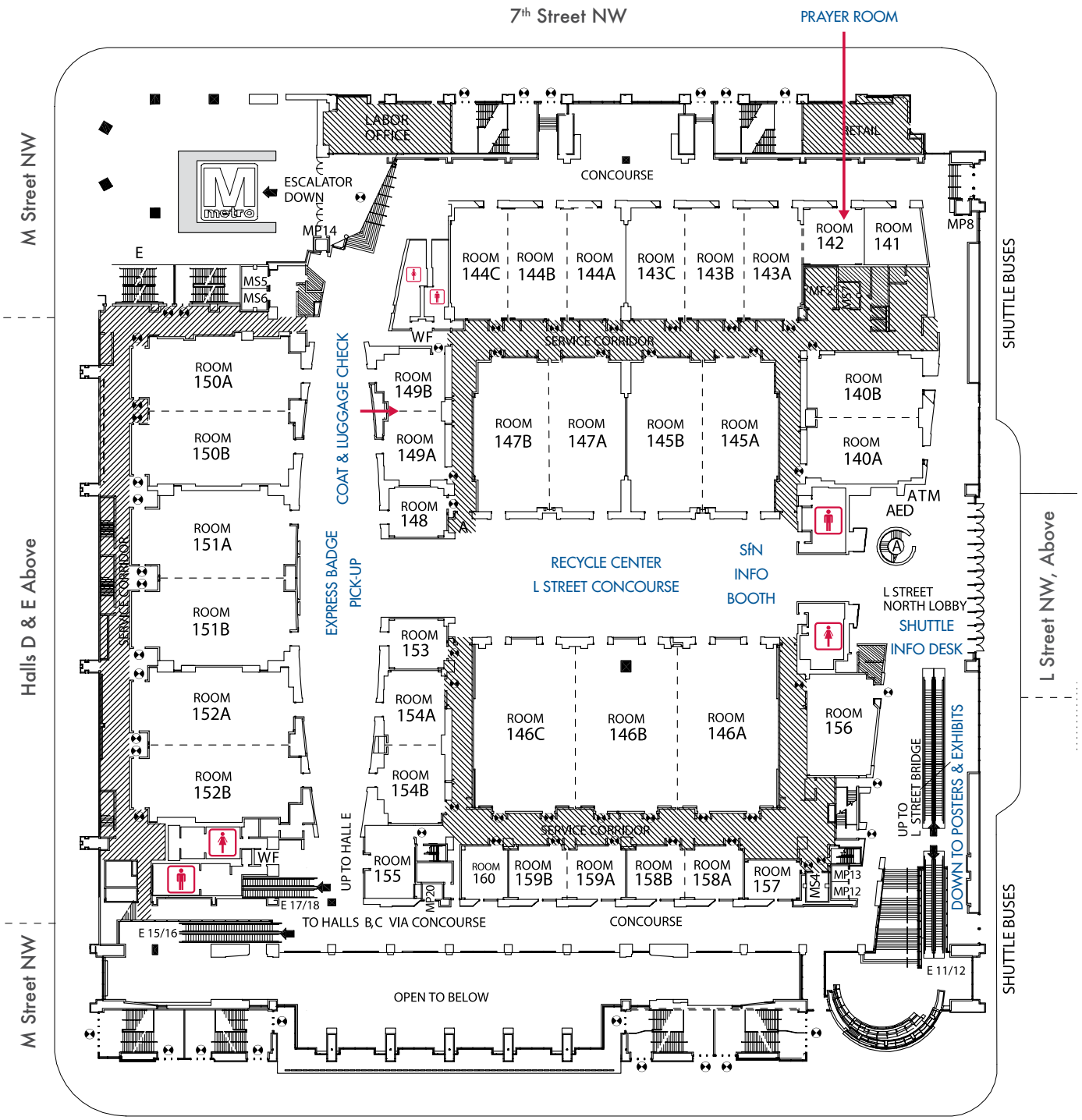


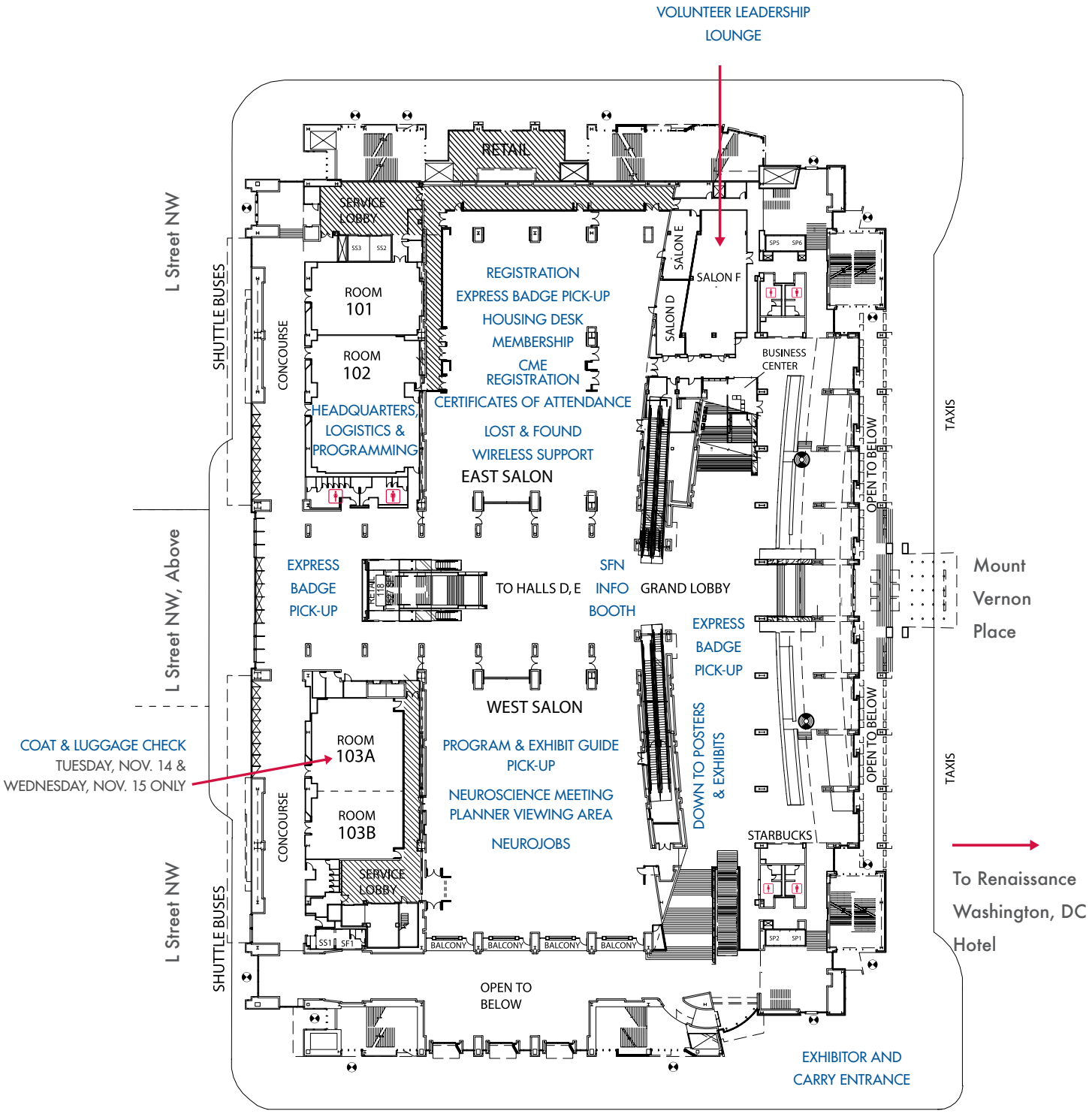

7th Street NW, Above
L Street NW, Above
HALL B BELOW
HALL A BELOW
DOWNTOWN FOOD DISTRICT FOOD OUTLETS (6)
Mount Vernon Place NW, Above
EXHIBIT MANAGEMENT OFFICE
EXHIBITOR LOUNGE
HALL B SHOW OFFICE
HALL A SHOW OFFICE
UP TO L STREET
CONCOURSE A
UP TO LOBBY
Access to Marriott Marquis Washington, DC
Exhibitor Registration & Service Center
L Street NW, Above

CONVENTION CENTER FLOOR PLANS

Lobby Level/Level 1

Meeting Rooms 101–103 & 140–160



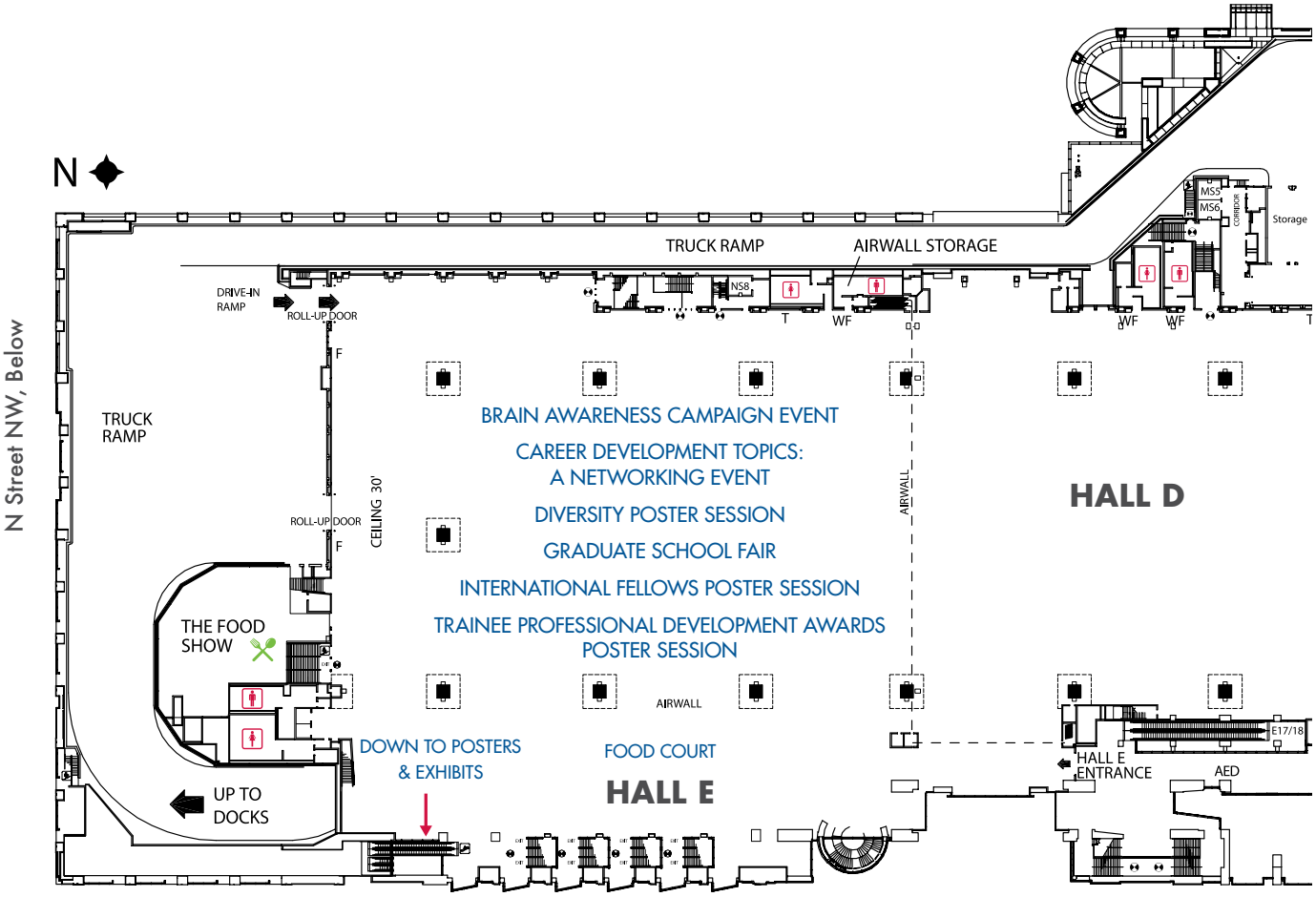

VOLUNTEER LEADERSHIP LOUNGE
RETAIL
SERVICE LOBBY
SS3
SS2
ROOM 101
ROOM 102
CONCOURSE
SHUTTLE BUSES
L Street NW
L Street NW, Above
REGISTRATION
EXPRESS BADGE PICK-UP
HOUSING DESK
MEMBERSHIP
CME REGISTRATION
CERTIFICATES OF ATTENDANCE
HEADQUARTERS, LOGISTICS & PROGRAMMING
LOST & FOUND
WIRELESS SUPPORT
EAST SALON
SALON E
SALON F
SALON D
SP5
SP6
BUSINESS CENTER
OPEN TO BELOW
TAXIS
EXPRESS BADGE PICK-UP
TO HALLS D, E
SFN INFO BOOTH
GRAND LOBBY
Mount Vernon Place
WEST SALON
ROOM 103A
ROOM 103B
PROGRAM & EXHIBIT GUIDE PICK-UP
NEUROSCIENCE MEETING PLANNER VIEWING AREA
NEUROJOBS
DOWN TO POSTERS & EXHIBITS
STARBUCKS
SS1
SF1
BALCONY
SP2
SP1
OPEN TO BELOW
EXHIBITOR AND CARRY ENTRANCE
COAT & LUGGAGE CHECK
TUESDAY, NOV. 14 &
WEDNESDAY, NOV. 15 ONLY
To Renaissance Washington, DC Hotel

CONVENTION CENTER FLOOR PLANS

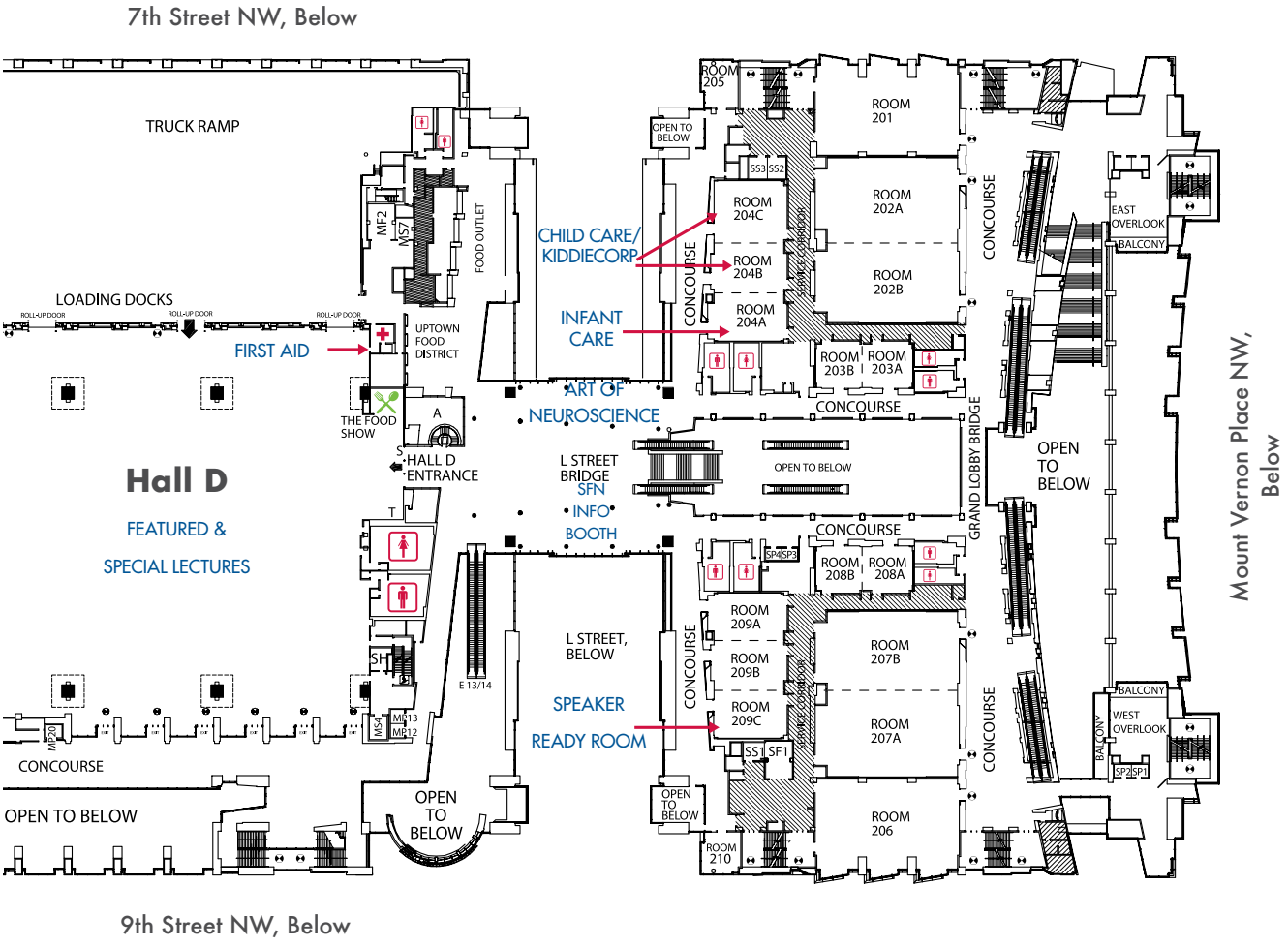
Level 2

Halls D & E

Meeting Rooms 201–210



NORTH BUILDING

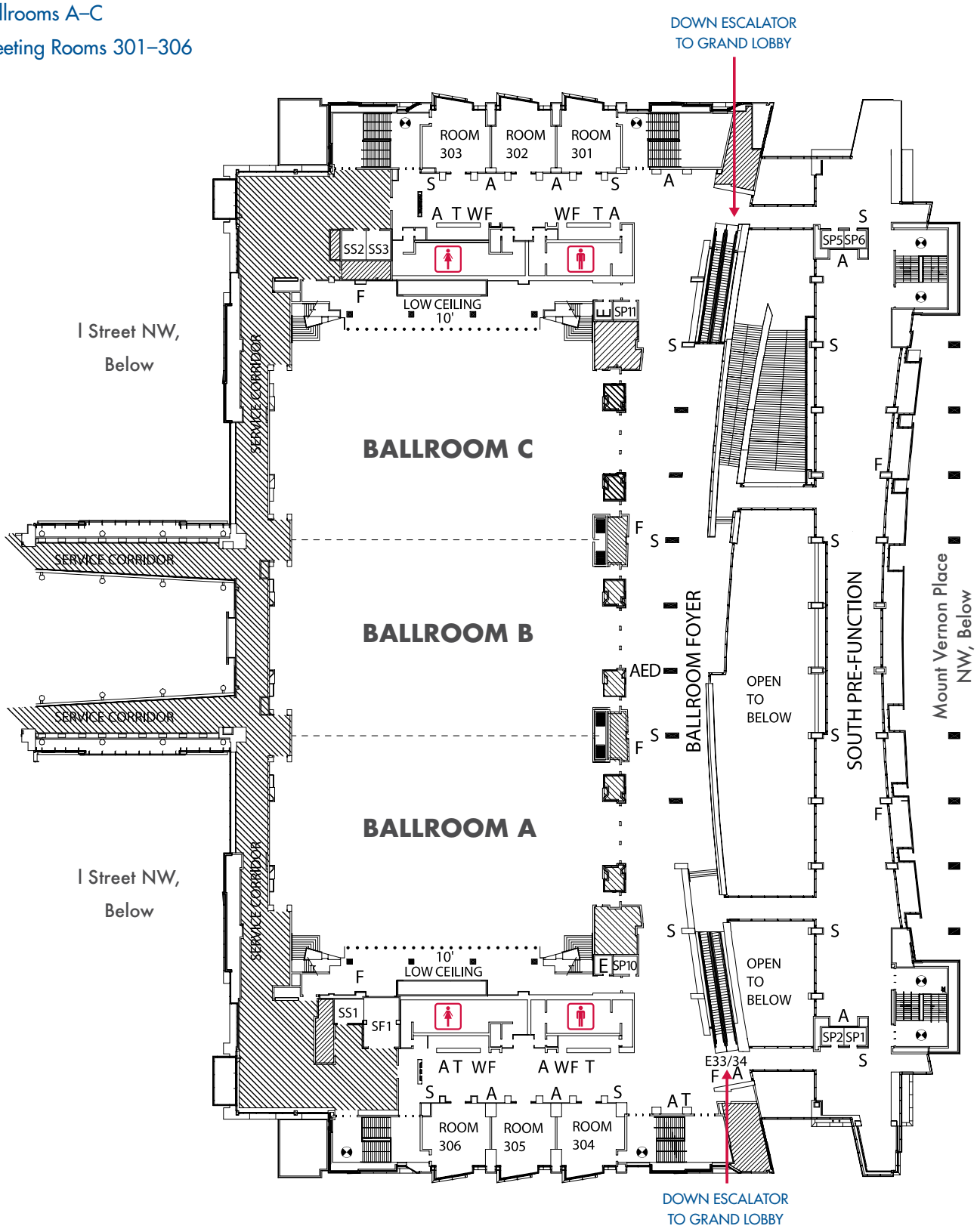

7th Street NW, Below
TRUCK RAMP
LOADING DOCKS
ROLL-UP DOOR
ROLL-UP DOOR
ROLL-UP DOOR
FIRST AID
UPTOWN FOOD DISTRICT
FOOD OUTLET
MF2
MS7
THE FOOD SHOW
A
S
HALL D ENTRANCE
Hall D
FEATURED & SPECIAL LECTURES
T
SH
MP20
MS4
MP13
MP12
E 13/14
CONCOURSE
OPEN TO BELOW
OPEN TO BELOW
CHILD CARE/ KIDDIECORP
INFANT CARE
ART OF NEUROSCIENCE
L STREET BRIDGE
SFN INFO BOOTH
L STREET, BELOW
SPEAKER READY ROOM
ROOM 205
OPEN TO BELOW
ROOM 201
SS3
SS2
ROOM 204C
ROOM 204B
ROOM 204A
CONCOURSE
SEVICE CORRIDOR
ROOM 202A
ROOM 202B
CONCOURSE
EAST OVERLOOK
BALCONY
ROOM 203B
ROOM 203A
CONCOURSE
GRAND LOBBY BRIDGE
OPEN TO BELOW
OPEN TO BELOW
CONCOURSE
SP4
SP3
ROOM 208B
ROOM 208A
ROOM 209A
ROOM 209B
ROOM 209C
CONCOURSE
SEVICE CORRIDOR
ROOM 207B
ROOM 207A
SS1
SF1
CONCOURSE
BALCONY
WEST OVERLOOK
BALCONY
SP2
SP1
OPEN TO BELOW
ROOM 210
ROOM 206
9th Street NW, Below
Mount Vernon Place NW, Below
MIDDLE BUILDING
SOUTH BUILDING

CONVENTION CENTER FLOOR PLANS

Level 3

Ballrooms A–C

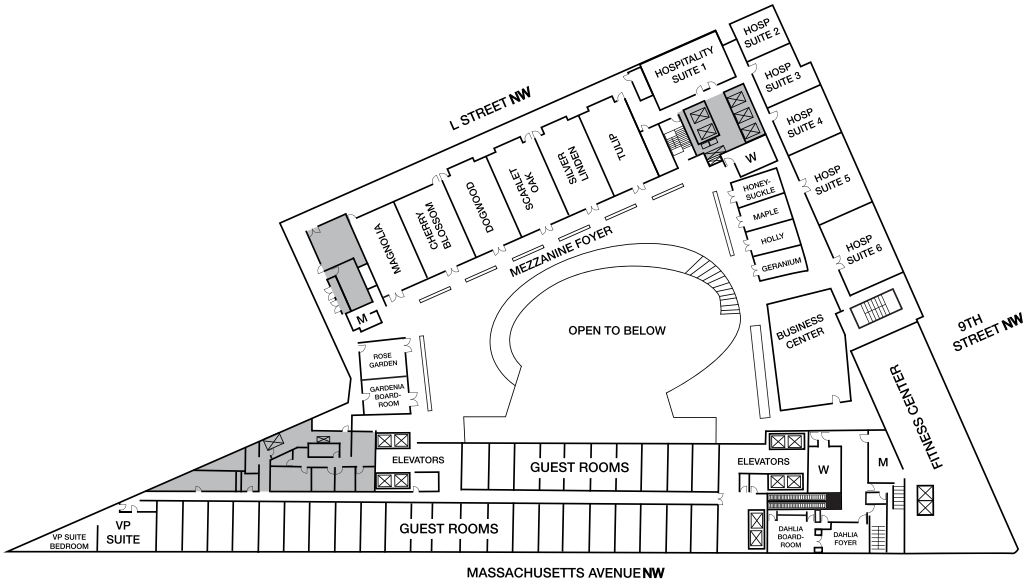
Meeting Rooms 301–306



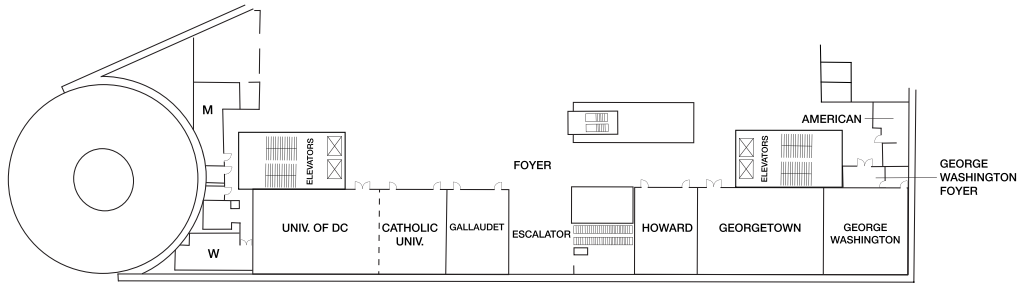
SOUTH BUILDING

HOTEL FLOOR PLANS

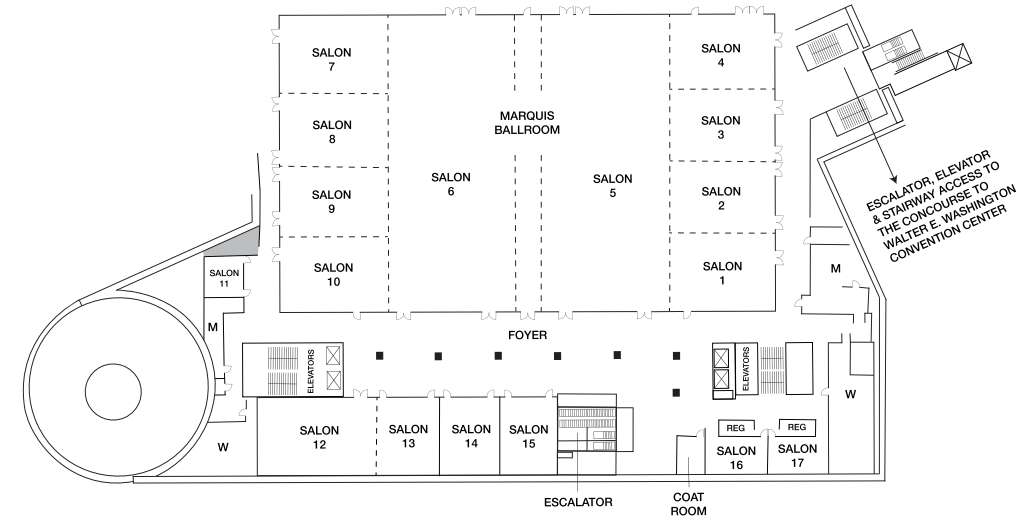
Marriott Marquis Washington, DC



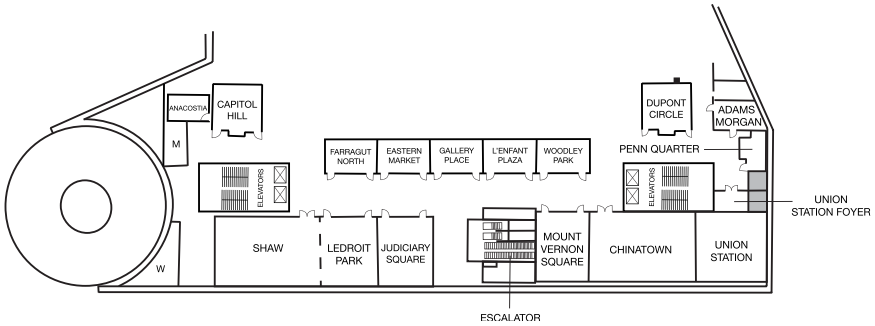
MEZZANINE LEVEL



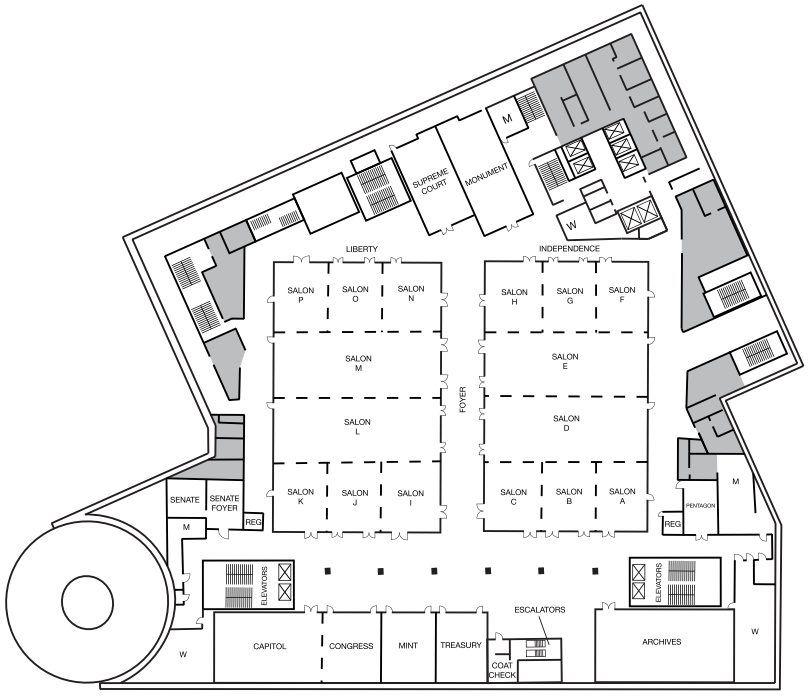
MEETING LEVEL 1



MEETING LEVEL 2

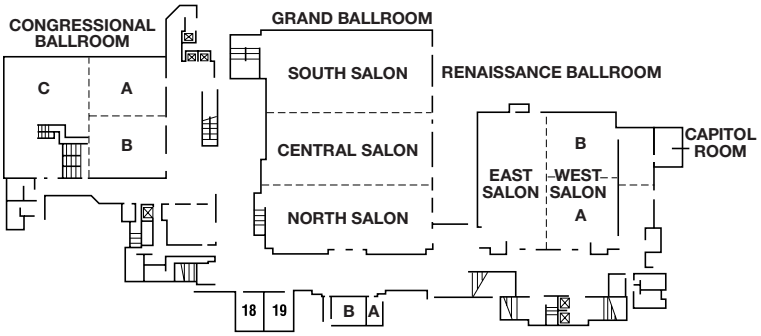


MEETING LEVEL 3

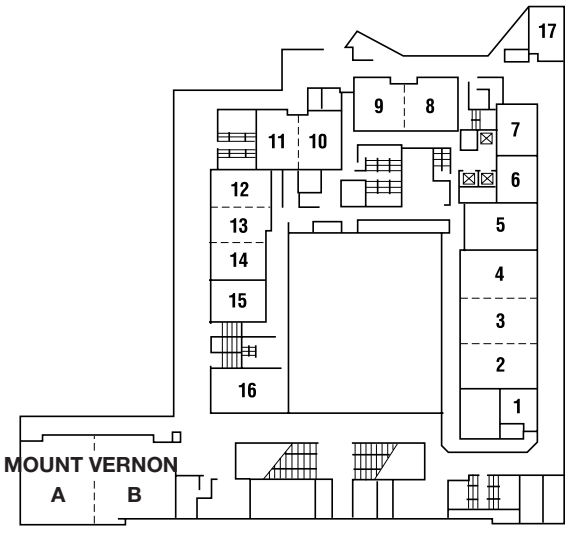


MEETING LEVEL 4

Renaissance Washington, DC Downtown



BALLROOM LEVEL



MEETING ROOM LEVEL

PHOTO CREDITS

Note: The content of Society for Neuroscience scientific programs, events, and services is developed by scientists, either individually or in their capacity as members of SfN committees or other governing bodies. Content is not developed in consultation with commercial advertisers or supporters. Supporters have no influence over the selection of topics or speakers. Where applicable, disclosure of grant or commercial support received by official speakers at SfN-sponsored events will be indicated within event information.

The commercial support of courses or workshops does not constitute a guarantee or endorsement of quality or value of the supporting entity's product or claims.

Private support contributes significantly to SfN's mission, and the Society thanks contributors for their support.

All presentations reflect the views of individual speakers and do not necessarily represent those of the Society for Neuroscience or any of its supporters.

PHOTO CREDITS:

Program Cover
This image shows dentate granule cells in the hippocampus of an adult mouse that lacks TRIM9 ubiquitin ligase. These cells, labeled with red and green florescent proteins, exhibit occasional ectopic migration into the molecular layer. **Courtesy, with permission:** Cortney C. Winkle, Reid H. J. Olsen, Hyojin Kim, Sheryl S. Moy, Juan Song and Stephanie L. Gupton, 2016, *The Journal of Neuroscience* 36(18): 4940-4958.

Page 4
Confocal micrograph of cultured hippocampal neurons stained for neuronal nitric oxide synthase (nNOS, grey-blue) and the postsynaptic protein gephyrin (red). nNOS activity modulates the clustering of gephyrin at GABAergic synapses. **Courtesy, with permission:** Borislav Dejanovic and Guenter Schwarz, 2014, *The Journal of Neuroscience* 34(23) 7763-7768.

Page 5
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 7
Longitudinal sections of sciatic nerves from neuropathic PMP22-null mice were double-labeled with the lipid raft marker cholera toxin subunit β (in red) and phalloidin (in green) to illustrate the severe disruption of lipid raft and actin network in myelinating Schwann cells lacking PMP22. Nuclei are shown in blue. **Courtesy, with permission:** Sooyeon Lee, Stephanie Amici, Hagai Tavori, Waylon M. Zeng, Steven Freeland, Sergio Fazio and Lucia Notterpek, 2014, *The Journal of Neuroscience* 34(48) 16140-16152.

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This watercolor by Biuse Guivernau was inspired by immunocytofluorescence images of cultured hippocampal mouse neurons treated acutely with β-amyloid. β-amyloid oligomers (and nitrated beta-amyloid oligomers) not only induce neuronal death, but also impair neuronal function, by binding to dentritic spines and synapses. The image represents the functional isolation of neurons resulting from amyloid buildup in a brain affected by Alzheimer's disease. **Courtesy, with permission:** Cortney C. Winkle, Barbara A. Sorg, Sabina Berretta, Jordan M. Blacktop, James W. Fawcett, Hiroshi Kitagawa, Jessica C.F. Kwok and Marta Miquel, 2016, *The Journal of Neuroscience* 36(45): 11459-11468.

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This composite illustration shows oligodendrocytes (labeled with antibodies against myelin basic protein, white), which were induced to differentiate in culture by treatment with an antibody against the membrane protein LINGO-1. This image is superimposed on an image of a demyelinated brain lesion from autopsy tissue of a multiple sclerosis (MS) patient, which shows myelin (myelin basic protein, pink), axons (neurofilament, red), and LINGO-1 (green). LINGO-1 is upregulated in MS lesions, and blocking LINGO-1 function promotes remyelination in animal models of MS. **Courtesy, with permission:** Zhaohui Shao, Xinhua Lee, Guanrong Huang, Guoqing Sheng, Christopher E. Henderson, Daniel Louvard, Jiho Sohn, Blake Pepinsky and Sha Mi, 2017, *The Journal of Neuroscience* 37(12): 3127-3137.

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This confocal image shows a retina prepared from a GLT1-EGFP mouse. The widely used astrocyte marker GLT1 (green) is highly expressed by neurons in the outer nuclear layer, while SOX9 (purple) is most prominent on Müller glial cells, as identified by glutamine synthetase (white). Cell nuclei are labeled by DAPI (blue). **Courtesy, with permission:** Wei Sun, Adam Cornwell, Jiashu Li, Sisi Peng, M. Joana Osorio, Nadia Aalling, Su Wang, Abdellatif Benraiss, Nanhong Lou, Steven A. Goldman and Maiken Nedergaard, 2017, *The Journal of Neuroscience* 37(17): 4493-4507.

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A thalamocortical slice from a 4-dayold mouse brain in which neurons in the ventrobasal thalamus express Cre recombinase and tdTomato, allowing visualization of thalamocortical axons (red) innervating the barrel cortex. Layer 6 corticothalamic neurons (green) were labeled by an antibody to the transcription factor TBR1, and all other cell bodies were counterstained with ToPro (blue). The same Cre line was crossed with a channelrhodopsin reporter for optogenetically guided dual recording experiments from connected thalamic and cortical neurons, as described in the article by Hu and Agmon. **Courtesy, with permission:** Hang Hu and Ariel Agmon, 2016, *The Journal of Neuroscience* 36(26) 6906-6916.

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Fluorescence micrograph of a glial microdot island containing reciprocally connected hippocampal neurons, a GABAergic (blue) and a glutamatergic (red) neuron. MPTS (red) or Alexa-568 (blue) was infused during double whole-cell recordings. Both neurons were transduced with Synaptophysin-pHluorin, which allowed the identification of active glutamatergic and GABAergic synapses after train stimulation of either neuron (glutamatergic synapses: green spots; GABAergic synapses: white spots). Comparing the number of active synapses to the rate of mEPSC and mIPSC showed that innervation by a GABAergic neuron downregulates spontaneous release rates in glutamatergic neurons. **Courtesy, with permission:** Keimpe D. B. Wierda and Jakob B. Sørensen, 2014, *The Journal of Neuroscience* 34(6) 2100-2110.

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Confocal micrograph of a day 6 coculture of oligodendrocytes and dorsal root ganglion neurons, depicting a control and a mutant (Ilk–/–) oligodendrocyte. The control cell extends arbors that contact neighboring neuronal processes and produce membranous leaflets. In contrast, the Ilk-null oligodendrocyte is deficient in this ability. Green fluorescent protein (green) is expressed upon loss of Ilk, thereby labeling mutant cells. The sample was labeled with antibodies against neurofilament-200 (blue), myelin-basic protein (red), and stained with 4′,6-diamidino-2-phenylindole (white). **Courtesy, with permission:** Ryan W. O'Meara, John-Paul Michalski, Carrie Anderson, Kunal Bhanot, Peter Rippstein and Rashmi Kothary, 2013, *The Journal of Neuroscience* 33(23) 9781-9793.

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Layer III pyradimal cell of cerebral cortex of mouse from an original preparation of Santiago Ramón y Cajal impregnated with the Golgi method (P80001). Z-projection (32 sections; z-step, 2.072 µm). Objective, 20×; numerical aperture, 0.75 (ImageJ). **Courtesy, with permission:** Pablo García-López, Virginia García-Marín and Miguel Freire, 2006, *The Journal of Neuroscience* 26(44): 11249-11252.

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This confocal micrograph shows an olfactory bulb slice from a postnatal day 14 mouse. Newborn interneurons were labeled by EGFP (green) and gap-mCherry (blue). The dendritic branching of interneurons was seen from the granule cell layer to the external plexiform layer. **Courtesy, with permission:** Hiroo Takahashi, Yoichi Ogawa, Sei-ichi Yoshihara, Ryo Asahina, Masahito Kinoshita, Tatsuro Kitano, Michiko Kitsuki, Kana Tatsumi, Mamiko Okuda, Kouko Tatsumi, Akio Wanaka, Hirokazu Hirai, Peter L. Stern and Akio Tsuboi, 2016, *The Journal of Neuroscience* 36(31): 8210-8227.

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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.

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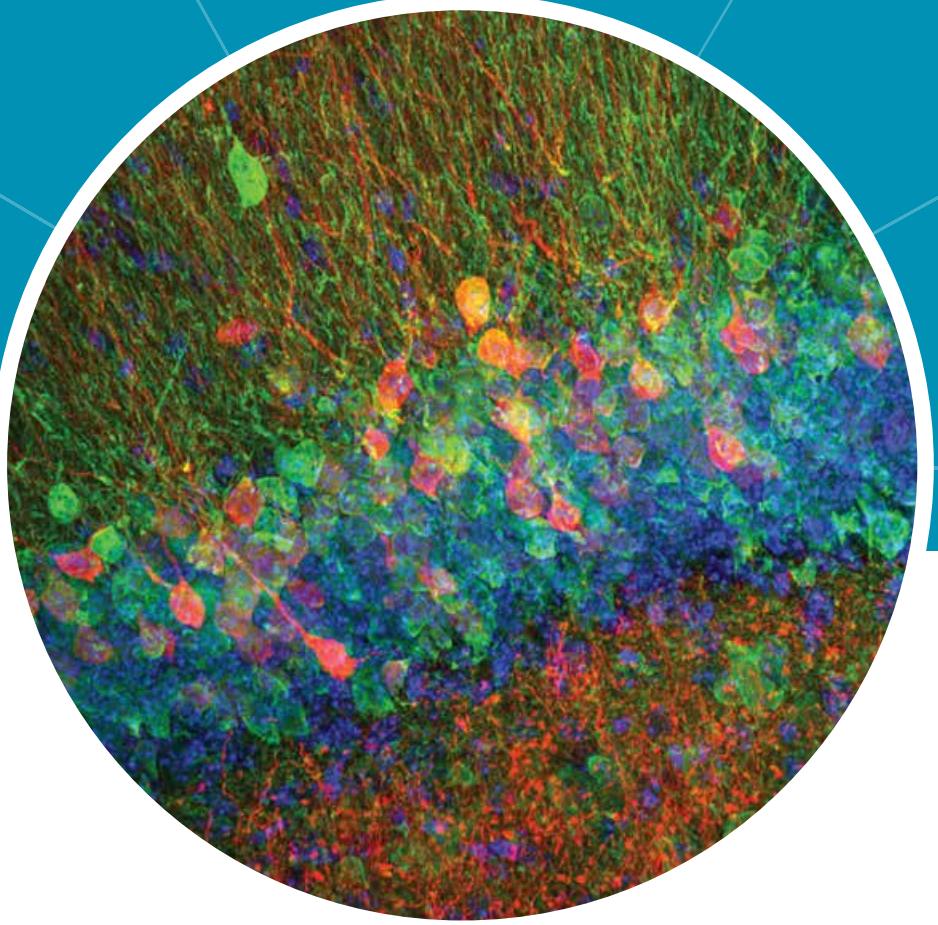

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