Neuroscience 2016

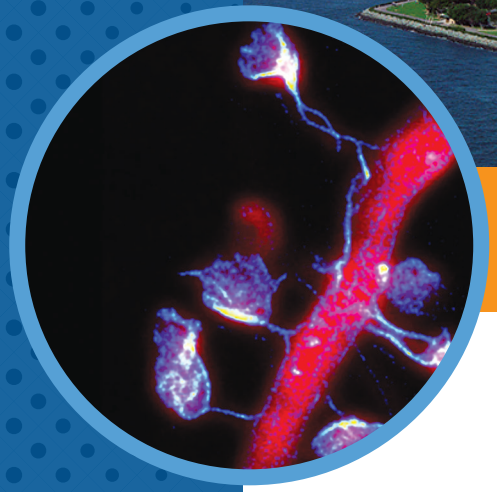
Preliminary Program

SAN DIEGO | NOVEMBER 12–16

SOCIETY *for* NEUROSCIENCE

Registration Opens July 13 | Exhibit Dates: Nov 13–16

- **Share** your science
- **Learn** from leading scientists and clinicians
- **Engage** with colleagues worldwide
- **Explore** new technologies



Be part of scientific discoveries as they unfold at Neuroscience 2016

Neuroscience 2016 convenes researchers and clinicians of all levels and backgrounds to share groundbreaking results, theories, and discoveries to bring the world closer to new innovations in neuroscience.

SAN DIEGO

Join us in beautiful San Diego for five days of science, peer networking, education, and career advancement opportunities — while exploring the city, its beaches, cuisine, and culture!

DISCOVER ADVANCEMENTS IN NEUROSCIENCE

Hear from renowned minds in the field, view over 15,000 abstracts, and attend lectures, symposia, satellite events, and workshops.

EXPERIENCE CUTTING-EDGE TECHNOLOGY

Explore hundreds of exhibits featuring new products and solutions to help advance your science.

JUMP-START YOUR CAREER

Participate in professional development workshops, connect with a mentor, visit the NeuroJobsCareer Center, and learn about educational options at the Graduate School Fair.

SfN members can take advantage of advance registration rates for Neuroscience 2016. Further discounts are available for residents of developing countries.

FOR MORE INFORMATION, GO TO sfn.org/prelim2016

"Going to the annual meeting gives me the ability to speak to other scientists about their work and mine. It leads to possible collaborations."

— SfN MEMBER

Presidential Special Lectures

Tuning Auditory Circuits for Vocal Communication CME

Sarah M.N. Woolley, PhD
Columbia University

Saturday, Nov. 12, 5:15–6:25 p.m.

Social communication reflects the coordinated development of sensory and motor circuits around signals that convey information. The young brain, learning to communicate with hearing and voice, builds auditory and vocal motor circuits that are functionally coupled to perceive and produce similar signals. This lecture will describe progress made using songbirds to understand how species identity dictates the capacities and limits of vocal learning, how early experience shapes auditory and vocal circuits, and how species and learning combine to map auditory tuning onto vocal acoustics.

Limitations on Visual Development: Neurons and Behavior CME

Lynne Kiorpes, PhD
New York University

Sunday, Nov. 13, 5:15–6:25 p.m.

Vision develops over many months in primate infants. The neural mechanisms that limit visual function are not fully understood. During development, neurons in visual cortex are more sensitive than would be expected based on visual behavior. Abnormal early experience creates a specific disorder — amblyopia — which permanently disrupts vision. Here also, the sensitivity of neurons in visual cortex exceeds behavior. This talk will describe neural limits on normal and abnormal postnatal visual development based on studies of brain and behavior in human and nonhuman primates.

Toward Whole-Body Connectome in *Drosophila* CME

Ann-Shyn Chiang, PhD
Brain Research Center, National Taiwan University

Monday, Nov. 14, 5:15–6:25 p.m.

Our brains receive information from sensory neurons about our external environment and internal organs. To understand how the brain processes information and initiates motor outputs, scientists are constructing complete wiring diagrams called "connectomes" that map all neural connections in the brain and body. Taking *Drosophila melanogaster* as an example, this lecture will address challenges in building whole-body connectomes and how that knowledge may help us better understand normal function and treat disease.

Neurobiology of the Adolescent and Young Adult Brain Reveals Unique Strengths and Vulnerabilities: Debunking Myths CME

Frances E. Jensen, MD
Perelman School of Medicine, University of Pennsylvania

Tuesday, Nov. 15, 5:15–6:25 p.m.

Experimental and human evidence reveal that adolescence is a paradoxical state, with enhanced synaptic plasticity, yet incomplete myelination and regional connectivity. Full maturity is not reached until the third decade. Adolescent brain neuroscience impacts our understanding of patterns of onset of psychiatric illness, the long-term effects of exposure to substances of abuse and stress, and also explains their advantage in learning and memory and why they exhibit "signature" behaviors such as impulsivity, emotional liability, altered sleep cycle, and susceptibility to addiction.

Find the latest session information at SfN.org/lectures.

Featured Lectures

PETER AND PATRICIA GRUBER LECTURE

Random Walk in Neurobiology

Mu-ming Poo, PhD

University of California, Berkeley and Institute of Neuroscience, Chinese Academy of Science

Support contributed by:
The Gruber Foundation

Sunday, Nov. 13, 2:30–3:40 p.m.

Beginning as a biophysicist studying diffusion of membrane proteins, I stumbled upon many interesting problems in cellular neurobiology, including neuronal polarization, axon guidance, synaptogenesis, and synaptic plasticity. An underlying theme in all these processes is random diffusion of proteins confined or even directed by localization mechanisms, leading to cellular topography critical for neuronal functions. As it turned out, my own career path resembled random walk, influenced and sometimes directed by interactions with my students, postdocs, and colleagues.

DAVID KOPF LECTURE ON NEUROETHICS

Reforming Forensic Science: Some Insights From Research on Vision and Memory

Thomas Albright, PhD

Salk Institute for Biological Studies

Support contributed by: David Kopf Instruments

Monday, Nov. 14, 10–11:10 a.m.

In its 2009 report, Strengthening Forensic Science in the United States: A Path Forward, the National Academy of Sciences identified a number of significant weaknesses in forensic science, which have contributed to wrongful convictions and have threatened public confidence in our criminal justice system. These problems have prompted broad calls for reform of the processes by which forensic evidence is acquired, analyzed, and interpreted. Several types of forensic analyses involve evaluation of complex visual patterns or memories of visual experiences. Advances in understanding of brain systems for visual sensation, perception, and memory can help shape forensic reform by illuminating the relevant sensory and cognitive processes, their limitations, and factors that can improve human performance in a forensic context.

ALBERT AND ELLEN GRASS LECTURE CME

Natural Products as Probes of the Pain Pathway: From Physiology to Atomic Structure

David J. Julius, PhD

University of California, San Francisco

Support contributed by: The Grass Foundation

Monday, Nov. 14, 3:15–4:25 p.m.

The study of somatosensation, nociception, and pain has undergone a revolution with the application of molecular genetic, biochemical, and biophysical methods. With these approaches, investigators have begun to identify molecules, cells, and circuits that underlie stimulus detection, perception, and maladaptive processes. Together, these studies are providing an intellectual and technical foundation for developing new classes of analgesic agents.

FRED KAVLI HISTORY OF NEUROSCIENCE LECTURE

Sixty Years of Research on Neurotransmitter Release in the Light of Recent Results from the Calyx of Held Synapse

Erwin Neher, PhD

Max Planck Institute for Biophysical Chemistry

Support contributed by: The Kavli Foundation

Tuesday, Nov. 15, 2:30–3:40 p.m.

In the 1950s, Sir Bernhard Katz and co-workers laid the foundation for our present understanding of neurotransmitter release and its short-term plasticity. Their terms "units available" (for release) and "units responding to one impulse" have been replaced with terms like vesicle pools, release probability, and quantal content. Since then, the description of certain aspects of short-term plasticity has gained considerable complexity. Research on the Calyx of Held has described this complexity, including heterogeneity of vesicle pools, refractoriness of release sites, and a phenomenon called "superpriming." Nevertheless, this talk will argue that the original Katz view is still a useful framework on which to build.

CME These activities have been approved for *AMA PRA Category 1 Credit.*™ For details, see page 9 and visit SfN.org/cme.

DIALOGUES BETWEEN NEUROSCIENCE AND SOCIETY

Global Mental Health and Neuroscience: Challenges and Opportunities

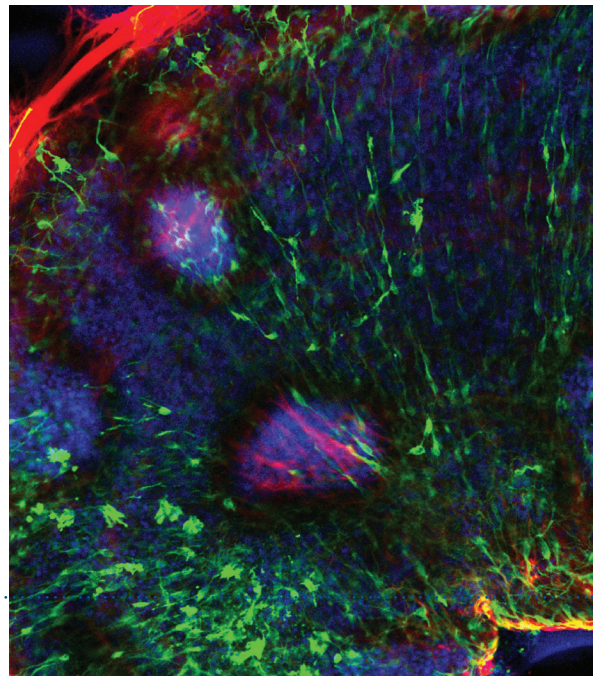
Shekhar Saxena, MD

World Health Organization,

Support contributed by: Elsevier

Saturday, Nov. 12, 11 a.m.–1 p.m.

Global mental health is slowly but steadily coming out of the shadows. It is benefitting from advances in neuroscience, but not adequately. The potential is much greater. The lecture will present a background of the current state of mental health in the world and then focus on how a closer collaboration between mental health and neuroscience could enhance knowledge and improve population health. Examples from the areas of autism, substance dependence, psychoses, and dementia will help illustrate this potential.



Find the latest session information at SfN.org/lectures.

Special Lectures

THEME A: DEVELOPMENT

Lineage Analyses of Developing CNS Tissues CME

Connie Cepko, PhD
Harvard Medical School and Howard Hughes Medical Institute

Lineage analyses describe the progenitor: progeny relationships in developing tissue. Lineage data can rule in, or out, particular models of how a cell achieves its fate, as well as when some of the fate-determining events occur. Lineages can be most definitively tracked using clonal methods, as afforded by retroviral infection. The interpretability of lineage data is further strengthened when mapping is done from identified types of progenitor cells. Recent studies using such methods in the retina and telencephalon will be presented.

Regulation of Neural Stem Cell Fate During Development and in the Adult CME

Yukiko Gotoh, PhD
University of Tokyo

This lecture will discuss how neocortical neural stem/progenitor cell (NPC) fate is regulated in a developmental stage-dependent manner. This lecture will also focus on the mechanisms underlying long-term maintenance of adult neural stem cells (NSCs), the differences between embryonic NPCs and adult NSCs, and the embryonic origin of adult NSCs.

THEME B: NEURAL EXCITABILITY, SYNAPSES, AND GLIA

Synaptic Organizing Complexes in Development and Neuropsychiatric Disorders CME

Ann Marie Craig, PhD
University of British Columbia

Synapse assembly, maturation, and plasticity are controlled by synaptic organizing complexes, presynaptic neurexins, and LAR-PTPs and their diverse postsynaptic partners. Genetics places these complexes centrally in a synaptic risk pathway for autism and other neuropsychiatric disorders. This lecture will discuss how these complexes cooperate in synapse development, confer specificity, balance excitation and inhibition, mediate plasticity, and promote an adaptable response to genetic risk.

Quantal Release and Its Requirements CME

Robert Edwards, MD
University of California, San Francisco

Quantal release by exocytosis requires the transport of classical neurotransmitters into secretory vesicles. Vesicular transport activity thus defines the membranes, as well as the cells capable of transmitter release. However, the three families of vesicular transporters differ in ionic coupling. This lecture will discuss the biophysical properties of the transporters, the properties of secretory vesicles that influence their function, and the implications for synaptic transmission, including quantal size, non-vesicular efflux, synaptic vesicle pools and transmitter co-release.

Cortical Circuits of Vision CME

Massimo Scanziani, PhD
University of California, San Francisco

The diversity of neuron types and synaptic connectivity patterns in the cerebral cortex is astonishing. How this cellular and synaptic diversity contributes to cortical function is just beginning to emerge. Using the mouse visual system as an experimental model, this lecture will discuss the mechanisms by which excitatory and inhibitory interactions among distinct neuron types contribute to the most basic operations in visual cortex. This lecture will highlight how a functional and structural analysis of cortical circuits allows us to bridge the gap between system and cellular neuroscience.

THEME C: NEURODEGENERATIVE DISORDERS AND INJURY

Capturing Immune Responses to Understand and Treat Neurodegenerative Disease CME

Eliezer Masliah, MD
University of California, San Diego

Neurodegenerative disorders are a leading cause of death in the aging population. Progressive accumulation and prion-like propagation of aggregated neuronal proteins may contribute to neurodegeneration. Developing strategies to increase clearance and diminish cell to cell transmission might be key to treat these disorders. Harnessing the power of the immune system by developing cellular and humoral immunization has been tested for the past years. This lecture will provide a perspective on the recent progress and challenges of utilizing immunotherapy for neurodegenerative disorders.

THEME D: SENSORY SYSTEMS

Genetic Dissection of Sensorimotor Circuits in the Spinal Cord CME

Martyn D. Goulding, PhD
Salk Institute for Biological Studies

Sensorimotor circuits in the spinal cord play essential roles in somatosensation and motor control. Studies defining the genetic programs controlling spinal cord development have opened up new avenues for exploring the cellular and functional organization of these circuits. This lecture will outline our current understanding of the spinal CPG circuits that control locomotion and the dorsal horn pathways that process and transmit cutaneous somatosensory modalities, highlighting the cutting-edge genetic and behavioral approaches that are being employed to map these circuits.

THEME E: MOTOR SYSTEMS

Circuits for Movement CME

Silvia Arber, PhD
Biozentrum, University of Basel and Friedrich Miescher Institute

Movement is the behavioral output of the nervous system. Animals carry out an enormous repertoire of distinct actions, spanning from seemingly simple repetitive tasks like walking, to more complex movements such as forelimb manipulation tasks. This lecture will focus on recent work elucidating the organization and function of neuronal circuits at the core of regulating distinct motor behaviors. It will show that dedicated circuit modules within different brainstem nuclei and their interactions in the motor system play key roles in action diversification.

Special Lectures (cont.)

Understanding Mammalian Microcircuits: Let Inspiration Guide the Way CME

Jack L. Feldman, PhD
University of California, Los Angeles

More than 25 years since our discovery of the pre-Bötzinger Complex, the core of the circuit for breathing, the underlying mechanisms governing its dynamics remain elusive and are much more complex than we first thought. This lecture will address how novel emergent mechanisms, but not pacemakers, inhibition, or bursting, are likely to be critical and describe the roles the pre-BötC plays in regulation of body function, other movements, and emotion. The neural circuit controlling breathing is inimitably tractable and may inspire general strategies for elucidating other neural microcircuits.

THEME F: INTEGRATIVE PHYSIOLOGY AND BEHAVIOR

Bitten: Understanding and Modulating Mosquito Attraction to Humans CME

Leslie B. Vosshall, PhD
Rockefeller University

By the act of feeding on our blood, female mosquitoes spread dangerous infectious diseases such as malaria, dengue, zika, and yellow fever to humans. We attract mosquitoes via multiple sensory cues, including emitted body odor, body heat, and carbon dioxide in the breath. The mosquito perceives differences in these cues, both between and within species, to determine which animal or human to target for blood-feeding. This lecture will focus on the genes and circuits that drive this dangerous behavior and how it is modulated by the internal physiological state of the mosquito.

From Song to Synapse: Vocal Communication in Sparrows, Finches, and Mice CME

Richard D. Mooney, PhD
Duke University School of Medicine

The interplay between hearing and vocalization is critical to vocal communication and vocal learning. Recent research using both songbirds and mice has provided keen insights into the neural circuits and mechanisms that mediate this sensorimotor interplay. This lecture will cover recent progress in understanding how auditory experience engages and shapes motor systems to enable vocal learning, how motor systems modulate hearing during vocalization and other movements, and the neural circuitry that produces vocalizations used for social communication.

THEME G: MOTIVATION AND EMOTION

Translational Neuroepigenetic Insights of Addiction Vulnerability CME

Yasmin L. Hurd, PhD
Icahn School of Medicine at Mount Sinai

Drug addiction involves complex interaction of dynamic processes that contribute to individual vulnerability from early stages of development and during different phases of life by linking genetic factors with environmental experiences. This lecture will focus on the neurobiological insights we have gained about the molecular underpinnings of substance abuse (particularly cannabis and opiates) using multidisciplinary translational approaches in humans and animal models. The work presented will illuminate epigenetic mechanisms associated with addiction risk, even across generations.

THEME H: COGNITION

Deciphering the Dynamics of the Unconscious Brain Under General Anesthesia CME

Emery N. Brown, MD, PhD
Massachusetts Institute of Technology

General anesthesia is a drug-induced reversible coma. A primary mechanism by which anesthetics induce altered states of arousal is by producing large, structured oscillations that impair communication among brain regions. This lecture will discuss the neurophysiology of these oscillations and how they change with drug and patient age. It will show new ways to control the anesthetic state and induce rapid emergence from anesthesia. Studying mechanisms of anesthesia is a largely untapped way of studying the brain.

The Social Brain in Human Adolescence CME

Sarah-Jayne Blakemore, PhD
University College London

Social cognitive processes involved in navigating an increasingly complex social world continue to develop throughout human adolescence. In the past 20 years, neuroscience research has shown that the human brain develops both structurally and functionally during adolescence. Areas of the social brain undergo significant reorganization during the second decade of life, which might reflect a sensitive period for adapting to the social environment.

THEME I: TECHNIQUES

Dendritic Spines Shaping Memory and Behaviors CME

Haruo Kasai, MD, PhD
Graduate School of Medicine, University of Tokyo

Spiny protrusions of dendrite, called dendritic spines, are the major postsynaptic sites for excitatory synaptic transmission in the brain. New studies indicate that spines act as memory elements, and do so by their structural plasticity. Such cell motility regulates functional connectivity and enables Hebbian and reinforcement learning in the cortex and basal ganglia. Motility can be spontaneous, and such fluctuations may determine memory persistence and stabilize recurrently connected networks. Spine motility connects cell biology to mental functions and disorders.

"It is a great venue to discuss and learn about science at every level."

— SfN MEMBER

Find the latest session information at SfN.org/lectures.

Symposia

THEME A: DEVELOPMENT

Making Serotonergic Neurons: From Mouse to Human CME
Chair: Jian Feng, PhD

Neuroepigenetics CME
Chair: Li-Huei Tsai, PhD

Neuronal Cytoskeleton 2.0: A Revised View of an Ancient Edifice CME
Chair: Subhojit Roy, MD, PhD
Co-Chair: Casper Hoogenraad, PhD

THEME B: NEURAL EXCITABILITY, SYNAPSES, AND GLIA

Synaptic Actin Dysregulation: A Convergent Mechanism of Mental Disorders? CME
Chair: Scott H. Soderling, PhD
Co-Chair: Zhen Yan, PhD

The Ultrastructural Basis of Synaptic Transmission and Plasticity CME
Chair: Kristen M. Harris, PhD
Co-Chair: Nils Brose, PhD

THEME C: NEURODEGENERATIVE DISORDERS AND INJURY

Autophagy-Lysosomal Mechanism in Neurodegeneration CME
Chair: Zhenyu Yue, PhD
Co-Chair: Ana Maria Cuervo, MD, PhD

Microtubule and Tau-Based Therapy for Alzheimer's Disease and Other Brain Disorders CME
Chair: Illana Gozes, PhD
Co-Chair: Eckhard Mandelkow, PhD

Proteoglycans in Neural Development and Disease CME
Chair: Herbert M. Geller, PhD
Co-Chair: Jerry Silver, PhD

THEME D: SENSORY SYSTEMS

Current Topics in Chronic Pain: From Molecules to Medicine CME
Chair: Cheryl L. Stucky, PhD
Co-Chair: Xinzhong Dong, PhD

Mechanisms of Object Organization in the Visual Cortex CME
Chair: Rudiger von der Heydt, PhD

Neuroscience of Music: Novel Discoveries and Their Implications in the Understanding of Music and the Brain CME
Chair: Elizabeth Stegemöller, PhD
Co-Chair: Patricia Izbicki

THEME E: MOTOR SYSTEMS

Facilitation of Recovery of Motor Function After Paralysis With Non-invasive Spinal Cord Stimulation CME
Chair: V. Reggie Edgerton, PhD

New Developments in Understanding the Complexity of Human Speaking CME
Chair: Kristina Simonyan, MD, PhD

Spike Timing Codes for Motor Control CME
Chair: Samuel J. Sober, PhD

The Neural Basis of Adaptive Motor Control in the Cerebellum CME
Chair: Reza Shadmehr, PhD

THEME F: INTEGRATIVE PHYSIOLOGY AND BEHAVIOR

Getting Down to Business: Identifying Epigenetic Mechanisms of Behaviors Within Discrete Cell Populations CME
Chair: Tracy L. Bale, PhD
Co-Chair: Paul J. Kenny, PhD

Physical Activity Impacting Neuroplasticity in Aging and Disease CME
Chair: Giselle Petzinger, MD
Co-Chair: Sarah McEwen, PhD

THEME G: MOTIVATION AND EMOTION

Advances in Noninvasive Brain Stimulation Along the Space-Time Continuum CME
Chair: C. Alex Goddard, PhD
Co-Chair: Sarah H. Lisanby, MD

Moving From Pavlovian 'Fear' Conditioning to Active Avoidance CME
Chair: Christopher K. Cain, PhD
Co-Chair: Gregory J. Quirk, PhD

Neural Basis of Social Rewards and Group Decisions: From Scanners to the Real World CME
Chair: Brian Knutson, PhD
Co-Chair: Jorge Moll, MD, PhD

The Lateral Habenula Circuitry: Reward Processing and Cognitive Control CME
Chair: Aleksandra Vicentic, PhD
Co-Chair: Bo Li, PhD

THEME H: COGNITION

Fronto-Subthalamic Circuits for Control of Action and Cognition CME
Chair: Adam R. Aron, PhD

Is the Prefrontal Cortex Special? Working Memory Across the Cortical Mantle, From Single Units to Neural Ensembles CME
Chair: Julio C. Martinez-Trujillo, MD, PhD
Co-Chair: Christos Constantinidis, PhD

CME These activities have been approved for *AMA PRA Category 1 Credit.*™ For details, see page 9 and visit SfN.org/cme.

"The meeting is a great opportunity to meet with other scientists at the post-doc or PI levels and collaborations can arise at any time."

— SfN MEMBER

Find the latest session information at SfN.org/symposia.

Minisymposia

THEME A: DEVELOPMENT

Building the Cerebral Cortex: Mechanisms That Mediate Migration, Specification, and Axonal Outgrowth CME
Chair: Jill M. Weimer, PhD
Co-Chair: Jason Newbern, PhD

Current Perspectives in Autism Spectrum Disorder: From Genes to Therapy CME
Chair: M. Chiara Manzini, PhD
Co-Chair: Maria Chahrour, PhD

Human Brain Development and Maturation: Animal Brain Mapping, Human Brain Imaging, and Computer Simulation CME
Chair: Koko Ishizuka, MD, PhD
Co-Chair: Tomomi Shimogori, PhD

Neural Stem Cells to Cerebral Cortex: Emerging Mechanisms Regulating Progenitor Behavior and Productivity CME
Chair: Troy Ghashghaei, PhD
Co-Chair: Noelle Dwyer, PhD

THEME B: NEURAL EXCITABILITY, SYNAPSES, AND GLIA

Astrocytes as Active Participants in Neural Circuits: From Cells to Systems CME
Chair: Kira Poskanzer, PhD
Co-Chair: Anna V. Molofsky, MD, PhD

Casting a Wide Net: Role of Perineuronal Nets in Neural Plasticity CME
Chair: Barbara A. Sorg, PhD

Mechanisms and Consequences of White Matter Plasticity CME
Chair: David Lyons, PhD
Co-Chair: Jonah R. Chan, PhD

Role of Tau in Neural Network Dysfunction: From Mechanisms to Therapeutics CME
Chair: Lennart Mucke, MD
Co-Chair: Jeffrey L. Noebels, MD, PhD

THEME C: NEURODEGENERATIVE DISORDERS AND INJURY

Association of Alzheimer's Disease and Other Cognitive Impairments With Metabolic Syndrome: Whenceforth Causality? CME
Chair: Steven W. Barger, PhD
Co-Chair: Natalie L. Rasgon, MD, PhD

Dysregulation of MRNA Localization and Translation in Genetic Disease CME
Chair: Gary J. Bassell, PhD
Co-Chair: Eric Wang, PhD

Second Generation AD Mouse Models for Reproducible Preclinical Studies CME
Chair: Takaomi C. Saido, PhD
Co-Chair: Bart De Strooper, MD, PhD

THEME D: SENSORY SYSTEMS

New Insight Into Cold Pain: Role of Ion Channels, Modulation, and Clinical Perspectives CME
Chair: Jacques Noel, PhD
Co-Chair: Jerome Busserolles, PhD

THEME E: MOTOR SYSTEMS

Neuronal Circuits Driving Behavior: Invertebrates to Vertebrates CME
Chair: Sara M. Wasserman, PhD

Pre-Bötzinger Complex 25 Years Later: Diverse Functions of the Breathing Rhythm Generator and Their Cellular and Molecular Origins CME
Chair: Christopher A. Del Negro, PhD

THEME F: INTEGRATIVE PHYSIOLOGY AND BEHAVIOR

Actions of Steroids: New Neurotransmitters CME
Chair: Paul E. Micevych, PhD
Co-Chair: Lauren M. Rudolph, PhD

Food for Thought: How Diet Influences Cognitive Function and Emotion CME
Chair: Sarah Spencer, PhD
Co-Chair: Ruth M. Barrientos, PhD

Hypocretins and Orexins: What Have We Learned in Nearly 20 Years? CME
Chair: Joshua A. Burk, PhD
Co-Chair: James R. Fadel, PhD

Neurogenetic Insights Into Speech and Language From Birds and Bats CME
Chair: Sonja C. Vernes, PhD
Co-Chair: Michael M. Yartsev, PhD

Oxytocin From Rodents to Humans: How to Translate Research Into Therapeutic Applications in Psychiatry CME
Chair: Valery Grinevich, MD, PhD
Co-Chair: Alexandre Charlet, PhD

Visceral Autonomic Nerves as Targets for Precision Bioelectronic Medicines CME
Chair: Warren M. Grill, PhD
Co-Chair: Arun Sridhar, PhD

THEME G: MOTIVATION AND EMOTION

Homeostasis Versus Motivation in the Battle to Control Food Intake CME
Chair: Eoin C. O'Connor, PhD

Spanning the Central-Peripheral Divide: Bridging the Gap to Find Novel Strategies to Target Depression CME
Chair: Amelia J. Eisch, PhD
Co-Chair: Sanghee Yun, PhD

THEME H: COGNITION

Neural Mechanisms of Economic Choice CME
Chair: Benjamin Y. Hayden, PhD
Co-Chair: Erin L. Rich, MD, PhD

Object Encoding, Semantic Representation, and Memory Formation by Single Neurons in the Human Medial Temporal Lobe CME
Chair: Florian Mormann, MD, PhD
Co-Chair: Peter N. Steinmetz, MD, PhD

The Neural and Computational Construction of Confidence in Decision-Making CME
Chair: Megan A.K. Peters, PhD
Co-Chair: Piercesare Grimaldi, PhD

THEME I: TECHNIQUES

Computational Ethological Approaches for Dissecting the Neural Basis of Behavior in Genetic Model Systems CME
Chair: Megan R. Carey, PhD
Co-Chair: Andre E. Brown, PhD

Mammalian Nervous System Cell Types: CNS Diversity Through the Lens of Single-Cell RNA-Sequencing (RNA-Seq) CME
Chair: Bosiljka Tasic, PhD

Mesoscale Imaging of Cortical Function and Dysfunction in Mice CME
Chair: Jack Waters, PhD

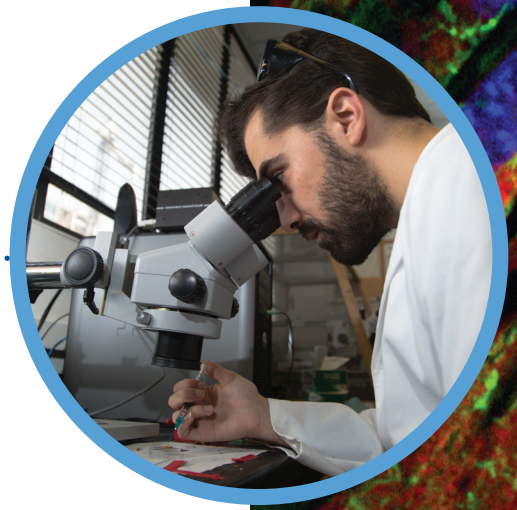
Multiscale Connectomics: Maps, Models, and Mechanisms CME
Chair: Alex Fornito, PhD
Co-Chair: Andrew Zalesky, PhD

Nanoscale Neurocartography: Approaches and Theory for Inference and Analysis of Synaptomes and Connectomes CME
Chair: Narayanan Kasthuri, MD, PhD

Using Miniature Microscopes to Probe the Neural Ensemble Correlates of Innate and Learned Behaviors in Freely Moving Mice CME
Chair: Benjamin F. Grewe, PhD
Co-Chair: Jones G. Parker, PhD

Find the latest session information at SfN.org/minisymposia.

Clinician-Scientists and Continuing Medical Education (CME)



SfN will introduce two new session formats at Neuroscience 2016 geared toward translational and clinical research in neuroscience. A new Meet-the-Clinician-Expert session (pg. 12) will give attendees a behind-the-scenes look at factors influencing a clinician-scientist's work. Additionally, the annual meeting will host three Basic-Translational-Clinical Roundtables discussing research related to neuroinflamation and psychiatric disorders, the effects of medical marijuana, and critical topics in pain therapeutics (pg. 13).

Attendees can continue to look forward to the Clinical Neuroscience Lecture and make use of the clinical neuroscience curated itinerary (available this summer), which highlights sessions that focus on clinical research. Attendees can also earn Continuing Medical Education (CME) credits while taking advantage of SfN's robust programming. Remember to register for SfN's CME program during registration or on-site at the meeting.

Physicians: Improve Competencies While Earning CME Credit

The Society for Neuroscience's (SfN) annual meeting is a forum for the education of physicians in the field of neuroscience. By attending lectures, symposia, and minisymposia, physicians receive both a broad overview of the field and detailed information about the most recent advances and research on specific topics. Abstracts for each plenary session contain brief descriptions 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 gain competence in the basic science that underlies clinical medicine; SfN's annual meeting is the premier venue for this educational opportunity. Physicians learn about the most up-to-date, cutting-edge discoveries regarding the brain and nervous system.

Global Learning Objective

Physicians will integrate the most up-to-date information and research on the mechanism, treatment, and diagnosis of conditions related to neurological and psychiatric disorders into their diagnostic and therapeutic modalities of practice, to determine the best treatment for the patient.

Accreditation

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

CME Registration

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 able to request CME credits. Two weeks before the meeting, CME registrants will receive an email about the CME Supplemental Program, which contains important details regarding the CME program, including disclosure information and instructions for obtaining CME credits.

Learn More at SfN.org/cme.

Program at a Glance

FRIDAY NOVEMBER 11	
8 a.m.–5 p.m.	**NEUROBIOLOGY OF DISEASE WORKSHOP:** From Pediatric Encephalopathy to Alzheimer's: Linking Mitochondria to Neurological Diseases
8 a.m.–6 p.m.	**SHORT COURSE #1:** Using Single-Cell Genomics to Analyze Neurons, Glia, and Circuits
8:30 a.m.–6 p.m.	**SHORT COURSE #2:** Data Science and Data Skills for Neuroscientists
1–5:30 p.m.	**SHORT COURSE #3:** Keeping Track of Your Data: It's Your Responsibility
SATURDAY NOVEMBER 12	
8–9:15 a.m.	**MEET-THE-EXPERT SERIES:** Session 1
9–11 a.m.	Neuroscience Departments and Programs Workshop
9–11 a.m.	Success in Academia: A Focus on Strategies for Women
10–11 a.m.	Mobile App Tutorial
9:30–10:45 a.m.	**MEET-THE-EXPERT SERIES:** Session 2
11 a.m.–1 p.m.	Dialogues Between Neuroscience and Society
noon–2 p.m.	Careers in Making Medicines: Translating Basic Research Into Pharmaceutical Development
noon–2 p.m.	Creating, Sustaining, and Enhancing Undergraduate Neuroscience Programs
1–3 p.m.	Graduate School Fair
1–5 p.m.	Posters/Nanosymposia
1:30–4 p.m.	Symposia/Minisymposia CME
2–3:10 p.m.	Special Lecture CME
3–4:30 p.m.	Brain Awareness Campaign Event
3–5 p.m.	NIH Funding and You: A Practical Guide to Surviving and Thriving in Your Research Career
3–5 p.m.	Optimizing the Mentor-Trainee Relationship
5:15–6:25 p.m.	Presidential Special Lecture CME
6:30–8:30 p.m.	Diversity Fellows Poster Session
6:30–8:30 p.m.	International Fellows Poster Session
6:30–8:30 p.m.	Trainee Professional Development Awards Poster Session
7:30–9:30 p.m.	Career Development Topics: A Networking Event
SUNDAY NOVEMBER 13	
8 a.m.–noon	Posters/Nanosymposia
8:30–9:40 p.m.	Special Lecture CME
8:30–11 a.m.	Symposia/Minisymposia CME
9–11 a.m.	A Guide to Publishing in Journals
9–11 a.m.	Stand Up and Be Heard: Navigating Career Communications
9:30 a.m.–5 p.m.	Exhibits
10–11:10 a.m.	Special Lecture CME
11:30 a.m.–12:40 p.m.	Special Lecture CME
11:30 a.m.–1 p.m.	Chapters Workshop
noon-1:30 p.m.	Successful Career Advancement Through Networking: Is It Who You Know?
noon–2 p.m.	Graduate School Fair
noon–2:15 p.m.	Path to Translation for the Inspired
1–2:10 p.m.	Special Lecture CME
1–3 p.m.	**SOCIAL ISSUES ROUNDTABLE:** Concussion: From the Players' Experience to the Future of Research
1–5 p.m.	Posters/Nanosymposia
1:30–4 p.m.	Symposia/Minisymposia CME
2:30–3:40 p.m.	Peter and Patricia Gruber Lecture
3–5 p.m.	Biomedical Education and Careers for Scientists (PhD) and Physican-Scientists (MD-PhD)
3–5 p.m.	Meeting Expectations: NIH Review Criterion on Scientific Rigor and Reproducibility
5:15–6:25 p.m.	Presidential Special Lecture CME
6:45–8:45 p.m.	SfN-Sponsored Socials
MONDAY NOVEMBER 14	
8 a.m.–noon	Posters/Nanosymposia
8:30–9:40 a.m.	Special Lecture CME
8:30–11 a.m.	**CLINICAL ROUNDTABLE #1:** The Subcortical Source of Inflammatory Malaise CME **NEW**
8:30–11 a.m.	Symposia/Minisymposia CME

CME These activities have been approved for *AMA PRA Category 1 Credit.*™ For details, see page 5 and visit SfN.org/cme.

9–11 a.m.	How to Present Science Using Visual Tools
9–11 a.m.	Teaching Neuroscience With Big Data
9:30 a.m.–5 p.m.	Exhibits
10–11:10 a.m.	David Kopf Lecture on Neuroethics
11:30 a.m.–12:40 p.m.	Special Lecture CME
noon–2 p.m.	Graduate School Fair
noon–2 p.m.	It's a Win-Win: Effectively Engaging Undergraduates in Research
1–5 p.m.	Posters/Nanosymposia
1:30–4 p.m.	Symposia/Minisymposia CME
3:15–4:25 p.m.	Albert and Ellen Grass Lecture CME
5:15–6:25 p.m.	Presidential Special Lecture CME
6:45–8:45 p.m.	SfN-Sponsored Socials

TUESDAY NOVEMBER 15

8 a.m.–noon	Posters/Nanosymposia
8:30–9:40 p.m.	Special Lecture CME
8:30–11 a.m.	CLINICAL ROUNDTABLE #2: Medications Development for Cannabis Use Disorder: CB1 Receptor Agonists, Antagonists, and Signaling-Specific Inhibitors CME NEW
8:30–11 a.m.	Symposia/Minisymposia CME
9:30 a.m.–5 p.m.	Exhibits
10–11:10 a.m.	Special Lecture CME
10 a.m.–noon.	ANIMALS IN RESEARCH PANEL: How to Engage Institutions to Publically Support Animal Research: A Top-Down Approach
11:30–12:40 p.m.	Special Lecture CME
noon–2 p.m.	Celebration of Women in Neuroscience Luncheon
noon–2 p.m.	Graduate School Fair
1–2:10 p.m.	Special Lecture CME
1–5 p.m.	Posters/Nanosymposia
1:30–4 p.m.	Symposia/Minisymposia CME
2:30–3:40 p.m.	Fred Kavli History of Neuroscience Lecture
2–4 p.m.	PUBLIC ADVOCACY FORUM: Art, Music, and the Brain: How the Arts Influence Us from Youth to Maturity
5:15–6:25 p.m.	Presidential Special Lecture CME
6:45–7:30 p.m.	SfN Members' Business Meeting
6:45–8:45 p.m.	SfN-Sponsored Socials
9 p.m.–midnight	Graduate Student Reception

WEDNESDAY NOVEMBER 16

8 a.m.–noon	Posters/Nanosymposia
8:30–9:40 p.m.	Special Lecture CME
8:30–11 a.m.	CLINICAL ROUNDTABLE #3: Critical Topics in Pain Mechanisms and Therapeutics CME NEW
8:30–11 a.m.	Symposia/Minisymposia CME
9:30 a.m.–5 p.m.	Exhibits
10–11:10 a.m.	Special Lecture CME
11:30–12:40 p.m.	Special Lecture CME
1–2:10 p.m.	Special Lecture CME
1–5 p.m.	Posters/Nanosymposia
1:30–4 p.m.	Symposia/Minisymposia CME

Workshops, Meetings, and Events

Professional Development, Advocacy, and Networking Resources

✍ Preregistration Required
$ Course Fee
🕮 Professional Development
⚭ Networking
🎙 Public Outreach

WORKSHOP FEES

Short Courses 1 and 2

(Includes electronic syllabus and lunch)

Student member.....$150
Student nonmember.....$225
Postdoctoral member.....$225
Postdoctoral nonmember.....$340
Faculty member.....$295
Faculty nonmember.....$445

Short Course 3

(Includes electronic syllabus)

Student member.....$100
Student nonmember.....$150
Postdoctoral member.....$150
Postdoctoral nonmember.....$225
Faculty member.....$200
Faculty nonmember.....$300

Neurobiology of Disease Workshop

(Includes breakfast, lunch, and reception)....$40

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

Friday, Nov. 11

NEUROBIOLOGY OF DISEASE WORKSHOP

From Pediatric Encephalopathy to Alzheimer's: Linking Mitochondria to Neurological Diseases

✍ $ 🕮
8 a.m.–5 p.m.
Organizers: Heidi McBride, PhD; Giovanni Manfredi, MD, PhD
Contact: training@sfn.org
Support contributed by: National Institue of Neurological Disorders and Stroke

SHORT COURSE 1

Using Single-Cell Genomics to Analyze Neurons, Glia, and Circuits ✍ $ 🕮

8 a.m.–6 p.m.
Organizer: Steve McCarroll, PhD
Contact: training@sfn.org
Partial support contributed by: Otsuka America Pharmaceutical, Inc. and Lundbeck

SHORT COURSE 2

Data Science and Data Skills for Neuroscientists ✍ $ 🕮

8:30 a.m.–6 p.m.
Organizers: Alyson Fletcher, PhD; Konrad Kording, PhD
Contact: training@sfn.org

SHORT COURSE 3

Keeping Track of Your Data: It's Your Responsibility ✍ $ 🕮

1–5:30 p.m.
Organizers: Michele Basso, PhD; Katja Brose, PhD; Horacio de la Iglesia, PhD; Sabine Kastner, MD, PhD; Rae Nishi, PhD
Contact: training@sfn.org

Saturday, Nov. 12

Meet-the-Expert Series 🕮 ⚭

Contact: training@sfn.org

SESSION 1: 8–9:15 A.M.

Following the Scents of Discovery

Ricardo Araneda, PhD

Meet-the-Clinician Expert: Chasing Translation

Dennis Choi, MD, PhD

Single Unit Recording in Awake Monkeys: Studying the Physiology of Cognition

Michael Goldberg, MD

Mitochondria and Bioenergetics in Alzheimer's Disease

Russell Swerdlow, MD

The Retina: A Colorful Window to the Brain

Rachel Wong, PhD
Support contributed by: Thorlabs, Inc.

SESSION 2: 9:30–10:45 A.M.

Viral Connectomics: Tracing a Monosynaptic Path With Glycoprotein Deleted Rabies Viruses

Edward Callaway, PhD

Getting Psych-Ed for the Future of Behavioral Neuroscience

Patricia Janak, PhD

Open-Source New-Generation Miniaturized Microscopes

Peyman Golshani, MD, PhD

Toward Intact Tissue Mapping and Phenotyping With Optogenetics, Tissue Clearing, and Viral Vector Engineering

Viviana Gradinaru, PhD

Decoding Cellular Diversity in the Brain

Hongkui Zeng, PhD

Neuroscience Departments and Programs Workshop 🕮

9–11 a.m.
Organizer: Elisabeth Van Bockstaele, PhD
Contact: training@sfn.org

Success in Academia: A Focus on Strategies for Women 🕮

9–11 a.m.
Organizer: Tracy Bale, PhD
Contact: mpd@sfn.org

Mobile App Tutorial

10–11 a.m.
Contact: program@sfn.org

Careers in Making Medicines: Translating Basic Research Into Pharmaceutical Development 🕮

noon–2 p.m.
Organizer: Fiona Randall, PhD
Contact: mpd@sfn.org

Creating, Sustaining, and Enhancing Undergraduate Neuroscience Programs 🕮

noon–2 p.m.
Organizer: Janet Finlay, PhD
Contact: mpd@sfn.org

Graduate School Fair ⚭

Saturday, Nov. 12, 1–3 p.m.
Sunday, Nov. 13–Tuesday Nov. 15, noon-2 p.m.
Contact: ndp@sfn.org

BRAIN AWARENESS CAMPAIGN EVENT ⚭ 🎙

3–4:30 p.m.
Contact: baw@sfn.org

NIH Funding and You: A Practical Guide to Surviving and Thriving in Your Research Career 🕮

3–5 p.m.
Organizers: Stephen Korn, PhD
Contact: mpd@sfn.org

Optimizing the Mentor-Trainee Relationship 🕮

3–5 p.m.
Organizer: Lique Coolen, PhD
Contact: training@sfn.org

Find the latest session information at SfN.org/workshops.

Diversity Fellows Poster Session
6:30–8:30 p.m.
Contact: nsp@sfn.org
Support contributed by: eNeuro and the Journal of Neuroscience

International Fellows Poster Session
6:30–8:30 p.m.
Contact: globalaffairs@sfn.org
Support contributed by: eNeuro and the Journal of Neuroscience

Trainee Professional Development Awards Poster Session
6:30–8:30 p.m.
Contact: awards@sfn.org
Support contributed by: eNeuro and the Journal of Neuroscience

Career Development Topics: A Networking Event
7:30–9:30 p.m.
Contact: mpd@sfn.org

Sunday, Nov. 13

A Guide to Publishing in Journals
9–11 a.m.
Organizer: Ross Hildrew
Contact: mpd@sfn.org

Stand Up and Be Heard: Navigating Career Communications
9–11 a.m.
Organizer: Fiona Randall, PhD
Contact: mpd@sfn.org

Chapters Workshop
11:30 a.m.–1 p.m.
Contact: chapters@sfn.org

Successful Career Advancement Through Networking: Is It Who You Know?
noon–1:30 p.m.
Organizers: Mark Baxter, PhD; Rebecca Shansky, PhD
Contact: mpd@sfn.org

Path to Translation for the Inspired
noon–2:15 p.m.
Organizers: William Mobley, MD; Hao Wang, PhD
Contact: mpd@sfn.org

SOCIAL ISSUES ROUNDTABLE

Concussion: From the Players' Experience to the Future of Research
1–3 p.m.
Organizers: Candace Floyd, PhD; Harvey Levin, PhD
Contact: advocacy@sfn.org

Biomedical Education and Careers for Scientists (PhD) and Physician-Scientists (MD-PhD)
3–5 p.m.
Organizer: Lique Coolen, PhD
Contact: mpd@sfn.org

Meeting Expectations: NIH Review Criterion on Scientific Rigor and Reproducibility
3–5 p.m.
Organizer: Cheryl Sisk, PhD
Contact: training@sfn.org
Support contributed by: National Institute on Drug Abuse

Monday, Nov. 14

NEW CLINICAL ROUNDTABLE #1 CME

The Subcortical Source of Inflammatory Malaise
8:30–11 a.m.
Organizer: Andrew Miller, MD
Contact: program@sfn.org

How to Present Science Using Visual Tools
9–11 a.m.
Organizer: Scott Thompson, PhD
Contact: mpd@sfn.org

Teaching Neuroscience With Big Data
9–11 a.m.
Organizers: William Grisham, PhD; Richard Olivo, PhD
Contact: mpd@sfn.org

It's a Win-Win: Effectively Engaging Undergraduates in Research
noon–2 p.m.
Organizer: Donita Robinson, PhD
Contact: mpd@sfn.org

Tuesday, Nov. 15

NEW CLINICAL ROUNDTABLE #2 CME

Medications Development for Cannabis Use Disorder: CB1 Receptor Agonists, Antagonists and Signaling-Specific Inhibitors
8:30–11 a.m.
Organizer: Margaret Haney, PhD
Contact: program@sfn.org

ANIMALS IN RESEARCH PANEL

How to Engage Institutions to Publically Support Animal Research: A Top-Down Approach
10 a.m.–noon
Organizer: Mar Sanchez, PhD
Contact: advocacy@sfn.org
Support contributed by: National Primate Research Centers

Celebration of Women in Neuroscience Luncheon
noon–2 p.m.
Contact: cwin@sfn.org

PUBLIC ADVOCACY FORUM

Art, Music, and the Brain: How the Arts Influence Us from Youth to Maturity
2–4 p.m.
Organizer: William Martin, PhD
Contact: advocacy@sfn.org

SfN Members' Business Meeting
6:45–7:30 p.m.
Contact: info@sfn.org

Graduate Student Reception
9 p.m.–midnight
Contact: meetings@sfn.org

Wednesday, Nov. 16

NEW CLINICAL ROUNDTABLE #3 CME

Critical Topics in Pain Mechanisms and Therapeutics
8:30–11 a.m.
Organizer: Timothy J. Brennan, MD, PhD
Contact: program@sfn.org

CME These activities have been approved for *AMA PRA Category 1 Credit.*™ For details, see page 9 and visit SfN.org/cme.

SfN-Sponsored Socials

Sunday, Nov. 13, 6:45–8:45 p.m.

- Cajal Club Social
- Cell Death and Cell Stress Social
- Clinical Neuroscience Social
- Cognitive Neuroscience Social
- Faculty for Undergraduate Neuroscience Social
- Hearing and Balance Social
- Itch Social
- Neuroethology/Invertebrate Neurobiology Social
- Neuroinformatics Social
- Pain Neuroscience Social
- Spinal Cord Injury Social

Monday, Nov. 14, 6:45–8:45 p.m.

- Alzheimer's and Related Dementias Social
- Behavioral Neuroendocrinology Social
- Developmental Neurobiology Social
- Hippocampus Social
- Ingestive Social
- Music Social
- Neural Control of Autonomic and Respiratory Function Social
- Psychopharmacology Social
- Vision Social

Tuesday, Nov. 15, 6:45–8:45 p.m.

- Computational Neuroscience Social
- Epilepsy Social
- Eye Movement and Vestibular System Social
- Neuroendocrinology Social
- Neuroethics Social
- Neuron-Glia Interactions Social
- Optogenetics Social
- Sensorimotor Social
- Songbird Social
- Synapses and Excitatory Amino Acids Social

For more information, visit SfN.org/socials.

Satellite Events

Multi-Day Events

11th Brain Research Conference, 4th RNA Metabolism in Neurological Disease
Nov. 10–11 8 a.m.–6 p.m.

15th Annual Molecular and Cellular Cognition Poster Session
Nov. 10 6:30–9:30 p.m.
Meeting
Nov. 11 9 a.m.–5 p.m.

26th Neuropharmacology Conference: Ionotropic Glutamate Receptors
Nov. 10–11 8:30 a.m.–7:30 p.m.

49th Annual International Society for Developmental Psychobiology
Nov. 9–10 8 a.m.–9 p.m.
Nov. 11 8 a.m.–5 p.m.
Reception
Nov. 11 7–9 p.m.

Alzheimer's Fast Track Workshop
Nov. 9–10 7 a.m.–7 p.m.
Nov. 10–11 8 a.m.–6 p.m.

American Society for Neurorehabilitation
Nov. 10 8 a.m.–7 p.m.
Nov. 11 8 a.m.–5:30 p.m.

Barrels XXIX
Nov. 10 8 a.m.–10 p.m.
Nov. 11 8 a.m.–5 p.m.

Cell Symposia: Big Questions in Neuroscience
Nov. 10–11 8 a.m.–6 p.m.

IEEE Workshop on Advanced NeuroTechnologies for Brain Initiatives: Challenges and Opportunities
Nov. 9 8 a.m.–6 p.m.
Nov. 10 8 a.m.–5 p.m.

International Neuroethics Society Public Program
Nov. 10 5–8 p.m.
Annual Meeting
Nov. 11 8 a.m.–7 p.m.

J.B. Johnston Club for Evolutionary Neuroscience
Nov. 10 7 a.m.–7:30 p.m.
Nov. 11 7 a.m.–9:30 p.m.

Wiring and Functional Principles of Neural Circuits
Nov. 17–18 8:30 a.m.–5 p.m.

Friday, Nov. 11

Advances and Perspectives in Auditory Neuroscience (APAN)
8 a.m.–5 p.m.

Advances in Motor Control and Motor Learning
1–7 p.m.

Frontiers in Addiction Research: 2016 Joint NIDA-NIAAA Mini-Convention
8 a.m.–6 p.m.

Human Brain Project Collaborative Neuroscience and Enabling Infrastructure
1–5 p.m.

Society for the Neuroscience of Creativity
9 a.m.–1 p.m.

Spinal Cord Plasticity in Motor Control
8:30 a.m.–4 p.m.

Using NEURON to Model Cells and Networks
9 a.m.–5 p.m.

Saturday, Nov. 12

Chinese Neuroscientists Social
6:30–9 p.m.

Friends of Case Western Reserve University and Cleveland Clinic Social
6:30–8:30 p.m.

g.tec's Brain-Computer Interface Workshop for Control, Assessment and Rehabilitation
6:30–9:30 p.m.

Low Dose, Brain Dedicated PET
7–10:30 a.m.

Publishing Your Research With Impact
8:30–10:30 a.m.

The FENS-Kavli Network of Excellence Social
7:30–9:30 p.m.

Using the Neuroscience Gateway Portal (NSG) for Parallel Simulations
9–10:30 a.m.

Sunday, Nov. 13

Arab Neuroscientists Social
6:30–9 p.m.

ASPET's Neuropharmacology Division Social
6:30–8 p.m.

Boston University Graduate Program for Neuroscience Reception
7–10 p.m.

Dutch Neuroscience Social
7–10 p.m.

Ernst Strüngmann Forum Social
6:30–9:30 p.m.

Evelyn F. McKnight Brain Research Foundation Poster Reception
6:30–8:30 p.m.

International Behavioral Neuroscience Society Social
6:30–8:30 p.m.

Iranian Neuroscientists Community Annual Social Event
6:30–8:30 p.m.

Middle-Eastern Neuroscientists Social
6:30–9:30 p.m.

Neuroimmunology Social
6:30–8:30 p.m.

Parkinson's Disease Social
6:30–10 p.m.

PWN–Breaking Barriers for Young Women in Science
6:30–8:30 p.m.

RecoveriX and MindBEAGLE Workshop: Motor Recovery Neurotechnology and Consciousness Assessment
6:30–9:30 p.m.

Rutgers Brain Health Institute Reception
6:30–10 p.m.

Systems Neurobiology Approaches to Psychiatric Disease
6:30–8 p.m.

Taiwan Night
7:30–9:30 p.m.

The Kavli HUMAN Project: Society for Neuroscience Stakeholder Town Hall
6:30–8:30 p.m.

Monday, Nov. 14

2nd Thomas RECORDING Multichannel Recording Workshop
6:30–8:30 p.m.

13th Annual Christopher Reeve "Hot Topics" in Stem Cell Biology
6:30–9:30 p.m.

Applications of Wearable Sensing's Dry EEG Systems in BCI and Cognitive Neuroscience Research
6:30–9:30 p.m.

Association of Korean Neuroscientists: Annual Meeting and Social
6:30–9:30 p.m.

Basic and Translational Research in Neurodegenerative Disease: From Molecules to Animal Models
6:30–10 p.m.

BRAIN Initiative "TAD Talks": Technology Accelerating Discovery
6:30–8:30 p.m.

Green and Open Neurosciences Symposium & Soiree
6:30–9:30 p.m.

LGBT Social
7–9 p.m.

Locomotion Analysis to Examine Motor Function in Mouse Models of Neurological Disease
6:30–9 p.m.

Neurorehabilitation Social
6:30–8:30 p.m.

New Techniques in Electro- and Optophysiology
6:30–8:30 p.m.

NIH Common Fund Research Resources and Funding Opportunities
6:30–9 p.m.

Pavlovian Society Social
6:30–8:30 p.m.

Simons Foundation Autism Research Initiative (SFARI) Social
6:30–8:30 p.m.

Sleep and Circadian Biology Datablitz
8–10 p.m.

Sleep Research Society Club Hypnos Membership Reception
6:30–8 p.m.

Society for Neuroeconomics Social
6:30–8:30 p.m.

The Grass Foundation and Marine Biological Laboratory Social
6:30–8 p.m.

The Sixth Annual International Society for Serotonin Research (formerly the Serotonin Club) Mixer
6:30–8 p.m.

Towards a Neuroscience for Architecture and Aesthetics
6:30–8 p.m.

Washington University in St. Louis Neuroscience Reception
6:30–10 p.m.

Thursday, Nov. 17

Scientific Knowledge Discovery Over Big Data
10 a.m.–2 p.m.

Registration

Attend Neuroscience 2016 with more than 30,000 neuroscience researchers, clinicians, and advocates to hear the latest discoveries, explore new tools and technologies, and advance your career. This meeting is a must-attend event for neuroscientists at all career stages!

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 are uncertain about your membership status, contact memb@sfn.org or call (202) 962-4000.

Bonus Day opens at noon EDT on July 12 for members who renewed their membership by Jan. 29, 2016.

Registration Category	**Advance** Opens at noon EDT on July 13 for all members; noon EDT on July 19 for nonmembers	**Online Discount** Opens at midnight EDT on October 5 and continues through the annual meeting	**On-Site in Line** Opens at 7:30 a.m. PST on November 12 and continues through the annual meeting
Member	$375	$430	$515
Member, Category II	$155	$180	$220
Member, Category III	$220	$245	$285
Postdoctoral Member	$285	$325	$390
Postdoctoral Member, Category II	$100	$115	$140
Postdoctoral Member, Category III	$160	$180	$215
Student Member	$190	$215	$260
Student Member, Category II	$70	$75	$95
Student Member, Category III	$105	$120	$145
Student Member, Undergraduate	$95	$110	$130
Student Member, Undergraduate Category II	$35	$40	$45
Student Member, Undergraduate Category III	$55	$60	$75
Nonmember	$675	$775	$930
Student Nonmember	$345	$390	$470
Guest – Nonscientific	$55	$60	$70
CME Accreditation	$90	$105	$125

Printed Programs

Meeting attendees will be able to order printed programs at the time of registration. A limited number of daily books will be available on-site on a first-come, first-serve basis.

As an alternative, the annual meeting program will be available free of charge via the resources listed below:

- **Neuroscience 2016 Mobile App:** The meeting app will be available in mid-October as a free download on iPad, iPhone, and Android devices.
- **Neuroscience Meeting Planner (NMP):** The NMP lists all annual meeting program content. This resource will be accessible via SfN's web site starting in mid-August. Additionally, NMP computer terminals will be available onsite.
- **Annual Meeting Website:** PDF versions of the daily program books will be available online prior to the meeting.

Daily books should be ordered at the same time of registration. A limited number of daily books will be available on-site at the annual meeting on a first-come, first-serve basis		
Daily Book Options	Advance Opens at noon EDT on July 13 for all members; noon EDT on July 19 for nonmembers	Online, Onsite in-Line Starting at midnight EDT on October 5 and continues through the annual meeting
Full set of 5 daily books and author index, Member	$25	$30
Full set of 5 daily books and author index, Nonmember	$35	$40
Individual daily books, member	$14	$14
Individual daily books, nonmember	$19	$19

Travel and Hotel Information

AIRPORT

San Diego International Airport

san.org
Phone: (619) 400-2400
Located 3 miles (5 km) from downtown San Diego

INTERNATIONAL ATTENDEES

Visa Information

If you are from a nation participating in the Visa Waiver Program, review U.S. travel regulations early to ensure compliance. For more information and to request an official invitation letter, visit sfn.org/visainfo.

HOTEL INFORMATION

Housing for advance registered members who renewed by Jan. 29, 2016, opens at noon EDT on July 12; for all other members at noon EDT on July 13; and for advance nonmembers at noon EDT on July 19. Housing is open through October 14.

- Reservations can be made online or by phone, fax, or mail. Online hotel reservations are encouraged and will be given priority. Reservations are not accepted directly by participating hotels or SfN headquarters.
- The Hilton Bayfront, Manchester Grand Hyatt, and the Marriott Marquis San Diego Marina are the official co-headquarters hotels.

Reservation Policies and Procedures

- To make a hotel reservation through SfN Housing, you must be registered for Neuroscience 2016. Only one hotel room may be reserved per paid registrant until August 22.
- Upon registering, each attendee will receive a unique registration confirmation number that is required to make a hotel reservation. Reservations must be guaranteed with a valid credit card or check deposit.
- SfN Housing will make your reservation based on your requests; however, special requests cannot be guaranteed. It is the attendee's responsibility to reconfirm requests directly with the assigned hotel prior to arrival.
- A limited number of lower-priced hotel rooms have been set aside through August 29 for students and member category I, II, and III registrants.
- Housing for exhibitors opens July 26. For exhibitor hotel reservation information, visit sfn.org/exhibits.
- You may change or cancel hotel reservations until 9 p.m. EDT on Oct. 14.

Contact Information

sfnsupport@cmrus.com
(866) 999-3093 (U.S. and Canada)
+1 (415) 268-2091 (International)
9 a.m.–9 p.m. EDT

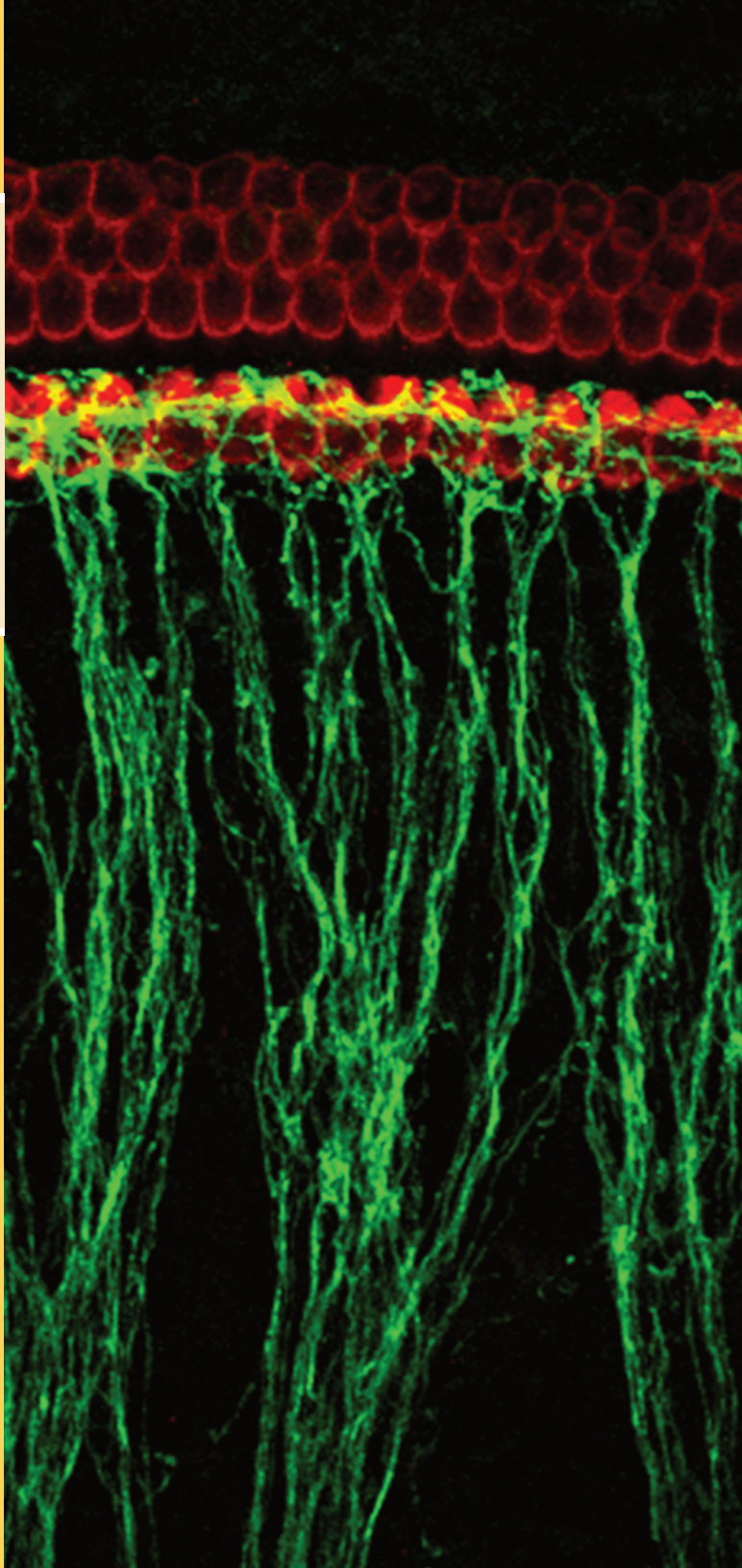
Shuttle Service

The Society will provide complimentary shuttle service to and from the San Diego Convention Center and most SfN-contracted hotels, Saturday through Wednesday. Shuttle routes and intervals of service will be available online this summer.

"At the SfN annual meeting, I am able to go to the poster sessions and interact with students, post-docs and other trainees. At that time, I am able to learn from them and hopefully they are learning from me."

— SfN MEMBER

Make the CONNECTION



Join SfN and advance neuroscience all year long.

By being part of the SfN community, you help promote:

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This is a composite image of a rat hippocampal neuron expressing mCherry (red, confocal) and the actin-binding fluorescent peptide LifeAct-Venus (pseudocolors, CW-STED). STED imaging of LifeAct-Venus and post hoc deconvolution allows nanoscopic investigations of changes in cytoskeleton organization within dendritic spines. **Courtesy with permission:** Quentin Chevy, Martin Heubl, Marie Goutierre, Stéphanie Backer, Imane Moutkine, Emmanuel Eugène, Evelyne Bloch-Gallego, Sabine Lévi, and Jean Christophe Poncer, 2015, *The Journal of Neuroscience* 35: 15772-15786.

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This image of an organotypic slice culture from mouse cortex at 4 d *in vitro* shows the presence of neurons (labeled by immunostaining against Tuj1, red), nuclei (Hoechst stain, blue), and transfected Sox4 (green). Sox4 may help specify intermediate progenitor cells in the developing cortex. **Courtesy, with permission:** Chao Chen, Garrett A. Lee, Ariel Pourmorady, Elisabeth Sock, and Maria J. Donoghue, 2015, *The Journal of Neuroscience* 35: 10629-10642

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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. **Courtesy, with permission:** Sooyeon Lee, Stephanie Amici, Hagai Tavori, Waylon M. Zeng, Steven Freeland, Sergio Fazio, and Lucia Notterpek, 2015, *The Journal of Neuroscience* 34: 16140-16152

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Longitudinal sections of sciatic This cochlear epithelial whole mount from a neonatal mouse shows sensory hair cells (red) and olivocochlear efferent neurons lacking the protein adenomatous polyposis coli (APC, green). Input from olivocochlear efferents is necessary for the normal development of mechanotransduction in sensory hair cells. The loss of APC neonatally in these efferents leads to reduced hearing and abnormal afferent synapse development. **Courtesy, with permission:** Tyler T. Hickman, M. Charles Liberman, and Michele H. Jacob, 2015, *The Journal of Neuroscience* 35: 9236-9245

Back Cover
Confocal image of a fluorescently labeled tissue section prepared from an embryonic day 13.5 mouse brain. Most migratory interneurons in the developing cerebral cortex express GFP (green) and calbindin (red). Nuclei are counterstained with Draq5 (purple). The accompanying cover video shows the robust migration of cortical interneurons into the developing mouse cerebral cortex. **Courtesy, with permission:** Abigail K. Myers, Daniel W. Meechan, Danielle R. Adney, and Eric S. Tucker 2014, *The Journal of Neuroscience* 34: 7787-7801

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Cover, page 2, and 17.

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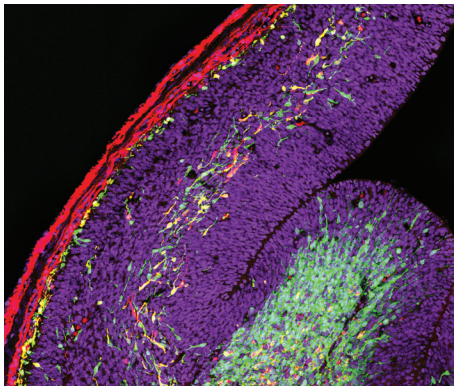

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Bonus Day Registration and Housing Opens July 12
For members who joined or renewed their 2016 membership by Jan. 29, 2016.

Advance Member Registration and Housing Opens July 13

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