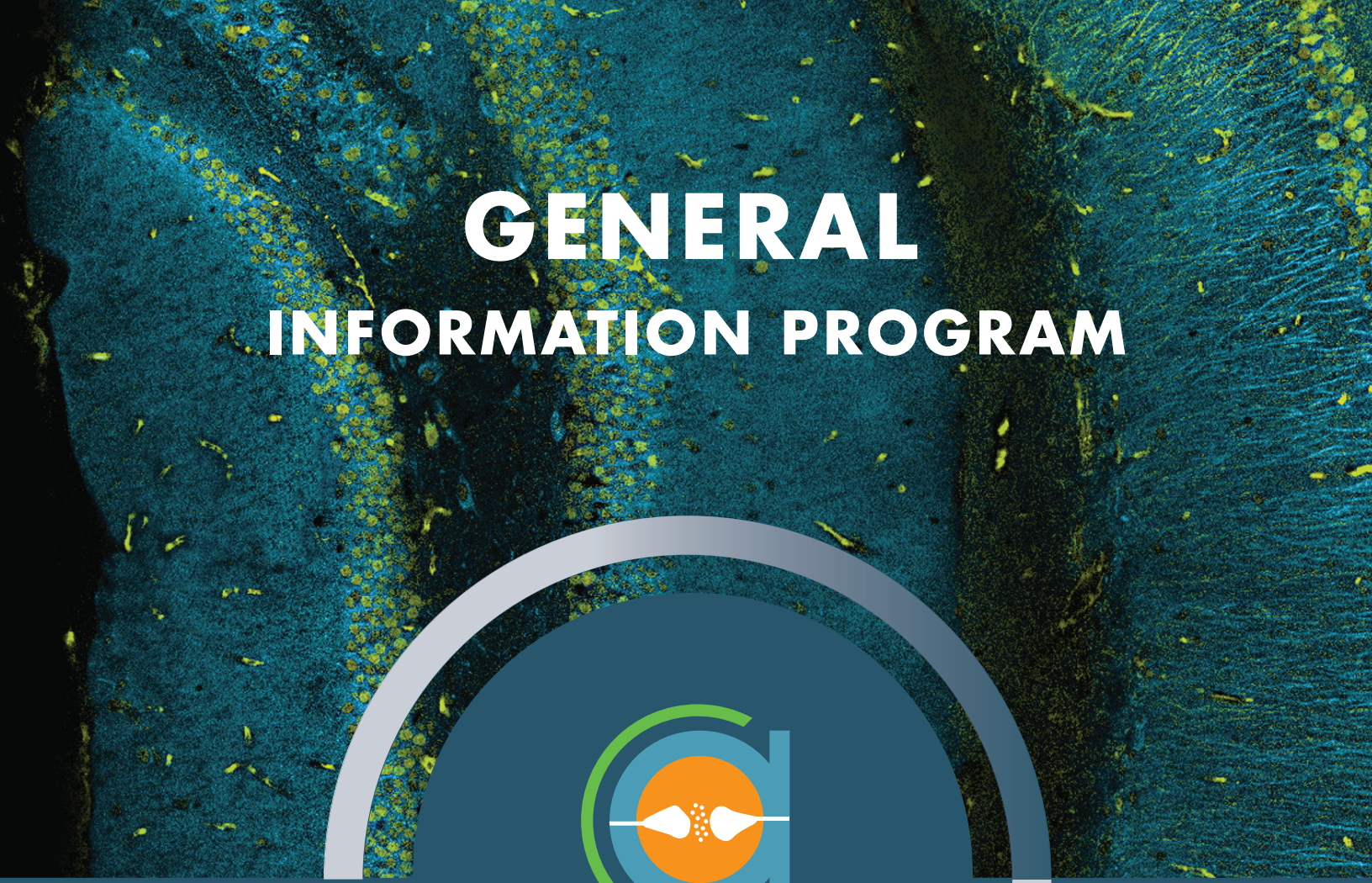


GENERAL
INFORMATION PROGRAM

NEUROSCIENCE
2019

1969–2019

SOCIETY *for* NEUROSCIENCE

CELEBRATING 50 YEARS

OCTOBER 19–23

CHICAGO, ILLINOIS

Information at a Glance

Neuroscience 2019 is in the North and South Buildings of McCormick Place.

IMPORTANT PHONE NUMBERS

Annual Meeting Headquarters Office
Logistics & Programming
McCormick Place: Hall A
Logistics: (312) 791-6800
Programming: (312) 791-6805

Donor and Volunteer Leadership Lounge
McCormick Place: Level 2.5 Lounge

Annual Meeting Information Booths
McCormick Place
Gate 3 Lobby
(312) 791-6813
Grand Concourse Lobby
(312) 791-6812

Press Office
McCormick Place: Room S501ABC
(312) 791-6820

Exhibit Management
McCormick Place: Hall A
(312) 791-6824

First Aid and Hospital Numbers
First Aid Station
McCormick Place: Level 2.5S
(312) 791-6060

Mercy Hospital
2525 S. Michigan Ave.
Chicago, IL 60616
(312) 567-2000

South Loop Immediate Care
1430 S. Michigan Ave.
Chicago, IL 60605
(312) 663-3522

KEY TO POSTER FLOOR BY THEMES

The poster floor is 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, Education, and Society

Note:
Theme J Posters will be on display in Hall A beginning at 1 p.m. on Saturday, Oct. 19, and will remain posted until 5 p.m., Sunday, Oct. 20. One-hour presentations will occur either Saturday afternoon or Sunday morning.

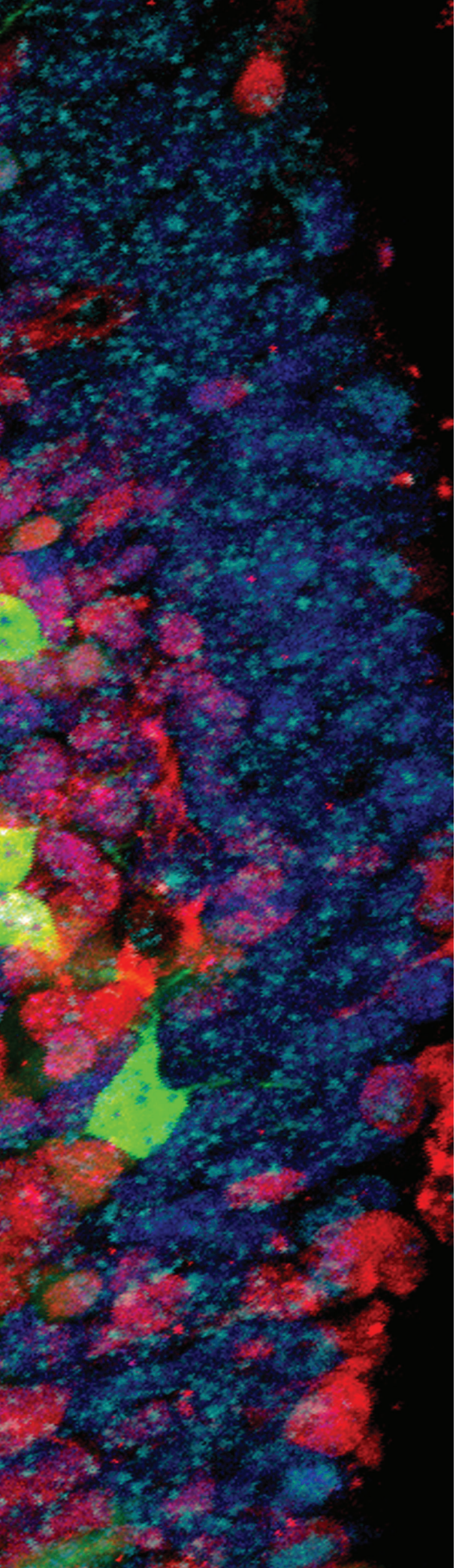
CODE OF CONDUCT AT SfN EVENTS

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). Additional local social services resources are listed in one convenient location at www.changingourcampus.org.

Any official report of a violation of the code of conduct should be brought to the designated Human Resources Officer in the SfN headquarters office in the 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, visit: www.sfn.org/codeofconduct.



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1969–2019

SOCIETY for NEUROSCIENCE

CELEBRATING 50 YEARS

I am thrilled you have joined us for Neuroscience 2019. At this year's annual meeting, we commemorate the 50th year of the Society for Neuroscience (SfN), celebrating its critical role in supporting advances in scientific research and the members dedicated to furthering the field. The opportunity to look back to 1969, when SfN was established, brings into sharp focus the stunning progress made in neuroscience and all that the Society has done to help make that a reality. What will we know in 2069, and how will SfN support the next generation of members who will make those discoveries?

There is growing anticipation that neuroscience research will advance knowledge toward curing some of the most devastating diseases and disorders facing society — and there is no doubt that much progress will stem from research presented and collaborations formed right here in Chicago.

I know I have benefited scientifically and personally from the range of insight of an incredible group of scientists from around the world, many of whom I met at annual SfN meetings. The students and postdocs from my lab and I have received invaluable feedback at these forums, gathering new perspectives and ideas that have proved greatly beneficial to our research endeavors.

How can SfN support your work in advancing the field? I encourage you to explore this question while you are here amongst tens of thousands of your colleagues from around the world. At your fingertips is an unparalleled selection of scientific sessions, lectures, exhibits, and events, as well as countless opportunities for training, networking, collaboration, and professional development.

And these opportunities do not end with the meeting. Continue your participation with the Society year-round, taking advantage of its wealth of resources for enhancing your critical work and the future of this tremendous field. Join us as we enter the next 50 years of global scientific collaboration and discovery.

Regards,

Diane Lipscombe

Diane Lipscombe, PhD
President, Society for Neuroscience

NEUROSCIENCE 2019

Science Knows No Borders

Plan Your Experience

Get the most out of your time at Neuroscience 2019 using these tools for navigating and customizing your experience:

- The Neuroscience Meeting Planner (NMP) allows you to search abstracts, download curated itineraries (see below), and create your personal schedule. Access the NMP at www.SfN.org/NMP or visit the NMP Viewing Area in Hall A.
- The official Neuroscience 2019 mobile app puts the entire meeting at your fingertips. Browse through sessions, import your custom schedule from the NMP, view maps of the convention center, share contact information with other attendees, and more. Download it for free via the iOS™ and Google Play™ app stores, or use the interactive web version.
- Curated itineraries are a great way to build your meeting experience around a specific research area, with relevant sessions and events picked by SfN's Program Committee. These are available in both the NMP and mobile app.

New Photography Policy

See page 16 for details on SfN's new policy regarding photography and video at this year's meeting.

Science Knows No Borders

In keeping with the Society's commitment to facilitate global collaboration in science, SfN has established the Science Knows No Borders (SKNB) program. Through this program, scientists who have been denied a U.S. travel visa to attend Neuroscience 2019 can share their research and engage with colleagues through poster, nanosymposium, symposium, and minisymposium sessions.

Look for the SKNB icon in sessions; use the filter in the NMP or mobile app to locate participants in the program and visit their presentations. Post questions for SKNB participants about their presentations at Neuronline.SfN.org.

Celebrate 50 years of SfN!

Join SfN in celebrating 50 years of the Society by visiting a special art installation by ARTECHOUSE and Refik Anadol. ARTECHOUSE is the first innovative art space dedicated to showcasing experiential- and technology-driven works by artists who are forerunners in the arts and technology. SfN and ARTECHOUSE will present a digital art exhibit in Neuroscience 2020 at ARTECHOUSE's Washington, DC location that will explore the life of a human neuron. This year in Chicago, SfN and ARTECHOUSE will present a preview of the 2020 exhibit with the work of award-winning, Los Angeles-based, Turkish-born artist Refik Anadol. Anadol uses artificial intelligence and machine learning to create digital art experiences that foreshadow the future and the possibilities of the intersection of neuroscience and art.

The exhibit is located in the Grand Concourse near Hall B and open daily from 9 a.m.–5:30 p.m.

SEE YOU NEXT YEAR AT NEUROSCIENCE 2020!

Mark your calendars for SfN's 50th Annual Meeting, October 24–28, in Washington, DC

Annual Meeting Contributors

SfN gratefully recognizes the generous contributions from the following annual meeting program contributors:

Burroughs Wellcome Fund
- Trainee Professional Development Awards

Tianqiao & Chrissy Chen Institute
- Presidential Special Lecture

The Dana Foundation
- Leadership Development Program
- Science Educator Award

Elsevier
- Dialogues Between Neuroscience and Society Lecture

eNeuro
- International Fellows, Diversity Fellows, and Trainee Professional Development Awardee Poster Sessions
- Graduate Student Reception

Bernice Grafstein, PhD

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

The Grass Foundation
- Albert and Ellen Grass Lecture
- Donald B. Lindsley Prize in Behavioral Neuroscience
- Latin America Training Program Challenge Grant

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

JNeurosci
- Graduate Student Reception
- International Fellows, Diversity Fellows, and Trainee Professional Development Awardee Poster Sessions

David Kopf Instruments
- David Kopf Lecture on Neuroethics

Eli Lilly and Company Foundation
- Julius Axelrod Prize

National Institute of Neurological Disorders and Stroke
- Neuroscience Scholars Program
- Foundations of Rigorous Neuroscience Program

National Primate Research Centers
- Animals in Research Panel

The Nemko Family

The Nemko Family
- Nemko Prize in Cellular or Molecular Neuroscience

Novartis Institutes for BioMedical Research
- Trainee Professional Development Awards

Sanofi
- Trainee Professional Development Awards

John Simpson, PhD

John Simpson, PhD
- Latin America Training Program Challenge Grant

Society for Neuroscience
- Leadership Development Program
- Trainee Professional Development Awards

Sunovion
- Young Investigator Award

The Swartz Foundation
- Swartz Prize for Theoretical and Computational Neuroscience

Thorlabs, Inc.
- Meet-the-Expert Series

The Trubatch Family

The Trubatch Family
- Janett Rosenberg Trubatch Career Development Awards

The Waletzky Award Prize Fund and the Waletzky Family

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

Nancy Rutledge Zahniser Fund

Nancy Rutledge Zahniser Fund
- Nancy Rutledge Zahniser Trainee Professional Development Awards

SfN gratefully recognizes the generous support of its Sustaining Associate Members.

To learn more about becoming a Sustaining Associate Member, email membership@sfn.org

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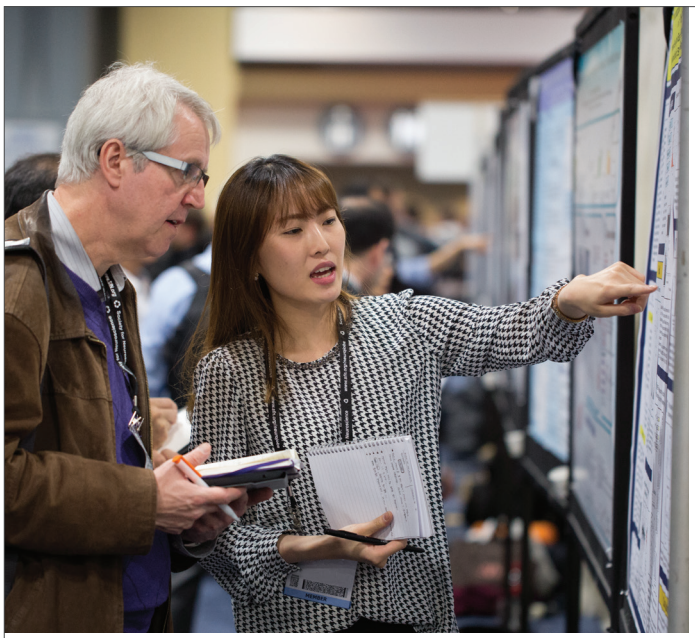

NeuroJobs

SfN's Online Career Center

Are you a job seeker or an employer?

During Neuroscience 2019, visit **Hall A** to apply for or post an open position and to schedule job interviews.

Saturday, October 19–Tuesday, October 22
8 a.m.–5 p.m.

Wednesday, October 23
8 a.m.–3 p.m.

www.neurojobs.sfn.org

Society for Neuroscience

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

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 www.sfn.org/Support-SfN to make your donation or contact development@sfn.org to learn more.

Memorial listing reflects contributions made between July 1, 2018 and June 30, 2019.

Ruben Adler
Edson Albuquerque
Ben Barres
Timothy Bartness
David Bashor
Odelie Huet Bello
Eduardo Briese
Larry Butt
Bernard J. Carroll
Diana Casper
Chi-Bin Chien
P. Michael Conn
Professor Candanat John Dominic
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Raniyah Ramadan
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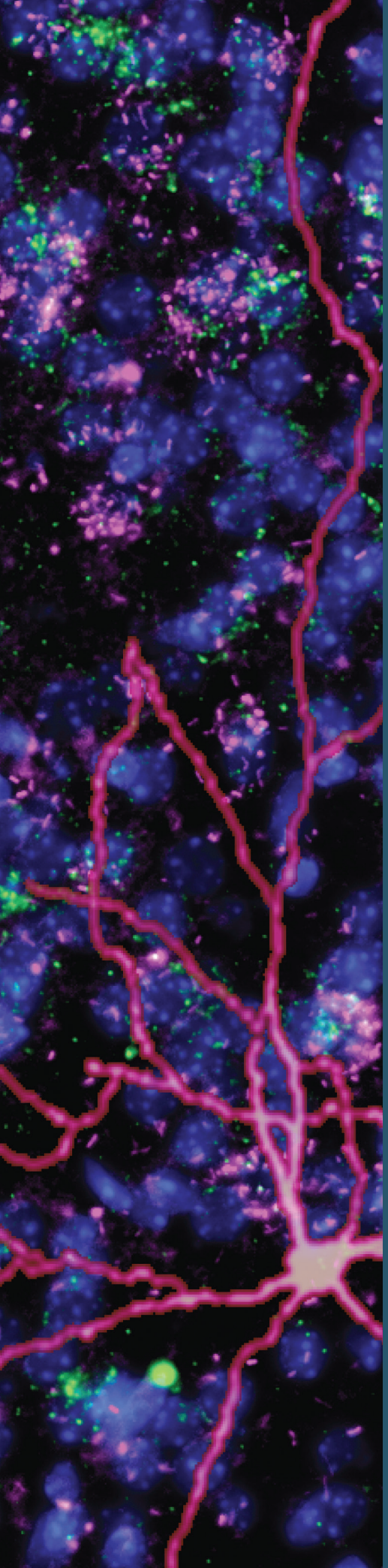
Oliver Sacks
Hiroshi Shimazu
Eric Shooter
Louis Sokoloff
Wesley Thompson
James Unnerstall
Michael Walker
Pastor Edwin Williams
Nancy Rutledge Zahniser
Kieran Shafritz de Zoysa



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Scientific Content

Program at a Glance

Friday, Oct. 18

8 a.m.–6 p.m.	**SHORT COURSE #2 (p.32)** Quantifying Behavior as a Lens Into the Brain Organizers: Robert S. Datta, MD, PhD; Mala Murthy, PhD
8:30 a.m.–6 p.m.	**SHORT COURSE #1 (p.32)** Neural Prosthetics and Brain Machine Interfaces Organizers: Adrienne L. Fairhall, PhD; Charles Liu, MD, PhD
1–5:30 p.m.	**SHORT COURSE #3 (p.32)** Cultivating Professionalism and Excellence in the Research Landscape Organizers: Carlos Aizenman, PhD; Janet Clark, PhD; Marguerite Matthews, PhD; Rosalind A. Segal, MD, PhD; and Keith Trujillo, PhD

Saturday, Oct. 19

8–9:15 a.m.	**MEET-THE-EXPERT SERIES (p.32)** Session 1
8 a.m.–5 p.m.	NeuroJobs Career Center (p.36)
9–11 a.m.	**PROFESSIONAL DEVELOPMENT WORKSHOP (p.38)** Preparing for Your Career Away From the Bench: Essential Skills for Navigating Your Career Transition Organizer: Annette Gray, PhD
9–11 a.m.	**PROFESSIONAL DEVELOPMENT WORKSHOP (p.38)** Reproducibility for Everyone Organizer: Aparna Shah, PhD
9:30–10:45 a.m.	**MEET-THE-EXPERT SERIES (p.33)** Session 2
11 a.m.–1 p.m.	**DIALOGUES BETWEEN NEUROSCIENCE AND SOCIETY (p.14)** Speaker: Fei-Fei Li, PhD
Noon–2 p.m.	**PROFESSIONAL DEVELOPMENT WORKSHOP (p.38)** Imposter Syndrome: Confronting the Career Development Monster Hiding Under the Bed Organizers: Ericka Boone, PhD; Marguerite Matthews, PhD; Sadye Paez, PhD
Noon–2 p.m.	**PROFESSIONAL DEVELOPMENT WORKSHOP (p.38)** Integrating Research and Teaching at Primarily Undergraduate Institutions Organizer: Joyce Fernandes, PhD
1–3 p.m.	Graduate School Fair (p.36)
1–5 p.m.	Posters/Nanosymposia
1:30–4 p.m.	Symposia/Minisymposia CME (p.22)
2–3:10 p.m.	**SPECIAL LECTURE CME (p.18)** Neuronal Activity-Dependent Myelination: A Mechanism for Learning and Repair? Speaker: Ragnhildur T. Karadottir, PhD
2:30–4 p.m.	**BRAIN AWARENESS CAMPAIGN EVENT (p.36)** Illuminating the Path With Science Outreach Organizer: Teodora Stoica
3–5 p.m.	**PROFESSIONAL DEVELOPMENT WORKSHOP (p.38)** Getting Creative with Course-Based Research Experiences to Enhance Scholarship and Generate Publishable Data Organizers: Lina Dahlberg, PhD; Jacqueline Rose, PhD
3–5 p.m.	**PROFESSIONAL DEVELOPMENT WORKSHOP (p.38)** How to Thrive as a Woman in Neuroscience Organizer: Melissa Harrington, PhD
5:15–6:30 p.m.	**PRESIDENTIAL SPECIAL LECTURE CME (p.14)** From Base Pairs to Bedside: Antisense Modulators of RNA Splicing to Treat Neurological Diseases Speaker: Adrian R. Krainer, PhD
6:30–8:30 p.m.	Diversity Poster Session (p.36)
6:30–8:30 p.m.	International Fellows Poster Session (p.36)
6:30–8:30 p.m.	Trainee Professional Development Awards Poster Session (p.36)
7:30–9:30 p.m.	Career Development Topics: A Networking Event (p.36)

Sunday, Oct. 20

8 a.m.–noon	Posters/Nanosymposia

8 a.m.–5 p.m.	NeuroJobs Career Center (p.36)
8:30–11 a.m.	Symposia/Minisymposia CME (p.22)
9–10:10 a.m.	**SPECIAL LECTURE CME (p.21)** Theoretical Neuroscience: Decision Making and Its Discontents Speaker: Peter Dayan, PhD
9–11 a.m.	**PROFESSIONAL DEVELOPMENT WORKSHOP (p.38)** Bringing Genetic Diversity to Neuroscientific Research Organizer: Elissa Chesler, PhD
9–11 a.m.	**PROFESSIONAL DEVELOPMENT WORKSHOP (p.39)** 50 Navigating Team Science Organizers: Lique Coolen, PhD; Chiara Manzini, PhD
9:30 a.m.–5 p.m.	Exhibits (p.90)
10:30–11:40 a.m.	**SPECIAL LECTURE** **CLINICAL NEUROSCIENCE LECTURE CME (p.20)** From Pecking Order to Ketamine: Neural Mechanisms of Social and Emotional Behaviors Speaker: Hailan Hu, PhD
Noon–1:10 p.m.	**SPECIAL LECTURE CME (p.20)** The Brain From Inside Out Speaker: Gyorgy Buzsaki, MD, PhD
Noon–2 p.m.	**PROFESSIONAL DEVELOPMENT WORKSHOP (p.39)** Becoming a Resilient Scientist Organizer: Janet Clark, PhD
Noon–2 p.m.	**PROFESSIONAL DEVELOPMENT WORKSHOP (p.39)** Science Management Organizer: Tanya Brown, PhD
Noon–2 p.m.	Graduate School Fair (p.36)
1–3 p.m.	**SOCIAL ISSUES ROUNDTABLE (p.36)** Human Fusions: Ethical and Social Issues Raised by Neural-Digital Interfaces Organizer: Dustin J. Tyler, PhD
1–5 p.m.	Posters/Nanosymposia
1:30–2:40 p.m.	**SPECIAL LECTURE CME (p.19)** Comparative Neurobiology of Vocal Communication Speaker: Michael A. Long, PhD
1:30–4 p.m.	**STORYTELLING SESSION (p.30)** 50 The Storytelling Brain: How Neuroscience Stories Help Bridge the Gap Between Research and Society Chair: Susana Martinez-Conde, PhD
1:30–4 p.m.	Symposia/Minisymposia CME (p.22)
2:30–5 p.m.	**NEUROSCIENCE DEPARTMENT AND PROGRAMS WORKSKHOP (p.39)** 50 Hiring and Promoting Faculty in the Era of Team Science Organizer: Rosalind Segal, MD, PhD
3–4:10 p.m.	**PETER AND PATRICIA GRUBER LECTURE (p.14)** Molecular Basis of the Circadian Clock in Mammals and Its Fundamental Role in Aging and Longevity Speaker: Joseph S. Takahashi, PhD
3–5 p.m.	**PROFESSIONAL DEVELOPMENT WORKSHOP (p.39)** Building a Neuroscience Career at a Teaching Focused Institution Organizer: Melissa Harrington, PhD
5:15–6:30 p.m.	**PRESIDENTIAL SPECIAL LECTURE CME (p.15)** Understanding Cortical Development and Disease: From Embryos to Brain Organoids Speaker: Paola Arlotta, PhD
6:45–8:45 p.m.	SfN-Sponsored Socials (p.41)

Monday, Oct. 21

8 a.m.–noon	Posters/Nanosymposia
8 a.m.–5 p.m.	NeuroJobs Career Center (p.36)
8:30–11 a.m.	**BASIC-TRANSLATIONAL-CLINICAL ROUNDTABLE CME (p.30)** Mechanisms of Drug Addiction: A Translational Perspective Organizer: Trevor W. Robbins, PhD

Program at a Glance

8:30–11 a.m.	Symposia/Minisymposia **CME** (p.22)
9–10:10 a.m.	**HISTORY OF NEUROSCIENCE LECTURE (p.15)** 50 Exocytosis of Synaptic Vesicles: From Quantal Release to Molecular Machines Speaker: Reinhard Jahn, PhD
9–11 a.m.	**PROFESSIONAL DEVELOPMENT WORKSHOP (p.39)** Advancing Your Career Through Effective Science Writing for the Public and Creating Eye-Catching Research Statements Organizer: Eduardo Rosa-Molinar, PhD
9–11 a.m.	**PROFESSIONAL DEVELOPMENT WORKSHOP (p.40)** The Art of Building a Career Organizer: Martha Davila-Garcia, PhD
9:30 a.m.–5 p.m.	Exhibits (p.90)
10:30–11:40 a.m.	**SPECIAL LECTURE CME (p.19)** Neural Mechanisms of Short-Term Memory and Motor Planning Speaker: Karel Svoboda, PhD
Noon–1:10 p.m.	**SPECIAL LECTURE CME (p.19)** Active Touch, Pain, and Anesthesia Speaker: Fan Wang, PhD
Noon–2 p.m.	Graduate School Fair (p.36)
Noon–2 p.m.	**PROFESSIONAL DEVELOPMENT WORKSHOP (p.40)** Optimize Your Grant Application: News You Can Use From the NIH Organizer: Bruce Reed, PhD
Noon–2 p.m.	**PROFESSIONAL DEVELOPMENT WORKSHOP (p.40)** Teaching Computation in Neuroscience Organizers: William Grisham, PhD; Richard Olivo, PhD
1–2 p.m.	**DUAL PERSPECTIVES (p.30)** 50 Does Adult Neurogenesis Occur in the Human Brain?
1–3 p.m.	**ANIMALS IN RESEARCH PANEL (p.37)** 50 Treatments for Disorders of the Basal Ganglia and the Development of Deep Brain Stimulation: Translation of Non-Human Primate Research Into Clinical Therapeutics Organizer: Peter Strick, PhD
1–5 p.m.	Posters/Nanosymposia
1:30–4 p.m.	Symposia/Minisymposia **CME** (p.22)
3:15–4:25 p.m.	**ALBERT AND ELLEN GRASS LECTURE CME (p.15)** Neural Learning Rules in the Cerebellum Speaker: Jennifer L. Raymond, PhD
5:15–6:30 p.m.	**PRESIDENTIAL SPECIAL LECTURE CME (p.15)** The Cell Biology of the Synapse and Behavior Speaker: Daniel A. Colón-Ramos, PhD
6:45–8:45 p.m.	**CHAPTERS WORKSHOP (p.37)** Fostering Chapter Engagement Through Your Local Brain Bee Organizer: Jennifer R. Yates, PhD
6:45–8:45 p.m.	SfN-Sponsored Socials (p.41)

Tuesday, Oct. 22

8 a.m.–noon	Posters/Nanosymposia
8 a.m.–5 p.m.	NeuroJobs Career Center (p.36)
8:30–11 a.m.	**BASIC-TRANSLATIONAL-CLINICAL ROUNDTABLE CME (p.30)** Exoskeletons and Robotics for Neurorehabilitation Organizer: Ann M. Spungen, EdD
8:30–11 a.m.	Symposia/Minisymposia **CME** (p.22)
9–10:10 a.m.	**SPECIAL LECTURE CME (p.19)** Flies and Alcohol: An Interplay of Nature and Nurture Speaker: Ulrike Heberlein, PhD
9:30 a.m.–5 p.m.	Exhibits (p.90)
10:30–11:40 a.m.	**SPECIAL LECTURE CME (p.18)** Molecular Mechanisms Underlying Activity-Dependent Neural Circuit Development and Plasticity Speaker: Xiang Yu, PhD

Noon–1:10 p.m.	**SPECIAL LECTURE CME (p.18)** Leveraging Brain Rhythms as a Therapeutic Intervention for Neurodegenerative Diseases Speaker: Li-Huei Tsai, PhD
Noon–2 p.m.	A Celebration of Women in Neuroscience Luncheon (p.37) 50
Noon–2 p.m.	Graduate School Fair (p.36)
1–5 p.m.	Posters/Nanosymposia
1:30–2:40 p.m.	**SPECIAL LECTURE CME (p.20)** Evolution and Dissolution of Memories Over Time Speaker: Eleanor A. Maguire, PhD
1:30–4 p.m.	Symposia/Minisymposia CME (p.22)
2–3:30 p.m.	**PUBLIC ADVOCACY FORUM (p.37)** The Role of Pharmaceutical Partnerships When Advocating for Basic Research Organizer: Moses V. Chao, PhD
3–4:10 p.m.	**DAVID KOPF LECTURE ON NEUROETHICS (p.16)** The Neuroethics Frontier Speaker: Nita Farahany, JD, PhD
5:15–6:30 p.m.	**PRESIDENTIAL SPECIAL LECTURE CME (p.16)** Wavefront Engineering: Illuminating the Neural Landscape Valentina Emiliani, PhD
6:45–7:30 p.m.	SfN Members' Business Meeting (p.37)
6:45–8:45 p.m.	SfN-Sponsored Socials (p.41)
8:30–11:30 p.m.	Graduate Student Reception (p.37)
Wednesday, Oct. 23	
8 a.m.–noon	Posters/Nanosymposia
8 a.m.–3 p.m.	NeuroJobs Career Center (p.36)
8:30–11 a.m.	Symposia/Minisymposia CME (p.22)
8:30–11 a.m.	**BASIC-TRANSLATIONAL-CLINICAL ROUNDTABLE CME (p.30)** Gene Therapy in Neurological Diseases Organizer: Asa Abeliovich, MD, PhD
9:30 a.m.–5 p.m.	Exhibits (p.90)
10:30–11:40 a.m.	**SPECIAL LECTURE CME (p.18)** Aberrant Phase Separation in Neurodegenerative Disease Speaker: Anthony A. Hyman, PhD
Noon–1:10 p.m.	**SPECIAL LECTURE CME (p.21)** Extracting Function From Structure: Lessons From the Fly Connectome Speaker: Gerald M. Rubin, PhD
1–5 p.m.	Posters/Nanosymposia
1:30–2:40 p.m.	**SPECIAL LECTURE CME (p.21)** Neural Codes for Natural Behaviors in Flying Bats Speaker: Nachum Ulanovsky, PhD
1:30–4 p.m.	Symposia/Minisymposia CME (p.22)
3–4:10 p.m.	**SPECIAL LECTURE CME (p.20)** The Neurobiology of Long-Term Memory: Key Molecules, Diverse Cell Types, Temporal Dynamics, and Critical Periods Speaker: Cristina M. Alberini, PhD

50 SfN 50th Anniversary Event

Featured Lectures

DIALOGUES BETWEEN NEUROSCIENCE AND SOCIETY

Support contributed by: Elsevier

Fei-Fei Li, PhD
Stanford Human-Centered AI Institute
Saturday, October 19, 11 a.m.–1 p.m.

Fei-Fei Li is a professor of computer science and co-director of the Stanford University Human-Centered AI Institute (HAI). A pioneering expert in AI, inventor of ImageNet, and thought leader, Dr. Li challenges us to be the stewards of technology to serve humanity at its broadest and most diverse extent. Dr. Li has also been recognized as a 2016 Global Thinker by Foreign Policy and formerly served as the vice president of AI and machine learning at Google Cloud. In this session, Dr. Li will discuss the transformative potential that AI and machine learning pose for society from her unique perspective as a scientist and an ethical leader who advocates for future technologies to incorporate an understanding of how to augment, not replace, elements of the human experience.

PRESIDENTIAL SPECIAL LECTURE

From Base Pairs to Bedside: Antisense Modulators of RNA Splicing to Treat Neurological Diseases **CME**

Adrian R. Krainer, PhD
Cold Spring Harbor Laboratory
Saturday, Oct. 19, 5:15–6:30 p.m.

Nusinersen, the first FDA-approved drug for spinal muscular atrophy (SMA), exemplifies a successful path from basic studies to an effective therapy. It is an antisense oligonucleotide (ASO) that modulates alternative splicing of SMN2, increasing functional SMN protein in motor neurons. After clinical trials in SMA infants and children, nusinersen was approved in 2016. This lecture will describe the development of this drug and its clinical impact. Using a similar approach, an ASO was developed to correct defective RNA splicing of IKBKAP, which causes familial dysautonomia.

PETER AND PATRICIA GRUBER LECTURE

Support contributed by: The Gruber Foundation

Molecular Basis of the Circadian Clock in Mammals and Its Fundamental Role in Aging and Longevity

Joseph S. Takahashi, PhD
University of Texas Southwestern Medical Center
Howard Hughes Medical Institute
Sunday, Oct. 20, 3–4:10 p.m.

The molecular basis of circadian clocks involves a 24-hour autoregulatory transcriptional network that is cell-autonomous and widely expressed. The suprachiasmatic nucleus acts as master pacemaker, but peripheral oscillators can respond to proximal signals. In addition to behavior and physiology, the clock gene network interacts directly with many other pathways in the cell. With respect to metabolism, the timing of nutrient consumption is critical, and restricting the timing of feeding has many health benefits that impact aging, health span, and longevity.

PRESIDENTIAL SPECIAL LECTURE

Support contributed by: Tianqiao and Chrissy Chen Institute

Understanding Cortical Development and Disease: From Embryos to Brain Organoids **CME**

Paola Arlotta, PhD
Harvard University
Sunday, Oct. 20, 5:15–6:30 p.m.

Much remains unknown regarding the cellular and molecular mechanisms governing mammalian brain development. Focusing on the cerebral cortex, this lecture will present data on the mechanistic principles that control the developmental generation of cellular diversity *in vivo*, and consider to what extent processes of cortical development can be replicated outside the embryo, within brain organoids. This lecture will also discuss the challenges of modeling human corticogenesis in the dish, and the promise that brain organoids hold to investigate complex human neurodevelopmental disease.

HISTORY OF NEUROSCIENCE LECTURE

Exocytosis of Synaptic Vesicles: From Quantal Release to Molecular Machines 50

Reinhard Jahn, PhD
Max Planck Institute for Biophysical Chemistry
Monday, Oct. 21, 9–10:10 a.m.

At chemical synapses, depolarization-induced calcium influx triggers neurotransmitter release, a key step in synaptic signaling. In the 1950s, Katz found that transmitter release is quantal, and synaptic vesicles were discovered. In the following decades, recycling routes for synaptic vesicle and for neurotransmitters were worked out, governing the steps in synaptic vesicle cycling becoming known. The history of the field will be briefly reviewed, focusing on exocytosis and membrane fusion.

ALBERT AND ELLEN GRASS LECTURE

Support contributed by: The Grass Foundation

Neural Learning Rules in the Cerebellum **CME**

Jennifer L. Raymond, PhD
Stanford University School of Medicine
Monday, Oct. 21, 3:15–4:25 p.m.

The cerebellum is known for its role in motor learning, and is increasingly implicated in cognitive functions such as navigation, reward prediction, emotion, and social behavior. Its simple, repeated circuit architecture facilitates study of the functional links between events occurring at the molecular, cellular, circuit and behavioral levels as the cerebellum computes. By leveraging this analytical advantage, recent work has yielded new insight in the principles governing how neural circuits tune their performance through experience.

PRESIDENTIAL SPECIAL LECTURE

The Cell Biology of the Synapse and Behavior **CME**

Daniel A. Colón-Ramos, PhD
Yale University School of Medicine
Monday, Oct. 21, 5:15–6:30 p.m.

When, where, and how synapses form underpin the architecture of the nervous system and behaviors. Synapses are both precisely assembled during development and flexible during learning and memory. How can synapses be both precise and malleable to facilitate both the assembly and function of the brain? This lecture will discuss new findings that link the fundamental cell biological properties of single synapses to how they underpin the emergent property of the nervous system: behavior.

Featured Lectures

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DAVID KOPF LECTURE ON NEUROETHICS

Support contributed by: David Kopf Instruments

The Neuroethics Frontier

Nita Farahany, JD, PhD
Duke University
Tuesday, Oct. 22, 3–4:10 p.m.

How should we think about our emerging capabilities of accessing and altering human brains, particularly in light of advances in genome-editing technologies? This lecture will focus on the ethical, legal, and social issues arising from accessing and altering human brains. It will discuss consumer neuro-technologies, corporate interests in accessing and changing brains, and government attempts to do the same. It will also consider the current and future potential directions of these neuroethical issues, particularly in light of recent controversies about human genome-editing.

PRESIDENTIAL SPECIAL LECTURE

Wavefront Engineering: Illuminating the Neural Landscape **CME**

Valentina Emiliani, PhD
Vision Institute (CNRS, INSERM, Sorbonne University)
Tuesday, Oct. 22, 5:15–6:30 p.m.

The revolution of optogenetics has opened perspectives in both fundamental and medical neuroscience unimaginable 10 years ago. Joint progress in the design of microbial opsins and in the shaping of wave fronts to precisely guide light through tissues is now bringing the field into a new phase that we can call circuit optogenetics, where neural circuits distributed across several brain areas can be optically interrogated and controlled with millisecond precision and single-cell resolution.

New SfN Photo & Recording Policy Gives Choice to Presenters and Exhibitors

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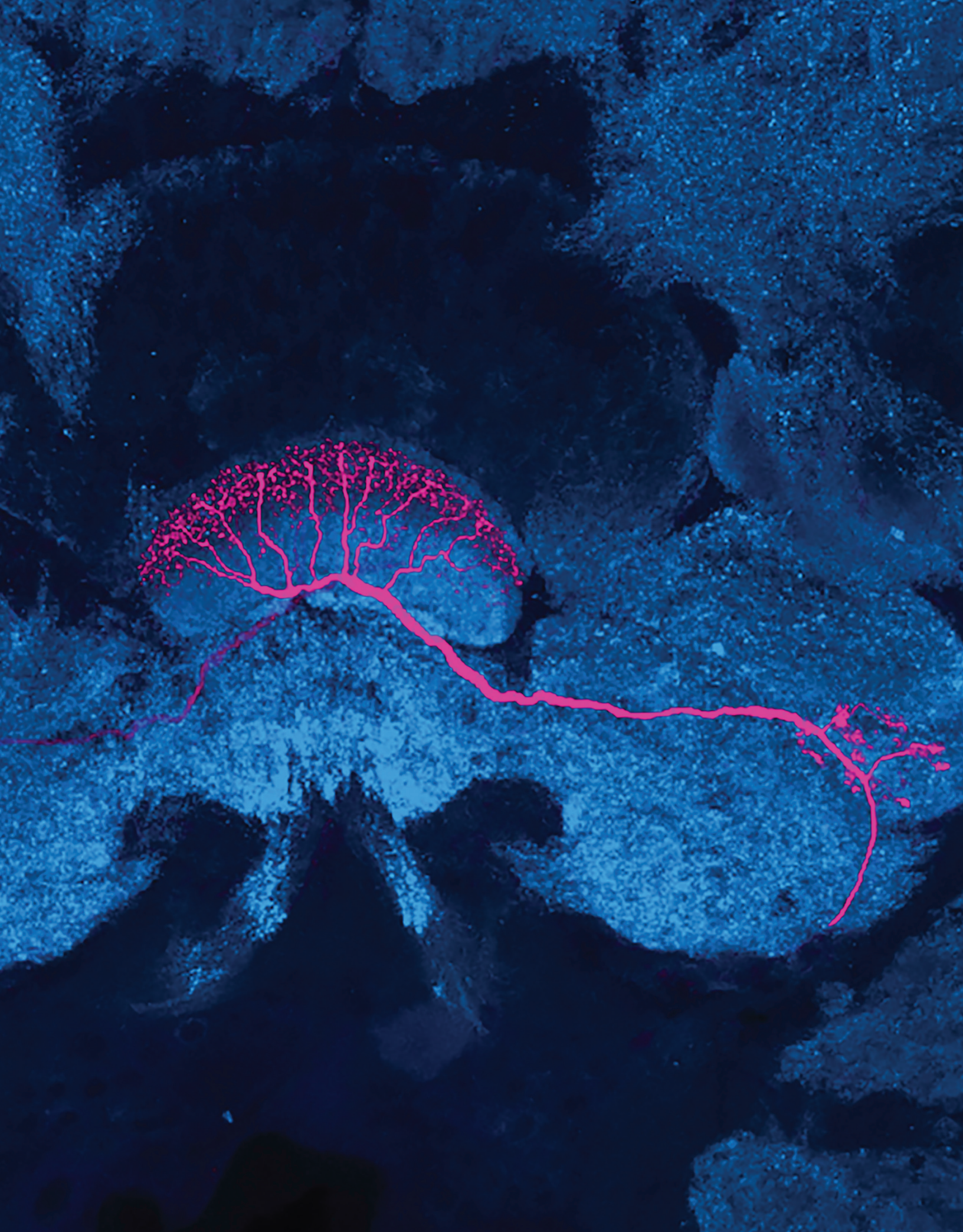


Special Lectures

THEME A: DEVELOPMENT

Molecular Mechanisms Underlying Activity-Dependent Neural Circuit Development and Plasticity **CME**

Xiang Yu, PhD
Institute of Neuroscience, Chinese Academy of Sciences
Tuesday, Oct. 22, 10:30–11:40 a.m.

The mammalian brain is highly plastic. Experience, both positive and negative, affects how neural circuits are wired, with long lasting effects on the well-being of the individual. This lecture will discuss the molecular mechanisms through which sensory experience and environmental factors affect neural circuit development and plasticity, focusing on plasticity mechanisms that may be unique to early development. The relevance of these mechanisms to developmental neurological disorders, especially autism spectrum disorders, will also be highlighted.

THEME B: NEURAL EXCITABILITY, SYNAPSES, AND GLIA

Neuronal Activity-Dependent Myelination: A Mechanism for Learning and Repair? **CME**

Ragnhildur T. Karadottir, PhD
University of Cambridge
Saturday, Oct. 19, 2–3:10 p.m.

Myelin is essential for normal brain function, and alterations in myelin are increasingly implicated as a mechanism for learning. The importance of myelin is evident in diseases where damage to myelin leads to physical and cognitive disabilities. Uniquely within the central nervous system, myelin can regenerate; but this often fails, causing sustained clinical deficits. This lecture will cover the progress made in understanding myelination, with a focus on activity-dependent myelination, and explore how the underlying mechanisms of myelin plasticity may underpin myelin regeneration.

THEME C: NEURODEGENERATIVE DISORDERS AND INJURY

Leveraging Brain Rhythms as a Therapeutic Intervention for Neurodegenerative Diseases **CME**

Li-Huei Tsai, PhD
Massachusetts Institute of Technology
Tuesday, Oct. 22, Noon–1:10 p.m.

Gamma rhythms (30-80 Hz) are modulated during cognition, and impaired gamma rhythms have been associated with Alzheimer's disease (AD). But do they play a causal role? New evidence shows that non-invasive sensory stimulation of 40 Hz rhythm power and synchrony in AD mouse models reduces AD-like pathology and enhances cognitive function. Research is ongoing to understand the mechanisms underlying the beneficial effects of 40 Hz stimulation and to translate this intervention for human patients.

THEME C: NEURODEGENERATIVE DISORDERS AND INJURY

Aberrant Phase Separation in Neurodegenerative Disease **CME**

Anthony A. Hyman, PhD
Max Planck Institute of Cell Biology & Genetics
Wednesday, Oct. 23, 10:30–11:40 a.m.

Cells organize many of their biochemical reactions by formation and dissolution of non-membrane-bound compartments. Recent experiments show that a common mechanism for such biochemical organization is phase separation of unstructured proteins to form liquid-like compartments. These liquid-like compartments can be described by principles elucidated from condensed-matter physics and are therefore termed biomolecular condensates. This lecture will cover the relationship between the formation of liquid-like compartments, quality control mechanisms that preserve the liquid-like state, and the onset of aggregated-protein pathology that is commonly observed in neurodegenerative diseases.

THEME D: SENSORY SYSTEMS

Active Touch, Pain, and Anesthesia **CME**

Fan Wang, PhD
Duke University Medical Center
Monday, Oct. 21, Noon–1:10 p.m.

This lecture will discuss studies aimed at understanding the neural basis of somatosensory perception. Specifically, three areas of research will be presented including: peripheral and brainstem sensory and motor circuits underlying exploratory touch behaviors; neural circuits processing the sensory-discriminative and the affective aspects of orofacial pain; and neural circuits mediating the analgesic (pain-suppression) functions of general anesthesia, especially the identification of an anesthesia-activated circuit in the amygdala that potently suppresses pain.

THEME E: MOTOR SYSTEMS

Comparative Neurobiology of Vocal Communication **CME**

Michael A. Long, PhD
New York University School of Medicine
Sunday, Oct. 20, 1:30–2:40 p.m.

Vocal communication is central to our everyday lives, facilitating social exchange. Despite significant recent discoveries, the neural mechanisms underlying coordinated vocal exchanges remain poorly understood. This lecture will examine the brain processes involved in interactive vocal behaviors, focusing on forebrain circuitry in the songbird and the rodent, and will relate these to emerging human studies that employ a range of methods to manipulate and monitor cortical areas relevant for speech.

THEME E: MOTOR SYSTEMS

Neural Mechanisms of Short-Term Memory and Motor Planning **CME**

Karel Svoboda, PhD
Howard Hughes Medical Institute, Janelia Research Campus
Monday, Oct. 21, 10:30–11:40 a.m.

Motor planning plays key roles in motor control. Movements that are preceded by periods of motor planning are faster and more accurate than in the absence of planning. Motor planning is also a prospective form of short-term memory that links past events and future movements. During motor planning, neurons in the motor cortex show persistent activity related to specific movements, long before movement onset, in the absence of sensory input. This lecture will discuss how multi-regional neural circuits maintain this selective persistent activity and how this activity relates to behavior.

THEME F: INTEGRATIVE PHYSIOLOGY AND BEHAVIOR

Flies and Alcohol: An Interplay of Nature and Nurture **CME**

Ulrike Heberlein, PhD
Howard Hughes Medical Institute, Janelia Research Campus
Tuesday, Oct. 22, 9–10:10 a.m.

Alcoholism is a major problem in medicine and society, yet few effective therapies are available for its treatment. This lecture will discuss the development and use of the fruit fly *Drosophila melanogaster* as a model system to identify genes, molecular pathways, and neural circuits that mediate the highly conserved behavioral responses to alcohol.

Special Lectures

THEME G: MOTIVATION AND EMOTION

CLINICAL NEUROSCIENCE LECTURE

From Pecking Order to Ketamine: Neural Mechanisms of Social and Emotional Behaviors **CME**

Hailan Hu, PhD
Zhejiang University School of Medicine
Sunday, Oct. 20, 10:30–11:40 a.m.

Emotions and social interactions color our lives and shape our behaviors. Using animal models and engineered manipulations, Dr. Hu's lab aim to understand how social and emotional behaviors are encoded, focusing on the neural circuits underlying dominance hierarchy and depression. This lecture will highlight recent discoveries on the interplay between winning history and prefrontal circuit activities; the impact of social status loss on depression; and how ketamine tames depression by blocking bursts in the brain's anti-reward center, involving a surprising role of glia.

THEME G: MOTIVATION AND EMOTION

The Neurobiology of Long-Term Memory: Key Molecules, Diverse Cell Types, Temporal Dynamics, and Critical Periods **CME**

Cristina M. Alberini, PhD
New York University
Wednesday, Oct. 23, 3–4:10 p.m.

Long-term memory formation and storage are complex and dynamic processes. What types of molecular and cellular mechanisms underlie this complexity? This lecture will describe key biological mechanisms regulated in response to learning, their expression in diverse cell types, their temporal dynamics, and their roles in long-term memory formation, storage, as well as changes induced by memory recall. It will also discuss how the biological mechanisms engaged in long-term memory formation and storage change over development.

THEME H: COGNITION

The Brain From Inside Out **CME**

Gyorgy Buzsaki, MD, PhD
New York University
Sunday, Oct. 20, Noon–1:10 p.m.

Is there a right way to study the brain? The current outside-in approach examines neural reactions to external stimuli. It has fueled a generation of extraordinary brain research but now it must confront its limits and hidden assumptions. The brain is a foretelling device that interacts with its environment through action and the examination of action's consequence. It is not an information-absorbing coding device but a venture-seeking explorer constantly controlling the body to test its hypotheses. Our brain does not process information: it creates it.

THEME H: COGNITION

Evolution and Dissolution of Memories Over Time **CME**

Eleanor A. Maguire, PhD
University College London
Tuesday, Oct. 22, 1:30–2:40 p.m.

Autobiographical memories are the ghosts of our past. Through them we visit places long departed, see faces once familiar, and hear voices now silent. These often decades-old personal experiences can be recalled on a whim or come unbidden into our everyday consciousness. This lecture will focus on examining not only how autobiographical memories evolve in the brain over time, but also how our understanding of this process has developed through the 50 years of the Society for Neuroscience.

THEME H: COGNITION

Neural Codes for Natural Behaviors in Flying Bats **CME**

Nachum Ulanovsky, PhD
Weizmann Institute of Science
Wednesday, Oct. 23, 1:30–2:40 p.m.

Natural Neuroscience aims to decipher the neural mechanisms of natural behaviors in freely-moving animals. This lecture will focus on studies of neural codes for space, time, and social behaviors in flying bats using wireless neurophysiology methods. It will highlight new neuronal representations discovered in animals navigating through complex, 3D, or large-scale environments, or engaged in social interactions. The lecture will posit that neuroscience experiments in bats, rodents, or humans should be conducted under evermore naturalistic settings.

THEME I: TECHNIQUES

Theoretical Neuroscience: Decision Making and Its Discontents **CME**

Peter Dayan, PhD
Max Planck Institute for Biological Cybernetics
Sunday, Oct. 20, 9–10:10 a.m.

Theoretical neuroscience comes in three intertwined strands: data analysis, which is of ever greater importance in the present age of burgeoning big neural data; mathematical neuroscience, offering quantitative accounts spanning levels of description; and computational neuroscience, predicated on the fact that brains solve complex information processing problems. This lecture will review elements of each of these, focusing on the ever richer understanding of normal and dysfunctional affectively-charged decision-making.

THEME I: TECHNIQUES

Extracting Function From Structure:
Lessons From the Fly Connectome **CME**

Gerald M. Rubin, PhD
Howard Hughes Medical Institute, Janelia Research Campus
Wednesday Oct. 23, Noon–1:10 p.m.

A connectome of the *Drosophila* central nervous system will soon be available, providing the first glimpse of synaptic-level connectivity of the brain of an animal with sophisticated behavior. The challenge now is to use this information—together with genetically targeted physiology and perturbation during behavior—to understand the neural basis of perception, sleep, associative learning, navigation, and more.

THEME A — DEVELOPMENT

Minisymposium

New Insights in Understanding Fragile X Syndrome (FXS): Focus on Neural Development in Human Models and Non-Neuron Glial Cells CME

Chair: Yongjie Yang, PhD
Co-Chair: Gary J. Bassell, PhD
Saturday, Oct. 19, 1:30–4 p.m.
McCormick Place: S100BC

Recent development to establish stem cell or iPSC-derived human models of FXS has begun to provide new insight about the molecular and synaptic alterations in human neurons. This minisymposium will describe recent progress on utilizing human cell models to not only understand the roles of FMRP in human neuron development, but also test reactivation of the FMRI gene as a potential therapeutic strategy. In addition, new knowledge about how non-neuronal glial cells are involved in the pathogenic process of FXS will be presented.

Minisymposium

Functional Maturation of Cerebello-Cerebral Interactions CME

Chair: Freek E. Hoebeek, PhD
Co-Chair: Roy V. Sillitoe, PhD
Sunday, Oct. 20, 8:30–11 a.m.
McCormick Place: S406A

The developmental processes that connect the cerebellum to the cerebrum constitute critical morphogenetic events that span embryogenesis through postnatal life. It is argued that disrupting these mechanisms results in neurodevelopmental disorders such as autism, movement diseases such as cerebral palsy, and language defects such as dyslexia. This minisymposium brings together recent experimental and clinical advances to better define the cerebellum's role in cerebral maturation.

Symposium

Circuit Variability and Plasticity in the Central Nervous System of *Drosophila* CME

Chair: Gaia Tavosanis, PhD
Co-Chair: Bassem A. Hassan, PhD
Monday, Oct. 21, 8:30–11 a.m.
McCormick Place: S100A

Which level of variability in the connections within a circuit can support behavioral variation among individuals or trigger the modified response of an animal that has learned a given task? Unprecedented views into neuronal morphology and circuit organization allow for asking such questions in flies with great precision. This symposium will explore how variability emerges during nervous system development and its behavioral correlates and discuss the signals that promote plasticity in the adult nervous system.

Symposium

From Single-Cell Profiling to Human Brain Organoids: Capturing Neural Development and Disease CME

Chair: Sergiu P. Pasca, MD
Co-Chair: Hongjun Song, PhD
Monday, Oct. 21, 1:30–4 p.m.
McCormick Place: S100A

A critical challenge in understanding human brain development and disease has been the lack of direct access to functioning human neural tissue for detailed molecular investigation. This symposium will introduce recent advances in generating stem cell-derived neurons and glial cells in preparations known as brain organoids and assembloids. Moreover, it will illustrate how single-cell genomic and transcriptomic methods as well as studies of RNA and DNA modifications are advancing our understanding of neural development and disease.

Minisymposium

Novel Mechanisms of Neuronal Alternative Splicing and Strategies to Correct Aberrant-Splicing CME

Chair: Eduardo J. Lopez Soto, PhD
Tuesday, Oct. 22, 8:30–11 a.m.
McCormick Place: S102

Dynamic changes in alternative splicing support virtually every neuronal process, ranging from development and plasticity to complex behaviors and cognition, and is implicated in disease pathology. This minisymposium will focus on novel cell-specific mechanisms that regulate alternative splicing in neurons and how these findings inform promising new therapies to correct and control splicing defects.

Minisymposium

Adult Hippocampal Neurogenesis in Humans and Rodents: New Evidence and New Perspectives CME

Chair: Juan Song, PhD
Co-Chair: Shaoyu Ge, PhD
Tuesday, Oct. 22, 1:30–4 p.m.
McCormick Place: S100BC

Adult neurogenesis in mammals including humans affords remarkable structural and functional plasticity and regenerative capacity to mature circuits. This minisymposium will cover the most recent topics in adult hippocampal neurogenesis, including new evidence for human adult hippocampal neurogenesis, visualization of neural stem cells in living mice, regulation of adult neurogenesis by niche cells and neural circuits, and adult neurogenesis in the contexts of behavior and diseases.

Minisymposium

Mechanisms of Basal Ganglia Maturation: Insights Into Health and Disease CME

Chair: Rui Peixoto, PhD
Co-Chair: Ori Lieberman
Wednesday, Oct. 23, 1:30–4 p.m.
McCormick Place: S100BC

The basal ganglia are critical for action selection and motivated behaviors, and growing evidence points to striatal

dysfunction in numerous neurodevelopmental disorders. This minisymposium will highlight recent advances in our understanding of the molecular and activity dependent mechanisms regulating the maturation of basal ganglia circuits, how these contribute to unique behaviors in adolescence, and how they might be implicated in the pathophysiology of human neurodevelopmental disorders.

THEME B — NEURAL EXCITABILITY, SYNAPSES, AND GLIA

Minisymposium

Novel Mechanistic Roles for Sodium Channels in Neurodevelopmental Disorders CME

Chair: Kevin J. Bender, PhD
Co-Chair: Ethan M. Goldberg, MD, PhD
Sunday, Oct. 20, 8:30–11 a.m.
McCormick Place: S105

Disease-related alterations in ion channel function, termed channelopathies, contribute to a range of neurodevelopmental disorders. This minisymposium will highlight advances in our understanding of how pathogenic variation in sodium channels contributes to a range of neurodevelopmental disorders, including new insight into well-established sodium channelopathies leading to epilepsy and new associations between sodium channels and other developmental disorders, including autism and schizophrenia.

Minisymposium

The Gut-Brain Axis in Health and Brain Disease CME

Chair: Arthur Liesz, MD
Co-Chair: Jane A. Foster, PhD
Sunday, Oct. 20, 1:30–4 p.m.
McCormick Place: S406A

The gut microbiome is a critical player in neurodevelopment and aging as well as in brain diseases including stroke, Alzheimer's disease, and Parkinson's disease. Intestinal bacteria act along the gut-brain axis in part by modifying the immune response. Bacteria also produce neuroactive mediators and can modulate neuronal function, plasticity and behavior. This minisymposium will highlight recent insights on the bi-directional communication along the brain-gut-microbiome-immune axis.

Symposium

Dissecting Cerebellar Function: A Prototypical Circuit Critical for Motor Learning and Cognition CME

Chair: Michisuke Yuzaki, MD, PhD
Monday, Oct. 21, 8:30–11 a.m.
McCormick Place: S100BC

At the end of 2018, the world lost Masao Ito. Few have shaped our understanding of the cerebellum more — from the identification of inhibitory actions of Purkinje cells, to the postulate and discovery of synaptic long-term depression and a role beyond motor control. This tribute to his visionary work and how it continues to influence research around the world features state-of-the-art studies of cerebellar development, plasticity, and consequences for cognition and its disorders.

Minisymposium

The Synaptic Vesicle Cycle Revisited: New Insights Into the Modes and Mechanisms CME

Chair: Jennifer R. Morgan, PhD
Co-Chair: Shigeki Watanabe, PhD
Tuesday, Oct. 22, 1:30–4 p.m.
McCormick Place: S105

Neurotransmission relies critically upon the ability of nerve terminals to locally recycle synaptic vesicles with precise efficiency. Recently, the field has witnessed many exciting discoveries on synaptic vesicle recycling. Novel pathways have been identified; multiple modes of vesicle exo-/endocytosis have been reported, distinguished by speed; and new points of molecular regulation are now known. This minisymposium will present these findings and discuss how they impact the classical view of the vesicle cycle.

Minisymposium

Pleiotropic Mitochondria: The Influence of Mitochondria on Neuronal Development and Disease CME

Chair: Julien Courchet, PhD
Co-Chair: Seok-Kyu Kwon, PhD
Wednesday, Oct. 23, 8:30–11 a.m.
McCormick Place: S102

Mitochondria are a central organelle in the regulation of neuronal metabolism and synaptic transmission. This minisymposium aims to present exciting novel developments regarding mitochondria biology and its role in neuronal development in a physiological and pathological context.

Minisymposium

Cell-Type Specificity, Strength, and Dynamics of Long-Range Synaptic Input CME

Chair: Gabe J. Murphy, PhD
Co-Chair: Leopoldo T. Petreanu, PhD
Wednesday, Oct. 23, 1:30–4 p.m.
McCormick Place: S406A

The specificity and functional properties of long-range synaptic input is less understood than that of local input. New optogenetic, viral tracing, and imaging techniques enable a deeper understanding of the interactions

between cell types in discrete brain areas. New data from these approaches indicate that the specificity of local and long-range input can be comparable and raise the possibility that long-range input specificity may play a larger role than previously appreciated.

THEME C — NEURODEGENERATIVE DISORDERS AND INJURY

Minisymposium

Myelin Degeneration and Remyelination in Health and Disease CME

Chair: Carlos E. Pedraza, PhD
Co-Chair: Tarek Samad, PhD
Sunday, Oct. 20, 8:30—11 a.m.
McCormick Place: S100A

Myelin speeds the transmission of the nerve impulse and insulates and protects the neuron. Defects in myelin formation and demyelination result in developmental disabilities and neurological deficits. A better understanding of myelin dynamics is the key to developing effective therapies for demyelinating diseases. Current studies on myelinating cell biology (specifically oligodendrocyte and Schwann cells) during development and pathology will provide the basis for innovative drug discovery.

Symposium

The Molecular and Spatial Complexity of Tau: What Forms and Loci to Target? CME

Chair: Dominic M. Walsh, PhD
Sunday, Oct. 20, 1:30–4 p.m.
McCormick Place: S100A

Aggregation of tau is a common feature of a range of neurodegenerative disorders referred to as tauopathies. However, the forms of tau which mediate toxicity remain ill-defined, making it difficult to design optimal anti-tau therapeutics. This symposium will address the molecular and structural heterogeneity of tau, the effects of tau on excitatory neurons, and factors which contribute to the specific spatiotemporal patterns of neurodegeneration which characterize particular tauopathies.

Minisymposium

Phenotype Suppression in Neurodegeneration CME

Chair: Kristi Wharton, PhD
Monday, Oct. 21, 8:30–11 a.m.
McCormick Place: S105

The underlying causes of neurodegeneration remain elusive in many diseases, including ALS and FTD. This minisymposium will focus on the hallmark phenotypes of these diseases and the molecular and cellular pathways that suppress them. Rather than uniting around a specific genetic mutation or model organism, this minisymposium will highlight models with clinically relevant symptoms that enable mechanistic studies based on genetic or pharmacological suppressors.

Minisymposium

Necroptosis and Other Non-Apoptotic Processes in Microglial Pathophysiology and Neurologic Diseases CME

Chair: Dimitry Ofengeim, PhD
Monday, Oct. 21, 1:30–4 p.m.
McCormick Place: S105

An emerging view is that inflammation and altered innate immunity drive the pathophysiology of neurodegenerative diseases. The identification of a RIPK1-mediated necroptotic pathway that sits at the intersection of cell death and inflammation presents a new opportunity to explore the role of inflammation in degenerative diseases. This minisymposium will explore the immune response in the context of cellular stress in neurodegenerative diseases.

Symposium

Comparing Dopamine Metabolism in Mouse and Human Neurons: Relevance for Parkinson's Disease CME

Chair: Dimitri Krainc, MD, PhD
Tuesday, Oct. 22, 1:30–4 p.m.
McCormick Place: S406A

Parkinson's disease involves the degeneration of dopaminergic neurons in the substantia nigra. However, unlike human patients, most Parkinson's disease mouse models do not exhibit dopaminergic degeneration, suggesting fundamental species differences. This symposium will highlight recent work demonstrating that dopamine metabolism is differentially regulated across mouse and human midbrain neurons, contributing to differences in neuromelanin production and their susceptibility to degeneration.

Symposium

CNS Scarring, Inflammation, and Repair CME

Chair: Christian Goeritz, PhD
Co-Chair: Michael V. Sofroniew, MD, PhD
Wednesday, Oct. 23, 1:30–4 p.m.
McCormick Place: S100A

This symposium will focus on the cellular components mediating scarring and repair following lesions to the central nervous system (CNS). Recent advances in understanding the function of glial, stromal, and immune cell components emphasizing heterogeneity within individual cell populations regarding injury induced changes, axonal regeneration and functional recovery after CNS injury will be presented. Based on these advances, this symposium will discuss potential therapeutic repair strategies of the injured nervous system.

THEME D — SENSORY SYSTEMS

Minisymposium

Parabrachial Complex: A Hub for Pain and Aversion CME

Chair: Mary M. Heinricher, PhD
Sunday, Oct. 20, 8:30–11 a.m.
McCormick Place: S406B

The parabrachial nucleus complex (PBN) has long been recognized as a sensory relay for taste, nociception, and interoception, but how this information is integrated and used to inform different behavioral outputs is only now being elucidated. This minisymposium will provide a context for interrogation of PBN circuits involved in aversion and avoidance and consider how information is integrated within PBN and transmitted to distinct targets to signal alarm and engage appropriate behavioral responses.

Minisymposium

What Do Neurons Want? CME

Chair: Gabriel Kreiman, PhD
Co-Chair: Carlos R. Ponce, MD, PhD
Monday, Oct. 21, 1:30–4 p.m.
McCormick Place: S102

Sixty years after Hubel and Wiesel, there remain important questions about the shapes that visually responsive neurons learn to abstract from the natural world. Recent advances in computational neuroscience have paved the way to rethinking neural coding for visual shapes. This minisymposium will discuss recent findings and theories about neuronal representations in the visual cortex, as revealed through experiments, simulations and the novel use of machine learning tools including generative neural networks.

Minisymposium

Sensory Circuits for Vision and Smell: Integrating Molecular, Anatomical, and Functional Maps CME

Chair: Alexander Fleischmann, PhD
Co-Chair: Andreas T. Schaefer, PhD
Tuesday, Oct. 22, 8:30–11 a.m.
McCormick Place: S105

The past decade has witnessed major advances in the development of molecular, anatomical, and functional techniques for large scale brain mapping. However, integrating these complementary techniques has remained challenging. This minisymposium will demonstrate how novel approaches can be combined to bridge these gaps and systematically generate insight into the molecular and functional topology of sensory neural circuits.

Minisymposium

Expecting the Unexpected: Cortical Circuits for Novelty Detection CME

Chair: Jordan P. Hamm, PhD
Tuesday, Oct. 22, 1:30–4 p.m.
McCormick Place: S406B

Efficient sensory processing involves building predictions based on context and detecting when events betray these predictions. Recent findings indicate that whether a stimulus is context-typical vs context-deviant/novel may be encoded by separate circuit mechanisms or even neural subpopulations (e.g. deviance detecting cells) distributed across sensory, associative, and prefrontal cortices. This minisymposium will highlight this discovery with converging results and insights from mice, ferrets, and humans.

Symposium

New Approaches to Vision Restoration CME

Chair: Joshua R. Sanes, PhD
Co-Chair: Paul A. Sieving, MD, PhD
Wednesday, Oct. 23, 8:30–11 a.m.
McCormick Place: S100A

A variety of translational strategies are being developed to restore vision to those who have blinding diseases. This symposium features premier investigators who will highlight four different approaches by discussing cutting-edge research in gene therapy, cell therapy, retinal prostheses, and optogenetic therapy. It will inform the community about the current state of the science using these approaches and highlight their potential to treat debilitating diseases of the visual system.

Minisymposium

Progress in Pain and Itch Research CME

Chair: Qin Liu, PhD
Co-Chair: Hongzhen Hu, MD, PhD
Wednesday, Oct. 23, 1:30–4 p.m.
McCormick Place: S102

Although acute pain and itch are two of the most fundamental protective somatosensory processes, chronic pathological pain and itch inflict significant clinical challenges and economic burdens. The coding and processing of pain and itch in the peripheral and central nervous systems are highly complicated processes. This minisymposium will highlight the recent research advances in the cross-system regulations of pain and itch, and maladaptive processes that lead to chronic pain and itch.

THEME E — MOTOR SYSTEMS

Minisymposium

Gain Control in the Sensorimotor System: From Neural Circuit Organization to Behavioral Function CME

Chair: Kazuhiko Seki, PhD
Co-Chair: Eiman Azim, PhD
Saturday, Oct. 19, 1:30–4 p.m.
McCormick Place: S406B

Coordinated movement depends on communication between neural circuits that produce motor output and those that report sensory consequences. Fundamental to this interaction are mechanisms for controlling the influence that feedback signals have on motor pathways — for example, reducing feedback gains when disruptive and increasing gains when advantageous. This minisymposium will discuss the organization and function of diverse forms of sensory gain control across species at multiple levels of the nervous system.

Minisymposium

The Neural Basis of Manual Dexterity CME

Chair: Sliman J. Bensmaia, PhD
Sunday, Oct. 20, 8:30–11 a.m.
McCormick Place: S102

Human hands are remarkably versatile and constitute the principal means by which we physically interact with the environment. This minisymposium will investigate the neural mechanisms that mediate manual dexterity by examining both motor control of the hands and the sensory input necessary for manual precision. Manual dexterity from evolutionary and comparative perspectives and recent efforts to confer anthropomorphic dexterity to brain-controlled bionic hands will also be considered.

Minisymposium

Beta Oscillations in Sensorimotor Function, Executive Action Control, and Working Memory CME

Chair: Robert Schmidt, PhD
Co-Chair: Adam R. Aron, PhD
Tuesday, Oct. 22, 8:30–11 a.m.
McCormick Place: S406A

Beta oscillations in cortical and basal ganglia networks remain mysterious, yet they are closely linked to network function and dysfunction. While beta is classically seen as representing an akinetic state, this minisymposium will highlight new insight into beta in the sensorimotor system and in cognitive control. Results across three species as well as from computational modelling, deep brain stimulation and electrophysiology that explain the mechanisms and function of beta and closed-loop methods in patients will be presented.

Minisymposium

Adaptive Control of Movements and Emotional States by the Cerebellum CME

Chair: Reza Shadmehr, PhD
Wednesday, Oct. 23, 1:30–4 p.m.
McCormick Place: S406B

An unexpected sensory event can be emotionally charged or neutral and can occur during movements or stillness. In every case, the cerebellum learns to eliminate the sensory prediction error. When this learning fails, results are motor as well as anxiety disorders. This minisymposium will present recent discoveries regarding the neural basis of this learning process, demonstrating the role of prediction errors in sculpting activity of Purkinje cells and leading to better control of brain structures outside of the cerebellum.

THEME F — INTEGRATIVE PHYSIOLOGY AND BEHAVIOR

Minisymposium

Sex Differences in Drug Craving and Addiction-Like Behaviors in Rodent Models CME

Chair: Mathieu E. Wimmer, PhD
Co-Chair: Jessica A. Loweth, PhD
Saturday, Oct. 19, 1:30–4 p.m.
McCormick Place: S102

Women tend to have greater vulnerability than men to developing symptoms that define Substance Use Disorder, including escalation of drug taking and withdrawal symptoms. Moreover, the limited treatment options for addiction are less effective in women compared to men. This minisymposium highlights recent advances in rodent models of addiction that dissect the molecular, hormonal, and neuronal circuits underlying sex differences in addiction-like behaviors and craving and relapse vulnerability.

Minisymposium

Insights Into Neural Coding and Behavior From Large-Scale Population Recordings Across Cortical Areas CME

Chair: Jerry L. Chen, PhD
Monday, Oct. 21, 8:30–11 a.m.
McCormick Place: S406B

Cognitive functions involve information processing within and across the neocortical areas. This minisymposium aims to unravel how local and global cortical dynamics contribute to sensory processing, attention, working memory, and decision making. Novel optical and electrophysiological methods for simultaneous recordings across multiple areas, their application across mammalian species, and computational approaches for analyzing large-scale population activity will be discussed.

Symposium

Cortical Disinhibitory Circuits: Cell Types, Connectivity, and Function CME

Chair: Chair: Lisa Topolnik, PhD
Co-Chair: Klas Kullander, PhD
Monday, Oct. 21, 1:30–4 p.m.
McCormick Place: S100BC

The concept of cortical disinhibition has recently arisen as an important mechanism for information flow during complex behavioral tasks. Identifying the neuron types involved in cortical disinhibition, their connectivity patterns, and their functional role is therefore critical to understanding the structure and function of disinhibitory circuits. This symposium brings together leading scientists from around the world to present the latest discoveries on the dynamic organization of cortical microcircuits with focus on disinhibition and its role in cognition and behavior.

Symposium

Neural Circuit and Plasticity Mechanisms of Cognitive Control of Feeding Behavior CME

Chair: Gorica D. Petrovich, PhD
Tuesday, Oct. 22, 1:30–4 p.m.
McCormick Place: S100A

Persistent food cravings drive overeating and binge-eating disorder. Palatable food cues stimulate excessive food seeking and consumption through cognitive and hedonic processes. This symposium will highlight new neural circuitry and plasticity mechanisms underlying cognitive control of feeding, including learning and memory processes that integrate sensory and reward components of food and related cues. Sex differences and translational implications of these findings will be also discussed.

Minisymposium

Redefining Neuromodulation of Behavior: Impact of a Modular Locus Coeruleus Architecture CME

Chair: Nelson K. B. Totah, PhD
Tuesday, Oct. 22, 1:30–4 p.m.
McCormick Place: S102

The locus coeruleus (LC) is a brainstem nucleus critical for survival (wakefulness, autonomic responses, and analgesia) as well as cognition. LC neurons project throughout the central nervous system and could transmit a homogenous noradrenergic signal that uniformly regulates these diverse functions. This minisymposium will present work reconceptualizing LC as a differentiated

system for targeted neuromodulation on the basis of developmental, molecular, anatomical, and neurophysiological diversity.

Minisymposium

Regulation and Dysregulation of Activity Homeostasis in Central Neural Circuits CME

Chair: Inna Slutsky, PhD
Co-Chair: Samuel Barnes, PhD
Wednesday, Oct. 23, 8:30–11 a.m.
McCormick Place: S406B

A fundamental challenge in the field of neuroscience is to understand how neurons and neural networks maintain stable firing rates in the face of continuous synaptic, metabolic and molecular turnover. This minisymposium will explore how neural homeostasis is implemented at different spatial scales and across diverse brain regions. Importantly, how current findings can be reconciled with other plasticity mechanisms and the disease implications of homeostasis failures will also be discussed.

THEME G — MOTIVATION AND EMOTION

Symposium

Epigenetic Mechanisms: Shared Pathology Across Brain Disorders CME

Chair: Eric J. Nestler, MD, PhD
Co-Chair: Zhen Yan, PhD
Saturday, Oct. 19, 1:30–4 p.m.
McCormick Place: S100A

The pathogenesis of many brain disorders converges on epigenetic changes, leading to lasting transcriptional dysregulation and synaptic dysfunction. This symposium will discuss recent findings on the key role of epigenetic mechanisms in stress-induced depression, autism-like social deficits, drug addiction, and age-related memory loss. It will also discuss the therapeutic potential of targeting epigenetic enzymes, such as chromatin remodelers and histone modifiers, for complex brain disorders.

Minisymposium

Cannabis and the Developing Brain: Insights Into Its Long-Lasting Effects CME

Chair: Yasmin Hurd, PhD
Co-Chair: Miriam Melis, PhD
Sunday, Oct. 20, 1:30–4 p.m.
McCormick Place: S100BC

Increasing evidence suggests that cannabis exposure during neurodevelopment (perinatal and adolescent stages) results in persistent alterations in brain circuits underlying neuropsychiatric disorders and leads to an increased risk for certain psychiatric conditions later in life. This minisymposium will explore gene x environment interactions that appear to play a significant role in such sensitivity and will provide translational insights about molecular, epigenetic, neurophysiological, and *in vivo* neuroimaging disturbances in the human brain and animal models.

Minisymposium

Ventral Tegmental Area (VTA) Cell Heterogeneity in Health and Disease CME

Chair: Nicholas W. Gilpin, PhD
Co-Chair: Elyssa B. Margolis, PhD
Monday, Oct. 21, 8:30–11 a.m.
McCormick Place: S102

Historically, most research on the ventral tegmental area (VTA) has tested dopamine function as it relates to reward processing. Recent progress indicates 1) non-dopamine VTA neurons significantly impact behavior, 2) VTA inputs and outputs have multiple, sometimes opposing, behavioral effects, and 3) the VTA subserves various functions impacted by mental health disorders. This minisymposium will describe newly elucidated roles of specific VTA cell populations in addiction, reward, aversion, fear and sleep.

Symposium

The Paraventricular Thalamus (PVT): Salience and Timing Orchestrator for Learning and Deciding CME

Chair: Seema Bhatnagar, PhD
Co-Chair: Tallie Z. Baram, MD, PhD
Tuesday, Oct. 22, 8:30–11 a.m.
McCormick Place: S100BC

The goal of this symposium is to present novel perspectives on the established and emerging roles of the PVT in complex behaviors. There has been an explosion of interest in the PVT due to its recently described roles in orchestrating decisions and behaviors involving emotional salience. Evidence suggests that the PVT shapes behaviors by integrating information about the memory and salience of negative and positive experiences, functions highly germane to addiction and psychopathology.

Minisymposium

Brain Circuits for the Selection and Scaling of Defensive Behavior CME

Chair: Stephen Maren, PhD
Wednesday, Oct. 23, 8:30–11 a.m.
McCormick Place: S105

Threatening stimuli evoke a range of behavioral responses that are selected and scaled according to the proximity of the danger. This minisymposium will examine the neural circuits that underlie defensive behaviors under threat. Sex, context, threat proximity, and safety signals regulating defensive responses in both rodents and humans will be considered.

THEME H — COGNITION

Minisymposium

Brain Mechanisms of Concept Learning CME

Chair: Dagmar Zeithamova, PhD
Co-Chair: Michael L. Mack, PhD
Saturday, Oct. 19, 1:30–4 p.m.
McCormick Place: S105

Concept learning, the ability to extract commonalities and highlight distinctions across related experiences to build organized knowledge, is uniquely supported by interacting neural systems related to memory, attention, and executive control. This minisymposium will highlight research that directly assesses the multiple neural mechanisms of concept learning with innovative approaches that bridge computational modeling and neural measures.

Symposium

Opening the Black Box of the Hippocampus: Visualizing Memories in Distinct Cell Types, Microcircuits, and Cellular Compartments CME

Chair: Mazen Kheirbek, PhD
Sunday, Oct. 20, 8:30–11 a.m.
McCormick Place: S100BC

The hippocampus is comprised of many cell types and circuits that differentially contribute to aspects of memory encoding. Recent technological advances have led to a reassessment of the hippocampus, its information processing capacity, and how it controls behavior. This symposium will describe how electrophysiology, imaging, and computational tools can be combined to decode the function of hippocampal cell types, microcircuits, and subcellular compartments in the control of behavior.

Minisymposium

Cognitive Cerebellum: Role in Motivation, Emotion, Executive, Social, and Sensory Processing CME

Chair: Iaroslav A. Savtchouk, PhD
Co-Chair: June Liu, MD, PhD
Sunday, Oct. 20, 1:30–4 p.m.
McCormick Place: S102

The cerebellum has been predominantly studied as a sensory-motor integrator, but anatomic studies reveal its extensive reciprocal connections with non-motor cortical regions. It is now increasingly implicated in higher-order cognition, such as complex planning as well as emotional, social, linguistic, and reward processing. This minisymposium will review how these recent advances in beyond-motor cerebellar research will reshape our view of brain function and dysfunction, including autism and cognitive affective syndrome.

Minisymposium

Awakening the Engram: The Etiological Role of Engram Cells for Memory Formation, Storage, and Retrieval in Health and Disease CME

Chair: Johannes Gräff, PhD
Co-Chair: Tomas J. Ryan, PhD
Monday, Oct. 21, 1:30–4 p.m.
McCormick Place: S406A

Converging evidence over the past several years suggests that memories are stored at least in part as specific populations of engram cells. In this symposium, leading experts in engram biology share their continuously refined insights on how engram cells contribute to information encoding and storage, across diverse brain regions and behavioral modalities. Particular emphasis is placed on their emerging translational value for memory dysfunctions in age and stress-related disorders.

Minisymposium

Naturalistic Paradigms in Awake Monkeys: Bridging fMRI and Extra-Cellular Activities CME

Chair: Sze Chai C. Kwok, PhD
Co-Chair: Brian E. Russ, PhD
Tuesday, Oct. 22, 8:30–11 a.m.
McCormick Place: S406B

Naturalistic viewing paradigms have become increasingly popular, as they translate to the real world conditions that shaped brain evolution. Recent advances in non-human primate research allow for the monitoring of large numbers of neurons, and the collection of richer behavioral and neural data than ever before. This minisymposium will present evidence that naturalistic paradigms reveal neural specializations and interaction patterns in the brain that would be dormant otherwise.

Minisymposium

Grid-Like Hexadirectional Modulation of Neural Activity in Humans CME

Chair: Nanthia Suthana, PhD
Wednesday, Oct. 23, 8:30–11 a.m.
McCormick Place: S100BC

Neurons have been shown to increase in firing rate with a hexagonal grid pattern as an animal navigates an environment. Recently, studies show that population signals of neural activity (i.e., LFP and fMRI) exhibit similar hexadirectional modulation in humans. These findings from human grid-like oscillatory and fMRI signals will be discussed as well as how they relate to each other and rodent studies. This minisymposium will also focus on how findings relate to spatial navigation and memory in humans.

THEME I — TECHNIQUES

Minisymposium

BRAIN Initiative: Cutting-Edge Tools and Resources for the Community CME

Chair: Walter J. Koroshetz, MD
Saturday, Oct. 19, 1:30–4 p.m.
McCormick Place: S406A

A core principle of the BRAIN Initiative is to develop and share novel technologies, tools, methods, and resources to advance understanding of healthy and disease brain states. This minisymposium features BRAIN-funded investigators who are driving forward toward this goal; it will inform and educate the community about opportunities and applications of their advances and encourage broader understanding of the methodological and technological advances developed as a part of the BRAIN Initiative.

Minisymposium

Optical Recording of Neural Transmission: From Tool Development to Applications CME

Chair: Haining Zhong, PhD
Co-Chair: Loren L. Looger, PhD
Sunday, Oct. 20, 1:30–4 p.m.
McCormick Place: S105

Imaging of genetically encoded calcium indicators have revolutionized systems neuroscience. However, crucial complementary information, such as when and where neurotransmission takes place, are required for revealing the full picture of brain function. This minisymposium aims to highlight the most recent development of the fluorescent indicators for imaging key neurotransmitters and their downstream events, and the exciting applications of these indicators for dissecting neuronal function.

Minisymposium

Artificial Intelligence and Neuroscience: From Neural Dynamics to Artificial Agents CME

Chair: Maneesha Sahani, PhD
Monday, Oct. 21, 8:30–11 a.m.
McCormick Place: S406A

Machine learning research is advancing at a fast pace, with substantial impacts on neuroscience. Data-analytic approaches have helped to uncover and characterize dynamical structure in neural population activity, while artificial networks have provided insights into representations and computations in the brain. This minisymposium will explore topics at the intersection of machine learning and neuroscience, demonstrating recent advances and how both fields can benefit from a close interaction.

Symposium

Brain Somatic Mosaicism: Implications for Development and Disorders CME

Chair: Flora M. Vaccarino, MD
Co-Chair: Alexander E. Urban, PhD
Tuesday, Oct. 22, 8:30–11 a.m.
McCormick Place: S100A

Cells of the human brain can contain differences in their individual genome sequences, manifesting as single-nucleotide variants (SNVs), mobile element insertions (MEIs), and large copy number variants (CNVs). This symposium will discuss the analysis of somatic mosaicism using advanced genome sequencing approaches, as well as how mosaic variants arise and spread across the brain and their frequencies, mechanisms, and relevance for development and disease.

Minisymposium

Timing is Everything: Temporally Irregular Stimulation Patterns for Brain Mapping and Clinical Therapeutics CME

Chair: Alik S. Widge, MD, PhD
Wednesday, Oct. 23, 8:30–11 a.m.
McCormick Place: S406A

Brain stimulation therapies have revolutionized movement disorder treatment, hold promise in mental disorders, and are powerful tools for studying the brain. Clinical stimulation is delivered without consideration of how it interacts with ongoing brain activity. This minisymposium explores the growing evidence that when we stimulate is as important as where. New, precisely timed stimulation sequences, each of which has useful physiologic effects, will be described.

Minisymposium

Advanced Circuit and Cellular Imaging Methods in Non-Human Primates CME

Chair: Stephen L. Macknik, PhD
Wednesday, Oct. 23, 1:30–4 p.m.
McCormick Place: S105

Optogenetic and microscopic imaging techniques have proven successful in manipulating neuronal populations with high spatial and temporal fidelity in species ranging from insects to rodents. However, significant obstacles remain in their application to non-human primates (NHPs). Robust optogenetics-activated behavior and long-term monitoring of target neurons have been especially challenging in NHPs. This minisymposium will present recent advances that overcome many such obstacles.

STORYTELLING SESSION 50

The Storytelling Brain: How Neuroscience Stories Help Bridge the Gap Between Research and Society

Chair: Susana Martinez-Conde, PhD
Sunday, Oct. 20, 1:30–4 p.m.
McCormick Place: S406B

This storytelling session brings together neuroscientific discovery, science reporting, and personal storytelling in a synergetic and memorable way. Broad-appeal lectures will interweave with personal stories to showcase the effective ways in which neuroscience researchers and journalists can collaborate, how storytelling provides a common ground between science and art, and the power of narrative to hold captive our storytelling brains.

DUAL PERSPECTIVES 50

Does Adult Neurogenesis Occur in the Human Brain?

Monday, October 21,1–2 p.m.
McCormick Place: Room S406B

Whether neurogenesis continues in the adult human brain has been contested for decades. Adult neurogenesis is a fascinating phenomenon involving the birth, migration and functional integration of a new neuron into established neural networks. This Dual Perspectives session will present recent evidence both supporting (Dr. Llorens-Martín) and questioning (Dr. Alvarez-Buylla) the presence of new neurons in the adult human hippocampus.

BASIC-TRANSLATIONAL-CLINICAL ROUNDTABLES

Mechanisms of Drug Addiction: A Translational Perspective CME

Organizer: Trevor W. Robbins, PhD
Monday, October 21, 8:30–11 a.m.
McCormick Place: Room N230B

This roundtable will focus on translatability of basic research in animals to human research in addiction in order not only to understand neurobehavioral mechanisms of addiction, but also to define new strategies for discovery of clinical treatments, especially regarding the current opioid crisis. Topics to be discussed include the neural systems underlying addiction, neuronal adaptations occurring within those systems, how different drugs of abuse produce addiction, and the role of aberrant learning and vulnerabilities in the drive to addiction.

Exoskeletons and Robotics for Neurorehabilitation CME

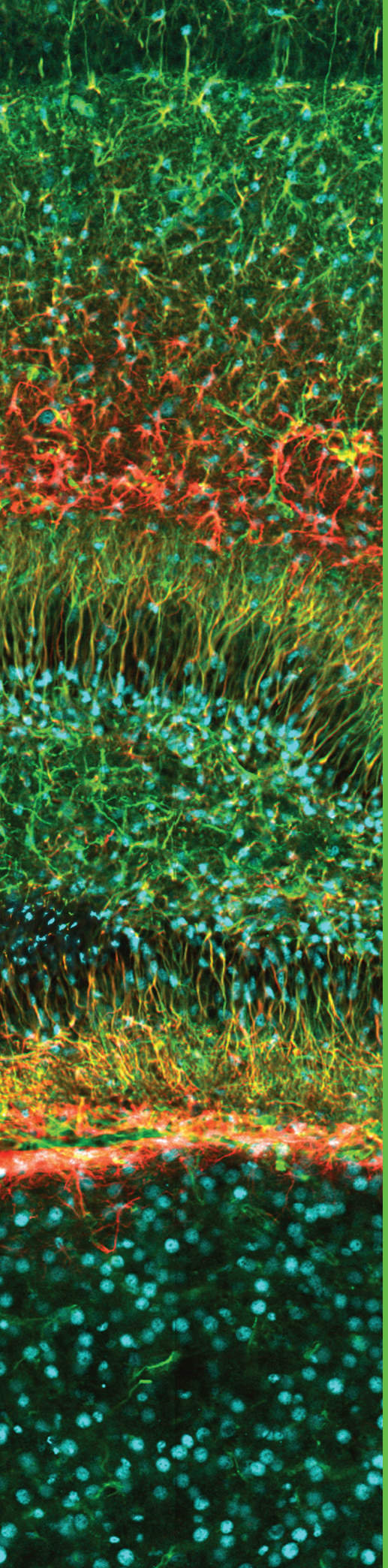
Organizer: Ann M. Spungen, EdD
Tuesday, October 22, 8:30–11 a.m.
McCormick Place: Room N230B

This session will include a state-of-the-art overview of the use of robotics and exoskeletons in populations with neurological impairments. Specific presentations will include upper body robotic interventions for functional and neurological gains, robotic interventions for children with neurological impairments, and lower extremity exoskeletons for over ground ambulation. The lower extremity exoskeletal-assisted walking data will be presented from a randomized, controlled clinical trial.

Gene Therapy in Neurological Diseases CME

Organizer: Asa Abeliovich, MD, PhD
Wednesday, October 23, 8:30–11 a.m.
McCormick Place: Room N230B

Gene therapy has advanced rapidly in the past five years, with technological advances and encouraging early clinical studies. This roundtable will focus on the opportunities and challenges as the field progresses, with a focus on the development of disease-modifying therapies that address urgent unmet needs of patients with neurological disorders. Discussion topics will include: technologies that are driving the field, with a focus on AAV platforms; leveraging advances in neurogenetics to identify validated therapeutic targets and patient subpopulations; rare monogenic disorders and clinical therapeutic strategies; the pursuit of gene therapy approaches for genetically complex disorders; and CNS region- and cell-selective approaches.



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Sessions and Events

SfN Pre-Conference Sessions

Icon Key:

- ✍ 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. To attend, add the appropriate course to your annual meeting registration.

Short Courses 1 and 2

(Includes electronic course book 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 course book)

Student member	$75
Student nonmember	$115
Postdoctoral member	$115
Postdoctoral nonmember	$170
Faculty member	$150
Faculty nonmember	$225

FRIDAY, OCTOBER 19

Short Course 2

Quantifying Behavior as a Lens Into the Brain ✍ $ 🕮

8 a.m.–6 p.m.
McCormick Place: S100BC
Organizers: Robert S. Datta, MD, PhD and Mala Murthy, PhD
Contact: training@sfn.org

This course will cover new methods for collecting behavioral data; characterizing behavioral dynamics, components and sequences; and connecting neural activity with behavior across scales. The instructors have broad expertise in the development and application of these methods across a variety of model systems, and lectures and demos will focus both on technical details as well as conceptual issues. There will also be discussion of advances that are needed to resolve the neural mechanisms that give rise to the myriad ways in which animals interact with their environments.

Short Course 1

Neural Prosthetics and Brain Machine Interfaces ✍ $ 🕮

8:30 a.m.–6 p.m.
McCormick Place: S100A
Organizers: Adrienne Fairhall, PhD and Charles Liu, MD, PhD
Contact: training@sfn.org

Brain-machine interfaces (BCIs) are devices that make direct contact with neural systems, translate brain signals into external commands, provide input to replace or augment functionality, or alter activity to disrupt dysfunction or drive plasticity. These tools are both an opportunity to replace or restore function, and a tool to better understand neural circuits. This short course will review technologies and algorithms for BCIs and neural prosthetics and discuss the transition to market.

Short Course 3

Cultivating Professionalism and Excellence in the Research Landscape ✍ $ 🕮

1–5:30 p.m.
McCormick Place: S106
Organizers: Carlos Aizenman, PhD; Janet Clark, PhD; Marguerite Matthews, PhD; Rosalind A. Segal, MD, PhD; and Keith Trujillo, PhD
Contact: training@sfn.org

A significant part of achieving professional excellence and maintaining productive collaborative relationships is dependent on an institution's commitment to diversity, equity, and inclusion of all students, trainees, and faculty, especially those from underrepresented groups. During this short course, attendees will explore how early career neuroscientists can navigate different aspects of the research landscape, including circumstances resulting from power dynamics, structural inequities, and different forms of bias.

SATURDAY, OCTOBER 19

Meet-the-Expert Series Session 1:

🕮 ⬚

8–9:15 a.m.
Marriott Marquis Chicago
Contact: profdev@sfn.org

Understanding Cortical Development and Disease: My Path to Discovery

Great Lakes G
Paola Arlotta, PhD
Theme A: Development

Dr. Arlotta started her career working on the basic mechanisms that build cell diversity in the mammalian cerebral cortex. Her work now also focuses on mimicking aspects of cortical development *in vitro* through the generation of human brain organoids, which are stem cell-derived, reductionist replicas of the human developing brain. Dr. Arlotta will discuss her own scientific journey and the challenges associated with working with stem cell-derived models of the human brain.

Clinical Trialists Path: Building Teams

Great Lakes A
Merit Cudkowicz, MD
Meet-the-Clinician-Expert
Theme C: Neurodegenerative Disorders and Injury

There is an unprecedented opportunity now to develop effective treatments for people with neurological disorders. How to develop a career as a clinical trialist and approaches to developing and testing therapeutics for CNS disorders will be discussed. Examples from trials in Amyotrophic lateral sclerosis (ALS) and other neurological disorders will be shared.

Functional Regeneration Beyond the Glial Scar
Great Lakes E
Jerry Silver, PhD
Theme C: Neurodegenerative Disorders and Injury
Support contributed by: Thorlabs, Inc.

The goal of the Silver lab is to understand the basic biology that underlies regeneration failure in the adult spinal cord and then use this knowledge to develop strategies to overcome the lack of regeneration in order to promote functional repair. Dr. Silver will review more than 30 years of work that has focused on one of the most interesting families of inhibitory extracellular matrix molecules, the chondroitin sulfate proteoglycans, that are involved in creating such regenerative boundaries.

Circuit Dynamics: A Fly Perspective
Great Lakes F
Gaia Tavosanis, PhD
Theme D: Sensory Systems
Support contributed by: Thorlabs, Inc.

Neurons elaborate complex structures during development and those structures retain the capacity to undergo modifications that sustain adaptability in the adult animal's behavior. In this session, Dr. Tavosanis will examine the challenges of investigating the cell biological mechanisms of neuronal plasticity *in vivo* utilizing the model organism *Drosophila*. She will discuss her advances in revealing structural modifications in the adult fly brain and the career path that supported them.

I Can't Believe They Pay Me to Have Fun: The Privilege of Being a Scientist
Great Lakes C
Kamran Khodakhah, PhD
Theme E: Motor Systems

There is nothing more important than waking up every morning and smiling in anticipation of the coming day. The right career pick goes a long way in making that a reality. Being a neuroscientist is Dr. Khodakkah's dream job. His research aims to understand the underpinnings of cerebellar function and computation. He is interested in delineating cerebellar contributions to motor and non-motor behaviors, with an eye on unraveling the fundamental underpinnings of brain disorders.

Translating Neuroscience: Obstacles and Opportunities
Great Lakes B
Kafui Dzirasa, MD, PhD
Theme G: Motivation and Emotion

Dr. Kafui Dzirasa investigates the network-level brain processes that signal emotions in health and disease. Dr. Dzirasa will describe his career path from an undergraduate chemical engineering student at the University of Maryland Baltimore County to a NIH-funded investigator at Duke University that contributed to framing BRAIN 2.0. This talk will also highlight the key patient encounters, scientific observations, and life experiences that shaped his scientific inquiry.

Twenty Years of Fear Research and Mentoring in Puerto Rico
Shedd Room
Gregory Quirk, PhD
Theme G: Motivation and Emotion
Support contributed by: Thorlabs, Inc.

Dr. Quirk's research focuses on the neural circuits of fear regulation. He recently shifted from Pavlovian fear conditioning to an active avoidance task that pits pursuit of food against pursuit of safety. The key to his success has been creating an optimal training environment by promoting communication skills, intellectual growth, and a sense of purpose. Simple mentoring techniques can help new PIs create successful laboratories in diverse settings.

Meet-the-Expert Series Session 2:
9:30–10:45 a.m.
Marriott Marquis Chicago
Contact: profdev@sfn.org

Understanding Molecules, Synapses, and Neural Plasticity: The Awesome Power of Genetics
Great Lakes F
Yishi Jin, PhD
Theme A: Development

Employing the powerful forward genetic analyses in *C. elegans*, Dr. Jin's lab has discovered key molecular pathways that instruct synapse formation, as well as the mechanisms regulating the critical period for connectivity switch in animal development and reactive neural plasticity under traumatic injury. This talk will discuss the logic and execution of curiosity-driven and the artful design of genetic analysis.

Myelin Plasticity: From Cognition to Cancer
Great Lakes E
Michelle Monje-Deisseroth, MD, PhD
Theme B: Neural Excitability, Synapses, and Glia

Activity-dependent plasticity of myelin is emerging as a recognized mechanism by which experience can modulate brain structure and function, with roles in motor and cognitive behavioral function. Dysregulation or dysfunction of myelin plasticity can contribute importantly to neurological disease. For example, dysfunction of adaptive myelination can cause impaired cognition following chemotherapy, while subversion of myelin plasticity mechanisms robustly promotes malignant glioma progression.

Seeing and Remembering What We've Seen
Great Lakes C
Nicole Rust, PhD
Theme D: Sensory Systems

Humans and other primates are extremely good at remembering images. Dr. Rust studies the neural mechanisms supporting this remarkable form of memory through investigations of human and animal visual

memory behaviors, measurements and manipulations of neural activity, and computational modeling. In this talk, she will describe her lab's pursuit of the neural signal that drives the sense of remembering that an image has been seen before.

Disuse Drives Plasticity in Human Brain Networks
Great Lakes B
Nico Dosenbach, MD, PhD
Meet-the-Clinician-Expert
Theme E: Motor Systems

Dr. Dosenbach's research focuses on characterizing human functional network organization and how it changes with development, injury, and recovery, using functional MRI (fMRI). Recently, he has pushed fMRI and resting state functional connectivity (RSFC) MRI acquisition and analysis methodology to the level of individuals, including patients. His lab has developed experimental paradigms that obtain repeated multi-modal MRI scans on the same individuals, for individual-specific image analyses.

Lessons for Songbirds and Scientists: Learning to Communicate More Effectively by Listening to Others
Great Lakes A
Yoko Yazaki-Sugiyama, PhD
Theme H: Cognition

Both songbirds and scientists learn to communicate through social interaction during development. Yoko Yazaki-Sugiyama has been investigating cell, circuit and systems mechanisms of innate songbird learning from auditory experience, including how birds detect their own species song, learn intensively with vocal communication, and learn exclusively during developmental critical periods. She draws parallels to her communication skills learned by listening to others during her development as a scientist.

Machine-Learning Assisted Directed Evolution of Viral Vectors and Microbial Opsins for Minimally Invasive Neuroscience
Great Lakes G
Viviana Gradinaru, PhD
Theme I: Techniques

Dr. Gradinaru's lab recently developed capsids capable of crossing the blood-brain barrier, enabling noninvasive delivery of sensors and actuators to the CNS in transgenic and non-transgenic animals. With synergistic developments in actuators, systemic adeno-associated viruses (AAVs) will allow researchers to modulate defined cell types and circuits across multiple deep-brain structures in a minimally invasive manner and test the behavioral effects of this modulation in animal models.

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Astrid E. Cardona
Héctor Carrera
Richard B. Carter
Andrew Cawley-Bennett
Matthew V. Chafee
Nirupa Chaudhari
Jose I. Chavira
Yung-Hsiao Chiang
Hillel J. Chiel
Edgar E. Coons
David P. Crockett
Donna J. Cross
Estela Cuevas
Warren G. Darling
David L. Davies
M. Frances Davies
Martha Isabel Davila-Garcia
Cosimo Del Gratta
Marshall Devor
Francis Tanam Djankpa
Grace Dos Santos Feijó
Romina Doubnia
Ursula C. Drager
Jana Drgonova
Robert E. Druzinsky
Mengmeng Du
Max Reinhard Duersteler
Lindsey Morgan Duke
Aliceson Nicole Dusang
Benjamin A. Eaton
Yoshimichi Ejima
Cagla Eroglu
Daniel Feldman
Willy Fernandes
Thomas E. Finger
Michael F. A. Finley
Stuart J. Firestein
Thomas B. Friedman
Kazuma Fujikake
Jack L. Gallant
Songyuan Geng
Stephen A. George
Bruno Giros
David L. Glanzman
Oksana V. Globa
James E. Goldman
Stephen N. Gomperts
Ma. Eva González-Trujano
Miriam B. Goodman
Robert M. Gould
Marcia Grabowecky
Ann-Charlotte Granholm
Todd L. Green
Rebecca P. Haberman
David H. Hall
Elizabeth A. D. Hammock
Riitta K. Hari
Kagan Harris
Henry E. Heffner
Bradley Stavros Heit
Talma Hendler
Takao K. Hensch
Luis F. Hernandez
Okihide Hikosaka
Tomas GM Hokfelt
Henry Holcomb
Christine E. Holt
John D. Houle
Kari R. Hoyt
Kun Hu
Odelie Huet
Steven E. Hyman
Charles E. Inturrisi
Makoto Ishikawa
Anusuyadevi Jayachandran
S. Morgan Jeffries
Frances Jensen
Ru-Rong Ji
The Joelson Foundation on behalf of Rosalind A. Segal and Michael Greenberg
Elizabeth A. Jonas
Byron C. Jones
Alexandra L. Joyner
Isela Esther Juarez-Rojop Jr.
Tomoyuki Kanamatsu
Koichi Kaneko
Sujatha Kannan
Yahya Karimipanah
William Karnes
Nurgul Kaya
Sebnem Kesaf
James J. Knierim
Michael Koban
Yasuo Kubota
Kisou Kubota
Arvind Kumar
Ping-Chang Kuo
Miyuki Kurabe
Tetsuya Kushikata
Ingrid L. Kwee
Audrey D. Lafrenaye
Christopher Lawson
Christiana Leonard
Christopher S. Leonard
Josiah K. Leong
Jenny Libien
Diane Lipscombe
Hanqing Liu
Rita P. C. Liu
Yong Liu
Yana Lokshina
Louise D. Loopuijt
Noé López-Amador
Gabriela Lopez-Armas
Rolando E. Lovaton
David M. Lovinger
Zhongmin Lu
Felix Luna
Victor Luria
Anna Lysakowski
Peter R. MacLeish
Arianna Maffei
Kathy R. Magnusson
Lavonna Mark
Carol Mason
Toshiya Matsushima
Fumio Matsuzaki
Helen S. Mayberg
Kenneth I. Maynard
Bruce S. McEwen
Rick B. Meeker
Wilfredo Mellado
Francisco Mercado
A. Joffre Mercier
Athanasios Metaxas
Karina Kaisha Meyer Acosta
Matthew Miller
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John G. Milton
Yu Mimura
Sheba M.J. Mohankumar
John H. Morrison
Kristine M. Mosier
Janet Murbartian
Venkatesh N. Murthy
Suzan Nadi
Ashwini Ganapati Naik
Hidemitsu Nakajima
Elia-Brosla Naranjo-Rodriguez
Luz Navarro
David L. Nelson
Network For Good
Robert A. Nichols
T. Richard Nichols
Karoly Nikolich
Rae Nishi
Anthony M. Norcia
Felicia V. Nowak
Duane Q. Nykamp
Michael D. Oberdorfer
Byung-Mo Oh
Yukari Ohki
Hiroaki Ohkubo
Jun-Ichiro Oka
Katsuhiko Ono
Takao Ono
Miles Orchinik
Jose Luis Ordonez Librado
Sandra Orozco-Suarez
Harry T. Orr
Hitoshi Ozawa
Karen D. Parfitt
Benjamin J. Patrick
Angelique C. Paulk
Katherine Lowe Perkins
Mary A. Peterson
Jeffrey C. Petruska
Christopher J. Platt
Mark A. Prendergast
Brendan Prendergast
Anne L. Prieto
Amy Pruszenski
Raymund Y. K. Pun
Keith P. Purpura
Edward Quilty
Veronica Ramirez
Khara M. Ramos
Peter R. Rapp
Jamie L. Reed
Regeneron Pharmaceuticals, Inc. – Matching Gift
Socorro Retana Marquez
Cathrin Rieger
John M. Rinzel
Nancy T. Rodgers-Neame
Francisco Estrada Rojo
Stephen D. Roper
Shani E. Ross
Morgane Marguerite Roth
Robert T. Rubin
Edwin Manning Rubin
Pavel E. Rueda-Orozco
Yasuhiko Saito
Michael I. Sandstrom
Carmen Sato-Bigbee
Iaroslav A. Savtchouk
Andrew J. Saykin
Jennifer L. Scribner
Charles A. Scudder
Fredrick J. Seil
Norma Serrano
Anshul Sharma
Asher R. Sheppard
John E. Simmons
William F. Simonds
Deanna S. Smith
Manoocher Soleimani
Roger G. Sorensen
Enrique Soto
Robert L. Spencer
Sabine Spijker
Katinka Stecina
Ryoji Suzuki
Thirukan R. Swaminathan
Eva Szabo
Xun Tang
Gregory W. Taylor
Jeremy Teissere
Edda Thiels
Yang Tian
Henri Tiedge
Larry Tiffany
Leslie P. Tolbert
Donna J. Toufexis
Susan P. Travers
Juan C. Troncoso
Li-Huei Tsai
Jeffery L. Twiss
Monica E. Urena-Guerrero
Mikhail Nikolaevich Ustinin
Alejandro Valdés-Cruz
Marc Vander Ghinst
Theresa M. Vaughan
Viacheslav Viatchenko-Karpinski
Michel H. Vignes
Christiane W. Voufo
Ju-Yu Wang
Gang Wang
Di Wang
G. Daniel Weese
Aguan D. Wei
Alexander Wickstrom
Krystyna Wieczerzak
Clayton A. Wiley
Lauren L. Williamson
Iris Winkler
Benjamin L. Wolozin
Catherine S. Woolley
Xiao Ming Xu
Kazuhiko Yamaguchi
Paul J. Yarowsky
Ning Yu
Laszlo Zaborszky
Ying Zhang
Yiyao Zhang
Zhe Zhang
Yuelian Zhu
Andrew W. Zimmerman
Mark J. Zoran

Networking, Public Outreach, and Advocacy

Icon Key:

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

SATURDAY, OCTOBER 19

NeuroJobs Career Center

Saturday, October 19–Tuesday, October 22, 8 a.m.–5 p.m.
Wednesday, October 23, 8 a.m.–3 p.m.
McCormick Place: Hall A
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 private interview booths and computers for posting and applying for jobs. For prices and more information on how to set up a NeuroJobs account, visit www.SfN.org/neurojobs. On-site payment can be made by credit card only.

Graduate School Fair ⊏⊐

Saturday, October 19, 1–3 p.m.
Sunday, October 20 – Tuesday, October 22, Noon–2 p.m.
McCormick Place: Hall A
Contact: training@sfn.org

Prospective graduate students can meet face-to-face with student advisors, program faculty, and graduate school representatives from more than 100 national and international institutions at the Graduate School Fair.

Brain Awareness Campaign Event

Illuminating the Path With Science Outreach ⊏⊐ ✻
2:30–4 p.m.
McCormick Place: N226
Organizer: Teodora Stoica, MS
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. Also hear from Teodora Stoica, founder of the Louisville and Kentucky Science Pathways Programs, summer internship programs that allow students from underprivileged neighborhoods to experience hands-on research in neuroscience labs.

Diversity Poster Session 🕮 ⊏⊐

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

Join a special poster session and networking event featuring participants of the (NSP) Neuroscience Scholars Program, ENDURE, and other diversity fellowship programs.
Support contributed by:
eNeuro and JNeurosci

International Fellows Poster Session 🕮 ⊏⊐

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

Meet the next generation of leading young investigators from the Latin American Training Program (LATP) and award winners selected by the International Brain Research Organization (IBRO), Japan Neuroscience Society (JNS), and the Federation of European Neuroscience Societies (FENS).
Support contributed by:
eNeuro and JNeurosci

Trainee Professional Development Awards Poster Session 🕮 ⊏⊐

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

This poster session and networking event will honor award-winning posters from undergraduate and graduate students and postdoctoral fellows.
Support contributed by:
eNeuro and JNeurosci

Career Development Topics: A Networking Event 🕮 ⊏⊐

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

Experienced neuroscientists will answer attendee questions on a wide range of topics at this informal, roundtable event. Topics include work-life balance, securing grants, setting up a lab, choosing a postdoctoral position, and careers outside of academia, among others. Nearly 30 tables will be offered at the event. During the event, attendees will have the opportunity to rotate among the tables that are of interest to them. Neuroscientists at all career stages are encouraged to attend.

SUNDAY, OCTOBER 20

Social Issues Roundtable

Human Fusions: Ethical and Social Issues Raised by Neural-Digital Interfaces ✻
1–3 p.m.
McCormick Place: N230B
Organizer: Dustin J. Tyler, PhD
Contact: baw@sfn.org

Human-machine interfaces raise important ethical and social issues. Innovations promise to restore, alter, or enhance function in humans, but also may exacerbate existing social tensions around equality, identity, security, privacy, and access. This roundtable will address questions about the technology's impact on society and the conditions for its governance. In a world of rapidly expanding human-technology symbiotic unions, we explore how to keep humanity at the center.

MONDAY, OCTOBER 21

Animals In Research Panel 50

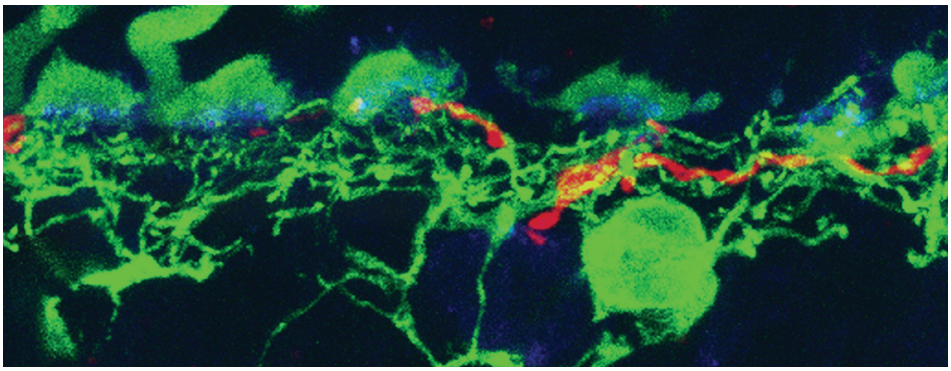
Treatments for Disorders of the Basal Ganglia and the Development of Deep Brain Stimulation: Translation of Non-Human Primate Research Into Clinical Therapeutics ✻
1–3 p.m.
McCormick Place: N230B
Organizer: Peter Strick, PhD
Contact: advocacy@sfn.org

Celebrate basic research discoveries using nonhuman primates and how they transformed treatments for patients. Using the concrete example of fundamental discoveries from 1971, this panel will follow the arc from the start of a basic discovery through its translational findings, advances in clinical practice, and groundbreaking technological developments for patients today. At the panel, attendees will have a firsthand look at real patient outcomes from developments with deep brain stimulation for those with conditions such as Parkinson's disease and disorders of the basal ganglia.
Support contributed by:
The National Primate Research Centers

Chapters Workshop

Fostering Chapter Engagement Through Your Local Brain Bee
6:45–8:45 p.m.
Hyatt McCormick: Jackson Park
Organizer: Jennifer Yates, PhD
Contact: chapters@sfn.org

For more than 20 years, the International Brain Bee has ignited the interest in neuroscience of teen participants around the world. Many SfN chapters engage in this event by training students, hosting competitions, and sponsoring participants as an outreach effort. In this year's workshop, chapter leaders will discuss several aspects of a successful Brain Bee event: how to prepare for a Brain Bee event, creative Brain Bee activities, leadership structure and continuity, outreach strategies, and collaboration with industry and local partners. Attendees will enjoy an interactive and engaging evening focused on increasing interest and knowledge in neuroscience.



TUESDAY, OCTOBER 22

Celebration of Women in Neuroscience Luncheon 50

Noon–2 p.m.
Marriott Marquis: Great Lakes AB
Contact: cwin@sfn.org

The annual Celebration of Women in Neuroscience Luncheon honors female leaders in neuroscience. During this year's luncheon, Kay Tye, PhD, will moderate a panel discussion focused on the advancements women have made in the field over the last 50 years and what still needs to be done to increase gender equality in honor of SfN's 50th anniversary. The panel will feature Huda Akil, PhD; Carol Mason, PhD; and Carla Shatz, PhD. For more information, visit www.SfN.org/cwinrsvp.

Public Advocacy Forum

The Role of Pharmaceutical Partnerships When Advocating for Basic Research ✻
2–3:30 p.m.
McCormick Place: N230B
Organizer: Moses V. Chao, PhD
Contact: advocacy@sfn.org

This panel will discuss why advocating for basic research is necessary from a variety of stakeholders, and the importance of the connection between basic and translational research. A panel of experts will share how basic research is used by pharmaceutical companies, why advocating for robust and sustained funding for research is an absolute necessity, and the importance of collaborative efforts to advance neuroscience understanding and to improve outcomes.

SfN Members' Business Meeting

6:45–7:30 p.m.
McCormick Place: S501D
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, learn more about SfN's latest accomplishments and how to get involved in SfN committees, and network with your peers.

Graduate Student Reception

8:30–11:30 p.m.
Hyatt McCormick: Regency Ballroom
Contact: meetings@sfn.org

A reception will be held for graduate students and postdoctoral trainees. No invitation is required.
Support contributed by:
eNeuro and JNeurosci

Professional Development Workshops

Professional Development Workshop Tracks
Professional Development Workshops are categorized by track to help attendees quickly identify the workshops that are of the greatest interest to them:

- Career Paths
- Career Skills
- Responsible Conduct of Research
- Neuroscience Education

SATURDAY, OCTOBER 19

Preparing for Your Career Away From the Bench: Essential Skills for Navigating Your Career Transition

9–11 a.m.
McCormick Place: N227
Organizer: Annette Gray, PhD
Contact: profdev@sfn.org

Breaking into a new career path is challenging, particularly for those looking to make a move away from the bench. This workshop will discuss important skills to help you learn how to find your career path, make the transition, and grow throughout your career. Through a panel discussion and smaller group interactions, participants will learn about skills such as gaining relevant experience, developing and communicating your own brand, and practicing the art of negotiation.

Reproducibility for Everyone

9–11 a.m.
McCormick Place: N228
Organizer: Aparna Shah, PhD
Contact: profdev@sfn.org

Rigor and reproducibility are at the core of modern science and set apart scientific inquiry from pseudoscience. Many new tools have been created to address barriers to reproducibility, which can be hard to sift through. This workshop will introduce you to reproducible workflows and a range of tools along the themes of organization, documentation, analysis, and dissemination. It will consist of a 90-minute interactive session followed by a 30-minute Q&A session with the instructors.

Integrating Research and Teaching at Primarily Undergraduate Institutions

Noon–2 p.m.
McCormick Place: N227
Organizer: Joyce Fernandes, PhD
Contact: profdev@sfn.org

This workshop is relevant for postdoctoral fellows and graduate students to discuss strategies for integrating research and teaching with an overall goal of developing a successful research program at a primarily undergraduate institution (PUI). The workshop will have two parts: (1) Short presentations from invited speakers followed by Q&A and (2) Breakout sessions for detailed discussions and formulation of personal strategies and milestones for careers at PUIs.

Imposter Syndrome: Confronting the Career Development Monster Hiding Under the Bed

Noon–2 p.m.
McCormick Place: N228
Organizers: Ericka Boone, PhD; Marguerite Matthews, PhD; Sadye Paez, PhD
Contact: profdev@sfn.org

Imposter syndrome, an internalized fear of being 'exposed as a fraud', impacts ~70 percent of the population, particularly women and underrepresented groups, and may slow or stall optimal career advancement. This workshop is about leaning into, getting at the roots of, and reframing this intellectual self-doubt to confront the 'imposter' within us. Participants will learn from other neuroscientists' experiences as well as develop and implement their own strategies for reducing imposter behaviors.

Getting Creative with Course-Based Research Experiences to Enhance Scholarship and Generate Publishable Data

3–5 p.m.
McCormick Place: N227
Organizers: Lina Dahlberg, PhD; Jacqueline K. Rose, PhD
Contact: profdev@sfn.org

This workshop will feature a panel discussion on the topic of Course-based Research Experiences (CRE) that aim to enhance scholarship and produce publishable work. The panelists will highlight examples of CRE projects geared towards original research and data generation across a broad range of neuroscience areas. An example of a collaborative course model where cooperation across two CRE courses allows for multi-level analyses of a research question will be shared.

How to Thrive as a Woman in Neuroscience

3–5 p.m.
McCormick Place: N228
Organizer: Melissa Harrington, PhD
Contact: profdev@sfn.org

This workshop will feature a panel of diverse women speakers from a variety of backgrounds and career stages, and will focus on how women can be successful in their neuroscience careers. The panelists will speak from experience about dealing with the major obstacles that undermine the success of women including: bias (both implicit and explicit), marginalization within organizations, imposter syndrome and discomfort with competitive environments, balancing work and family, and childcare.

SUNDAY, OCTOBER 20

Bringing Genetic Diversity to Neuroscientific Research

9–11 a.m.
McCormick Place: N228
Organizer: Elissa Chesler, PhD
Contact: profdev@sfn.org

The vast majority of research in the neurosciences is performed in the very limited context of widely used strains of mouse, rat, *Drosophila*, and other organisms. Genetic variation in mouse, rat, *Drosophila*, and other species reveals biological mechanisms of neural and behavioral phenomena through population genetic and genomic analyses. In this workshop, panelists will discuss benefits and approaches for bringing genetic diversity into conventional neuroscientific research.

Navigating Team Science 50
9–11 a.m.
McCormick Place: N227
Organizers: Lique Coolen, PhD;
Chiara Manzini, PhD
Contact: profdev@sfn.org

As neuroscience becomes more interdisciplinary it requires expertise from multiple sub-fields, leading to collaborations within and outside of academia. This workshop will showcase different types of "team science" projects. Trainees and young investigators who are interested in team science are encouraged to attend to hear how the featured projects were conceived and managed and learn the pros and cons of working with scientists from different backgrounds towards a common goal.

Becoming a Resilient Scientist
Noon–2 p.m.
McCormick Place: N227
Organizer: Janet A. Clark, PhD
Contact: profdev@sfn.org

Resilience is important in navigating your career in science. In this interactive workshop, we will discuss attitudes and behaviors that can get in our way and explore strategies for building resilience, dealing with self-doubt, and developing our confidence. The workshop will highlight the emotional intelligence competencies needed for success in research and healthcare careers and will provide insights into approaches for developing these competencies as part of your training experience.

Science Management
Noon–2 p.m.
McCormick Place: N228
Organizer: Tanya Brown, PhD
Contact: profdev@sfn.org

The landscape of scientific research is changing. Today's researchers need to participate in large-scale collaborations, secure and oversee funding, share data, and publish and undertake Knowledge Translation (KT) activities in order to be successful. As per these increasing demands, Science Management (SM) is now a vital skill all researchers can benefit from adopting. The goal of this workshop is to motivate

participants to regard SM as an essential component of their workflow and obtain practical project management skills.

Neuroscience Departments and Programs Workshop 50

Hiring and Promoting Faculty in the Era of Team Science
2:30–5 p.m.
McCormick Place: N227
Organizer: Rosalind Segal, MD, PhD
Contact: training@sfn.org

As research becomes more collaborative and global, team science is becoming the "new normal." Despite this, many institutions have not yet adapted their traditional academic recruitment and promotion processes to account for scientists whose research increasingly relies upon interdisciplinary teamwork and global collaboration. This workshop will explore how institutional leaders can recognize and evaluate team science when it comes to faculty hiring and advancement and adapt their hiring and tenure practices to reflect the growing team science approach to research.

Support contributed by:
The National Institute of Neurological Disorders and Stroke under SfN's "Foundations of Rigorous Neuroscience Research" grant

Building a Neuroscience Career at a Teaching Focused Institution
3–5 p.m.
McCormick Place: N228
Organizer: Melissa Harrington, PhD
Contact: profdev@sfn.org

Doctoral universities with high to moderate research activity represent only seven percent of U.S. institutions of higher education, and educate less than a third of U.S. college students. Most U.S. faculty positions are not at research universities. This workshop will feature a panel of diverse speakers who are faculty at a variety of primarily undergraduate institutions (PUIs). The panelists will speak from experience about the preparation and paths that lead to career success and satisfaction at PUIs.

Professional Development Workshops

MONDAY, OCTOBER 21

Advancing Your Career Through Effective Science Writing for the Public and Creating Eye-Catching Research Statements

9–11 a.m.
McCormick Place: N227
Organizer: Eduardo Rosa-Molinar, PhD
Contact: profdev@sfn.org

This hands-on workshop focuses on overcoming the challenges of writing clear, effective research summaries. Presenters will demonstrate how to: communicate complex scientific topics for the public and scientists outside the field; articulate the importance of one's research; and place the work in the context of increasing scientific knowledge and improving public health. Participants will write research summary drafts and learn how to meet the challenge of translating science for various audiences.

The Art of Building a Career

9–11 a.m.
McCormick Place: N228
Organizer: Martha Davila-Garcia, PhD
Contact: profdev@sfn.org

We all have the potential to build a productive scientific career. During this workshop, a panel of speakers from around the world will discuss the following five fundamental principles for building a successful career: (1) Be reflective about where you want to go; (2) Be proactive and prepared for what is coming; (3) Be ready to self-promote; (4) Be willing to adapt, change, and modify your goals based on challenges and opportunities; (5) Be collaborative, get a mentor, and build a network.

Optimize Your Grant Application: News You Can Use From the NIH

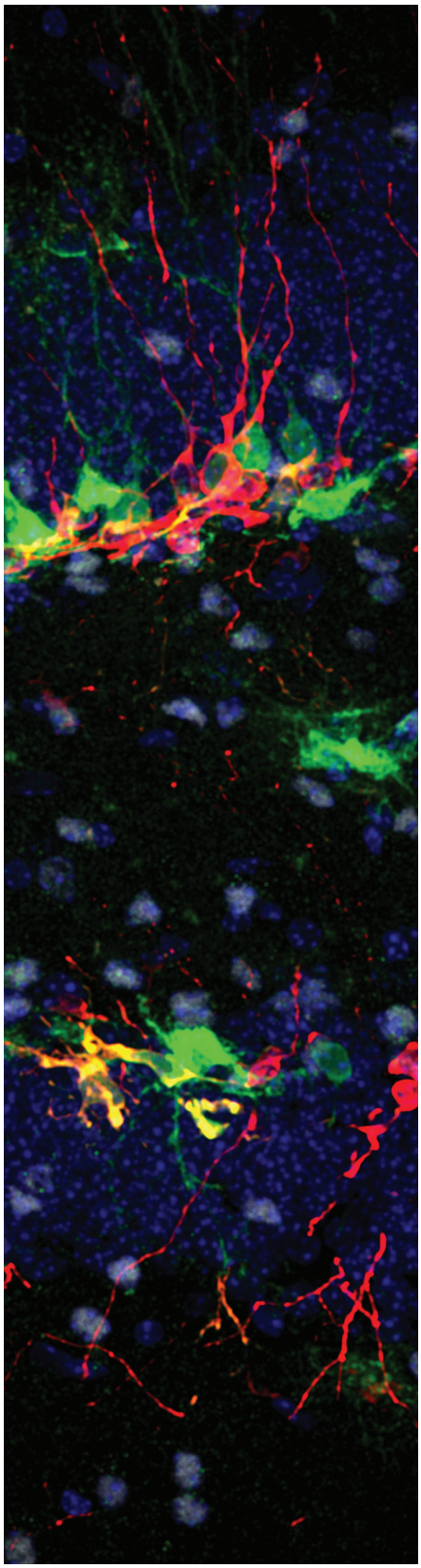
Noon–2 p.m.
McCormick Place: N228
Organizer: Bruce Reed, PhD
Contact: profdev@sfn.org

The purpose of this workshop is to help new investigators improve their funding chances. Representatives of the NIH Center for Scientific Review will discuss navigating review, what reviewers look for, and new things NIH is asking reviewers to focus on. Senior staff at NINDS, NIA, NIMH, and NIDA will discuss funding opportunities and priorities for their institutes and offer their perspectives on what contributes to early career success. People from all career stages are welcome, but the program is directed at early stage investigators.

Teaching Computation in Neuroscience

Noon–2 p.m.
McCormick Place: N227
Organizers: William Grisham, PhD; Richard Olivo, PhD
Contact: profdev@sfn.org

This workshop will review current examples of teaching computation for neuroscience. It will begin with the statistical foundations that students need and consider which programming languages are most useful. It will continue with computational methods for physiological data, practical aspects of teaching computational neuroscience, and end with an overview of resources for teaching and learning computational modeling in neuroscience.



SfN-Sponsored Socials are open to all registered annual meeting attendees.

SUNDAY, OCTOBER, 20

6:45–8:45 P.M.

Brain and Retina Organoids Social

Social w/ Brief Presentation
McCormick Place: N230B
Chair: Steven Becker
Co-Chair: Giorgia Quadrato

This social is intended to bring together a variety of researchers from different career stages who are working on brain and retina organoids. It is an opportunity for attendees to network and share experiences in this emerging area of study. There will be brief remarks from experts who will be asked to highlight some of the recent notable advances in this exciting field.

Breaking Barriers for Young Women in Science Social

Purely Social
McCormick Place: N231
Chair: Ghazaleh Sadri-Vakili
Co-Chair: Courtney A. Miller

This social will provide a forum for women scientists of all levels to interact with mentors on a one-on-one basis, providing the opportunity to ask questions in a relaxed but formatted environment that overcomes typical barriers to approaching and interacting with experienced colleagues. This will be a great opportunity to learn about academic and non-academic career paths available to neuroscientists, gain further insight into handling the challenges inherent to a career in STEM, and to grow your professional network.

Conversations on Cajal Social

Social w/ Brief Presentation
McCormick Place: N138
Chair: Carol Mason
Co-Chair: Oscar Marin

This social celebrates the namesake of this club, Santiago Ramon y Cajal. The social follows the 2018 exhibit of "The Beautiful Brain" in Minnesota, New York, and Boston, a collection of original drawings of Cajal. Three experts on Cajal's work and life will bring novel information to the attendees on Cajal's work and life, and the impact it has had on neuroscience.

Faculty for Undergraduate Neuroscience (FUN) Poster Session and Social

Social w/ Brief Presentation
McCormick Place: N226
Chair: Hewlet G. McFarlane
Co-Chair: Ronald J. Bayline

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.

International Brain Bee Social

Social w/ Brief Presentation
McCormick Place: N230A
Chair: Astrid Eberhart
Co-Chair: Norbert R. Myslinski

A new social for all neuroscientists interested in the Brain Bee initiative (www.theBrainBee.org). Socialize and exchange ideas with fellow Brain Bee coordinators and past competitors. Newcomers will be able to find out how to get involved in this educational outreach program and get tips on how to run a local or national/regional Brain Bee competition.

Neural Oscillations Social

Purely Social
McCormick Place: N135
Chair: Molly Hearn
Co-Chair: Keith Doelling

A social for all neuroscientists deeply in love with all aspects oscillatory about brain function. Neural oscillations have been ubiquitous at SfN for many years. However, more light-hearted, out-of-the-box exchange over what may or may not unite the diverse fields that study oscillatory changes in excitability, from membrane potentials to behavioral corollaries, has been missing. Join us in meeting, greeting, and quizzing random people who love neural phase just as much as you do.

Neuroethics Social

Social w/ Brief Presentation
McCormick Place: N137
Chair: Winston Chiong
Co-Chair: Khara M. Ramos

Join fellow neuroscientists at this informal gathering to socialize, network, and exchange ideas about the ethical implications of neuroscience research and education. A brief panel presentation will focus on how neuroethics can be integrated into neuroscience careers, featuring representatives from training programs and professional societies, and early career neuroscientists to discuss benefits as well as challenges in this integration.

Neuroethology/Invertebrate Neurobiology Social

Purely Social
McCormick Place: N139
Chair: Wolfgang Stein
Co-Chair: Richard B. Dewell

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 and/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.

Neuroscience and Architecture: Measurement for Design Social

Social w/ Brief Presentation
McCormick Place: N133
Chair: Thomas D. Albright
Co-Chair: Frederick M. Marks

"We shape our buildings, and afterwards our buildings shape us." As Winston Churchill aptly noted, the built environment has a profound impact on human experience. In this social, there will be presentations from architects and neuroscientists working at the interface of the two fields. The social will focus on physiological and neurological measurements that can inform design and

assess how buildings affect the occupants, including populations with developmental and neurodegenerative diseases.

Open, FAIR, and Reproducible Neuroscience Social

Purely Social
McCormick Place: N136
Chair: Jean-Baptiste Poline
Co-Chair: Maryann E. Martone

This social will provide a forum for all neuroscientists interested in open, FAIR, and reproducible science to exchange ideas. Find new collaborators who have resources you need, recruit new users for your tools, or join up to solve standards and interoperability issues with other scientists and developers. Come and help to make neuroscience research more reproducible!

Spinal Cord Injury Social

Purely Social
McCormick Place: N140
Chair: Dana M. McTigue

This social is open to all trainees and faculty interested in spinal cord injury research or clinical care. Please come mingle with your fellow scientists and discuss current areas of research, ongoing clinical trials and ideas for future studies. We hope to see you there!

MONDAY, OCTOBER 21
6:45–8:45 P.M.

Behavioral Neuroendocrinology Social

Social w/ Brief Presentation
McCormick Place: N226
Chair: Barney A. Schlinger
Co-Chair: Brian C. Trainor

This longstanding and popular social brings together members of the Society for Neuroscience (S with interest in the endocrine regulation of brain and behavior. Research in this area covers a broad range of topics including development, sex-differences, neural networks and systems, neuroplasticity, and clinical neuroscience. It attracts a diverse set of attendees including students at all levels, postdoctoral fellows, senior researchers, and clinicians. Not only is this an opportunity for this group to convene at the SfN meeting, but it is also the occasion to announce several awards in behavioral neuroendocrinology.

Cerebellum Social

Purely Social
McCormick Place: N231
Chair: Roy V. Sillitoe
Co-Chair: Alexandra L. Joyner

The Cerebellum Social is an informal gathering of all researchers and clinicians interested in the cerebellum. This social encourages interactions between students, postdocs, research staff and faculty. There are no formal presentations; collaborative discussions and networking opportunities make up the main agenda.

Chemical Senses Social

Purely Social
McCormick Place: N133
Chair: Alfredo Fontanini
Co-Chair: Leslie M. Kay

Anyone interested in the chemical senses (smell, taste, licking, sniffing, chemical signaling, trigeminal irritation or internal chemoreception) is invited to an evening of piquant conversations and tasteful socializing. Scientists working in humans and any animal model, and those at all stages of their career — trainees and mentors, students, postdocs and PIs – are welcome to discuss their scientific and professional interests. Join a purely social event to connect with friends, but more importantly make new ones.

Epilepsy Social

Social w/ Brief Presentation
McCormick Place: N138
Chair: Joaquin N. Lugo
Co-Chair: Christina Gross

Epilepsy research is challenging and highly diverse. With increasingly sophisticated techniques available, it is essential to collaborate to move the field forward. This social welcomes those with an interest in epilepsy to join us for an evening of social networking with leading experts and with representatives from the NIH, AES, and CURE. This is a great opportunity for all to engage in productive discussions, establish collaborations, or simply enjoy networking in a comfortable and fun social setting.

Ingestive Behavior Social

Purely Social
McCormick Place: N137
Chair: Ruth B. S. Harris
Co-Chair: Derek Daniels

After a stimulating day of SfN presentations, come and socialize with your colleagues and meet new people interested in the areas of neuroscience related to the control of eating and drinking. Whether you are an established investigator, a student, or a postdoc, if you are interested in the science of ingestive behavior and related areas of neuroscience, then you should join this social. Plan to attend, mix, mingle, and take the opportunity to establish new connections and collaborations while relaxing at the Ingestive Behavior Social.

Marmoset Social

Social w/ Brief Presentation
McCormick Place: N230A
Chair: Jude F. Mitchell
Co-Chair: Partha P. Mitra

The rapid adoption of the marmoset as an animal model in neuroscience has created a high demand for venues to facilitate interaction, exchange practical information and form new collaborations. In this event a panel of investigators will play “Marmoset Jeopardy,” a game to survey recent research. Students will submit images of their data for panelists to identify and reveal the answers. Later the floor will be open for questions to panelists and brief announcements, followed by time to socialize.

Music Social

Purely Social
McCormick Place: W190
Chair: Robert Riddle
Co-Chair: William J. Pearce

Your SfN colleagues have amazing musical talents. All are encouraged to participate and/or enjoy a great evening of music. This social encourages new performances and musical diversity. Members interested in participating should contact the chair by September 13th and provide info describing their musical selection(s), and accompaniment needs. The program will be determined shortly thereafter. Performances are typically 10 minutes and SfN will provide a variety of musical instruments.

Open-Source Technology Social

Purely Social
McCormick Place: N135
Chair: Jakob Voigts
Co-Chair: Denise J. Cai

Socialize and exchange ideas with researchers developing and using open-source tools for neuroscience research. Chat with the people behind the projects and learn about the wide variety of open-source tools that can help your experiments be more robust, reliable and creative. Join this social for an evening of fun, and you might even find a new collaborator for your open-source project!

Pain, Touch, and Itch Social

Purely Social
McCormick Place: N139
Chair: Cheryl L. Stucky
Co-Chair: Theodore J. Price

Gather with fellow "pain, touch, and itch" neuroscientists for an opportunity to unwind and exchange ideas with peers. Everyone is invited to this purely social gathering, where established leaders and early career investigators can reconnect with old friends and make new ones. This social event is a great opportunity to find potential collaborators in an informal and relaxed atmosphere.

Psychopharmacology Social

Purely Social
McCormick Place: N140
Chair: Stan B. Floresco
Co-Chair: Jill A. McGaughy

Please join this social to socialize with people who know a thing or two about mind-altering substances. Your hosts will enjoy 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.

TUESDAY, OCTOBER 22
6:45–8:45 P.M.

Alzheimer's Disease and Related Dementias Social

Purely Social
McCormick Place: N139
Chair: Jose F. Abisambra
Co-Chair: Laura J. Blair

Current and future Alzheimer’s disease or related dementia researchers, join this social for an inclusive, purely social gathering that will bring together experts, early career investigators, postdocs and students interested in Alzheimer’s disease and related dementias research. Stop by and mingle. Reconnect with old friends and make new ones. All are welcome to join!

Computational Neuroscience Social

Purely Social
McCormick Place: N140
Chair: Kiah Hardcastle
Co-Chair: Jantine A. C. Broek

This social intends to bring together neuroscientists working on all aspects of computational neuroscience. It is an opportunity for attendees to network with other computational neuroscientists and to exchange notes on the latest methods and studies. It's also a chance to learn about opportunities, such as summer schools and

graduate schools, that can further your computational knowledge.

Decision Neuroscience Social

Social w/ Brief Presentation
McCormick Place: N136
Chair: Paul W. Glimcher
Co-Chair: Michael N. Shadlen

Over the last decade decision neuroscience has grown to encompass almost 4 percent of the material presented at the annual meeting. This social will provide an opportunity for graduate students, postdocs and faculty to exchange ideas, build new collaborations or just socialize. Whether you study perceptual decision-making with the DDM or economic choice with a BDM, this is the place for you. This year's inaugural social will begin with brief remarks on the history of our subfield by leaders in our field.

Glia Social

Purely Social
McCormick Place: N137
Chair: Helmut O. Kettenmann
Co-Chair: Bruce R. Ransom

Over the last couple of years it has been recognized that glia play an important role for normal brain function and in any type of brain disease. This is a purely social opportunity to interact with current and future leaders in the field of neuron-glia interactions. Many prominent scientists have agreed to join the meeting and will foster interaction with students and young colleagues.

Global Neuroscience Social

Social w/ Brief Presentation
McCormick Place: N138
Chair: Megan R. Carey
Co-Chair: Haruhiko Bito

Different countries have different ways of presenting neuroscience. Experiencing neuroscience in foreign countries will give you a new perspective in your science career. This social will be focused on mixing neuroscientists from American, European, and Asian countries and encouraging them to acquire experience in new countries. PIs with their labs in foreign counties will give short presentations to discuss their experiences. (https://twitter.com/GlobalNeurosci1).

Hippocampus Social

Purely Social
McCormick Place: N231
Chair: Steve Ramirez
Co-Chair: Sara N. Burke

The Hippocampus Social continues a decades-long tradition as a well-attended staple social at SfN. It gathers the large community of hippocampus scientists under one roof to get to know one another. It also provides important professional development opportunities for younger neuroscientists to casually interact with the field's luminaries. The purpose of the social is to continue to unify our hippocampus community and to build new bridges across all its members through an evening of dinner, games, and prizes.

Neuroendocrinology Social

Purely Social
McCormick Place: N226
Chair: Debra A. Bangasser
Co-Chair: Georgia E. Hodes

This year's social will feature the "Battle of the Sexes Quiz Show: The Rematch." Five years ago, a team of male neuroendocrinologists faced off with a team of female neuroendocrinologists to determine which gender knew more esoteric neuroendocrine trivia. The women were victorious. In this rematch, come and compare your knowledge with that of our expert contestants and see if the men will celebrate a comeback win or if the women will again take the prize.

Neuroscience and Writing Social

Purely Social
McCormick Place: N136
Chair: Isabel Low
Co-Chair: Megan A. Kirchgessner

Now more than ever it is essential that we as scientists communicate with each other and with the general public. NeuWrite and other writing groups have served the role of connecting neuroscientists and writers, with the goal of communicating the scientific process to anyone, regardless of background or training. If you're passionate about communicating science, or if you'd like to learn about the intersection of neuroscience and writing, please join this social to network, mingle, and swap writing tips.

Platforms for Team Science and Data Sharing: Unlocking Data to Drive Innovation in Translational Research Social

Social w/ Brief Presentation
McCormick Place: N230A
Chair: Magali Haas
Co-Chair: Lee Lancashire

Leaders in computer science, neuroscience and neuroinformatics will informally debate the barriers and opportunities that exist for platforms that facilitate data sharing and analytics in brain research. A short video of BRAIN Commons, a new platform designed to fuel the use of big data in brain disease, will be shown. Discussion points will include the interoperability of existing data sharing platforms, the breadth of data currently available, the discoverability of existing data, and the incentives for researchers to share their data.

Synapses Social

Purely Social
McCormick Place: N135
Chair: C. Andrew Frank
Co-Chair: Clark A. Lindgren

Friends and colleagues who are interested in synapse development and function gather for a yearly and popular SfN social. Join us in an informal setting to grab some refreshments, chat about the latest results, and visit with friends. Everyone is welcome! Vertebrate, invertebrate, central, peripheral —colleagues who study almost any type of synapse will be well represented. What better place to form new connections or to strengthen existing ones than the Synapses Social? See you Tuesday evening.

Satellite Events & 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 www.SfN.org/satellites. These events are also available in the Neuroscience Meeting Planner (NMP), which is accessible at www.SfN.org/nmp, and in the meeting mobile app, available for download on Apple and Android mobile devices.

SPONSOR KEY:	
Commercial	1
University / Non-Profit	2
Individual / Group	3

TITLE	TIME	MORE INFO	LOCATION/ROOM	KEY
Wednesday, October 16				
52nd Annual Meeting of the International Society for Developmental Psychobiology (ISDP)	1–7:30 p.m.	besuther@fiu.edu	Swissôtel Chicago	2
American Society of Neurorehabilitation Annual Meeting	1–7 p.m.	info@asnr.com	DoubleTree by Hilton Hotel Chicago-Magnificent Mile	2
BrightFocus Alzheimer's Fast Track	7 a.m.–5 p.m.	ksummers@brightfocus.org	Oakbrook, IL	2
Thursday, October 17				
2019 International Neuroethics Society Annual Meeting	9 a.m.–4:30 p.m.	kgraham@neuroethicssociety.org	Radisson BLU Hotel, Pacific Ballroom 221 North Columbus Street, Chicago	2
2019 International Neuroethics Society Public Program	5–7 p.m.	kgraham@neuroethicssociety.org	Northwestern University McGaw Pavilion, 240 E. Huron, Chicago	2
2019 Marmoset Bioscience Symposium	7 a.m.–6 p.m.	marmohub@gmail.com	Greenhouse Loft, 2545 W. Diversey Ave. Chicago	3
2019 Molecular and Cellular Cognition Society Poster Session	6:30–9:30 p.m.	ted-abel@uiowa.edu	Simpson Querrey Biomedical Research Center at Northwestern University downtown campus	2
52nd Annual Meeting of the International Society for Developmental Psychobiology (ISDP)	7:30 a.m.–7:30 p.m.	besuther@fiu.edu	Swissôtel Chicago	2
American Society of Neurorehabilitation Annual Meeting	7 a.m.–8 p.m.	info@asnr.com	DoubleTree by Hilton Hotel Chicago-Magnificent Mile	2
Barrels XXXII	8:30 a.m.–10 p.m.	joshua.brumberg@qc.cuny.edu	Northwestern University School of Medicine, Chicago	3
BrightFocus Alzheimer's Fast Track	7 a.m.–5 p.m.	ksummers@brightfocus.org	Oakbrook, IL	2
Next Generation Computational Psychiatry	9 a.m.–5:30 p.m.	computationalpsychiatry.org	The Congress Plaza Hotel & Convention Center	2
J.B. Johnston Club for Evolutionary Neuroscience	8 a.m.–7:30 p.m.	jbjclub1980@gmail.com	The University Center	3
Friday, October 18				
2019 International Neuroethics Society Annual Meeting	9 a.m.–7 p.m.	kgraham@neuroethicssociety.org	Radisson BLU Hotel, Pacific Ballroom 221 North Columbus Street, Chicago	2
2019 Molecular and Cellular Cognition Society Symposium	8 a.m.–5 p.m.	https://molcellcog.org/	McCormick Place: N228	2
52nd Annual Meeting of the International Society for Developmental Psychobiology (ISDP)	7:30 a.m.–6:30 p.m.	besuther@fiu.edu	Swissôtel Chicago	2
Advances in Motor Learning and Motor Control	12:30–7 p.m.	alaa@colorado.edu	McCormick Place: S104	2

Satellite Events & Non-SfN Socials

GENERAL INFORMATION PROGRAM | **WWW.SfN.ORG/SATELLITES**

TITLE	TIME	MORE INFO	LOCATION/ROOM	KEY
American Society of Neurorehabilitation Annual Meeting	7 a.m.–7 p.m.	info@asnr.com	DoubleTree by Hilton Hotel Chicago-Magnificent Mile	2
Annual NIDA-NIAAA Frontiers in Addiction Research Mini-Convention	8:30 a.m.–5:30 p.m.	rsorense@mail.nih.gov	Marriott Marquis: Great Lakes EF	2
APAN- Advances and Perspectives in Auditory Neuroscience	8 a.m.–5:30 p.m.	www.med.upenn.edu/apan	Wyndham Grand Chicago Riverfront	2
Barrels XXXII	8:30 a.m.–5 p.m.	joshua.brumberg@qc.cuny.edu	Northwestern University School of Medicine, Chicago	3
BrightFocus Alzheimer's Fast Track	7 a.m.–5 p.m.	ksummers@brightfocus.org	Oakbrook, IL	2
Fourth International Symposium on Sigma-2 Receptors	9 a.m.–3 p.m.	asherwood@cogrx.com	Center For Translational Research and Education, Loyola Health Science Campus, Maywood, IL	2
Induction and Resolution of CNS Neuroinflammation and Neurotoxicity	8:45 a.m.–5:30 p.m.	harry@niehs.nih.gov	Loyola University Chicago, Water Tower Campus Regents Hall, E. Pearson St. Chicago	2
J.B. Johnston Club for Evolutionary Neuroscience	8 a.m.–9 p.m.	jbjclub1980@gmail.com	The University Center	3
Neuroscience of Movement Disorders	7 a.m.–5 p.m.	dstandaert@uab.edu	McCormick Place: N227	2
New Perspectives on Cerebellar Function: Implications for Mental Health	8:30 a.m.–5 p.m.	rossia@mail.nih.gov	Marriott Marquis: Great Lakes A	2
Next Generation Computational Psychiatry	9 a.m.–5:30 p.m.	computationalpsychiatry.org	The Congress Plaza Hotel & Convention Center	2
Orofacial Functions: From Neural Mechanisms to Rehabilitation	8:30 a.m.–5 p.m.	kazutaka@uchicago.edu	Shirley Ryan Abilitylab, 355 E. Erie St. Chicago	1
Sleep-Dependent Memory Consolidation: Bridging Replay and Reactivation	1–7 p.m.	eitan.schechtman@northwestern.edu	Northwestern Chicago Campus	2
Using NEURON to Model Cells and Networks	9 a.m.–5 p.m.	ted.carnevale@yale.edu	www.neuron.yale.edu/neuron/courses	2
Saturday, October 19				
Chinese Neuroscientists Social	6:30–9 p.m.	wu.longjun@mayo.edu	Marriott Marquis: Great Lakes F	2
Diving DEAP into Adolescent Brain and Cognitive Development (ABCD) Study Data	6:30–9:30 p.m.	sgrant@nida.nih.gov	Hyatt McCormick: Regency Ballroom C	2
Exploring Brain Cell Type Diversity with The Allen Brain Explorer and Allen Cell Types Database	8–10:30 a.m.	kaitlync@alleninstitute.org	Hyatt McCormick: Grant Park AB	2
Exploring the Mouse Visual System: The Allen Brain Observatory	8–10:30 a.m.	kaitlync@alleninstitute.org	Hyatt McCormick: Grant Park CD	2
Friends of Case Western Reserve University and Cleveland Clinic Social	6:30–8:30 p.m.	cmiller@hb.edu	Marriott Marquis: Great Lakes A	2
FTD Social	6:30–8:30 p.m.	dniehoff@theaftd.org	Marriott Marquis: Shedd AB	2
g.tec's Brain-Computer Interface (BCI) Workshop	6:30–10 p.m.	guger@gtec.at	McCormick Place: N230B	1
Light-Sheet Fluorescence Microscopy: A Key Tool for 3D Imaging of Neuronal Samples	6:30–10 p.m.	jessica.celentano@bruker.com	Marriott Marquis: Water Tower AB	1

TITLE	TIME	MORE INFO	LOCATION/ROOM	KEY
Machine Learning in Quantitative Stereology and Neurohistology	6:30–9 p.m.	daniel.peterson@rosalindfranklin.edu	McCormick Place: N227	1
NSG and HPAC — Large Scale Simulations and Data Processing	8:30–10:30 a.m.	majumdar@sdsc.edu	Micro Tek Training Room	2
The Need for Translational and Basic Research in Migraine	7:30–10 a.m.	alicia@migrainedisorders.com	McCormick Place: N230A	2
Sunday, October 20				
Arab Neuroscientists Social	6:30–8:30 p.m.	yasmine@arabneuroscientists.org	McCormick Place: S503A	2
ASPET Neuropharmacology Reception	6:30–8:30 p.m.	meetings@aspet.org	Marriott Marquis: Great Lakes A	2
Boston University Graduate Program for Neuroscience Social	7–10 p.m.	sgrasso@bu.edu	Marriott Marquis: Great Lakes E	2
Dutch Neuroscience Social 2019	7–10 p.m.	s.kushner@erasmusmc.nl	Marriott Marquis: Great Lakes F	2
Ernst Strüngmann Forum Social	6:30–9:30 p.m.	lupp@esforum.de	Marriott Marquis: Great Lakes G	2
Green and Open Neurosciences Symposium & Soiree	6:30–9:30 p.m.	alam@pcrm.org	Marriott Marquis: Shedd AB	2
Human Single Neuron Social	6:30–9 p.m.	florian.solzbacher@utah.edu	Hyatt McCormick: Regency Ballroom B	2
International Behavioral Neuroscience Society (IBNS) Social	6:30–8:30 p.m.	ibns@ibnsconnect.org	Marriott Marquis: Great Lakes B	2
NIH Funding and You: A Practical Guide for a Trainee to Survive and Thrive in Your Research Career	6:30–8:30 p.m.	jonesmiche@ninds.nih.gov	Hyatt McCormick: Regency Ballroom A	2
Spectrum Social Event	6:30–8 p.m.	claire@spectrumnews.org	Marriott Marquis: Water Tower A	2
Stanford Neurosciences Reception	6:30–8 p.m.	kdiamond@stanford.edu	Marriott Marquis: Great Lakes C	2
The Logothetis Lab Alumni, Colleagues and Friends Social	6:30–10 p.m.	georgios.keliris@uantwerpen.be	Marriott Marquis: Water Tower B	2
Tools & Tech: A BRAIN Initiative Alliance Social	6:30–8:30 p.m.	salbin@kavlifoundation.org	Hyatt McCormick: Regency Ballroom CD	2
University of Chicago Neuroscience 16th Annual Social	6:30–9 p.m.	erizzo@uchicago.edu	Chicago Athletic Association	2
University of Illinois at Urbana-Champaign — 2019 Neuroscience Program (NSP) Reception	6:30–8:30 p.m.	spregent@illinois.edu	Marriott Marquis: Marina City	2
Monday, October 21				
16th Annual Christopher Reeve "Hot Topics" in Stem Cell Biology	6:30–9:30 p.m.	towens@sbp.edu	McCormick Place: S100A	2
2019 Taiwan Night	6:30–9:30 p.m.	yishuian@ibms.sinica.edu.tw	see website listing	2
Association of Korean Neuroscientists: Annual Meeting and Social	6:30–9:30 p.m.	yoon-seong.kim@ucf.edu	see website listing	2
Cerebral Open Flow Microperfusion — A Novel Approach to *In Vivo* Fluid Sampling	6:30–8:30 p.m.	lelolf@basinc.com	Marriott Marquis: Shedd AB	1

Satellite Events & Non-SfN Socials

GENERAL INFORMATION PROGRAM | **WWW.SfN.ORG/SATELLITES**

TITLE	TIME	MORE INFO	LOCATION/ROOM	KEY
Grass Foundation and Marine Biological Laboratory Co-Hosted Social	6:30–8 p.m.	execassist@grassfoundation.org	Marriott Marquis: Great Lakes G	2
Iranian Neuroscientists' Annual Social Event	8–10 p.m.	nazanin.mirzaei@cshs.org	Reza Restaurant 5255 N. Clark St. Chicago	1
NanoString Neuroinflammation and Neurodegeneration Social	6:30–10 p.m.	jkuhar@nanostring.com	The ROOF on the Wit	2
Neurorehabilitation Social	6:30–8:30 p.m.	kingla@ohsu.edu	Shirley Ryan Abilitylab, 355 E. Erie St. Chicago	2
Neuroscience, Religion & Cultural Authority	7–8:30 p.m.	cwmathes846@gmail.com	McCormick Place: S402	2
Parkinson's Disease Social	6:30–8 p.m.	jbeck@parkinson.org	Marriott Marquis: Great Lakes E	2
Preventing the Climate Catastrophe: What Can Neuroscientists Do?	6:30–8 p.m.	adamaron@ucsd.edu	Marriott Marquis: Great Lakes C	2
Simons Foundation Autism Research Initiative (SFARI) Social	6:30–8:30 p.m.	ljung@simonsfoundation.org	Marriott Marquis: Great Lakes F	2
Sleep and Circadian Biology DataBlitz	8–10 p.m.	laposkya@nhlbi.nih.gov	Marriott Marquis: Great Lakes AB	2
The 9th Annual International Society for Serotonin Research Mixer	6:30–8 p.m.	berg@uthscsa.edu	Highline Bar and Lounge 169 W. Kinzie St.	2
Washington University in St. Louis Neuroscience Reception	6:30–9 p.m.	celia.mckee@wustl.edu	Reggies Chicago	2
Tuesday, October 22				
2019 Friends of Iowa Neuroscience	6:30–9:30 p.m.	meghan-lawler@uiowa.edu	Adler Planetarium	2
Introduction to the Brain Image Library	6:30–10 p.m.	ropelews@psc.edu	McCormick Place: S503B	2
The Science Bridge and Middle Eastern Neuroscientists Social	6:30–8 p.m.	nelly.alia-klein@mssm.edu	Marriott Marquis: Shedd AB	2
Understand Nature's Complexity with The UltraMicroscope II and The MACSima™ Imaging Platform	6:30–9 p.m.	BeateL@miltenyibiotec.de	McCormick Place: N230B	1
Wearable Sensing Solutions for Integrated Dry Electrode EEG/EXG, Motion Capture, and Eye Tracking	6:30–9 p.m.	sales@wearablesensing.com	Hyatt McCormick: Adler AB	1

List of Sessions by Theme and Day

All posters will be presented in McCormick Place, Hall A. All lecture, symposium, minisymposium, and nanosymposium rooms are in McCormick Place. Note: Theme J Posters will be on display in Hall A beginning at 1 p.m. on Saturday, Oct. 19, and will remain posted until 5 p.m. on Sunday, Oct. 20. 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, Education and Society

SESSION # / SESSION TITLE		SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
Featured Lectures							
001	Dialogues Between Neuroscience and Society	Lecture		Hall B	19 Sat	11 a.m.–1 p.m.	
009	Presidential Special Lecture- From Base Pairs to Bedside: Antisense Modulators of RNA Splicing to Treat Neurological Diseases	Lecture		Hall B	19 Sat	5:15–6:30 p.m.	1.25
183	Peter and Patricia Gruber Lecture- Molecular Basis of the Circadian Clock in Mammals and its Fundamental Role in Aging and Longevity	Lecture		Hall B	20 Sun	3–4:10 p.m.	
184	Presidential Special Lecture- Understanding Cortical Development and Disease: From Embryos to Brain Organoids	Lecture		Hall B	20 Sun	5:15–6:30 p.m.	1.25
263	History of Neuroscience Lecture- Exocytosis of Synaptic Vesicles: From Quantal Release to Molecular Machines	Lecture		Hall B	21 Mon	9–10:10 a.m.	
350	Albert and Ellen Grass Lecture- Neural Learning Rules in the Cerebellum	Lecture		Hall B	21 Mon	3:15–4:25 p.m.	1.25
351	Presidential Special Lecture- The Cell Biology of the Synapse and Behavior	Lecture		Hall B	21 Mon	5:15–6:30 p.m.	1.25
533	David Kopf Lecture On Neuroethics — The Neuroethics Frontier	Lecture		Hall B	22 Tue	3–4:10 p.m.	
534	Presidential Special Lecture- Wavefront Engineering: Illuminating the Neural Landscape	Lecture		Hall B	22 Tue	5:15–6:30 p.m.	1.25
Theme A – Development							
003	New Insights in Understanding Fragile X Syndrome (FXS): Focus on Neural Development in Human Models and Non-Neuron Glial Cells	Minisymposium		Room S100BC	19 Sat	1:30–4 p.m.	2.5
010	*In Vivo* Studies of Stem Cell Fate	Nanosymposium		Room S404	19 Sat	1–2:45 p.m.	
011	Effects of Parenting and Disease on Human and Non-Human Primate Brain Development	Nanosymposium		Room N427	19 Sat	1–4:15 p.m.	
028	Peripheral Nerve Regeneration	Poster	A1–A16	Hall A	19 Sat	1–5 p.m.	
029	Molecular Mechanisms of Axon and Dendrite Development	Poster	A17–A42	Hall A	19 Sat	1–5 p.m.	
030	Autism: Synaptic and Cellular Mechanisms I	Poster	A43–A69	Hall A	19 Sat	1–5 p.m.	
031	Adolescent Development: Mechanisms of Vulnerability	Poster	A70–A79	Hall A	19 Sat	1–5 p.m.	
095	Functional Maturation of Cerebello-Cerebral Interactions	Minisymposium		Room S406A	20 Sun	8:30–11 a.m.	2.5
102	Molecular Mechanisms of Adult Neurogenesis	Nanosymposium		Room S404	20 Sun	8–9:45 a.m.	
103	Behavioral Analysis of Developmental Disorders	Nanosymposium		Room S403	20 Sun	8–11 a.m.	
113	Postnatal Neurogenesis	Poster	A1–A27	Hall A	20 Sun	8 a.m.–noon	
114	Axon and Dendrite Development	Poster	A28–A38	Hall A	20 Sun	8 a.m.–noon	
115	Behavioral Study and Animal Models for Autism Spectrum Disorders	Poster	A39–A61	Hall A	20 Sun	8 a.m.–noon	
116	Autism: Synaptic and Cellular Mechanisms II	Poster	A62–A79	Hall A	20 Sun	8 a.m.–noon	

SESSION # / SESSION TITLE		SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
117	Comparative Brain Anatomy	Poster	A80–B6	Hall A	20 Sun	8 a.m.–noon	
185	Molecular Mechanisms of Synaptogenesis and Connectivity	Nanosymposium		Room S405	20 Sun	1–2:45 p.m.	
186	Molecular Mechanisms of Synaptogenesis and Activity-Dependent Development	Nanosymposium		Room S401	20 Sun	1–2:45 p.m.	
187	Rett Syndrome: New Mechanisms and Potential Therapeutics	Nanosymposium		Room S403	20 Sun	1–2:45 p.m.	
196	Cell Lineage Analysis	Poster	A1–A21	Hall A	20 Sun	1–5 p.m.	
197	Developmental Mechanisms	Poster	A22–A38	Hall A	20 Sun	1–5 p.m.	
198	Synaptogenesis and Activity-Dependent Development II	Poster	A39–A64	Hall A	20 Sun	1–5 p.m.	
199	Genetic Models for Autism Spectrum Disorders	Poster	A65–B4	Hall A	20 Sun	1–5 p.m.	
256	Circuit Variability and Plasticity in the Central Nervous System of *Drosophila*	Symposium		Room S100A	21 Mon	8:30–11 a.m.	2.5
265	Cell Biological Mechanisms of Neural Development	Nanosymposium		Room S402	21 Mon	8–9:45 a.m.	
276	Nervous System Patterning and Transplantation	Poster	A1–A19	Hall A	21 Mon	8 a.m.–noon	
277	Postnatal Neurogenesis: Molecular Mechanisms	Poster	A20–A42	Hall A	21 Mon	8 a.m.–noon	
278	Pluripotent Stem Cells and Organoid Models of Degenerative Diseases	Poster	A43–A71	Hall A	21 Mon	8 a.m.–noon	
279	Molecular Mechanisms of Synaptogenesis and Activity-Dependent Development	Poster	A72–B1	Hall A	21 Mon	8 a.m.–noon	
280	Genetic and Environmental Factors for Autism Spectrum Disorders	Poster	B2–B24	Hall A	21 Mon	8 a.m.–noon	
344	From Single-Cell Profiling to Human Brain Organoids: Capturing Neural Development and Disease	Symposium		Room S100A	21 Mon	1:30–4 p.m.	2.5
349	Dual Perspectives Session: Does Adult Neurogenesis Occur in the Human Brain?	Dual Perspectives		Room S406B	21 Mon	1–2 p.m.	
352	Genetic Models for Autism Spectrum Disorders	Nanosymposium		Room S405	21 Mon	1–3:30 p.m.	
353	Evolution and Development of Brain and Spinal Cord	Nanosymposium		Room S104	21 Mon	1–2:45 p.m.	
363	Axon Regeneration	Poster	A1–A25	Hall A	21 Mon	1–5 p.m.	
364	Neuronal Morphogenesis	Poster	A26–A42	Hall A	21 Mon	1–5 p.m.	
365	Axon Growth and Guidance: Axonal Transport and Trafficking	Poster	A43–A57	Hall A	21 Mon	1–5 p.m.	
366	Genetic and Neural Mechanisms for Development Disorders	Poster	A58–A81	Hall A	21 Mon	1–5 p.m.	
367	Animal Models I	Poster	A82–B21	Hall A	21 Mon	1–5 p.m.	
437	Novel Mechanisms of Neuronal Alternative Splicing and Strategies to Correct Aberrant-Splicing	Minisymposium		Room S102	22 Tue	8:30–11 a.m.	2.5
442	Special Lecture- Molecular Mechanisms Underlying Activity-Dependent Neural Circuit Development and Plasticity	Lecture		Hall B	22 Tue	10:30–11:40 a.m.	1.25
444	Directing Pluripotent Stem Cell Differentiation	Nanosymposium		Room N427	22 Tue	8–9:45 a.m.	
457	Mechanisms of Cell Fate	Poster	A1–A23	Hall A	22 Tue	8 a.m.–noon	
458	Autism: Physiology, Systems, and Behavior	Poster	A24–A46	Hall A	22 Tue	8 a.m.–noon	
459	Neural Mechanisms for Developmental Disorders I	Poster	A47–A72	Hall A	22 Tue	8 a.m.–noon	
460	Development: Sensory and Limbic Systems	Poster	A73–B15	Hall A	22 Tue	8 a.m.–noon	
529	Adult Hippocampal Neurogenesis in Humans and Rodents: New Evidence and New Perspectives	Minisymposium		Room S100BC	22 Tue	1:30:00	2.5
535	Neurodevelopmental Disorders: New Molecular Mechanisms	Nanosymposium		Room N427	22 Tue	1–3:45 p.m.	
548	Molecular Mechanisms of Synaptogenesis and Circuit Refinement	Poster	A1–A20	Hall A	22 Tue	1–5 p.m.	
549	Neural Mechanisms for Developmental Disorders II	Poster	A21–A45	Hall A	22 Tue	1–5 p.m.	
550	Animal Models II	Poster	A46–A72	Hall A	22 Tue	1–5 p.m.	
551	Cellular and Molecular Mechanisms of Evolution and Development	Poster	A73–B2	Hall A	22 Tue	1–5 p.m.	
624	Gene Therapy in Neurological Diseases	Basic-Translational-Clinical Roundtables		Room N230B	23 Wed	8:30–11 a.m.	2.5

SESSION #	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
626	Neural Differentiation, Transplantation, and Regeneration	Nanosymposium		Room S505	23 Wed	8–10:30 a.m.	
627	Genetics and Neural Mechanisms of Developmental Disorders	Nanosymposium		Room N228	23 Wed	8–10:15 a.m.	
639	Neuronal Differentiation	Poster	A1–A29	Hall A	23 Wed	8 a.m.–noon	
640	Stem Cell Reprogramming and Screening *In Vitro*	Poster	A30–A42	Hall A	23 Wed	8 a.m.–noon	
641	Animal Models of Developmental Disorders	Poster	A43–A71	Hall A	23 Wed	8 a.m.–noon	
642	Autism: Neurons, Circuits, and Behavior	Poster	A72– B14	Hall A	23 Wed	8 a.m.–noon	
643	Sensorimotor Development and Disorders	Poster	B15–B24	Hall A	23 Wed	8 a.m.–noon	
711	Mechanisms of Basal Ganglia Maturation: Insights Into Health and Disease	Minisymposium		Room S100BC	23 Wed	1:30:00	2.5
717	Neurogenesis and Differentiation of CNS Neurons	Nanosymposium		Room N228	23 Wed	1–2:30 p.m.	
718	Autism: Molecular and Cellular Mechanisms	Nanosymposium		Room S106	23 Wed	1–3 p.m.	
729	Neuron-Glia Interactions	Poster	A1–A13	Hall A	23 Wed	1–5 p.m.	
730	Postnatal Neurogenesis: Environmental and Pharmacological Regulation	Poster	A14–A34	Hall A	23 Wed	1–5 p.m.	
731	Stem Cell Neural Differentiation	Poster	A35–A49	Hall A	23 Wed	1–5 p.m.	
732	Synaptogenesis and Activity-Dependent Development IV	Poster	A50–A64	Hall A	23 Wed	1–5 p.m.	
733	Rett Syndrome: Molecular and Cellular Mechanisms	Poster	A65–A79	Hall A	23 Wed	1–5 p.m.	
734	Neurodevelopmental Disorders: Molecular and Cellular Mechanisms	Poster	A80–B22	Hall A	23 Wed	1–5 p.m.	
Theme B – Neural Excitability/ Synapses/ and Glia							
008	Special Lecture- Neuronal Activity-Dependent Myelination: A Mechanism for Learning and Repair?	Lecture		Hall B	19 Sat	2–3:10 p.m.	1.25
012	Neural Excitability: Regulating Synaptic Properties and Plasticity	Nanosymposium		Room N426	19 Sat	1–5 p.m.	
013	Microglial Control of Brain Development and Function	Nanosymposium		Room S106	19 Sat	1–3:15 p.m.	
032	Glutamate Transport and Signaling	Poster	A80–B13	Hall A	19 Sat	1–5 p.m.	
033	Opiates, Cyotokines, and Other Neuropeptides	Poster	B14–B28	Hall A	19 Sat	1–5 p.m.	
034	Ionotropic Glutamate Receptors: Physiology	Poster	B29–B42	Hall A	19 Sat	1–5 p.m.	
035	Sodium Channels in Health and Disease	Poster	B43–B62	Hall A	19 Sat	1–5 p.m.	
036	Presynaptic Organization and Transmitter Release	Poster	B63–B73	Hall A	19 Sat	1–5 p.m.	
037	Synaptogenesis and Activity-Dependent Development I	Poster	B74–B87	Hall A	19 Sat	1–5 p.m.	
038	Short-Term Plasticity	Poster	B88–B99	Hall A	19 Sat	1–5 p.m.	
039	Structural Plasticity and Circuit Remodeling I	Poster	B100–C15	Hall A	19 Sat	1–5 p.m.	
040	Neuronal Firing Properties: Modulation, Development, and Pathologies I	Poster	C16–C35	Hall A	19 Sat	1–5 p.m.	
041	Animal Models of Epilepsy I	Poster	C36–C52	Hall A	19 Sat	1–5 p.m.	
096	Novel Mechanistic Roles for Sodium Channels in Neurodevelopmental Disorders	Minisymposium		Room S105	20 Sun	8:30–11 a.m.	2.5
104	Transmitter Co-Expression and Plasticity: From Health to Disease	Nanosymposium		Room S104	20 Sun	8–10:15 a.m.	
118	Ionotropic Glutamate Receptors: Pharmacology	Poster	B7–B24	Hall A	20 Sun	8 a.m.–noon	
119	Calcium Channels	Poster	B25–B49	Hall A	20 Sun	8 a.m.–noon	
120	Potassium Channels I	Poster	B50–B68	Hall A	20 Sun	8 a.m.–noon	
121	Neurotransmitter Release and Vesicle Recycling	Poster	B69–B98	Hall A	20 Sun	8 a.m.–noon	
122	Structural Plasticity and Circuit Remodeling II	Poster	B99–C19	Hall A	20 Sun	8 a.m.–noon	
123	Epilepsy: Human Studies	Poster	C20–C47	Hall A	20 Sun	8 a.m.–noon	
178	The Gut-Brain Axis in Health and Brain Disease	Minisymposium		Room S406A	20 Sun	1:30–4 p.m.	2.5
200	Small-Molecule Neurotransmitter Transport and Signaling	Poster	B5–B25	Hall A	20 Sun	1–5 p.m.	

SESSION # / SESSION TITLE		SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
201	Nicotinic Acetylcholine Receptors: Physiology and Function	Poster	B26–B46	Hall A	20 Sun	1–5 p.m.	
202	Homeostatic Synaptic Plasticity	Poster	B47–B73	Hall A	20 Sun	1–5 p.m.	
203	Mechanisms Underlying Seizure Development and Epilepsy	Poster	B74–B92	Hall A	20 Sun	1–5 p.m.	
204	Astrocyte Biology: Cellular, Molecular, and Genetic Mechanisms	Poster	B93–C18	Hall A	20 Sun	1–5 p.m.	
205	Mechanisms of Bi-Directional Glia-Neuron Communication	Poster	C19–C47	Hall A	20 Sun	1–5 p.m.	
206	Molecular and Cellular Mechanisms of Demyelinating Disorders	Poster	C48–C69	Hall A	20 Sun	1–5 p.m.	
207	Demyelinating Disorders: Human and Animal Studies and Therapeutics	Poster	C70–C90	Hall A	20 Sun	1–5 p.m.	
257	Dissecting Cerebellar Function: A Prototypical Circuit Critical for Motor Learning and Cognition	Symposium		Room S100BC	21 Mon	8:30–11 a.m.	2.5
266	Astrocyte Networks Controlling Brain Function and Behavior	Nanosymposium		Room S103	21 Mon	8–10:15 a.m.	
281	Monoamine Transport and Signaling	Poster	B5–B43	Hall A	21 Mon	8 a.m.–noon	
282	Metabotropic Glutamate and GABAB Receptors	Poster	B44–B58	Hall A	21 Mon	8 a.m.–noon	
283	Potassium Channels II	Poster	B59–B72	Hall A	21 Mon	8 a.m.–noon	
284	Synaptic Transmission: Modulation and Mechanisms I	Poster	B73–B93	Hall A	21 Mon	8 a.m.–noon	
285	Long-Term Depression and Spike Timing-Dependent Plasticity	Poster	B94–C10	Hall A	21 Mon	8 a.m.–noon	
286	Synaptic Plasticity: Kinases and Intracellular Signaling	Poster	C11–C32	Hall A	21 Mon	8 a.m.–noon	
287	Synaptic Plasticity: Pre- and Postsynaptic Mechanisms	Poster	C33–C54	Hall A	21 Mon	8 a.m.–noon	
288	Human Functional Imaging	Poster	C55–C78	Hall A	21 Mon	8 a.m.–noon	
289	Networks and Connectivity	Poster	C79–C15	Hall A	21 Mon	8 a.m.–noon	
290	Epilepsy: Animal Models and Network Dynamics	Poster	D16–D35	Hall A	21 Mon	8 a.m.–noon	
368	Neurotransmitters: Transporters and Signaling Molecules	Poster	B22–B34	Hall A	21 Mon	1–5 p.m.	
369	Synaptogenesis and Activity-Dependent Development III	Poster	B35–B59	Hall A	21 Mon	1–5 p.m.	
370	Epilepsy: Genetic Mechanisms and Animal Models	Poster	B60–B75	Hall A	21 Mon	1–5 p.m.	
371	Antiepileptic Therapies	Poster	B76–B90	Hall A	21 Mon	1–5 p.m.	
372	Glia-Neuron Interactions in Diseased Brain	Poster	B91–C11	Hall A	21 Mon	1–5 p.m.	
373	Microglial Activation in Disease States	Poster	C12–C39	Hall A	21 Mon	1–5 p.m.	
445	Mechanisms of Epilepsy	Nanosymposium		Room S403	22 Tue	8–10 a.m.	
461	Amino Acid Transport and Signaling	Poster	B16–B37	Hall A	22 Tue	8 a.m.–noon	
462	Potassium Channels and Non-Selective Cation Channels	Poster	B38–B51	Hall A	22 Tue	8 a.m.–noon	
463	Synaptic Transmission: Modulation and Mechanisms II	Poster	B52–B64	Hall A	22 Tue	8 a.m.–noon	
464	Cellular Mechanisms of Oscillations	Poster	B65–B87	Hall A	22 Tue	8 a.m.–noon	
465	Cortical Oscillations I	Poster	B88–C13	Hall A	22 Tue	8 a.m.–noon	
466	Memory Systems	Poster	C14–C23	Hall A	22 Tue	8 a.m.–noon	
467	Epilepsy: Post-Seizure Mechanisms and Human Studies	Poster	C24–C42	Hall A	22 Tue	8 a.m.–noon	
468	Role of Astrocyte Dysfunction in Disease States	Poster	C43–C72	Hall A	22 Tue	8 a.m.–noon	
469	Microglial Functions in Brain Development and Homeostasis	Poster	C73–D1	Hall A	22 Tue	8 a.m.–noon	
530	The Synaptic Vesicle Cycle Revisited: New Insights Into the Modes and Mechanisms	Minisymposium		Room S105	22 Tue	1:30:00	2.5
536	Molecular and Genetic Mechanisms Underlying Glia-Neuron Interactions	Nanosymposium		Room S401	22 Tue	1–2:45 p.m.	
552	GABA and Glycine: Receptors, Inhibition, and Neuronal Excitability	Poster	B3–B22	Hall A	22 Tue	1–5 p.m.	
553	Synaptic Plasticity: Other Mechanisms	Poster	B23–B38	Hall A	22 Tue	1–5 p.m.	
554	Neuronal Firing Properties: Modulation, Development, and Pathologies II	Poster	B39–B56	Hall A	22 Tue	1–5 p.m.	
555	Animal Models of Epilepsy II	Poster	B57–B79	Hall A	22 Tue	1–5 p.m.	

SESSION #	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
556	Central and Peripheral Myelinating Cells I	Poster	B80–B100	Hall A	22 Tue	1–5 p.m.	
557	Neuro-Oncology	Poster	B101–C27	Hall A	22 Tue	1–5 p.m.	
619	Pleiotropic Mitochondria: The Influence of Mitochondria on Neuronal Development and Disease	Minisymposium		Room S102	23 Wed	8:30–11 a.m.	2.5
628	Reactive Astrocytes: Molecular Mechanisms and Disease Models	Nanosymposium		Room S405	23 Wed	8–9:45 a.m.	
644	Nicotinic Acetylcholine Receptors: Structure and Regulation	Poster	B25–B41	Hall A	23 Wed	8 a.m.–noon	
645	GABA(A) and Glycine Receptor Pharmacology	Poster	B42–B60	Hall A	23 Wed	8 a.m.–noon	
646	Metabotropic Receptors for Other Transmitters and Peptides	Poster	B61–B90	Hall A	23 Wed	8 a.m.–noon	
647	Synaptic Transmission: Modulation and Mechanisms III	Poster	B91–C4	Hall A	23 Wed	8 a.m.–noon	
648	Transcription and Translation in Plasticity I	Poster	C5–C27	Hall A	23 Wed	8 a.m.–noon	
649	*In Vivo* Analyses of Epilepsy Models	Poster	C29–C54	Hall A	23 Wed	8 a.m.–noon	
712	Cell-Type Specificity, Strength, and Dynamics of Long-Range Synaptic Input	Minisymposium		Room S406A	23 Wed	1:30:00	2.5
719	Microglial Activation in Disease States	Nanosymposium		Room S405	23 Wed	1–2:45 p.m.	
735	Synaptic Transmission, Integration, and Signal Propagation	Poster	B23–B43	Hall A	23 Wed	1–5 p.m.	
736	Transcription and Translation in Plasticity II	Poster	B44–B58	Hall A	23 Wed	1–5 p.m.	
737	Dendritic Properties, Oscillations, and Plasticity	Poster	B59–B77	Hall A	23 Wed	1–5 p.m.	
738	Epilepsy, Ion Channels, and Mechanism of Action	Poster	B78–B88	Hall A	23 Wed	1–5 p.m.	
739	Epilepsy: Pharmacology	Poster	B89–C15	Hall A	23 Wed	1–5 p.m.	
740	Central and Peripheral Myelinating Cells II	Poster	C16–C63	Hall A	23 Wed	1–5 p.m.	
Theme C – Neurodegenerative Disorders and Injury							
014	Proteome Dysfunction in Aging, Neurodegenerative Disorders, and Alzheimer's Disease	Nanosymposium		Room S104	19 Sat	1–4 p.m.	
015	Neurodegeneration and Injury I	Nanosymposium		Room S401	19 Sat	1–3:45 p.m.	
016	Emerging Insights in Huntington's Disease Research: Pathological Mechanisms and Therapeutic Approaches	Nanosymposium		Room S405	19 Sat	1–2:45 p.m.	
042	Alzheimer's Disease and Other Dementias: Imaging Studies I	Poster	C53–C74	Hall A	19 Sat	1–5 p.m.	
043	Cellular Mechanisms of Parkinson's Disease I	Poster	C75–D3	Hall A	19 Sat	1–5 p.m.	
044	Cellular and Circuit Mechanisms in Tauopathies	Poster	D4–D24	Hall A	19 Sat	1–5 p.m.	
045	Mechanism Underlying Neurodegenerative Disease	Poster	D25–D41	Hall A	19 Sat	1–5 p.m.	
046	Cell Stress and Death Mechanisms	Poster	D42–E25	Hall A	19 Sat	1–5 p.m.	
047	Cellular Stress and Death Mechanisms	Poster	E26–F10	Hall A	19 Sat	1–5 p.m.	
048	Neurotoxicity, Inflammation, and Neuroprotection: Preclinical Studies I	Poster	F11–F26	Hall A	19 Sat	1–5 p.m.	
049	Ischemic Stroke I	Poster	F27–F46	Hall A	19 Sat	1–5 p.m.	
050	Brain Injury and Trauma I	Poster	G1–G30	Hall A	19 Sat	1–5 p.m.	
051	Axon Injury and Recovery	Poster	G31–H20	Hall A	19 Sat	1–5 p.m.	
097	Myelin Degeneration and Remyelination in Health and Disease	Minisymposium		Room S100A	20 Sun	8:30–11 a.m.	2.5
105	Brain Aging and Role of Systemic Factors	Nanosymposium		Room S405	20 Sun	8–11 a.m.	
106	Alzheimer's Disease: Neuroinflammation and Immune Actions	Nanosymposium		Room S103	20 Sun	8–11:15 a.m.	
107	Motor Neuron Disease Mechanisms	Nanosymposium		Room N426	20 Sun	8–10:45 a.m.	
124	Synaptic Dysfunction in Alzheimer's Disease: *In Vivo* Models I	Poster	C48–C66	Hall A	20 Sun	8 a.m.–noon	
125	Alzheimer's Disease and Other Dementias: Imaging Studies II	Poster	C67–C89	Hall A	20 Sun	8 a.m.–noon	
126	APP Metabolites in Alzheimer's Disease	Poster	C90–D17	Hall A	20 Sun	8 a.m.–noon	
127	Alzheimer's Disease: APP/Abeta Cellular and Animal Models	Poster	D18–E1	Hall A	20 Sun	8 a.m.–noon	
128	Neurodegenerative Disorders and Injury I	Poster	E2–E26	Hall A	20 Sun	8 a.m.–noon	

SESSION # / SESSION TITLE		SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
129	Cellular Mechanisms of Parkinson's Disease II	Poster	E27–E38	Hall A	20 Sun	8 a.m.–noon	
130	Alpha-Synuclein: Mechanisms and Transmission	Poster	E39–F24	Hall A	20 Sun	8 a.m.–noon	
131	Parkinson's Disease Progression	Poster	F25–G7	Hall A	20 Sun	8 a.m.–noon	
132	Parkinson's Disease Therapeutic Strategies: Cellular and Animal Models	Poster	G8–G23	Hall A	20 Sun	8 a.m.–noon	
133	ALS and FTD Mechanisms	Poster	G24–H2	Hall A	20 Sun	8 a.m.–noon	
134	Neuroprotective Mechanisms: Preclinical Models	Poster	H3–H28	Hall A	20 Sun	8 a.m.–noon	
135	Stroke I	Poster	H29–I12	Hall A	20 Sun	8 a.m.–noon	
136	Spinal Cord Injury: Responses and Repair	Poster	I13–I32	Hall A	20 Sun	8 a.m.–noon	
177	The Molecular and Spatial Complexity of Tau: What Forms and Loci to Target?	Symposium		Room S100A	20 Sun	1:30–4 p.m.	2.5
188	Neuroinflammation: Mechanisms and Therapeutic Strategies	Nanosymposium		Room N427	20 Sun	1–3:45 p.m.	
189	Neurodegeneration and Injury II	Nanosymposium		Room S103	20 Sun	1–3:15 p.m.	
208	Brain Wellness and Aging: Pharmacological and Non-Pharmacological Interventions	Poster	C91–D13	Hall A	20 Sun	1–5 p.m.	
209	Brain Wellness and Aging: Systemic Factors and Brain Function	Poster	D14–D25	Hall A	20 Sun	1–5 p.m.	
210	Alzheimer's Disease: Genetics	Poster	D26–D35	Hall A	20 Sun	1–5 p.m.	
211	Tau: Preclinical and Clinical Pathology	Poster	D36–D46	Hall A	20 Sun	1–5 p.m.	
212	Alzheimer's Disease and Therapeutic Strategies I	Poster	E1–E27	Hall A	20 Sun	1–5 p.m.	
213	Parkinson's Disease: Molecular Mechanisms	Poster	E28–F4	Hall A	20 Sun	1–5 p.m.	
214	Ischemic Stroke II	Poster	F5–F18	Hall A	20 Sun	1–5 p.m.	
215	Stroke and Ischemia I	Poster	F19–G2	Hall A	20 Sun	1–5 p.m.	
216	Stroke and Ischemia II	Poster	G3–G29	Hall A	20 Sun	1–5 p.m.	
217	Spinal Cord Injury I	Poster	G30–H6	Hall A	20 Sun	1–5 p.m.	
258	Phenotype Suppression in Neurodegeneration	Minisymposium		Room S105	21 Mon	8:30–11 a.m.	2.5
267	Parkinson's Disease: From Preclinical to Human Studies	Nanosymposium		Room N426	21 Mon	8–10:30 a.m.	
291	Aging: Molecular Mechanisms I	Poster	D36–E10	Hall A	21 Mon	8 a.m.–noon	
292	Alzheimer's Disease: Omics Approaches	Poster	E11–E38	Hall A	21 Mon	8 a.m.–noon	
293	Synaptic Dysfunction in Alzheimer's Disease: *In Vivo* Models II	Poster	E39–F14	Hall A	21 Mon	8 a.m.–noon	
294	Molecular Underpinnings of LRRK2 Function and Dysfunction	Poster	F15–F26	Hall A	21 Mon	8 a.m.–noon	
295	Alpha-Synuclein Models and Mechanisms I	Poster	F27–F45	Hall A	21 Mon	8 a.m.–noon	
296	Mouse Models of Tauopathies	Poster	F46–G10	Hall A	21 Mon	8 a.m.–noon	
297	ALS and Motor Neuron Disease	Poster	G11–G33	Hall A	21 Mon	8 a.m.–noon	
298	Mechanisms of Neurotoxicity I	Poster	G34–H11	Hall A	21 Mon	8 a.m.–noon	
299	Alzheimer's Disease: Neurotoxicity, Inflammation, and Neuroprotection	Poster	H12–H41	Hall A	21 Mon	8 a.m.–noon	
300	Traumatic Brain Injury: Models, Mechanisms, and Recovery	Poster	H42–I24	Hall A	21 Mon	8 a.m.–noon	
301	Peripheral Nerve Injury	Poster	I25–I38	Hall A	21 Mon	8 a.m.–noon	
302	Neural Injury and Treatment	Poster	I39–J17	Hall A	21 Mon	8 a.m.–noon	
303	Spinal Cord Injury and Plasticity: Neurophysiology	Poster	J18–J31	Hall A	21 Mon	8 a.m.–noon	
346	Necroptosis and Other Non-Apoptotic Processes in Microglial Pathophysiology and Neurologic Diseases	Minisymposium		Room S105	21 Mon	1:30–4 p.m.	2.5
354	Amyloid-Beta: Novel Insights Into Function, Toxicity, and Animal Models	Nanosymposium		Room S103	21 Mon	1–4:30 p.m.	
355	Imaging and Treatment Studies of Essential Tremor and Dementia	Nanosymposium		Room S106	21 Mon	1–2:45 p.m.	
356	Mechanisms of Motor Neuron Disease	Nanosymposium		Room N426	21 Mon	1–3 p.m.	

SESSION # / SESSION TITLE		SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
374	Aging: Molecular Mechanisms II	Poster	C40–C56	Hall A	21 Mon	1–5 p.m.	
375	Alzheimer's Disease: APOE and Associated Pathways	Poster	C57–C85	Hall A	21 Mon	1–5 p.m.	
376	Alzheimer's Disease and Therapeutic Strategies II	Poster	C86–D15	Hall A	21 Mon	1–5 p.m.	
377	Alzheimer's Disease and Other Dementias: Therapeutic Strategies I	Poster	D16–D32	Hall A	21 Mon	1–5 p.m.	
378	Neurodegenerative Disorders and Injury II	Poster	D33–D43	Hall A	21 Mon	1–5 p.m.	
379	Parkinson's Disease: Mitochondrial Mechanisms and Genetics	Poster	D44–E13	Hall A	21 Mon	1–5 p.m.	
380	Parkinson's Disease: Dopamine and Non-Dopamine Pathways	Poster	E14–E35	Hall A	21 Mon	1–5 p.m.	
381	Parkinson's Disease Oscillations	Poster	E36–F15	Hall A	21 Mon	1–5 p.m.	
382	Circuit Mechanisms of Motor Dysfunction in Parkinson's Disease	Poster	F16–F41	Hall A	21 Mon	1–5 p.m.	
383	Parkinson's Disease: Clinical Trials	Poster	F42–G15	Hall A	21 Mon	1–5 p.m.	
384	Parkinson's Disease Human Studies: Genetics and Diagnostics	Poster	G16–G31	Hall A	21 Mon	1–5 p.m.	
385	Movement Disorders: Clinical and Preclinical Studies	Poster	G32–H11	Hall A	21 Mon	1–5 p.m.	
386	Motor-Neuron Disease Mechanisms	Poster	H12–H33	Hall A	21 Mon	1–5 p.m.	
387	Mechanisms of Neurotoxicity II	Poster	H34–I16	Hall A	21 Mon	1–5 p.m.	
388	Neurodegeneration and Injury: Neuroinflammation	Poster	I17–I28	Hall A	21 Mon	1–5 p.m.	
389	Neurotoxicity, Inflammation, and Neuroprotection: Preclinical Studies II	Poster	I29–J4	Hall A	21 Mon	1–5 p.m.	
390	Ischemic Stroke III	Poster	J5–J17	Hall A	21 Mon	1–5 p.m.	
391	Stroke II	Poster	J17–J33	Hall A	21 Mon	1–5 p.m.	
392	Blast Injury, Traumatic Brain Injury, Stress, and PTSD	Poster	J34–K16	Hall A	21 Mon	1–5 p.m.	
393	Treatment and Therapeutic Interventions for Spinal Cord Injury	Poster	K17–L2	Hall A	21 Mon	1–5 p.m.	
441	Exoskeletons and Robotics for Neurorehabilitation	Basic-Translational-Clinical Roundtables		Room N230B	22 Tue	8:30–11 a.m.	2.5
443	Special Lecture- Leveraging Brain Rhythms as a Therapeutic Intervention for Neurodegenerative Diseases	Lecture		Hall B	22 Tue	Noon–1:10 p.m.	1.25
446	Tau Protein in Alzheimer's Disease and Other Dementia: Biochemistry and Cellular/Animal Models	Nanosymposium		Room S106	22 Tue	8–11:15 a.m.	
447	Alzheimer's Disease and Related Dementia: Therapeutic Strategies	Nanosymposium		Room S103	22 Tue	8–11:15 a.m.	
448	Stroke I	Nanosymposium		Room N228	22 Tue	8–11:30 a.m.	
449	Spinal Cord Injury: Models, Mechanisms, and Therapeutic Strategies	Nanosymposium		Room N227	22 Tue	8–10 a.m.	
470	Brain Wellness and Aging: Mechanisms and Biomarkers	Poster	D2–D17	Hall A	22 Tue	8 a.m.–noon	
471	Alzheimer's Disease: APP/Abeta Animal Models	Poster	D18–E1	Hall A	22 Tue	8 a.m.–noon	
472	Tau: Animal and Cellular Models I	Poster	E2–E19	Hall A	22 Tue	8 a.m.–noon	
473	Alzheimer's Disease and Other Dementias: Therapeutic Strategies II	Poster	E20–E34	Hall A	22 Tue	8 a.m.–noon	
474	Molecular Mechanisms of Huntington's Disease	Poster	E35–F13	Hall A	22 Tue	8 a.m.–noon	
475	Motor-Neuron Disease: Therapeutics	Poster	F14–F35	Hall A	22 Tue	8 a.m.–noon	
476	Neuroprotective Mechanisms	Poster	F36–G17	Hall A	22 Tue	8 a.m.–noon	
477	Neurotoxicity, Inflammation, and Neuroprotection: Microglia	Poster	G18–G39	Hall A	22 Tue	8 a.m.–noon	
478	Non-Pharmacological Approaches for Stroke Therapy and Recovery	Poster	G40–H18	Hall A	22 Tue	8 a.m.–noon	
479	Traumatic Brain Injury: Mechanisms, Biomarkers, and Recovery	Poster	H19–H45	Hall A	22 Tue	8 a.m.–noon	
480	Traumatic Brain Injury: Mechanisms and Therapeutic Strategies	Poster	H46–I18	Hall A	22 Tue	8 a.m.–noon	
481	Chronic Spinal Cord Injury	Poster	I19–I39	Hall A	22 Tue	8 a.m.–noon	
527	Comparing Dopamine Metabolism in Mouse and Human Neurons: Relevance for Parkinson's Disease	Symposium		Room S406A	22 Tue	1:30:00	2.5
537	Molecular Targets for Parkinson's Disease: Animal Models	Nanosymposium		Room S104	22 Tue	1–3:15 p.m.	
538	Animal Models of Neurodegenerative Disorders	Nanosymposium		Room N426	22 Tue	1–3:45 p.m.	

SESSION # / SESSION TITLE		SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
539	Neurotoxicity, Inflammation, and Neuroprotection	Nanosymposium		Room S103	22 Tue	1–4 p.m.	
540	Stroke II	Nanosymposium		Room S505	22 Tue	1–3:30 p.m.	
541	Traumatic Brain Injury	Nanosymposium		Room S404	22 Tue	1–4:15 p.m.	
542	Therapeutic Interventions for Nervous System Injury	Nanosymposium		Room N228	22 Tue	1–3 p.m.	
558	Alzheimer's Disease: Neuroinflammation and Immune Actions	Poster	C28–C57	Hall A	22 Tue	1–5 p.m.	
559	Synaptic Dysfunction in Alzheimer's Disease: *In Vitro* Models	Poster	C58–C85	Hall A	22 Tue	1–5 p.m.	
560	Alzheimer's Disease: Amyloid-Beta Toxicity	Poster	C86–D11	Hall A	22 Tue	1–5 p.m.	
561	Neurotoxicity, Inflammation, and Neuroprotection: Advances in Nanomedicine	Poster	D12–D23	Hall A	22 Tue	1–5 p.m.	
562	Alzheimer's Disease: Tau Biochemistry and Physiology	Poster	D24–D35	Hall A	22 Tue	1–5 p.m.	
563	Alzheimer's Disease and Related Disorders: Preclinical Models	Poster	D36–E19	Hall A	22 Tue	1–5 p.m.	
564	Alzheimer's Disease and Other Dementias: Therapeutic Strategies III	Poster	E20–E34	Hall A	22 Tue	1–5 p.m.	
565	Animal Models of Huntington's Disease	Poster	E35–F8	Hall A	22 Tue	1–5 p.m.	
566	Neurodegeneration Mechanisms	Poster	F9–F29	Hall A	22 Tue	1–5 p.m.	
567	Neuroinflammation and Animal Models I	Poster	F30–G2	Hall A	22 Tue	1–5 p.m.	
568	Neuroinflammation and Animal Models II	Poster	G3–G19	Hall A	22 Tue	1–5 p.m.	
569	Ischemic Stroke IV	Poster	G20–G36	Hall A	22 Tue	1–5 p.m.	
570	Traumatic Brain Injury: Therapeutic Strategies	Poster	G37–H14	Hall A	22 Tue	1–5 p.m.	
571	Spinal Cord Injury II	Poster	H15–H29	Hall A	22 Tue	1–5 p.m.	
572	Neural Stimulation and Rehabilitation to Treat Spinal Cord Injury	Poster	H30–H46	Hall A	22 Tue	1–5 p.m.	
625	Special Lecture- Aberrant Phase Separation in Neurodegenerative Disease	Lecture		Hall B	23 Wed	10:30–11:40 a.m.	1.25
629	Parkinson's Disease: Cellular Mechanisms	Nanosymposium		Room N426	23 Wed	8–11:30 a.m.	
630	LRRK2 Function in Health and Disease	Nanosymposium		Room S401	23 Wed	8–9:45 a.m.	
631	Cellular Mechanisms of Tauopathies	Nanosymposium		Room S103	23 Wed	8–10:30 a.m.	
632	HIV-Associated Neurocognitive Disorders	Nanosymposium		Room S403	23 Wed	8–9:45 a.m.	
633	Spinal Cord Injury: Non-Pharmacological Therapeutic Strategies	Nanosymposium		Room N227	23 Wed	8–9:45 a.m.	
650	Tau: Animal and Cellular Models II	Poster	C55–C72	Hall A	23 Wed	8 a.m.–noon	
651	Alzheimer's Disease: Energy Homeostasis	Poster	C73–D4	Hall A	23 Wed	8 a.m.–noon	
652	Alzheimer's Disease Biomarkers	Poster	D5–D34	Hall A	23 Wed	8 a.m.–noon	
653	Genetic Models of Parkinson's Disease	Poster	D35–E12	Hall A	23 Wed	8 a.m.–noon	
654	Animal Models of Ataxia	Poster	E13–E40	Hall A	23 Wed	8 a.m.–noon	
655	Neurodegeneration and Neuromuscular Diseases	Poster	E41–F12	Hall A	23 Wed	8 a.m.–noon	
656	Neurotoxicity, Inflammation, and Neuroprotective Mechanisms: Preclinical	Poster	F13–F29	Hall A	23 Wed	8 a.m.–noon	
657	Stroke III	Poster	F30–G13	Hall A	23 Wed	8 a.m.–noon	
658	Traumatic Brain Injury: Biomarkers	Poster	G14–G33	Hall A	23 Wed	8 a.m.–noon	
659	Brain Injury and Trauma II	Poster	G34–H5	Hall A	23 Wed	8 a.m.–noon	
660	Spinal Cord Injury III	Poster	H6–H27	Hall A	23 Wed	8 a.m.–noon	
710	CNS Scarring, Inflammation, and Repair	Symposium		Room S100A	23 Wed	1:30:00	2.5
742	Alpha-Synuclein Models and Mechanisms II	Poster	C64–C80	Hall A	23 Wed	1–5 p.m.	
743	Parkinson's Disease: Therapeutics	Poster	C81–D13	Hall A	23 Wed	1–5 p.m.	
744	Neuroinflammation: HIV and Infections	Poster	D14–D43	Hall A	23 Wed	1–5 p.m.	
745	Brain Injury, Ischemia, and Epilepsy	Poster	D44–E27	Hall A	23 Wed	1–5 p.m.	
746	Brain Injury and Trauma III	Poster	E28–F8	Hall A	23 Wed	1–5 p.m.	

SESSION # / SESSION TITLE		SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
747	Spinal Cord Injury and Repair	Poster	F9–F31	Hall A	23 Wed	1–5 p.m.	
Theme D – Sensory Systems							
017	Activity Correlations and Coding	Nanosymposium		Room S402	19 Sat	1–3 p.m.	
052	Somatosensation: Trigeminal Pain Circuits and Processing	Poster	H21–H34	Hall A	19 Sat	1–5 p.m.	
053	Somatosensation: Headache and Migraine	Poster	H35–I5	Hall A	19 Sat	1–5 p.m.	
054	Pain: Animal Models of Behavior	Poster	I6–I31	Hall A	19 Sat	1–5 p.m.	
055	Pain: Channels and Physiology Afferents to Spinal Cord	Poster	I32–J12	Hall A	19 Sat	1–5 p.m.	
056	Pain: Inflammatory Mechanisms	Poster	J13–J39	Hall A	19 Sat	1–5 p.m.	
057	Touch: Barrel Cortex Coding	Poster	J40–K17	Hall A	19 Sat	1–5 p.m.	
058	Chemosensory Processing I	Poster	K18–L7	Hall A	19 Sat	1–5 p.m.	
059	Temporal and Spectral Auditory Processing	Poster	L8–L32	Hall A	19 Sat	1–5 p.m.	
060	Auditory Processing: From Cochlea to Midbrain	Poster	L33–M1	Hall A	19 Sat	1–5 p.m.	
061	Decision Making I	Poster	M2–M19	Hall A	19 Sat	1–5 p.m.	
098	Parabrachial Complex: A Hub for Pain and Aversion	Minisymposium		Room S406B	20 Sun	8:30–11 a.m.	2.5
108	Dynamic Signal Integration Across Saccades	Nanosymposium		Room S505	20 Sun	8–9:45 a.m.	
137	Auditory Processing: Adaptation, Learning, and Memory	Poster	I33–J13	Hall A	20 Sun	8 a.m.–noon	
138	Human Auditory Processing I	Poster	J14–J30	Hall A	20 Sun	8 a.m.–noon	
139	Vestibular System and Balance	Poster	J31–K2	Hall A	20 Sun	8 a.m.–noon	
140	Vision: Subcortical Visual Pathways	Poster	K3–K24	Hall A	20 Sun	8 a.m.–noon	
141	Visual Cortex: Functional Architecture and Circuits I	Poster	K25–L5	Hall A	20 Sun	8 a.m.–noon	
142	Visual Processing Beyond V1	Poster	L6–L24	Hall A	20 Sun	8 a.m.–noon	
143	Spatial and Chromatic Vision	Poster	L25–L38	Hall A	20 Sun	8 a.m.–noon	
190	Pain and Itch Behavior, Circuitry, and Novel Techniques	Nanosymposium		Room S106	20 Sun	1–3:15 p.m.	
191	Neuronal Circuits Underlying Binocular Vision and Stereopsis	Nanosymposium		Room S505	20 Sun	1–3:15 p.m.	
218	Somatosensation: Ion Channels	Poster	H7–H33	Hall A	20 Sun	1–5 p.m.	
219	Somatosensation: Pain Mechanisms	Poster	H34–I16	Hall A	20 Sun	1–5 p.m.	
220	Preclinical and Clinical Studies in Peripheral Nerve Injury and Neuropathic Pain	Poster	I17–J2	Hall A	20 Sun	1–5 p.m.	
221	Touch: Thalamic-Cortical Processing	Poster	J3–J26	Hall A	20 Sun	1–5 p.m.	
222	Auditory Processing	Poster	J27–J46	Hall A	20 Sun	1–5 p.m.	
223	Auditory Processing: Perception, Cognition, and Action	Poster	K1–K22	Hall A	20 Sun	1–5 p.m.	
224	Human Auditory Processing II	Poster	K23–K38	Hall A	20 Sun	1–5 p.m.	
225	Mechanisms of Retinal Circuit Assembly and Function	Poster	K39–L27	Hall A	20 Sun	1–5 p.m.	
226	Eye Movements and Perception	Poster	L28–M10	Hall A	20 Sun	1–5 p.m.	
264	Special Lecture- Active Touch, Pain, and Anesthesia	Lecture		Hall B	21 Mon	Noon–1:10 p.m.	1.25
268	Organization and Function of Human Visual Cortex	Nanosymposium		Room N427	21 Mon	8–11:30 a.m.	
304	Peripheral Auditory System	Poster	J32–J46	Hall A	21 Mon	8 a.m.–noon	
305	Auditory Cortex: Temporal and Frequency Factors	Poster	K1–K24	Hall A	21 Mon	8 a.m.–noon	
306	Auditory Processing: From Midbrain to Cortex	Poster	K25–L3	Hall A	21 Mon	8 a.m.–noon	
307	Visual Cortex: Manipulating and Reading Neural Activity	Poster	L4–L22	Hall A	21 Mon	8 a.m.–noon	
308	Visual Cortex: Plasticity	Poster	L23–L35	Hall A	21 Mon	8 a.m.–noon	
309	Processing of Visual Motion	Poster	L36–M8	Hall A	21 Mon	8 a.m.–noon	
310	Sensorimotor Transformation: Behavior and Neuroprocessing	Poster	M9–M33	Hall A	21 Mon	8 a.m.–noon	

SESSION # / SESSION TITLE		SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
347	What Do Neurons Want?	Minisymposium		Room S102	21 Mon	1:30–4 p.m.	2.5
357	Pain Imaging and Perception	Nanosymposium		Room S403	21 Mon	1–3 p.m.	
358	Tactile Coding in the Cortex	Nanosymposium		Room S401	21 Mon	1–3:45 p.m.	
394	Discovery and Treatment Studies in Auditory and Visual Preclinical Neuroscience	Poster	L3–L19	Hall A	21 Mon	1–5 p.m.	
395	Somatosensation: Spinal Circuits	Poster	L20–L39	Hall A	21 Mon	1–5 p.m.	
396	Somatosensation: Itch Mechanisms	Poster	L40–M9	Hall A	21 Mon	1–5 p.m.	
397	Pain: Thalamus, Cortex, and Amygdala Processing	Poster	M10–M233	Hall A	21 Mon	1–5 p.m.	
398	Central Nervous System Mechanisms in Pain	Poster	M34–N19	Hall A	21 Mon	1–5 p.m.	
399	Chemosensory Processing II	Poster	N20–	Hall A	21 Mon	1–5 p.m.	
400	Peripheral Vestibular System	Poster	O1–O12	Hall A	21 Mon	1–5 p.m.	
401	Auditory Processing: Vocalizations and Natural Sounds	Poster	O13–O33	Hall A	21 Mon	1–5 p.m.	
402	Cellular Mechanisms of Vestibular Control	Poster	O34–P4	Hall A	21 Mon	1–5 p.m.	
403	Visual Cortex: Circuits	Poster	P5–Q10	Hall A	21 Mon	1–5 p.m.	
438	Sensory Circuits for Vision and Smell: Integrating Molecular, Anatomical, and Functional Maps	Minisymposium		Room S105	22 Tue	8:30–11 a.m.	2.5
482	Somatosensation: Descending Modulation of Pain	Poster	I40–J21	Hall A	22 Tue	8 a.m.–noon	
483	Pain Models: Pharmacology	Poster	J22–K2	Hall A	22 Tue	8 a.m.–noon	
484	Somatosensation: Pain and Opioids	Poster	K3–K26	Hall A	22 Tue	8 a.m.–noon	
485	Touch: Transduction and Stimulus Encoding	Poster	K27–L8	Hall A	22 Tue	8 a.m.–noon	
486	Touch: Cortical Encoding and Plasticity	Poster	L9–L29	Hall A	22 Tue	8 a.m.–noon	
487	Scenes and Space	Poster	L30–L41	Hall A	22 Tue	8 a.m.–noon	
488	Representations of Objects	Poster	L42–M23	Hall A	22 Tue	8 a.m.–noon	
489	Faces and Bodies	Poster	M24–M41	Hall A	22 Tue	8 a.m.–noon	
490	Visual Learning, Memory, and Categorization	Poster	M42–N22	Hall A	22 Tue	8 a.m.–noon	
491	Sensorimotor Transformation: Reach and Grasp	Poster	N23–N45	Hall A	22 Tue	8 a.m.–noon	
531	Expecting the Unexpected: Cortical Circuits for Novelty Detection	Minisymposium		Room S406B	22 Tue	1:30:00	2.5
543	New Approaches for Pain Assessment and Treatment	Nanosymposium		Room S405	22 Tue	1–3 p.m.	
573	Taste: Sensing and Coding	Poster	I1–I11	Hall A	22 Tue	1–5 p.m.	
574	Auditory Processing: Neural Coding	Poster	I12–I41	Hall A	22 Tue	1–5 p.m.	
575	Cellular Mechanisms of Retinal Connectivity in Health and Disease	Poster	I42–J25	Hall A	22 Tue	1–5 p.m.	
576	Visual System: Response Modulation and Adaptation	Poster	J26–J45	Hall A	22 Tue	1–5 p.m.	
577	Visual Pathways: To and From the Cortex	Poster	J46–K17	Hall A	22 Tue	1–5 p.m.	
578	Multi-Sensory Integration	Poster	K18–L1	Hall A	22 Tue	1–5 p.m.	
618	New Approaches to Vision Restoration	Symposium		Room S100A	23 Wed	8:30–11 a.m.	2.5
634	Novel Insights Into Neuropathic Pain	Nanosymposium		Room S104	23 Wed	8–9:45 a.m.	
635	Mapping Chemosensory Representations	Nanosymposium		Room S106	23 Wed	8–11:30 a.m.	
661	Somatosensation: Non-Opioid Treatment of Pain	Poster	H28–I4	Hall A	23 Wed	8 a.m.–noon	
662	Touch: Neocortex Networks and Models	Poster	I5–17	Hall A	23 Wed	8 a.m.–noon	
663	Chemosensory Processing III	Poster	I18–J1	Hall A	23 Wed	8 a.m.–noon	
664	Selective Attention	Poster	J2–J26	Hall A	23 Wed	8 a.m.–noon	
665	Cross-Modal Processing in Humans I	Poster	J27–J40	Hall A	23 Wed	8 a.m.–noon	
666	Cross-Modal Processing in Humans II	Poster	J41–K24	Hall A	23 Wed	8 a.m.–noon	
713	Progress in Pain and Itch Research	Minisymposium		Room S102	23 Wed	1:30:00	2.5

SESSION #	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
720	Mechanisms Controlling Retinal Synaptic Connectivity and Function	Nanosymposium		Room S402	23 Wed	1–2:45 p.m.	
721	Integration Across Sensory Modalities	Nanosymposium		Room S403	23 Wed	1–2:45 p.m.	
748	Somatosensation: Treatments for Persistent Pain	Poster	F32–G12	Hall A	23 Wed	1–5 p.m.	
749	Role of Inflammatory and Immune Responses in Chronic Pain	Poster	G13–G35	Hall A	23 Wed	1–5 p.m.	
750	Somatosensation: Pain, Imaging, and Perception	Poster	G36–H34	Hall A	23 Wed	1–5 p.m.	
752	Active Vision and Context Modulation	Poster	H35–I16	Hall A	23 Wed	1–5 p.m.	
753	Visual Cortex: Cell Types, Functional Organization, and Connectivity	Poster	I17–I31	Hall A	23 Wed	1–5 p.m.	
754	Visual Cortex: Functional Architecture and Circuits II	Poster	I32–J8	Hall A	23 Wed	1–5 p.m.	
755	Visual Systems: Functional Architecture and Circuits	Poster	J9–J31	Hall A	23 Wed	1–5 p.m.	
756	Decision Making III	Poster	J32–J44	Hall A	23 Wed	1–5 p.m.	
757	Decision Making IV	Poster	J45–K11	Hall A	23 Wed	1–5 p.m.	
Theme E – Motor Systems							
004	Gain Control in the Sensorimotor System: From Neural Circuit Organization to Behavioral Function	Minisymposium		Room S406B	19 Sat	1:30–4 p.m.	2.5
062	Eye Movements: Central Processing	Poster	M20–M41	Hall A	19 Sat	1–5 p.m.	
063	Cerebellum: Plasticity and Climbing Fibers	Poster	M42–N9	Hall A	19 Sat	1–5 p.m.	
064	Motor Systems: Fine Manual Control	Poster	N10–N33	Hall A	19 Sat	1–5 p.m.	
065	Neuronal Analysis of Respiratory Networks	Poster	N34–O4	Hall A	19 Sat	1–5 p.m.	
066	Motor Neuron I	Poster	O5–O26	Hall A	19 Sat	1–5 p.m.	
099	The Neural Basis of Manual Dexterity	Minisymposium		Room S102	20 Sun	8:30–11 a.m.	2.5
144	Eye Movements: Saccades in Nonhuman Primates	Poster	L39–M13	Hall A	20 Sun	8 a.m.–noon	
145	Basal Ganglia: Neuromodulation	Poster	M14–M32	Hall A	20 Sun	8 a.m.–noon	
146	Basal Ganglia: Behavioral Control	Poster	M33–N16	Hall A	20 Sun	8 a.m.–noon	
176	Special Lecture- Comparative Neurobiology of Vocal Communication	Lecture		Hall B	20 Sun	1:30–2:40 p.m.	1.25
227	Sensorimotor Coordination in Motor Control	Poster	M11–M37	Hall A	20 Sun	1–5 p.m.	
228	Motor Control in Primates and Humans	Poster	M38–N16	Hall A	20 Sun	1–5 p.m.	
229	Sensorimotor Learning I	Poster	N17–N45	Hall A	20 Sun	1–5 p.m.	
230	Cells, Circuits, and Motor Patterns	Poster	N46–O20	Hall A	20 Sun	1–5 p.m.	
231	Respiration: Modulation and Regulation	Poster	O21–P3	Hall A	20 Sun	1–5 p.m.	
255	Special Lecture- Neural Mechanisms of Short-Term Memory and Motor Planning	Lecture		Hall B	21 Mon	10:30–11:40 a.m.	1.25
311	Motor Control and Rehabilitation in Primates and Humans	Poster	M34–N17	Hall A	21 Mon	8 a.m.–noon	
312	Cortical Planning and Execution: Neurophysiology in Humans	Poster	N18–N46	Hall A	21 Mon	8 a.m.–noon	
313	Cortical Planning and Execution: Neurophysiology in Nonhuman Primates I	Poster	O1–O23	Hall A	21 Mon	8 a.m.–noon	
314	Motor Cortex and Motor Learning	Poster	O24–P7	Hall A	21 Mon	8 a.m.–noon	
315	Brain-Computer Interface: Intracranial	Poster	P8–P32	Hall A	21 Mon	8 a.m.–noon	
316	Posture and Gait I	Poster	P33–Q15	Hall A	21 Mon	8 a.m.–noon	
317	Afferent Control of Posture and Gait	Poster	Q16–R9	Hall A	21 Mon	8 a.m.–noon	
318	Neuromodulation of Motor Pattern Generation	Poster	R10–S9	Hall A	21 Mon	8 a.m.–noon	
405	Cerebellum: Cortex and Nuclei I	Poster	Q11–R13	Hall A	21 Mon	1–5 p.m.	
406	Brain-Computer Interface: Algorithms and Analyses	Poster	R14–S11	Hall A	21 Mon	1–5 p.m.	
407	Neuro-Muscle Interactions	Poster	S12–T14	Hall A	21 Mon	1–5 p.m.	
439	Beta Oscillations in Sensorimotor Function, Executive Action Control, and Working Memory	Minisymposium		Room S406A	22 Tue	8:30–11 a.m.	2.5

SESSION # / SESSION TITLE		SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
450	Cerebellum Circuits and Functions	Nanosymposium		Room N426	22 Tue	8–9:45 a.m.	
492	Human-Reaching Motor Learning	Poster	N46–O17	Hall A	22 Tue	8 a.m.–noon	
493	Motor Learning: Circuits	Poster	018–O38	Hall A	22 Tue	8 a.m.–noon	
494	Cortical Planning and Execution: Neurophysiology in Rodents and Others I	Poster	O39–P14	Hall A	22 Tue	8 a.m.–noon	
495	Brain-Computer Interface: Neurophysiology, Function, and Learning	Poster	P15–P34	Hall A	22 Tue	8 a.m.–noon	
496	Motor Systems Analysis and Models	Poster	P35–Q3	Hall A	22 Tue	8 a.m.–noon	
497	Control of Spinal Locomotion Circuits	Poster	Q4–R3	Hall A	22 Tue	8 a.m.–noon	
544	Motor Control and Stroke Recovery	Nanosymposium		Room S403	22 Tue	1–4 p.m.	
579	Cerebellum: Cortex and Nuclei II	Poster	L2–L23	Hall A	22 Tue	1–5 p.m.	
580	Basal Ganglia: Pathophysiology	Poster	L24–M2	Hall A	22 Tue	1–5 p.m.	
581	Sensorimotor Transformation: Physiology and Pathophysiology	Poster	M3–M19	Hall A	22 Tue	1–5 p.m.	
582	Animal-Reaching Motor Learning	Poster	M20–M29	Hall A	22 Tue	1–5 p.m.	
583	Cortical Planning and Execution: Neurophysiology in Rodents and Others II	Poster	M30–N2	Hall A	22 Tue	1–5 p.m.	
584	Brain-Computer Interface: Rehabilitation	Poster	N3–N24	Hall A	22 Tue	1–5 p.m.	
585	Motor Neuron II	Poster	N25–O3	Hall A	22 Tue	1–5 p.m.	
667	Basal Ganglia: Cellular and Systems Physiology	Poster	K25–L14	Hall A	23 Wed	8 a.m.–noon	
668	Sensorimotor Learning II	Poster	L15–L41	Hall A	23 Wed	8 a.m.–noon	
669	Brain-Computer Interface: EMG	Poster	L42–M14	Hall A	23 Wed	8 a.m.–noon	
670	Sensorimotor Control, Movements, and Motor Cortex	Poster	M15–M40	Hall A	23 Wed	8 a.m.–noon	
671	Reflexes	Poster	M40–N9	Hall A	23 Wed	8 a.m.–noon	
714	Adaptive Control of Movements and Emotional States by the Cerebellum	Minisymposium		Room S406B	23 Wed	1:30:00	2.5
722	Cortical and Subcortical Planning and Execution	Nanosymposium		Room N227	23 Wed	1–3:45 p.m.	
758	Oral Motor Behavior and Speech	Poster	K12–K25	Hall A	23 Wed	1–5 p.m.	
759	Motor Impairment and Recovery	Poster	K26–L10	Hall A	23 Wed	1–5 p.m.	
760	Brain-Computer Interface: Extracranial	Poster	L11–L40	Hall A	23 Wed	1–5 p.m.	
761	Brain-Computer Interface: Stimulation for Sensation	Poster	L41–M9	Hall A	23 Wed	1–5 p.m.	
762	Posture and Gait II	Poster	M10–M32	Hall A	23 Wed	1–5 p.m.	
763	High-Level Control of Posture and Gait	Poster	M33–N16	Hall A	23 Wed	1–5 p.m.	
764	Impairments of Posture and Gait	Poster	N17–N45	Hall A	23 Wed	1–5 p.m.	
Theme F – Integrative Physiology and Behavior							
005	Sex Differences in Drug Craving and Addiction-Like Behaviors in Rodent Models	Minisymposium		Room S102	19 Sat	1:30–4 p.m.	2.5
067	Invertebrate Sensory-Motor Integration	Poster	O27–P5	Hall A	19 Sat	1–5 p.m.	
068	Vertebrate Sensory-Motor Integration	Poster	P6–P25	Hall A	19 Sat	1–5 p.m.	
069	Neural and Contextual Modulation of Affiliative Behavior	Poster	P26–Q13	Hall A	19 Sat	1–5 p.m.	
070	Stress and the Inflammatory/Immune Response	Poster	Q14–R10	Hall A	19 Sat	1–5 p.m.	
071	Autonomic Regulation: Gastrointestinal, Renal, Urinary, and Reproductive Regulation	Poster	R11–T2	Hall A	19 Sat	1–5 p.m.	
072	Autonomic Regulation: Thermoregulation, Inflammation, and Other Interactions	Poster	T3–T18	Hall A	19 Sat	1–5 p.m.	
073	Feeding and Food-Related Disorders	Poster	T19–U10	Hall A	19 Sat	1–5 p.m.	
147	Maternal and Adolescent Behavior and Physiology	Poster	N17–N46	Hall A	20 Sun	8 a.m.–noon	
148	Somatic Influences on the Brain and Vice Versa	Poster	O1–O16	Hall A	20 Sun	8 a.m.–noon	
149	Neuropeptide Regulation: Feeding and Metabolism	Poster	O17–O40	Hall A	20 Sun	8 a.m.–noon	

SESSION # / SESSION TITLE		SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
192	Information Seeking From Flies to Human	Nanosymposium		Room N426	20 Sun	1–3:15 p.m.	
193	Functional Role of Sleep	Nanosymposium		Room S404	20 Sun	1–4:15 p.m.	
232	Vocalization and Social Behavior in Songbirds I	Poster	P4–P25	Hall A	20 Sun	1–5 p.m.	
233	Vocalization and Social Behavior in Songbirds II	Poster	P26–Q13	Hall A	20 Sun	1–5 p.m.	
259	Insights Into Neural Coding and Behavior From Large-Scale Population Recordings Across Cortical Areas	Minisymposium		Room S406B	21 Mon	8:30–11 a.m.	2.5
269	Neural Mechanisms for Controlling Continuous Action	Nanosymposium		Room S403	21 Mon	8–11:15 a.m.	
319	Stress-Modulated Pathways: Hypothalamus, Amygdala, and Bed Nucleus	Poster	S10–T19	Hall A	21 Mon	8 a.m.–noon	
320	CRF in Stress-Modulated Pathways: Hypothalamus, Amygdala, and Bed Nucleus	Poster	T20–U20	Hall A	21 Mon	8 a.m.–noon	
321	Stress-Modulated Pathways: Brainstem and Others	Poster	U21–	Hall A	21 Mon	8 a.m.–noon	
322	Stress, Cognition, and Behavior: Animal Studies	Poster	V1–V27	Hall A	21 Mon	8 a.m.–noon	
345	Cortical Disinhibitory Circuits: Cell Types, Connectivity, and Function	Symposium		Room S100BC	21 Mon	1:30–4 p.m.	2.5
408	Hormone Modulation of Behavior and Physiology I	Poster	T15–U14	Hall A	21 Mon	1–5 p.m.	
409	Early-Life Stress	Poster	U15–V3	Hall A	21 Mon	1–5 p.m.	
410	Circadian Aspects of Sleep and Gap Junctions	Poster	V4–V24	Hall A	21 Mon	1–5 p.m.	
434	Special Lecture- Flies and Alcohol: An Interplay of Nature and Nurture	Lecture		Hall B	22 Tue	9–10:10 a.m.	1.25
451	Stress and Trauma: Adaptive Mechanisms	Nanosymposium		Room S404	22 Tue	8–10 a.m.	
452	Homeostatic Circuits, Feeding, and Energy Balance	Nanosymposium		Room S505	22 Tue	8–9:45 a.m.	
498	Vocalization and Social Behavior in Non-Avian Species	Poster	R4–S2	Hall A	22 Tue	8 a.m.–noon	
499	Hormone Modulation of Behavior and Physiology II	Poster	S3–T14	Hall A	22 Tue	8 a.m.–noon	
500	Behavioral Responses to Stress	Poster	T15–U7	Hall A	22 Tue	8 a.m.–noon	
501	Functional Brain Imaging and Multimodal Imaging	Poster	U8–V21	Hall A	22 Tue	8 a.m.–noon	
503	Sleep Regulation	Poster	V22–V35	Hall A	22 Tue	8 a.m.–noon	
528	Neural Circuit and Plasticity Mechanisms of Cognitive Control of Feeding Behavior	Symposium		Room S100A	22 Tue	1:30:00	2.5
532	Redefining Neuromodulation of Behavior: Impact of a Modular Locus Coeruleus Architecture	Minisymposium		Room S102	22 Tue	1:30:00	2.5
586	Hormone Modulation of Behavior and Physiology III	Poster	O4–O33	Hall A	22 Tue	1–5 p.m.	
587	Stress and Adolescence	Poster	O34–P2	Hall A	22 Tue	1–5 p.m.	
588	Stress-Modulated Pathways	Poster	P3–P30	Hall A	22 Tue	1–5 p.m.	
589	Brain Blood Flow, Metabolism, and Homeostasis	Poster	P31–Q16	Hall A	22 Tue	1–5 p.m.	
590	Sleep Mechanisms	Poster	Q17–S6	Hall A	22 Tue	1–5 p.m.	
591	Food Intake and Energy Balance: Integration of Peripheral Signals	Poster	S7–T7	Hall A	22 Tue	1–5 p.m.	
620	Regulation and Dysregulation of Activity Homeostasis in Central Neural Circuits	Minisymposium		Room S406B	23 Wed	8:30–11 a.m.	2.5
636	Sex Differences in Response to Stress	Nanosymposium		Room N427	23 Wed	8–11:15 a.m.	
672	Neural and Contextual Modulation of Sexual Behavior	Poster	N10–N30	Hall A	23 Wed	8 a.m.–noon	
673	Hormone Modulation of Behavior and Physiology IV	Poster	N31–O11	Hall A	23 Wed	8 a.m.–noon	
674	Neuroinflammation: Pathophysiological Consequences	Poster	O12–O33	Hall A	23 Wed	8 a.m.–noon	
675	Neuroinflammation: Neurophysiological Responses	Poster	O34––P17	Hall A	23 Wed	8 a.m.–noon	
676	Neuroinflammation: Cognition and Behavioral Responses	Poster	P18–P41	Hall A	23 Wed	8 a.m.–noon	
677	Blood-Brain Barrier: Control and Mechanisms	Poster	P42–Q12	Hall A	23 Wed	8 a.m.–noon	
678	Sleep Mechanisms and Function	Poster	Q13–R20	Hall A	23 Wed	8 a.m.–noon	
679	Circadian Clocks	Poster	S1–S11	Hall A	23 Wed	8 a.m.–noon	

SESSION #	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
680	Central Regulation of Thirst and Water Balance	Poster	S12–T5	Hall A	23 Wed	8 a.m.–noon	
681	Development: Diet and Metabolism	Poster	T6–U7	Hall A	23 Wed	8 a.m.–noon	
682	Food Reward	Poster	U8–U28	Hall A	23 Wed	8 a.m.–noon	
683	Central Pathways Controlling Food Intake and Energy Balance	Poster	U29–V12	Hall A	23 Wed	8 a.m.–noon	
765	Stress Response: Sex Differences	Poster	N46–O23	Hall A	23 Wed	1–5 p.m.	
766	Gulf War Illness: Pathological Causes and Consequences	Poster	O24–O43	Hall A	23 Wed	1–5 p.m.	
767	Cellular Response to Stress	Poster	O44–P18	Hall A	23 Wed	1–5 p.m.	
768	Preclinical and Human Studies in Neurovascular Coupling Mechanisms	Poster	P19–Q6	Hall A	23 Wed	1–5 p.m.	
769	Cardiovascular Regulation I	Poster	Q7–R8	Hall A	23 Wed	1–5 p.m.	
770	Cardiovascular Regulation II	Poster	R9–S5	Hall A	23 Wed	1–5 p.m.	
771	Biological Rhythms: Entrainment and Phase Shifts	Poster	S6–T7	Hall A	23 Wed	1–5 p.m.	
Theme G – Motivation and Emotion							
002	Epigenetic Mechanisms: Shared Pathology Across Brain Disorders	Symposium		Room S100A	19 Sat	1:30–4 p.m.	2.5
018	Neural Circuits, Memory, and Emotion	Nanosymposium		Room S403	19 Sat	1–4:30 p.m.	
074	Fear and Aversive Learning and Memory: Extinction	Poster	U11–U30	Hall A	19 Sat	1–5 p.m.	
075	Neural Mechanisms Underlying Motivated Behaviors and Addiction	Poster	U31–V9	Hall A	19 Sat	1–5 p.m.	
076	Stress and Mood Disorders: Animal Studies	Poster	V10–V32	Hall A	19 Sat	1–5 p.m.	
077	Cognitive Effects of Abused Substances	Poster	V33–V46	Hall A	19 Sat	1–5 p.m.	
078	Mechanisms Underlying Alcohol Consumption I	Poster	W1–W25	Hall A	19 Sat	1–5 p.m.	
079	Alcohol's Effects on the Brain	Poster	W26–W43	Hall A	19 Sat	1–5 p.m.	
080	Nicotine, Reward, and Dependence	Poster	W44–X18	Hall A	19 Sat	1–5 p.m.	
100	CLINICAL NEUROSCIENCE LECTURE- From Pecking Order to Ketamine: Neural Mechanisms of Social and Emotional Behaviors	Lecture		Hall B	20 Sun	10:30–11:40 a.m.	1.25
109	Neural and Molecular Mechanisms of Alcohol and Substance Use Disorders	Nanosymposium		Room S106	20 Sun	8–11:15 a.m.	
150	Appetitive and Incentive Learning and Memory I	Poster	O41–P19	Hall A	20 Sun	8 a.m.–noon	
151	Fear and Aversive Learning and Memory: Acquisition	Poster	P20–P37	Hall A	20 Sun	8 a.m.–noon	
152	Human Motivation and Emotion I	Poster	P38–R1	Hall A	20 Sun	8 a.m.–noon	
153	Human Motivation and Emotion II	Poster	R2–S1	Hall A	20 Sun	8 a.m.–noon	
154	Drugs of Abuse: Learning and Memory I	Poster	S2–T3	Hall A	20 Sun	8 a.m.–noon	
155	Mechanisms Underlying Alcohol Consumption II	Poster	T4–U1	Hall A	20 Sun	8 a.m.–noon	
156	Neural and Behavioral Mechanisms of Addiction: Amphetamine	Poster	U2–U26	Hall A	20 Sun	8 a.m.–noon	
157	Cocaine Relapse	Poster	U27–V5	Hall A	20 Sun	8 a.m.–noon	
179	Cannabis and the Developing Brain: Insights Into Its Long-Lasting Effects	Minisymposium		Room S100BC	20 Sun	1:30–4 p.m.	2.5
194	Cortical and Subcortical Mechanisms of Aversive Processing	Nanosymposium		Room S104	20 Sun	1–2:45 p.m.	
234	Reward, Value, and Decisions	Poster	Q14–S2	Hall A	20 Sun	1–5 p.m.	
235	Emotion: Positive and Negative Emotional States	Poster	S3–T9	Hall A	20 Sun	1–5 p.m.	
236	Depression: Pathology	Poster	T10–U2	Hall A	20 Sun	1–5 p.m.	
237	Genetic and Molecular Mechanisms Underlying Alcohol Dependence	Poster	U3–U25	Hall A	20 Sun	1–5 p.m.	
238	Addiction Treatment	Poster	U26–U40	Hall A	20 Sun	1–5 p.m.	
239	Neural Mechanisms of Addiction: Amphetamines	Poster	V1–V18	Hall A	20 Sun	1–5 p.m.	
240	Opioids: Mechanisms of Dependence	Poster	V19–W2	Hall A	20 Sun	1–5 p.m.	
260	Ventral Tegmental Area (VTA) Cell Heterogeneity in Health and Disease	Minisymposium		Room S102	21 Mon	8:30–11 a.m.	2.5

SESSION #	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
262	Mechanisms of Drug Addiction: A Translational Perspective	Basic-Translational-Clinical Roundtables		Room N230B	21 Mon	8:30 – 11 a.m.	2.5
270	Neural Mechanisms Underlying Depression and Anxiety	Nanosymposium		Room S505	21 Mon	8–11 a.m.	
323	Reward: Neuropharmacology	Poster	V28–W1	Hall A	21 Mon	8 a.m.–noon	
324	Subcortical Circuitry: Reward Seeking and Reinforcement	Poster	W2–W29	Hall A	21 Mon	8 a.m.–noon	
325	Neural Mechanisms of Social Communication and Motivated Behaviors	Poster	W30–X13	Hall A	21 Mon	8 a.m.–noon	
326	Emotion: Fear, Anxiety, and Pain I	Poster	X14–X39	Hall A	21 Mon	8 a.m.–noon	
327	Consequences of Alcohol and Drug Exposure During Development	Poster	X40–Y21	Hall A	21 Mon	8 a.m.–noon	
328	Cocaine Craving	Poster	Y22–Y42	Hall A	21 Mon	8 a.m.–noon	
329	Opioids, Dependence, Withdrawal, and Reward	Poster	Y43–Z28	Hall A	21 Mon	8 a.m.–noon	
359	Subcortical Circuitry in Reward, Motivation, and Aversion	Nanosymposium		Room S505	21 Mon	1–3:15 p.m.	
411	Fear and Aversive Learning and Memory: Circuits I	Poster	V25–V45	Hall A	21 Mon	1–5 p.m.	
412	Fear Conditioning, Extinction, and Aggression	Poster	V46–W10	Hall A	21 Mon	1–5 p.m.	
413	Depression in Patient Subpopulations	Poster	W11–W34	Hall A	21 Mon	1–5 p.m.	
414	Neural Circuits Underlying Alcohol Dependence	Poster	W35–X13	Hall A	21 Mon	1–5 p.m.	
415	Neural and Behavioral Mechanisms of Addiction: Cocaine	Poster	X14–X36	Hall A	21 Mon	1–5 p.m.	
416	Factors Influencing Cocaine Use	Poster	X37–Y1	Hall A	21 Mon	1–5 p.m.	
417	Opioids: Mechanisms Underlying Seeking Behavior	Poster	Y2–Y31	Hall A	21 Mon	1–5 p.m.	
435	The Paraventricular Thalamus (PVT): Salience and Timing Orchestrator for Learning and Deciding	Symposium		Room S100BC	22 Tue	8:30–11 a.m.	2.5
453	Effects of Cocaine Use	Nanosymposium		Room S401	22 Tue	8–11 a.m.	
504	Appetitive and Incentive Learning and Memory II	Poster	V36–W10	Hall A	22 Tue	8 a.m.–noon	
505	Fear and Aversive Learning and Memory: Circuits II	Poster	W11–W24	Hall A	22 Tue	8 a.m.–noon	
506	Mechanisms Underlying Decision-Making, Motivation, and Reinforcement	Poster	W25–239	Hall A	22 Tue	8 a.m.–noon	
507	Stress, Anxiety, and Aversion	Poster	W40–X14	Hall A	22 Tue	8 a.m.–noon	
508	Mood Disorders: Depression and Bipolar Disorders: Clinical Studies	Poster	X15–X35	Hall A	22 Tue	8 a.m.–noon	
509	Depression and Bipolar Disorders: Ketamine in Animal Studies	Poster	X36–Y9	Hall A	22 Tue	8 a.m.–noon	
510	Psychostimulant Actions on Neural Circuits	Poster	Y10–Y26	Hall A	22 Tue	8 a.m.–noon	
511	Drugs of Abuse: Learning and Memory II	Poster	Y27–Z2	Hall A	22 Tue	8 a.m.–noon	
592	Subcortical Circuitry Motivation, Compulsive Behavior, and Psychostimulants	Poster	T8–U5	Hall A	22 Tue	1–5 p.m.	
593	Emotion: Neurocircuitry	Poster	U6–U29	Hall A	22 Tue	1–5 p.m.	
594	Emotion: Fear, Anxiety, and Pain II	Poster	U30– V14	Hall A	22 Tue	1–5 p.m.	
595	Human Studies: Fear and Anxiety	Poster	V15–V33	Hall A	22 Tue	1–5 p.m.	
596	Stress and Anxiety	Poster	V34–W10	Hall A	22 Tue	1–5 p.m.	
597	Cocaine: Behavior, Circuits, and Mechanisms	Poster	W11–W30	Hall A	22 Tue	1–5 p.m.	
598	Neural Mechanisms Underlying Cocaine Use and Abuse	Poster	W31–X15	Hall A	22 Tue	1–5 p.m.	
621	Brain Circuits for the Selection and Scaling of Defensive Behavior	Minisymposium		Room S105	23 Wed	8:30–11 a.m.	2.5
684	Depression: Physiology, Pharmacology, and Treatment	Poster	V13–V35	Hall A	23 Wed	8 a.m.–noon	
685	Mechanisms Underlying Depression and Anxiety	Poster	V36–W11	Hall A	23 Wed	8 a.m.–noon	
686	Psychiatric Disorder: Rodent Models	Poster	W12–W26	Hall A	23 Wed	8 a.m.–noon	
687	Other Psychiatric Disorders	Poster	W27–W39	Hall A	23 Wed	8 a.m.–noon	
688	Mechanisms Underlying Reward Dependence	Poster	W40–X10	Hall A	23 Wed	8 a.m.–noon	
689	Neurobehavioral Effects of Cannabinoids	Poster	X11–X26	Hall A	23 Wed	8 a.m.–noon	

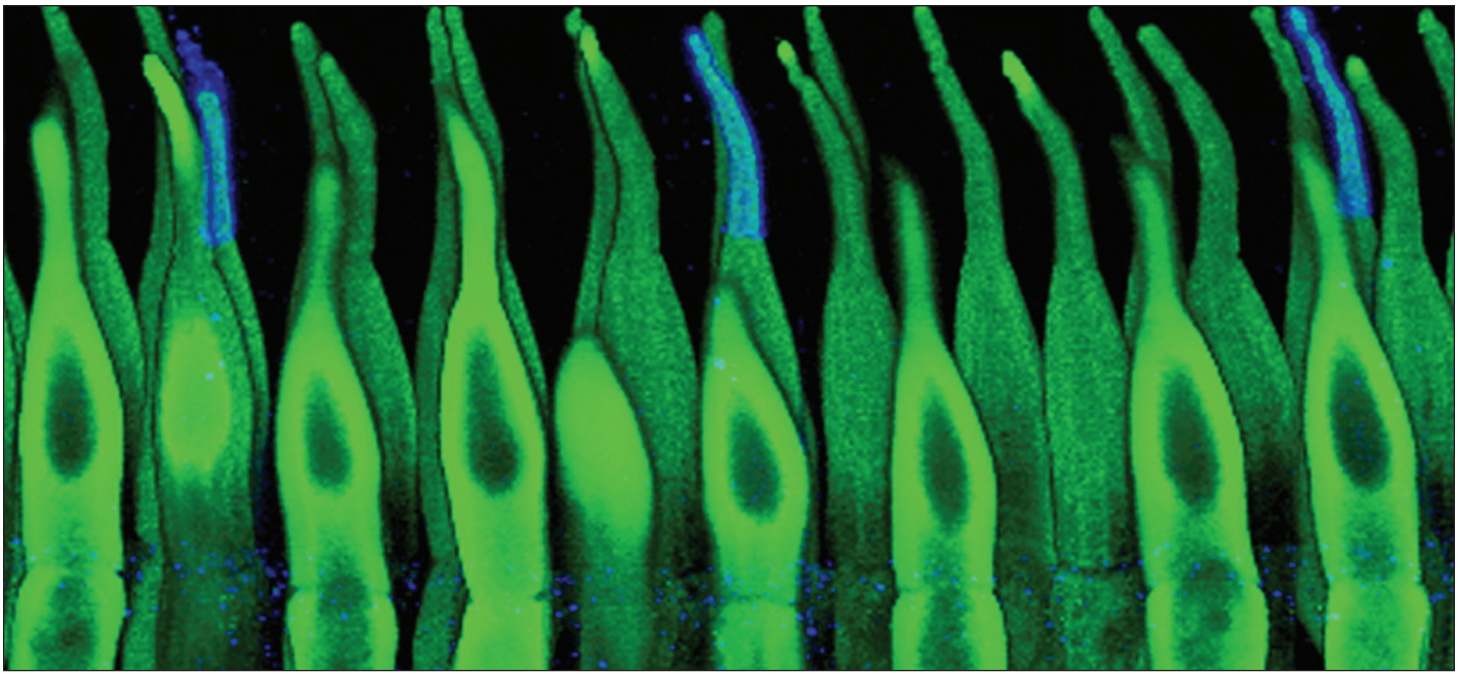
SESSION #	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
716	Special Lecture- The Neurobiology of Long-Term Memory: Key Molecules, Diverse Cell Types, Temporal Dynamics, and Critical Periods	Lecture		Hall B	23 Wed	3–4:10 p.m.	1.25
772	Fear and Aversive Learning and Memory: Modulatory Factors	Poster	T8–U8	Hall A	23 Wed	1–5 p.m.	
773	Dopamine, Reward, and Reinforcement	Poster	U9–38	Hall A	23 Wed	1–5 p.m.	
774	Social Behavior: Systems and Circuits	Poster	U39–V14	Hall A	23 Wed	1–5 p.m.	
775	Mood Disorders: Circuits and Synapses	Poster	V15–V31	Hall A	23 Wed	1–5 p.m.	
776	Mood Disorders: Molecular Mechanisms and Approaches	Poster	V32–W9	Hall A	23 Wed	1–5 p.m.	
777	Mood Disorders: Depression and Bipolar Disorders: Animal Studies	Poster	W10–W38	Hall A	23 Wed	1–5 p.m.	
778	Depression and Bipolar Disorders: Treatment Strategies in Animal Studies	Poster	W39–X22	Hall A	23 Wed	1–5 p.m.	
779	Post-Traumatic Stress Disorder	Poster	X23–X43	Hall A	23 Wed	1–5 p.m.	
780	Post-Traumatic Stress Disorder: Preclinical Models	Poster	X44–U26	Hall A	23 Wed	1–5 p.m.	
781	Nicotine, Mechanisms of Dependence, and Reward	Poster	Y27–Y42	Hall A	23 Wed	1–5 p.m.	
Theme H – Cognition							
006	Brain Mechanisms of Concept Learning	Minisymposium		Room S105	19 Sat	1:30–4 p.m.	2.5
019	Social Cognition: Behavior and Neural Mechanisms I	Nanosymposium		Room S505	19 Sat	1–2:45 p.m.	
081	Network Activity	Poster	X19–X43	Hall A	19 Sat	1–5 p.m.	
082	Memory Consolidation and Reconsolidation: Neural Circuit Mechanisms	Poster	X44–Y13	Hall A	19 Sat	1–5 p.m.	
083	Cortical and Cortico-Hippocampal Circuits: Spatial Navigation I	Poster	Y14–Y24	Hall A	19 Sat	1–5 p.m.	
084	Hippocampal and Cortical Circuits: Memory, Head Direction, and Spatial Codes	Poster	Y25–Z1	Hall A	19 Sat	1–5 p.m.	
085	Learning, Habit, and Compulsion	Poster	Z2–Z20	Hall A	19 Sat	1–5 p.m.	
086	Hippocampus: Dentate Gyrus	Poster	Z21–Z38	Hall A	19 Sat	1–5 p.m.	
087	Schizophrenia: Animal Models and Genetic Studies	Poster	Z39–AA26	Hall A	19 Sat	1–5 p.m.	
094	Opening the Black Box of the Hippocampus: Visualizing Memories in Distinct Cell Types, Microcircuits, and Cellular Compartments	Symposium		Room S100BC	20 Sun	8:30–11 a.m.	2.5
101	Special Lecture- The Brain From Inside Out	Lecture		Hall B	20 Sun	Noon–1:10 p.m.	1.25
110	Representations of Value and Economic Choice Across Different Brain Regions	Nanosymposium		Room N427	20 Sun	8–9:45 a.m.	
111	Language: Physiology, Plasticity, and Cognition	Nanosymposium		Room S402	20 Sun	8–10:45 a.m.	
112	Modeling of Schizophrenia Relevant Risk Factors	Nanosymposium		Room S401	20 Sun	8–9:45 a.m.	
158	Hippocampal Function	Poster	V6–V15	Hall A	20 Sun	8 a.m.–noon	
159	Decision Making: Lateral Prefrontal Cortex	Poster	V16–V32	Hall A	20 Sun	8 a.m.–noon	
160	Memory Consolidation and Reconsolidation: Behavior	Poster	V33–W11	Hall A	20 Sun	8 a.m.–noon	
161	Hippocampus: Intrinsic Hippocampal Circuits	Poster	W12–W28	Hall A	20 Sun	8 a.m.–noon	
162	Hippocampal Dynamics in Learning and Memory	Poster	W29–X11	Hall A	20 Sun	8 a.m.–noon	
163	Learning and Memory: Physiology I	Poster	X12–X21	Hall A	20 Sun	8 a.m.–noon	
164	Cortical Hippocampal Circuits: Time and Memory	Poster	X22–X42	Hall A	20 Sun	8 a.m.–noon	
165	Cortical and Cortico-Hippocampal Circuits: Spatial Navigation II	Poster	X43–Y16	Hall A	20 Sun	8 a.m.–noon	
166	Human Perception and Imagery I	Poster	Y17–Y34	Hall A	20 Sun	8 a.m.–noon	
167	Human Long-Term Memory: Medial Temporal Lobe I	Poster	Y35–YZ12	Hall A	20 Sun	8 a.m.–noon	
168	Human Long-Term Memory: Encoding and Retrieval I	Poster	Z13–Z29	Hall A	20 Sun	8 a.m.–noon	
169	Human Long-Term Memory: Encoding and Retrieval II	Poster	Z30–AA8	Hall A	20 Sun	8 a.m.–noon	
170	Encoding and Retrieval in High-Level Content and Naturalistic Protocols	Poster	AA9–AA21	Hall A	20 Sun	8 a.m.–noon	

SESSION #	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
171	Human Social Cognition: Behavior, Mechanisms, and Disorders I	Poster	AA22–AA43	Hall A	20 Sun	8 a.m.–noon	
180	Cognitive Cerebellum: Role in Motivation, Emotion, Executive, Social, and Sensory Processing	Minisymposium		Room S102	20 Sun	1:30–4 p.m.	2.5
195	Medial Temporal Lobe in Learning and Memory	Nanosymposium		Room S402	20 Sun	1–3:15 p.m.	
241	Decision Making: Rodent Medial Prefrontal Cortex	Poster	W3–W23	Hall A	20 Sun	1–5 p.m.	
242	Learning and Memory: Cortical-Hippocampal Interactions I	Poster	W24–X8	Hall A	20 Sun	1–5 p.m.	
243	Memory Engrams	Poster	X9–X29	Hall A	20 Sun	1–5 p.m.	
244	Hippocampus and Cognition	Poster	X30–X42	Hall A	20 Sun	1–5 p.m.	
245	Time Perception	Poster	X43–Y39	Hall A	20 Sun	1–5 p.m.	
247	Cognitive Aging Disorders in Humans	Poster	Y40–Z24	Hall A	20 Sun	1–5 p.m.	
248	Human: Timing and Temporal Processing	Poster	Z25–AA3	Hall A	20 Sun	1–5 p.m.	
249	Human Social Cognition: Behavior, Mechanisms, and Disorders II	Poster	AA4–AA25	Hall A	20 Sun	1–5 p.m.	
271	Learning and Memory: Genes and Signaling	Nanosymposium		Room S104	21 Mon	8–10:30 a.m.	
272	Basic, Theoretical, and Translational Research on Human Spatial Cognition	Nanosymposium		Room S405	21 Mon	8–11:30 a.m.	
273	Learning and Decision-Making	Nanosymposium		Room S106	21 Mon	8–10:30 a.m.	
274	Social Cognition: Behavior and Neural Mechanisms II	Nanosymposium		Room S401	21 Mon	8–10:30 a.m.	
330	New Methods for Studying Cognition	Poster	Z29–AA2	Hall A	21 Mon	8 a.m.–noon	
331	Attention	Poster	AA3–AA25	Hall A	21 Mon	8 a.m.–noon	
332	Decision Making: Medial Prefrontal Cortex	Poster	A26–AA39	Hall A	21 Mon	8 a.m.–noon	
333	Hippocampus: Spatial Maps, Reward, and Replay	Poster	AA40–BB10	Hall A	21 Mon	8 a.m.–noon	
334	Genetic and Molecular Mechanisms of Memory Formation	Poster	BB11–BB23	Hall A	21 Mon	8 a.m.–noon	
335	Learning and Memory: Cortical-Hippocampal Interactions II	Poster	BB24–BB53	Hall A	21 Mon	8 a.m.–noon	
336	Learning and Memory: Physiology II	Poster	BB54–BB67	Hall A	21 Mon	8 a.m.–noon	
337	Human Long-Term Memory: Medial Temporal Lobe II	Poster	BB68–CC2	Hall A	21 Mon	8 a.m.–noon	
338	Neural Correlates of Language Processing	Poster	CC3–CC29	Hall A	21 Mon	8 a.m.–noon	
339	Language Acquisition and Coding	Poster	CC30–CC57	Hall A	21 Mon	8 a.m.–noon	
348	Awakening the Engram: The Etiological Role of Engram Cells for Memory Formation, Storage, and Retrieval in Health and Disease	Minisymposium		Room S406A	21 Mon	1:30–4 p.m.	2.5
360	Learning and Memory: Cortical-Hippocampal Interactions	Nanosymposium		Room N427	21 Mon	1–2:45 p.m.	
361	Decision Making	Nanosymposium		Room S404	21 Mon	1–4:15 p.m.	
418	Attention and Neuromodulation	Poster	Y32–Z6	Hall A	21 Mon	1–5 p.m.	
419	Mechanisms Underlying Learning and Memory in Invertebrates	Poster	Z7–Z26	Hall A	21 Mon	1–5 p.m.	
420	Thalamic and Brainstem Circuits	Poster	Z27–Z37	Hall A	21 Mon	1–5 p.m.	
421	Human Learning: Feedback, Reinforcement, and Reward	Poster	Z38–AA22	Hall A	21 Mon	1–5 p.m.	
422	Human Long-Term Memory: Medial Temporal Lobe III	Poster	AA23–AA42	Hall A	21 Mon	1–5 p.m.	
423	Human Long-Term Memory: Modulation	Poster	AA43–BB27	Hall A	21 Mon	1–5 p.m.	
424	Cognition and Connectivity	Poster	BB28–BB57	Hall A	21 Mon	1–5 p.m.	
425	Development, Cognition, and Connectivity	Poster	BB58–BB85	Hall A	21 Mon	1–5 p.m.	
426	Subcortical-Cortical Interactions	Poster	CC1–CC10	Hall A	21 Mon	1–5 p.m.	
427	Personalized Brain Signatures	Poster	CC11–CC33	Hall A	21 Mon	1–5 p.m.	

SESSION #	SESSION TITLE	SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
428	Animal Models of Risk Factors for Schizophrenia	Poster	CC34–CC48	Hall A	21 Mon	1–5 p.m.	
440	Naturalistic Paradigms in Awake Monkeys: Bridging fMRI and Extra-Cellular Activities	Minisymposium		Room S406B	22 Tue	8:30–11 a.m.	2.5
454	Medial Temporal Lobe in Learning and Memory During Development	Nanosymposium		Room S405	22 Tue	8–10:15 a.m.	
455	Working Memory: Mechanisms I	Nanosymposium		Room S104	22 Tue	8–10:15 a.m.	
512	Economic Decision-Making	Poster	Z3–Z18	Hall A	22 Tue	8 a.m.–noon	
513	Mechanisms Underlying Memory Formation	Poster	Z19–Z38	Hall A	22 Tue	8 a.m.–noon	
514	Decision Making: Orbitofrontal Cortex	Poster	Z39–AA20	Hall A	22 Tue	8 a.m.–noon	
515	Working Memory: Prefrontal Cortex I	Poster	ZZ21–BB1	Hall A	22 Tue	8 a.m.–noon	
516	Human Perceptual and Spatial Learning	Poster	BB2–BB22	Hall A	22 Tue	8 a.m.–noon	
517	Human Working Memory: Mechanisms I	Poster	BB23–BB43	Hall A	22 Tue	8 a.m.–noon	
518	Human Decision-Making and Reasoning: Cognition and Computations I	Poster	BB44–BB67	Hall A	22 Tue	8 a.m.–noon	
519	Clinical and Biomarker Research in Schizophrenia	Poster	BB68–C2	Hall A	22 Tue	8 a.m.–noon	
526	Special Lecture- Evolution and Dissolution of Memories Over Time	Lecture		Hall B	22 Tue	1:30–2:40 p.m.	1.25
545	Molecular Mechanisms of Memory Formation and Reconsolidation	Nanosymposium		Room N227	22 Tue	1–2:45 p.m.	
546	Working Memory: Mechanisms II	Nanosymposium		Room S402	22 Tue	1–3:15 p.m.	
599	Decision Making and Action Selection	Poster	X16–X40	Hall A	22 Tue	1–5 p.m.	
600	Working Memory, Aging, and the Hippocampus	Poster	X41–Y18	Hall A	22 Tue	1–5 p.m.	
601	Neural Circuits for Learning and Memory	Poster	Y18–Z2	Hall A	22 Tue	1–5 p.m.	
602	Learning and Memory: Genes and Signaling	Poster	Z3–Z12	Hall A	22 Tue	1–5 p.m.	
603	Memory and Cognition	Poster	Z13–Z38	Hall A	22 Tue	1–5 p.m.	
604	Cortical and Cortico-Hippocampal Circuits: Spatial Navigation III	Poster	Z39–AA24	Hall A	22 Tue	1–5 p.m.	
605	Cortical Oscillations II	Poster	AA25–BB6	Hall A	22 Tue	1–5 p.m.	
606	Decisions: Action and Corticostriatal Circuits	Poster	BB7–BB31	Hall A	22 Tue	1–5 p.m.	
607	Human Long-Term Memory: Encoding and Retrieval III	Poster	BB32–BB51	Hall A	22 Tue	1–5 p.m.	
608	Human Decision-Making and Reasoning: Cognition and Computations II	Poster	BB52–BB73	Hall A	22 Tue	1–5 p.m.	
609	Decision Making II	Poster	BB74–CC2	Hall A	22 Tue	1–5 p.m.	
610	Schizophrenia Models and Drug Development	Poster	CC3–CC32	Hall A	22 Tue	1–5 p.m.	
622	Grid-Like Hexadirectional Modulation of Neural Activity in Humans	Minisymposium		Room S100BC	23 Wed	8:30–11 a.m.	2.5
637	The Use of Transcranial Magnetic Stimulation to Modulate Human Memory	Nanosymposium		Room S402	23 Wed	8–10 a.m.	
690	Working Memory: Prefrontal Cortex II	Poster	X27–X46	Hall A	23 Wed	8 a.m.–noon	
691	Memory Consolidation and Reconsolidation: Molecular Mechanisms	Poster	Y1–Y40	Hall A	23 Wed	8 a.m.–noon	
693	Learning and Memory: Aging	Poster	Y41–Z14	Hall A	23 Wed	8 a.m.–noon	
694	Cortical and Cortico-Hippocampal Circuits: Spatial Navigation IV	Poster	Z15–AA2	Hall A	23 Wed	8 a.m.–noon	
695	Human Perception and Imagery II	Poster	AA3–AA29	Hall A	23 Wed	8 a.m.–noon	
696	Human Motor and Sequence Learning I	Poster	AA29–BB2	Hall A	23 Wed	8 a.m.–noon	
697	Human Motor and Sequence Learning II	Poster	BB3–BB18	Hall A	23 Wed	8 a.m.–noon	
698	Human Long-Term Memory: Encoding and Retrieval IV	Poster	BB19–BB38	Hall A	23 Wed	8 a.m.–noon	
699	Attention and Cognition	Poster	BB39–BB68	Hall A	23 Wed	8 a.m.–noon	
700	Attention Networks	Poster	BB69–CC3	Hall A	23 Wed	8 a.m.–noon	

SESSION # / SESSION TITLE		SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
701	Language Disorders	Poster	CC4–CC16	Hall A	23 Wed	8 a.m.–noon	
709	Special Lecture- Neural Codes for Natural Behaviors in Flying Bats	Lecture		Hall B	23 Wed	1:30–2:40 p.m.	1.25
723	Neural and Molecular Mechanisms of Memory	Nanosymposium		Room S104	23 Wed	1–4:15 p.m.	
724	Human Executive Functioning	Nanosymposium		Room S401	23 Wed	1:00:00	
725	Human Imaging and Connectivity	Nanosymposium		Room N427	23 Wed	1–3:30 p.m.	
726	Personalized Brain Signatures	Nanosymposium		Room N426	23 Wed	1:00:00	
782	Learning and Memory	Poster	Y43–Z20	Hall A	23 Wed	1–5 p.m.	
783	Inhibitory Control	Poster	Z21–Z35	Hall A	23 Wed	1–5 p.m.	
784	Social Memory and Cognition I	Poster	Z36–AA12	Hall A	23 Wed	1–5 p.m.	
785	Social Memory and Cognition II	Poster	AA13–AA38	Hall A	23 Wed	1–5 p.m.	
786	Learning and Memory: Subcortical-Hippocampal Interactions	Poster	AA39–BB5	Hall A	23 Wed	1–5 p.m.	
787	Hippocampus, Engrams, and Memory	Poster	BB6–BB17	Hall A	23 Wed	1–5 p.m.	
788	Hippocampus: Learning	Poster	BB18–BB27	Hall A	23 Wed	1–5 p.m.	
789	Intrinsic Hippocampal Circuits: Spatial Navigation	Poster	BB28–BB52	Hall A	23 Wed	1–5 p.m.	
790	Human Perception and Imagery III	Poster	BB53–BB72	Hall A	23 Wed	1–5 p.m.	
791	Human Working Memory: Mechanisms II	Poster	BB73–CC7	Hall A	23 Wed	1–5 p.m.	
792	Cognitive Aging II	Poster	CC8–CC34	Hall A	23 Wed	1–5 p.m.	
793	Physiological and Cognitive Factors Associated With Healthy Aging	Poster	CC35–CC44	Hall A	23 Wed	1–5 p.m.	
Theme I – Techniques							
007	BRAIN Initiative: Cutting-Edge Tools and Resources for the Community	Minisymposium		Room S406A	19 Sat	1:30–4 p.m.	2.5
020	High Density Neural Recordings	Nanosymposium		Room S103	19 Sat	1–3:30 p.m.	
088	Molecular and Biochemical Techniques	Poster	AA27–BB1	Hall A	19 Sat	1–5 p.m.	
089	Connectomics Analytics I	Poster	BB1–BB18	Hall A	19 Sat	1–5 p.m.	
090	Physiological Methods	Poster	BB19–BB38	Hall A	19 Sat	1–5 p.m.	
091	Techniques: Cellular Electrophysiology	Poster	BB39–BB51	Hall A	19 Sat	1–5 p.m.	
092	Connectomics Analytics II	Poster	BB52–BB81	Hall A	19 Sat	1–5 p.m.	
093	Special Lecture- Theoretical Neuroscience: Decision Making and Its Discontents	Lecture		Hall B	20 Sun	9–10:10 a.m.	1.25
172	Genetic and Genome Engineering Techniques	Poster	AA44–BB29	Hall A	20 Sun	8 a.m.–noon	
173	Anatomic Methods: Image Acquisition I	Poster	BB30–BB40	Hall A	20 Sun	8 a.m.–noon	
174	Anatomic Methods: Image Acquisition II	Poster	BB41–BB70	Hall A	20 Sun	8 a.m.–noon	
175	Drug Delivery	Poster	BB71–BB83	Hall A	20 Sun	8 a.m.–noon	
181	Optical Recording of Neural Transmission: From Tool Development to Applications	Minisymposium		Room S105	20 Sun	1:30–4 p.m.	2.5
250	Transcriptomic and Genomic Analyses	Poster	AA26–BB3	Hall A	20 Sun	1–5 p.m.	
251	Anatomic Methods: Circuit Tracing	Poster	BB4–BB30	Hall A	20 Sun	1–5 p.m.	
252	Connectomics Analytics III	Poster	BB31–BB58	Hall A	20 Sun	1–5 p.m.	
253	Optogenetics I	Poster	BB59–BB78	Hall A	20 Sun	1–5 p.m.	
254	Novel Approaches in Neuromodulation I	Poster	BB79–CC13	Hall A	20 Sun	1–5 p.m.	
261	Artificial Intelligence and Neuroscience: From Neural Dynamics to Artificial Agents	Minisymposium		Room S406A	21 Mon	8:30–11 a.m.	2.5

SESSION # / SESSION TITLE		SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
275	Single-Cell Analysis of Cortical Cell Type Diversity	Nanosymposium		Room S404	21 Mon	8–10:15 a.m.	
340	Software Tools: Analysis I	Poster	CC58–CC78	Hall A	21 Mon	8 a.m.–noon	
341	Electrical Methods to Modulate Neural Activity I	Poster	DD1–DD28	Hall A	21 Mon	8 a.m.–noon	
342	Optogenetics II	Poster	DD29–DD50	Hall A	21 Mon	8 a.m.–noon	
362	Data Analysis: Neuronal Networks	Nanosymposium		Room S402	21 Mon	1–2:30 p.m.	
429	Anatomic Methods: Electron Microscopy	Poster	CC49–CC58	Hall A	21 Mon	1–5 p.m.	
430	Techniques: Microelectrodes I	Poster	CC59–DD5	Hall A	21 Mon	1–5 p.m.	
431	Computational Tools for Neuronal Mapping, Activity, and Networks	Poster	DD6–DD22	Hall A	21 Mon	1–5 p.m.	
432	Software Tools: Analysis II	Poster	DD23–DD45	Hall A	21 Mon	1–5 p.m.	
433	Novel Approaches in Neuromodulation II	Poster	DD46–DD64	Hall A	21 Mon	1–5 p.m.	
436	Brain Somatic Mosaicism: Implications for Development and Disorders	Symposium		Room S100A	22 Tue	8:30–11 a.m.	2.5
456	Human Brain Mapping and Imaging in Health and Diseases	Nanosymposium		Room S402	22 Tue	8–11:30 a.m.	
520	Molecular Structural Imaging	Poster	C3–CC23	Hall A	22 Tue	8 a.m.–noon	
521	Optic Probes	Poster	CC24–CC41	Hall A	22 Tue	8 a.m.–noon	
522	Techniques: Microelectrodes II	Poster	CC42–CC67	Hall A	22 Tue	8 a.m.–noon	
523	Network Theory and Modeling	Poster	CC68–DD16	Hall A	22 Tue	8 a.m.–noon	
524	Computational Tools for Brain and Behavioral Experiments	Poster	DD17–DD33	Hall A	22 Tue	8 a.m.–noon	
525	Software Tools: Imaging	Poster	DD34–DD63	Hall A	22 Tue	8 a.m.–noon	
547	New Technologies for Imaging Neuronal Structure and Activity	Nanosymposium		Room S106	22 Tue	1–4:15 p.m.	
611	Spatial Transcriptomics Techniques	Poster	CC33–CC46	Hall A	22 Tue	1–5 p.m.	
612	Optic Methods: Development and Applications	Poster	CC47–CC73	Hall A	22 Tue	1–5 p.m.	
613	Physiological Methods: Novel Assays	Poster	CC74–DD12	Hall A	22 Tue	1–5 p.m.	
614	Biomarker and Drug Discovery: Neurodegenerative Diseases	Poster	DD13–DD37	Hall A	22 Tue	1–5 p.m.	
615	Neuronal Models of Activity and Disease	Poster	DD38–DD59	Hall A	22 Tue	1–5 p.m.	
616	Network Modeling and Application	Poster	DD60–DD74	Hall A	22 Tue	1–5 p.m.	
623	Timing is Everything: Temporally Irregular Stimulation Patterns for Brain Mapping and Clinical Therapeutics	Minisymposium		Room S406A	23 Wed	8:30–11 a.m.	2.5
638	Genomic Engineering Using Enhancers or CRISPR	Nanosymposium		Room S404	23 Wed	8–10:30 a.m.	
702	Genomic and Proteomic Techniques	Poster	CC17–CC33	Hall A	23 Wed	8 a.m.–noon	
703	Optical Methods: Applications	Poster	CC34–CC60	Hall A	23 Wed	8 a.m.–noon	
704	Biomarker and Drug Discovery: Neuropsychiatric Diseases	Poster	CC61–	Hall A	23 Wed	8 a.m.–noon	
705	Virtual Brain Models	Poster	DD1–DD11	Hall A	23 Wed	8 a.m.–noon	
706	Analytical Computational Models	Poster	DD12–DD34	Hall A	23 Wed	8 a.m.–noon	



SESSION # / SESSION TITLE		SESSION TYPE	POSTER BOARD #	LOCATION	DATE	TIME	CME HOURS
707	Data Analysis: Neuronal Networks	Poster	DD35–DD58	Hall A	23 Wed	8 a.m.–noon	
708	Special Lecture- Extracting Function From Structure: Lessons from the Fly Connectome	Lecture		Hall B	23 Wed	Noon–1:10 p.m.	1.25
715	Advanced Circuit and Cellular Imaging Methods in Non-Human Primates	Minisymposium		Room S105	23 Wed	1:30:00	2.5
727	Advances in Brain Imaging	Nanosymposium		Room S404	23 Wed	1–3:15 p.m.	
728	Modeling Biological Neural Networks	Nanosymposium		Room S103	23 Wed	1–3:45 p.m.	
794	Novel Techniques of Biochemical Analysis	Poster	CC45–CC57	Hall A	23 Wed	1–5 p.m.	
795	Anatomic Methods: Sample Preparation and Novel Probes	Poster	CC58–DD4	Hall A	23 Wed	1–5 p.m.	
796	Techniques: Network Electrophysiology	Poster	DD4–DD28	Hall A	23 Wed	1–5 p.m.	
797	Electrical Methods to Modulate Neural Activity II	Poster	DD29–DD55	Hall A	23 Wed	1–5 p.m.	
Theme J – History, Education, and Society							
021	History of Neuroscience	Theme J Poster	CC14–CC33	Hall A	19 Sat	1–5 p.m.	
022	Exercises and Courses	Theme J Poster	CC34–CC56	Hall A	19 Sat	1–5 p.m.	
023	Outreach and Curricula	Theme J Poster	CC57–CC74	Hall A	20 Sun	8 a.m.–noon	
024	Teaching, Learning, and Assessments	Theme J Poster	CC75–DD17	Hall A	20 Sun	8 a.m.–noon	
025	Higher Education	Theme J Poster	DD18–DD32	Hall A	19 Sat	1–5 p.m.	
026	Outreach Activities	Theme J Poster	DD33–DD59	Hall A	20 Sun	8 a.m.–noon	
027	Neuroscience and Society: Ethical and Policy Issues	Theme J Poster	DD60–DD67	Hall A	19 Sat	1–5 p.m.	
182	The Storytelling Brain: How Neuroscience Stories Help Bridge the Gap Between Research and Society	Storytelling		Room S406B	20 Sun	1:30–4 p.m.	

SESSION # / SESSION TITLE		SESSION TYPE	LOCATION	DATE	TIME
SfN Pre-Conference Sessions					
SPC02	SHORT COURSE 2: Quantifying Behavior as a Lens Into the Brain	SfN Pre-Conference Session	Room S100BC	18 Fri	8 a.m.-6 p.m.
SPC03	SHORT COURSE 1: Neural Prosthetics and Brain Machine Interfaces	SfN Pre-Conference Session	Room S100A	18 Fri	8:30 a.m.-6 p.m.
SPC04	SHORT COURSE 3: Cultivating Professionalism and Excellence in the Research Landscape	SfN Pre-Conference Session	Room S106	18 Fri	1-5:30 p.m.
SPC05	Meet-the-Expert, Session 1: Paola Arlotta- Understanding Cortical Development and Disease: My Path to Discovery	SfN Pre-Conference Session	Marriott Marquis - Great Lakes G	19 Sat	8-9:15 a.m.
SPC06	Meet-the-Clinician-Expert, Session 1: Merit Cudkowicz- Clinical Trialists Path: Building Teams	SfN Pre-Conference Session	Marriott Marquis - Great Lakes A	19 Sat	8-9:15 a.m.
SPC07	Meet-the-Expert, Session 1: Jerry Silver- Functional Regeneration Beyond the Glial Scar	SfN Pre-Conference Session	Marriott Marquis - Great Lakes E	19 Sat	8-9:15 a.m.
SPC08	Meet-the-Expert, Session 1: Gaia Tavosanis- Circuit Dynamics: A Fly Perspective	SfN Pre-Conference Session	Marriott Marquis - Great Lakes F	19 Sat	8-9:15 a.m.
SPC09	Meet-the-Expert, Session 1: Kamran Khodakhah- I Can't Believe They Pay Me to Have Fun: The Privilege of Being a Scientist	SfN Pre-Conference Session	Marriott Marquis - Great Lakes C	19 Sat	8-9:15 a.m.
SPC10	Meet-the-Expert, Session 1: Kafui Dzirasa- Translating Neuroscience: Obstacles and Opportunities	SfN Pre-Conference Session	Marriott Marquis - Great Lakes B	19 Sat	8-9:15 a.m.
SPC11	Meet-the-Expert, Session 1: Gregory Quirk- Twenty Years of Fear Research and Mentoring in Puerto Rico	SfN Pre-Conference Session	Marriott Marquis - Shedd	19 Sat	8-9:15 a.m.
SPC12	Meet-the-Expert, Session 2: Yishi Jin- Understanding Molecules, Synapses, and Neural Plasticity: Awesome Power of Genetics	SfN Pre-Conference Session	Marriott Marquis - Great Lakes F	19 Sat	9:30-10:45 a.m.
SPC13	Meet-the-Expert, Session 2: Michelle Monje-Deisseroth- Myelin Plasticity: From Cognition to Cancer	SfN Pre-Conference Session	Marriott Marquis - Great Lakes E	19 Sat	9:30-10:45 a.m.
SPC14	Meet-the-Expert, Session 2: Nicole Rust- Seeing and Remembering What We've Seen	SfN Pre-Conference Session	Marriott Marquis - Great Lakes C	19 Sat	9:30-10:45 a.m.
SPC15	Meet-the-Clinician-Expert, Session 2: Nico Dosenbach- Disuse Drives Plasticity in Human Brain Networks	SfN Pre-Conference Session	Marriott Marquis - Great Lakes B	19 Sat	9:30-10:45 a.m.
SPC16	Meet-the-Expert, Session 2: Yoko Yazaki-Sugiyama- Lessons for Songbirds and Scientists: Learning to Communicate More Effectively by Listening to Others	SfN Pre-Conference Session	Marriott Marquis - Great Lakes A	19 Sat	9:30-10:45 a.m.
SPC17	Meet-the-Expert, Session 2: Viviana Gradinaru- Machine-Learning Assisted Directed Evolution of Viral Vectors and Microbial Opsins for Minimally Invasive Neuroscience	SfN Pre-Conference Session	Marriott Marquis - Great Lakes G	19 Sat	9:30-10:45 a.m.
Professional Development Workshops					
PDW01	Preparing for Your Career Away From the Bench: Essential Skills for Navigating Your Career Transition	Professional Development Workshop	Room N227	19 Sat	9-11 a.m.
PDW02	Reproducibility for Everyone	Professional Development Workshop	Room N228	19 Sat	9-11 a.m.
PDW03	Imposter Syndrome: Confronting the Career Development Monster Hiding Under the Bed	Professional Development Workshop	Room N228	19 Sat	Noon-2 p.m.
PDW04	Integrating Research and Teaching at Primarily Undergraduate Institutions	Professional Development Workshop	Room N227	19 Sat	Noon-2 p.m.
PDW05	Getting Creative with Course-Based Research Experiences to Enhance Scholarship and Generate Publishable Data	Professional Development Workshop	Room N227	19 Sat	3-5 p.m.
PDW06	How to Thrive as a Woman in Neuroscience	Professional Development Workshop	Room N228	19 Sat	3-5 p.m.
PDW07	Bringing Genetic Diversity to Neuroscientific Research	Professional Development Workshop	Room N228	20 Sun	9-11 a.m.
PDW08	Navigating Team Science	Professional Development Workshop	Room N227	20 Sun	9-11 a.m.
PDW09	Becoming a Resilient Scientist	Professional Development Workshop	Room N227	20 Sun	Noon-2 p.m.
PDW10	Science Management	Professional Development Workshop	Room N228	20 Sun	Noon-2 p.m.
PDW11	Neuroscience Departments and Programs Workshop - Hiring and Promoting Faculty in the Era of Team Science	Professional Development Workshop	Room N227	20 Sun	2:30-5 p.m.

SESSION #	SESSION TITLE	SESSION TYPE	LOCATION	DATE	TIME
PDW12	Building a Neuroscience Career at a Teaching Focused Institution	Professional Development Workshop	Room N228	20 Sun	3-5 p.m.
PDW13	Advancing Your Career Through Effective Science Writing for the Public and Creating Eye-Catching Research Statements	Professional Development Workshop	Room N227	21 Mon	9-11 a.m.
PDW14	The Art of Building a Career	Professional Development Workshop	Room N228	21 Mon	9-11 a.m.
PDW15	Optimize Your Grant Application: News You Can Use From the NIH	Professional Development Workshop	Room N228	21 Mon	Noon-2 p.m.
PDW16	Teaching Computation in Neuroscience	Professional Development Workshop	Room N227	21 Mon	Noon-2 p.m.
Networking, Public Advocacy, and Outreach					
NOA01	NeuroJobs Career Center	Networking, Public Advocacy, and Outreach	Hall A	19 Sat	8 a.m.-5 p.m.
NOA02	Graduate School Fair	Networking, Public Advocacy, and Outreach	Hall A	19 Sat	1-3 p.m.
NOA03	Brain Awareness Campaign Event- Illuminating the Path With Science Outreach	Networking, Public Advocacy, and Outreach	Room N226	19 Sat	2:30-4 p.m.
NOA04	Diversity Poster Session	Networking, Public Advocacy, and Outreach	Hall A	19 Sat	6:30-8:30 p.m.
NOA05	International Fellows Poster Session	Networking, Public Advocacy, and Outreach	Hall A	19 Sat	6:30-8:30 p.m.
NOA06	Trainee Professional Development Awards Poster Session	Networking, Public Advocacy, and Outreach	Hall A	19 Sat	6:30-8:30 p.m.
NOA07	Career Development Topics: A Networking Event	Networking, Public Advocacy, and Outreach	Hall A	19 Sat	7:30-9:30 p.m.
NOA08	NeuroJobs Career Center	Networking, Public Advocacy, and Outreach	Hall A	20 Sun	8 a.m.-5 p.m.
NOA09	Graduate School Fair	Networking, Public Advocacy, and Outreach	Hall A	20 Sun	Noon-2 p.m.
NOA10	Social Issues Roundtable- Human Fusions: Ethical and Social Issues Raised by Neural-Digital Interfaces	Networking, Public Advocacy, and Outreach	Room N230B	20 Sun	1-3 p.m.
NOA11	NeuroJobs Career Center	Networking, Public Advocacy, and Outreach	Hall A	21 Mon	8 a.m.-5 p.m.
NOA13	Graduate School Fair	Networking, Public Advocacy, and Outreach	Hall A	21 Mon	Noon-2 p.m.
NOA14	Animals in Research Panel- Treatments for Disorders of the Basal Ganglia and the Development of Deep Brain Stimulation: Translation of Non-Human Primate Research Into Clinical Therapeutics	Networking, Public Advocacy, and Outreach	Room N230B	21 Mon	1-3 p.m.
NOA15	Chapters Workshop- Fostering Chapter Engagement Through Your Local Brain Bee	Networking, Public Advocacy, and Outreach	Hyatt McCormick - Jackson Park	21 Mon	6:45-8:45 p.m.
NOA16	NeuroJobs Career Center	Networking, Public Advocacy, and Outreach	Hall A	22 Tue	8 a.m.-5 p.m.
NOA17	Celebration of Women in Neuroscience Luncheon	Networking, Public Advocacy, and Outreach	Marriott Marquis - Great Lakes AB	22 Tue	Noon-2 p.m.
NOA18	Graduate School Fair	Networking, Public Advocacy, and Outreach	Hall A	22 Tue	Noon-2 p.m.
NOA19	Public Advocacy Forum- The Role of Pharmaceutical Partnerships When Advocating for Basic Research	Networking, Public Advocacy, and Outreach	Room N230B	22 Tue	2-3:30 p.m.
NOA20	SfN Members' Business Meeting	Networking, Public Advocacy, and Outreach	Room S501D	22 Tue	6:45-7:30 p.m.
NOA21	Graduate Student Reception	Networking, Public Advocacy, and Outreach	Hyatt McCormick - Regency Ballroom	22 Tue	8:30-11:30 p.m.
NOA22	NeuroJobs Career Center	Networking, Public Advocacy, and Outreach	Hall A	23 Wed	8 a.m.-5 p.m.

Clinician Scientists & Continuing Medical Education

GENERAL INFORMATION PROGRAM | **WWW.SfN.ORG/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 Lectures

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 Lectures

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. The on-site processing fee of $140 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.

Claiming Credits

Physicians who registered for CME will be invited to claim their AMA PRA Category 1 Credits™ and print their CME certificates via the online Neuroscience Meeting Planner (NMP) following the conclusion of the educational activities. CME registration is required to be able to access the credit claiming site. Visit www.sfn.org/CME for additional information.

ACCME ACCREDITED

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 Monday, October 21, at 5:15 p.m. in McCormick Place, Hall B.

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 Tuesday, October 22, at noon in the Marriott Marquis, Great Lakes AB.

Chapter of the Year Award

The Chapter of the Year Award is given to an SfN chapter in recognition of its efforts to engage the local community in innovative activities that advance the mission of the Society for Neuroscience. Awardees are selected by the Global Membership Committee. The award will be presented at the Chapters Workshop and Reception Monday, October 21, at 6:45 p.m. in the Hyatt McCormick Place, Jackson Park.

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 Monday, October 21, at 3:15 p.m. in McCormick Place, Hall B.

Jacob P. Waletzky Award

Support contributed by:
The Waletzky Family

The Jacob P. Waletzky Award is given to a young scientist (within 15 years of his/her receiving a PhD or MD degree) who has conducted or plans to conduct independent research leading to significant conceptual and/or empirical contributions to the understanding of drug addiction. The award will be presented prior to the Presidential Special Lecture Saturday, October 19, at 5:15 p.m. in McCormick Place, Hall B.

Janett Rosenberg Trubatch Career Development Award

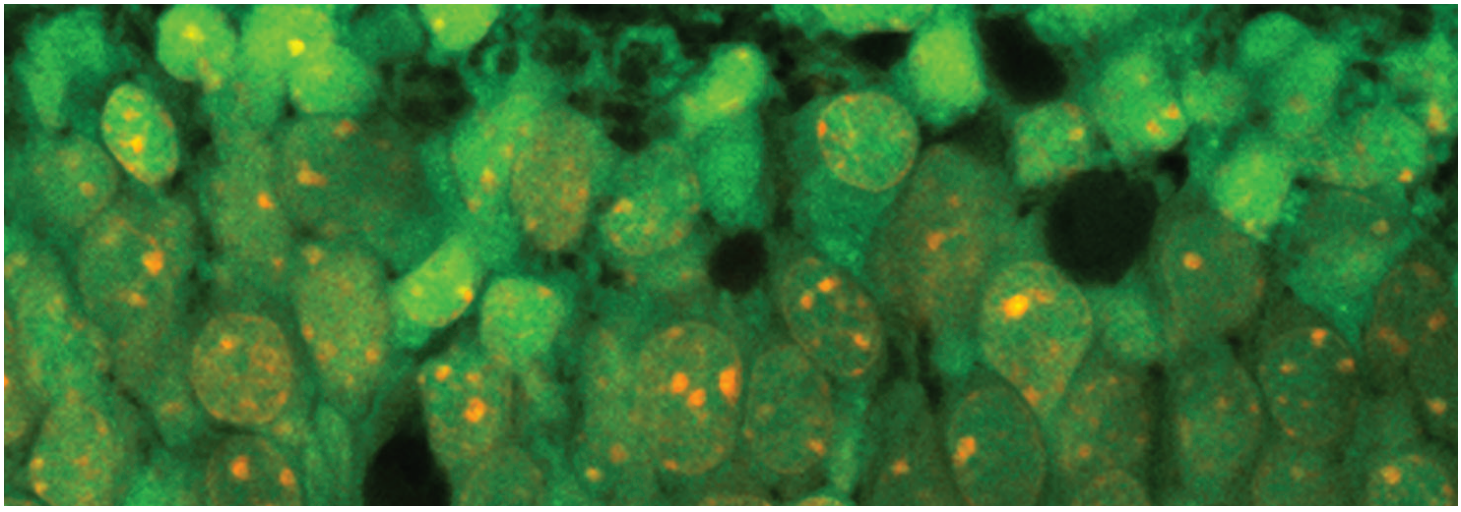
Support contributed by:
The Trubatch Family

The Janett Rosenberg Trubatch Career Development Award recognizes two individuals who have demonstrated originality and creativity in research and is intended to promote success during academic transitions prior to tenure. The awards will be presented during the Celebration of Women in Neuroscience Luncheon Tuesday, October 22, at noon in the Marriott Marquis, Great Lakes AB.

Julius Axelrod Prize

Support contributed by:
Eli Lilly and Company Foundation

The Julius Axelrod Prize honors a scientist with distinguished achievements in neuropharmacology or a related area and exemplary efforts in mentoring young scientists. The award will be presented prior to the Presidential Special Lecture Saturday, October 19, at 5:15 p.m. in McCormick Place, Hall B.



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 Monday, October 21, at 5:15 p.m. in McCormick Place, Hall B and again recognized during the Celebration of Women in Neuroscience Luncheon Tuesday, October 22, at noon in the Marriott Marquis, Great Lakes AB.

Nemko Prize in Cellular or Molecular Neuroscience

Support contributed by:
The Nemko Family

The Nemko Prize recognizes a young neuroscientist for his or her 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 Monday, October 21, at 3:15 p.m. in McCormick Place, Hall B.

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 Tuesday, October 22 at 5:15 p.m. in McCormick Place, Hall B.

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 recognizes 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 Sunday, October 20, at 3 p.m. in McCormick Place, Hall B.

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 for 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 Sunday, October 20, at 5:15 p.m. in McCormick Place, Hall B.

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/or 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 Tuesday, October 22, at 5:15 p.m. in McCormick Place, Hall B.

Swartz Prize for Theoretical and Computational Neuroscience

Support contributed by:
The Swartz Foundation

The Swartz Prize honors an individual whose activities have produced a significant cumulative contribution to theoretical models or computational methods in neuroscience or who has made a particularly noteworthy recent advance in theoretical or computational neuroscience. The prize will be presented prior to the Presidential Special Lecture Saturday, October 19, at 5:15 p.m. in McCormick Place, Hall B.

Young Investigator Award

Support contributed by: Sunovion

The Young Investigator Award recognizes the outstanding achievements and contributions of a young neuroscientist who has demonstrated scholarly independence and 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 Monday, October 21, at 3:15 p.m. in McCormick Place, Hall B.

SfN Professional Development Awards

SfN/FENS Travel Awards

SfN and the Federation of European Neuroscience Societies (FENS) sponsor a travel award exchange program allowing recipients to attend their respective meetings bi-annually. In even years, SfN offers travel awards to the FENS Forum, while in odd years, FENS offers travel awards to the SfN annual meeting.

SfN/IBRO International Travel Awards

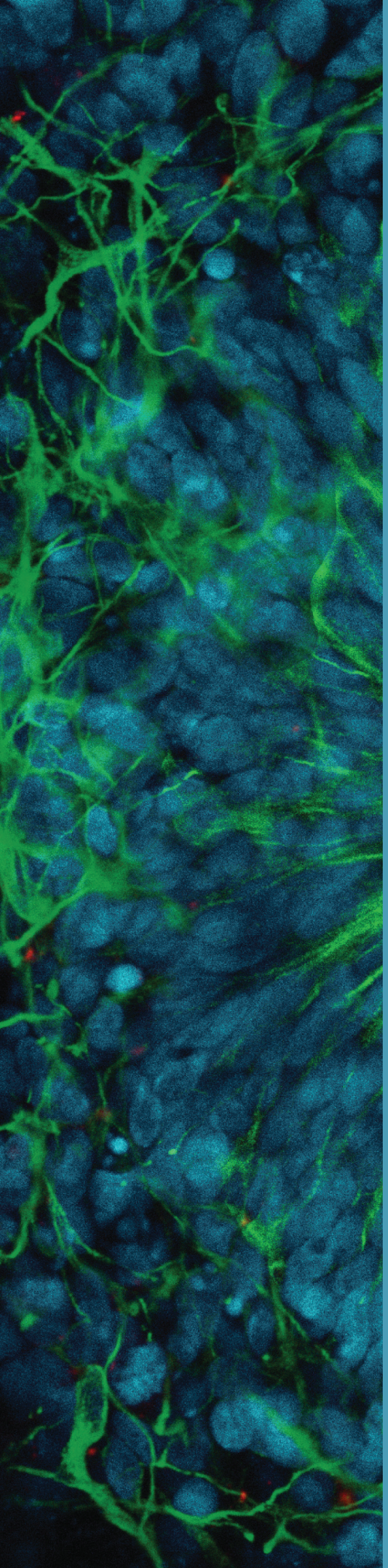
SfN/IBRO International Travel Awards recognize young investigators from developing countries. The awards are sponsored by SfN and recipients are selected by the International Brain Research Organization (IBRO). This year, 30 awardees from 11 countries will attend Neuroscience 2019.

SfN/JNS Travel Awards

SfN and the Japan Neuroscience Society (JNS) sponsor a travel award exchange program allowing five trainees from Japan to attend the SfN annual meeting and five North American trainees who are members of SfN to attend the JNS meeting in Japan.

Trainee Professional Development Award

The Trainee Professional Development Award (TPDA) recognizes undergraduate and graduate students and postdoctoral fellows demonstrating scientific merit and excellence in research with the chance to present an abstract in a poster session, meet peers and network with senior scientists, and participate in learning opportunities at the annual meeting.



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Registration, Hotel and Travel

Registration

Online Discount	Opens at midnight EDT on October 3 and continues through the annual meeting
On-Site In Line	Opens at 7:30 a.m. CDT on October 19 and continues through the annual meeting

Registration Category	Online Discount	On-Site In Line
Member	$485	$580
Member, Category II	$205	$245
Member, Category III	$275	$320
Postdoctoral Member	$360	$435
Postdoctoral Member, Category II	$130	$150
Postdoctoral Member, Category III	$200	$240
Student Member	$240	$290
Student Member, Category II	$85	$105
Student Member, Category III	$135	$165
Student Member, Undergraduate	$120	$145
Student Member, Undergraduate Category II	$45	$55
Student Member, Undergraduate Category III	$70	$85
Nonmember	$870	$1,045
Student Nonmember	$435	$520
Guest — Non-Scientific	$70	$80
CME Accreditation	$120	$140

All members must be in good standing at the time of registering for the annual meeting in order to receive member rates. Membership status will be verified. Fees vary based on registration categories and options. Refunds will not be issued for incorrect registration categories. If you choose to register under another category before your membership status is verified, the difference will not be refunded to you. 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 Hall A of McCormick Place.

When to Register
Online Discount
From Thursday, Oct. 3 through the duration of the annual meeting, discounted fees are available by using the online registration system. Avoid waiting in line and bring your confirmation number to any Express Badge Pick-Up location to claim your meeting materials.

On-Site In Line Registration
Attendees can also register on-site at McCormick Place Convention Center in Hall A. On-site, in line registration opens October 19 at 7:30 a.m. CDT. If you prefer to register at an on-site counter, higher registration rates apply. On-site and online registration will be available for the duration of the meeting.

On-Site Registration Hours
Friday, Oct. 18*, 2–5 p.m. CDT

Saturday, Oct. 19–Wednesday, Oct. 23, 7:30 a.m.–5 p.m. CDT

*Express Badge Pick-Up stations available only. Full registration services will begin Saturday, Oct. 19, at 7:30 a.m. CDT.

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

Navigating the Meeting
Explore all that the meeting has to offer with SfN's electronic meeting resources.

Curated Itineraries
These topical itineraries tailor the annual meeting to your area of interest. Download the itineraries using the annual meeting mobile app or the Neuroscience Meeting Planner (NMP). Visit the SfN.org website to view the full list of curated itineraries.

Trainee-Focused Curated Itineraries
Created by SfN's Trainee Advisory Committee, two additional curated itineraries are geared toward trainees and are intended to complement the scientific itineraries. Look for these itineraries in the annual meeting mobile app and the Neuroscience Meeting Planner.

- Undergraduate
- Graduate/Postdoc

Neuroscience Meeting Planner
Use the NMP to browse full-text abstracts, explore sessions, create itineraries, see suggested presentations customized for you, and much more. Attendees can access the NMP at www.sfn.org/NMP or onsite in the Neuroscience Meeting Planner Viewing Area (McCormick Place, Hall A).

Meeting Mobile App
Download the 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 plan your time at the annual meeting without an internet connection. Create your virtual business card in the app. The app is available in the iOS™ and Google Play™ App Stores.

Sponsored by:

PRECISIONARY | Precisionary Instruments
Mobile App

Printed Programs
All Neuroscience 2019 program information will be accessible free of charge via the Neuroscience 2019 mobile app, NMP, and annual meeting website.

Fees for printed program books are as follows:

Printed Program Fees

- Full Program Set, Member $45
- Full Program Set, Nonmember.....$55

Hotel Map

GENERAL INFORMATION PROGRAM | **WWW.SfN.ORG/HOTEL**

The Society's housing company, Convention Management Resources, will be onsite to assist with any housing questions during the meeting. Representatives will be located in McCormick Place, Hall A, October 19–23 during the following hours:

DATE	TIMES
Friday, October 18*	2–5 p.m.
Saturday, October 19	7:30 a.m.–5 p.m.
Sunday, October 20	7:30 a.m.–5 p.m.
Monday, October 21	7:30 a.m.–5 p.m.
Tuesday, October 22	7:30 a.m.–5 p.m.
Wednesday, October 23	7:30 a.m.–3 p.m.

Onsite Phone: (312) 791-6815

*located on Level 2.5S on Friday only

Hotel List

The Hyatt Regency McCormick Place and Marriott Marquis Chicago are the official co-headquarter hotels.

#	HOTEL NAME / ADDRESS	SHUTTLE ROUTE	PICK UP POINT	TRANSPORTATION STOP/ LINE/DISTANCE
	Co-Headquarters Hotels			
1	**Hyatt Regency McCormick Place** 2233 S. Martin Luther King Jr. Dr.	Walk	Walk to McCormick Place	Adjacent to McCormick Place
2	**Marriott Marquis Chicago** 2121 S. Prairie Ave.	Walk	Walk to McCormick Place	Adjacent to McCormick Place
	Attendee Hotels			
3	**AC Hotel Chicago Downtown** 630 N. Rush St.	F-Pink	SW Corner Ohio & Rush Streets	CTA: State & Grand/Red/4 blocks
4	**ACME Hotel Company** 15 E. Ohio St.	F-Pink	Walk to Hilton Garden Inn — on Grand Avenue	CTA: State & Grand/Red/1 block
5	**Aloft Chicago Downtown River North** 515 N. Clark St.	E-Orange	Walk to Hampton Inn on Illinois Street	CTA: State & Grand/Red/2 blocks
6	**Best Western Grant Park Hotel** 1100 S. Michigan Ave.	A-Red	Curbside on 11th Street	CTA: Roosevelt/Red, Green, Orange/2 blocks Metra: Museum Campus/Electric/1 block
7	**Best Western River North Hotel** 125 W. Ohio St.	E-Orange	Walk to Hampton Inn on Illinois Street	CTA: State & Grand/Red/3 blocks
8	**Blackstone, Autograph Collection** 636 S. Michigan Ave.	A-Red	Curbside on Balbo Drive	CTA: Harrison/Red/4 blocks Metra: Van Buren/Electric/4 blocks
9	**Cambria Chicago Magnificent Mile** 166 E. Superior St.	G-Purple	Walk to Warwick Allerton on Huron Street	CTA: Chicago & State/Red/5 blocks
10	**Chicago Marriott Downtown Magnificent Mile** 540 N. Michigan Ave.	F-Pink	SW Corner Ohio & Rush Streets	CTA: State & Grand/Red/2 blocks Metra: Millennium Station/Electric/7 blocks
11	**Comfort Suites Michigan Avenue — Loop** 320 N. Michigan Ave.	H-Grey	Walk to Wyndham Grand on Wacker Drive	CTA: State & Lake/Orange & Green/5 blocks Metra: Millennium/Electric/6 blocks
12	**Courtyard Chicago Downtown/River North** 30 E. Hubbard St.	E-Orange	Walk to Hampton Inn on Illinois Street	CTA: State & Grand/Red/1 block Metra: Millennium/Electric/7 blocks
13	**Crowne Plaza Chicago West Loop** 25 S. Halsted St.	I-Light Blue	Curbside on Halsted Street	CTA: UIC-Halsted/Blue/5 blocks
14	**Embassy Suites Chicago Downtown** 600 N. State St.	F-Pink	SW Corner of Ohio & Rush Streets	CTA: State & Grand/Red/1 block
15	**Fairfield Inn & Suites Chicago Downtown** 60 W. Illinois St.	E-Orange	Walk to Hampton Inn on Illinois Street	CTA: State & Grand/Red/2 blocks

Hotel List

GENERAL INFORMATION PROGRAM | **WWW.SfN.ORG/HOTEL**

#	HOTEL NAME / ADDRESS	SHUTTLE ROUTE	PICK UP POINT	TRANSPORTATION STOP/ LINE/DISTANCE
16	**Fairmont Chicago, Millennium Park** 200 N. Columbus Dr.	C-Yellow	Curbside on Upper Columbus Drive	CTA: State & Lake/Orange & Green/4 blocks Metra: Millennium/Electric/3 blocks
17	**Freehand Chicago** 19 E. Ohio St.	F-Pink	Walk to Hilton Garden Inn — on Grand Avenue	CTA: State & Grand/Red/1 block
18	**Hampton Inn & Suites Chicago Downtown** 33 W. Illinois St.	E-Orange	Curbside on Illinois Street	CTA: State & Grand/Red/2 blocks
19	**Hampton Inn Chicago McCormick Place** 123 E. Cermak Rd.	Walk	Walk to McCormick Place	Adjacent to McCormick Place
20	**Hampton Inn Chicago North Loop** 68 E. Wacker Dr.	H-Grey	Walk to Wyndham Grand on Wacker Drive	CTA : State & Lake/Orange & Green/4 blocks Metra: Millennium/Electric/3 blocks
21	**Hampton Inn Majestic Chicago Theatre District** 22 W. Monroe St.	B-Blue	Walk to Silversmith on Wabash Avenue	CTA: Adams & Wabash/Orange & Green/2 blocks CTA: Monroe/Blue/1 block Metra: Millennium/Electric/5 blocks
22	**Hilton Garden Inn Chicago Downtown/ Magnificent Mile** 10 E. Grand Ave.	F-Pink	Front Entrance on Grand Avenue	CTA: State & Grand/Red/1 block
23	**Holiday Inn Chicago-Mart Plaza River North** 350 W. Mart Center Dr.	E-Orange	Across the Street on Orleans	CTA: Merchandise Mart/Brown/1 block CTA: Clark & Lake/Green/4 blocks
24	**Holiday Inn Hotel and Suites Chicago —Downtown** 506 W. Harrison St.	I-Light Blue	Curbside on Canal Street	CTA: Clinton/Blue/1 block
25	**Hotel Cass — A Holiday Inn Express at Magnificent Mile** 640 N. Wabash Ave.	F-Pink	Walk to Hilton Garden Inn — on Grand Avenue	CTA: State & Grand/Red/4 blocks
26	**Hotel Chicago Downtown, Autograph Collection** 333 N. Dearborn St.	E-Orange	Curbside on State Street	CTA: State & Grand/Red/4 blocks CTA: State & Lake/Orange & Green/3 blocks Metra: Millennium/Electric/7 blocks
27	**Hotel EMC2, Autograph Collection** 228 E. Ontario St.	G-Purple	SE Corner on St. Clair & Erie Streets	CTA: State & Grand/Red/6 blocks
28	**Hotel Felix Chicago** 111 W. Huron St.	G-Purple	Across the Street on Huron Street	CTA: Chicago & State/Red/4 blocks
29	**Hyatt Place Chicago/River North** 66 W. Illinois St.	E-Orange	Walk to Hampton Inn on Illinois Street	CTA: State & Grand/Red/2 blocks
30	**Hyatt Regency Chicago** 151 E. Wacker Dr.	C-Yellow	Curbside on Wacker Drive	CTA: State & Lake/Orange & Green/5 blocks Metra - Millennium/Electric/4 blocks
31	**Inn of Chicago Magnificent Mile** 162 E. Ohio St.	G-Purple	SE Corner of St. Clair & Erie Streets	CTA: State & Grand/Red/5 blocks

#	HOTEL NAME / ADDRESS	SHUTTLE ROUTE	PICK UP POINT	TRANSPORTATION STOP/ LINE/DISTANCE
32	**InterContinental Chicago Magnificent Mile** 505 N. Michigan Ave.	D-Green	Upper Illinois Side Door	CTA: State & Grand/Red/2 blocks Metra: Millennium/Electric/7 blocks
33	**JW Marriott Chicago** 151 W. Adams St.	B-Blue	Walk to Residence Inn Curbside on LaSalle Street	CTA: Quincy/Brown and Orange/1 block CTA: Monroe/Blue/2 blocks
34	**Kimpton Gray Hotel** 122 W. Monroe St.	B-Blue	Walk to Residence Inn Curbside on LaSalle Street	CTA: Monroe/Blue/3 blocks
35	**Kimpton Hotel Allegro** 171 W. Randolph St.	B-Blue	Walk to Residence Inn Curbside on LaSalle Street	CTA: Clark & Lake/Green/2 blocks
36	**Kimpton Hotel Monaco Chicago** 225 N. Wabash Ave.	H-Grey	Walk to Wyndham Grand on Wacker Drive	CTA: State & Lake/Orange & Green/2 blocks Metra: Millennium/Electric/4 blocks
37	**Omni Chicago Hotel** 676 N. Michigan Ave.	G-Purple	Walk to Warwick Allerton on Huron Street	CTA: State & Chicago/Red/3 blocks
38	**Radisson Blu Aqua Hotel Chicago** 221 N. Columbus Dr.	C-Yellow	Walk to Fairmont on Upper Columbus Drive	CTA: State & Lake/Orange & Green/5 blocks Metra: Millennium/Electric/4 blocks
39	**Renaissance Chicago Downtown Hotel** 1 W. Wacker Dr.	H-Grey	Front Entrance on Wacker Drive	CTA: State & Lake/Orange & Green /1 block Metra: Millennium/Electric/5 blocks
40	**Residence Inn Chicago Downtown/Loop** 11 S. LaSalle St.	B-Blue	Curbside on LaSalle Street	CTA: Clark & Lake/Green/5 blocks
41	**Residence Inn Chicago River North** 410 N. Dearborn St.	E-Orange	Walk to Hotel Chicago on State Street	CTA: State & Grand/Red/4 blocks
42	**Sheraton Grand Chicago** 301 E. North Water St.	D-Green	Ballroom Entrance - Driveway	CTA: State & Grand/Red/6 blocks Metra: Millennium/Electric/6 blocks
43	**Silversmith Hotel Chicago Downtown** 10 S. Wabash Ave.	B-Blue	Curbside on Wabash Avenue	CTA: Washington & Wabash/Orange & Green/1 block Metra: Millennium/Electric/3 blocks
44	**SpringHill Suites Chicago WDowntown/River North** 410 N. Dearborn St.	E-Orange	Walk to Hotel Chicago on State Street	CTA: State & Grand/Red/4 blocks
45	**Swissôtel Chicago** 323 E. Wacker Dr.	C-Yellow	Walk to Hyatt Regency – Curbside on Wacker Drive	CTA: State & Lake/Orange & Green/5 blocks Metra: Millennium/Electric/4 blocks
46	**Virgin Hotels Chicago** 203 N. Wabash Ave.	H-Grey	Walk to Wyndham Grand on Wacker Drive	CTA: State & Lake/Orange & Green/1 block
47	**Warwick Allerton — Chicago** 701 N. Michigan Ave.	G-Purple	Curbside on Huron Street	CTA: Chicago & State/Red/5 blocks
48	**Wyndham Grand Chicago Riverfront** 71 E. Wacker Dr.	H-Grey	Front Entrance on Wacker Drive	CTA: State & Lake/Orange & Green/4 blocks Metra: Millennium/Electric/5 blocks

Travel Information

Air Travel

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

Chicago O'Hare International Airport

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

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

Taxis: Taxis are available at the lower levels (outside of baggage claim) at each terminal. Fares are based on traffic conditions, but an average fare is $40–$50.

Phone: (773) 686-2200

Midway International Airport

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

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

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

Phone: (773) 838-0600

Parking

Events held in the North and South Buildings designate Lot A as the primary parking location. Lot A is a six-level garage located on Martin Luther King Drive, adjacent to the West Building. Covered walkways from Lot A leading directly into McCormick Place and the Hyatt Regency McCormick Place Hotel provide added convenience. The parking rate is $23 for up to 16 hours and $36 from 16 to 24 hours. There are no in-and-out privileges. Overnight parking is available in Lot A only. Lost tickets will pay the $36 (overnight) fee per day. Credit cards are accepted at the parking ticket kiosks.

Airport Shuttle

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

Shuttle Schedule

Shuttle Service

SfN provides complimentary shuttle services between McCormick Place and most of the official SfN meeting hotels, with the exception of hotels within walking distance to McCormick Place.

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

For questions or concerns about shuttle routes and schedules while at the annual meeting, call the shuttle information desk at (312) 791-6817 or stop by the shuttle information desk located in McCormick Place, West Transportation Lobby.

DATE	TIMES	SERVICE
Friday, October 18	7 a.m.–7 p.m.	Roosevelt Station Only
Saturday, October 19	7 a.m.–4 p.m. 4 p.m.–10 p.m.	20-minute service 10-minute service
Sunday, October 20	7 a.m.–10:30 a.m. 10:30 a.m.–4 p.m. 4 p.m.–8 p.m. 8 p.m.–9:30 p.m.	10-minute service 20-minute service 10-minute service 20-minute service
Monday, October 21	7 a.m.–10:30 a.m. 10:30 a.m.–4 p.m. 4 p.m.–8 p.m. 8 p.m.–9:30 p.m.	10-minute service 20-minute service 10-minute service 20-minute service
Tuesday, October 22	7 a.m.–10:30 a.m. 10:30 a.m.–4 p.m. 4 p.m.–8 p.m. 8 p.m.–9:30 p.m.	10-minute service 20-minute service 10-minute service 20-minute service
Wednesday, October 23	7 a.m.–10:30 a.m. 10:30 a.m.–3:30 p.m. 3:30 p.m.–6 p.m.	10-minute service 20-minute service 10-minute service

Navigating Chicago

Complimentary SfN Shuttle Service

With shuttle bus service operating every 10 minutes during peak time and 20 minutes during off-peak time, you can conveniently travel between your official SfN meeting hotel and the convention center. For Neuroscience 2019, SfN offers a fleet of shuttle buses dedicated to your travel. With the exception of hotels within walking distance of McCormick Place, shuttle service will be available to all SfN contracted hotels. In addition, because of Chicago's commitment to successful large meetings, shuttles operate on a dedicated travel-free "busway" from downtown to McCormick Place.

Public Transportation

Chicago offers two options for public transportation: Metra (the commuter train system) and CTA (the "L" light rail system). Metra, with stops within walking distance to many of the SfN-contracted hotel rooms, has a stop inside McCormick Place. SfN has contracted with Metra to provide additional train service for Neuroscience 2019. Free Metra passes will be available to all attendees. If you opt to take the L, also convenient to many Neuroscience 2019 hotels, the Cermak-McCormick Place station (Green line) is currently the closest CTA stop to McCormick Place. SfN will provide a complimentary shuttle service between the Roosevelt station (Red, Green, and Orange lines) and McCormick Place.

Taxis

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

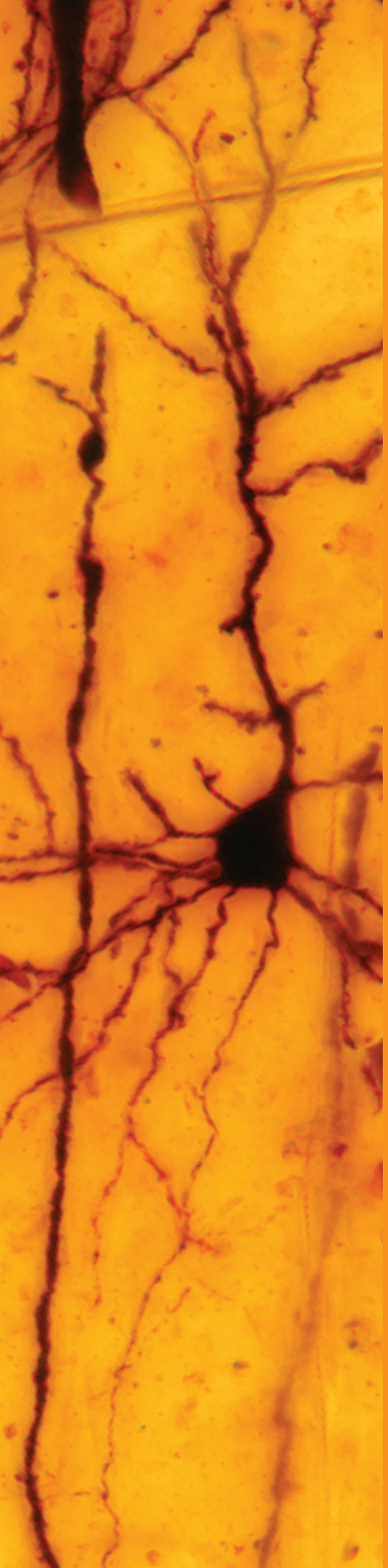


Table of Contents

Resources

Attendee Resources

GENERAL INFORMATION PROGRAM | **WWW.SfN.ORG/ATTENDEERESOURCES**

The Society for Neuroscience (SfN) strives to make the on-site experience of the annual meeting accessible to all interested members of the neuroscience community.

ADA/Special Accommodations

Real-Time Captioning Services and Special Needs Requests

Real-time captioning services will be provided for all lectures in Hall B. Dedicated seating areas near the screens will display the captioned text.

If you require American Sign Language services, contact meetings@sfn.org.

If you have a disability or special need that may affect your participation in the annual meeting, contact meetings@sfn.org. SfN cannot ensure the availability of appropriate accommodations without prior notification of need. For assistance with special needs or disabilities on-site, visit the SfN headquarters office in Hall A.

Scooter and Wheelchair Rentals

For scooter and wheelchair rentals, contact the vendor below:
Scootaround Inc
(888) 441-7575
www.scootaround.com

Note: When calling, press option 1 to speak with a representative in the reservations department to place an order. There will be a limited supply of scooters available for rent on-site.

Location: South Building Lobby Level 1, near Gate 4, McCormick Place.

Annual Meeting Headquarters Office

Logistics and Programming
McCormick Place: Hall A

Hours: Friday, October 18
8 a.m.–5 p.m.
Saturday, October 19–
Wednesday, October 23
7 a.m.–6 p.m.

The Annual Meeting Headquarters Office addresses all questions concerning annual meeting logistics and programming for the 2019 and 2020 annual meetings.

ATM Machines

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

Business Center

FedEx Office, a full-service company, is conveniently located on level 2.5 of the Grand Concourse in the South Building. FedEx Office offers copying, mailing, faxing, as well as other services. They also provide fast and efficient shipping and receiving services for attendees.

Certificate of Attendance

McCormick Place: West Transportation Lobby

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

Chicago Resources and Attractions

For visitor's information, visit www.choosechicago.com/neuroscience2019.

Child Care

McCormick Place: S504ABC

On-site child care and youth programs are available for children ages six months to 12 years in room S504ABC of McCormick Place. This service is provided through KiddieCorp, a national firm with more than 30 years of experience, including nine with SfN, in on-site conference child care.

Details, pricing, and reservation information are available on the KiddieCorp-Neuroscience 2019 web page: www.SfN.org/attendeeresources.

All policies and fees are established by KiddieCorp, and all questions should be directed to them. Space is limited.

Coat & Luggage Check

McCormick Place

Hours:

Level 1, Main Entrance

Friday, October 18
7:30 a.m.–7 p.m.
Saturday, October 19
7:30 a.m.–10 p.m.
Sunday, October 20–Tuesday, October 22
7:30 a.m.–7 p.m.
Wednesday, October 23
7:30 a.m.–6 p.m.

Room S101

Saturday, October 19–Tuesday, October 22
7:30 a.m.–7 p.m.
Wednesday, October 23
7:30 a.m.–6 p.m.

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

Continuing Medical Education (CME)

CME registration must be completed before or during the annual meeting. Those who do not register at these times will not receive the necessary documentation should they request it after the meeting. CME registrants will receive, via email two weeks before the meeting, the CME Supplemental Program, which contains important information regarding the CME Program, including disclosure information and instructions for obtaining CME credits. Visit www.SfN.org/cme or see page 72 for details.

Donor and Volunteer Leadership Lounge
McCormick Place: Level 2.5 Lounge

Hours: Saturday, October 19–
Wednesday, October 23
7:30 a.m.–5 p.m.

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

Event Locations
Lectures, exhibits, scientific sessions, symposia, poster sessions, registration, and headquarters offices will be located in McCormick Place. SfN-sponsored socials will be held at McCormick Place. Satellite and ancillary events will be held at McCormick Place, the Marriott Marquis Chicago, the Hyatt Regency McCormick Place, and other Chicago facilities.

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

Marriott Marquis Chicago
2121 S. Prairie Ave.
Chicago, IL 60616

Hyatt Regency McCormick Place
2233 S. Martin Luther King Jr. Dr.
Chicago, IL 60616

Exhibits
McCormick Place: Hall A

Hours: Sunday, October 20–
Wednesday, October 23
9:30 a.m.–5 p.m.

Exhibits provide attendees with an opportunity to learn about the latest products, publications, and services available. Pick up a copy of the Exhibit Guide at any program pick-up kiosk. The Exhibit Guide includes a listing of exhibiting companies and a cross-referenced listing of companies by type of product exhibited. Links to exhibiting company websites are available through the Neuroscience 2019 website, www.sfn.org/exhibits. The hyperlinks will remain live through
June 30, 2020.

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

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

First Aid Services
McCormick Place: Level 2.5S

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

Food Courts
McCormick Place: Hall A

Hours: Saturday, October 19
11 a.m.–2 p.m.
Sunday, October 20–
Wednesday, October 23
7:30 a.m.–3 p.m.

Important Phone Numbers
Headquarters Offices
HQ Office/Logistics
(312) 791-6800

HQ Office/Programming
(312) 791-6804

Press Office
(312) 791-6805

Exhibit Management
(312) 791-6824

First Aid and Hospital Numbers
First Aid Station
Level 2.5S
(312) 791-6060

Mercy Hospital
2525 S. Michigan Ave.
Chicago, IL 60616
(312) 567-2000

South Loop Immediate Care
1430 S. Michigan Ave.
Chicago, IL 60605
(312) 663-3522

Infant Care Facilities
McCormick Place: S504D

The infant care room, designated for the privacy of parents and guardians caring for infants, is equipped with chairs, tables, and electrical access in private areas for nursing or pumping. Additionally, the room has an open seating area, diaper changing tables, 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 or any items left unattended.

McCormick Place also provides a Mamava Lactation Suite for nursing mothers located in the South Building Level 2.5 across from Starbucks. Nursing mothers can unlock the suite by downloading the free Mamava Mobile App, available in the iOS™ and Google Play™ Stores. The Suite is available complimentary to nursing mothers, on a first come, first serve basis.

Information Booths
Information booths, operated by members of SfN staff, are located in the following places in McCormick Place:

Gate 3 Lobby
Grand Concourse Lobby
Hours: Friday, October 18
2–6 p.m.
Saturday, October 19–Tuesday, October 22
7:30 a.m.–6 p.m.

Wednesday, October 23
7:30 a.m.–5 p.m.

Literature Displays
McCormick Place: Hall A

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

Lost and Found
McCormick Place: Hall A

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

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

NeuroJobs Career Center
McCormick Place: Hall A

Hours: Saturday, October 19–
Tuesday, October 22
8 a.m.–5 p.m.
Wednesday, October 23
8 a.m.–3 p.m.

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

On-site payment can be made by credit card only.

Neuroscience Meeting Planner Viewing Area
McCormick Place: Hall A

Hours: Saturday, October 19–
Tuesday, October 22
7:30 a.m.–5 p.m.
Wednesday, October 23
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 2019. It can be accessed online at www.SfN.org/nmp or on-site in the NMP Viewing Area.

Photography and Recording Policy
SfN is committed to honoring the rights of copyright owners and to respectful sharing of scientific research and data. In response to a changing culture, SfN will now permit photography and recording during scientific meetings and events within the boundaries discussed in the policy. To view the full policy, visit www.SfN.org/photopolicy. In the absence of a visible icon, photography and recording of a presentation or exhibit booth is prohibited.

For more information on the new policy and the use of the icons, see page 16.

Poster Sessions
McCormick Place: Hall A

Hours: Saturday, October 19
1–5 p.m.
Sunday, October 20–Wednesday, October 23
8 a.m.–Noon, 1–5 p.m.

Prayer Room
McCormick Place: N132

There will be a prayer room available for attendee use at Neuroscience 2019. The prayer room is unsupervised, and SfN is not responsible for the loss of any personal property left unattended in the room.

Press Offices
McCormick Place

Press Room: S501ABC
Press Conference Room: S501D
Press Interview Room: S502A
Hours: Saturday, October 19–
Wednesday, October 23
8 a.m.–5 p.m.

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

Program and Exhibit Guide Pick-Up
McCormick Place: Hall A

Hours:
Saturday, October 19–Sunday, October 22
7:30 a.m.–5 p.m.

The final *Program* will be available on-site at McCormick Place and online at www.sfn.org/am2019 as downloadable PDFs. Attendees can pick up a copy of the final *Program* or *Exhibit Guide* at any *Program* and *Exhibit Guide* pick-up location in the convention center. To obtain printed versions of the *Program*, attendees must have purchased the books during registration or pay for the program books on-site.

Restaurant Reservations
McCormick Place: Level 2.5S

Hours: Saturday, October19
Noon–6 p.m.
Sunday, October 20–Tuesday, October 22
10 a.m.–6 p.m.
Wednesday, October 23
10 a.m.–5 p.m.

Restaurant reservation services are available at McCormick Place.

SfN Booth
McCormick Place: Hall A, Booth #1005

As you experience Neuroscience 2019's Exhibit Hall, stop by the SfN Booth to learn about new member resources and services offered by your professional society.

Speaker Ready Room

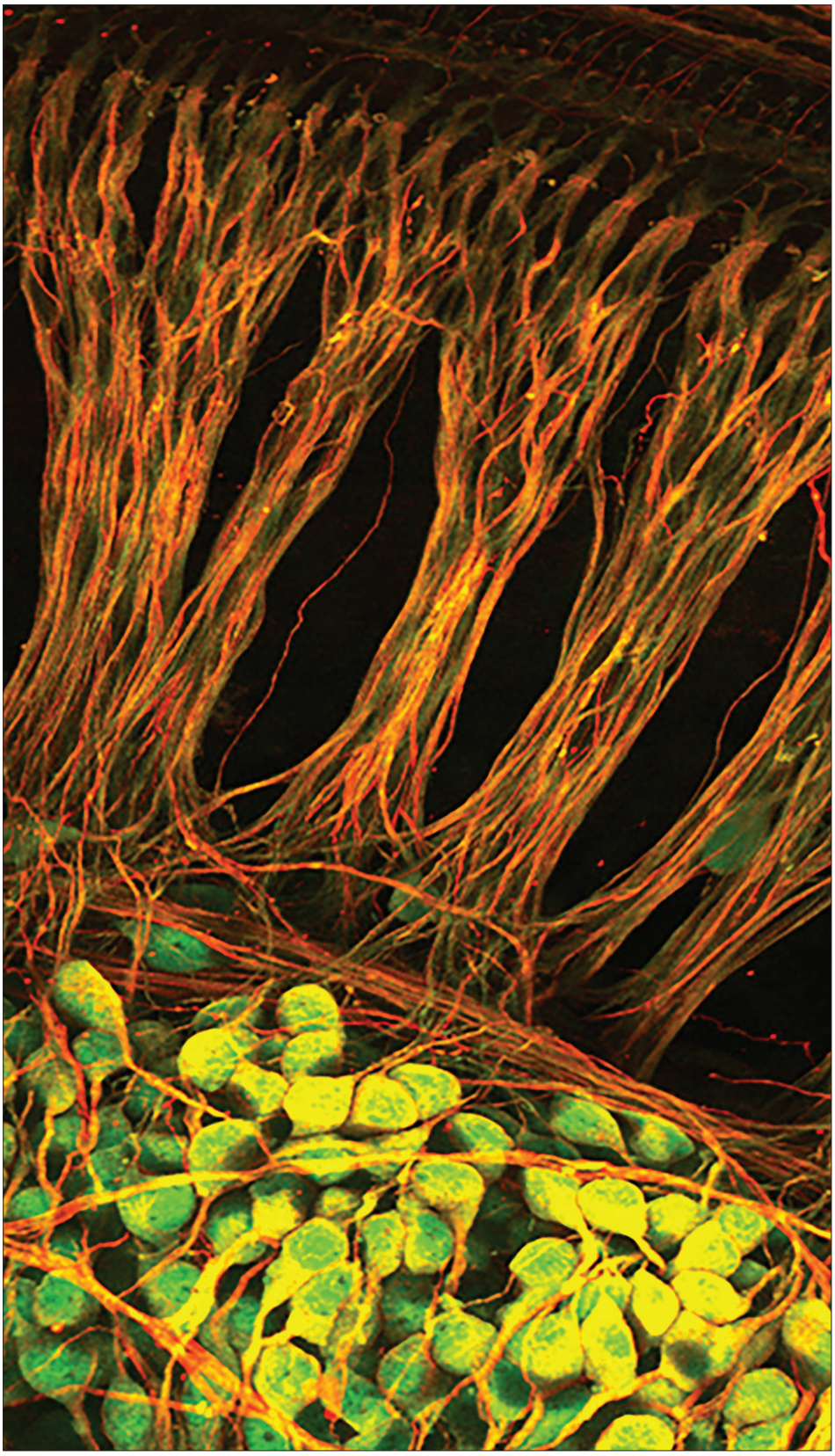
McCormick Place: N229

Hours: Friday, October 18–Tuesday, October 22
7 a.m.–5 p.m.
Wednesday, October 23
7 a.m.–1:30 p.m.

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

Transportation to and from McCormick Place/Hotels
For information on the complimentary SfN shuttle service and other travel resources, see pages 82–83.

Wireless Internet
As a service to annual meeting registrants, SfN provides free wireless Internet access in designated areas of McCormick Place during Neuroscience 2019. To take advantage of this free service, bring a laptop, smartphone, or other device with a built-in wireless network card or with an external wireless card that is 802.11b/g/a/n/ac compatible, and set your network card to use DHCP (or acquire address automatically). The Exhibit Hall areas will provide wireless service only to wireless cards that are 802.11n compatible. Wireless network users should reference the FAQs and disclaimers at www.sfn.org/wireless before accessing the network. SfN will provide support for wireless users at the Wireless Support booth in the Attendee Services area.



Exhibitor List

GENERAL INFORMATION PROGRAM | **WWW.SfN.ORG**

As of: July 25, 2019

Exhibitor List

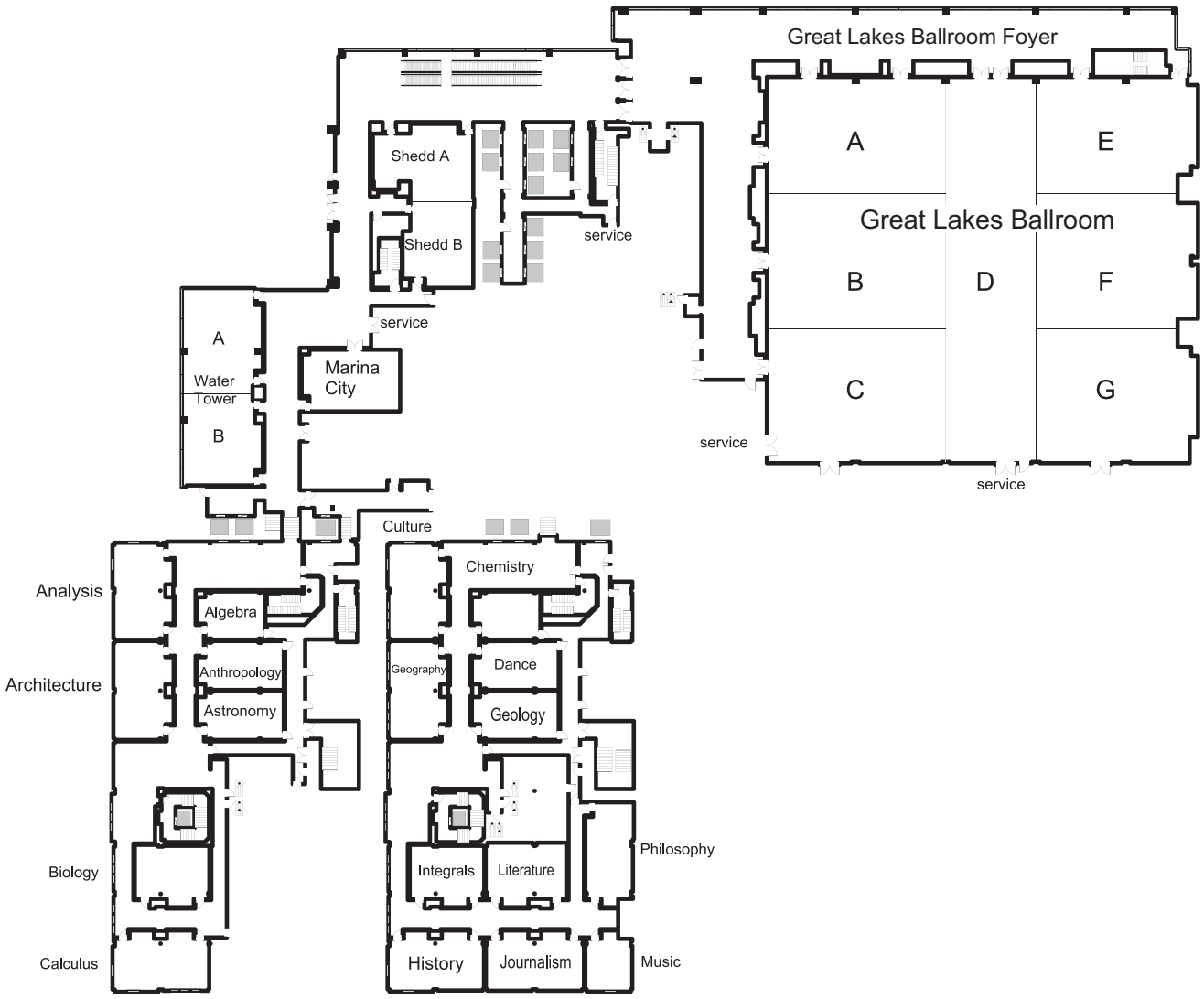
GENERAL INFORMATION PROGRAM | **WWW.SfN.ORG**

As of: July 25, 2019

Hotel Floor Plans

MARRIOTT MARQUIS CHICAGO
2121 S. PRAIRIE AVENUE
CHICAGO, ILLINOIS 60616

LEVEL 2



Hotel Floor Plans

HYATT REGENCY McCORMICK PLACE

2233 SOUTH DR. MARTIN LUTHER KING JR. DRIVE

CHICAGO, ILLINOIS 60616

LEVEL 2

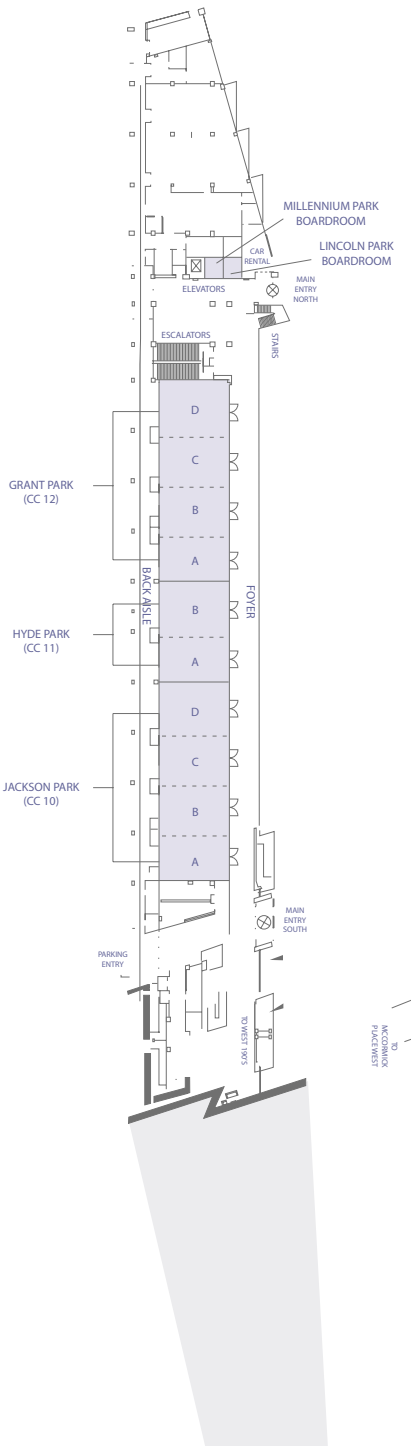
Hotel Floor Plans

HYATT REGENCY McCORMICK PLACE

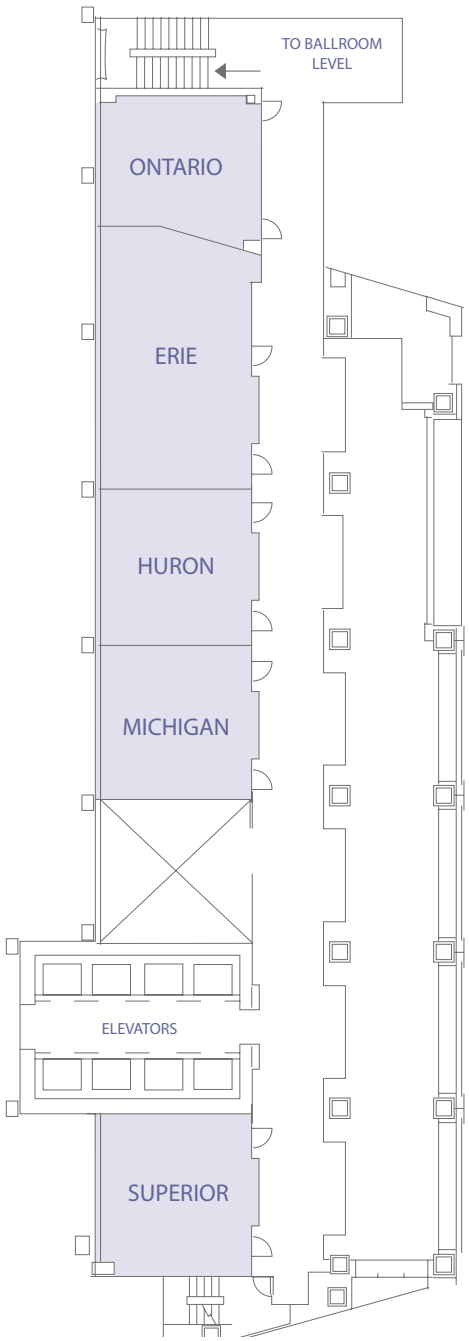
2233 SOUTH DR. MARTIN LUTHER KING JR. DRIVE

CHICAGO, ILLINOIS 60616

LEVEL 1



LEVEL 3



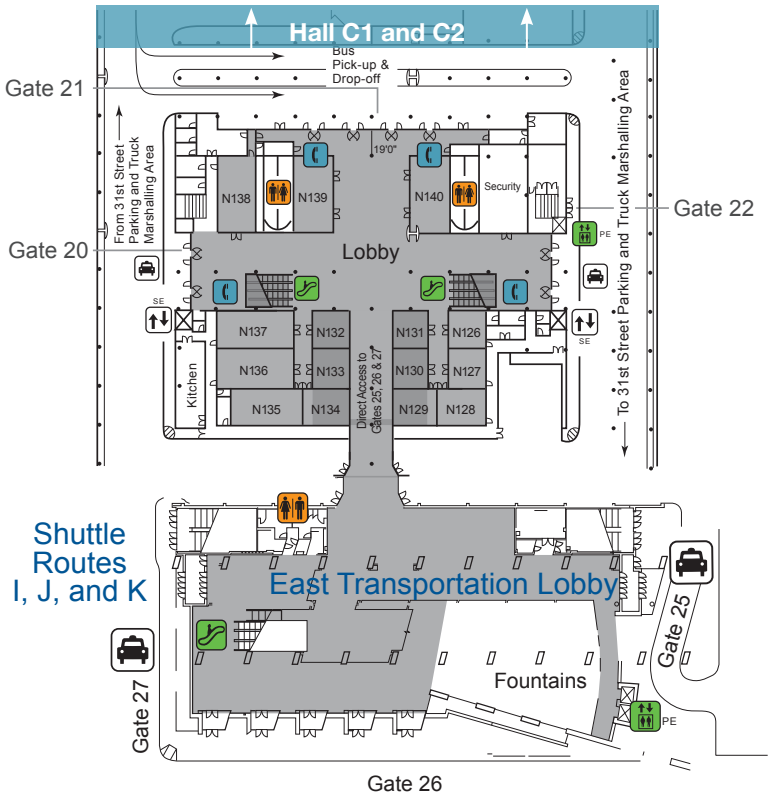
Convention Center Floor Plans

McCORMICK PLACE

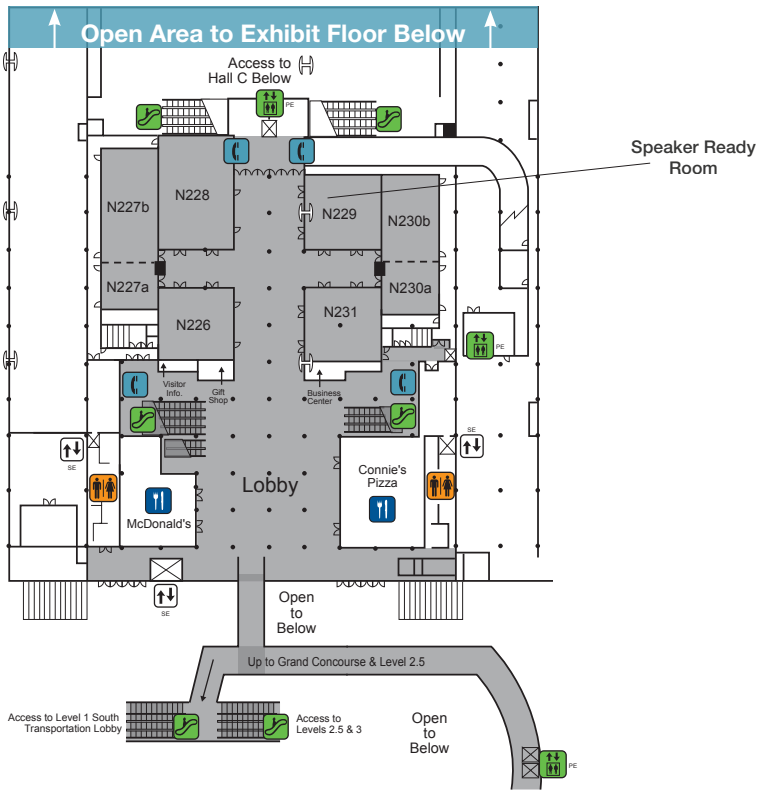
2301 S. MARTIN LUTHER KING DRIVE

CHICAGO, ILLINOIS 60616

LEVEL 1 NORTH



LEVEL 2 NORTH

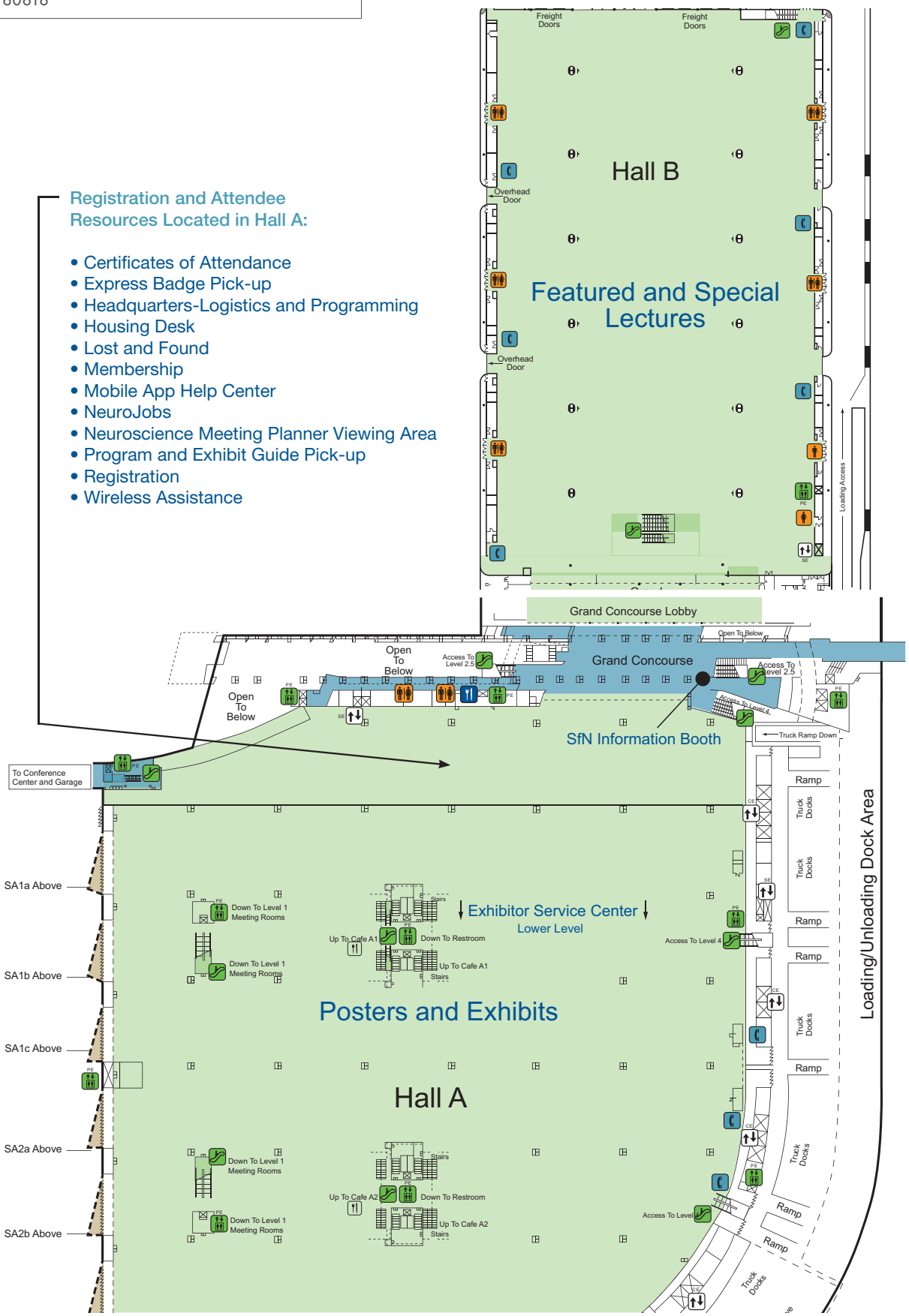


Convention Center Floor Plans

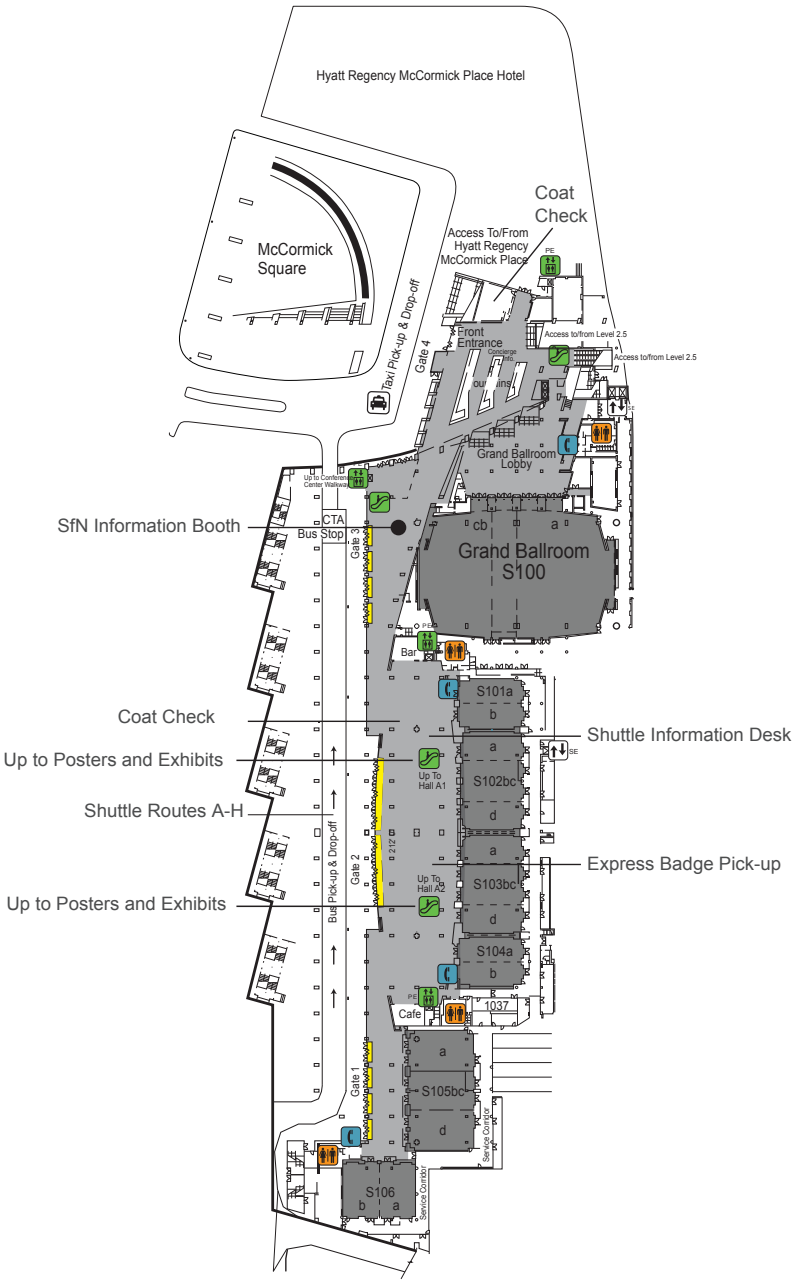
McCORMICK PLACE
2301 S. MARTIN LUTHER KING DRIVE
CHICAGO, ILLINOIS 60616

LEVEL 3 NORTH

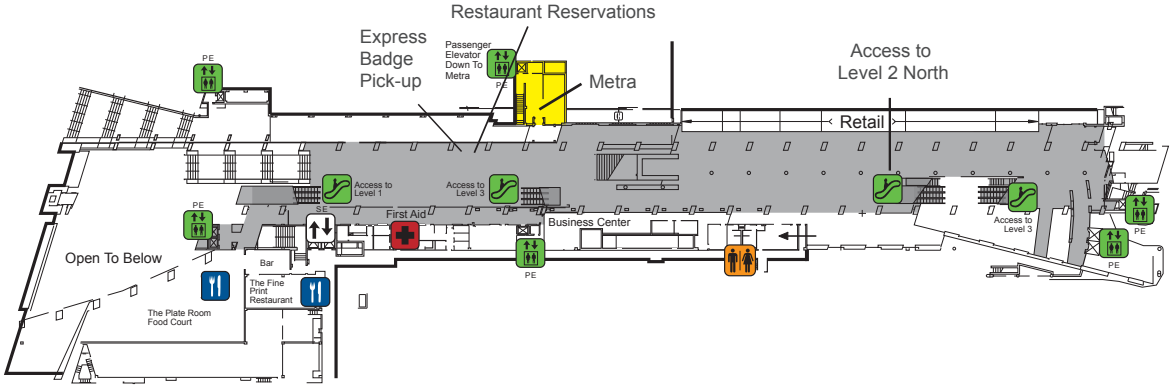
LEVEL 3 SOUTH



LEVEL 1 SOUTH



LEVEL 2.5 SOUTH



Convention Center Floor Plans

McCORMICK PLACE

2301 S. MARTIN LUTHER KING DRIVE

CHICAGO, ILLINOIS 60616

Know Your Brain. Know Yourself.

Explore the Universe Between Your Ears

Neuroscience Core Concepts

www.brainfacts.org/Core-Concepts

#KnowYourBrain

BrainFacts.org

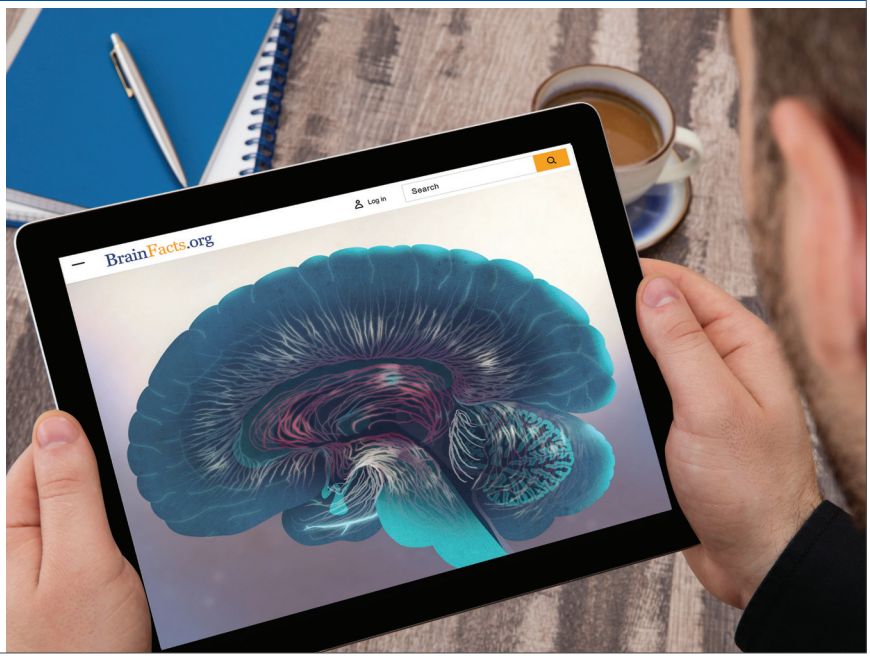
A PUBLIC INFORMATION INITIATIVE OF:

THE KAVLI FOUNDATION

GATSBY

SOCIETY *for* NEUROSCIENCE

CELEBRATING 50 YEARS 1969–2019



Become a member. Meet journal editors. Get involved.

Learn more about SfN's events, programs, and resources at **Booth #1005, Exhibit Hall A.**

SOCIETY *for* NEUROSCIENCE

CELEBRATING 50 YEARS 1969–2019

Exhibits & Poster Sessions

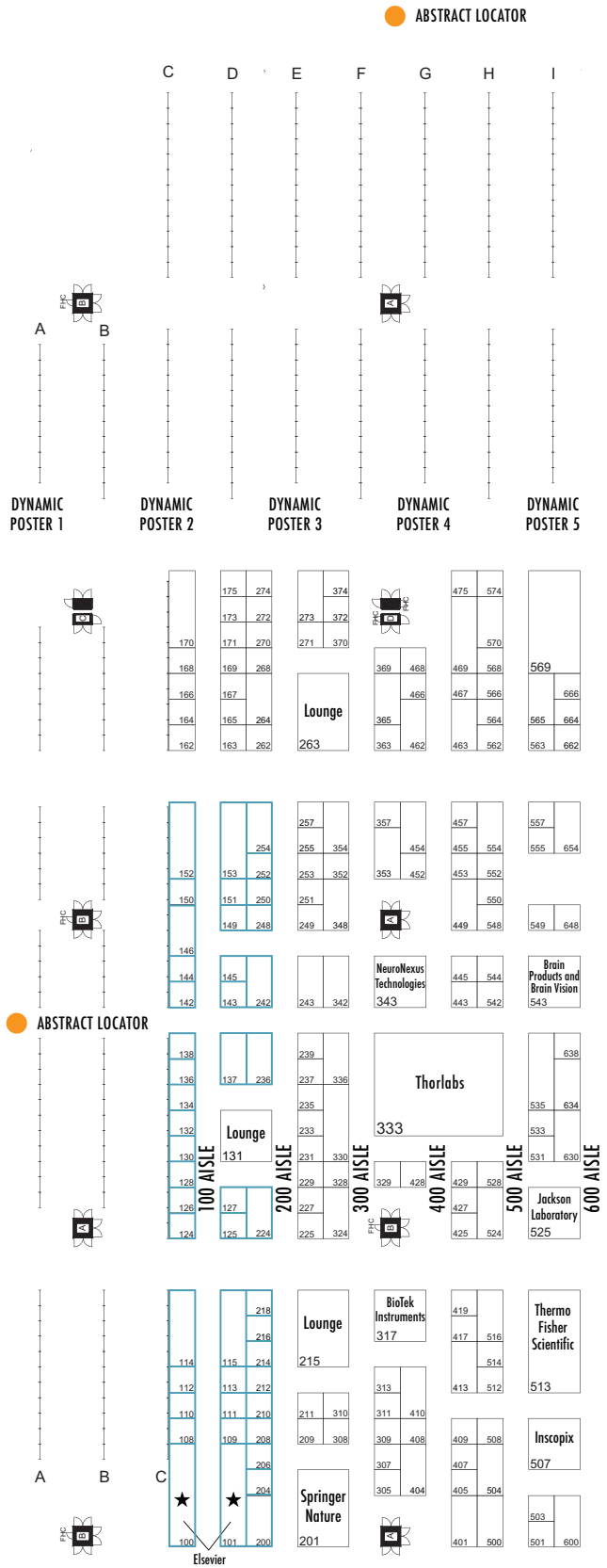
McCORMICK PLACE. SOUTH BUILDING

Meeting Dates: Oct. 19–23

Exhibit Dates: Oct. 20–23

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

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




SEATING AREA
ABSTRACT LOCATOR
SEATING AREA
J K L M N O P
Q R S T
U V W X Y Z AA BB
CC DD
DYNAMIC POSTER 6
DYNAMIC POSTER 7
DYNAMIC POSTER 8
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Kopf Instruments 825
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Sutter Instruments
Hamamatsu Corporation 1317
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Society for Neuroscience 1005
Nikon Instruments Inc. 1201
ZEISS Microscopy 1601
Lounge 1815
National Institutes of Health 2001
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1300 AISLE
1400 AISLE
1500 AISLE
ABSTRACT LOCATOR
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ENTRANCE
ENTRANCE

Photo Credits

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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.

Cover: This image is an artistic rendering of mouse hippocampus, stained with antibodies against α-synuclein (yellow) and the sphingolipid glucosylceramide (blue).α-Synuclein interacts with select sphingolipids in the context of GBA-associated Parkinson's disease. Courtesy with permission: Yumiko V. Taguchi, Jun Liu, Jiapeng Ruan, Joshua Pacheco, Xiaokui Zhang, Justin Abbasi, Joan Keutzer, Pramod K. Mistry and Sreeganga S. Chandra. *Journal of Neuroscience* 4 October 2017, 37 (40) 9617-9631.

Page 3: This confocal image shows expression of the transcription factors NKX2.1 (blue) and ISL1 (red) in POMC (green) neurons of a developing mouse hypothalamus. NKX2.1 is required for initiation of POMC expression in these neurons. Courtesy with permission: Daniela P. Orquera, M. Belén Tavella, Flavio S.J. de Souza, Sofía Nasif, Malcolm J. Low and Marcelo Rubinstein. *Journal of Neuroscience* 22 May 2019, 39 (21) 4023-4035.

Page 4: Jaysi (Photographer). (2018, October 20). Chicago skyline aerial drone view from above stock photo [digital image]. Retrieved from: istockphoto.com/photo/chicago-skyline-aerial-drone-view-from-above-lake-michigan-and-city-of-chicago-gm1057157166-282121778.

Page 9: This image shows a parvalbumin-expressing interneuron overlaid on a 2-color fluorescent *in situ* hybidization image showing expression of NMDA receptor GluN2D in GAD-expressing GABAergic interneurons. Courtesy with permission: Elizabeth Hanson, Moritz Armbruster, Lauren A. Lau, Mary E. Sommer, Zin-Juan Klaft, Sharon A. Swanger, Stephen F. Traynelis, Stephen J. Moss, Farzad Noubary, Jayashree Chadchankar and Chris G. Dulla. *Journal of Neuroscience* 8 May 2019, 39 (19) 3611-3626.

Page 17: This image shows the arborizations of a TL2a tangential neuron in the lower division of the central body of the desert locust brain. These neurons are sensitive to the polarization angle of blue light as well as the direction of an unpolarized green light spot and use these properties to create an internal compass for navigation.Courtesy with permission: Uta Pegel, Keram Pfeiffer, Frederick Zittrell, Christine Scholtyssek and Uwe Homberg. *Journal of Neuroscience* 17 April 2019, 39 (16) 3070-3080.

Page 31: This confocal image shows neural stem cells in the dentate gyrus of a 7-day-old mouse. Neural stem cells migrate toward the hilus of the dentate gyrus and form a proliferative zone, called the subgranular zone, at the border between the hilus and the granule cell layer. While neural stem cells are migrating into the subgranular zone, they establish a radial process that extends across the granule cell layer, called the secondary radial scaffold (labeled with Nestin (green) and GFAP (red)). Neural stem cell nuclei are labeled with Sox2 (cyan). Courtesy with permission: Hirofumi Noguchi, Naoya Murao, Ayaka Kimura, Taito Matsuda, Masakazu Namihira and Kinichi Nakashima. *Journal of Neuroscience* 1 June 2016, 36 (22) 6050-6068.

Page 37: This image shows cone photoreceptors directly contacting microglia within the outer plexiform layer of the human retina. The tissue was immunolabeled with antibodies against calbindin (green) and peanut agglutinin (blue), and microglia were labeled with monocyte marker ionized calcium-binding adapter molecule 1 (red). Microglia, photoreceptor interaction plays an important role in postnatal photoreceptor maturation, with loss of fractalkine-Cx3cr1 signaling leading to an altered distribution of cilium proteins, failure of outer segment elongation, and cone photoreceptor loss. Courtesy with permission: Andrew I. Jobling, Michelle Waugh, Kirstan A. Vessey, Joanna A. Phipps, Lidia Trogrlic, Una Greferath, Samuel A. Mills, Zhi L. Tan, Michelle M. Ward and Erica L. Fletcher.. *Journal of Neuroscience* 16 May 2018, 38 (20) 4708-4723.

page 40: This image shows the mouse adult hippocampus with neurogenesis markers. EYFP (green) is expressed in radial glia-like neural stem cells and their progenies. Adult-born neurons and neural stem cells/neural progenitors are stained with Doublecortin (red) and Sox2 (white), respectively. DAPI labeling is blue. Courtesy with permission: H. Georg Kuhn, Tomohisa Toda and Fred H. Gage. *Journal of Neuroscience* 5 December 2018, 38 (49) 10401-10410.

Page 21, 23, 29, 30, 34, 39, 42, 76, 77, 83: 2019, © Society for Neuroscience. All rights reserved. Photos by Joe Shymanski.

page 73: Multiphoton image of a viable organotypic slice from an embryonic day 12 mouse neocortex. This slice was immersion stained in CellTracker Green to label the cell cytoplasm and Syto82 (Invitrogen) for nucleic acid staining. This is the onset of neocortical neurogenesis, and the first neurons in the preplate (top layer of cells) have migrated above the precursors in the ventricular zone (VZ). A VZ cell in metaphase is situated at the surface of the ventricle (bottom center). The slice was excited with a femtosecond multiphoton laser tuned to 800 nm, and the emission spectra were separated using FITC and RITC filters. Courtesy with permission: Jonathan S. Gal, Yury M. Morozov, Albert E. Ayoub, Mitali Chatterjee, Pasko Rakic and Tarik F. Haydar. *Journal of Neuroscience* 18 January 2006, 26 (3) 1045-1056.

page 75: This image shows a neural rosette derived from a pluripotent stem cell. Apical localization of N-cadherin (red) is seen, with beta III tubulin (green) showing both polarized rosette cells, and non-polarized neuronal cells outside of the rosette. Nuclei are visualized with DAPI (blue). Courtesy with permission: Liam G. Coulthard, Owen A. Hawksworth, Rui Li, Anushree Balachandran, John D. Lee, Farshid Sepehrband, Nyoman Kurniawan, Angela Jeanes, David G. Simmons, Ernst Wolvetang and Trent M. Woodruff. *Journal of Neuroscience* 31 May 2017, 37 (22) 5395-5407.

Page 82: dibrova (Photographer). (2018, April 7). Chicago sunset time stock photo [digital image]. Retrieved from: istockphoto.com/photo/chicago-sunset-time-gm941021400-257213226.

Page 84: VirtualVV (Photographer). (2015, August 14). Chicago CTA Train stock photo [digital image]. Retrieved from: istockphoto.com/photo/chicago-cta-train-gm531282753-55218132.

page 85: 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. *Journal of Neuroscience* 1 November 2006, 26 (44) 11249-11252.

page 89: This image shows a region of spiral ganglion neuron cell bodies and peripheral processes from the cochlea of a P1 MaptEGFP (green) mouse. Neurons are also labeled with an antibody against neuron-specific beta tubulin III (red). Courtesy with permission: Hanna E. Sherrill, Philippe Jean, Elizabeth C. Driver, Tessa R. Sanders, Tracy S. Fitzgerald, Tobias Moser and Matthew W. Kelley. *Journal of Neuroscience* 1 November 2006, 39 (27) 5284-5298.

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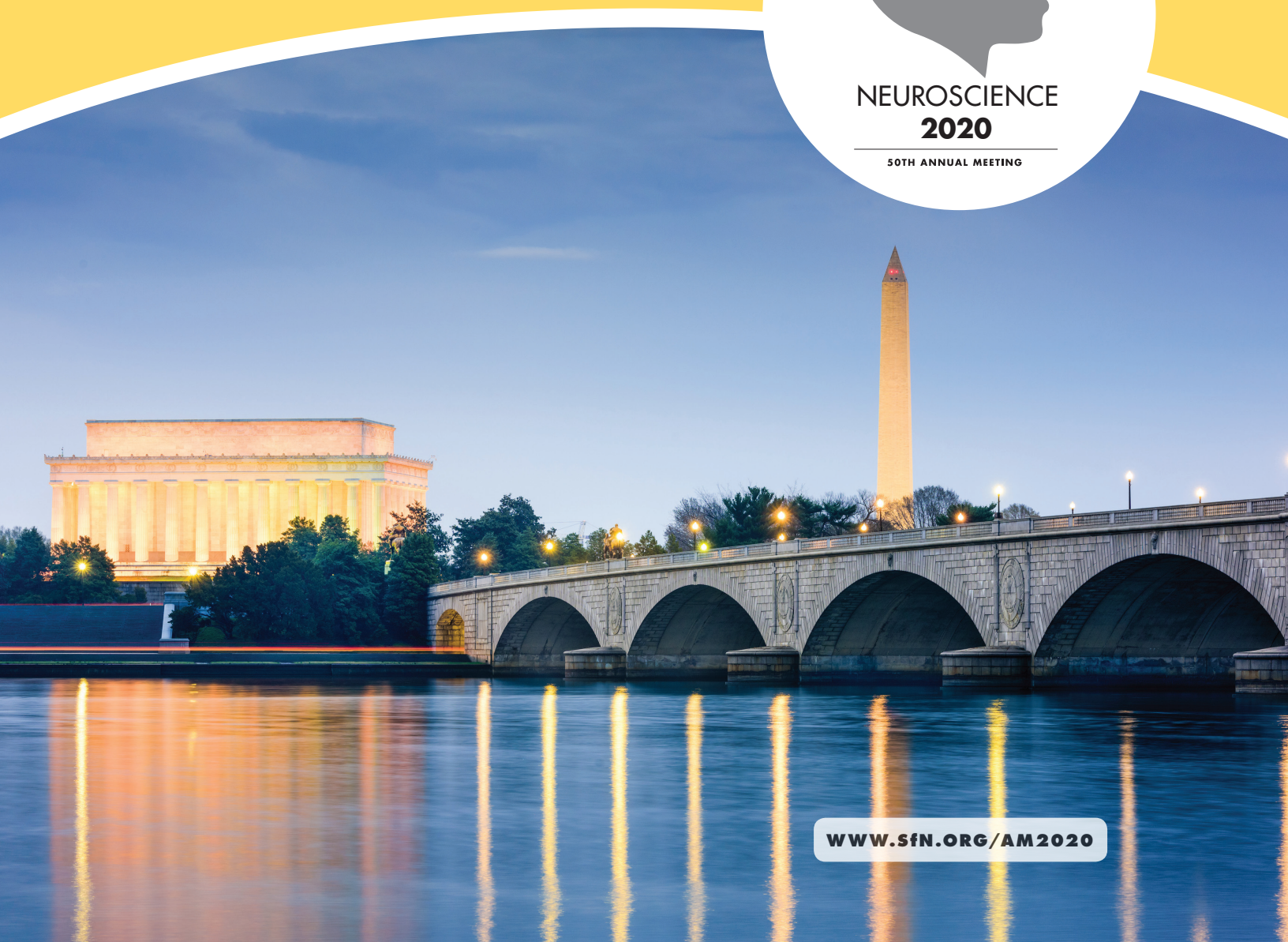

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