

SYMPOSIA AND MINISYMPOSIA

THEME A: DEVELOPMENT

SYMPOSIUM: Extracellular Vesicles: Insights Into Cell-to-Cell Communication in the Nervous System **CME**
Chair: Jason D. Shepherd, PhD

MINISYMPOSIUM: Molecular Mechanisms Underpinning Dopamine Neuron Development, Diversity, and Vulnerability **CME**
Chair: Raj Awatramani, PhD
Co-Chair: Sandra Blaess, PhD

MINISYMPOSIUM: Neural Proteomics in Synapse Development and Function **CME**
Chair: Brock Grill, PhD
Co-Chair: Kirill A. Martemyanov, PhD

SYMPOSIUM: Neuronal Guidance in Health and Disease **CME**
Chair: Alex L. Kolodkin, PhD

SYMPOSIUM: RNA Control of Axonal Functions **CME**
Chair: Jeffery L. Twiss, MD, PhD
Co-Chair: Michael Fainzilber, PhD

MINISYMPOSIUM: Sonic Hedgehog and Cell-Specific Programming: Circuits, Disease, and Repair **CME**
Chair: Corey C. Harwell, PhD
Co-Chair: Rebecca Ihrie, PhD

THEME B: NEURAL EXCITABILITY, SYNAPSES, AND GLIA

MINISYMPOSIUM: Advances in Enteric Neurobiology: The "Brain" in the Gut in Health and Disease **CME**
Chair: Meenakshi Rao, MD, PhD
Co-Chair: Subhash Kulkarni, PhD

MINISYMPOSIUM: Cell Adhesion Molecules at the Intersection of Cell Type Identity and Neural Circuit Connectivity **CME**
Chair: Csaba Foldy, PhD
Co-Chair: Joris de Wit, PhD

MINISYMPOSIUM: Molecular and Nano-Organization of Synapses **CME**
Chair: Thomas Biederer, PhD

MINISYMPOSIUM: Multitransmitter Neurons: The Function and Regulation of Neurotransmitter Cotransmission **CME**
Chair: Adam J. Granger, PhD

MINISYMPOSIUM: Neuromodulation of Brain States in Health and Disease: Bridging Experiments and Computational Models **CME**
Chair: Srikanth Ramaswamy, PhD
Co-Chair: Antoine Adamantidis, PhD

SYMPOSIUM: Unveiling the Extracellular Space of the Brain: From Super-Resolved Microstructure to *In Vivo* Function **CME**
Chair: Valentin U. Nägerl, PhD
Co-Chair: Sabina Hrabetova, MD, PhD

THEME C: NEURODEGENERATIVE DISORDERS AND INJURY

MINISYMPOSIUM: The Endolysosomal System and Proteostasis: From Development to Degeneration **CME**
Chair: Huaye Zhang, PhD
Co-Chair: Bettina R. Winckler, PhD

SYMPOSIUM: Global Efforts to Build More Predictive Animal Models of Neurodegenerative Disease **CME**
Chair: Bruce T. Lamb, PhD
Co-Chair: Rudolph E. Tanzi, PhD

MINISYMPOSIUM: Mechanisms of Tau Oligomer-Induced Synaptic Impairment and Potential Treatment Strategies **CME**
Chair: Ottavio Arancio, MD, PhD
Co-Chair: Frank M. Longo, MD, PhD

SYMPOSIUM: Organelle Dynamics and Proteostasis in Neuronal Homeostasis and Degeneration **CME**
Chair: Xinnan Wang, PhD

SYMPOSIUM: Repairing the Injured Nervous System: Inhibiting the Inhibitors **CME**
Chair: Elizabeth J. Bradbury, PhD
Co-Chair: Catherina G. Becker, PhD

THEME D: SENSORY SYSTEMS

MINISYMPOSIUM: Algorithms for Olfactory Search Across Species **CME**
Chair: Matt Smear, PhD
Co-Chair: Katherine Nagel, PhD

2018 BASIC-TRANSLATIONAL-CLINICAL ROUNDTABLES

Molecular Therapies for Neurological Diseases **CME**
Organizer: Frank Bennett, PhD

Neuroprosthetic Devices: A Patient's Perspective on Brain Computer Interfaces **CME**
Organizer: Florian Solzbacher, PhD

Rapid Antidepressant Action: Synaptic Mechanisms and Clinical Aspects **CME**
Organizer: Ege T. Kavalali, PhD

What We Know, What We Don't Know: How Can We Better Understand Alzheimer's Disease to Develop Effective Treatments? **CME**
Organizer: David M. Holtzman, MD



SYMPOSIA AND MINISYMPOSIA (CONT.)

SYMPOSIUM: The Feeling Within: Molecules to Behavior Underlying Interception [CME](#)
Chair: Lisa Stowers, PhD
Co-Chair: Ardem Patapoutian, PhD

MINISYMPOSIUM: How to Get Out of Harm's Way: New Insight Across Multiple Species Into the Neural Mechanisms of Visually Guided Collision Avoidance [CME](#)
Chair: Fabrizio Gabbiani, PhD
Co-Chair: Florian Engert, PhD

MINISYMPOSIUM: Multidimensional Neuronal Cell Type Classification in the Cerebral Cortex [CME](#)
Chair: Jochen F. Staiger, MD
Co-Chair: Staci A. Sorensen, PhD

MINISYMPOSIUM: Novel Molecular Targets for the Treatment of Pain [CME](#)
Chair: John M. Streicher, PhD
Co-Chair: Tally Largent-Milnes, PhD

THEME E: MOTOR SYSTEMS

MINISYMPOSIUM: The Basal Ganglia: Beyond Action Selection [CME](#)
Chair: Eric A. Yttri, PhD

MINISYMPOSIUM: Cortical Control of Locomotion and Posture [CME](#)
Chair: Irina N. Beloozerova, PhD

MINISYMPOSIUM: The Dynamic Interaction of Vision and Eye Movements [CME](#)
Chair: J. Patrick Mayo, PhD

MINISYMPOSIUM: Latent Factors and Dynamics in Motor Cortex and Their Application to Brain-Machine Interfaces [CME](#)
Chair: Chethan Pandarinath, PhD

MINISYMPOSIUM: More Than Just a "Motor": Recent Surprises From the Frontal Cortex [CME](#)
Chair: Christian L. Ebbesen, PhD

SYMPOSIUM: Targeted Therapies for Parkinson's Disease: From Genetics to the Clinic [CME](#)
Chair: Lamy S. Shihabuddin, PhD
Co-Chair: Patrik Brundin, MD, PhD

THEME F: INTEGRATIVE PHYSIOLOGY AND BEHAVIOR

SYMPOSIUM: Blood-Brain Barrier in Health and Disease: Role in Neurodegeneration, CNS Autoimmunity, and Gene Transfer [CME](#)
Chair: Berislav V. Zlokovic, MD, PhD

MINISYMPOSIUM: Defining Dysbiosis in Disorders of Movement and Motivation [CME](#)
Chair: Christopher T. Fields
Co-Chair: Helen Vuong, PhD

SYMPOSIUM: The Emerging Role of the Amygdala in Modulating the Somatosensory and Emotional Components of Pain and Itch [CME](#)
Chair: Benedict J. Kolber, PhD

SYMPOSIUM: Multiple Axes of Dopamine Systems for Behavioral Controls: From Fly Via Rodent to Monkey [CME](#)
Chair: Mitsuko Watabe-Uchida, PhD
Co-Chair: Okihide Hikosaka, MD, PhD

SYMPOSIUM: Multiscale Computer Modeling of Neural Circuits in Health and Disease [CME](#)
Chair: William W. Lytton, MD
Co-Chair: Christophe Bernard, PhD

MINISYMPOSIUM: Neuronal Mechanisms for Prepulse Inhibition: Comparative Approaches From Sensory to Cognition [CME](#)
Chair: Thomas Preuss, PhD
Co-Chair: Susanne Schmid, PhD

MINISYMPOSIUM: Neuropeptide Signaling: From Physiology to Behavior [CME](#)
Chair: Jennifer Garrison, PhD

MINISYMPOSIUM: Sex Differences in Risk and Resilience: Stress Effects on the Neural Substrates of Emotion and Motivation [CME](#)
Chair: Cara L. Wellman, PhD

THEME G: MOTIVATION AND EMOTION

MINISYMPOSIUM: Computational Affective Neuroscience: Algorithms for Survival [CME](#)
Chair: Robb B. Rutledge, PhD
Co-Chair: Dominik R. Bach, MD, PhD

MINISYMPOSIUM: Insular Cortex Neurocircuits: Relationships Among Function, Connectivity, and Drug and Alcohol Abuse [CME](#)
Chair: Brady K. Atwood, PhD

MINISYMPOSIUM: Neurocognitive Development of Motivated Behavior [CME](#)
Chair: Catherine A. Hartley, PhD
Co-Chair: Dylan G. Gee, PhD

MINISYMPOSIUM: Sex Differences and Hormone Action in the Limbic System [CME](#)
Chair: John Meitzen, PhD

MINISYMPOSIUM: Social Motivation Across the Lifespan [CME](#)
Chair: Brian C. Trainor, PhD
Co-Chair: Alexa H. Veenema, PhD

THEME H: COGNITION

MINISYMPOSIUM: From Recent to Remote Memory and Back [CME](#)
Chair: Yaniv Ziv, PhD
Co-Chair: Inbal Goshen, PhD

MINISYMPOSIUM: High-Level Cognition in Low-Level Brain Regions [CME](#)
Chair: Rosemary A. Cowell, PhD

SYMPOSIUM: Language Networks Derived From Direct Intracranial Recordings in Humans [CME](#)
Chair: Nitin Tandon, MD
Co-Chair: Stanislas Dehaene, PhD

SYMPOSIUM: Mental Structures and Sequences: Evolutionary Solutions From Birds to Primates [CME](#)
Chair: Christopher I. Petkov, PhD
Co-Chair: Angela Friederici, PhD

MINISYMPOSIUM: The Neurobiology of Forgetting [CME](#)
Chair: Maria Wimber, PhD
Co-Chair: Paul W. Frankland, PhD

SYMPOSIUM: Specific Basal Forebrain-Cortical Cholinergic Circuits Coordinate Cognitive Operations [CME](#)
Chair: Laszlo Zaborszky, MD, PhD
Co-Chair: Gina R. Poe, PhD

THEME I: TECHNIQUES

SYMPOSIUM: The Dynamic Brain: Signatures of Fast Functional Reconfiguration, Their Interpretability, and Clinical Value [CME](#)
Chair: Javier Gonzalez-Castillo, PhD
Co-Chair: Peter Bandettini, PhD

MINISYMPOSIUM: Exposing Neural Dynamics Using Real-Time Control: From Neurons to Human Behavior and Psychopathology [CME](#)
Chair: Hanna Keren, PhD
Co-Chair: Christoph Zrenner, MD

MINISYMPOSIUM: Human Stem Cell Models to Validate Rare and Common Variants Contributing to Neurodevelopmental Disorders [CME](#)
Chair: Kristen Brennand, PhD

MINISYMPOSIUM: Innovative Approaches for Monitoring Neuromodulation With Light [CME](#)
Chair: Yulong Li, PhD
Co-Chair: Matthew R. Banghart, PhD

SYMPOSIUM: Local Field Potentials and Deep Brain Stimulation [CME](#)
Chair: Cameron C. McIntyre, PhD

MINISYMPOSIUM: New Observations in Neuroscience Using Superresolution Microscopy [CME](#)
Chair: Michihiro Igarashi, MD, PhD

MINISYMPOSIUM: Whole-Brain Analysis of Cells and Circuits by Tissue Clearing and Light-Sheet Microscopy [CME](#)
Chair: Hiroki R. Ueda, MD, PhD
Co-Chair: Kwanghun Chung, PhD

THEME J: HISTORY AND EDUCATION

MINISYMPOSIUM: Telling Stories of Science
Chair: Wendy A. Suzuki, PhD

