**SUNDAY, JUNE 5**
Arrival and Registration

**MONDAY, JUNE 6**

**Welcome and Keynote Session (Joint)**

**Rudolph E. Tanzi**, Massachusetts General Hospital, USA  
*New Insights into Pathogenesis and Therapeutics Options in Alzheimer’s Disease*

**Thomas C. Südhof**, Stanford School of Medicine, USA  
*Synapse Biology in Alzheimer’s Disease*

**Genetics of Neuro-Immune Interactions (Joint)**

**John Hardy**, University College London, Institute of Neurology, UK  
*Identifying Genetic Variants Contributing to Neurodegenerative Diseases*

**David Sulzer**, Columbia University, USA  
*Inflammation and Immunity in Parkinson’s Disease*

**Alison Goate**, Icahn School of Medicine at Mount Sinai, USA  
*Alzheimer’s Disease Susceptibility Alleles Implicate Endolysosomal Function in Microglia*

**Short Talk(s) Chosen from Abstracts**

**Workshop 1: Imaging of the CNS in Health and Disease (Z1)**

**Synaptic Mechanisms and Molecular Events (Z2)**

**Pietro V. De Camilli**, Yale University School of Medicine, USA  
*Synaptic Membrane Endocytosis*

**Morgan H. Sheng**, Broad Institute, USA  
*Mechanisms of Synapse Loss in Neurodegenerative Disease*

**Maria Grazia Spillantini**, University of Cambridge, UK  
*Synaptic Dysfunction in Parkinson’s Disease*

**Volker Haucke**, Leibniz Forschungsinstitut für Molekulare Pharmakologie, Germany  
*Synaptic Vesicle Exo-Endocytosis and Reformation*

**Short Talk(s) Chosen from Abstracts**

**Understanding Immune Receptors in the CNS (Z1)**

**Greg E. Lemke**, The Salk Institute for Biological Studies, USA  
*TAM Receptor Regulation of Neurodegenerative Disease*

**Shilpa Sambashivan**, Nura Bio, USA  
*Intracellular Receptors for NAD in Neurodegeneration*

**Marco Colonna**, Washington University School of Medicine, USA  
*ITAM Signaling in Neurodegeneration*

**Short Talks Chosen from Abstracts**

**Poster Session 1**

**TUESDAY, JUNE 7**

**Autophagy and Disease (Z2)**

**Ivan Dikic**, Goethe University Medical School, Germany  
*ER-phagy: From Molecular Principles to Pathogenesis of Neuropathies*

**Xinnan Wang**, Stanford University School of Medicine, USA  
*Redox Mechanisms in Aging and Neurodegeneration*

**Myriam Heiman**, Massachusetts Institute of Technology, USA  
*Genome-Wide in vivo CNS Screening Identifies Genes that Modify CNS Neuronal Survival and Mutant Huntingtin Toxicity*

**Al Yamamoto**, Columbia University, USA  
*Selective Autophagy in the CNS*

**Short Talk(s) Chosen from Abstracts**

**Microglia, Other Glial Cells and Macrophages in Neurodegenerative Diseases (Z1)**

**Michael T. Heneka**, German Center for Neurodegenerative Diseases, Germany  
*Detrimental Effects of Inflammasome Activation and ASC Spec as a Plaque Nucleating Event in Alzheimer's Disease*

**Rosa C. Paolicelli**, University of Lausanne, Switzerland  
*Metabolic Control of Microglial Function*

**Marco Prinz**, University of Freiburg, Germany  
*Brain Macrophages in Neurodegenerative Diseases*

**Dorothy Schafer**, University of Massachusetts Medical School, USA  
*Microglial regulation of synaptic connectivity in demyelinating disease*

**Short Talks Chosen from Abstracts**

**Workshop 2: IPSC and Organoids for the Study of Neurodegeneration (Z1)**

**Endolysosomal Dysfunction in Neurodegeneration (Z2)**

**Dimitri Krainc**, Northwestern University, USA  
*Convergence of Mitochondrial and Lysosomal Dysfunction*

**Ralph A. Nixon**, New York University, Langone Medical Center, USA  
*Defective Endolysosomal Function in Disease*

**Roberto Zoncu**, University of California, Berkeley, USA  
*mTOR and Lysosomes in Nutrient Sensing and Growth Control*

**Short Talk(s) Chosen from Abstracts**

**The Role of Brain Immune System in Shaping the CNS Connectivity (Z1)**

**Jun R. Huh**, Harvard Medical School, USA  
*Impact of Gut Bacteria in Neurodevelopmental Abnormalities*
**Poster Session 2**

**WEDNESDAY, JUNE 8**

**Mitochondrial Defects in Neurodegeneration (Z2)**
- **Dalton James Surmeier**, Northwestern University, USA
  - Bioenergetic Determinants of Selective Neuronal Vulnerability in Parkinson’s Disease
- **Richard J. Youle**, NINDS, National Institutes of Health, USA
  - Neuroinflammation Stemming from Mitochondrial DAMPs Linked to Parkinson’s Disease’s Genes and Mitophagy Defects
- **Yvette C. Wong**, Northwestern University, USA
  - Mitochondria-Lysosome Contact Sites: Roles and Regulation in Homeostasis and Neurodegenerative Diseases

**Short Talks Chosen from Abstracts**

**Application of Next Generation Technologies to Profile Neuro Immune Interactions (Z1)**
- **Frederic Geissmann**, Memorial Sloan Kettering Cancer Center, USA
  - Mosaic and in the Central Nervous System and Neurodegeneration
- **Li-Huei Tsai**, Massachusetts Institute of Technology, USA
  - The Use of Induced Pluripotent Stem Cells to Model Alzheimer’s Disease
- **Ido Amit**, Weizmann Institute, Israel
  - The Power of ONE: Immunology in the Age of Single Cell Genomics
- **Christopher K. Glass**, University of California, San Diego, USA
  - Decoding Microglia Enhancers in Health and Disease

**Short Talks Chosen from Abstracts**

**Workshop: Cellular Pathways Driving Disease (Z2)**

**Short Talks Chosen from Abstracts**

**Neuronal Pathways in Disease (Z2)**
- **David M. Holtzman**, Washington University, USA
  - Innate Immunity, ApoE, and Neurodegeneration
- **Virginia M. Y. Lee**, University of Pennsylvania School of Medicine, USA
  - Pathogenic Neuronal Mechanisms in Parkinson’s and Alzheimer’s Disease
- **Martin Kampmann**, University of California, San Francisco, USA
  - CRISPR-based Functional Genomics for Neurological Disease
- **Danielle Posthuma**, Vrije Universiteit Amsterdam, Netherlands
  - BrainScapes

**Brain Immune System in Neuroinflammation (Z1)**
- **Menna Clatworthy**, University of Cambridge, UK
  - Plasma Cells in the Meninges
- **Malu G. Tansey**, University of Florida, USA
  - Immune Function and Inflammation in Parkinson’s Disease
- **Francisco J. Quintana**, Harvard Medical School and the Broad Institute of MIT and Harvard, USA
  - Impact of Aryl Hydrocarbon Receptor in Multiple Sclerosis

**Short Talks Chosen from Abstracts**

**THURSDAY, JUNE 9**

**Translational Considerations in Neurodegenerative Research (Z2)**
- **Alfred W. Sandrock Jr.**, Biogen, Inc., USA
  - Introduction “Challenges of going from Bench to Bedside in Neurology”
- **Richard Hargreaves**, Bristol-Myers Squibb, USA
  - Moving Drug Candidates from Drug Discovery into First-in-Human Studies
- **Carole Ho**, Denali Therapeutics Inc., USA
  - Phase 2 Trial Design Considerations: How to Achieve Proof of Biology and Proof of Efficacy

**Short Talks Chosen from Abstracts**

**Blood Brain Barrier (BBB), Glymphatics and Lymphatics (Z1)**
- **Jonathan Kipnis**, Washington University School of Medicine, USA
  - Meningeal Sinuses and Lymphatics in the Epicenter of CNS Immune Surveillance
- **Zsuzsanna Fabry**, University of Wisconsin, USA
  - How does the Meningeal Lymphatics Respond to Neuroinflammation in Autoimmunity, Infection, and Trauma?
- **Berislav Zlokovic**, University of Southern California, USA
  - Pericytes Play an Important Role in Maintaining the BBB
- **Chenghua Gu**, Harvard Medical School, USA
  - Lipid Transport-Dependent Suppression of Caveolae-Mediated Transcytosis in BBB

**Short Talks Chosen from Abstracts**

**Future Directions for Therapeutics (Z2)**
- **Anabella Villalobos**, Biogen, USA
  - Small Molecule Therapeutics for CNS

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* Session Chair † Invited but not yet accepted     Program current as of September 18, 2021. Meal formats are based on meeting venue.
For the most up-to-date details, visit [https://www.keystonesymposia.org](https://www.keystonesymposia.org).
C. Frank Bennett, Ionis Pharmaceuticals, Inc., USA  
Oligonucleotide-based Therapeutic Approaches  
Speaker to be Announced  
Short Talk(s) Chosen from Abstracts  

Aging, Metabolism and Neurodegeneration (Z1)  
Katrin Andreasson, Stanford University, USA  
Myeloid Cell Metabolism in Aging  
Tony Wyss-Coray, Stanford University School of Medicine, USA  
Systemic Regulation of Brain Aging  
Douglas R. Green, St. Jude Children’s Research Hospital, USA  
Autophagy in Alzheimer’s Disease  

Short Talks Chosen from Abstracts  

Meeting Wrap-Up: Outcomes and Future Directions (Organizers)  
(Z2)  
Meeting Wrap-Up: Outcomes and Future Directions (Organizers)  
(Z1)  

FRIDAY, JUNE 10  
Departure