KEYSTONE SYMPOSIA
on Molecular and Cellular Biology

Neuroimmune Interactions: Nervous System and Immune Cell Heterogeneity in Health and Disease (Z4)
Scientific Organizers: Nicola J. Allen, Anna Victoria Molofsky and Francisco J. Quintana
Supported by the Directors’ Fund

Neurodegenerative Diseases (Z3)
Scientific Organizers: Leonard Petrucelli, Stacie Weninger and Soyon Hong

June 3-6, 2024 • Santa Fe Community Convention Center • Santa Fe, NM, USA
Sponsored by Lilly USA, LLC


MONDAY, JUNE 3
Arrival and Registration

TUESDAY, JUNE 4
Welcome and Keynote Session (Joint)
Tony Wyss-Coray, Stanford University School of Medicine, USA
Aging, the Immune System and Neurodegeneration
Beth Stevens, Boston Children's Hospital, Harvard Medical School, USA
Microglia and the Complement System in Neurodegeneration

Immune-CNS Interactions in Neurodegeneration (Joint)
Christopher K. Glass, University of California, San Diego, USA
Transcriptional Regulation of Macrophage Development
S. Pablo Sardi, Sanofi, USA
Therapeutic Development for Neurodegenerative Disorders
Rita Balice-Gordon, Muna Therapeutics, Denmark
Mechanisms to Enhance Resilience in Neurodegenerative Disease

Short Talks Chosen from Abstracts

Workshop 1 (Z4)

Sterile and Pathogen-Mediated Brain Injury (Z4)
Robyn S. Klein, Washington University School of Medicine, USA
Impact of Viral Infection on CNS Function
William H. Robinson, Stanford University School of Medicine, USA
The Role of EBV in Multiple Sclerosis

Short Talks Chosen from Abstracts

Neuroimmune Interactions Relevant to NDD (Z3)
Kate Monroe, Denali Therapeutics, USA
Leveraging Human Genetics for Novel Therapeutic Approaches for Alzheimer's Disease
Christian Haass, Ludwig-Maximilians University Munich, Germany
PGRN/ApoE
David M. Holtzman, Washington University, USA
Role of APOE in Modulating the Innate and Adaptive Immune Response in Neurodegeneration

Short Talks Chosen from Abstracts

Poster Session 1

WEDNESDAY, JUNE 5
Glia-Immune Interactions (Z4)
Anna Victoria Molofsky, University of California, San Francisco, USA
Cytokines in CNS Development
Francisco J. Quintana, Harvard Medical School and the Broad Institute of MIT and Harvard, USA
Astrocytes and Inflammatory Signaling
Nicola J. Allen, The Salk Institute for Biological Studies, USA
Astrocyte-Neuron Interactions in Aging and Neurodegeneration
Naomi Habib, Hebrew University of Jerusalem, Israel
Reconstruction of Multi-Cellular Dynamics Underlying Aging and Alzheimer's Disease: One Cell at a Time

Short Talks Chosen from Abstracts

Molecular Mechanisms in NDD (Z3)
Chenghua Gu, Harvard Medical School, USA
Talk Title to be Announced
Soyon Hong, University College London, UK
Border Associated Macrophages
Leonard Petrucelli, Mayo Clinic Jacksonville, USA
Tmem/PGRN

Short Talks Chosen from Abstracts

Career Roundtable (Joint)

Immune Regulation of Behavior (Z4)
Jessica Osterhout, University of Utah School of Medicine, USA
Immune Regulation of Social Behavior
Elaine Y. Hsiao, University of California, Los Angeles, USA
Gut Brain Connections in Behavior

Short Talks Chosen from Abstracts

Susceptibility vs. Resilience: Understanding Region Vulnerability in NDD (Z3)
Cagla Eroglu, Duke University Medical Center, USA
In vivo Proteomic Tools TurboID
Henne Holstege, Amsterdam UMC, Netherlands
Cognitively Healthy Centenarians are Genetically Protected Against Alzheimer's Disease
Evan Macosko, Broad Institute of MIT and Harvard, USA
Talk Title to be Announced

Short Talks Chosen from Abstracts

Poster Session 2

THURSDAY, JUNE 6
Peripheral Immune Signaling and Impact on Neural Circuits (Z4)

* Session Chair † Invited but not yet accepted  Program current as of October 8, 2023. Meal formats are based on meeting venue.
For the most up-to-date details, visit https://www.keystonesymposia.org.
**FRIDAY, JUNE 7**

**Departure**

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**Francesca Odoardi**, University Medical Center Göttingen, Germany  
*Lung Microbiome Regulation of Brain Autoimmunity*

**Michael D. Burton**, University of Texas at Dallas, USA  
*Neuroimmune Regulation of Pain and Depression*

**Henrique Veiga-Fernandes**, Champalimaud Research, Portugal  
*Gut Immunity Impacts on Brain Function*

**Jonathan Kipnis**, Washington University School of Medicine, USA  
*Brain Borders and Neurodegeneration*

**Short Talks Chosen from Abstracts**

**Modelling Human NDD in a Dish (Z3)**

**Tarja Malm**, University of Eastern Finland, Finland  
*Talk Title to be Announced*

**Paola Arlotta**, Harvard University, USA  
*Human Brain Organoids as Models for Inter-Individual Variation in Disease Susceptibility*

**Martin Kampmann**, University of California, San Francisco, USA  
*Elucidating Mechanisms and Therapeutic Targets for Neurodegenerative Diseases by CRISPR-Based Functional Genomics*

**Short Talks Chosen from Abstracts**

**Workshop 2 (Z4)**

**Short Talks Chosen from Abstracts**

**Microglia Function (Z4)**

**Takahiro Masuda**, Kyushu University, Japan  
*Targeting Microglia for Genetic Manipulation*

**Anne Schaefer**, Icahn School of Medicine at Mount Sinai, USA  
*Epigenetic Regulation of Microglia*

**Borislav Dejanovic**, Vigil Neuroscience, USA  
*Microglia Therapeutics for Neurodegeneration*

**Short Talks Chosen from Abstracts**

**Designing Better: Steps Toward Precision Medicine for NDD (Z3)**

**Fiona C. Elwood**, Janssen R&D, USA  
*Precision Medicine in Neurodegeneration*

**Jeremy S. Duffield**, Prime Medicine, Inc., USA  
*Prime Editing as a Curative Therapeutic Approach for Neurodegenerative Diseases*

**Aimee Jackson**, Atalanta Therapeutics, USA  
*Addressing CNS Indications using a Novel Di-siRNA Modality for Improved Potency, Distribution, and Duration*

**Aaron D. Gitler**, Stanford University School of Medicine, USA  
*Defining ALS Mechanisms at Single Cell Resolution*

**Short Talks Chosen from Abstracts**

**Meeting Wrap-Up: Outcomes and Future Directions (Organizers) (Z4)**

**Meeting Wrap-Up: Outcomes and Future Directions (Organizers) (Z3)**