ALZHEIMER'S (C) ASSOCIATION® Advancements

March 23-24, 2023 Boston, USA, and Online #Immunity23

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AAIC Advancements: Immunity will feature the latest research and clinical trial findings on the role of immunity in neurodegenerative diseases such as Alzheimer's and other dementias.

Sessions are listed in Eastern Daylight Time (North America). Schedule is current at the time of posting. Content is listed as submitted.

POSTER PRESENTATIONS

Beginning March 23, explore posters from across the world and leave comments for authors around the clock. Poster topics address research themes such as innate immunity, adaptive immunity, from animal models to human biology, and clinical trials and biomarkers.

THURSDAY, MARCH 23

7:30 a.m.-5 p.m. Registration

8-9 a.m. Preakfast

9-9:10 a.m. Welcome to AAIC Advancements: Immunity

Maria Carrillo, Alzheimer's Association®, Donna Wilcock, Co-Chair, Malú Gámez Tansey,

Co-Chair

9:10-10:30 a.m. Session 1: Immunology for Neuroscientists

Moderators: Elizabeth Bradshaw and Andy Tsai

Presenters:

T Cells: A Growing Universe of Roles in Neurodegenerative Diseases

Wassim Elyaman

Microglia: Resident Immune Cells in Neurodegeneration

Ukpong Eyo



11 a.m.-12:30 p.m. Session 2: Innate Immunity

Moderators: Cynthia Lemere and Andre Batista

Presenters:

Harnessing iPS-microglia to deliver therapeutic proteins to the brain

Mathew Blurton-Jones

A lysosome and immune crosstalk in tauopathy

Hui Zheng

Cross-Disorder Functional Genomics Approach to Neuroimmune Mechanisms of Dementia

Jessica Erin Rexach

Impact of ApoE genotype on neuroinflammatory responses in Alzheimer's

Donna Wilcock

The role of immunological signaling in disrupted proteostasis in the gut-brain axis

Alfonso Martin-Peña

Effects of TDP-43 pathology on innate antiviral factors and viral infection in glial cells

Stephanie Jackvony

Harnessing spatial transcriptomics to investigate the intersection of senescence and inflammation in neurodegeneration

Violeta Duran Laforet

12:30-12:45 p.m. Introduction to ISTAART

Moderator: Courtney Kloske, Alzheimer's Association

Presenter:

Christian Limberger, ISTAART Ambassador

12:45-2 p.m.



Lunch and Poster Viewing

2-3:30 p.m. Session 3: Adaptive Immunity

Moderators: CJ Barnun and Wassim Elyaman

Presenters:

Adaptive immune changes in Alzheimer's disease - a shifting landscape

Maria Teresa Ferretti

Adaptive immunity in Parkinson disease

Ashley Harms

Pathogens, Microglia, and T cells in Neurodegeneration

Elizabeth Bradshaw

Cerebrospinal fluid immunity in healthy brain aging and neurodegenerative disease

David Gate

Association of immune senescence in human peripheral blood CD8+ T cells and Alzheimer's disease risk markers

Patricia Fitzgerald-Bocarsly

Microglia-mediated T cell Infiltration Drives Neurodegeneration in Tauopathy

Xiaoying Chen

Multi-ancestry analysis of the HLA locus in Alzheimer's and Parkinson's diseases uncovers a shared adaptive immune response mediated by HLA-DRB1*04 subtypes

Yann Le Guen

4-5:30 p.m. Session 4: Debate - Central and Peripheral Contributions to Neurodegeneration

Moderators: Shane Liddelow and Courtney Kloske

Presenters:

Central and Peripheral Contributions to Neurodegeneration

Michael Heneka

Debate - Peripheral

Sandro Da Mesquita and Rebecca Wallings

Debate - Central

Soyon Hong and Todd Golde

5:30-7:30 p.m. Poster Reception

FRIDAY, MARCH 24

7:30 a.m.-3 p.m. Registration

 9-10:30 a.m.

Session 5: From Animal Models to Human Biology

Moderators: Donna Wilcock and Rebecca Wallings

Presenters:

Cognitive resilience in AD: modeling cell-cell interactions between hippocampal excitatory neurons microglia subtypes

Catherine Kaczorowski

Recapitulating inflammation in animal models of amyloid beta

Paramita Chakrabarty

Humanized models to study microglia biology that recapitulate embryonic ontogeny

Renzo Mancuso

Precision medicine approaches for preclinical translational studies of Alzheimer's Disease: from mice to marmosets

Stacey Rizzo

Dementia-associated TDP-43 pathology in astrocytes impairs memory via interferon-inducible chemokines

Anna Orr

The role of CHI3L1/YKL-40 in neuroinflammation and Alzheimer's disease Yu-Wen Alvin Huang

Ablation of Inpp5d causes dysregulation of neurodegenerative pathways in C57BL/6J mouse brain

Luke Dabin

10:30-11 a.m.



Break

11 a.m.-12:30 p.m.

Session 6: Clinical Trials and Biomarkers

Moderators: Malú Gámez Tansey and Brittany Butts

Presenters:

PDGFR β , Inflammation and Tau: Results from a Middle-Aged, high risk African American and White Cohort

Whitney Wharton

Using plasma proteomics to identify peripheral immune drivers of Alzheimer's disease

Keenan Walker

The Viral Hypothesis and clinical trials of antiviral treatment in Alzheimer's disease

D.P. Devanand

Advantages and limitations of inflammatory biomarkers in clinical trials: Lessons from an early phase study

CJ Barnum

Spatial transcriptomics reveals long-term neuropathological effects of amyloid- $\boldsymbol{\beta}$ immunization

Lynn van Olst

Specific gut bacteria affect immune-mediated clearance of amyloid- $\boldsymbol{\beta}$ in Alzheimer's disease models:

Caroline Wasen

Administration of amyloid precursor protein gene deleted mouse ESC-derived thymic epithelial progenitors attenuates Alzheimer's pathology Laijun Lai

12:30-2 p.m.



Lunch and Poster Viewing

2-3:30 p.m.

Session 7: Lessons from Other Fields

Moderators: Whitney Wharton and Kate Foley

Presentations:

Influence of C9orf72 on myeloid cell function in neurodegeneration Robert Baloh

Novel methods to study CNS cell-cell communication in health and disease Fran Quintana

Targeting inflammation and impaired neuro-astro-glial communication through semaphorin 4D-plexin pathway for treatment of Huntington's Disease and Alzheimer's Disease

Elizabeth Evans

Targeting immuno-metabolic pathways in Alzheimer's disease: Novel mechanisms and therapeutic opportunities

Suzanne Craft

Exposure to autoimmune disorders increases Alzheimer's disease risk and decreases time to disease onset based on electronic health record analysis Alice Tang and Grace Ramey

The role of the peripheral immune-system in FTD-GRN; increasing understanding for future therapeutic target development Rebecca Wallings

Exploring the synergy between PD-associated LRRK2 G2019S mutation and brain immunity

Jose Torrellas

3:30-4 p.m.



Closing Ceremony and Poster Awards

Moderators: Maria Carrillo, Alzheimer's Association, Donna Wilcock, Co-Chair, and Malú Gámez Tansey, Co-Chair

Certificates of attendance can be found in "Resources" on the virtual platform.



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Join the Alzheimer's Association International Society to Advance Alzheimer's Research and Treatment (ISTAART) during AAIC Advancements: Immunity to save on your membership and access the virtual platform for an additional 30 days. ISTAART members also receive exclusive member benefits, including no-cost online attendance and significant discounts for in-person attendance for the Alzheimer's Association International Conference® (AAIC®), July 16-20, 2023, in Amsterdam, Netherlands, and online.



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^{*}Offer valid through March 24, 2023.

^{*}Membership valid through June 30, 2024; new members only.