ALZHEIMER'S \(\frac{1}{2}\) Association \(\frac{1}{2}\) Advancements

March 17-18, 2025
Hyatt Regency Miami
AAIC Advancements:
APOE & Lipid Biology
#AAICAdvancements

SCIENTIFIC PROGRAM COMMITTEE

Takahisa Kanekiyo, Chair Stacie Weninger, Chair Li Gan Alison Goate David Holtzman Lance Johnson Marilyn Miller* Oihane Uriarte Huarte Jeff Vance Rik van der Kant

*Ex-Officio Member

MONDAY, MARCH 17, 2025

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

Regency Ballroom Prefunction

8-9:00 a.m. Breakfast

Regency Ballroom - Monroe/Tuttle

9-9:10 a.m. Welcome

Regency Ballroom - Brickell/Flagler

Stacie Weninger, F-Prime Capital, United States

9:10-9:30 a.m. Plenary Session: The past, present and future of APOE genetics and AD

Regency Ballroom - Brickell/Flagler

Presenters:

John Hardy, University College London, United Kingdom

9:30-11 a.m. Session: State-of-the-Field

Regency Ballroom - Brickell/Flagler

Moderator:

Alison Goate, Mount Sinai, United States

Presenters

What is the effect of APOE in other neurodegenerative diseases?

Sonja Scholz, National Institutes of Health/National Institute of Neurological Disorders and Stroke, United States

What is the impact of ancestry on APOE?

Jeffery Vance, University of Miami, United States

Does APOE act in a sex-specific manner?

Logan Dumitrescu, Vanderbilt University Medical Center, United States

What is needed to successfully target APOE therapeutically?

Stacie Weninger, F-Prime Capital, United States

11-11:20 a.m. Brea

Regency Ballroom Prefunction

11:20-12 p.m.

Lightning Presentation Round (Submitted Abstracts)

Regency Ballroom - Brickell/Flagler

Moderator:

TBD

Presenters:

Genome-wide Crispr Screening Reveals Regulators Of Lipid Accumulation In Oligodendrocytes Leyla Akay, Massachusetts Institute of Technology, United States

APOE-targeted Epigenome Therapy For Alzheimer's Disease

Ornit Chiba-Falek, DUnited Kingdome University, United States

Age And Sex-dependent Effects On APOE -mediated Endolysosomal Cholesterol Localization In The Brain

Sherida de Leeuw, Columbia University, United States

Apoe- ε4, Social Determinants Of Health And Alzheimer'S Disease: Findings From The Brazilian Biobank For Aging Studies

Naomi Ferreira, University of São Paulo, Brazil

Impact Of APOE Isoform Specific Deletion In Vascular Mural Cells On Cerebrovascular And Cognitive Functions

Yasuteru Inoue, Mayo Clinic, United States

Unravelling The Role Of APOE4 In Vascular Dysfunction And Cognitive Impairment

Krystal Laing, University of Edinburgh, United Kingdom

APOE4 Exacerbates Microglial-vascular Inflammation In Cerebral Amyloid Angiopathy

Andrew Pearson, Roskamp Institute, United States

Ancestry-dependent Regulation Of Apoe€4 Expression In Alzheimer's Disease: Insights From Ipsc-derived Models

Aura Ramirez, University of Miami, United States

12-1:30 p.m.

Lunch and Networking

Regency Ballroom - Monroe/Tuttle

1:30 p.m-1:50 p.m.

Plenary Session: Role of glial produced APOE on AD/ADRD pathology: convergence on microglia

Regency Ballroom - Brickell/Flagler

Presenter

David Holtzman, Washington University in St. Louis, United States

1:50 p.m-3:15 p.m.

Session: APOE and cell types

Regency Ballroom - Brickell/Flagler

Moderators

How does APOE exert its effects across different CNS cell types?

Lance Johnson, University of Kentucky, United States

Presenters:

Divergent Effects of APOE3 and APOE4 Human Astrocytes on Key Alzheimer's Disease Hallmarks in Chimeric Mice

Amaia Arranz, Achucarro Basque Center for Neuroscience, Spain

Oligodendrocytes and Mural Cells

Sarah Marzi, King's College London, United Kingdom

Oligodendrocytes

Joel Blanchard, Mount Sinai, United States

3:15-4 p.m.

Poster Break

Regency Ballroom Prefunction

4-5:30 p.m. **Session: Protective APOE variants**

Regency Ballroom - Brickell/Flager

Moderator:

Are there converging mechanisms underlying the protective APOE variants?

David Holtzman, Washington University - St. Louis, United States

Presenter:

APOE Knockouts

Michael Belloy, Washington University - St. Louis, United States

APOE4 Protective Locus

Luciana Bertholim Nasciben, University of Miami, United States

Rosemary Jackson, University of Dundee, United Kingdom

Lance Johnson, University of Kentucky, United States

APOE Christchurch

Joseph F. Arboleda-Velasquez, Mass Eye and Ear, Harvard University, USA

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

Jasmine/Hibiscus

TUESDAY, MARCH 18, 2025

8 a.m.-3 p.m. Registration

Regency Ballroom Prefunction

8-9:00 a.m. **Breakfast**

Regency Ballroom - Monroe/Tuttle

9-10:30 a.m. Session: APOE and Vasculature

Regency Ballroom - Brickell/Flagler

Moderators:

How does APOE-mediated vascular function contribute to

AD and VCID pathogenesis?

Takahisa Kanekiyo, Mayo Clinic, United States

Presenters:

Unveiling the molecular diversity of human brain lipoproteins

John T. Melchior, Pacific Northwest National Laboratory, United States

Cerebrovascular System

Andrew C. Yang, Gladstone Institutes, University of California-San Francisco, United States

APOE and cerebral amyloid angiopathy

Orla Bonnar, Massachusetts General Hospital, Harvard University, United States

APOE and ARIA

Praveen Bathini, Harvard University, United States

10:30-11 a.m. **Poster Break**

Regency Ballroom Prefunction

11a.m.-12:30 p.m. Session: APOE and Lipid Metabolism

Regency Ballroom - Brickell/Flagler

Moderators:

How is APOE brain lipid metabolism connected to pathogenesis?

Rik van der Kant, Vrije Universiteit Amsterdam, Netherlands

Presenters:

Intracellular ApoE4 and energy metabolism

Sarah Cohen, University of North Carolina at Chapel Hill, United States

Lipid transport and astrocyte reactivity

Fei Yin, The University of Arizona, United States

Lipid droplets in microglia

Michael Haney, University of Pennsylvania, United States

ApoE4 and microglial activation

Wenjie Luo, Weill Cornell Medicine, United States

Decreased lipidated ApoE-receptor interactions confer protection against pathogenicity of ApoE and its lipid cargoes in lysosomes

JingGuo, Tenvie Therapeutics, United States

12:30-1:30 p.m.

Lunch

Regency Ballroom - Monroe/Tuttle

1:30-3 p.m.

Session: The Landscape of Lipid Metabolism

Regency Ballroom - Brickell/Flagler

Moderators:

Oihane Uriarte Huarte, Alzheimer's Association, United States

Presenters:

Neurolipid atlas

Rik van der Kant, Vrije Universiteit Amsterdam, Netherlands

PSEN/y-sec and cholesterol metabolism

Thomas C. Südhof, Stanford University, United States

ABCA7

Takahisa Kanekiyo, Mayo Clinic, United States

Lipids and reactive astrocytes

Shane Liddelow, New York University, United States

Lipid challenges and microglia

Martine Therrien, University of California, Davis, United States

3-3:15 p.m.

Awards and Close

Regency Ballroom - Brickell/Flagler

Stacie Weninger, F-Prime Capital, United States Takahisa Kanekiyo, Mayo Clinic, United States

3:15-3:30 p.m.

Break

Regency Ballroom Prefunction

3:30-4:20 p.m

Session: ECR Publishing Workshop

Orchard CD

Moderators:

APOE research highlights from A&D

Donna Wilcock

Lightning Presentation Rounds,

ECRs Roundtable of top tips for how to get published

3:30-4:20 p.m.

Session: ECR Funding Workshop

Regency Ballroom - Brickell/Flagler
Alzheimer's Association Grants Team

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May 14-15, 2025 | Lima, Peru, and Online

AAIC 2025

July 27-31, 2025 | Toronto, Canada and Online

alz.org/scientificmeetings

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