



**NIA-AA Symposium:  
Enabling Precision Medicine for Alzheimer's Disease Through Open Science**

**Prerecorded Presentations Available:**

July 27, 2020 at 12:01 a.m. CDT (North America)

**Live Symposium Discussion:**

July 31, 2020 at 8:30 – 9:30 a.m. CDT

**Meeting Objectives:**

This symposium will feature an array of translational research programs that integrate computational and experimental approaches to:

- 1) Discover novel, disease-relevant targets and biomarkers.
- 2) Develop next-generation animal models and target enabling tools.
- 3) Support the development of new candidate therapeutics for a diverse portfolio of targets.
- 4) Advance data-driven drug repositioning and combination therapy development.

The featured programs will include:

- Accelerating Medicines Partnership for Alzheimer's Disease (AMP-AD) Target Discovery Program and Affiliated Consortia
- Alzheimer's Gut Microbiome Project
- MODEL- AD Consortium
- TREAT- AD Consortium
- Translational Bioinformatics Program for Drug Repositioning and Combination Therapy Development
- Alzheimer's Drug Development Program (ADDP)
- Alzheimer's Clinical Trials Consortium (ACTC)

**Intended Audience:** Academic, biotech and pharmaceutical industry researchers with interest in target and biomarker discovery, preclinical and clinical drug development; computational biologists; data scientists; and open science advocates.

## PRERECORDED SYMPOSIUM AGENDA

- 20 minutes     **Introduction: Enabling Precision Medicine for Alzheimer’s Through Open Science**  
*Suzana Petanceska, National Institute on Aging*
- 140 minutes     **Session One**  
**AMP-AD and Affiliated Consortia: Precision Medicine Approach to Novel Target and Biomarker Discovery**
- New Data and Analytical Resources for Reproducible Systems Biology Research in AD:  
AMP-AD and Affiliated Consortia  
*Anna Greenwood, Sage Bionetworks and Vilas Menon, Columbia University*
- Integrative Multi-Omics for Therapeutic Target Discovery in AD  
*Mariet Allen, Mayo Clinic*
- A Proteomics Network Approach for Target and Biomarker Discovery in AD  
*Nick Seyfried, Emory University*
- Integrative Metabolomics: A Tool for Precision Medicine in Alzheimer’s Disease  
*Matthias Arnold, Duke University/Helmholtz University*
- Systems Modeling of White Matter Microstructural Abnormalities in Alzheimer’s Disease  
*Emrin Horgusluoglu-Moloch, Icahn Institute at Mount Sinai School of Medicine*
- Systems Genetic Analysis of Resilience to Alzheimer’s Disease  
*Catherine Kaczorowski, Jackson Labs*
- Identifying Molecular Networks of Virus Resilience in Alzheimer’s Disease: Implications  
for Target and Biomarker Discovery  
*Ben Readhead, Arizona State University*
- 120 minutes     **Session Two**  
**MODEL-AD Consortium, a Precision Medicine Approach to the Development of  
Transgenic Models of Late Onset AD and Preclinical Efficacy Testing**
- MODEL-AD: Pathway to Translatable Models for LOAD  
*Andrea Tenner, UCI and Bruce Lamb, Indiana University*
- Creating and Characterizing Translational Mouse Models of Late-Onset Alzheimer’s  
Disease  
*Greg Carter and Michael Sasner, Jackson Labs*
- Generating and Deep Phenotyping Diverse Mouse Models of Late Onset AD  
*Ali Mortazavi, UCI and Kim Green, UCI*

Improving Preclinical to Clinical Translation in Alzheimer's Disease: MODEL-AD  
Preclinical Testing Pipeline  
*Stacey Rizzo, University of Pittsburgh and Paul Territo, Indiana University*

From Mice to Medicine: Improving the Predictive Value of Preclinical Research  
*Lorenzo Refolo, National Institute on Aging*

90 minutes

**Session Three**

**TREAT-AD Consortium: Accelerating Drug Discovery for Novel Targets Through Open Science**

TREAT-AD Mission and Goals

*Lara Mangravite, Sage Bionetworks and Alan Palkowitz, Indiana University*

IUSM-Purdue TREAT-AD Center: Advancing Immune Targets for AD Treatment and Prevention

*Alan Palkowitz, Indiana University and Timothy Richardson, Indiana University*

Emory-Sage-SGC TREAT-AD Center: Diversifying the AD Target Pipeline

*Lara Mangravite, Ben Logsdon, Anna Greenwood, (Sage Bionetworks) and Opher Gileadi (SGC-Oxford University)*

75 minutes

**Session Four**

**Translational Bioinformatics for Drug Repositioning and Combination Therapy Development**

Leveraging the Human Non-Coding Transcriptome to Identify Therapeutics for Healthy Aging and Alzheimer's Disease

*Claes Wahlestedt, University of Miami*

ApoE-Directed Drug Repositioning and Combination Therapy Development for Alzheimer's Disease

*Marina Sirota, UCSF*

Systematic Alzheimer's Disease Drug Repositioning (SMART) Based on Bioinformatics-Guided Phenotype Screening and Image-Omics

*Stephen Wong, Houston Methodist Weill Cornell Medical College*

A Knowledge Map to Find Alzheimer's Disease Drugs

*Olivier Lichtarge, Baylor College of Medicine*

An Integrated Reverse Engineering Approach Toward Rapid Drug Repositioning for Alzheimer's Disease

*Rong Xu, Case Western Reserve University*

105 minutes

**Session Five**

**Alzheimer's Clinical Trials Infrastructure and Next Generation Candidate Therapeutics**

Introduction to NIA's Alzheimer's Clinical Trials Infrastructure and Preclinical to Clinical Drug Development Pipeline

*Laurie Ryan, National Institute on Aging*

Novel Small Molecule AD Therapeutic Candidates that Modulate Cytokine-Mediated Neuroinflammation and Attenuate Cognitive Dysfunction

*Linda Van Eldik, Sanders-Brown Center on Aging, University of Kentucky*

Small Molecule Modulation of the p75 Neurotrophin Receptor to Inhibit Tau Pathology and Synaptic Failure

*Frank Longo, Stanford University*

How Partnerships Between NIH, Small Biotech and Large Pharma are Creating an Innovative Pipeline of Novel Therapeutics for Alzheimer's Disease

*Mark Gurney, Tetra Therapeutics*

Neuron Regenerative Therapy, NNI-362, Aiming to Reverse Deficits in Alzheimer's and Down Syndrome

*Judith Kelleher-Andersson, Neuronascent Inc.*

Allopregnanolone as a Regenerative Therapeutic for the Alzheimer's Brain: Proof of Concept and Future Direction

*Roberta Diaz Brinton, University of Arizona*

Enabling Biomarker-Driven Drug Development of CT1812: A Novel Approach to Alzheimer's Disease Modification

*Susan Catalano, Cognition Therapeutics*