Molecular Pathogenesis and Pathophysiology of Alzheimer’s Disease

Ravi Allada, M.D.
Northwestern University - Evanston Campus
Evanston, Illinois

Discovery of novel mechanisms by which sleep modulates Aβ toxicity
2017 Alzheimer's Association Research Grant (AARG) - $150,000 over 3 years
Are there genes that mediate the relationships between sleep and beta-amyloid formation in the brain?

Alejandro Avila, Ph.D.
New York University School of Medicine
New York, New York

The role of microglial CD33 on amyloid deposition and synaptic pathology
2017 Alzheimer's Association Research Fellowship to Promote Diversity (AARF-D) - $175,000 over 3 years
How might an immune system gene in the brain promote the development of beta-amyloid plaques in Alzheimer's disease?

Anne Berry, Ph.D.
University of California, Lawrence Berkeley National Laboratory
Berkeley, California

Determining the influence of tau pathology on decision making
2017 Alzheimer's Association Research Fellowship (AARF) - $174,973 over 3 years
How are changes in specific markers of brain injury in Alzheimer's disease related to the ability to make financial decisions?

Tammy Butterick, Ph.D.
Minnesota Veterans Medical Research & Education Foundation
Minneapolis, Minnesota

Microglial Fatty Acid Signaling in Alzheimer's Disease
2017 Alzheimer's Association Research Grant to Promote Diversity (AARG-D) - $150,000 over 3 years
How does a high-fat diet contribute to brain inflammation and the risk for developing Alzheimer's disease?

Antonella Caccamo, Ph.D.
Arizona State University
Tempe, Arizona

Molecular Mechanisms of Cognitive Decline in Alzheimer's Disease
2017 Alzheimer's Association Research Grant (AARG) - $149,997 over 3 years
Do alterations in the protein NR4a2 promote memory loss in Alzheimer's disease?

Annamaria Cattaneo, Ph.D.
Scientific Institute Saint John of God – The National Centre for Research and Care of Alzheimer's and Mental Diseases
Brescia, Italy
Gut Microbiota and host epigenome Interplay in Alzheimer's Disease
2017 Alzheimer's Association Research Grant (AARG) - $120,000 over 2 years
Can bacteria in the gut or other fluids alter one’s risk for Alzheimer’s?

Jonathan Cherry, Ph.D.
Boston University
Boston, Massachusetts

*Unique neuroimmune signature in Alzheimer’s disease compared to CTE*
2017 Alzheimer’s Association Research Fellowship (AARF) - $171,920 over 3 years

How does inflammation and tau clumping in the brain differ in Alzheimer's disease and chronic traumatic encephalopathy?

Hei-Man Chow, Ph.D.
The Hong Kong University of Science and Technology
Kowloon, Hong Kong

*Targeting brain insulin resistance-mediated neuronal dysfunction in AD*
2017 Alzheimer's Association Research Fellowship (AARF) - $175,000 over 3 years

How are high levels of insulin in the brain related to the development of Alzheimer's disease?

John R. Cirrito, Ph.D.
Washington University in St. Louis
St. Louis, Missouri

*Role of Glucocorticoid Receptors in Sex-Related Differences in Alzheimer’s Disease*
2017 Sex and Gender in Alzheimer's (SAGA) - $249,999 over 3 years

Are there sex differences in the mechanisms that underlie stress and Alzheimer’s disease?

Benjamin Clark, Ph.D.
University of New Mexico
Albuquerque, New Mexico

*Neural Mechanisms of Spatial Disorientation in Alzheimer’s disease*
2017 Alzheimer's Association Research Grant (AARG) - $150,000 over 3 years

How might damage to “head direction” cells increase one’s risk of Alzheimer’s?

Claire Clelland, Ph.D., M.D.
University of California, San Francisco
San Francisco, California

*Microglia transplantation in a murine model of Alzheimer's disease*
2017 Alzheimer's Association Clinician Scientist Fellowship (AACSF) - $175,000 over 3 years

Can transplanting healthy immune cells into the brain improve Alzheimer’s disease symptoms?

Inma Cobos, M.D., Ph.D.
University of California, Los Angeles
Los Angeles, California

*Single-cell RNA-seq in human AD to define selective cell vulnerability*
2017 Alzheimer's Association Research Grant (AARG) - $150,000 over 3 years

Why are some nerve cells more vulnerable to dying in Alzheimer’s disease than others?

Mariapina D'Onofrio, Ph.D., M.D.
University of Verona
Verona, Italy

*Role of polyubiquitination in Alzheimer’s disease*
2017 Alzheimer's Association Research Grant (AARG) - $133,800 over 3 years

How does modification of tau affect the formation of tau tangles?
Melanie Das, Ph.D.
The J. David Gladstone Institutes
San Francisco, California
Microglial modulation of neural activities in models of Alzheimer's disease
2017 Alzheimer's Association Research Fellowship (AARF) - $175,000 over 3 years
How do microglia in the brain affect the connections between nerve cells in Alzheimer's disease?

Dibyadeep Datta, Ph.D.
Yale University
New Haven, Connecticut
"Leaky" ryanodine receptors: Potential role in pathogenesis of AD
2017 Alzheimer's Association Research Fellowship (AARF) - $174,946.92 over 3 years
Why are only certain types of nerve cells in the brain affected in Alzheimer's disease?

Elvira De Leonibus, Ph.D.
Fondazione Telethon
Naples, Italy
Neurobiology of Sex Differences in Memory Capacity in Ageing and Alzheimer's Disease
2017 Sex and Gender in Alzheimer's (SAGA) - $249,975 over 3 years
What are the biological factors that may underlie sex differences in memory loss in Alzheimer's disease?

Pierre De Rossi, Ph.D.
The University of Chicago
Chicago, Illinois
In vivo Investigation of BIN1 as a Risk Factor in Tau Pathology
2017 Alzheimer's Association Research Fellowship (AARF) - $173,000 over 3 years
Do certain forms of the BIN1 protein promote the development of tau tangles in Alzheimer's disease?

Deguo Du, Ph.D.
Florida Atlantic University
Boca Raton, Florida
Role of N-terminal Residues in Membrane-Mediated Aß Assembly and Toxicity
2017 Alzheimer's Association Research Grant (AARG) - $149,467 over 3 years
How does beta-amyloid clump together and begin causing nerve cell toxicity?

Bart DeStrooper, M.D., Ph.D.
Flanders Interuniversity Institute for Biotechnology (VIB)
Leuven, Belgium
Dissecting the Role of Human Astroglia in Alzheimer's Disease
2017 Zenith Fellows Award Program - $450,000 over 3 years
How do specialized support cells in the brain called astroglia impact the onset and progression of Alzheimer's disease?

Luana Fioriti, Ph.D.
Mario Negri Institute for Pharmaceutical Research
Milan, Italy
Role of SUMOylation in the Aggregation and Toxicity of Tau
2017 Alzheimer's Association Research Grant (AARG) - $150,000 over 3 years
How does a chemical modification called SUMOylation affect the formation of tau tangles in the brain?

Thomas Franke, M.D., Ph.D.
New York University School of Medicine
New York, New York

**Targeting Ca2+ dysregulation in Alzheimer's Disease**
2017 Alzheimer's Association Research Grant (AARG) - $150,000 over 3 years

*Does the dysregulation of calcium in the brain play a role in the development of Alzheimer's disease?*

Hongjun Fu, Ph.D.
Columbia University Medical Center
New York, New York

**Identifying Neurons Vulnerable to Tau Pathology in Early Alzheimer's Disease**
2017 Alzheimer's Association Research Fellowship (AARF) - $140,000 over 2 years

*Why are some nerve cells particularly vulnerable to tau-related damage in Alzheimer's disease?*

Cláudio Gouveia Roque, Ph.D.
Columbia University Medical Center
New York, New York

**Axonal Transcription Factor Complexes in Alzheimer's Disease**
2017 Alzheimer's Association Research Fellowship (AARF) - $174,999 over 3 years

*What factors are involved in the spread of Alzheimer's in the brain?*

Stacy Grunke, Ph.D.
Baylor College of Medicine
Houston, Texas

**Plasticity of entorhinal-hippocampal network in the aged brain**
2017 Alzheimer's Association Research Fellowship (AARF) - $174,970 over 3 years

*How does aging affect the ability of the brain to make new connections between nerve cells?*

Jamin Hefendehl, Ph.D.
Goethe University
Frankfurt, Germany

**The Role of Pericytes in Alzheimer’s Disease and Stroke Comorbidity**
2017 Alzheimer's Association Research Fellowship (AARF)

*How does damage to blood vessels in the brain contribute to Alzheimer's disease?*

Kei Igarashi, Ph.D.
University of California (Irvine)
Irvine, California

**In vivo entorhinal-hippocampal synchronization in APP knock-in mice**
2017 Alzheimer's Association Research Grant (AARG) - $150,000 over 3 years

*How might changes in the brain’s electrical rhythms between areas of the brain promote Alzheimer's disease?*

Matt Inlay, Ph.D.
University of California - Irvine
Irvine, California

**Generation of a Blood-Brain Barrier from Alzheimer's Disease Patient iPSCs**
2017 Alzheimer’s Association Research Grant (AARG) - $150,000 over 3 years

*How do changes in the blood-brain barrier contribute to the accumulation of beta-amyloid in Alzheimer’s disease?*

Bistra Iordanova, Ph.D.
University of Pittsburgh
Pittsburgh, Pennsylvania

**Relationship between Cerebral Amyloid Angiopathy and Neurovascular Deficits**
Celeste Karch, Ph.D.
Washington University in St. Louis
St. Louis, Missouri
**A role for PLD3 in the autophagy-lysosome pathway and Aß clearance**
2017 Alzheimer's Association Research Grant (AARG) - $150,000 over 3 years
*How can a “waste disposal” protein in the brain affect the development of beta-amyloid plaques in Alzheimer’s disease?*

Harpreet Kaur, Ph.D.
University of North Dakota
Grand Forks, North Dakota
**Probiotic Effects on Progression of Alzheimer’s Disease**
2017 Alzheimer's Association Research Fellowship (AARF) - $175,000 over 3 years
*Can promoting healthy bacteria in the intestines help prevent or slow Alzheimer’s disease?*

Tae Ho Lee, Ph.D.
Beth Israel Deaconess Medical Center
Boston, Massachusetts
**A Novel Mechanism of Alzheimer's Disease Signaling Pathway**
2017 Alzheimer's Association Research Grant (AARG) - $150,000 over 3 years
*How does the protein DAPK1 influence the production of beta-amyloid and the progression of Alzheimer's disease?*

Tom Lee, Ph.D.
Baylor College of Medicine
Houston, Texas
**Towards an Animal Model for Late Onset Alzheimer's Disease**
2017 Alzheimer's Association Research Fellowship (AARF) - $140,000 over 2 years
*Can a fruit fly model of Alzheimer's disease be used to identify novel genes and gene interactions involved in Alzheimer's?*

Chia-Chen Liu, Ph.D.
Mayo Clinic Jacksonville
Jacksonville, Florida
**The Role of Neuronal HSPG in the Propagation of Tau**
2017 Alzheimer's Association Research Grant (AARG) - $150,000 over 3 years
*Do HSPG proteins contribute to the movement of abnormal tau protein throughout the brain in Alzheimer’s disease?*

Maria Llorens-Martin, Ph.D.
Center for Networked Biomedical Research on Neurodegenerative Diseases
Madrid, Spain
**Novel Methods to Interrogate the Subcellular Machinery of AD Models in TIVO**
2017 Alzheimer's Association Research Grant (AARG) - $150,000 over 3 years
*Do brain cells important for learning and memory become altered in ways that lead to their premature death in Alzheimer's disease?*

Diego Mastroeni, Ph.D.
Arizona State University Foundation
Tempe, Arizona
**Gender Effects on identified cell population in Alzheimer’s Disease**
2017 Alzheimer’s Association Research Grant to Promote Diversity (AARG-D) - $150,000 over 3 years
Do brain immune cells respond uniquely in females?

Arjun Masurkar, M.D., Ph.D.
New York University School of Medicine
New York, New York

*Lateral Entorhinal Cortex-CA1 Interactions in Alzheimer’s Disease*
2017 Alzheimer’s Association Clinical Fellowship (AACF) - $175,000 over 3 years

Why are specific brain regions involved in memory vulnerable to the toxic effects of beta-amyloid?

Dany Munoz Pinto, Ph.D.
Trinity University
San Antonio, Texas

*Modelling inflammation in the context of AD using 3D microenvironments*
2017 Alzheimer’s Association Research Grant to Promote Diversity (AARG-D) - $150,000 over 3 years

How do amyloid plaques form in the brain?

Daniel Nation
University of Southern California
Los Angeles, California

*Protective vascular factors in mild cognitive impairment*
2017 Alzheimer’s Association Research Grant (AARG) - $149,422 over 3 years

Do circulating stem cells in the blood reduce cognitive decline in older people?

Gemma Navarro, M.D., Ph.D.
University of Barcelona
Barcelona, Spain

*Monitoring the Onset and Evolution of Neuronal Dysfunctions*
2017 Alzheimer’s Association Research Fellowship to Promote Diversity (AARF-D) - $173,000 over 3 years

How do abnormal proteins move between nerve cells in Alzheimer’s disease?

Alexander Nott, Ph.D.
University of California, San Diego
San Diego, California

*Functional role of genetic variation in cell-specific pathogenesis of AD*
2017 Alzheimer’s Association Research Fellowship (AARF) - $175,000 over 3 years

Functional Role of Genetic Variation in Cell-Specific Pathogenesis of AD Do variations in certain regions of a person’s DNA enhance one’s risk for Alzheimer’s disease?

Marta Olah, Ph.D.
Columbia University
New York, New York

*Innate Immune Cells in Healthy Aging and Alzheimer’s Disease*
2017 Alzheimer’s Association Research Fellowship (AARF) - $169,504.22 over 3 years

How do different types of immune cells contribute to brain changes associated with Alzheimer’s disease?

Anna Orr, Ph.D.
Joan & Sanford I. Weill Medical College of Cornell University
New York, New York

*Defining astrocytic-neuronal transcriptional alterations in memory loss.*
2017 Alzheimer’s Association Research Grant (AARG) - $150,000 over 3 years

Can specialized brain cells, astrocytes, play a major role in promoting memory loss in dementia?
Kalipada Pahan, Ph.D.
Rush University Medical Center
Chicago, Illinois
**PPARalpha in APP Metabolism**
2017 Zenith Fellows Award Program - $449,955 over 3 years
*Can novel factors produced in the brain help prevent the formation of toxic beta-amyloid?*

Christian J. Pike, Ph.D.
University of Southern California
Los Angeles, California
**Interactions Between Sex, APOE4, and Neuroinflammation in Alzheimer's Disease Pathogenesis**
2017 Sex and Gender in Alzheimer's (SAGA) - $249,879 over 3 years
*Do natural variations in the APOE gene impact brain inflammation and risk for Alzheimer's differently in males and females?*

Germán Plascencia Villa, Ph.D.
The University of Texas at San Antonio
San Antonio, Texas
**Chronic senescence-associated secretory phenotype in neurodegeneration**
2017 Alzheimer's Association Research Fellowship to Promote Diversity (AARF-D) - $175,000 over 3 years
*Is Alzheimer’s disease due to the age dependent accumulation of brain cells undergoing cellular senescence?*

MD Rahim, Ph.D.
Icahn School of Medicine at Mount Sinai
New York, New York
**PS1 FAD mutants affect NMDA-EphB receptor interactions and neuroprotection**
2017 Alzheimer's Association Research Fellowship (AARF) - $174,981 over 3 years
*How do proteins in the brain interact to protect against damage that leads to Alzheimer's disease?*

Dylan Reid, Ph.D.
The Salk Institute for Biological Studies
La Jolla, California
**The Consequences of Activity-Induced DNA Breaks in Alzheimer's Disease**
2017 Alzheimer's Association Research Fellowship (AARF) - $175,000 over 3 years
*Does DNA damage in nerve cells contribute to brain changes associated with Alzheimer's disease?*

Gustavo Rodriguez, Ph.D.
Columbia University Medical Center
New York, New York
**Attenuating Aß-Driven Hyperexcitability and Tau Spread**
2017 Alzheimer's Association Research Fellowship to Promote Diversity (AARF-D) - $140,000 over 2 years
*Does beta-amyloid alter nerve cell activity in a way that promotes the movement of abnormal tau throughout the brain?*

Ann-Marie Schmidt, M.D.
New York University School of Medicine
New York, New York
**RAGE, DIAPH1, Microglia, and Alzheimer’s Disease**
2017 Zenith Fellows Award Program - $444,225 over 3 years
*How do immune cells from the blood enter and interact with specific brain cells to affect the progression of Alzheimer’s disease?*

Alberto Serrano-Pozo, M.D., Ph.D.
Massachusetts General Hospital
Boston, Massachusetts

**Transcriptomic Changes of Astrocytes in Alzheimer's Disease**
2017 Alzheimer’s Association Clinical Fellowship (AACF) - $175,000 over 3 years

*How do support cells in the brain called astrocytes impact nerve cell function in Alzheimer’s disease?*

Md. Golam Sharoar, Ph.D.
Cleveland Clinic Foundation
Cleveland, Ohio

**Roles of DCTN6 in Tubular ER Clustering and DNs Formation in Alzheimer’s Disease**
2017 Alzheimer’s Association Research Fellowship (AARF) - $175,000 over 3 years

*Do low levels of the protein DCTN6 contribute to brain changes associated with Alzheimer’s disease?*

Jichao Sun, Ph.D.
University of Wisconsin
Madison, Wisconsin

**A genomic screen to identify endogenous regulators of APP/BACE interaction**
2017 Alzheimer’s Association Research Fellowship (AARF) - $173,174 over 3 years

*What genetic elements regulate the formation of Beta-amyloid?*

Walter Swardfager, Ph.D.
Sunnybrook Research Institute
Toronto, Ontario, Canada

**Neuroinflammatory Susceptibility to Vascular Disease as a Dementia Driver**
2017 Alzheimer’s Association Research Grant (AARG) - $149,985 over 3 years

*Do variations in genes related to inflammation affect how the brain responds to blood vessel damage?*

Terrence Christopher Town, Ph.D.
University of Southern California
Los Angeles, California

**Brain Sexual Dimorphism and Aging Interact in Development of Alzheimer’s Disease**
2017 Sex and Gender in Alzheimer’s (SAGA) - $249,990 over 3 years

*Do inherent sex differences in brain structure and hormonal changes during aging interact to affect the development of Alzheimer’s?*

Candice Van Skike, Ph.D.
University of Texas Health Science Center at San Antonio
San Antonio, Texas

**Oligomeric Tau-Induced Microvascular Dysfunction in Alzheimer’s Disease**
2017 Alzheimer’s Association Research Fellowship (AARF) - $140,000 over 2 years

*Does abnormal tau protein disrupt the function of blood vessels in the brain in Alzheimer’s disease?*

Jan van Weering, Ph.D.
VU University Medical Center
Amsterdam, Netherlands

**Seeding Disease: How Pathological Tau Meets Endogenous Tau**
2017 Alzheimer’s Association Research Grant (AARG) - $150,000 over 3 years

*How does abnormal tau move between nerve cells in Alzheimer’s disease?*

Ruben Vidal, Ph.D.
Indiana University
Indianapolis, Indiana

*In vivo Analysis of Cell-Type-Specific Expression of Tau and Tau Spreading*

2017 Zenith Fellows Award Program - $450,000 over 3 years

*What types of cells are involved in the formation and spread of abnormal tau protein in the brain during Alzheimer's disease?*

**Xinglong Wang, Ph.D.**
Case Western Reserve University School of Medicine
Cleveland, Ohio

**Pathomechanisms of TDP-43 in Alzheimer's Disease**

2017 Alzheimer's Association Research Grant (AARG) - $150,000 over 3 years

*Does abnormal accumulation of the protein TDP-43 contribute to nerve cell loss in Alzheimer's disease?*

**Auriel Willette, Ph.D.**
Iowa State University of Science and Technology
Ames, Iowa

**Genetic Variation in Sirtuins and Associations with Memory & Brain Atrophy**

2017 Alzheimer's Association Research Grant to Promote Diversity (AARG-D) - $149,820 over 3 years

*How do genetic variations in a family of proteins that regulate energy affect memory and brain function?*

**Hyun-Sik Yang, M.D.**
The Brigham and Women’s Hospital, Inc.
Boston, Massachusetts

**Pathophysiologic Link between TDP-43 Pathology and Alzheimer’s Disease**

2017 Alzheimer’s Association Clinical Fellowship (AACF) - $139,059 over 2 years

*Does abnormal build-up of the TDP-43 protein in the brain impact the progression of Alzheimer’s disease?*

**Elisa Zanier, M.D.**
Istituto di ricerche farmacologiche Mario Negri (Pharmacological Research Institute Mario Negri)
Milano, Italy

**Prion-like tauopathy in post-traumatic Alzheimer’s disease**

2017 Alzheimer’s Association Research Grant (AARG) - $150,000 over 3 years

*How does traumatic brain injury progress to Alzheimer’s disease?*
Diagnosis, Assessment and Disease Monitoring

Farhan Ali, Ph.D.
Yale School of Medicine
New Haven, Connecticut

Memory Deficits in Alzheimer's Disease: In vivo Frontal Cortical Mechanisms
2017 Alzheimer’s Association Research Fellowship (AARF) - $174,984 over 3 years
Can studying nerve cell activity in the brains of living mice reveal new mechanisms that underlie memory problems in Alzheimer’s disease?

Rebecca Amariglio, Ph.D.
Brigham and Women's Hospital
Boston, Massachusetts

Examining the trajectory of Subjective Cognitive Decline in preclinical AD
2017 Alzheimer's Association Research Grant (AARG) - $149,913 over 3 years
How might people who notice their own problem with memory be at greater risk for developing Alzheimer’s disease?

Jill Barnes, Ph.D.
University of Wisconsin-Madison
Madison, Wisconsin

Brain Blood Flow in Middle-Aged Adults at Low and High Risk of Alzheimer's Disease
2017 Alzheimer's Association Research Grant (AARG) - $150,000 over 3 years
How does brain blood flow in middle-age relate to the risk of developing Alzheimer's disease?

Delia Cabrera-DeBuc, Ph.D.
Miller School of Medicine of the University of Miami
Miami, Florida

Non-invasive ocular screening approach to identify early biomarkers in AD.
2017 Alzheimer's Association Research Grant to Promote Diversity (AARG-D) - $120,000 over 2 years
Can a non-invasive eye test be used to detect, diagnose, and monitor early stages of Alzheimer’s disease?

Richard Darby, M.D.
Vanderbilt University Medical Center (VUMC)
Nashville, Tennessee

Neurobiology of Hallucinations and Delusions in Alzheimer's Disease
2017 Alzheimer’s Association Clinical Fellowship (AACF) - $175,000 over 3 years
What are the underlying brain changes associated with increased risk for hallucinations and delusions in people with Alzheimer's disease?

Emily Edmonds, Ph.D.
University of California, San Diego
San Diego, California

Longitudinal Cognitive and Biomarker Trajectories of MCI Subtypes
2017 Alzheimer’s Association Research Grant (AARG) - $149,995 over 3 years
Can improved diagnosis of different types of mild cognitive impairment help predict who is at risk for Alzheimer’s disease?
Yunglin Gazes, Ph.D.
Columbia University Medical Center
New York, New York

**NODDI vs. DTI metrics in predicting amyloid and tau pathology**
2017 Alzheimer's Association Research Grant (AARG) - $149,999 over 3 years

Can a commonly available diagnostic tool, MRI, replace current imaging methods to detect brain changes in Alzheimer's disease?

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Yulin Ge, M.D.
New York University School of Medicine
New York, New York

**Developing advanced blood-brain barrier permeability imaging for early AD**
2017 Alzheimer's Association Research Grant (AARG) - $150,000 over 3 years

Can a faster type of magnetic resonance imaging detect subtle changes in the blood-brain barrier associated with cognitive impairment?

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Stewart Graham, Ph.D.
William Beaumont Hospital
Royal Oak, Michigan

**Salivary biomarkers of Alzheimer's disease**
2017 Alzheimer's Association Research Grant (AARG) - $149,451 over 3 years

Can biological changes in saliva indicate which people are at risk for Alzheimer's disease?

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Yen Ying Lim, Ph.D.
The Florey Institute of Neuroscience and Mental Health
Melbourne, Australia

**Cognitive and Biological Changes in APOE4 Carriers: Implications for Alzheimer's Disease**
2017 Alzheimer's Association Research Grant (AARG) - $149,700 over 3 years

What are the earliest signs of Alzheimer's disease in middle-aged adults who carry the APOE-e4 genetic variation?

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Alexander Lin, Ph.D.
The Brigham and Women's Hospital, Inc.
Boston, Massachusetts

**Cerebral Perfusion and Metabolism in Chronic Traumatic Encephalopathy**
2017 Alzheimer's Association Research Grant (AARG) - $149,999.77 over 3 years

Can brain imaging distinguish chronic traumatic encephalopathy from other forms of dementia?

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Renã Robinson, Ph.D.
Vanderbilt University
Nashville, Tennessee

**Proteomics and Lipidomics to Study Alzheimer's Disease in African Americans**
2017 Alzheimer's Association Research Grant to Promote Diversity (AARG-D) - $150,000 over 3 years

How does the body's ability to regulate lipids influence the risk of Alzheimer's disease in people of African ancestry?

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Nirmalya Roy, Ph.D.
University of Maryland, Baltimore County
Baltimore, Maryland

**Functional and Cognitive Health Assessment of Older Adults with Dementia**
Karin Schon, Ph.D.
Boston University Medical Campus
Boston, Massachusetts

**Perceived racism as a chronic stressor and cognition in Black Seniors**

2017 Alzheimer's Association Research Grant (AARG) - $149,415 over 3 years

*How does racial discrimination change brain function and structure in ways that may increase the risk of Alzheimer’s disease?*

Yi Su, Ph.D.
Washington University in St. Louis
St. Louis, Missouri

**Amyloid PET as a biomarker for white matter integrity in Alzheimer disease**

2017 Alzheimer's Association Research Grant (AARG) - $150,000 over 3 years

*Could amyloid PET imaging be used to tell us more about possible damage occurring in the brain’s white matter associated with Alzheimer’s?*

April Thames, Ph.D.
University of California, Los Angeles
Los Angeles, California

**Biopsychosocial contributions to early brain changes in African Americans**

2017 Alzheimer’s Association Research Grant to Promote Diversity (AARG-D) - $149,881 over 3 years

*How does life stress, psychological resilience, and related factors influence the risk for Alzheimer's disease and its rate of progression in people of African ancestry?*

Kelsey Thomas, Ph.D.
University of California, San Diego - Health Sciences
San Diego, California

**Cognitive Process Scores to Improve Preclinical AD Detection**

2017 Alzheimer's Association Research Fellowship (AARF) - $175,000 over 3 years

*Can the strategy or "the process" an individual uses on a test be added to measure early cognitive impairment?*
Translational Research and Clinical Interventions

Byron Aguilar, Ph.D.
East Carolina University
Greenville, North Carolina

Elucidating the therapeutic potential of Intersectin in Alzheimer’s disease
2017 Alzheimer’s Association Research Fellowship to Promote Diversity (AARF-D) - $140,000 over 2 years
Can a molecule that helps coordinate multiple cellular processes disrupted in Alzheimer’s be a target for future therapies?

Cindy Barha, Ph.D.
University of British Columbia
Vancouver, British Columbia, Canada

Sex Differences in Exercise Efficacy: Possible Role of BDNF and Stress Axis
2017 Alzheimer’s Association Research Fellowship (AARF) - $175,000 over 3 years
This award was made possible by the Alzheimer’s Association and Brain Canada.
Are there sex differences in the benefits of exercise on cognitive function?

Roberta Diaz Brinton, Ph.D.
University of Arizona Health Sciences
Tucson, Arizona

Perimenopause in the ApoE4 Brain: Accelerated Myelin Catabolism for Fuel
2017 Sex and Gender in Alzheimer’s (SAGA) - $249,279 over 3 years
Does the loss of estrogen in mid-life promote Alzheimer’s disease in women who have a genetic risk factor for dementia?

Se Hoon Choi, Ph.D.
Massachusetts General Hospital (The General Hospital Corp.)
Boston, Massachusetts

Targeting Adult Neurogenesis for Alzheimer’s Disease Therapy
2017 Alzheimer’s Association Research Grant (AARG) - $150,000 over 3 years
How might enhancing the brain’s ability to produce new neurons be an effective therapy for Alzheimer’s disease?

Jole Fiorito, Ph.D.
Columbia University Medical Center
New York, New York

Drug Development of a Novel PDE5 Inhibitor for Alzheimer’s Disease
2017 Alzheimer’s Association Research Fellowship (AARF) - $175,000 over 3 years
Can a novel compound help preserve nerve cell function and prevent memory loss in Alzheimer’s disease?

Joseph Foss, M.D.
NeuroTherapia, Inc.
Cleveland, Ohio

A Phase I Single Ascending Dose Safety and Pharmacokinetic Study of NTRX-07
2017 Part the Cloud: Translational Research Funding for Alzheimer’s Disease - $700,000 over 2 years
This Phase I clinical trial will test the safety of NTRX-07, an experimental drug designed to reduce brain inflammation in Alzheimer’s disease

Franz Hefti, Ph.D.
Neurophage Pharmaceuticals Inc.
Cambridge, Massachusetts

Phase I Study with NPT088, a Fusion Protein to Treat Alzheimer’s Disease
2017 Part the Cloud: Translational Research Funding for Alzheimer’s Disease - $700,000 over 2 years
This Phase I clinical trial will determine if the drug, NPT088, is safe and can reduce abnormal protein clumps that accumulate in the brain during Alzheimer’s disease.

Inmaculada Hernandez, PharmD., Ph.D.
University of Pittsburgh
Pittsburgh, Pennsylvania

Claims Data Mining to Predict Side Effects of Anti-Dementia Drugs
2017 Alzheimer’s Association Research Grant to Promote Diversity (AARG-D) - $149,386 over 3 years
What factors increase the risk for cardiovascular side effects in people taking medications to treat the symptoms of Alzheimer’s disease?

Liang Jin, Ph.D.
Monash University
Clayton, Australia

Targeting microglial potassium channels Kv1.3 for the treatment of AD
2017 Alzheimer's Association Research Fellowship (AARF) - $139,735 over 2 years
Can the release of inflammatory molecules from microglial cells in the brain be blocked to protect nerve cells from damage?

Aurelie Joly-Amado, Ph.D.
University of South Florida
Tampa, Florida

Effects of psychotropic medications in a mouse model of tauopathy.
2017 Alzheimer's Association Research Fellowship (AARF) - $140,000 over 2 years
Can FDA-approved psychiatric medications reduce behavioral symptoms and brain changes observed in Alzheimer’s disease?

Balaji Krishnan, Ph.D.
The University of Texas Medical Branch at Galveston
Galveston, Texas

Inhibition of Phospholipase D1 as therapeutic in AD-related memory deficits
2017 Alzheimer’s Association Research Grant (AARG) - $150,000 over 3 years
Does inhibition of the protein phospholipase D1 prevent or slow degeneration of synapses that occurs in Alzheimer’s disease?

Ambar Kulshreshtha, Ph.D.
Emory University
Atlanta, Georgia

Cognitive Behavioral Therapy for African Americans with MCI
2017 Alzheimer's Association Clinician Scientist Fellowship to Promote Diversity (AACSF-D) - $170,000 over 3 years
Can targeted cognitive-behavioral therapy lower Alzheimer’s disease risk in African Americans?

Shellie-Anne Levy, Ph.D.
University of Florida
Gainesville, Florida

Engaging Diverse Populations in Behavioral Interventions for MCI
2017 Alzheimer's Association Clinical Fellowship to Promote Diversity (AACF-D) - $174,961 over 3 years
What are the barriers for African Americans to participate in a program to help delay progression to Alzheimer’s disease?

Melissa Murray, Ph.D.
Mayo Clinic Jacksonville
Jacksonville, Florida

Molecular Underpinnings of Clinical and Neuropathologic Heterogeneity in AD
2017 Alzheimer's Association Research Grant (AARG) - $150,000 over 3 years
Why do the brain changes associated with Alzheimer’s disease differ across individuals?

**Natura Myeku, Ph.D.**  
Columbia University Medical Center  
New York, New York  
**Stopping Tau Propagation by Receptor-Mediated Synaptic Proteolysis**  
2017 Alzheimer’s Association Research Grant (AARG) - $150,000 over 3 years  
*Can activation of proteasomes help stop the movement of abnormal tau protein between nerve cells in Alzheimer’s disease?*

**Victoria S. Pelak, M.D.**  
University of Colorado Denver  
Aurora, Colorado  
**Functional and Structural Brain Changes With Testosterone Supplementation**  
2017 Sex and Gender in Alzheimer’s (SAGA) - $199,714 over 2 years  
*Is there an “optimal” level of testosterone that can promote healthy brain function and reduce the risk for Alzheimer’s disease in aging men and women?*

**P. Hemachandra Reddy, Ph.D.**  
Texas Tech University Health Sciences Center  
Lubbock, Texas  
**Gender Difference in Human and Primate Serotonin Network**  
2017 Sex and Gender in Alzheimer’s (SAGA) - $249,999 over 3 years  
*How do sex-based differences in the brain network that regulates the chemical serotonin impact the risk for Alzheimer’s disease?*

**Tanja Stojkovic, Ph.D.**  
University of Belgrade  
Belgrade, Serbia  
**Strategies to prevent cognitive decline in non-demented subjects**  
2017 Alzheimer’s Association Clinician Scientist Fellowship to Promote Diversity (AACSF-D) - $174,990 over 3 years  
*Can exercise, brain training and other non-drug therapies help slow the loss of brain health leading to Alzheimer’s disease?*

**Katherine Supiano, Ph.D.**  
University of Utah  
Salt Lake City, Utah  
**Group Therapy for Dementia Caregivers at Risk for Complicated Grief**  
2017 Alzheimer’s Association Research Grant (AARG) - $149,998 over 3 years  
*Can a novel group therapy intervention help prevent complicated grief in dementia caregivers?*

**Mark Tuszynski, M.D., Ph.D.**  
University of California, San Diego  
La Jolla, California  
**A Clinical Trial of BDNF Gene Therapy in Alzheimer’s Disease**  
2017 Part the Cloud: Translational Research Funding for Alzheimer’s Disease - $700,000 over 3 years  
*This Phase I clinical trial will test the safety of a novel therapy to prevent nerve cell loss in Alzheimer’s disease*

**Linda Jo Van Eldik, Ph.D.**  
University of Kentucky  
Lexington, Kentucky  
**Phase 1b MAD Study of a Novel Drug (MW189) Targeting Neuroinflammation**  
2017 Part the Cloud: Translational Research Funding for Alzheimer’s Disease - $997,738 over 2 years  
*This Phase I clinical trial will determine the safety of MW189, an experimental drug designed to reduce brain inflammation*
**Epidemiology (Dementia Risk Factors and Prevention)**

Christopher Beam, Ph.D.
University of Southern California
Los Angeles, California

**Biopsychosocial Pathways from Loneliness to Alzheimer’s Disease**
2017 Alzheimer’s Association Research Fellowship (AARF) - $175,000 over 3 years
How do social isolation and loneliness affect the risk of developing Alzheimer’s and related dementias?

Paula Duarte-Guterman, Ph.D.
University of British Columbia
Vancouver, British Columbia, Canada

**The impact of motherhood and APOE genotype on the aging brain**
2017 Alzheimer’s Association Research Fellowship (AARF) - $175,000 over 3 years
Can APOE-e4 status and changes in the brain during pregnancy and motherhood affect a woman’s risk for Alzheimer’s disease?

Karyn M. Frick, Ph.D.
University of Wisconsin-Milwaukee
Milwaukee, Wisconsin

**Estradiol-APOE Interactions in a Mouse Model of Alzheimer’s Disease**
2017 Sex and Gender in Alzheimer’s (SAGA) - $250,000 over 3 years
Do variations in the APOE gene impact the effects of estrogen on brain function and the risk for developing Alzheimer’s disease?

Nicole Gervais, Ph.D.
University of Toronto
Toronto, Canada

**Sleep, Cognition, and Inflammation Following Natural or Surgical Menopause**
2017 Alzheimer’s Association Research Fellowship (AARF) - $139,458 over 2 years
How does the loss of estrogen affect cognition in a high-risk Alzheimer’s population?

Natalie Rasgon, M.D., Ph.D.
Stanford University
Stanford, California

**Sex Specific Interactions of Modifiable and Non-modifiable Risk Factors of Alzheimer’s Disease**
2017 Sex and Gender in Alzheimer’s (SAGA) - $250,000 over 3 years
Are there sex differences in the way risk factors interact to influence the development of Alzheimer’s disease?

Katie Schenning, M.D.
Oregon Health & Science University
Portland, Oregon

**Sex and genetic risk factors in postoperative dementia**
2017 Alzheimer’s Association Clinician Scientist Fellowship (AACSF) - $174,952 over 3 years
How does a person’s sex and genetic background contribute to cognitive decline after surgery?

Nikki Stricker, Ph.D.
Mayo Clinic
Rochester, Minnesota

**Can subtle cognitive decline predict biomarker positivity and incident MCI?**
2017 Alzheimer’s Association Research Grant (AARG) - $149,998 over 3 years
Do people in middle age develop an early form of memory loss that can predict their risk for dementia?
Care, Support and Health Economics of Alzheimer’s Disease

Michel Audette, Ph.D.
Old Dominion University Research Foundation
Norfolk, Virginia

*Sensor and Simulation-based Fall Injury Mitigation for Senior Citizens*
2017 Alzheimer’s Association Research Grant (AARG) - $150,000 over 3 years
Can a novel wearable technology help prevent fall-related injuries in people with Alzheimer’s disease?

Susan Aguinaga, Ph.D.
The Board of Trustees of the University of Illinois at Urbana-Champaign
Champaign, Illinois

**STAND UP: Sitting Time, Activity, and Dementia in Underserved Populations**
2017 Alzheimer's Association Research Fellowship to Promote Diversity (AARF-D) - $136,915 over 2 years
Can older people from underserved communities benefit from physical activity programs in adult day service settings?

Raina Croff, Ph.D.
Oregon Health & Science University
Portland, Oregon

*A Neighborhood Approach to Increase Physical Activity and Social Engagement*
2017 Alzheimer’s Association Research Grant to Promote Diversity (AARG-D) - $146,784 over 3 years
Can an intervention that combines walking and social engagement improve memory in African-Americans with mild cognitive impairment?

Pei-Jung Lin, Ph.D.
Tufts Medical Center
Boston, Massachusetts

*Racial and Ethnic Disparities in ADRD Diagnosis, Treatment and Costs*
2017 Alzheimer’s Association Research Grant (AARG) - $150,000 over 3 years
How does a person’s racial or ethnic background influence the diagnosis of Alzheimer’s disease, access to treatment, and costs of care?

Shana Stites, PsyD
The Trustees of the University of Pennsylvania
Philadelphia, Pennsylvania

*Study of the Psychosocial Effects of Preclinical Alzheimer’s Disease*
2017 Alzheimer's Association Research Fellowship (AARF) - $168,625 over 3 years
Does a diagnosis of early-stage Alzheimer's disease change feelings of mental and social well-being?

Adriana Strutt, Ph.D.
Baylor College of Medicine
Houston, Texas

*SASEI [sas-eel]: Sexuality and Neurodegenerative Conditions*
2017 Alzheimer’s Association Research Grant to Promote Diversity (AARGD) - $150,000 over 3 years
Can a new tool called SASEI help identify and measure changes in sexual behavior in people with Alzheimer’s and other dementias?