

2015 Alzheimer's Association® Grant Awards

—Organized by Research Categories

Molecular Pathogenesis and Pathophysiology of Alzheimer's Disease

Karen Hsiao Ashe, M.D., Ph.D.

University of Minnesota — Twin Cities
Minneapolis, Minnesota

Toward Understanding Mechanisms of Tau Neurotoxicity in the Mammalian Brain

2015 Zenith Fellows Award —\$449,946 over 3 years

Do different modifications of the tau protein lead to toxic effects in nerve cells?

David Baglietto-Vargas, Ph.D.

University of California, Irvine
Irvine, California

Molecular Mechanisms of Synaptic Degeneration in Alzheimer's Disease

2015 New Investigator Research Grant —\$100,000 over 2 years

How do beta-amyloid and tau proteins hinder the structure and function of synapses and promote memory loss in Alzheimer's disease?

Sami Barmada, M.D., Ph.D.

University of Michigan
Ann Arbor, Michigan

RNA Dysregulation in Frontotemporal Dementia

2015 New Investigator Research Grant —\$100,000 over 2 years

Does abnormal processing of RNA molecules contribute to nerve cell death in frontotemporal dementia?

John Crary, M.D., Ph.D.

Icahn School of Medicine at Mount Sinai
New York, New York

Neuropathological Characterization of Primary Age-Related Tauopathy

2015 New Investigator Research Grant —\$100,000 over 2 years

Can the accumulation of abnormal tau protein in the brain lead to disorders that are distinct from Alzheimer's disease?

Carlos Cruchaga, Ph.D.

Washington University in St. Louis
St. Louis, Missouri

Understanding the Role of APP, PSEN1, PSEN2, TREM2, and PLD3 in Alzheimer's Disease

2015 Investigator-Initiated Research Grant: Biological Underpinnings of Genetic Risk Factors in Alzheimer's Disease —
\$249,607 over 3 years

How do variations in genes that increase Alzheimer's risk affect the biological pathways that may be involved in disease onset and progression?

Chun-Ling Dai, Ph.D.

Research Institute for Mental Hygiene, Inc. at NYS Institute for Basic Research
Staten Island, New York

Role of O-GlcNAcylation in Tau Pathology and Cognitive Function

2015 New Investigator Research Grant —\$100,000 over 2 years

How do changes in the brain's ability to use glucose for energy affect the formation of tau tangles and decline in brain function during Alzheimer's disease?

Javier DeFelipe, Ph.D.

Spanish National Research Council
Madrid, Spain

The Pyramidal Neuron in Cognition and Alzheimer's Disease

2015 Zenith Fellows Award —\$449,913 over 3 years

How does damage to certain nerve cells called pyramidal neurons impact brain function in Alzheimer's disease?

Florin Despa, Ph.D.

University of Kentucky
Lexington, Kentucky

Role of Oligomerized Amylin in Vascular Injury and Alzheimer's Disease

2015 Investigator-Initiated Research Grant: Role of Vascular Metabolic Factors in the Pathogenesis of Alzheimer's Disease and Related Dementia —\$250,000 over 3 years

Do high levels of amylin in the blood contribute to brain blood vessel damage and other brain changes associated with Alzheimer's disease?

Carole Deyts, Ph.D.

The University of Chicago
Chicago, Illinois

Targeting APP-CTF as Potential Disease Modifier to Reduce Abeta Burden

2015 New Investigator Research Grant —\$100,000 over 2 years

How do amyloid precursor protein carboxy terminal fragments (APP-CTFs) affect brain levels of beta amyloid and nerve cell function?

Randall Goldsmith, Ph.D.

University of Wisconsin-Madison
Madison, Wisconsin

Exploring Tau Behavior in a Microfluidic Trap

2015 New Investigator Research Grant —\$100,000 over 2 years

Can molecular movies help reveal how the tau protein forms tangles in the brains of people with Alzheimer's disease?

Marcia Gordon, Ph.D.

University of South Florida
Tampa, Florida

Molecular Therapeutics to Mitigate Inflammation, Tauopathy and Degeneration

2015 Zenith Fellows Award —\$450,000 over 3 years

Do novel therapies that regulate brain inflammation help prevent the build-up of tau tangles and nerve cell damage?

Johannes Gräff, Ph.D.

Ecole Polytechnique Fédérale de Lausanne (EPFL)
Lausanne, Switzerland

Neuronal Activity as a Trigger for Alzheimer's Disease: A Cell Type-Specific Investigation

2015 New Investigator Research Grant —\$100,000 over 2 years

How does abnormal activity in certain nerve cells contribute to the development of Alzheimer's disease?

Syed Abid Hussaini, Ph.D.

Columbia University Medical Center
New York, New York

Role of Lateral Entorhinal Cortex in Alzheimer's Disease

2015 New Investigator Research Grant —\$100,000 over 2 years

How does Alzheimer's disease affect the function of nerve cells in a brain region vulnerable to damage in the early stages of disease?

Gary Landreth, Ph.D.

Case Western Reserve University
Cleveland, Ohio

Roles of TREM2 in Alzheimer's Disease Pathogenesis

2015 Investigator-Initiated Research Grant: Biological Underpinnings of Genetic Risk Factors in Alzheimer's Disease — \$240,000 over 3 years

Which immune cells in the brain express the TREM2 protein and how does this relate to the brain changes associated with Alzheimer's disease?

Fei Liu, Ph.D.

Research Foundation for Mental Hygiene, Inc. at NYS Institute for Basic Research
Staten Island, New York

Dyrk1A in Early Onset of Alzheimer's Pathology in Down Syndrome

2015 Investigator-Initiated Research Grant: Understanding the Development and Devising Treatments for Alzheimer's Disease in Individuals with Down Syndrome — \$250,000 over 3 years

Do high levels of the protein Dyrk1A in people with Down syndrome contribute to the development of Alzheimer's disease?

María Llorens-Martín, Ph.D.

Center for Networked Biomedical Research on Neurodegenerative Diseases
Madrid, Spain

GSK-3 β and Adult Neurogenesis – Therapeutic Potential for Alzheimer's Disease

2015 New Investigator Research Grant —\$100,000 over 2 years

Does GSK-3 beta protein contribute to the development of Alzheimer's disease by preventing the generation of new nerve cells in the brain?

Tao Ma, Ph.D.

Wake Forest University Health Sciences
Winston-Salem, North Carolina

Role of eEF2 Kinase in Alzheimer's Disease-Associated Synaptic Failure and Memory Deficits

2015 New Investigator Research Grant —\$100,000 over 2 years

Does dysfunction of a protein called eukaryotic elongation factor 2 (eEF2) promote nerve cell damage and memory loss in Alzheimer's disease?

Rodrigo Morales, Ph.D.

University of Texas Health Science Center at Houston
Houston, Texas

Contribution of Peripheral Amyloid-Beta over Brain Pathology in Alzheimer's Disease

2015 New Investigator Research Grant to Promote Diversity —\$100,000 over 2 years

How does beta-amyloid enter the brain from the body and does this contribute to the onset or progression of Alzheimer's disease?

Ricardo Rodrigues, Ph.D.

Center for Neuroscience and Cell Biology (CNCB)
Coimbra, Portugal

P2Y1 Receptor-CRMP2 Control Synaptic Loss and Memory Impairment in Early Alzheimer's Disease

2015 New Investigator Research Grant —\$99,220 over 2 years

Does abnormal activation of a developmental signaling pathway promote nerve cell damage and memory loss in early-stage Alzheimer's disease?

Carlos Rodriguez-Ortiz, Ph.D.

University of California, Merced
Merced, California

Astrocyte-Enriched miR181 Impact on Neuronal Plasticity and Memory in Alzheimer's Disease

2015 Mentored New Investigator Research Grant to Promote Diversity—\$150,000 over 3 years

Do increased levels of the molecule miR181 lead to impaired nerve cell function and memory decline in Alzheimer's disease?

Panagiotis Roussos, M.D., Ph.D.

Icahn School of Medicine at Mount Sinai
New York, New York

Dissecting the Cis Regulation of Gene Expression in Alzheimer's Disease

2015 New Investigator Research Grant —\$99,985 over 2 years

Do variations in regulatory regions of DNA affect one's genetic risk for developing Alzheimer's disease?

Ismael Santa-Maria Perez, Ph.D.

Columbia University Medical Center
New York, New York

Role of microRNAs in the Regulation of Tau Pathology

2015 New Investigator Research Grant —\$100,000 over 2 years

Do unique molecules carrying genetic information (microRNAs) influence the formation of toxic tau tangles in the brain during the development of Alzheimer's disease?

Manu Sharma, Ph.D.

Weill Medical College of Cornell University
New York, New York

Tau Proteostasis by Cysteine String Protein-alpha (CSP-alpha)

2015 New Investigator Research Grant —\$99,858 over 2 years

Can certain molecules help prevent the abnormal folding of tau protein and reduce abnormal tau accumulation in the Alzheimer's brain?

Jan Stoehr, Ph.D.

University of California, San Francisco
San Francisco, California

Characterization of Natural Occurring Alzheimer's Disease Strains

2015 New Investigator Research Grant —\$100,000 over 2 years

Can the structure of beta-amyloid plaques and tau tangles determine whether or not they promote Alzheimer's disease and other dementias?

Tim Storr, Ph.D.

Simon Fraser University
Burnaby, Canada

Toxicity Pathways and Catalytic Potential of Cu-containing A β Oligomers

2015 New Investigator Research Grant —\$99,880 over 2 years

How do copper-containing beta-amyloid clumps promote the development of Alzheimer's disease?

Srini Subramaniam, Ph.D.

The Scripps Research Institute-Scripps Florida
Jupiter, Florida

Role of Rheb GTPase in Alzheimer Disease's Pathways

2015 New Investigator Research Grant —\$100,000 over 2 years

How does the Rheb protein affect the production of beta-amyloid and tau in the brain?

Shinya Yamamoto, D.V.M., Ph.D.

Baylor College of Medicine
Houston, Texas

Functional Analysis of an Alzheimer's Disease-Associated Mutation in TM2D3

2015 New Investigator Research Grant —\$99,505 over 2 years

How do variations in the gene for TM2D3 influence the risk for Alzheimer's disease?

Zhen Zhao, Ph.D.

University of Southern California
Los Angeles, California

PICALM-Mediated Autophagic A β Clearance and Toxicity Mitigation in Pericytes

2015 New Investigator Research Grant —\$99,977 over 2 years

Can variations in the PICALM gene promote the risk for Alzheimer's disease by hindering the cells that help remove beta-amyloid from the brain?

Diagnosis, Assessment and Disease Monitoring

Marwan Sabbagh, M.D.

Banner Sun Health Research Institute
Sun City, Arizona

Longitudinal Circulating RNA Biomarker Profiling in Down Syndrome

2015 Investigator-Initiated Research Grant: Understanding the Development and Devising Treatments for Alzheimer's Disease in Individuals with Down Syndrome — \$250,000 over 3 years

Can a new non-invasive blood test using RNA biomarkers help detect who is at the greatest risk for developing Alzheimer's disease?

Nicole Schupf, Ph.D., M.P.H.

Columbia University Medical Center
New York, New York

Proteomic Profile for Incident Alzheimer's Disease in Down Syndrome

2015 Investigator-Initiated Research Grant: Understanding the Development and Devising Treatments for Alzheimer's Disease in Individuals with Down Syndrome — \$249,997 over 3 years

Can a blood-based proteomic profile help determine the risk for developing Alzheimer's disease in people with Down syndrome?

Katherine Bangen, Ph.D.

University of California, San Diego
San Diego, California

Novel MRI Measures of Demyelination in Middle-Aged Adults with MCI

2015 New Investigator Research Grant —\$99,985 over 2 years

Can a new brain imaging technique detect early abnormal changes in the brain's wiring (white matter) and identify people at risk for developing Alzheimer's disease?

Jennifer Campos, Ph.D.

Toronto Rehabilitation Institute
Toronto, Canada

Real World Multitasking Challenges in MCI and Alzheimer's Disease

2015 New Investigator Research Grant —\$98,707 over 2 years

How does mild cognitive impairment and Alzheimer's disease affect a person's ability to perform complex tasks?

Danni Li, Ph.D.

University of Minnesota — Twin Cities
Minneapolis, Minnesota

Vascular Biomarkers to Predict Response to Exercise in Alzheimer's Disease

2015 New Investigator Research Grant —\$99,999 over 2 years

Can a blood-based biological marker help predict how effective an exercise program will be in improving brain function in individuals with Alzheimer's?

Henrietta Nielsen, Ph.D.

Mayo Clinic Jacksonville
Jacksonville, Florida

Apolipoprotein E Levels: a Risk-Determinant for Neurodegenerative Disease

2015 New Investigator Research Grant —\$100,000 over 2 years

Are levels of apolipoprotein E in the blood and cerebrospinal fluid related to the onset, progression and severity of Alzheimer's disease and dementia with Lewy bodies?

Adriana Seelye, Ph.D.

Oregon Health & Science University
Portland, Oregon

Routine Everyday Activities of Life (REAL) Cognitive Assessment

2015 New Investigator Research Grant —\$97,524 over 2 years

Can a technique for monitoring everyday activities be used to detect early declines in brain function among older people at risk for Alzheimer's disease?

Min Shi, Ph.D.

University of Washington
Seattle, Washington

Tau Efflux via Exosomes and Potential Plasma Biomarker of Alzheimer's Disease

2015 New Investigator Research Grant —\$99,975 over 2 years

Can the study of exosome activity lead to a novel blood test for Alzheimer's disease?

Babak Taati, Ph.D.

Toronto Rehabilitation Institute
Toronto, Canada

The Automated Monitoring of Gait as a Predictor of Fall Risk

2015 New Investigator Research Grant —\$100,000 over 2 years

Can a novel technology that detects subtle changes in walking patterns be used to predict the risk of fall in people with Alzheimer's?

Eric Tanifum, Ph.D.

Baylor College of Medicine
Houston, Texas

Probing Blood-Brain Barrier Integrity in APP/PSEN1 Mice by 19F MRI

2015 New Investigator Research Grant to Promote Diversity —\$99,940 over 2 years

Can a novel imaging technique that detects damage to the blood-brain barrier be used for the early detection of Alzheimer's disease?

Translational Research and Clinical Interventions

Deborah Barnes, Ph.D., M.P.H

University of California, San Francisco
San Francisco, California

Paired Integrative Exercise Program for People with Dementia and Caregivers

2015 Investigator-Initiated Research Grant: Non-Pharmacological Strategies to Ameliorate Symptoms of Alzheimer's Disease and Related Dementia — \$250,000 over 3 years

Can a home-based exercise program for individuals with Alzheimer's and their caregivers improve health and quality of life?

Sandipan Bhattacharjee, Ph.D.

University of Arizona
Tucson, Arizona

Comparative Effectiveness of Medications to Treat Alzheimer's Disease

2015 New Investigator Research Grant —\$100,000 over 2 years

Which approved medications to treat Alzheimer's symptoms are the most effective?

Gong Chen, Ph.D.

Pennsylvania State University
University Park, Pennsylvania

In Vivo Regenerating Functional Neurons in Alzheimer's Model

2015 Zenith Fellows Award —\$450,000 over 3 years

Can converting glial cells in the brain into nerve cells help restore brain function in Alzheimer's?

Stephen Cunnane, Ph.D.

University of Sherbrooke
Sherbrooke, Canada

Proof of Mechanism of a New Ketogenic Supplement Using Dual Tracer PET

2015 Part the Cloud Translational Research Funding for Alzheimer's Disease —\$546,260 over 3 years

Can a novel dietary supplement help stabilize or reverse declining memory in early stages of Alzheimer's disease?

Jennifer Fairchild, Ph.D.

Palo Alto Veterans Institute for Research
Palo Alto, California

Exercise and Cognitive Function in Older Adults with MCI

2015 New Investigator Research Grant —\$100,000 over 2 years

Do proteins secreted from muscles during exercise contribute to the benefits of physical exercise on brain health?

Liang Feng, Ph.D.

Stanford University
Stanford, California

Development of New Therapeutic Reagents for Alzheimer's Disease

2015 New Investigator Research Grant —\$100,000 over 2 years

Can novel drugs be developed that inhibit the production of toxic beta-amyloid without having unacceptable side effects?

Jeremy Herskowitz, Ph.D.

The University of Alabama at Birmingham
Birmingham, Alabama

Fasudil as Therapy for Alzheimer's Disease

2015 New Investigator Research Grant —\$100,000 over 2 years

Can the drug fasudil prevent tau tangles and effectively treat Alzheimer's disease?

Regina Jokel, Ph.D.

Baycrest Centre for Geriatric Care
Toronto, Canada

Preventing Language Decline in Dementia

2015 Investigator-Initiated Research Grant: Non-Pharmacological Strategies to Ameliorate Symptoms of Alzheimer's Disease and Related Dementia — \$85,392 over 3 years

Can group-based therapy help people with dementia-associated language problems relearn forgotten words and retain communication skills?

Roneil Malkani, M.D.

Northwestern University
Chicago, Illinois

Auditory Stimulation of Delta Sleep and Memory in Mild Cognitive Impairment

2015 New Investigator Research Grant —\$100,000 over 2 years

Can a novel technology that enhances sleep quality be used to improve memory in older adults with mild cognitive decline?

William Mobley, M.D., Ph.D.

University of California, San Diego
San Diego, California

Enhanced APP Processing to Prevent Alzheimer Pathogenesis in Down Syndrome

2015 Investigator-Initiated Research Grant: Understanding the Development and Devising Treatments for Alzheimer's Disease in Individuals with Down Syndrome — \$249,999 over 3 years

Can a novel drug candidate that decreases toxic amyloid fragments help prevent Alzheimer's-like brain changes?

Brian Ott, M.D.

Rhode Island Hospital
Providence, Rhode Island

Video Feedback Intervention for Cognitively Impaired Older Drivers

2015 Investigator-Initiated Research Grant: Non-Pharmacological Strategies to Ameliorate Symptoms of Alzheimer's Disease and Related Dementia — \$249,324 over 3 years

Can video feedback monitoring improve safe driving behaviors in older drivers who are cognitively impaired?

Guilio Maria Pasinetti, M.D., Ph.D.

Icahn School of Medicine at Mount Sinai
New York, New York

BDPP Treatment for Mild Cognitive Impairment and Prediabetes

2015 Part the Cloud Translational Research Funding for Alzheimer's Disease —\$600,000 over 3 years

What are the safety, side effects and optimal dosing of a combination treatment using three grape-derived compounds in people with very early stages of Alzheimer's disease?

Isaac Schiefer, Ph.D.

University of Toledo Health Science Campus
Toledo, Ohio

PK/PD Study of a Prototype Attenuated Nitric Oxide (NO) Mimetic Furoxan

2015 New Investigator Research Grant —\$100,000 over 2 years

Can a novel compound that boosts brain levels of molecules important for nerve cell function help prevent memory loss in Alzheimer's disease?

Grace Stutzmann, Ph.D.

Rosalind Franklin University of Medicine and Science
North Chicago, Illinois

Intracellular Ca²⁺ Channels as a Therapeutic Target for Alzheimer's Disease Drug Discovery

2015 Investigator-Initiated Research Grant: Discovery-Validation of Therapeutic Targets for Developing Novel Interventions for Alzheimer's Disease —\$248,700 over 3 years

Could drugs that stabilize calcium levels inside nerve cells be developed as a treatment for Alzheimer's disease?

Rachita Sumbria, Ph.D.

Keck Graduate Institute
Claremont, California

A Brain-Penetrating Biologic TNF-alpha Inhibitor for Alzheimer's Disease

2015 New Investigator Research Grant —\$98,382 over 2 years

Can a novel molecule that inhibits TNF-alpha in the brain reduce inflammation and nerve cell damage in Alzheimer's disease?

Russell Swerdlow, M.D.

Kansas University Medical Center
Fairway, Kansas

Trial of Oxaloacetate in Alzheimer's Disease (TOAD) Study

2015 Part the Cloud Translational Research Funding for Alzheimer's Disease —\$564,800 over 3 years

What is the safety and effectiveness of oxaloacetate as an alternative energy source to improve brain function in individuals with Alzheimer's disease?

Geoffrey, Tremont Ph.D.

Rhode Island Hospital
Providence, Rhode Island

Pilot Trial of a Mind-Body Intervention for Mild Cognitive Impairment

2015 Investigator-Initiated Research Grant: Non-Pharmacological Strategies to Ameliorate Symptoms of Alzheimer's Disease and Related Dementia — \$245,830 over 3 years

Can a yoga intervention improve cognitive, emotional and daily living skills in people with mild cognitive impairment?

Tim West, Ph.D.

C₂N Diagnostics
St. Louis, Missouri

A Single Ascending-Dose, Double-Blinded, Placebo-Controlled Study of an Anti-Tau Antibody

2015 Part the Cloud Translational Research Funding for Alzheimer's Disease —\$600,000 over 3 years

What is the safety and effectiveness of an antibody against tau to treat various dementias, including Progressive Supranuclear Palsy (PSP) and Alzheimer's disease?

Whitney Wharton, Ph.D.

Emory University
Atlanta, Georgia

Mechanistic Potential of Antihypertensives in Preclinical Alzheimer's

2015 Part the Cloud Translational Research Funding for Alzheimer's Disease —\$600,000 over 3 years

Does the FDA-approved drug, perindopril, work by mechanisms other than lowering blood pressure to reduce Alzheimer's risk in African-Americans?

Hussein Yassine, Ph.D.

University of Southern California
Los Angeles, California

Does ApoE-e4 Genotype Reduce the Delivery of Fish Oil to the Brain?

2015 New Investigator Research Grant —\$100,000 over 2 years

Does an Alzheimer's-related genetic variation reduce the beneficial effects of fish oil on brain health?

Jie Zheng, Ph.D.

The University of Akron
Akron, Ohio

Design of Peptide-Nanoparticle Conjugates as Abeta Inhibitors

2015 New Investigator Research Grant —\$100,000 over 2 years

Can a new class of peptide-based inhibitors be developed as a potential treatment to prevent beta-amyloid accumulation in Alzheimer's disease?

Epidemiology (Dementia Risk Factors and Prevention)

Lisa Bratzke, Ph.D.

University of Wisconsin-Madison
Madison, Wisconsin

The Effects of Surgery and Anesthesia on Cognitive Trajectory

2015 New Investigator Research Grant —\$99,998 over 2 years

Does surgery and anesthesia affect one's risk for developing Alzheimer's disease?

Jesse Mez, M.D.

Boston University
Boston, Massachusetts

Exploring MAPT and Tau-Related Genes in Chronic Traumatic Encephalopathy

2015 New Investigator Research Grant —\$100,000 over 2 years

How do variations in certain genes affect the risk of dementia related to traumatic brain injury in athletes?

Care, Support and Health Economics of Alzheimer's Disease

Lee Jennings, M.D.

University of California, Los Angeles
Los Angeles, California

Effect of a Dementia Care Co-management Program on Health Outcomes

2015 New Investigator Research Grant —\$100,000 over 2 years

Can a team approach for Alzheimer's care improve health outcomes while lowering costs?

Lisa Molnar, Ph.D.

University of Michigan
Ann Arbor, Michigan

Enhancing Safe Mobility among Older Drivers with and without Dementia

2015 New Investigator Research Grant —\$100,000 over 2 years

Can a better understanding of how dementia affects decisions about driving help older adults self-assess their ability to drive safely?

Lori Montross Thomas, Ph.D.

University of California, San Diego
San Diego, California

A Legacy Project to Improve Dignity for Those Living with Dementia

2015 New Investigator Research Grant —\$99,996 over 2 years

Can Dignity Therapy help reduce symptoms of depression and improve well-being in people with dementia?

Elena Portacolone, Ph.D., M.B.A, M.P.H

University of California, San Francisco
San Francisco, California

Living Alone in Older Age with Alzheimer's Disease

2015 New Investigator Research Grant —\$100,000 over 2 years

Can a better understanding of the experience of individuals living alone with Alzheimer's disease inform the design of support systems and interventions for this population?

Van Ta, Ph.D.

San Jose State University
San Jose, California

Culturally Tailored Program to Reduce Stress Among Vietnamese Caregivers

2015 Mentored New Investigator Research Grant to Promote Diversity—\$150,000 over 3 years

What are the unique needs and stressors of Vietnamese-American caregivers?