

## 2011 Alzheimer's Association Grants Portfolio

— Organized by trends in research

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### Molecules and Pathways

#### Production of beta-amyloid

**Anastasios Georgakopoulos, Ph.D.**

Mount Sinai School of Medicine  
New York, New York

*Mechanisms of Neuroprotection by Presenilin 1*

Investigator-Initiated Research Grant — \$200,000 over three years  
How does PS1 protect nerve cells through processing of the ephrinB2 receptor, and how do mutations in PS1 linked to Alzheimer's disease affect this process?

**Raymond J. Kelleher, M.D., Ph.D.**

Massachusetts General Hospital  
Boston, Massachusetts

*Developing Knock-In Mouse Models of Loss of Presenilin Function in Familial Alzheimer's Disease (FAD)*

Investigator-Initiated Research Grant — \$200,000 over three years  
How do two different PS1 mutations in families with early onset compare and contrast in terms of PS1 function and the development of Alzheimer-like brain pathology and dysfunction?

**Debomoy K. Lahiri, Ph.D.**

Indiana University  
Indianapolis, Indiana

*Novel Regulation of APP and Beta-Secretase (BACE) in Alzheimer's Disease*

Investigator-Initiated Research Grant — \$200,000 over three years  
How do microRNA interact with other signaling pathways that help to regulate the expression of APP and BACE1, and how does dysfunction of microRNA regulation affect the levels of beta-amyloid in nerve cells?

**Francesca-Fang Liao, Ph.D.**

University of Tennessee Health Science Center  
Memphis, Tennessee

*Novel Regulation of BACE1 by Nitrosative and Metabolic Stresses*

Investigator-Initiated Research Grant — \$200,000 over three years  
How does nitric oxide and the AMPK/SIRT/PGC-1 signaling network regulate the expression and activity of BACE1?

**Robert A. Rissman, Ph.D.**

University of California—San Diego  
La Jolla, California

*CRF Receptor Antagonism in Alzheimer's Disease*

New Investigator Research Grant — \$100,000 over two years  
What role does the brain protein corticotropin-releasing factor (CRF) play in toxic tau and beta-amyloid production, and which genetic and drug therapies hinder Alzheimer's-related CRF activities?

**Xinglong Wang, Ph.D.**

Case Western Reserve University School of Medicine  
Cleveland, Ohio

*Presenilin 1 as a Regulator of Mitochondrial Dynamics*

New Investigator Research Grant — \$100,000 over two years  
What are the adverse effects of mutant PS1 on mitochondria, and how do these effects lead to brain cell dysfunction?

#### Beta-amyloid toxicity

**Eduardo M. Castaño, M.D.**

Leloir Institute Foundation  
Buenos Aires, Argentina

*Neuronal Vulnerability to Amyloid Peptides: From Drosophila to Human Brain*

Investigator-Initiated Research Grant — \$200,000 over three years  
Which genes are associated with increased vulnerability to cell death in nerve cells exposed to beta-amyloid and other protein fragments?

**Yitshak I. Francis, Ph.D.**

Columbia University Medical Center  
New York City, New York

*The Involvement of Histone Acetyl-Transferases (HAT) in Alzheimer's Disease*

New Investigator Research Grant — \$99,999 over two years  
Do increased brain levels of beta-amyloid induce change in HAT activity that may be associated with synaptic damage?

**Gurjinder Kaur, Ph.D.**

The Nathan S. Kline Institute for Psychiatric Research  
Orangeburg, New York

*Intracellular Oligomeric Abeta and Endosomal Pathology in APPE693Q Mice*

Investigator-Initiated Research Grant — \$200,000 over three years  
Does cystatin C alleviate the pathologic changes associated with beta-amyloid?

**Hyung-gon Lee, Ph.D.**

Case Western Reserve University  
Cleveland, Ohio

*Pathogenic Mechanism of Neuronal Cell Cycle Re-Entry in Alzheimer's Disease*

Investigator-Initiated Research Grant — \$200,000 over three years  
Does beta-amyloid cause nerve cells to re-enter the cell cycle, and what are the molecular mechanisms by which this occurs and which lead to cell death?

**Anil K. Mantha, Ph.D.**

University of Texas Medical Branch at Galveston  
Galveston, Texas

*APE1/Ref-1's Dual Functions Countering Beta Amyloid Induced Genotoxicity*

New Investigator Research Grant — \$99,990 over two years  
Does beta-amyloid disrupt the activities of APE1/Ref-1 and make the cells more vulnerable to amyloid-related toxicity?

**Elisa Mura, Ph.D.**

University of Pavia  
Pavia, Italy

***Mechanisms of the Neuromodulatory Action of Beta-Amyloid***

New Investigator Research Grant — \$99,000 over two years  
Does beta-amyloid have the ability to modulate the release of three neurotransmitters—glutamate, GABA and aspartate—in the hippocampus, and are receptors for these messenger chemicals affected by beta-amyloid?

**Fernando Pena, Ph.D.**

Neurobiology Institute at the National Autonomous University of Mexico  
Queretaro, Mexico

***Disruption of Interneuronal Networks by Beta-Amyloid***

New Investigator Research Grant — \$100,000 over two years  
How does beta-amyloid affect the activities of interneurons, especially their role in transmitting chemical messages across synapses?

**Gustavo F. Pigino, Ph.D.**

University of Illinois at Chicago  
Chicago, Illinois

***Mechanism Underlying Oligomeric Abeta Induced-Axonal Transport Dysfunction***

New Investigator Research Grant to Promote Diversity — \$100,000 over two years  
How do beta-amyloid oligomers inhibit nutrient transport in nerve cells, and how are receptors and signaling pathways affected by treatment of the cells with beta-amyloid oligomers?

**Andrew Teich, M.D., Ph.D.**

Columbia University Medical Center  
New York, New York

***Beta-Amyloid 42 Positively Regulates Alpha7-Cholinergic Receptors***

New Investigator Research Grant — \$100,000 over two years  
Can low brain concentrations of beta-amyloid help maintain cognitive health by regulating the activity of alpha7-cholinergic receptors?

**Tau and neurofibrillary tangles**

**Paul A. Adlard, Ph.D.**

Mental Health Research Institute  
Parkville, Australia

***Metals and Neurofibrillary Tangles: A Novel Therapeutic Target***

New Investigator Research Grant — \$96,000 over two years  
What is the role of metal ions in the development and formation of neurofibrillary tangles?

**John F. Crary, M.D., Ph.D.**

Columbia University Medical Center  
New York, New York

***MicroRNA Regulation of MAPT in Alzheimer's Disease, Limbic Type***

New Investigator Research Grant — \$100,000 over two years  
What happens in the regions of DNA controlling the expression of tau and the microRNA that bind to them?

**Giacomina Rossi, Ph.D.**

Foundation Carlo Besta Neurological Institute  
Milan, Italy

***The Role of Tau in Chromosome Stability and Its Link to Neurodegeneration***

New Investigator Research Grant — \$99,935 over two years  
How do tau mutations cause chromosomal abnormalities, and how do those abnormalities lead to neurodegeneration in the brain?

**Jacob Sloane, M.D., Ph.D.**

Beth Israel Deaconess Medical Center  
Boston, Massachusetts

***Double Stranded RNA Receptor Function in Neurofibrillary Tangle Formation***

New Investigator Research Grant — \$100,000 over two years  
Does protein kinase R (PKR) regulate tau phosphorylation in mice — or does the removal of PKR reduce the abnormal tau levels?

**Ling-Qiang Zhu, Ph.D., M.D.**

Huazhong University of Science and Technology  
Wuhan, China

***Role of EphB2 Signal in Tau Pathology in Alzheimer's Disease***

New Investigator Research Grant — \$100,000 over two years  
How do changes in EphB2 signaling during Alzheimer's disease initiate the process of hyperphosphorylation and hasten the process of tau pathology, and how can EphB2 activity be boosted to prevent such pathology?

**Other disease-related molecules and pathways**

**Giuseppe Astarita, D.Sc.**

University of California — Irvine  
Irvine, California

***Lipidomic Biosignature in Alzheimer's Disease***

New Investigator Research Grant — \$100,000 over two years  
Which pathologic features of non-brain tissues predict the presence of Alzheimer's pathology in the brain, and how do defects in lipid metabolism cause pathologies leading to Alzheimer's disease?

**Gilbert Di Paolo, Ph.D.**

Columbia University Medical Center  
New York, New York

***Role of Phospholipase D1 in Alzheimer's Disease Pathogenesis***

Investigator-Initiated Research Grant — \$200,000 over three years  
How does PLD1 affect the transport and processing of APP in nerve cells of the brain?

**Nashaat Gerges, Ph.D.**

Medical College of Wisconsin  
Milwaukee, Wisconsin

***Role of Retinoic Acid in Alzheimer's Disease***

New Investigator Research Grant — \$100,000 over two years  
How does neurogranin assist retinoic acid in regulating synaptic activity, and improve synaptic health and cognitive function in models of Alzheimer's disease?

**Jorge A. Ghiso, Ph.D.**

New York University School of Medicine  
New York, New York

***Abeta Catabolism and Its Impact in Alzheimer's Disease Pathogenesis***

Investigator-Initiated Research Grant — \$200,000 over three years  
How do enzymes in the brain degrade the beta-amyloid, and how is this process affected by aging?

**Fenghua Hu, Ph.D.**

Cornell University  
Ithaca, New York

***Regulation of Microglia Responses to A-Beta by Progranulin***

New Investigator Research Grant — \$100,000 over two years  
Do microglia with high progranulin levels also contain high levels of cytokines, and how do progranulin levels affect the ability of microglia to break down the protein fragment beta-amyloid?

**Tomohiro Nakamura, Ph.D.**

Sanford-Burnham Medical Research Institute  
La Jolla, California

***Role of S-Nitrosylation in Alzheimer's Disease***

New Investigator Research Grant — \$97,443 over two years  
Does nitric oxide help promote the toxic activities of beta-amyloid by hindering normal ubiquitination?

**Jorge Sepulcre, M.D., Ph.D.**

Massachusetts General Hospital  
Boston, Massachusetts

***Brain Hubs of Amyloid Deposition in Preclinical Stages of Dopamine Active Transporter (DAT)***

New Investigator Research Grant — \$99,994 over two years  
How do hub regions interact to promote the accumulation of beta-amyloid?

**Sangram S. Sisodia, Ph.D.**

University of Chicago  
Chicago, Illinois

***Functional Analysis of Nicastrin***

Investigator-Initiated Research Grant — \$200,000 over three years  
How do different synthetic antigen binding (SAB) molecules affect the ability of nicastrin to recognize different proteins?

**Gang Yu, Ph.D.**

University of Texas Southwestern Medical Center  
Dallas, Texas

***Models, Imaging and Drugs for TDP-43 Pathobiology***

Investigator-Initiated Research Grant — \$200,000 over three years  
Where is the protein TDP-43 localized, how does it aggregate, how is it transported within cells, and are there drug candidates that alter its properties?

**Wai Haung Yu, Ph.D.**

Columbia University Medical Center  
New York, New York

***Regionally Differential Autophagic Protein Degradation Expression in Alzheimer's Disease***

Investigator-Initiated Research Grant — \$200,000 over three years  
Does a malfunction of the protein degradation system in nerve cells lead to the accumulation of defective proteins into amyloid plaques and neurofibrillary tangles?

**Synaptic dysfunction****Mubeen Ansari, Ph.D.**

University of Kentucky Research Foundation  
Lexington, Kentucky

***The Complex Role of NADPH-Oxidase (NOX) in Alzheimer's Disease***

New Investigator Research Grant — \$100,000 over two years  
Does oxidative damage associated with NOX cause damage to synapses, and does that damage involve dysfunction of cofilin?

**Jyothi Arikath, Ph.D.**

University of Nebraska Medical Center  
Omaha, Nebraska

***Cooperation of d-Catenin and Presenilin in the Synaptic Pathology of Alzheimer's Disease***

New Investigator Research Grant — \$100,000 over two years  
How are D-catenin and PS1 involved in the development and maintenance of synapse structure and function?

**Luciano D'Adamio, M.D.**

Albert Einstein College of Medicine of Yeshiva University  
Bronx, New York

***Genetic and Biochemical Analysis of Synaptic Dysfunction in Dementia***

Zenith Fellows Award — \$450,000 over three years  
How does mutated BRI2 cause synaptic dysfunction, and how does it interact with the biochemical mechanisms involved in production of beta-amyloid?

**Mauro Fa, Ph.D.**

Columbia University Medical Center  
New York, New York

***Memory Impairment by Soluble Oligomeric Tau***

Investigator-Initiated Research Grant — \$200,000 over three years  
How does oligomeric tau affect synaptic transmission in the brain, and how does this effect lead to changes in memory function?

**Sophie Sokolow, Ph.D.**

University of California — Los Angeles  
Los Angeles, California

***Biochemical and Functional Analyses of the Na<sup>+</sup>/Ca<sup>2+</sup> Exchanger (NCX) in Alzheimer's Pathology***

New Investigator Research Grant — \$100,000 over two years  
Does NCX1-3 promote beta-amyloid-induced toxicity, and what are the links between beta-amyloid, calcium and the overproduction of glutamate at synapses?

**Brian Wiltgen, Ph.D.**

University of Virginia  
Charlottesville, Virginia

***The Role of Synaptic Plasticity in the Development of Alzheimer's Disease***

New Investigator Research Grant — \$100,000 over two years  
Do mice with less hippocampal plasticity suffer less disease-related pathology than mice with normal plasticity?

**Guang Yang, Ph.D.**

New York University School of Medicine  
New York, New York

***Synaptic Pathology Underlying Memory Loss in a Mouse Model of Alzheimer's Disease***

New Investigator Research Grant — \$100,000 over two years  
How does the elimination of certain microglia affect beta-amyloid production in mice, and are there significant losses of learning-associated plasticity and increases in behavioral deficits?

**Disruption of brain cell functions/properties****Brian J. Bacskai, Ph.D.**

Massachusetts General Hospital  
Charlestown, Massachusetts

***Understanding the Selective Vulnerability of Neurons in Alzheimer's Disease***

Investigator-Initiated Research Grant — \$200,000 over three years  
What are the properties of vulnerable nerve cells, and what are the biochemical pathways that make these cells vulnerable?

**Kiran Bhaskar, Ph.D.**

Cleveland Clinic Foundation  
Cleveland, Ohio

***Role of Tau Protein in Inflammation-Mediated Neurotoxicity***

New Investigator Research Grant — \$100,000 over two years  
What is the role of microglia in the development of brain inflammation and abnormal tau?

**Jeannie Chin, Ph.D.**

Thomas Jefferson University  
Philadelphia, Pennsylvania

***Dysregulation of Corticothalamic Circuitry in Alzheimer's Disease***

New Investigator Research Grant — \$100,000 over two years  
How do abnormal activity and seizures develop in the corticothalamic pathway of mice genetically modified to express Alzheimer's-like pathology?

**Dan Frenkel, Ph.D.**

Tel Aviv University  
Tel Aviv, Israel

***The Role of Specific Gamma Secretase Pathways in Microglia Activation***

New Investigator Research Grant — \$99,200 over two years  
What are the different ways that gamma-secretase may affect the activity of microglial cells?

**Justin Legleiter, Ph.D.**

West Virginia University Foundation  
Morgantown, West Virginia

***Mechanisms and Consequences of Beta-Amyloid Binding to Cellular Surfaces***

New Investigator Research Grant — \$99,592 over two years  
Do electrical and chemical changes to brain cell surfaces enable beta-amyloid to bind to these surfaces more easily, and does this binding lead to neuronal damage and death?

**Min Wang, Ph.D.**

Yale University  
New Haven, Connecticut

***Nicotinic Alpha7-NMDA Receptor Interactions in the Aged Nonhuman Primate***

New Investigator Research Grant — \$100,000 over two years  
Does stimulation of nicotinic receptors lead to amyloid-induced losses of NMDA NR2B activity, and can NMDA functioning be restored by administering a drug that deactivates a7nAChR?

**Genetics and Risk Factors of Dementia****Genetic factors****Carlos Cruchaga, Ph.D.**

Washington University in St. Louis  
St. Louis, Missouri

***Exome Sequencing of Late-Onset Alzheimer's Disease Families***

New Investigator Research Grant — \$99,677 over two years  
Are genetic mutations linked to late-onset Alzheimer's disease?

**John S.K. Kauwe, Ph.D.**

Brigham Young University  
Provo, Utah

***Genetic and Environmental Influences on Rate of Progression of Alzheimer's Disease***

Mentored New Investigator Research Grant to Promote Diversity — \$149,831 over three years

Are genetic factors associated with the rate of progression of late-onset Alzheimer's disease, and, if so, how do they interact with known environmental influences that determine overall variation in rate of progression?

**Richard Sherva, Ph.D., M.P.H.**

Boston University  
Boston, Massachusetts

***Genetics of Rate of Cognitive Decline in a Clinical Trial of Alzheimer's Disease***

New Investigator Research Grant — \$99,072 over two years  
Are certain single nucleotide polymorphisms (SNPs) associated with rates of cognitive and functional decline, and do particular chromosomes harbor the SNPs most closely associated with dementia progression rates?

**Risk factors****David H. Cribbs, Ph.D.**

University of California — Irvine  
Irvine, California

***Hypertension, Cerebral Amyloid Angiopathy and Neuroinflammation***

Investigator-Initiated Research Grant — \$200,000 over three years  
How does high blood pressure contribute to the development of Alzheimer's pathology and cerebral amyloid angiopathy (CAA)?

**Costantino Iadecola, M.D.**

Joan & Sanford I. Weill Medical College of Cornell University  
New York, New York

***Interaction Between Hypertension and Alzheimer's Disease***

Zenith Fellows Award — \$450,000 over three years  
How does high blood pressure affect Alzheimer's pathology, especially the ability of the brain to remove beta-amyloid?

**David J. Llewellyn, Ph.D.**

Peninsula Medical School  
Universities of Exeter and Plymouth  
Exeter, United Kingdom

***Vitamin D and the Risk of Dementia in the Cardiovascular Health Study***

New Investigator Research Grant — \$99,662 over two years  
Can low blood 25(OH) D levels serve as a risk factor of Alzheimer's and other neurological disorders?

**Jennifer J. Manly, Ph.D.**

Columbia University Medical Center  
New York, New York

***Offspring of Ethnically Diverse People With and Without Alzheimer's Disease***

Investigator-Initiated Research Grant — \$200,000 over three years  
How do ethnicity and family history of Alzheimer's disease interact with other risk factors, and is the risk of Alzheimer's associated with educational background different among persons of differing ethnicity?

**Ricardo S. Osorio, M.D.**

New York University School of Medicine  
New York, New York

***Is Sleep Disordered Breathing in Normal Aging a Risk Factor for Alzheimer's Disease?***

New Investigator Research Grant — \$99,778 over two years  
Are there associations between sleep disorders and levels of beta-amyloid in the brain?

**Mehul A. Trivedi, Ph.D.**

Rush University Medical Center  
Chicago, Illinois

***Neural Correlates of Cognitive Efficiency in Individuals at Risk for Alzheimer's Disease***

New Investigator Research Grant — \$100,000 over two years  
What is the role of dementia risk factors on white matter functioning and on cognitive efficiency, and do APOE-ε4 carriers display greater white matter abnormalities than non-carriers?

**Molly E. Zimmerman, Ph.D.**

Albert Einstein College of Medicine of Yeshiva University  
Bronx, New York

***Chronic Pain and Cognitive Dysfunction in Older Adults***

New Investigator Research Grant — \$100,000 over two years  
How is long-term pain associated with cognitive decline?

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## Diagnosis and disease monitoring

### Biomarkers

**Raksha Anand, Ph.D.**

University of Texas at Dallas  
Dallas, Texas

***Neural Markers of Subjective Cognitive Impairment***

New Investigator Research Grant — \$100,000 over two years  
Do persons with reported memory impairment exhibit event-related potentials that resemble those of persons with amnesic MCI?

**Randall J. Bateman, M.D.**

Washington University in St. Louis  
St. Louis, Missouri

***A Blood Isotope Labeled Amyloid-Beta Test for Alzheimer's Disease***

Zenith Fellows Award — \$450,000 over three years  
How does the body produce and dispose of beta-amyloid, and how do changes in those processes affect the development of disease?

**Stephen J. Bonasera, M.D., Ph.D.**

University of Nebraska  
Omaha, Nebraska

***Multimodal Monitoring of Functional Status in Moderate Alzheimer's Disease***

Everyday Technologies for Alzheimer's Care — \$200,000 over three years  
Can cholinesterase-evoked changes in the functional status of individuals with moderate Alzheimer's disease be tracked by using mobile monitoring, but not standard, functional measures?

**Neil Smalheiser, M.D., Ph.D.**

University of Illinois at Chicago  
Chicago, Illinois

***Plasma Small RNAs as Biomarkers for Alzheimer's Disease***

Investigator-Initiated Research Grant — \$200,000 over three years  
Are levels of any specific RNAs associated with development of disease, or with the presence of risk factors such as age or lifestyle factors?

### Brain imaging

**Joseph Goveas, M.D.**

Medical College of Wisconsin  
Milwaukee, Wisconsin

***Multimodal Imaging in Depressed Adults at Risk for Alzheimer's Disease***

New Investigator Research Grant — \$99,994 over two years  
Can resting state functional magnetic resonance imaging (fMRI) and diffusion tensor imaging methods discriminate differences in the episodic memory associated with functional and structural brain networks of individuals with late-life depression, with and without aMCI?

**Geoffrey A. Kerchner, M.D., Ph.D.**

Stanford University  
Stanford, California

***Hippocampal Striatal Anatomy in Mild Cognitive Impairment: A 7T MRI Study***

New Investigator Research Grant — \$100,000 over two years  
Does the combination of cerebrospinal fluid testing and 7T MRI assessments provide an optimal way of determining an individual's risk of progressing from MCI to dementia?

**Prashanthi Vemuri, Ph.D.**

Mayo Clinic  
Rochester, Minnesota

***Functional Reorganization of the Brain: Response to Alzheimer's Pathology?***

New Investigator Research Grant — \$100,000 over two years  
Can the use of multiple imaging techniques identify changes in brain function among a group of cognitively healthy people, people with Alzheimer's disease, and people with mild cognitive impairment?

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## Drug development and clinical interventions

### Drug therapies/treatments

**Olga Bruno, Ph.D.**

University of Genoa  
Genoa, Italy

***PDE4D Selective Inhibitors for the Treatment of Memory Impairment***

Investigator-Initiated Research Grant — \$200,000 over three years  
Can PDE4D inhibitors restore the ability of synapses to perform memory functions and improve the ability to perform behavioral tasks requiring memory?

**Maria Cotelli, Ph.D.**

Scientific Institute of Cure and Hospitalization  
Brescia, Italy

***Alzheimer's Disease: A New Approach to Cognitive Neurorehabilitation***

New Investigator Research Grant — \$100,000 over two years  
Can transcranial direct current stimulation (tDCS) partially restore cognitive function in persons with Alzheimer's disease?

**Marcello D'Amelio, Ph.D.**

IRCCS Santa Lucia Foundation  
Rome, Italy

***Preventing and Monitoring Onset of Synaptic Degeneration in Early Alzheimer's Disease***

New Investigator Research Grant — \$99,400 over two years  
Can drugs that target abnormal mitochondrial function prevent caspase-3-related synaptic damage and memory loss?

**Bruce T. Lamb, Ph.D.**

Cleveland Clinic  
Cleveland, Ohio

***The Role of Mononuclear Phagocytes in Tauopathies***

Multi-Centered Project Grant-Component Project 1  
How do two types of mononuclear phagocytes(MNPs)—microglia and monocytes—contribute to the development of tauopathies?

**Sanjay W. Pimplikar, Ph.D.**

Cleveland Clinic  
Cleveland, Ohio

***Inflammation and Microglial Activation in AICD Transgenic Mice***

Multi-Centered Project Grant-Component Project 2  
How does the fragment known as the APP intracellular domain (AICD) cause inflammation in the brain?

**Richard M. Ransohoff, M.D.**

Cleveland Clinic  
Cleveland, Ohio

***Genetic Tagging of Mononuclear Phagocytes in Alzheimer's Mouse Models***

Multi-Centered Project Grant-Component Project 3  
What is the role of monocytes in brain inflammation?

**Daniel Wesson, Ph.D.**

Case Western Reserve University  
Cleveland, Ohio

***The Biological Basis of Phenotypic Diversity of Microglia in AD***

Multi-Centered Project Grant-Component Project 4  
How does amyloid activate microglia and what are the effects of such activation on brain inflammation?

**Gary Landreth, Ph.D.**

Case Western Reserve University  
Cleveland, Ohio

***Mechanisms of RXR-Stimulated Reversal of Amyloid-Induced Phenotypes***

Zenith Fellows Award — \$450,000 over three years  
How does the drug bexarotene, which activates RXR, improve clearance of beta-amyloid from the brain?

**Rebecca G. Logsdon, Ph.D.**

University of Washington  
Seattle, Washington

***Two Interventions for Early Stage Dementia: A Comparative Efficacy Trial***

Non-Pharmacological Strategies to Ameliorate Symptoms of Alzheimer's Disease — \$399,990 over three years  
How effective are two promising nonpharmacological interventions at reducing the social, psychological, physical and behavioral impact of dementia?

**Andrew Munkasci, Ph.D.**

Columbia University Medical Center  
New York, New York

***HDAC Inhibition: Treating Dementia Through Cholesterol Transport and CLU***

New Investigator Research Grant — \$99,990 over two years  
Can HDAC inhibitors prevent dementia-related neurological damage?

**Susanna Rosi, Ph.D.**

University of California — San Francisco  
San Francisco, California

***Restoring Synaptic Plasticity in a Transgenic Rat Model of Alzheimer's Disease***

Investigator-Initiated Research Grant — \$200,000 over three years  
Can a drug known to inhibit the activity of TNF-alpha prevent the progression of Alzheimer's-like pathology in the brain and restore the ability of brain synapses to perform functions vital to memory?

**William Z. Suo, M.D.**

Midwest Biomedical Research Foundation  
Kansas City, Missouri

***Fighting Against Alzheimer's Selective Cholinergic Neurodegeneration***

Novel Pharmacological Strategies to Prevent Alzheimer's Disease — \$399,900 over three years  
Can an M2 inhibitor preserve forebrain cholinergic neurons and cognitive function?

### Nutritional and lifestyle interventions

**David X. Marquez, Ph.D.**

University of Illinois at Chicago  
Chicago, Illinois

***BAILA-C: Bypassing Alzheimer's, Increasing Latinos' Activity and Cognition***

New Investigator Research Grant to Promote Diversity — \$99,223 over two years  
Are there culturally appropriate ways to increase the physical activity of older Latino persons and reduce their risk of cognitive decline?

**Ramit Ravona-Springer, M.D.**

Sheba Medical Center

Ramat Gan, Israel

***Dietary Factors, Inflammation, and Cognitive Decline in Diabetic Elderly***

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

How does vitamin E protect the brain from oxidative stress and cognitive decline, and do certain types of diabetic individuals benefit more than others from vitamin E?

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**Care, support and social-behavioral factors**

**Yvonne D. Eaves, Ph.D.**

University of Alabama at Birmingham

Birmingham, Alabama

***Caregiving Transitions in Alzheimer's Disease for Rural African-Americans***

The Senator Mark Hatfield Award for Clinical Research in Alzheimer's Disease — \$200,000 over three years

How do rural African-Americans and their families make decisions and manage the transitions associated with the progression of Alzheimer's disease?

**Dimitris N. Kiosses, Ph.D.**

Joan & Sanford I. Weill Medical College of Cornell University

New York, New York

***Home-Delivered Intervention for Depression in Alzheimer's Disease***

Investigator-Initiated Research Grant — \$200,000 over three years

Is the new Problem Adaption Therapy (PATH) better than supportive therapy at reducing symptoms of depression and increasing the patient's ability to perform common daily tasks?

**Diane F. Mahoney, Ph.D.**

MGH Institute of Health Professions

Boston, Massachusetts

***Context Aware Computing with Motivational Counseling to Enable Dressing***

Everyday Technologies for Alzheimer's Care — \$180,000 over two years

Can a technology solution called Development of a Responsive Emotive Sensing System (DRESS) detect and respond to an individual's style and guide the dressing event through interactive, sensor-based motivational coaching?