

2010 Alzheimer's Association Grants Portfolio —Organized by trends in research

Biology of disease-related molecules

1. Production of beta-amyloid

- **Carmela R. Abraham, Ph.D.**
Boston University Medical Campus
Boston, Massachusetts
Modulators of APP Dimerization as Novel Therapeutics for Alzheimer's Disease
2010 Investigator-Initiated Research Grant—\$200,000 over 3 years
Does dimerization of APP affect the production of beta-amyloid, and could this be a useful target for drugs to halt or slow the progression of Alzheimer's disease?
- **Alessia Barbagallo, Ph.D.**
Albert Einstein College of Medicine at Yeshiva University
Bronx, New York
The Role of APP Phosphorylation Induced by IGF-1 in APP Processing
2010 New Investigator Research Grant—\$80,000 over 2 years
How do abnormal phosphorylation and the loss of normal IGF-1 activity affect APP processing in cells and lead to brain cell damage?
- **Giuseppe Di Fede, M.D., Ph.D.**
Fondazione IRCCS Istituto Neurologico Carlo Besta Milan, Italy
Trans-suppression of Abeta Amyloidogenesis in Cellular and Nematode Models
2010 New Investigator Research Grant—\$50,000 over 2 years
What biological mechanisms underlie an APP variant's ability to promote harmful amyloid clumping?
- **Joseph D. Fondell, Ph.D.**
University of Medicine and Dentistry of New Jersey—Robert Wood Johnson Medical School
Piscataway, New Jersey
T3-Dependent Silencing of Beta-Amyloid Precursor Protein Gene Expression
2010 Investigator-Initiated Research Grant—\$200,000 over 3 years
How does T3 regulate the expression of APP and what other proteins assist in this process?
- **Laura Beth McIntire, Ph.D.**
Columbia University Medical Center
New York, New York
Dissecting the Role of PI3K Family Members in Aβ Biogenesis
2010 New Investigator Research Grant—\$80,000 over 2 years
Is the protein ataxia telangiectasia mutated kinase (ATM) or another kinase most responsible for regulating beta-amyloid production?
- **Amantha Thathiah, Ph.D.**
VIBvzw
Leuven, Belgium
Regulation of the Gamma-Secretase and Abeta Peptide Generation by GPR3
2010 Mentored New Investigator Research Grant to Promote Diversity—\$150,000 over 3 years

Does the removal of the GPR3 gene in mice inhibit the formation of amyloid plaque?

- **Yunwu Zhang, Ph.D.**
Xiamen University
Xiamen, China
The Involvement of CutA in Alzheimer's Disease
2010 New Investigator Research Grant—\$80,000 over 2 years
What are the roles of CutA and copper atoms in the regulation of BACE1 and the production of beta-amyloid?
- 2. **Tau phosphorylation**
 - **Kanae Iijima-Ando, Ph.D.**
Thomas Jefferson University
Philadelphia, Pennsylvania
Tau Phosphorylation and Toxicity Induced by Mitochondrial Mislocalization
2010 New Investigator Research Grant—\$80,000 over 2 years
Does abnormal mitochondrial transport promote tau toxicity in cells by enhancing tau phosphorylation in certain disease-affected brain regions?
 - **Umesh Kumar Jinwal, Ph.D.**
University of South Florida
Tampa, Florida
Behavioral and Biochemical Analysis of Mice Lacking FKBP51
2010 New Investigator Research Grant—\$50,000 over 2 years
Does eliminating FKBP51 in healthy mice alter the production of normal tau and lead to behavioral changes?
 - **Nicholas M. Kanaan, Ph.D.**
Northwestern University—Chicago Campus
Chicago, Illinois
Tau-Mediated Axonal Transport Dysfunction
2010 New Investigator Research Grant—\$80,000 over 2 years
Does the phosphatase-activating domain (PAD) hinder axonal transport through a process that phosphorylates tau?
 - **Fei Liu, Ph.D.**
Research Foundation for Mental Hygiene, Inc. at New York State Institute for Basic Research
New York, New York
Role of Dyrk1A in Tau Pathology in Alzheimer's Disease
2010 Investigator-Initiated Research Grant—\$200,000 over 3 years
How does modification of Dyrk1A during the disease process affect the phosphorylation of tau, as well as the expression of different forms of tau?
 - **Fengquan Zhou, Ph.D.**
Johns Hopkins University School of Medicine
Baltimore, Maryland
Regulation of Tau Phosphorylation in Neurons by Par3/6 via GSK-3s
2010 New Investigator Research Grant—\$80,000 over 2 years
Is Par3/6 activity part of a signaling pathway activated by known signals, such as growth factors?

3. Normal function of disease-related proteins

- **Christopher Conrad, Ph.D.**
Columbia University
New York, New York
The Role of SorLA in Tau Aggregation
2010 New Investigator Research Grant—\$80,000 over 2 years
Does decreased sorLA expression lead to the overproduction of abnormal tau protein and the development of neurofibrillary tangles?
- **Sebastien Gauthier, Ph.D.**
The Nathan S. Kline Institute for Psychiatric Research
Orangeburg, New York
CysC Restores the Flow of Autophagy to Counteract Alzheimer Pathogenesis
2010 New Investigator Research Grant—\$80,000 over 2 years
Does cystatin C work with the autophagic process to reduce beta-amyloid accumulation?
- **Ulrich Hengst, Ph.D.**
Columbia University Medical Center
New York, New York
The Role of Intra-Axonal Protein Synthesis in Alzheimer's Disease
2010 New Investigator Research Grant—\$80,000 over 2 years
How and where do Alzheimer-related proteins accumulate in cells?
- **Nikolaos K. Robakis, Ph.D.**
Mount Sinai School of Medicine
New York, New York
Neuroprotective Functions of Progranulin and Receptor
2010 Investigator-Initiated Research Grant—\$200,000 over 3 years
How do mutations in progranulin lead to neurodegeneration?
- **Jie Shen, Ph.D.**
Brigham and Women's Hospital
Boston, Massachusetts
Role of APP Family in the Synapse
2010 Zenith Fellows Award—\$450,000 over 3 years
What are the functions of APP in brain cells and synapses?
- **Marcel M. Verbeek, Ph.D.**
Radboud University Nijmegen Medical Centre
Nijmegen, Netherlands
ApoE and ApoJ in the Cerebrovascular Clearance of Amyloid Beta Protein
2010 Investigator-Initiated Research Grant—\$200,000 over 3 years
How does amyloid beta interact with ApoE and ApoJ, and how is this interaction important for removal of beta-amyloid from the brain?
- **Huaxi Xu, Ph.D.**
Burnham Institute for Medical Research
La Jolla, California
Apoptosis, an APP Binding Proapoptotic Protein, Mediates Neuronal Death
2010 Investigator-Initiated Research Grant—\$200,000 over 3 years
How does apoptosis trigger cell death, and how is that process influenced by binding of APP?

Alzheimer's disease pathology

1. Properties and toxicity of abnormal protein structures

- **Natàlia Carulla, Ph.D.**
Institute for Research in Biomedicine, Barcelona
Barcelona, Spain
Structure-Toxicity Relationship of Abeta Oligomers
2010 New Investigator Research Grant—\$80,000 over 2 years
What is the exact structure of the most toxic amyloid oligomers?
 - **Claudio Hetz, Ph.D.**
Institute of Biomedical Sciences, University of Chile
Santiago, Chile
Defining the Role of the Unfolded Protein Response in Alzheimer's Disease
2010 New Investigator Research Grant—\$80,000 over 2 years
How does x-box binding protein-1 (XBP-1) make brain cells vulnerable to amyloid-induced damage?
 - **Keith A. Johnson, M.D.**
Massachusetts General Hospital
Boston, Massachusetts
Tracking the Progression of Early Amyloid Deposition
2010 Zenith Fellows Award—\$449,214 over 3 years
What are the patterns of amyloid plaque formation and the rate of plaque formation, and which features of amyloid plaque are associated with brain degeneration?
 - **Efrat Levy, Ph.D.**
The Nathan S. Kline Institute for Psychiatric Research
Orangeburg, New York
Transgenic Models of the Anti-Amyloidogenic Activity of a Mutant Form of ABeta
2010 Zenith Fellows Award—\$450,000 over 3 years
How does mutant APP affect the aggregation of beta-amyloid and the development of amyloid plaque?
 - **Anant Krishna Paravastu, Ph.D.**
Florida State University Research Foundation, Inc.
Tallahassee, Florida
NMR Characterization of Prefibrillar Amyloid-Beta Aggregates
2010 New Investigator Research Grant—\$80,000 over 2 years
What is the exact structure of early oligomer formations?
 - **Jonathan Pierce-Shimomura, Ph.D.**
University of Texas at Austin
Austin, Texas
Mechanisms of APP-Induced Death of Cholinergic Neurons in C. Elegans
2010 New Investigator Research Grant—\$80,000 over 2 years
How does APP overexpression damage roundworm cholinergic neurons?
- ### 2. Mediators of beta-amyloid toxicity
- **Nelson Arispe, Ph.D.**
The Henry M. Jackson Foundation for the Advancement of Military Medicine, Inc.
Rockville, Maryland
Contribution of Alzheimer Abeta Channels to the Abeta-Induced Calcium Response
2010 Investigator-Initiated Research Grant—\$200,000 over 3 years
Are channels formed by beta-amyloid in the cell membrane responsible for the toxicity of beta-amyloid in nerve cells?

- **Rodrigo Franco, Ph.D.**
University of Nebraska
Lincoln, Nebraska
Copper Transport Regulates Amyloid-Beta-Induced Neurodegeneration
2010 New Investigator Research Grant to Promote Diversity—\$99,624 over 2 years
What is the role of the proteins ATP7a and CTR1 in the regulation of copper levels in the brain and within nerve cells of the brain?
 - **Mi Hee Lim, Ph.D.**
University of Michigan
Ann Arbor, Michigan
The Roles of Metal Ions in Alzheimer's Disease
2010 New Investigator Research Grant—\$79,999 over 2 years
Do metal ions promote beta-amyloid accumulation by reducing the activity of enzymes that clear amyloid from the brain?
 - **Izumi Maezawa, Ph.D.**
University of California, Davis
Davis, California
The Role of the Potassium Channel Kv1.3 in A β -Induced Microglia Activation
2010 New Investigator Research Grant—\$80,000 over 2 years
Does blocking the Kv1.3 channel prevent microglia from causing inflammation without hindering the cells' ability to clear beta-amyloid?
 - **Ewan C. McNay, Ph.D.**
University at Albany - SUNY
Albany, New York
Diabetes, Insulin, Amyloid and Alzheimer's Disease: Cognitive and Metabolic Mechanisms
2010 New Investigator Research Grant—\$80,000 over 2 years
Do amyloid-related reductions in insulin hinder spatial memory in animals, and does insulin promote the metabolism of brain cell compounds through a molecular pathway—or series of chemical events—that is known to be affected by amyloid clumping?
 - **Salvatore Oddo, Ph.D.**
University of Texas Health Science Center
San Antonio, Texas
The Role of Chaperone-Mediated Autophagy in Alzheimer's Disease
2010 New Investigator Research Grant—\$80,000 over 2 years
Does amyloid accumulation in the brain impair chaperone-mediated autophagy (CMA) activity and lead to the build-up of tau and further build-up of beta-amyloid?
 - **Zhigang Xiong, Ph.D.**
Legacy Emanuel Hospital and Health Center
Portland, Oregon
Acid-Sensing Ion Channels as Novel Target for Alzheimer's Disease
2010 Investigator-Initiated Research Grant—\$200,000 over 3 years
How does beta-amyloid affect the activity of acid-sensing ion channels?
- ### 3. Synaptic dysfunction
- **Ayodeji Abdur-Rasheed Asuni, Ph.D.**
New York University School of Medicine
New York, New York
Astrocytes and Synaptopathy: Protein Misfolding Disease's Mechanisms
2010 New Investigator Research Grant—\$80,000 over 2 years
Do deposits of misfolded beta-amyloid or prion protein lead to synaptic damage and astrocytic buildup in mice?
 - **Heng Du, M.D., Ph.D.**
Columbia University Medical Center
New York, New York
Mitochondrial Permeability Transition Pore and Abeta-Induced Synapse Loss
2010 New Investigator Research Grant—\$80,000 over 2 years
How do mitochondrial pores lead to synaptic damage?
 - **Nicola Origlia, Ph.D.**
Institute of Neuroscience of the National Research Council
University of Pisa
Pisa, Italy
Role of Microglial and Neuronal RAGE in Abeta Mediated Synaptic Dysfunction
2010 New Investigator Research Grant—\$80,000 over 2 years
How do amyloid oligomers inhibit the function of synapses, and how does the receptor for advanced glycation endproducts (RAGE) promote amyloid-induced synaptic damage?
- ### 4. Disruption of brain cell functions/properties
- **Andrea Bibbig, Ph.D.**
Research Foundation, SUNY
Brooklyn, New York
Deficits of Neuronal Oscillations and Cognition in Alzheimer's Disease
2010 New Investigator Research Grant—\$80,000 over 2 years
Does modifying the activity of glutamate and serotonin restore beta and gamma oscillations?
 - **Donna Cross, Ph.D.**
University of Washington
Seattle, Washington
In Vivo Imaging of Axonal Transport Deficits in Alzheimer's Disease
2010 New Investigator Research Grant—\$80,000 over 2 years
Does GSK-3 hinder axonal transport?
 - **Elvira De Leonibus, Ph.D.**
Fondazione Telethon
Rome, Italy
Neurobiology of Working Memory Span in Normal and Pathological Aging
2010 New Investigator Research Grant—\$79,970 over 2 years
What associations exist between working memory loss, aging and AMPA receptor activity?
 - **Tomas Luis Falzone, Ph.D.**
Institute for Cell Biology and Neuroscience
Buenos Aires, Argentina
New Models to Study the Role of Ubiquitin-Proteasome Axonal Transport in Alzheimer's Disease
2010 New Investigator Research Grant—\$80,000 over 2 years
Does axonal damage hinder the transportation of ubiquitin to sites where beta-amyloid and tau accumulate?
 - **Rong Fan, Ph.D.**
Yale University
New Haven, Connecticut
Assessing Heterogeneity of Alzheimer's Disease Using Integrated Microchips
2010 New Investigator Research Grant—\$80,000 over 2 years
How do brain cells use different proteins to communicate with one another in Alzheimer's?

- **George Perry, Ph.D.**
Case Western Reserve University
Cleveland, OH
The Role of PGC-1alpha in Alzheimer's Disease
2010 Investigator-Initiated Research Grant—\$200,000 over 3 years
What causes decreased expression of PGC-1alpha in Alzheimer's?

- **Inna Slutsky, Ph.D.**
Tel-Aviv University
Tel-Aviv, Israel
Initiation of Alzheimer's Disease: From Amyloid-Beta Release to Synaptic Failure
2010 New Investigator Research Grant—\$80,000 over 2 years
Do altered brain cell activity patterns lead to harmful beta-amyloid release and synaptic damage?

- **Xiongwei Zhu, Ph.D.**
Case Western Reserve University
Cleveland, Ohio
In Vivo Study on Abnormal Mitochondrial Dynamics in Alzheimer Model
2010 Investigator-Initiated Research Grant—\$200,000 over 3 years
What molecular mechanisms cause changes in mitochondria during the development of Alzheimer pathology?

5. Genetics

- **Corinne Engelman, Ph.D.**
University of Wisconsin-Madison
Madison, Wisconsin
Genetic Architecture of Alzheimer-Related Functional and Structural Brain Aging
2010 New Investigator Research Grant—\$80,000 over 2 years
Which SNPs are associated with Alzheimer-related cognitive decline, and which SNPs are linked to structural brain loss?

- **Kinga Szigeti, M.D., Ph.D.**
Baylor College of Medicine
Houston, Texas
Copy Number Variation GWA with Age at Onset of Alzheimer's Disease
2010 New Investigator Research Grant—\$80,000 over 2 years
Which copy number variants are associated with the "age-at-onset" of Alzheimer's disease, and which genes are associated with these variants?

6. Other factors in Alzheimer pathology

- **Cheng-Xin Gong, M.D.**
Research Foundation for Mental Hygiene, Inc. at New York State Institute for Basic Research
New York, New York
Targeting Insulin Signaling for Treating Neurofibrillary Degeneration in Alzheimer's Disease
2010 Investigator-Initiated Research Grant—\$200,000 over 3 years
How does loss of insulin signaling contribute to the development of neurofibrillary tangles?

- **Henrieta Scholtzova, M.D., Ph.D.**
New York University School of Medicine
New York, New York
Mechanisms of Action of Innate Immunity Stimulation with CpG ODN on CAA
2010 New Investigator Research Grant—\$80,000 over 2 years
How does the activation of macrophages by CpG ODN safely regulate vascular and brain beta-amyloid levels?

- **Nicholas H. Varvel, Ph.D.**
Hertie-Institute for Clinical Brain Research
Tuebingen, Germany
Alzheimer Pathologies in the Absence of Microglia
2010 New Investigator Research Grant—\$80,000 over 2 years
What is the role of microglia in the development and maintenance of Alzheimer pathology?

- **Riqiang Yan, Ph.D.**
Cleveland Clinic Foundation
Cleveland, Ohio
Blocking RTN3 Aggregation for Improving Cognitive Function
2010 Novel Pharmacological Strategies to Prevent Alzheimer's Disease—\$320,000 over 3 years
What is the role of RTN3 in the progression of Alzheimer pathology?

Dementia risk factors

- **Maria M. Corrada, Sc.D.**
University of California, Irvine
Irvine, California
Vascular Disease in Relation to Dementing Pathologies in the Oldest Old
2010 New Investigator Research Grant—\$77,422 over 2 years
How does the dementia risk presented by vascular disorders change in the oldest old?

- **Edo Richard, M.D.**
Academic Medical Center
Amsterdam, the Netherlands
A New Perspective on Dementia: From Vascular Risk Factors to Prevention
2010 New Investigator Research Grant—\$80,000 over 2 years
Which cardiovascular factors have the greatest impact on dementia risk, and which types of people would benefit most from reducing dementia risk through cardiovascular treatment?

- **Christopher Rowe, M.D., Ph.D.**
CSIRO Preventative Health
Heidelberg, Australia
AIBL II
2010 Investigator-Initiated Research Grant—\$200,000 over 3 years
How do diet and lifestyle affect an individual's risk of developing Alzheimer's disease?

- **Liqin Zhao, Ph.D.**
University of Southern California
Los Angeles, California
IDE, ER Subtype ApoE Genotype and Alzheimer Prevention Versus Treatment
2010 Investigator-Initiated Research Grant—\$200,000 over 3 years
How does estrogen regulate levels of IDE in the brain, and how does this regulation influence the risk of Alzheimer pathology?

Diagnosis and disease monitoring

1. Biomarkers

- **Miia Kivipelto, M.D., Ph.D.**
University of Kuopio
Kuopio, Finland
Effect of Preventive Interventions on Biomarkers for Cognitive Decline
2010 The Senator Mark Hatfield Award for Clinical Research—\$200,000 over 3 years
Which potential biomarkers accurately reflect cognitive decline?

- **Claudio Soto, Ph.D.**
University of Texas Health Science Center at Houston
Houston, Texas
Amyloid-Beta Oligomers and Alzheimer Diagnosis
2010 Investigator-Initiated Research Grant—\$200,000 over 3 years
Can a blood test be developed that can detect very low levels of oligomers in the blood?

2. Brain imaging

- **Adam M. Brickman, Ph.D.**
Columbia University Medical Center
New York, New York
An Ex-Vivo MRI Study of White Matter Hyperintensities in Aging and Alzheimer's Disease
2010 New Investigator Research Grant—\$80,000 over 2 years
Do people with Alzheimer's have greater white matter hyperintensity (WMH) concentrations in their parietal regions, and are there any associations between WMH levels and various hallmarks of Alzheimer's?
- **Mark Edward Wheeler, Ph.D.**
University of Pittsburgh
Pittsburgh, Pennsylvania
Neural Mechanisms of Perceptual Memory Decisions in MCI
2010 New Investigator Research Grant—\$80,000 over 2 years
How can fMRI show how the brain perceives, processes and remembers sensory information, and how these brain abilities are altered in persons with MCI?
- **Guofan Xu, Ph.D.**
University of Wisconsin-Madison
Madison, Wisconsin
Detecting the Cerebral Vascular Function Deficits Associated with Alzheimer's Disease
2010 New Investigator Research Grant—\$80,000 over 2 years
Can MRI detect early stages of Alzheimer's disease using measurements of brain blood flow in different parts of the brain?

3. Other risk factors

- **Michael Paul Murphy, Ph.D.**
University of Kentucky Research Foundation
Lexington, Kentucky
Leptin Resistance and Alzheimer's Disease
2010 Investigator-Initiated Research Grant—\$200,000 over 3 years
Is there a possible link between an increased risk of Alzheimer's disease and the presence of obesity or type 2 diabetes?

Drug development and clinical interventions

1. Drug therapies

- **Ved Chauhan, Ph.D.**
Research Foundation for Mental Hygiene, Inc., at New York State Institute for Basic Research
New York, New York
Gelsolin, Trichostatin A and Alzheimer's Disease
2010 Investigator-Initiated Research Grant —\$199,218 over 2 years
Is trichostatin A (TSA) an effective treatment to prevent Alzheimer-like pathology in Alzheimer-like mice?

- **Suzanne Craft, Ph.D.**
Seattle Institute for Biomedical and Clinical Research
Seattle, Washington
Intranasal Insulin Analogue Effects on CSF and Imaging Biomarkers in MCI
2010 Zenith Fellows Award—\$449,966 over 2 years
How does long-acting insulin affect cognitive function, brain blood flow and the levels of chemicals in the CSF known to be associated with MCI?
- **Pankaj Karande, Ph.D.**
Rensselaer Polytechnic Institute
Troy, New York
Study of Tight Junction Binding Peptides for Drug Delivery Across the BBB
2010 New Investigator Research Grant—\$79,993 over 2 years
Can several peptides that bind to claudin 5 penetrate a model blood-brain barrier (BBB) engineered from different human cells?
- **Pavan Kumar Krishnamurthy, Ph.D.**
New York University School of Medicine
New York, New York
Cellular Pathways for Antibody Mediated Removal of Tau Aggregates
2010 New Investigator Research Grant—\$80,000 over 2 years
Are tau antibodies effective at clearing different forms of tau?
- **Susan W. Liebman, Ph.D.**
University of Chicago-Illinois
Chicago, Illinois
Yeast Cell-based HTS Screen for Inhibitors of Abeta42 Oligomerization
2010 Investigator-Initiated Research Grant—\$200,000 over 3 years
Can 10 potential drug candidates be identified and tested for their ability to inhibit beta-amyloid oligomerization?
- **Chien-liang Glenn Lin, Ph.D.**
Ohio State University
Columbus, Ohio
Evaluating Glial Glutamate Transporter EAAT2 Activators in APP Mice
2010 Investigator-Initiated Research Grant—\$200,000 over 3 years
Can drug candidates that increase the expression of EAAT2 restore the ability of glial cells to remove glutamate from the brain?
- **Tiffany Mellott, Ph.D.**
Boston University Medical Campus
Boston, Massachusetts
Effect of Perinatal Choline Supplementation on an Alzheimer's Disease Model
2010 New Investigator Research Grant—\$80,000 over 2 years
Does choline help slow age-related memory declines?
- **Christian J. Pike, Ph.D.**
University of Southern California
Los Angeles, California
NeuroSARMs in the Prevention of Alzheimer's Disease
2010 Investigator-Initiated Research Grant—\$200,000 over 3 years
Can selective androgen receptor modulators (SARMs) reduce the risk of Alzheimer's disease in aging men?
- **Nadezhda Povysheva, Ph.D.**
University of Pittsburgh
Pittsburgh, Pennsylvania
Somatostatin-Positive Interneurons as a Novel Target of Anti-Alzheimer Drugs
2010 New Investigator Research Grant—\$80,000 over 2 years
Do memantine and other drugs promote cellular activity in Alzheimer's by blocking the functions of inhibitory nerve cells?

- **Marco A. M. Prado, Ph.D.**
University of Western Ontario
London, Ontario, Canada
The Prion Protein as a Therapeutic Target in Alzheimer's Disease
2010 Novel Pharmacological Strategies to Prevent Alzheimer's Disease—\$320,000 over 3 years
What is the interaction between beta-amyloid and PrPc, and what potential drugs could block this interaction?
 - **Domenico Pratico, M.D.**
Temple University
Philadelphia, Pennsylvania
Anti-Leukotriene Therapy for the Treatment of Alzheimer's Disease
2010 Novel Pharmacological Strategies to Prevent Alzheimer's Disease—\$320,000 over 2 years
Are inhibitors of leukotriene receptors potential drug candidates to prevent or slow the development of Alzheimer's disease?
 - **Andrea Joan Tenner, Ph.D.**
University of California, Irvine
Irvine, California
C5a Receptor as a Target to Slow Progression of Alzheimer's Disease
2010 Investigator-Initiated Research Grant—\$200,000 over 3 years
Can the C5a inhibitor, known as PMX205, reverse brain pathology as well as prevent it?
 - **Terrence C. Town, Ph.D.**
Cedars-Sinai Medical Center
Los Angeles, California
Macrophage TGF-beta-2/3 Inhibitor Therapy in Transgenic Alzheimer Rats
2010 Zenith Fellows Award—\$449,999 over 3 years
What is the efficacy of a drug candidate that inhibits the TGF-beta-smad-2/3 pathway?
 - **Thomas Wisniewski, M.D.**
New York University School of Medicine
New York, New York
Immunotherapy for Amyloid Plaques, CAA and Neurofibrillary Tangle Pathology
2010 Investigator-Initiated Research Grant—\$200,000 over 3 years
Does immunization using ABri remove beta-amyloid from the brains of mice with Alzheimer-like pathology, or from the blood vessels of mice with a disease similar to cerebral amyloid angiopathy (CAA)?
- ## 2. Nutritional and lifestyle interventions
- **David Morgan, Ph.D.**
University of South Florida
Tampa, Florida
Ketogenesis and Alzheimer Pathology
2010 Investigator-Initiated Research Grant—\$200,000 over 3 years
How does the ketogenic state affect nerve cell death and brain function in mouse models that exhibit amyloid plaques and neurofibrillary tangles?
 - **Kumar Sambamurti, Ph.D.**
Medical University of South Carolina
Charleston, South Carolina
Dietary Modification of Alzheimer Biomarkers
2010 Investigator-Initiated Research Grant—\$200,000 over 3 years
Do treatments that reduce homocysteine levels also reduce the development of Alzheimer-like pathology?

- **Nathalie Sumien, Ph.D.**
University of North Texas Health Science Center
Fort Worth, Texas
Exercise, Antioxidants and APOE Interactions in Cognitively-Impaired Mice
2010 New Investigator Research Grant—\$80,000 over 2 years
Can combining exercise and antioxidant intake slow or prevent Alzheimer pathology in mice engineered to express ApoE-e4?

Care, support and social-behavioral factors

- **Jesus Favela, Ph.D.**
Center for Scientific Research and Higher Education of Ensenada
Ensenada, Mexico
Offering Situational Awareness from Activity Estimation and Social Networks
2010 Everyday Technologies for Alzheimer Care Grant—\$164,040 over 3 years
Can a social networking system (SNS) enable people with Alzheimer's disease and their caregivers to better manage daily activities and communication?
- **Victor Hirth, M.D.**
Palmetto Health
Columbia, South Carolina
Fall Recognition Using Environmental Electronic Sensors
2010 Everyday Technologies for Alzheimer Care Grant—\$200,000 over 2 years
Is a fall detection system able to predict falls?
- **Neva L. Crogan, Ph.D.**
Arizona Board of Regents, University of Arizona
Tucson, Arizona
Testing of the Eat Right Food Delivery System in Nursing Homes
2010 Investigator-Initiated Research Grant—\$200,000 over 2 years
Can the Eat Right (EatR) food delivery system improve food satisfaction, food intake and nutritional status among cognitively impaired residents?
- **Yanira L. Cruz, M.P.H., D.Ph.**
National Hispanic Council on Aging
Washington, D.C.
Research Leading to Early Detection and Treatment of Alzheimer's Disease Among Hispanics
2010 New Investigator Research Grant to Promote Diversity—\$100,000 over 2 years
What are the attitudes, level of stigma, level of knowledge and challenges for caregivers and healthcare providers related to Alzheimer's disease in the U.S. Hispanic community?
- **Brent E. Gibson, Ph.D.**
The Jewish Home and Hospital for Aged
New York, New York
Beliefs About Dementia-Related Symptoms Among African-Americans
2010 New Investigator Research Grant—\$80,000 over 2 years
How are dementia-related symptoms recognized, defined and assigned meaning (explanatory models) among African-Americans, and how can these explanatory models facilitate or inhibit help-seeking?

- **Laura N. Gitlin, Ph.D.**
Thomas Jefferson University
Philadelphia, Pennsylvania
Managing Behavior in Nursing Homes: Innovative Intervention and Methods
2010 Non-Pharmacological Strategies to Ameliorate Symptoms of Alzheimer's Disease—\$320,000 over 2 years
Can the Tailored Activity Program for Nursing Homes (TAP-NH) effectively engage people with dementia in activities tailored to their abilities?
- **Maureen Schmitter-Edgecombe, Ph.D.**
Washington State University
Pullman, Washington
A Multi-Dyad Cognitive Rehabilitation Intervention
2010 Non-Pharmacological Strategies to Ameliorate Symptoms of Alzheimer's Disease—\$320,000 over 3 years
Can a multifamily cognitive-rehabilitation intervention improve behavioral management skills in persons with MCI and supportive strategies by their care partners?