alzheimer's association

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
  Appoptosin, an APP Binding Proapoptotic Protein, Mediates Neuronal Death
  2010 Investigator-Initiated Research Grant—$200,000 over 3 years
  How does appoptosin 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 Aβ-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 endoproducts (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–smad-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?