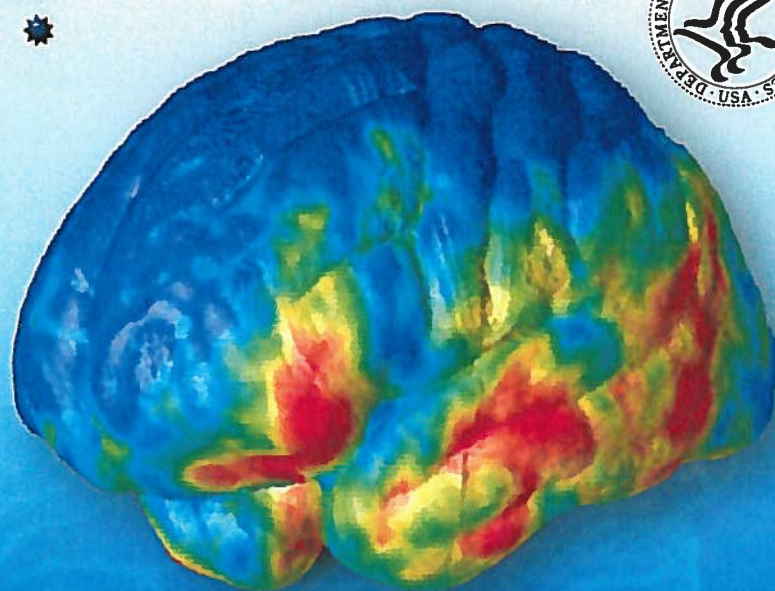


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**Alzheimer's Disease Research
Summit 2012:
Path to Treatment and Prevention**

May 14-15, 2012

Program Booklet

Alzheimer's Disease Research Summit 2012: Path to Treatment and Prevention

Natcher Auditorium, NIH Campus

Bethesda, MD

May 14-15, 2012

May 14, 2012

7:00 a.m. – 8:00 a.m. Registration

8:00 a.m. – 8:30 a.m. Introductory Remarks

Francis Collins, MD, PhD, Director, *National Institutes of Health*

Richard Hodes, MD, Director, *National Institute on Aging*

8:30 a.m. – 9:00 a.m. Plenary Lecture

The Growing Social and Economic Impact of Dementia in the United States: A Perfect Storm?

Ken Langa, MD, PhD, *University of Michigan*

9:00 a.m. – 11:30 a.m. Session One: Interdisciplinary Approach to Discovering and Validating the Next Generation of Therapeutic Targets for AD

Session Chairs

Michael Hutton, PhD, *Eli Lilly*

Lennart Mucke, MD, *Gladstone Institute of Neurological Disease*

9:00 a.m. – 9:05 a.m.

Charge to the session: Michael Hutton, PhD, *Eli Lilly*

9:05 a.m. – 9:20 a.m.

Stephen Friend, MD, PhD, *Sage Bionetworks*

9:20 a.m. – 9:35 a.m.

Richard Morimoto, PhD, *Northwestern University*

9:35 a.m. – 9:50 a.m.

Lennart Mucke, MD, *Gladstone Institute of Neurological Disease*

9:50 a.m. – 10:30 a.m.

Discussants' Highlights

John Hardy, PhD, *University College London*

Richard Mayeux, MD, *Columbia University*

Lenore Launer, PhD, *National Institute on Aging*

Roberta Diaz Brinton, PhD, *University of Southern California*

Rima Kaddurah-Daouk, PhD, *Duke University*

Dennis Selkoe, MD, *Harvard Medical School*

William Potter, MD, PhD, *Consultant*

10:30 a.m. – 11:30 a.m.: Open Discussion

11:30 a.m. – 12:45 p.m. Lunch

12:45 p.m. – 3:00 p.m. Session II: Challenges in Preclinical Therapy Development

Session Chair

Barry Greenberg, PhD, *Toronto Dementia Research Alliance*

12:45 p.m. – 12:50 p.m.

Charge to the Session: **Barry Greenberg, PhD, *Toronto Dementia Research Alliance***

12:50 p.m. – 1:05 p.m.

Christopher Lipinski, PhD, *Consultant*

1:05 p.m. – 1:25 p.m.

Barry Greenberg, PhD, *Toronto Dementia Research Alliance*

1:25 p.m. – 1:40 p.m.

Piet van der Graaf, PhD, *Pfizer/Neusentis*

1:40 p.m. – 2:10 p.m.

Discussants' Highlights

Peter Lansbury, PhD, *Harvard Medical School*

Frank Longo, MD, PhD, *Stanford University*

Kelly Bales, PhD, *Pfizer*

Eliezer Masliah, MD, *University of California, San Diego*

Steven Perrin, PhD, *ALS Therapy Development Institute*

Richard Mohs, PhD, *Eli Lilly*

2:10 p.m. – 3:05 p.m.: Open Discussion

3:05 p.m. – 5:50 p.m. **Session Three: Who to Treat, When to Treat, and What Outcomes to Measure**

Session Chairs

Paul Aisen, MD, *University of California, San Diego*

Reisa Sperling MD, *Harvard Medical School*

3:05 p.m. – 3:10 p.m.

Charge to the Session: **Paul Aisen, MD, *University of California, San Diego***

3:10 p.m. – 3:25 p.m.

Paul Aisen, MD, *University of California, San Diego*

3:25 p.m. – 3:40 p.m.

Eric Siemers, MD, *Eli Lilly*

3:40 p.m. – 3:55 p.m.

Reisa Sperling, MD, *Harvard Medical School*

3:55 p.m. – 4:10 p.m.

Russell Katz, MD, *US Food and Drug Administration*

4:10 p.m. – 4:50 p.m.

Discussants' Highlights

David Bennett, MD, *Rush University*

Eric Reiman, MD, *Banner Alzheimer Institute*

Jennifer Manly, PhD, *Columbia University*

Nick Fox, MD, *University College London*

Clifford Jack, MD, PhD, *Mayo Clinic*

Ronald Petersen, MD, PhD, *Mayo Clinic*

David Holtzman, MD, *Washington University*

John Trojanowski, MD, *University of Pennsylvania*

4:50 p.m. – 5:50 p.m.: **Open Discussion**

Alzheimer's Disease Research Summit 2012: Path to Treatment and Prevention: Day 2

May 15, 2012

7:30 a.m. – 8:00 a.m.: Registration

8:00 a.m. – 9:50 a.m. Session IV: Drug Repurposing and Combinatorial Therapy

Session Chair

Suzanne Craft, PhD, *University of Washington*

8:00 a.m. – 8:05 a.m.

Charge to the Session: Suzanne Craft, PhD, *University of Washington*

8:05 a.m. – 8:20 a.m.

Donald Frail, PhD, *Astra Zeneca*

8:20 a.m. – 8:35 a.m.

Linda Brady, PhD, *National Institute of Mental Health*

8:35 a.m. – 8:50 a.m.

Malcolm Young, PhD, *e-Therapeutics*

8:50 a.m. – 9:15 a.m.

Discussants' Highlights

Mary Sano, PhD, *Mount Sinai School of Medicine*

Constantine Lyketsos, MD, *Johns Hopkins University*

Eric Larson, MD, *Group Health Research Institute*

Christopher Lipinski, PhD, *Consultant*

Dale Bredesen, MD, *Buck Institute*

9:15 a.m. – 9:50 a.m.: Open Discussion

9:50 a.m. – 10:30 a.m. **Session V: Non-Pharmacological Interventions**

Session Chair

Carl Cotman, PhD, *University of California, Irvine*

9:50 a.m. – 9:55 a.m.

Charge to the Session: **Carl Cotman, PhD, *University of California, Irvine***

9:55 a.m. – 10:10 a.m.

Elizabeth Head, PhD, *University of Kentucky*

10:10 a.m. – 10:25 a.m.

Kirk Erickson, PhD, *University of Pittsburgh*

10:30 a.m. – 11:05 a.m. **Taking Action—The National Plan to Address Alzheimer’s Disease
Remarks by Kathleen Sebelius, Secretary, U.S. Department of Health and
Human Services**

11:05 a.m. – 12:00 p.m. **Session V: Non-Pharmacological Interventions-continued**

11:05 a.m. – 11:30 a.m.

Discussants’ Highlights

Mary Ganguli, MD, MPH, *University of Pittsburgh*

Jeffrey Burns, MD, *University of Kansas*

David Loewenstein, PhD, *University of Miami*

Laura Gitlin, PhD, *Johns Hopkins University*

Jeff Williamson, MD, *Wake Forest University*

11:30 a.m. – 12:00 p.m.: Open Discussion

12:00 p.m. – 1:40 p.m. **Session VI: New Models of Public Private Partnerships**

Session Chair

Howard Fillit, MD, *Alzheimer’s Drug Discovery Foundation*

12:00 p.m. – 12:05 p.m.

Charge to the Session: **Howard Fillit, MD, *Alzheimer’s Drug Discovery Foundation***

12:05 p.m. – 12:20 p.m.

Barbara Mittleman, MD, *NIH Public Private Partnership Program*

12:20 p.m. – 12:35 p.m.

Todd Sherer, PhD, *Michael J Fox Foundation*

12:35 p.m. – 12:50 p.m.

Chas Bountra, PhD, *University of Oxford*

12:50 p.m. – 1:15 p.m.

Discussants' Highlights

Holly Soares, PhD, *Bristol Myers Squibb*

Johan Luthman, DDS, PhD, *Merck*

Collin Sandercock, JD, *Perkins Coie LLP*

Maria Carrillo, PhD, *Alzheimer's Association*

Stephen Friend, MD, PhD, *Sage Bionetworks*

1:15 p.m. – 1:40 p.m.: **Open Discussion**

2:00 p.m. – 3:30 p.m. **Executive Session. Invitation Only. Natcher Auditorium**

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ALZHEIMER'S DISEASE RESEARCH SUMMIT 2012: PATH TO TREATMENT AND PREVENTION

May 14 – 15, 2012

Bethesda, MD

Participant Biographies

Paul Aisen, MD, Professor of Neurosciences at the University of California, San Diego, has conducted therapeutic research on Alzheimer's disease for the past two decades. He is Director of the Alzheimer's Disease Cooperative Study, a consortium funded by the National Institute on Aging to develop assessment instruments and conduct clinical trials.

Kelly R. Bales, PhD, received her B.S. and M.S. degrees from Purdue University and completed a PhD in Neuroscience from Indiana University while employed at Eli Lilly. In 2008, she moved to the Neuroscience Research Unit at Pfizer, Inc. and is currently a Research Fellow, Interim Head of the Neurodegeneration and Neurology Unit. She has deep expertise in the area of pre-clinical models of neurodegenerative disorders, led projects into late stage clinical development, and has co-authored more than 80 peer-reviewed publications, numerous review articles and invited book chapters. She is also co-inventor on numerous patents related to novel therapies for AD.

David A. Bennett, MD, is the Director of the Rush Alzheimer's Disease Center at Rush University Medical Center in Chicago. His main research interest is the prevention of AD and other common chronic conditions of aging. He is principal investigator of the Rush Alzheimer's Disease Core Center, the Religious Orders Study, and the Rush Memory and Aging Project. These projects link genomic, epigenomic, medical, psychological and experiential risk factors to quantitative clinical, neuropathologic, and biomarker traits, and to clinical disease. He has more than 350 original-report peer-reviewed publications and serves on numerous national and international advisory and editorial boards.

Chas Bountra, PhD, is currently Chief Scientist at the Structural Genomics Consortium (SGC) Oxford and Professor of Translational Medicine at the University of Oxford. The SGC Oxford produces X ray structures (about one per week) and novel small molecule inhibitors for human epigenetic proteins (6 per year, in partnership with a network of pharma partners). The group publishes all findings immediately (> one per week) and works closely with global academia (>100 collaborations) to use these inhibitors to dissect biological pathways, and hence identify new targets for drug discovery. He has given over 200 invited lectures on Drug Discovery, Translational Technologies, Pain, Neurodegeneration and GI diseases, Structural biology and Epigenetics.

Linda Brady, PhD, serves as Director of the Division of Neuroscience at NIMH. She has administered research programs in neuropharmacology, drug discovery, and radiotracer development at NIMH. She co-leads the NIH Molecular Libraries Program, which generates small molecule probes for novel targets and cell phenotypes, and co-chairs the Neuroscience Steering Committee for the Biomarkers Consortium, a public-private partnership that focuses on the development and qualification of biological markers to support drug development, preventive medicine, and medical diagnostics. She serves as a member of the Institute of Medicine Forum on Drug Discovery, Development, and Translation.

Dale Bredesen, MD, is Professor and Founding President of the Buck Institute for Research on Aging, the nation's only independent research institute devoted to basic research on aging and age-related diseases. His laboratory's research focuses on neural cell death mechanisms and neurodegeneration. His group was the first to show that mutant proteins associated with the major neurodegenerative diseases induce programmed cell death; the group has used this finding to develop screens leading to systems therapeutics, a network approach to developing treatment for Alzheimer's disease and other chronic illnesses, with a first clinical trial scheduled for summer of 2012.

Roberta Diaz Brinton, PhD, holds the Vanderveen Chair in Therapeutic Discovery and Development and is Professor of Pharmacology and Pharmaceutical Sciences, Biomedical Engineering and Neurology at the Schools of Pharmacy, Engineering and Medicine at University of Southern California (<http://pharmweb.usc.edu/brinton-lab>). Her research focuses on age-associated mechanisms of Alzheimer's disease which have led to strategies to prevent, delay and treat Alzheimer's disease that are in clinical development. She serves on the Advisory Boards of the National Institute of Mental Health, AlzForum and Alzheimer's Drug Development Foundation. Dr. Brinton leads the Southern California Clinical and Translational Science Institute (SC-CTSI) Program in PreClinical Translation (<http://sc-ctsi.org/>) and directs the USC STAR science education program (<http://pharmweb.usc.edu/USCSTAR>) for which she received the Presidential Citizens Medal.

Jeffrey M. Burns, MD, MS, is the Edward H. Hashinger Associate Professor of Neurology at the University of Kansas Medical Center (KUMC). Dr. Burns serves as the Associate Director of the KU Alzheimer's Disease Center and also directs the Clinical and Translational Science Unit. Dr. Burns' research interests include how lifestyle factors such as diet and exercise influence brain aging. Dr. Burns is currently conducting two NIA-funded exercise trials assessing how physical exercise influences brain health in aging and AD, with a long term goal of better understanding how these interventions can be harnessed for developing effective AD prevention strategies.

Maria Carrillo, PhD, is Senior Director, Medical and Scientific Relations, at the Alzheimer's Association. Dr. Carrillo is responsible for the Association's grant process and manages the Alzheimer's Association Research Roundtable. She oversees the World-Wide Alzheimer's Disease Neuroimaging Initiative, and authored the research chapter in "The Shriver Report: A Woman's Nation Takes on Alzheimer's," which was published in 2011. Dr. Carrillo received her Ph.D. from Northwestern University's Institute for Neuroscience in 1996. She completed a postdoctoral fellowship and was assistant professor in the Division of Neurological Sciences at Rush University Medical Center in Chicago.

Carl W. Cotman, PhD, is Professor of Neurology and Neurobiology & Behaviour at the University of California, Irvine. He is Director of the Alzheimer's Disease Research Center and also is the founding director of its Memory Impairments and Neurological Disorders Institute. His research has focused on the molecular mechanisms which contribute to synaptic plasticity and reshaping connections in the brain and investigating natural means of enhancing brain function through exercise and diet to combat age-related cognitive decline and Alzheimer's disease. Cotman has received many honors including the 2008 Alzheimer's Association Lifetime Achievement Award. Dr. Cotman has authored nearly a dozen books and over 700 scientific publications in the field.

Suzanne Craft, PhD, received her degree specializing in Neuropsychology from the University of Texas at Austin, and then completed fellowships in Behavioral Neuroscience at Boston University and Harvard Medical School. She is Professor of Psychiatry and Behavioral Sciences at the University of Washington and VA Puget Sound. Her research investigates the mechanisms through which peripheral and brain insulin resistance contributes to the development of Alzheimer's disease. Based on this work, her laboratory has now begun trials of intranasal insulin, exercise, and dietary intervention as possible therapeutic or preventative approaches for Alzheimer's disease.

Steven T. DeKosky, MD, Vice President and Dean of the University Of Virginia School Of Medicine, is an international expert in the field of Alzheimer's Disease research. Dr. DeKosky's research is in early detection of Alzheimer's disease and traumatic brain injury (TBI) and the relationship to subsequent dementia. He directs the Pitt ADRC Memory Disorders Clinic Satellite at UVA. A former member of the national Board of Directors of the Alzheimer's Association, he also served as Chair of the Association's Medical and Scientific Advisory Council. He currently serves as Chair of the Executive Council of ISTAART, the international professional society of Alzheimer's researchers.

Kirk I. Erickson, PhD, is an Assistant Professor in the Departments of Psychology and Medicine, and the Centers for Neuroscience and the Neural Basis of Cognition at the University of Pittsburgh where he is Principal Investigator of the Brain Aging and Cognitive Health laboratory. His primary research examines the efficacy of non-pharmacological methods to improve neurocognitive function in populations experiencing cognitive deficits. These methods have included physical activity and exercise training and cognitive training programs. His work has found that brain morphology and function remain malleable throughout life and that non-pharmacological methods have the capacity to take advantage of brain plasticity.

Howard Fillit, MD, a geriatrician, neuroscientist and a leading expert in Alzheimer's disease, is the founding Executive Director of the Alzheimer's Drug Discovery Foundation (ADDF). The ADDF's mission is to accelerate the development of drugs to prevent and treat Alzheimer's disease, related dementias and cognitive aging. Dr. Fillit has had a distinguished academic medicine career at The Rockefeller University and The Mount Sinai School of Medicine where he is a clinical professor of geriatrics, medicine and neuroscience. Dr. Fillit was also previously the Corporate Medical Director for Medicare at New York Life. He is a co-author of more than 250 scientific and clinical publications, and is the senior editor of the leading international Textbook of Geriatric Medicine and Gerontology. Dr. Fillit has received several honors including the Rita Hayworth Award for Lifetime Achievement. He also serves as a consultant to pharmaceutical and biotechnology companies, health care organizations and philanthropies.

Nick Fox, MD, received his first degree in Physics and Physiology; he subsequently graduated in Medicine and specialized in cognitive neurology. He is a Fellow of the Academy of Medical Sciences, MRC Senior Clinical Fellow, a Professor of Clinical Neurology at UCL Institute of Neurology, and the Vrije University Amsterdam and an NIHR Senior Investigator. He is an honorary consultant neurologist at The National Hospital for Neurology and Neurosurgery, London. His research has focused on imaging in dementia, and he developed techniques for registration-based atrophy measurements that are now widely used in clinical trials. He is currently Co-Chair of the Research Advisory Council of the Alzheimer's Society (UK) and Alzheimer's Research UK Research Advisory Council.

Donald E. Frail, PhD, is Vice President, Science, within the New Opportunities iMED at AstraZeneca. The iMED is one of several responsible for developing new medicines through Phase 2, and the New Ops iMED mission is to develop new therapeutic opportunities through drug repositioning, open innovation, licensing, and strategic partnerships. Dr. Frail is responsible for the quality and execution of the science across this spectrum. Previously Dr. Frail was Vice President, Founder, and Chief Scientific Officer (CSO) of the Indications Discovery Research Unit within Pfizer Worldwide Research and Development and Site Head of the St. Louis Laboratories. He has more than twenty years experience in pharmaceutical research and development. Prior to this role, he headed all discovery biology for Pfizer St. Louis, led the Neuroscience Discovery division for Pharmacia, and held science and management positions at Wyeth and Abbott Labs.

Stephen Friend, MD, PhD, is President of Sage Bionetworks, a Seattle nonprofit he founded in 2009 to catalyze "networked" community-wide initiatives to translate genomics mega-data into effective models of disease and improved healthcare. Following a BA in Philosophy, an MD PhD, and training in pediatric oncology at MIT and Harvard, he teamed with Nobel laureate Lee Hartwell to create an innovative research cooperative called the "Seattle Project" that led to the formation of Rosetta Inpharmatics which was subsequently sold to Merck and where he became Senior Vice President. Dr. Friend is an AAAS Fellow and an Ashoka Fellow.

Mary Ganguli, MD, MPH, is Professor of Psychiatry, Neurology, and Epidemiology at the University of Pittsburgh. As a geriatric psychiatrist, she is clinically active in the care of older adults with mild cognitive impairment and dementia. Her research interests are in cognitive impairment and dementia at the population level. More details can be found at www.wpic.pitt.edu/research/dementia_epidemiology/.

Laura N. Gitlin, PhD, an applied research sociologist, recently joined the Johns Hopkins University as Professor in the Department of Health Systems and Outcomes, School of Nursing, with joint appointments in the Department of Psychiatry and Division of Geriatrics and Gerontology, School of Medicine. She is the director of a new interdivisional initiative, the Center for Innovative Care in Aging, which focuses on developing, testing and implementing health promoting interventions and models of care for older adults and their families. Dr. Gitlin's research programs include nonpharmacologic approaches in dementia care, family caregiving, functional disability, and mental health.

Barry Greenberg, PhD, has been involved in Alzheimer research and drug discovery since 1985. He has held positions internationally in the US, Sweden and Canada within the biotechnology and pharmaceutical industries. At the University Health Network (UHN), he is co-directing the Toronto Dementia Research Alliance, a consortium involving academic research and the five memory clinics affiliated with University of Toronto hospitals to create a citywide dementia research center. The Alliance focuses on most aspects of the drug discovery process in neurological disease ranging from target identification through clinical development, biomarker-based diagnosis and proof of concept. Greenberg has authored or co-authored over 70 articles in peer-reviewed journals and 19 book chapters and reviews.

John Hardy, PhD, was a lecturer at Imperial College where he led the group that found the first mutation in the amyloid gene which caused Alzheimer's disease. He moved to the US in 1992 and by 1998 was part of the consortium which identified mutations in the tau gene in Pick's disease. During 2001 at NIH, he was part of the group which found triplications in the synuclein gene caused Parkinson's disease. He returned to the Institute of Neurology (UCL) in 2007. His research is recognized by many awards: the Anna Marie Opprecht Prize for work on Parkinson's disease and several others for Alzheimer's disease. In 2011, he received the Khalid Iqbal Lifetime Achievement Award and IFRAD European Grand Prize. He is an elected member of the Academy of Medical Sciences, received an Honorary M.D. from the University of Umea, an F.R.S. from the Royal Society in 2009 and D.Sc. from the University of Newcastle 2010.

Elizabeth Head, PhD, received her Ph.D. in Neuroscience from the University of Toronto, Canada and postdoctoral training at the University of California – Irvine (UCI). At UCI, she was a co-leader of the Neuropathology Core of the UCI Alzheimer's Disease Research Center. Dr. Head is now an Associate Professor at the University of Kentucky Sanders-Brown Center on Aging. She has published over 125 papers describing pharmacological and nonpharmacological approaches to promote healthy brain aging using aging dogs as a model. Her goal is to translate basic science findings to clinical trials for aging people with Down syndrome at high risk for AD.

David Holtzman, MD, is Professor and Chair of Neurology at Washington University. His translational work in animals and humans has led to significant new insights into A β , apoE, and tau metabolism in pathogenesis, diagnosis, and prognosis of AD. His group has developed novel in vivo techniques used to demonstrate that apoE plays a role in A β clearance; synaptic activity dynamically regulates A β levels; and A β is produced and cleared rapidly in the CNS. Animal studies with an anti-A β antibody in mice and further human studies directly demonstrate that there is an equilibrium between amyloid plaques and soluble A β .

Michael L. Hutton, PhD, joined Eli Lilly in 2009 as Chief Scientific Officer, Neurodegenerative Disease. He is based in England and leads drug discovery for Alzheimer's Disease and Parkinson's Disease. Eli Lilly's Alzheimer's program has delivered multiple drug candidates to clinical development including an anti-amyloid antibody (solanezumab) and BACE1 inhibitor. Prior to joining Lilly, Hutton worked at Merck (2yrs) and at the Mayo Clinic Jacksonville (11yrs). During his time at Mayo, Hutton's team discovered mutations in *tau* and *progranulin* that cause Frontotemporal Dementia. He was awarded the Potamkin and Metlife Prizes in 2000 and 2001 respectively for his work on tau.

Clifford Jack, MD, PhD, is a professor of radiology, the Alexander Family Professor of Alzheimer's Disease Research, and a neuroradiologist at the Mayo Clinic. He is a clinician investigator devoted to aging and dementia research, focusing his work predominantly on imaging. His work has earned him the Potamkin Prize for Research in Pick's, Alzheimer's and Related Diseases (2008); the American Society of Neuroradiology (Neuroradiology Education and Research Foundation) Award for Outstanding Contributions in Research (2007); and the International Society of Magnetic Resonance in Medicine Gold Medal award in 2012.

Rima Kaddurah-Daouk, PhD, has been a seminal force in the development and evolution of the metabolomics field. Five years ago with funding from NIH she established the Pharmacometabolomics Research Network (<http://www.pharmacometabolomics.org>) for applications of metabolomics in the medical field. The network includes fifteen academic centers that bring state of the art metabolomics, informatics, pathway analysis and modeling capabilities for mapping pathways implicated in disease and in mechanism of variation in response to therapies. The group has defined perturbations in metabolic networks in several neuro psychiatric diseases including Alzheimer's disease. This systems approach provides totally novel insights for drug development. During the earlier part of her career and over a period of ten years she focused on energy impairment in neurodegenerative disease. Her discoveries around the creatine kinase system resulted in the development of creatine as potential treatment for Parkinson's and Huntington's diseases where over 50 centers in the US are involved in testing creatine in phase II and phase III trials.

Russell Katz, MD, joined the FDA as a medical officer in 1983, where he is currently the Director of the Division of Neurology Products (previously called the Division of Neuropharmacological Drug Products). He has lectured extensively on various aspects of neurologic drug development as well as written numerous articles on the same issues. He received his BA in mathematics from Queens College in New York City and his medical degree from Albert Einstein College of Medicine in New York City. He completed his residency in neurology in 1982 at the Einstein-affiliated hospitals in New York.

Kenneth Langa, MD, PhD, is a Professor in the Department of Internal Medicine and Institute for Social Research, a Research Scientist in the Veterans Affairs HSR&D Center for Clinical Management Research, and an Associate Director of the Institute of Gerontology, all at the University of Michigan. He is also Associate Director of the NIA-funded Health and Retirement Study (HRS). Dr. Langa received an MD and PhD in Public Policy at the University of Chicago. His research focuses on the epidemiology and costs of chronic disease in older adults, with an emphasis on Alzheimer's disease and other dementias. He is currently studying the relationship of common cardiovascular risk factors, as well as acute illnesses such as sepsis and stroke, to cognitive decline and dementia.

Peter T. Lansbury, Jr., PhD, started his independent career in 1988 in the department of chemistry at MIT. His early research elucidated the process of protein aggregation in neurodegenerative diseases. He was a recipient of many awards, including a National Science Foundation Presidential Young Investigator Award. He moved to the Department of Neurology at Harvard Medical School in 1996 and was promoted to Professor of Neurology in 2004. He was founder of both the Morris K. Udall Center of Excellence in Parkinson's Disease Research and the Laboratory for Drug Discovery in Neurodegeneration at Brigham and Women's Hospital. In 2005, he founded Link Medicine, where he is currently chief scientific officer.

Eric B. Larson, MD, MPH, MACP, is Vice President for Research, Group Health and Executive Director of the Group Health Research Institute. He served as Medical Director of University of Washington Medical Center and Associate Dean for Clinical Affairs from 1989-2002. His research spans a range of general medicine topics and has focused on aging and dementia, including a long running study of aging and cognitive change set in the Group Health Cooperative. He has served as President of the Society of General Internal Medicine, Chair of the OTA/DHHS Advisory Panel on Alzheimer's Disease and Related Disorders and was Chair of the Board of Regents (2004-05), American College of Physicians. He is an elected member of the National Academy of Sciences Institute of Medicine.

Lenore Launer, PhD, is Chief of the Neuroepidemiology Section in the Intramural Research Program at the National Institute on Aging. Her research program in neuro-epidemiology aims to investigate the causes and consequences of brain aging, cognitive disabilities, and dementia (BrD) with a focus on: cardiovascular contributions to BrD; early and mid-life risk factors and predictors of BrD; and translation of findings into public health strategies. Dr. Launer's research is based on large epidemiologic and clinical trials, which have been leveraged onto existing multi-disciplinary prospective population based studies.

Christopher Lipinski, PhD, is a Scientific Advisor to Melior Discovery, a member of the American Chemical Society (ACS), the American Association of Pharmaceutical Sciences and the Society for Laboratory Automation Sciences. He is the author of the "rule of five" a widely used filter for acceptable drug oral absorption and is a member of the ACS Medicinal Chemistry Hall of Fame. He won the SBS Achievement Award (2006), the ACS Hershberg Award for Important Discoveries in Medicinally Active Substances (2005) and the ACS Division of Medicinal Chemistry Award (2004). An adjunct faculty member at the University of Massachusetts Amherst, he has over 265 publications and invited presentations and 18 issued US patents.

David Loewenstein, PhD, is Professor of Psychiatry and Behavioral Sciences at the Miller School of Medicine at the University of Miami. Dr. Loewenstein has a number of research interests centering on the early detection of early cognitive impairment in neurodegenerative and other brain disorders, development of novel cognitive and functional measures, examining relationships between neuropsychological measures and neuroimaging and other biomarkers of early Alzheimer's disease (AD) and other cognitive disorders. Further, Dr. Loewenstein and other investigators in his laboratory have been involved in developing non-pharmacological cognitive and functional interventions for normal elderly patients as well as those with mild cognitive impairment (MCI) and early dementia.

Frank Longo, MD, PhD, received his MD in 1981 and PhD in Neurosciences in 1983 from UC San Diego. Following an internship in medicine at NYU, he trained as a resident and a fellow in neurology at UC San Francisco. He was recruited as an assistant professor to UCSF where he became professor and vice chair of the Department of Neurology. From 2001 to 2005 he served as chair of the Department of Neurology at the University of North Carolina-Chapel Hill and since 2006 has served as chair of the Department of Neurology and Neurological Sciences at Stanford where he is focused on building and expanding programs in all areas of neurology. With support from the American Federation for Aging Research, Veterans Administration, Alzheimer's Drug Discovery Foundation, Alzheimer's Association and the National Institute on Aging, he and his team pioneered the concept and development of neurotrophin receptor small molecule ligands for the treatment of Alzheimer's disease and other disorders. He is a founder of Pharmatrophix, a company focused on the commercial development of neurotrophin receptor small molecule ligands.

Johan Luthman DDS, PhD, is Program Leader Early Development Neuroscience, Merck & Co Inc. He came to Merck 2009 to lead translational neuroscience. He joined Astra/AstraZeneca in 1991, working as project leader, director of research departments and translational science in Neurology & Analgesia. Thereafter, in Serono, he headed neuroscience & immunology research and in MerckSerono the Neurology, Immunology & Inflammation TA. He studied medicine and dentistry followed by neurobiology Ph.D at the Karolinska Institute. He was Research Fellow in Pharmacology & Psychiatry at University of Colorado. He was associate professor in Neurobiology at Karolinska and honorary professor in pharmacology at University of Chile. He obtained business training at SIMI, Thunderbird and MIT/Sloan.

Constantine G. Lyketsos, MD, MHS, is the Elizabeth Plank Althouse Professor and Director of the Johns Hopkins Memory and Alzheimer's Treatment Center. An expert in the care and treatment of patients with Alzheimer's and related dementias (AD), he has carried out pioneering research on the epidemiology and treatment of neuropsychiatric features of AD. Dr. Lyketsos is the 2012 recipient of the Distinguished Scientist Award from the American Association for Geriatric Psychiatry. He has written over 300 peer-reviewed journal articles, chapters, or commentaries and has been cited as one of America's Top Doctors for a decade.

Jennifer Manly, PhD, is an Associate Professor at the Taub Institute for Research on Alzheimer's Disease and the Aging Brain at Columbia University. Her research on cognitive and genetic aspects of aging and Alzheimer's disease among African Americans and Hispanics is currently funded by the National Institute on Aging and the Alzheimer's Association. She is an associate editor of the Journal of the International Neuropsychological Society. She was recently selected to serve on the US Department of Health and Human Services Advisory Council on Alzheimer's Research, Care and Services, and recently joined the Alzheimer's Association Medical & Scientific Research Board.

Eliezer Masliah, MD, received his Medical Doctor Degree and Pathology residency in Mexico followed by post-graduate training in Neuropathology at the University of California, San Diego where he is Professor in the Departments of Neurosciences and Pathology and Director of the Autopsy Service. Dr. Masliah's research is focused on understanding the mechanisms of synaptic pathology in neurodegenerative disorders with dementia and parkinsonism. His laboratory has developed animal models that display Alzheimer's and Parkinson's Disease-like pathology to investigate the therapeutic effects of vaccination, gene therapy and small molecules. He has published over 500 original research articles related to neurodegenerative disorders.

Richard Mayeux, MD, MS, is the Gertrude H. Sergievsky Professor of Neurology, Psychiatry and Epidemiology at Columbia University, Chairman of the department of Neurology, Director of the Sergievsky Center and the Co-Director of the Taub Institute for Research on Alzheimer's Disease and the Aging Brain. He is a member of the Association of American Physicians and the Institute of Medicine of the National Academies. His research interests focus on population-based genetic and epidemiological investigations of neurodegenerative diseases.

Barbara Mittleman, MD, is an internist and rheumatologist with substantial clinical, bench and administrative experience. She earned B.A. and M.D. degrees from the University of Pittsburgh where she also completed residency and fellowship training in Internal Medicine and Rheumatology. She then came to the National Institutes of Health (NIH) for additional post-doctoral training in cellular immunology, focusing on the autoimmunity and pathobiology of systemic lupus erythematosus. In 2005, she was named the inaugural Director of the NIH's Program on Public-Private Partnerships, where she is charged with developing and promulgating policy, brokering interactions among a wide variety of government and non-government partners, and in the development and execution of partnerships which promote the NIH's public health mission. She lectures widely on partnership-related topics and has provided advice and best practices based on NIH's experience to organizations including other U.S. government agencies, foundations and advocacy groups, companies and trade organizations, and others. She also serves on the Canadian Institutes of Health Research (CIHR) Commercialization Advisory Board.

Richard C. Mohs, PhD, is a Distinguished Research Fellow at Eli Lilly and Company where he supervises all early phase development of molecules for CNS disorders and is scientific advisor to the Alzheimer's Disease product development group. Dr. Mohs received the Ph.D. in psychology from Stanford University and completed postdoctoral training in pharmacology at the Stanford Medical School; he holds a faculty appointment at the Mount Sinai School of Medicine in New York. Before joining Eli Lilly in 2002, Dr. Mohs spent 23 years with the Mount Sinai School of Medicine where he was Professor in the Department of Psychiatry and Associate Chief of Staff for Research at the Bronx Veterans Affairs Medical Center.

Richard I. Morimoto, PhD, is the Bill and Gayle Cook Professor of Biology in the Department of Molecular Biosciences, and Director of the Rice Institute for Biomedical Research at Northwestern University. His research has been on the cellular and organismal response to stress, the function of molecular chaperones and the proteostasis network to ensure the stability of the proteome in health, stress, aging, and neurodegenerative disease. He has served on National Advisory Councils for NIGMS and currently NIA and on numerous academic leadership positions at Northwestern University, and on scientific advisory boards worldwide. He is a founder of Proteostasis Therapeutics, Inc. a biotech in Cambridge, MA to develop small molecule therapeutics for diverse diseases of protein conformation through a systems approach to the pharmacology of protein quality control.

Lennart Mucke, MD, is Director of the Gladstone Institute of Neurological Disease, Joseph B. Martin Distinguished Professor of Neuroscience and Professor of Neurology at the University of California, San Francisco. His research focuses on processes impairing brain functions in Alzheimer's disease and related disorders. He has generated informative experimental models of these conditions and identified novel strategies to prevent neurological decline. His honors include the Potamkin Prize, Zenith Award and MetLife Foundation Award. He trained at the Georg-August University and Max Planck Institute for Biophysical Chemistry, Cleveland Clinic, Massachusetts General Hospital and Harvard Medical School, and The Scripps Research Institute.

Steven Perrin, PhD, is currently the Chief Executive Officer and Chief Scientific Officer at the ALS Therapy Development Institute (ALS TDI) in Cambridge, MA. He earned his Ph.D. at Boston University Medical Center studying the transcriptional regulation of genes during adipocyte and myocyte differentiation. He moved into the pharmaceutical industry in 1997 holding positions at the Hoechst-Ariad Genomics Center, Aventis Pharmaceuticals and more recently as Director of Molecular Profiling at Biogen Idec. He joined ALS TDI in 2007 as part of historical collaboration between the Muscular Dystrophy Association, Augie's Quest and ALS TDI to develop effective therapeutics for ALS patients. Since joining ALS TDI he has spearheaded the development of computational biology capabilities and information management systems to more clearly understand the molecular mechanisms associated with disease onset and progression in neurodegenerative diseases. He has expanded ALS TDI's drug screening program to include expertise in the generation and assessment of gene therapy vectors and protein biologics in preclinical models of neurodegeneration. He has developed a business plan to facilitate pharmaceutical partnerships for rapid clinical development and commercialization of promising targets for ALS patients. He is a frequent participant in international conferences in computational biology, genomics, drug development, and neurodegeneration.

Ronald C. Petersen, MD, PhD, holds the Cora Kanow Professorship in Alzheimer's Disease Research and is a Mayo Clinic Distinguished Investigator at the Mayo Clinic. He is on the National Advisory Council on Aging, and is the chair of the Advisory Council on Research, Care and Services for the National Alzheimer's Project Act by the Secretary of the Department of Health and Human Services. Dr. Petersen is a recipient of the 2004 MetLife Award for Medical Research in Alzheimer's Disease and the 2005 Potamkin Prize for Research in Pick's, Alzheimer's and Related Disorders of the American Academy of Neurology.

William Z. Potter, MD, PhD, earned his BA, MS, MD and PhD at Indiana University following which he joined the PHS where he served for 25 years as a translational medicine investigator in the Intramural Research Programs of the NIH with an ultimate focus on exploring means of translating neuroscience into novel treatments. In 1996 he joined Lilly Research Laboratories and in 2004 moved to lead clinical CNS development at Merck through 2010. He now serves as a Senior Advisor to NIMH as well as continuing as Co-Chair Emeritus of the Neuroscience Steering Committee of the FNIH Biomarkers Consortium and on multiple groups addressing biomarker development for Alzheimer's Disease.

Eric M. Reiman, MD, is Executive Director of the Banner Alzheimer's Institute (BAI), Chief Executive Officer for Banner Research, Clinical Director of the Neurogenomics Division at the Translational Genomics Research Institute (TGen), Professor of Psychiatry at the University of Arizona, and Director of the Arizona Alzheimer's Consortium and its National Institute on Aging (NIA)-sponsored Alzheimer's Disease (AD) Center. His research interests include brain imaging, genomics, the presymptomatic study of AD, and the accelerated evaluation of AD prevention therapies. He and his colleagues have developed the Alzheimer's Prevention Initiative (API) to help find demonstrably effective AD prevention therapies as quickly as possible.

Colin G. Sandercock, JD, is a partner in the Washington, DC office of Perkins Coie, LLP, and has counseled clients for twenty seven years in life science matters including litigations, interferences, licensing and the prosecution of domestic and foreign patent applications in the chemical, pharmaceutical and biotechnology fields. He served as an adjunct professor at the George Washington School of Law where he lectured on patent licensing. He is listed in the *Best Lawyers in America* in the field of Biotechnology Law, as a Washington DC *Super Lawyer* in the field of Intellectual Property Law, and listed in *Chambers USA: America's Leading Lawyers for Business*.

Mary Sano, PhD, is Professor of Psychiatry and the Director of the Alzheimer's Disease Research Center at Mount Sinai School of Medicine. She is also the Director of Research and Development at the James J Peters VA Medical Center, Bronx, NY. Dr. Sano is a neuropsychologist by training and has been involved in designing and conducting clinical trials for the treatment and prevention of cognitive loss and dementia. She has also directed the development of neuropsychological assessment as outcomes for clinical trials in Spanish speakers in the US and has developed methods for standardizing cognitive outcomes in clinical trial assessment in Europe and Asia. Her work also includes the development of methodologies to assess cognitive function in the elderly with special needs such as Down Syndrome.

Eric Siemers, MD, is the Senior Medical Director of the Alzheimer's Disease Team in the Biomedicines Business Unit at Eli Lilly. He earned his MD with highest distinction from the Indiana University School of Medicine in 1982. After an internship in the Department of Internal Medicine at the Indiana University School of Medicine, he completed his residency in the Department of Neurology in 1986. Prior to joining Lilly, he founded and headed the Indiana University Movement Disorder Clinic; his previous research included investigations of Huntington's disease and Parkinson's disease. Dr. Siemers currently directs late stage clinical research efforts at Lilly concerning investigational treatments for Alzheimer's disease, and is more broadly involved with other neurological indications such as Parkinson's disease. Major research interests include the use of biomarkers in investigational drug research and the development of trial designs that broadly characterize the effects of investigational drugs on chronic diseases. Dr. Siemers is a founding member of the Alzheimer's Association Research Roundtable and is currently serving as Co-chair. He served as the chair of the Industry Scientific Advisory Board for the Alzheimer's Disease Neuroimaging Initiative (ADNI) in 2007 and is a current member of the ADNI Resource Allocation Review Committee. He participated as a member of the NIA-AA working group that proposed criteria for preclinical Alzheimer's disease in 2011. He is a past member of the Board of Directors of the American Society of Experimental Neurotherapeutics.

Dennis Selkoe, MD, the Coates Professor of Neurologic Diseases at Harvard Medical School (HMS) and the Brigham and Women's Hospital, graduated from Columbia and the University of Virginia School of Medicine. He trained at NINDS, Harvard/Longwood Neurology and Department of Neuroscience, HMS. Selkoe and coworkers isolated the neurofibrillary tangles of Alzheimer's disease and discovered their insolubility and antigenic relationship to tau. He has conducted extensive research on amyloid β -protein and APP and helped formulate the "amyloid hypothesis" of AD. Selkoe's lab discovered that A β is produced by cells throughout life, enabling the dynamic study of A β generation and screens for A β inhibitors. They showed that APP and presenilin mutations cause AD by altering A β production. Wolfe and Selkoe identified presenilin as the gamma-secretase, the first intramembrane aspartyl protease. Selkoe was a founding scientist of Athena Neurosciences (now Elan).

Todd Sherer, PhD, is the Chief Executive Officer of The Michael J. Fox Foundation for Parkinson's Research (MJFF), reporting to the Board of Directors. Formally trained as a neuroscientist, he directs the organization's research strategy and is responsible for the organization's overall scientific and fundraising direction to speed treatment breakthroughs and a cure for Parkinson's disease. Dr. Sherer has been a key architect of the Foundation's strategy to define high-priority research areas for Parkinson's disease — therapeutic targets and approaches that are closest or most critical to practical relevance in patients' daily lives — in order to leverage donor-raised capital to push projects in these areas toward the clinic. He has played a major role in the Foundation's efforts to increase the pharmaceutical industry's investment in Parkinson's disease drug development and engage the patient community to encourage and expand participation in clinical research.

Holly D. Soares, PhD, heads the Neuroscience and Pain Clinical Biomarkers group at Bristol-Myers Squibb. Dr. Soares obtained a B.S. in Neuroscience from Oberlin College and a Ph.D. in Biomedical Science from the University of Connecticut Health Science Center. After completing a post-doctoral fellowship at St. Jude Children's Research Hospital, she served as an assistant professor at the Morehouse School of Medicine and as an Investigator at the Center for Behavioral Neuroscience, a university consortium including the Morehouse School of Medicine, Emory University, Georgia Tech and Georgia State. Prior to joining BMS, Dr. Soares was a Director of Translational Medicine at Pfizer. In her current position, Dr. Soares ensures biomarkers are applied to increase CNS drug development success rate through target engagement and diagnostic patient selection strategies.

Reisa Sperling, MD, is the Director of the Center for Alzheimer Research and Treatment at Brigham and Women's Hospital and the ADRC Neuroimaging Program at Massachusetts General Hospital, and is an Associate Professor in Neurology at Harvard Medical School. She is the Principal Investigator on the NIA Program Project funded Harvard Aging Brain Study, and served as the Chair of the NIA-AA working group on "Preclinical Alzheimer's disease". Dr. Sperling is actively working on clinical trials of potential disease-modifying therapies in MCI and AD dementia.

John Q. Trojanowski, MD, PhD, obtained his MD/PhD in 1976 from Tufts University, and after training at Harvard and the University of Pennsylvania, became faculty at the University of Pennsylvania in 1981 where he is Professor and directs the NIA Alzheimer's Center, the NINDS Udall Parkinson's Center, and Institute on Aging at Penn. His research focuses on neurodegenerative diseases, and he is an ISI Highly Cited Researcher (among the top 5 most highly cited neuroscientists from 1997-2007). He was elected to the Institute of Medicine in 2002 and led an effort to make a PBS film ("Alzheimer's Disease-Facing the Facts") that won a 2009 Emmy Award for best documentary.

Piet van der Graaf, Pharm.D, PhD, received his doctorate training in quantitative pharmacology with Nobel laureate Sir James Black at King's College London and worked as a postdoc at Leiden University on the development of mechanism-based PKPD approaches. A Senior Director at Pfizer, he is a scientific leader in the area of quantitative translational pharmacology. He holds several patents in the field of target discovery. As a member of the NIH QSP working group, he co-authored the 2011 White Paper Quantitative and Systems Pharmacology in the Post-genomic Era. He was recently appointed as Editor-in-Chief for the new journal, CPT: Pharmacometrics & Systems Pharmacology.

Jeff D. Williamson, MD, is a Professor of Medicine, Chief of the Section on Gerontology and Geriatric Medicine at Wake Forest University (WFU) and Director of the Roena Kulynych Center for Memory and Cognition Research. He is a geriatrician and epidemiologist with joint appointments in the Departments of Medicine and Public Health Sciences. Dr. Williamson's primary research interests are in the relationships between chronic diseases and cognitive impairment in older adults, the prevention of aging-related loss of independence, and in developing clinical trial methods for including elderly populations. Dr. Williamson also leads the Clinical Research Core of the Wake Forest Claude Pepper Older American's Independence Center and as Director of the Kulynych Center he is currently the Coordinating Center Principal Investigator (PI) for assessing cognition outcomes in the ACCORD-MIND (diabetes), the SPRINT (hypertension), and the LIFE (exercise) clinical trials.

Malcolm Young, PhD, has previously been Director of the Complex Systems Group; Director of the Institute for Neuroscience; Provost of the Faculty of Science and Engineering; and Pro-Vice Chancellor for Strategic Development at Newcastle University, after having been a Royal Society Research Fellow at the RIKEN Institute in Japan, and a Royal Society University Research Fellow at Oxford University. His research expertise lies in cortical neuroscience, complex systems analysis, and network pharmacology, and his research papers have been cited more than 2,000 times. Professor Young is now the CEO at e-Therapeutics plc, and Visiting Professor at the Institute of Neuroscience.

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