Monday, July 25, 2016
Shangri-La Hotel
188 University Avenue
Toronto, Canada

presented in conjunction with the 2016 Alzheimer’s Association International Conference

6:00 pm  Cocktail Reception
6:40 pm  Welcome
A. Dennis White
President and CEO
MetLife Foundation

Awards Presentation
Major Awards
Guojun Bu, PhD
Miia Kivipelto, MD, PhD

Promising Investigator Awards
John Cirrito, PhD
Inna Slutsky, PhD

Research Briefing
David Holtzman, MD
Advisory Committee Chair
Moderator

8:00 pm  Dinner
9:30 pm  Adjourn

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2016 AWARDS ADVISORY COMMITTEE

David M. Holtzman, MD | Committee Chair
Andrew B. and Gretchen P. Jones Professor and Chairman, Department of Neurology, Washington University School of Medicine in St. Louis

Karen H. Ashe, MD, PhD
Professor of Neurology
Director, Grossman Center for Memory Research and Care and Edmund Wallace and Anne Marie Tulloch Chair in Neurology and Neuroscience, University of Minnesota Medical School

Mathias Jucker, PhD
Professor, Hertie Institute for Clinical Brain Research & German Center for Neurodegenerative Diseases, University of Tübingen

Edward H. Koo, MD
Professor of Neurosciences, University of California, San Diego

Sangram S. Sisodia, PhD
Thomas Reynolds Sr. Family Professor of Neurosciences, Director, Center for Molecular Neurobiology, The University of Chicago

Rudolph E. Tanzi, PhD
Joseph P. and Rose F. Kennedy Professor of Neurology, Harvard Medical School, Vice-Chair, Department of Neurology and Research and Director, Genetics and Aging Research Unit, Massachusetts General Institute for Neurodegenerative Disease

John Trojanowski, MD, PhD
Director, Institute on Aging, Director, Alzheimer’s Disease Core Center, Perelman School of Medicine at the University of Pennsylvania

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MetLife Foundation Awards for Medical Research in Alzheimer’s Disease program is administered by afar

American Federation for Aging Research

Founded in 1981, AFAR supports and nurtures talented scientists and physicians and encourages them to pursue lifelong careers in research focused on the aging process and age-related diseases, including Alzheimer’s disease. The important work AFAR that advances leads to a better understanding of the aging process and to improvements in the health of all Americans as they age. Learn more at www.AFAR.org and learn more about the Awards at http://mlfawards.afar.org.
The 1980s was a decade marked by major advancements in awareness and understanding of a devastating neurological disorder known as Alzheimer’s disease (AD). 1983 was the year Congress designated November the first National Alzheimer’s Disease Month. In 1984, a cerebrovascular amyloid protein known as amyloid beta (Aβ) was identified as a chief component of the plaques seen degrading the neurons of AD victims. Two years later tau protein was found to be a key component of the tangles that are a second prime suspect in AD nerve cell degeneration. The following year researchers identified the gene on chromosome 21 that codes amyloid precursor protein (APP), the parent molecule from which Aβ is formed.

Even with these promising breakthroughs, MetLife Foundation recognized that the aging of America would dramatically increase the incidence of AD, causing untold physical, emotional, and economic suffering to patients and families and potentially overwhelming our nation’s healthcare resources. The Foundation understood that efforts to stop the disease hinged on keeping smart, dedicated scientists at the bench pursuing innovative ideas that could be transitioned from the lab to the clinic. With this goal in mind, the MetLife Foundation Awards for Medical Research in Alzheimer’s Disease were established in 1986.

For 30 years, the Foundation’s Awards have supported nearly every significant advancement in Alzheimer’s disease research. The unrestricted funds have allowed scientists to expand existing projects and open new areas of investigation. The Awards’ recipients range across research disciplines, including neurology, molecular biology, biochemistry, gerontology and physiology. Their discoveries represent major leaps forward in both in vitro and in vivo investigations of the pathology of the disease and in the high resolution optical imaging of its effects. They are internationally recognized leaders in their fields, many of whom run their own laboratories at major research institutions. They author seminal articles for leading publications that are repeatedly cited by their colleagues. Our list of honorees includes 39 winners of the prestigious Potamkin Prize and four Nobel Prize winners. The excellent research recognized and advanced by the MetLife Awards has led directly to many of the most promising treatments currently in trials, as well as effective strategies for delaying and potentially preventing the disease.

On this, the 30th anniversary of the Awards, MetLife Foundation offers its sincere gratitude to past award winners for three decades of excellence characterized by dedication, creativity and life-changing discoveries. We take great pride in the part we have played in support of their efforts. This year’s Awards continue our tradition of recognizing excellence across investigative disciplines. Our anniversary is both a celebration of our collective legacy and a reaffirmation of our commitment to continue to support inspired scientists in their efforts to understand, treat, and ultimately cure this devastating disease.

A. Dennis White, President and CEO, MetLife Foundation
Dr. Guojun Bu didn’t choose Alzheimer’s disease as a field of research, it chose him. “As a postdoc at Washington University, I was studying the effects of the cell surface receptor LRP1 on liver function,” Dr. Bu explains. “LRP1 is a multifunction receptor and one of its binding partners is apolipoprotein E (ApoE). After it was determined that carriers of alleles for one form of ApoE called ApoE4 were at significantly greater risk of developing Alzheimer’s in later life, my colleagues in AD research began to reach out to me.”

Dr. Bu was drawn to the field by the ApoE4 genetic link and by the highly respected AD research program at Washington University in St Louis. “Research follows genetic discoveries,” he notes, “and protein alterations have clued us into the pathogenesis of a number of diseases. Washington University has strong, highly collaborative teams at its AD research center. It was incredibly instructive to work with teams such as Dr. David Holtzman’s and Dr. Alison Goate’s.”

By 1995, Dr. Bu had established his own laboratory and was focused on dissecting the biological and pathological functions of ApoE and its receptors. His team has placed particular emphasis on the pathogenic pathways of AD and related dementias. The lab uses a wide range of methodologies to systematically break down how the brain’s vascular system and different types of brain cells clear toxic amyloid beta (Aβ). Applying biochemical and molecular tools to both cellular and animal models, Dr. Bu’s lab has produced over 220 peer-reviewed articles that have been cited over 10,000 times. His team’s contributions to AD research rank among the most significant in the field.

As a result of his work, the importance of Aβ clearance pathways to the maintenance of brain health is well understood. The LRP1 receptor at the center of much of Dr. Bu’s work presents a unique opportunity to research multiple clearance pathways in the brain, how they work together and what happens if one pathway is disrupted. His work on the ApoE-LRP1-Aβ clearance pathway has opened the door to uncovering molecular mechanisms of AD, identifying new therapeutic targets, and understanding the physiological and pathophysiological functions of ApoE and LRP1.
In a recent study, Dr. Bu also established the critical role of the ApoE2 genotype in preserving brain cognition during aging. His studies include both human and animal data and have important implications for further understanding disease mechanisms and the design of mechanism-based therapies.

After more than twenty years researching the cause of AD in order to help find effective therapies, Dr. Bu believes the most important thing the field has learned is the power of prevention. The vast majority of researchers agree that by the time signs of significant brain cell death begin to appear, there is no turning the clock back. The key is to identify high risk individuals and intervene before symptoms start.

“The biomarker curve shows a window of 15-20 years where interventions can be used to prevent or at least delay the onset of symptomatic AD,” Dr. Bu says. “After that we reach a point of no return. It’s like a derailed train.”

The good news is that there are already effective ways of reducing Aβ accumulation for people who are at risk. Dr. Bu is excited about prevention trials and believes this is where we will see the greatest success in coming years. His team includes chemists who can help develop drugs from the compounds they are researching.

“We want to translate our work into drug therapy as well as participate in screening and development of therapies devised by other labs.”

Dr. Bu’s work exemplifies his ability to foster the collaborative, team-based science needed to facilitate the passing of scientific discoveries from patients to the bench and back to patients.

Dr. Bu feels the Award for Medical Research in Alzheimer’s disease comes at an exciting and promising time for the field of AD research. “The award is a major recognition of our work. The Mayo Clinic’s AD Research Center has several MetLife Foundation award winners. Being surrounded by so many esteemed colleagues who are supportive and interactive creates a highly stimulating and motivating environment.”
When Miia Kivipelto was a PhD candidate at the University of Kuopio in Finland, a question occurred to her: What might be the outcome if research identified lifestyle risks associated with the development of late-onset dementia and provided people with self-managed interventions that could help prevent cognitive decline in their later years?

In 2002, Dr. Kivipelto defended her PhD thesis based on the Cardiovascular Risk Factors, Aging and Incidence of Dementia (CAIDE) study of which she was the principal investigator. CAIDE was one of the first research projects linking midlife vascular and lifestyle factors with increased risk of late-life dementia, including Alzheimer’s disease (AD). Finland had initiated a health study of a large cohort of its citizens in the 1970s. The study’s goal was to correlate subjects’ behaviors and circumstances to changes in their health over time. With her CAIDE study, Dr. Kivipelto added a cognitive examination to the existing data. She gave her subjects a test to determine their level of cognitive decline and then linked her test results back to thirty years of health-related records. She drew correlations between conditions such as hypertension, high cholesterol, obesity, and diabetes and found that these conditions—many of which can be mitigated with lifestyle changes in diet and exercise—were associated with increased risk of cognitive decline, dementia, and Alzheimer’s disease in later life.

While she knew she was not talking about a cure for dementia, her data suggested that starting and sustaining common, preventive strategies twenty years before symptoms of late-onset dementia typically appear significantly reduced and delayed the level of cognitive decline. By 2006, Dr. Kivipelto had developed the CAIDE Dementia Risk Score, the first tool for predicting the likelihood of an individual developing dementia based on his/her midlife risk profile.

In those early years, Dr. Kivipelto faced some skepticism and resistance from her peers because she did not have data drawn from a randomized controlled trial (RCT) to back up her claims. Over the next decade, she expanded her research into the landmark Finnish Geriatric Intervention Study to Prevent Cognitive Impairment and Disability (FINGER): the first large multi-domain intervention RCT seeking to prevent cognitive decline and dementia. The results of FINGER have far-reaching implications.
“Successful prevention will substantially reduce individual suffering and societal costs,” says Dr. Kivipelto. “Increasing years of cognitive health benefits individuals by improving the quality of their senior years and reduces demands on the social care system and health economy.”

Dr. Kivipelto and her work are now at the forefront of international collaborative efforts to solve the clinical and public health problems of early identification of individuals at increased risk of AD.

“There are still many gaps in the research,” Dr. Kivipelto points out. “First we need to extend follow up for five to seven years to see if lifestyle changes are sustainable and maintain the gains we’ve seen. Then we have to research recommendations for patients who already have mild AD. Currently, there is no direct evidence on which to base our recommended interventions and to tailor interventions to individualized cases. And we need to determine if technology-based tools work or if successful intervention requires face to face follow up.”

To these ends, she is leading several collaborative initiatives, including a particularly ambitious project called MULTI-MODE, which is funded by the European Institute for Innovation and Technology. MULTI-MODE seeks to produce and commercialize two evidence-based e-health tools to predict dementia risk and prevent AD among at-risk populations. The goals of MULTI-MODE are to promote healthy living through lifestyle interventions and to encourage self-management of health.

Dr. Kivipelto is particularly excited by her Award for Medical Research in Alzheimer’s Disease because it comes at a time when her research has identified two urgent needs. “We need deeper analysis of our data to develop more pragmatic guidelines and recommendations that motivate and sustain lifestyle changes among various age groups and stages of life. And we need to advance our understanding of the main mediating pathways for dementia so we know, for example, whether stress management or reducing inflammation or promoting cardiovascular health should be our primary area of emphasis.”

Dr. Kivipelto also believes the award brings much needed awareness to the importance of prevention as scientists continue their quests for treatments and cures. “It is confirmation of the value of our work and provides encouragement to the entire field of Alzheimer’s disease prevention research. It is extremely motivating for our whole study team.”
As a graduate student working at Washington University’s Alzheimer’s Disease Research Center, John Cirrito noted that while great progress was being made in understanding the pathological mechanisms of Alzheimer’s disease’s amyloid plaques, two nagging questions remained: In the normal biological dynamics of the brain, how do amyloid beta (Aβ) levels in the fluid area outside neurons change—and why?

“What we couldn’t measure,” Dr. Cirrito says, “was the amyloid beta in the interstitial fluid around neurons that is eventually compromised when Aβ becomes toxic.” Aβ within the interstitial fluid is a substantial source of Aβ found in plaques, so the inability to measure natural Aβ production and clearance within this fluid was a gap in the field.

Dr. Cirrito set out to address this gap by adapting microdialysis technology that had been used to measure small molecules within the brain’s interstitial fluid (ISF). He developed a method for measuring proteins in ISF every hour in a living, freely moving mouse. For the first time, a lab was able to track hourly fluctuations of Aβ levels as well as levels of proteins that help clear Aβ from the brain. By making adjustments to mouse models—such as age, sleep patterns, levels of activity or drug treatments—the lab was able to show in vivo cause and effect relationships between various conditions and Aβ production. Dr. Cirrito documented that higher synaptic activity leads to production of more Aβ. He also discovered that the various properties of neuronal networks in specific areas of the brain influence how much Aβ is produced and whether it aggregates to become toxic.

In 2006, Dr. Cirrito’s microdialysis technique was awarded the Scientific American 50 Award for one of the top technological advances in science. That same year Nature Medicine recognized his paper published in Neuron titled “Synaptic Activity Regulates Interstitial Fluid Amyloid-β Levels In Vivo” as one of the year’s most influential in the field of AD research. His protocol is now being used in eight other laboratories.

More recently, Dr. Cirrito began collaborating with Dr. Chenzhong Li at Florida International University to develop a new technology to measure brain Aβ levels every sixty seconds. This enables him to study the rapid mechanisms that regulate Aβ in a mouse brain. Their Aβ micro-immunoelectrode (MIE) provides real-time measures of brain Aβ and has revealed that rates of clearance of Aβ slow significantly as concentration levels are reduced. He hypothesizes that various clearance pathways remove Aβ at different rates. This work is relevant to any therapeutic strategy that looks to enhance Aβ clearance. The MIEs also enable Dr. Cirrito to study the rapid cellular mechanisms that link synaptic activity and Aβ production.

For Dr. Cirrito, his MetLife Award is a testament to the importance of collaboration. “Washington University has a highly collaborative environment and I have had the opportunity to travel and to work with many academic people like Dr. Li as well as with pharmaceutical companies. This has been a group effort and will need to continue to be a group effort if we’re going to figure out how to prevent AD.”
For Dr. Inna Slutsky, brain health is a question of balance. “We have studied synaptic transmission that goes on when neurons communicate together and found that a delicate balance must be struck in the mechanisms modulating this activity to support optimal brain function. But we do not yet understand what that balance is for any given neuronal network.”

Dr. Slutsky’s research was already focused on how synaptic function is regulated prior to applying her skills to the study of Alzheimer’s disease. She was trying to understand how memories are created and maintained at the cellular level, and why the ability to make memories fails, for example, as we age. AD was a field of research that called out for deeper study of synaptic function. The severity of synaptic failure associated with the disease presented Dr. Slutsky with an opportunity to test her theories.

One of the most striking and creative aspects of Dr. Slutsky’s work is that it utilizes an integrated system of Förster resonance energy transfer (FRET) spectroscopy, high resolution optical imaging, electrophysiology, molecular biology, and biochemistry. Her lab explores causal relationships between ongoing neuronal activity, structural rearrangements within synaptic signaling systems, and the adaptability of both individual neurons and their respective networks.

Among Dr. Slutsky’s many insights is her demonstration of amyloid beta’s (Aβ) role in normal synaptic activity. She found that synaptic function is compromised when the amount of Aβ around synapses is decreased. Her results predict that an optimal level of Aβ is essential for accurate synaptic function and that lowering Aβ concentration below this level might be just as damaging as the toxic level of Aβ accumulation characteristic of AD.

In focusing her novel system of inquiry on AD, Dr. Slutsky has identified specific patterns of neuronal input and synaptic properties that regulate the ratio of Aβ isoforms 40/42, a relationship that has been identified as a critical factor in the pathogenesis of AD.

Dr. Slutsky believes the integrated system that she has developed to work at the single synapse level will contribute to a better understanding of how AD-related neuronal and synaptic dysfunction begins. “If we can identify the mechanisms associated with homeostatic synaptic function,” Dr. Slutsky reasons, “we will be at the threshold of developing guidelines and therapies for maintaining synaptic health. Save the synapse and you save the brain.”

The MetLife Award will help her team leverage knowledge and expertise of other fields of inquiry, including neuroscience, physics and computational biology. The next breakthrough, she believes, will come from developing a common language across disciplines. “All that we have learned in the past is vitally important,” she says, “and now we have go beyond what we know.”
“I would like to offer my congratulations from Alzheimer’s Disease International to MetLife Foundation for supporting research in the area of Alzheimer’s disease for 30 years since 1986 with its Awards for Medical Research. The Foundation was one of the first to address this need, in a time that very little was known about the disease and therefore has been crucial in bringing this disease out of the shadows. We have made much progress in this period, but are still at the beginning of an understanding about what’s happening in the brain. Alzheimer’s disease and other dementias are among the most serious health and social care challenges for the 21st century. We hope and expect this support to continue for a long time!”

— Marc Wortmann, Executive Director, Alzheimer’s Disease International

“Consistently, the MetLife Award catapults a researcher’s career and deepens an already passionate commitment to preventing, effectively treating, or one day ending dementia. Other new investigators and awardees’ peers, witnessing the transformational opening for MetLife Foundation Award winners, are inspired to boundless, fearless, and enduring innovation.”

— Ian N. Kremer, Executive Director, Leaders Engaged on Alzheimer’s Disease

“Congratulations on the 30th anniversary of this prestigious recognition of scientific excellence in the Alzheimer’s field. Thank you for your strong public leadership on behalf of the scientific discoveries that will lead us to a cure for Alzheimer’s. BrightFocus is proud to have provided early support for many researchers who have won MetLife Foundation Awards.”

— Stacy Pagos Haller, President and CEO, BrightFocus Foundation

“We are grateful that MetLife Foundation and the American Federation for Aging Research, through their prescience and understanding, have been leaders in advancing science and recognizing extraordinary researchers. The research enabled by these awards is spurring innovations that provide hope to the tens of millions who will be diagnosed with AD around the world in the coming years. On behalf of Alzheimer’s patients and caregivers, I hope that in 30 years we will be celebrating the anniversary of a cure for Alzheimer’s because of the investments we are making right now.”

— George Vradenburg, Co-founder and Chairman, UsAgainstAlzheimer’s
“Through their generosity, MetLife Foundation has been funding crucial research to better understand the causes of, and potential treatments for, Alzheimer’s—a disease which we currently have no way to prevent, stop or even slow its progression. We know research brings hope; as we have seen with cancer and heart disease that, with the proper funding support, treatments can be found that change the course of these illnesses.

In addition to research, MetLife Foundation has helped to raise awareness about Alzheimer’s, including producing films and documentaries that highlight the impact of Alzheimer’s disease on diverse communities. It is through efforts like these that MetLife Foundation has helped increase dialogue and raise public awareness of Alzheimer’s disease. In the wars on AIDS/HIV and cancer, we saw how important elevating concern and awareness was in bringing public and private resources to bear on what seemed to be an intractable problem.

“We have made advancements in Alzheimer’s research, care, and support with the generous philanthropic efforts from MetLife Foundation,” said Maria Carrillo, Ph.D., Chief Science Officer at the Alzheimer’s Association. “The Foundation’s support has led to new programs and resources that have advanced Alzheimer’s researchers and impacted those living with the disease. We are proud to have MetLife Foundation as a continued partner as we move together toward a world without Alzheimer’s.”

MetLife Foundation has been making a difference in the Alzheimer’s disease field for more than 30 years, investing more than $32 million in Alzheimer’s disease research and awareness programs. In 2015, the Alzheimer’s Association recognized this extraordinary philanthropic effort by awarding MetLife Foundation the Jerome H. Stone Philanthropy Award for Alzheimer’s Research, one of the Association’s highest awards acknowledging the world’s top philanthropists supporting Alzheimer’s research.”

— Alzheimer’s Association

“In 1986, when MetLife Foundation initiated its awards, the National Library of Medicine’s PubMed database recorded 927 publications dealing with research on this prevalent form of dementia. By 2015, that total was 9,830 publications! Much of that accelerated progress was due to the seminal contributions of the 83 past recipients of this award and their hard working fellows, students and technicians.”

— George M. Martin, MD, Scientific Director Emeritus, American Federation for Aging Research
Simply put, the MetLife Foundation’s Awards for Medical Research in Alzheimer’s Disease are internationally recognized as among the most prestigious and sought after awards in the field of Alzheimer’s disease research. Their prestige has grown over three decades of supporting the field’s most novel and important research. When scientists receive a MetLife Foundation award, it tells the world they have made contributions that have fundamentally changed our understanding of Alzheimer’s disease.

The awards’ desirability speaks to the Foundation’s goal of identifying bright, innovative researchers and giving them a large grant to pursue their groundbreaking ideas. The award recipient decides how to use the money. It is an empowering model that has achieved remarkable results.

The first awards in 1986 recognized work on the biochemistry of two proteins that aggregate abnormally in the brains of AD victims: amyloid beta (Aβ) and tau. Thirty years later these proteins remain the primary targets for the most promising drug therapies in clinical trials.

As far back as 1987, the awards recognized the significance of genetics research into the origins of the disease and have since supported seminal work detailing specific genetic markers for AD. Genetics research has proven increasingly vital to the development of a better understanding of disease, prevention strategies and early diagnosis.

In 1988 MetLife Foundation presented the first award recognizing how important it is to know how a healthy brain works if we’re going to develop effective and safe therapies. The awards have gone on to support breakthroughs in our understanding of the biochemistry at work in connections between neurons, of how memories are formed and retained, and on the roles of amyloid precursor protein and Aβ in normal and abnormal brain function.

The awards have also supported the development of innovative technologies for documenting the progression of AD pathology in living animals and in humans, including imaging techniques for observing Aβ plaques and methodologies for measuring various central nervous system proteins associated with Alzheimer’s pathology. These technologies are providing important new insights to the neurobiology of the brain and of the disease.

The awards’ impressive track record has led to a scientific snowball effect: winning results in greater awareness of the scientists’ work, which opens doors to scientific collaboration among investigators around the world and, in turn, leads to new discoveries.

The accomplishments of the individual scientists MetLife Foundation has honored have made its awards synonymous with quality and innovation in scientific inquiry. But perhaps more importantly, the foundation’s thirty year commitment to solving the puzzle that is Alzheimer’s disease has championed ideas that might not otherwise have been explored, inspired young investigators to think outside the box, and created a powerful incentive for established scientists to push vigorously forward.

MetLife Foundation’s 30th anniversary awards represent both a continuation of its recognition of individual excellence and a reaffirmation of the Foundation’s ongoing commitment to inspire Alzheimer’s disease researchers’ best efforts, to nurture their creative spirits, and to support their brilliant discoveries for as long as it takes to discover a cure.

David M. Holtzman, MD
Andrew B. and Gretchen P. Jones Professor and Chairman, Department of Neurology
Washington University School of Medicine in St. Louis
2006 Major Award recipient; Chair, 2016 Advisory Committee
2015
Randall Bateman, MD
Charles F. and Joanne Knight Distinguished Professor of Neurology
Washington University School of Medicine in St. Louis

Christian Haass, PhD
Professor of Biochemistry, Biomedical Center Ludwig Maximilians
University München and German Center for Neurodegenerative
Diseases, Munich

2014
Mathias Jucker, PhD
Hertie Institute for Clinical Brain Research (HIH) &
German Center for Neurodegenerative Diseases (DZNE)
University of Tübingen

Lary C. Walker, PhD
Yerkes National Primate Research Center
Emory University

Riqiang Yan, PhD
Lerner Research Institute,
Cleveland Clinic

2013
Yueming Li, PhD
Memorial Sloan-Kettering Cancer Center
Weill Medical College of Cornell University

Lennart Mucke, MD
University of California, San Francisco
Gladstone Institute of Neurological Disease

2012
Christine Van Broeckhoven, PhD, DSc
University of Antwerp

Clifford R. Jack, Jr., MD
Mayo Clinic, Rochester

2010
Randy L. Buckner, PhD
Harvard University, Harvard Medical School
Howard Hughes Medical Institute

Marcus E. Raichle, MD
Washington University School of Medicine in St. Louis
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<th>Name</th>
<th>Institution</th>
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<td>2009</td>
<td>Todd E. Golde, MD, PhD</td>
<td>University of Florida College of Medicine, Gainesville</td>
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<td>Edward H. Koo, MD</td>
<td>University of California, San Diego</td>
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<td>Eckhard Mandelkow, PhD</td>
<td>Max-Planck-Institute for Structural Molecular Biology, Hamburg</td>
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<td></td>
<td>Eva-Maria Mandelkow, PhD</td>
<td>Max-Planck-Institute for Structural Molecular Biology, Hamburg</td>
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<td>2008</td>
<td>Takeshi Iwatsubo, MD</td>
<td>Graduate School of Medicine, University of Tokyo</td>
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<td>Michael S. Wolfe, PhD</td>
<td>Brigham and Women’s Hospital / Harvard Medical School</td>
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<td>2007</td>
<td>Bart De Strooper, MD, PhD</td>
<td>University of Leuven</td>
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<td>VIB (Vlaams Instituut voor Biotechnologie)</td>
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<td>Robert Vassar, PhD</td>
<td>Feinberg School of Medicine, Northwestern University</td>
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<td>Philip C. Wong, PhD</td>
<td>The Johns Hopkins University School of Medicine</td>
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<td>2006</td>
<td>David M. Holtzman, MD, PhD</td>
<td>Washington University School of Medicine in St. Louis</td>
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<td>Berislav V. Zlokovic, MD, PhD</td>
<td>University of Rochester Medical Center</td>
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<td>Karen Hsiao Ashe, MD, PhD</td>
<td>University of Minnesota Medical School</td>
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<td>Minneapolis Veterans Affairs Medical Center</td>
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<td>2004</td>
<td>William E. Klunk, MD, PhD</td>
<td>University of Pittsburgh School of Medicine</td>
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<td>Western Psychiatric Institute and Clinic</td>
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<td>Chester A. Mathis, PhD</td>
<td>University of Pittsburgh / University of Pittsburgh Medical Center</td>
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<td>2003</td>
<td>Roberto Malinow, MD, PhD</td>
<td>Cold Spring Harbor Laboratory</td>
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<td>Thomas C. Südhof, MD</td>
<td>University of Texas Southwestern Medical Center at Dallas / Howard Hughes Medical Institute</td>
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<td>2002</td>
<td>Bruce A. Yankner, MD, PhD</td>
<td>Harvard Medical School</td>
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<td>2001</td>
<td>Fred H. Gage, PhD</td>
<td>The Salk Institute for Biological Studies</td>
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<td>Bradley T. Hyman, MD, PhD</td>
<td>Massachusetts General Hospital / Harvard Medical School</td>
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<td>Dennis W. Dickson, MD</td>
<td>Mayo Medical School / Mayo Clinic, Florida</td>
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<td>Michael L. Hutton, PhD</td>
<td>Merck and Co. Ltd.</td>
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<td>Mortimer Mishkin, PhD</td>
<td>National Institute of Mental Health</td>
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<td>Larry R. Squire, PhD</td>
<td>University of California, San Diego, School of Medicine</td>
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<td>Douglas C. Wallace, PhD</td>
<td>University of California, Irvine</td>
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<td>1998</td>
<td>Paul Greengard, PhD</td>
<td>The Rockefeller University</td>
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Past Winners  |  Major Award for Medical Research in Alzheimer’s Disease

1997
Sangram S. Sisodia, PhD  The University of Chicago
Steven G. Younkin, MD, PhD  Mayo Medical School / Mayo Clinic, Florida

1996
Michel Goedert, MD, PhD  University of Cambridge
Yasuo Ihara, MD  University of Tokyo
Virginia M.-Y. Lee, PhD  University of Pennsylvania School of Medicine
Brenda Milner, ScD  Montreal Neurological Institute
                             McGill University
John Q. Trojanowski, MD, PhD  University of Pennsylvania School of Medicine

1995
Thomas D. Bird, MD  University of Washington School of Medicine
                             Seattle Veterans Affairs Medical Center
Gerard D. Schellenberg, PhD  University of Pennsylvania School of Medicine
Rudolph E. Tanzi, PhD  Massachusetts General Hospital / Harvard Medical School
Ellen M. Wijsman, PhD  University of Washington School of Medicine / University of Washington School of Public Health and Community Medicine

1994
Alison Goate, PhD  Washington University School of Medicine in St. Louis
John Hardy, PhD  University College London
Robert W. Mahley, MD, PhD  The J. David Gladstone Institutes
                             University of California, San Francisco
Karl H. Weisgraber, PhD  The J. David Gladstone Institutes
                             University of California, San Francisco
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<th>Year</th>
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<td>1993</td>
<td>Blas Frangione, MD, PhD</td>
<td>New York University Medical Center</td>
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<td>Allen D. Roses, MD</td>
<td>Duke University</td>
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<tr>
<td>1991</td>
<td>Stanley B. Prusiner, MD</td>
<td>University of California, San Francisco</td>
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<td>1990</td>
<td>Konrad T. Beyreuther, PhD</td>
<td>University of Heidelberg</td>
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<td>Robert D. Terry, MD</td>
<td>University of California, San Diego, School of Medicine</td>
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<td>1989</td>
<td>Donald Lowell Price, MD</td>
<td>The Johns Hopkins University School of Medicine</td>
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<td>1988</td>
<td>Carl W. Cotman, PhD</td>
<td>University of California, Irvine</td>
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<td>George G. Glenner, MD</td>
<td>University of California, San Diego, School of Medicine</td>
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<td>1987</td>
<td>James F. Gusella, PhD</td>
<td>Massachusetts General Hospital / Harvard Medical School</td>
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<td>Peter H. St. George-Hyslop, MD</td>
<td>University of Toronto</td>
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<td>1986</td>
<td>Peter Davies, PhD</td>
<td>Albert Einstein College of Medicine of Yeshiva University</td>
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<td></td>
<td>Dennis J. Selkoe, MD</td>
<td>Brigham and Women’s Hospital / Harvard Medical School</td>
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2014
Jie Shen, PhD*
Harvard Medical School
Center for Neurological Diseases

2012
Randall Bateman, MD
Washington University School of Medicine in St. Louis

2005
Christian Haass, PhD
Adolf-Butenandt-Institute
Frank LaFerla, PhD
University of California, Irvine

2002
David M. Holtzman, MD
Washington University School of Medicine in St. Louis
Lennart Mucke, MD
University of California, San Francisco

2000
Gary Struhl, PhD
Columbia University College of Physicians and Surgeons
Li-Huei Tsai, PhD
Harvard Medical School

1998
Iva Greenwald, PhD
Columbia University College of Physicians and Surgeons
Karen Hsiao Ashe, MD, PhD
University of Minnesota

1992
Fred H. Gage, PhD
University of California, San Diego
Bradley Hyman, MD, PhD
Harvard Medical School
Mark Mattson, PhD
University of Kentucky Medical School

1991
Dmitry Goldgaber, PhD
State University of New York at Stony Brook
Virginia M.-Y. Lee, PhD
University of Pennsylvania School of Medicine
John Q. Trojanowski, MD, PhD
University of Pennsylvania School of Medicine

1989
Kenneth S. Kosik, MD
Brigham Medical Center
Charles Marotta, MD, PhD
McLean Hospital
Rachael Neve, PhD
University of California, Irvine

*Promising Research Award
“The MetLife Foundation Award promotes recognition of excellence and contributions to science which directly impacts Alzheimer’s research. The award has a substantial effect on the focus and career development of scientific researchers, and also promotes future discoveries with financial contributions towards research.”
— Randall Bateman, MD (2015)

“This award was a recognition of our work and helped me a lot: I have even more support from the family, and the university also increased the support after I received the award. The prize money allowed me to do more risky research and to follow ideas that are not yet ready for a formal research proposal. Honestly, this award really changed and pushed my research.”
— Mathias Jucker, PhD (2014)

“MetLife Foundation has had an amazing record in making the right calls on what is most important in AD research over the years which has been extremely important in heralding where the new breakthroughs are coming from and how they impact our understanding of mechanisms of AD and how they can be translated into meaningful ways to better diagnose and treat Alzheimer’s and related dementias.”
— Virginia M.-Y. Lee, PhD, MBA (1996)
John Q. Trojanowski, MD, PhD

“My MetLife Foundation Award was a major practical and psychological boost for me to push ahead vigorously with my research on the causes and mechanisms of Alzheimer’s disease. These awards help highlight the most novel and important research on AD, in a way that few or no other awards can.”
— Dennis J. Selkoe, MD (1986)
“By providing visibility to individual researchers who made the difference in the field, the MetLife Foundation Awards encourage and stimulate the progress in AD research. They not only help to boost the career of individual investigators, but also attract more money to the field from government and from the public because the awards give visibility to Alzheimer Research. The awards also make the field more attractive for other researchers and stimulate neuroscientists to give more attention to this disease.”

— Bart de Strooper, MD, PhD (2007)

“Receiving a MetLife Foundation Award was a great honor to me and my fellows and collaborators. It celebrated the hard work and fun discoveries that we had made up until that point and encouraged me to increase my efforts to do good works. These awards recognize not only the best known scientists but also lesser known scientists (at least at the time of the award) who have made important discoveries that have not quite been recognized by the general public but are never-the-less critical.”

— Fred H. Gage, PhD (2001)

“Receiving the MetLife Foundation Award was the pinnacle of my career in terms of the recognition that our science was making a difference and could someday help Alzheimer’s patients. The award inspired me to never sit back and remember that ‘you are only as good as your last paper.’ For those who have not yet received the award, it serves as a wonderful incentive to attempt out-of-the-box, groundbreaking science. It is fair to say that the existence of this award has served to significantly drive the pursuit of excellence across our field with the ultimate goal of providing hope for those afflicted with Alzheimer’s disease.”

— Rudolph E. Tanzi, PhD (1995)

“The MetLife Foundation Awards represent the pinnacle of recognition for Alzheimer’s research worldwide and facilitate high-impact, cutting-edge exploration and innovation. It was a great honor to be recognized by my peers and the members of the selection committee for my contributions to Alzheimer’s research, and a humbling experience to join the ranks of the other MetLife Foundation Award winners.”

— Karen Ashe, MD, PhD (2005)
The eagle symbolizes the creative spirit of scientific investigation on its flight of discovery.

SINCE 1986, THROUGH THE AWARDS FOR MEDICAL RESEARCH FOR ALZHEIMER’S DISEASE, METLIFE FOUNDATION HAS GIVEN OVER $18 MILLION TO 88 Awardees AT 52 INSTITUTIONS IN 8 COUNTRIES.

MetLife Foundation is proud that our honorees have continued to be recognized in the field and beyond.

We celebrate their achievements, including: the Breakthrough Prize in Life Science, the Fondation ISPEN Neuronal Plasticity Award, the Nobel Prize, the Potamkin Prize, and more.

Notably, 6 Promising Investigators have gone on to win our Major Awards.
Monday, July 25, 2016
Shangri-La Hotel
188 University Avenue
Toronto, Canada

presented in conjunction with the 2016 Alzheimer’s Association International Conference

6:00 pm
Cocktail Reception

6:40 pm
Welcome
A. Dennis White
President and CEO
MetLife Foundation

Awards Presentation
Major Awards
Guojun Bu, PhD
Miia Kivipelto, MD, PhD

Promising Investigator Awards
John Cirrito, PhD
Inna Slutsky, PhD

Research Briefing
David Holtzman, MD
Advisory Committee Chair
Moderator

8:00 pm
Dinner

9:30 pm
Adjourn

2016 AWARDS ADVISORY COMMITTEE

David M. Holtzman, MD  |  Committee Chair
Andrew B. and Gretchen P. Jones Professor and Chairman, Department of Neurology,
Washington University School of Medicine in St. Louis

Karen H. Ashe, MD, PhD
Professor of Neurology
Director, Grossman Center for Memory Research and Care and Edmund Wallace and Anne Marie Tulloch Chair in Neurology and Neuroscience,
University of Minnesota Medical School

Mathias Jucker, PhD
Professor, Hertie Institute for Clinical Brain Research & German Center for Neurodegenerative Diseases, University of Tübingen

Edward H. Koo, MD
Professor of Neurosciences,
University of California, San Diego

Sangram S. Sisodia, PhD
Thomas Reynolds Sr. Family Professor of Neurosciences,
Director, Center for Molecular Neurobiology,
The University of Chicago

Rudolph E. Tanzi, PhD
Joseph P. and Rose F. Kennedy Professor of Neurology,
Harvard Medical School, Vice-Chair, Department of Neurology and Research and Director, Genetics and Aging Research Unit,
MassGeneral Institute for Neurodegenerative Disease

John Trojanowski, MD, PhD
Director, Institute on Aging,
Director, Alzheimer’s Disease Core Center,
Perelman School of Medicine
at the University of Pennsylvania

MetLife Foundation Awards for Medical Research in Alzheimer’s Disease program is administered by

American Federation for Aging Research

Founded in 1981, AFAR supports and nurtures talented scientists and physicians and encourages them to pursue lifelong careers in research focused on the aging process and age-related diseases, including Alzheimer’s disease. The important work AFAR that advances leads to a better understanding of the aging process and to improvements in the health of all Americans as they age. Learn more at www.AFAR.org and learn more about the Awards at http://mlawards.afar.org.