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2013 Sylvan Cohen
Annual Retreat



Basic Science
Clinical
Education & Policy
Translational

Penn Summit on Alzheimer's Generates Roadmap to Address Impact of Disease

Acknowledging the looming public health crisis from Alzheimer's disease and related dementias, a select group of experts in areas of Alzheimer's disease (AD) assembled in June at an international summit sponsored by the Marian S. Ware Alzheimer Program at Penn and co-convened by The Campaign to Prevent Alzheimer's Disease by 2020.

The experts represented leading researchers, advocates and clinicians in AD and were drawn from academia, industry, government agencies, and advocacy and other nonprofit groups. Together they drafted a strategic roadmap to help guide U.S. healthcare systems in coping with AD and related dementias. The roadmap was published in early September in the journal *Alzheimer's & Dementia: The Journal of the Alzheimer's Association*.

The plan connects the latest in research and scientific findings with clinical care experience. It serves to unite patients, families and caregivers, scientists, pharmaceutical companies, regulatory agencies, and advocacy organizations with a common set of prioritized goals that were drawn from the experts' recommendations.

Divided into four workgroups, experts focused on biomarkers, clinical care and health services research, drug development and health economics, and policy and ethics. Key recommendations touched on five specific areas.

First, it is critical to speed the translation of research discoveries into clinical practice by revising the regulatory process and using incentives to encourage the pharmaceutical industry to develop AD drugs. Second, there is a pressing need to establish a diverse registry of older adults with and without dementia. Next, a risk stratification model needs to be developed that incorporates demographic, genetic, biologic, cognitive, and environmental markers. Also, there is an overwhelming need to increase support to advance valuable care for patients affected with AD and their caregivers. Lastly, on the legislative front, to best protect individuals, there is a need to consider legislation that bars information gained through biomarker studies from being considered in insurance or employment decisions.



Learn more...

www.alzheimersanddementia.org/

MESSAGE FROM THE DIRECTOR



John Q. Trojanowski, MD, PHD
Director, Institute on Aging

What can we do? It's a question many of us hear each time we speak to the public. We have knowledgeable scientists. We have ideas. We have technologies. We have model systems. We have all the apparatus in place. What can you do? What can we do? We can work together, in a number of ways, to build that special blend of support and awareness necessary to transform issues of aging, like Alzheimer's, from something that happens to other people into a prominent public health and national concern - much like has been done for cancer. The national blueprint released in May by the U.S. Department of Health and Human Services, and supported by President Obama, is an important advance for Alzheimer's disease. Much more needs to be done at a local and grassroots level. In June here at Penn, we held an international summit on Alzheimer's as part of the Marian S. Ware Alzheimer Program. Such a groundswell of focus will help us pinpoint the keys to a better diagnosis, improved treatment, wider understanding, enhanced caregiver support, and even a cure for aspects of aging and age related diseases, like Alzheimer's and Parkinson's.

Recently, Virginia Lee and I worked with our colleagues here at Penn to prepare a short video, "Having an Impact on Brain Aging and Drug Discovery." While it focuses on brain aging and neurodegenerative diseases like Alzheimer's, it strives to raise the flag and call attention to some of the critical issues related to aging and to the universality of the cause. We are all aging. We have family members who are aging - some with more health issues and concerns than others. In some way, we will all be touched by age related diseases - whether it's Alzheimer's, Parkinson's, cancer, diabetes, cardiovascular disease, or macular degeneration.

In late September, Dr. P.J. Brennan-IOA External Advisory Board Member and Penn Medicine's Chief Medical Officer, spearheaded an effort that led to the inaugural Penn's 5K for the IOA and The Memory Mile Walk. This new, annual event raised funds from local businesses and members of the Penn community, and increased the public profile of the IOA and its research efforts.



Pictured are, from left to right, Howard Shecter, Lynn Shecter, Orien Reid Nix, Virginia Lee, John Trojanowski, and Bob Lane.

In October, Lynn Shecter, Senior Vice President at Oppenheimer & Co, Inc. and a good friend to the IOA, chaired and hosted a cocktail reception to introduce people from her personal network, and other prominent members of the Philadelphia community, to Alzheimer's research programs at Penn. Lynn's personal experience with losing a loved one to Alzheimer's fuels her passion and tireless efforts to advocate for research advances by bringing together support through events such as this.

To make a gift to the IOA, or one of its research partners, please visit www.med.upenn.edu/aging/gift.shtml. For further inquiries or to establish a named fund in memory of a loved one, please contact Irene I. Lukoff at 215-573-0187 or ilukoff@upenn.edu.

Support the IOA
www.med.upenn.edu/aging/gift.shtml

News from the 5K for the IOA and the Memory Mile Walk for the Institute on Aging

On Sunday, September 30th, the inaugural 5K for the IOA and The Memory Mile Walk hosted more than 300 participants and raised over \$40,000 for age-related research at Penn's Institute on Aging. Participants ranged in ages from 8 to 84.



Pictured at left with John Trojanowski and Virginia Lee in white are the two overall winners.

Kris Shaw, a graduate student in Arts and Sciences majoring in Economics, was the first man to finish and placed first in the Men's 20-29 category. Zandra Walton, an MD/PhD candidate at the the Perelman School of Medicine, was the first female competitor to finish and placed first in the Women's 20-29 group.

Special thanks to Dr. P.J. Brennan (pictured below manning the bullhorn), his staff, and the amazing team of yellow-shirted volunteers who made the event such a success. **Many thanks to those who came out to participate!**



FIRST PLACE BY AGE GROUP

14 and Under

Camryn Ridell, 20m 15s

15-19

Jacob Benatar, 17m 2s; Alexis Arnold, 20m 51s

20-29

Kris Shaw 14m 10s; Zandra Walton 16m 11s

30-39

Dave Fedor, 14m 11s; Beth Smith, 20m 1s

40-49

Charles Washington, 18m 24s; Britt Emanuel, 19m 41s

50-59

Bruce Cutilli, 19m 52s; Dina Appleby, 21m 16s

60+

Eric Leichter, 21m 32s; Louise McCabe, 30m 44s



A complete listing of race finishes is online at http://www.med.upenn.edu/aging/5K_for_the_IOA.shtml.



2012 Vincent J. Cristofalo PhD Annual Lectureship: "Understanding Aging Through Conserved Longevity Pathways"

In October, the IOA held the sixth Vincent J. Cristofalo PhD Annual Lectureship. Dr. Matt Kaerberlein, Associate Professor of Pathology at the University of Washington; co-Director of the University of Washington Nathan Shock Center of Excellence in the Basic Biology of Aging; the Director of SAGEWEB, and the founding Director of the Healthy Aging and Longevity Research Institute at the University of Washington, was invited to speak about his research on evolutionarily conserved mechanisms of aging.



Dr. Matt Kaerberlein

After opening remarks from IOA Director, Dr. John Trojanowski, Dr. Robert Pignolo highlighted Vince Cristofalo, his contributions to aging research, and his impact as a mentor for so many young research scientists.

A researcher in the basic biological mechanisms of aging, Dr. Kaerberlein's lecture, "Understanding Aging Through Conserved Longevity Pathways," explored his interest in learning what the genetic and environmental factors are that influence the apparent rate of aging. Dr. Kaerberlein's focus is especially important as aging is the 'driver,' as he calls it, of most of the medically relevant diseases in developed countries.



Dr. Robert Pignolo

As a result, he has been investigating dietary or caloric restriction for its apparent impact on slowing aging and delaying the onset of multiple age related diseases. Dietary restriction refers to the observation

that if nutrient availability is limited, in the absence of malnutrition, that leads to lifespan extension - both median and maximum - across multiple organisms, as well as an effect on healthspan.

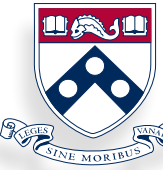
Dr. Kaerberlein, in concert with research colleagues, has been focusing on *c. elegans* worm and yeast models and then trying to translate those findings into longevity studies in mice. Specifically, he has been investigating mTOR and the mechanisms by which it is extending lifespan.

During his lecture, Dr. Kaerberlein spoke at length on two projects ongoing in his lab. The first, a yeast project, is exploring how genotype influences the response to dietary restriction and includes work with dietary restriction mimetics like rapamycin. The project is focused on identifying the cellular processes that change the response to dietary restriction by subjecting different yeast strains to dietary restriction and determining the effect on lifespan and why, from the genotypic information, yeast is responding differently to dietary restriction. The second, a mouse project, has grown from the genotype and dietary restriction research.

Dr. Kaerberlein, his lab, and collaborators have found that genetic background plays a big role in how indi-



Dr. John Trojanowski and Dr. Matt Kaerberlein



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Basic Science Clinical Education & Policy Translational

viduals respond to dietary restriction, using lifespan as the criterion. Some strains respond overwhelmingly; some have no increase in lifespan, and others actually have a decreased lifespan with dietary restriction.



Dr. Kaerberlein discussed the genotypic findings and the related implications, from the top ten positive-affecting genes to the bottom group that had the biggest negative impact on lifespan for the yeast strains studied. He also explored three different classes of molecular processes that underlie the relationship between genotype and dietary restriction.

He closed by touching on the second project which is looking at the relationship between dietary restriction, mitochondrial dysfunction, and mitochondrial disease. Defects in the mitochondria in many cases led to robust, positive effect from dietary restriction. Researchers have been investigating whether this is a general phenomenon outside of yeast and if it will have the same effect in a mammalian model. After the lecture and questions, attendees had the opportunity to discuss the lecture at a reception and to speak with Dr. Kaerberlein one-on-one about his research.



To view the 2012 Cristofalo lecture in its entirety, visit www.med.upenn.edu/aging/video.shtml.



The Cristofalo family with Dr. Matt Kaerberlein and Dr. John Trojanowski
Photos courtesy of Mark Garvin



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MISSION:
The mission of the Institute on Aging (IOA) at the University of Pennsylvania is to improve the health of older adults by increasing the quality and quantity of clinical and basic research as well as educational programs focusing on normal aging and age-related diseases at the Perelman School of Medicine at the University of Pennsylvania and across the entire Penn campus.

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Orien Reid Nix, *Board Chair*

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Funding the Next Generation of Aging Research: \$200,000 in Pilot Research Grants

The IOA Pilot Research Grant Program supports new faculty entering the field of aging, assists Penn faculty in obtaining critical, preliminary data which serve as the basis for grant applications to agencies funding aging research, and stimulates multidisciplinary projects that focus the diverse

expertise at Penn toward aging research. The Pilot Research Grant Program awarded four pilot grants to investigators and research projects in the Perelman School of Medicine and the School of Arts & Sciences at Penn.

Visit us online for complete abstracts.

Effect of Aging on Enteric Viral Infection

David Artis, PhD
Perelman School of Medicine

Norovirus (NoV) gastrointestinal infections are the most common cause of non-bacterial gastroenteritis, are responsible for an estimated 23 million cases of acute gastroenteritis, and lead to 50,000 hospitalizations and 300 deaths annually in the US. NoV has been associated with more than 30% of deaths in elderly patients suffering from gastrointestinal symptoms.

In this pilot, we will test a novel hypothesis using data from antiviral immunity in aging populations and the study of how gut-resident microbial communities can regulate immune responses. Aged populations seem to exhibit limited diversity in the community structure of gut microbiota. Deliberate manipulation of gut microbial communities in mice have shown that signals derived from these gut-resident bacteria can significantly influence immune responses to a variety of pathogens. We propose to test the hypothesis that alterations in gut-resident microbial communities in aged mice has a role in decreased antiviral immune responses following murine norovirus infection. We believe that this novel line of study will uncover new insights into immune regulation of aged populations.

Maintaining Centromere Identity in Mammalian Oocytes During Aging

Michael A. Lampson, PhD
School of Arts & Sciences

Chromosome inheritance depends on an element within each chromosome known as the centromere. A protein that binds DNA, known as CENP-A, defines the location and function of the centromere. In oocytes, which divide to create eggs, there are major unresolved questions surrounding CENP-A maintenance during aging. Mammalian oocytes persist for the entire reproductive lifespan of the animal in a state in which the known mechanisms for CENP-A propagation do not apply. We will take an innovative interdisciplinary approach, combining structural biology and biophysics with in vivo reproductive biology, to determine how centromeres are maintained in oocytes during aging. We will make the first measurements of CENP-A stability during oocyte aging, test whether an unconventional mechanism exists to replenish CENP-A during aging, and determine how CENP-A stability depends on its unusual structural features. The processes that we are studying are crucial for reproductive fitness and faithful chromosome inheritance between generations, and for understanding age-related disorders such as Down syndrome that are caused by errors in chromosome inheritance.

2013 Pilot Research

Grants in Aging

Enhancing Cognitive Fitness in African American Older Adults

Selamawit Negash, PhD
Perelman School of Medicine

With the aging of the “baby-boom” generation, there is an emerging interest in health promotion behaviors of older adults. The Alzheimer’s Association has recently partnered with the Centers for Disease Control and Prevention to develop the Healthy Brain Initiative, which recommends lifestyle interventions as part of its Road Map for maintaining or improving the cognitive performance of all adults. Despite the growing interest, however, research on cognitive health of minority older adults has critically lagged. This is unfortunate because minority populations are already at a disadvantage with regards to engaging in health promotion behaviors. The Penn Memory Center recently launched an innovative program,

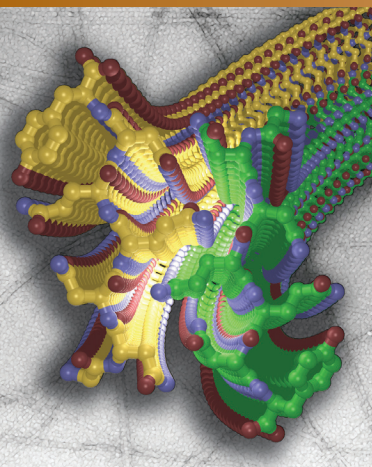
Cognitive Fitness, designed to maintain and improve cognitive and emotional health in older adults. The program uses a multi-modal approach and combines computer-based cognitive training, engagement in physical activity, and mindfulness meditation. Nonetheless, the program has a major limitation in that members of minority groups are underrepresented. This is a major health disparity concern, and interventions that are targeted towards ethnically diverse older adults are crucially needed, especially since studies suggest that minority elders may reap even greater benefits from well-developed cognitive wellness programs. The current proposal seeks to address this critical knowledge gap.

Using Semi-Synthetic Protein to Understand the Formation and Propagation of Lewy Bodies in Parkinson’s Disease and Dementia

E. James Petersson, PhD
School of Arts & Sciences

The maintenance of proteins in their stable, folded state is essential to proper cellular function. Protein misfolding underlies at least 11 neurodegenerative disorders. We propose to use our unique synthetic protein tools to obtain structural and mechanistic information on the misfolding of amyloid proteins. We will structurally characterize amyloid aggregates through distance measurements obtained using fluorescence energy transfer studies of labeled versions of amyloid proteins. We will also identify other proteins whose interactions with amyloids are important for cell-to-cell propagation by photocrosslinking synthetic amyloids to capture their interaction partners. To accomplish these goals, we will use methods developed in the Peters-

son laboratory to synthesize proteins with fluorescent labels, crosslinkers, and purification tags, without disturbing the native protein behavior. In this pilot study, we will focus on alpha-synuclein, the aggregating species in Parkinson’s and Lewy body dementia. We will examine a limited scope of conditions to show the feasibility of the type of experiments in each of our aims, which are technically demanding but potentially high in impact. Our methods should be applicable to all of the more than 20 proteins implicated in amyloid-type disorders. Our tools should be equally valuable in understanding the native role of amyloidogenic proteins in healthy neurons, which is unknown for many of these 20 proteins.



Credit: Michael Sawaya, Rebecca Nelson, Melinda Balbirnie and David Eisenberg, UCLA

Dr. Shorter: Yeast Protein Breaks Up Amyloid Fibrils With Implications for Neurodegenerative Diseases

IOA Fellow Dr. James Shorter and Penn research colleagues have shown that Hsp104, an enzyme from yeast that breaks up amyloid fibrils and disordered clumps, switches mechanism depending on whether

it's breaking up amyloid fibrils or disordered clumps.

The misfolding of certain proteins into disordered clumps and insoluble fibrils called amyloid connect several major brain disorders, including Parkinson's disease. While the clumps are more amorphous, the amyloid fibrils are stable with an ordered structure.

Hsp104 in yeast adjusts to respond to each, using all of its six subunits to pull the amyloid fibrils apart while needing only one subunit to undo the disordered clumps. However, the bacterial version of Hsp104, called ClpB, behaves differently, requiring all six subunits to break up the clumps while ignoring the stable amyloid fibrils. Scientists had thought

that the two would work in a similar fashion.

Hsp104 is of interest because of its ability to break up various amyloid fibrils formed by tau and AB42 in Alzheimer's disease, by alpha-synuclein in Parkinson's disease, by polyglutamine in Huntington's disease, and by amylin in type II diabetes. Hsp104 breaks up the fibrils by 'pulling' individual polypeptide chains through a channel; the polypeptides can then be refolded into active structures on the other end of the channel.

While animals do not have their own version of Hsp104 and appear to lack the protein machinery to break up amyloid clumps as rapidly, researchers are interested in introducing Hsp104 as a therapeutic 'clump buster' and optimizing it for each type of disease protein. Preclinical data has shown that Hsp104 rescues neurodegeneration caused by alpha-synuclein misfolding in a rat model of Parkinson's disease. Dr. Shorter and his lab are now scanning yeast cells to look for the most useful forms of Hsp104.

Dr. Lee: Parkinson's Disease Protein Causes Spread of the Disease and Neuron Death in Healthy Animal Models

A team at Penn's Center for Neurodegenerative Disease Research (CNDR), led by IOA Fellow and CNDR Director Dr. Virginia Lee, has uncovered more about alpha-synuclein, the Parkinson's disease (PD) protein, and the critical steps in how PD spreads from one cell to another and leads to nerve cell death.

PD is characterized by abundant alpha-synuclein clumps in neurons and a massive loss of dopamine-producing neurons in the mid-brain. The relationship between alpha-synuclein clumps forming and neurodegeneration has not been clear.

Dr. Lee, with first author Dr. Kelvin Luk, and colleagues at CNDR found that injecting synthetic, misfolded, and fibrillar alpha-synuclein into the brains of normal, 'wild-type' mice repeats the cellular demise seen in human PD patients. A single injection in healthy mice of synthetic, misfolded alpha-synuclein fibrils led to cell-to-cell transmission of pathologic alpha-synuclein proteins and the formation in interconnected regions of the brain of PD alpha-synuclein clumps known as Lewy bodies. The findings show that alpha-synuclein alone definitely causes the pathology and progression of PD in the healthy mice and clarifies the role of alpha-synuclein Lewy bodies in the progressive loss and degeneration of dopamine neurons in the substantia nigra region of the brain. Additionally, researchers found reduced dopamine levels in the

Research and News in Aging

Studying Mood Disorders Across the Female Lifespan at New Center for Sex and Gender in Behavioral Health

Medical research has ascertained that sex and gender are critical determinants in mental health and mental illness, with gender differences occurring particularly in the rates of common mental disorders like depression, anxiety, and somatic complaints, but there is still much more to be learned. IOA Fellow Dr. C. Neill Epperson and Dr. Tracy Bale have received a \$3.7 million grant from the National Institute of Mental Health and the Office of Research on Women's Health at the National Institutes of Health to create a new translational, interdisciplinary research center focusing on the role of sex and gender in behavioral health.

The new Center for the Study of Sex and Gender in Behavioral Health will be co-directed by Dr. Epperson, Director of the Penn Center for Women's Behavioral Wellness and Associate Professor of Psychiatry and Obstetrics/ Gynecology, and by Dr. Bale, Director of the Neuroscience Center at the Penn School of Veterinary Medicine and Associate Professor of Neuroscience, Department of Animal Biology and Assistant Professor of Neuroscience, Department of Psychiatry. The Center's mission is to promote sex and gender as research factors across

Penn and its schools. The Center will use behavioral and molecular models of stress and reproductive neuroendocrinology, psychophysiology, and neuroimaging to investigate the mechanisms at play in women's behavioral health.

With the link between mental health and gender established, it is not clear, however, how hormonal changes like puberty and early life adverse events interact and affect women's mood disorders across the lifespan. Research projects at the Center will thus focus on how women's early childhood adversity may reprogram the brain toward stress dysregulation and how this intersects with periods of hormonal changes like puberty, pregnancy, and aging.

Translating findings from animal models of stress, Dr. Bale's area of study, to human studies will be part of the Center. Researchers will be starting with women who have experienced early life adversity such as loss of a parent, rape,

or abuse - as they have the highest rate of affective or mood disorders. Animal models of stress have shown that young females respond differently than males to stress, with stress hormones rising in females. These female mice are also more likely to be stress-sensitive as adults.



Learn more about the center...

The Center for the Study of Sex and Gender in Behavioral Health is currently looking for pregnant and menopausal women who have experienced childhood trauma. For more information, visit www.med.upenn.edu/womenswellness/

neurons of the striatum, which cause the movement disorder often seen in PD patients. Lewy bodies are thus strong targets for disease-modifying therapy for PD patients. Work is underway on an antibody therapy in mouse models to halt the propagation of misfolded alpha-synuclein.



The induction of PD in healthy, wild-type or non-transgenic mice makes this model much more compelling for studying sporadic PD, the most common form of PD, which accounts for more than 90% of PD patients whose disease does not run in families.

Study Recruiting: Ghrelin and Improved Food Intake in Older People

Older People Who May Be Experiencing Weight Loss, Decreased Activity or Muscle Loss with Aging

Penn is conducting a research study to see what dose of a hormone called “ghrelin” is needed to improve food intake in older people who may be experiencing weight loss, decreased activity or muscle loss with aging. You must be at least 70 years of age.

Volunteers will be asked to come to the Clinical and Translational Research Center (CTRC) at the Hospital of the University of Pennsylvania for 5 visits. The ghrelin or a placebo will be given during 4 of the visits, and there will be no medications to take at home. There is no cost for being in the study and participants will receive compensation if they are eligible to participate. Transportation will be provided.

Those interested should contact Terry Scattergood via email at Terry.Scattergood@uphs.upenn.edu or by phone at 215-898-5664.

New Study Recruiting: Rivastigmine for Mild Cognitive Impairment in Parkinson’s Disease

Approximately 25% of Parkinson’s disease patients experience mild cognitive impairment (MCI). MCI, including difficulty with problem solving, planning, attention, or recalling information, can be a significant problem. Even mild cognitive difficulties can lead to worse functioning, decreased quality of life, and depression for patients with PD, as well as difficulty for their caregivers. Treatment at this early stage would improve both cognitive symptoms and some of the other problems associated with these symptoms.

Rivastigmine, a cholinesterase inhibitor, is an effective, FDA approved treatment for Parkinson’s Disease Dementia (PDD). It is unknown if this medication would be useful in the treatment of PD-MCI.

This study is a 24-week long clinical trial to see if the Exelon Patch (rivastigmine), is useful in treating MCI in patients with PD. This study is broken down into two, 10-week phases. In one

phase participants will receive the Exelon Patch; in the other phase, participants will receive a placebo patch (no medication). There is a 4-week break between phases. While patients are guaranteed to be on the active medication during one phase, the study is blinded so no one will know when they are on the active or placebo patch. Participants will be evaluated in-person 6 times during this study.

This study will be recruiting participants throughout 2012 and 2013. Participation in this study is voluntary. For more information on this clinical trial, please call one of the following contacts:

Gina Mamikonyan, MS, Research Coordinator
Eugenia.mamikonyan@uphs.upenn.edu
Phone: (215) 615-3085

Daniel Weintraub, MD, Principal Investigator
daniel.weintraub@uphs.upenn.edu
Phone: (215) 349-8207

Research and News in *Brain Aging*

Blood Biomarkers May Detect Alzheimer’s Disease and Mild Cognitive Impairment

In collaboration with research colleagues at Emory School of Medicine, Washington University in St. Louis, and the Alzheimer’s Disease Neuroimaging Initiative (ADNI), Penn Alzheimer’s researchers are progressing in their efforts to develop a blood test for Alzheimer’s disease (AD). In the study, published online in *Neurology* over the summer, researchers found a group of blood biomarkers that stood up in statistical analyses in three independent groups of patients, providing solid validation.

Penn researchers have been actively working on AD diagnostic tools from spinal fluid biomarkers to imaging scans with good results. This collaborative effort focused on blood and found that levels or amounts of four different biomarkers detected in blood plasma were different in people with Mild Cognitive Impairment or AD when compared to healthy controls. The protein biomarkers included apolipoprotein E, B-type natriuretic peptide, C-reactive protein, and pancreatic polypeptide.

The study was conducted separately at Penn and at Washington University as independent studies and was also included as a part of ADNI. Researchers pooled and compared data sets. Researchers will work to further validate the findings to determine how useful the biomarkers may be in clinical practice and in research settings and to make certain that a blood test for AD, based on these findings, delivers accurate and reliable results consistently.

Study Recruiting: Alzheimer’s Agitation Study

Citalopram for Agitation in Alzheimer’s Disease (CitAD)

Do you care for a person with Alzheimer’s disease who gets easily upset? CitAD is a 9-week treatment study to see if a medication, citalopram (Celexa), is helpful in the treatment of agitation in Alzheimer’s disease. Participant receives study medication. All participants will receive a medical evaluation and study procedures at no charge, and caregivers will receive education and support during the study. If you have any questions, please contact Suzanne DiFilippo, RN, CCRC, at 215-349-8228 or Jamie Czerniakowski, Research Coordinator, at 215-349-8227.

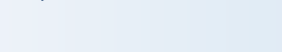
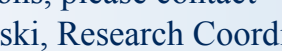
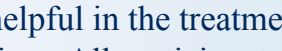
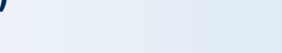
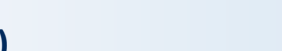
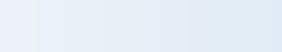
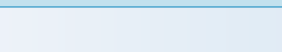
Get involved in research.

Find a Penn Medicine study to enroll in by visiting:

www.pennmedicine.org/health-system/research/

Find special aging studies at:

<http://www.med.upenn.edu/aging/ParticipateinaStudy.shtml>



Latest Research in Aging: The 2012-2013 Visiting Scholars Series

Join us for another semester of insights into the latest research in aging and age related diseases. Registration is requested.

To learn more about speakers and to obtain directions to the locations, visit the IOA website at www.med.upenn.edu/aging.



Dr. Darren Baker, the 2012 recipient of the Joseph A. Pignolo, Sr. Award in Aging Research

January 24, 2013 - Visiting Scholars Series "Physical Activity: The Trek to a Healthy Brain"

Kirk Erickson, PhD
University of Pittsburgh
3:00 to 4:30pm
BRB Auditorium, BRB 2/3

February 27, 2013 - Visiting Scholars Series "The Surprising Heterogeneity in the Hazards of Hospitalization: Diagnosis Matters"

Theodore Iwashyna, MD, PhD
University of Michigan
12:00 to 1:30pm
Smilow Translational Research Center Auditorium
co-sponsored by the Division of General Internal Medicine

March 12, 2013 - Visiting Scholars Series "Aging, Redox Signaling, and the Development of Osteoarthritis"

Richard F. Loeser, Jr., MD
Wake Forest University
1:30 to 2:30pm
Austrian Auditorium, Clinical Research Bldg.

co-sponsored by the Penn Center for Musculoskeletal Disorders

March 21, 2013 - Visiting Scholars Series Topic: Women's Health and Aging

Susan Resnick, PhD
National Institute on Aging
2:30 to 4:00pm
Austrian Auditorium, Clinical Research Bldg.
co-sponsored by the Center for the Study of Sex and Gender in Behavioral Health and the Penn Center for Women's Behavioral Wellness

May 14, 2013 - Visiting Scholars Series Topic: Palliative Care

Joan Teno, MD, MS
Brown University
2:30 to 4:00pm
BRB Auditorium, BRB 2/3
co-sponsored by the Penn Hospice and Palliative Care Program

Select lectures will be available as podcasts. To subscribe, visit www.med.upenn.edu/aging or www.upenn.edu/cgi-bin/itunes/itunes.

Building Awareness *Aging Matters*

Awards and Honors: News from the IOA Fellows and Associate Fellows

Penn Arts and Sciences

Dr. Nancy Bonini, Florence R.C. Murray Professor of Biology and Howard Hughes Medical Institute Investigator was elected to the Institute of Medicine, one of the nation's highest honors in biomedicine.

Perelman School of Medicine

Dr. David Asch, Professor of Medicine, Medical Ethics and Health Policy, Anesthesiology and Critical Care Medicine, Health Care Management, and Operations and Information Management, has been named Executive Director of the new Penn Medicine Center for Innovation. Dr. Asch is stepping down as Executive Director of the Leonard Davis Institute of Health Economics (LDI).

Dr. Shelley Berger, Penn Integrates Knowledge Professor, Daniel S. Och University Professor, and Director of the Epigenetics Program, was elected to the Institute of Medicine and was named a Fellow of the American Association for the Advancement of Science.

Dr. Daniel Polsky, Professor of Medicine and Professor of Health Care Management at Wharton, has been named Executive Director of LDI. Dr. Polsky was Director of Research at LDI since 2008.

Dr. Kevin Volpp, Founding Director of the Center for Health Incentives and Behavioral Economics at LDI, Co-Director of the Penn Medicine Center for Innovation, Director of the Penn-CMU Roybal P30 Center in Behavioral Economics and Health, and Professor of Medicine, was elected to the Institute of Medicine.

Dr. Brian Strom, Executive Vice Dean for Institutional Affairs and George S. Pepper Professor of Public Health and Preventive Medicine, Professor of

Biostatistics and Epidemiology, Medicine, and Pharmacology, has been selected to Chair the Institute of Medicine's Committee on Consequences of Sodium Reduction in Populations.

Dr. H. Lee Sweeney, William Maul Measey Professor, was named inaugural Director of Penn's Center for Orphan Disease Research and Therapy.

Penn Nursing

Dr. Eileen Sullivan-Marx was named Dean of New York University's College of Nursing. Dr. Sullivan-Marx most recently served as Associate Dean for Practice and Community Affairs at Penn School of Nursing.

Dr. Mary Naylor, Marian S. Ware Professor in Gerontology; Director of NewCourtland Center for Transitions and Health, was awarded the Maxwell A. Pollack Award for Productive Aging by the Gerontological Society of America this summer. The award recognizes "instances of practice informed by research and analysis, research that directly improved policy or practice, and distinction in bridging the worlds of research and practice."

Dr. Kathryn Bowles, Professor of Nursing, was selected in the spring for the Barbara J. Lowery DSO Faculty Award by Penn Nursing doctoral students. Dr. Bowles was recognized for advancing nursing science in telehealth, home care, and hospital discharge planning support - and for her mentorship.

Dr. Matthew McHugh, Assistant Professor of Nursing, was chosen to receive the Dean's Award for Undergraduate Scholarly Mentorship for "inspiring his students to strive for success and for developing and facilitating meaningful research collaborations between undergraduate students and faculty."

Catch up with the IOA.

Follow us on:



<http://www.med.upenn.edu/aging/social-media.shtml>



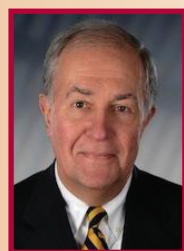
News from the IOA External Advisory Board:
Welcoming New Members

The Institute on Aging External Advisory Board is comprised of dynamic and dedicated individuals from all walks of life who share a common goal – to improve the quality of life for older adults. Meeting several times a year, this body of informed, hands-on volunteer advisers is instrumental in forwarding

the mission of the Institute on Aging. Recently the Board added new members, each bringing a unique perspective on aging research and medicine.

The Institute on Aging is pleased to welcome and highlight two of its new members, Joseph A. Lukach and Jonathan T. Wachtel, who are profiled below.

Joseph A. Lukach, MBA, MSW, MDiv



Mr. Lukach is the newly appointed Chief Executive Officer of The Ralston Center, replacing the late Thomas S. Rittenhouse. In this role, he is responsible for leadership of The Ralston Center, Ralston House, Ralston Network, and Ralston

Mercy-Douglass House, and for shepherding its collective mission to foster services, programs, education and research that address the health and quality of life of older adults.

Prior to joining The Ralston Center, Mr. Lukach has held a number of leadership positions at not-for-profit health care-related institutions. He served as Chief Executive Officer of The Center for Autism in Philadelphia, as Executive Director of Siloam (an HIV/AIDS service organization), as Vice President of Marketing at The Friends Life Care at Home System, and as Director of Social Services at Holy Redeemer Hospital.

Mr. Lukach received an MBA from Temple University, an MSW from the University of Pennsylvania, and a Master of Divinity from St. Charles Seminary in Overbrook, PA.

Mr. Lukach is married to Anita, who works as a Reading Specialist for the School District of Philadelphia. His daughter Alexis graduated in December 2012 with a degree in chemistry from the University of Pennsylvania and will walk in the May 2013 ceremony. She is currently applying to medical school and will begin working at CHOP in January. Joseph,

his son, is a sophomore in the School of Engineering at Villanova University. Dorothy, his stepdaughter, lives in New York City; she is engaged and is working for *In Touch* magazine.

Jonathan T. Wachtel



Mr. Wachtel is an attorney and real estate investor based in Brooklyn, New York. Since 2003, Mr. Wachtel has participated in and sponsored several multifamily residential projects in the greater New York City area. At the same time, Mr.

Wachtel remains a practicing attorney and regularly assists clients in the development, acquisition, sale and financing of various types of property. Prior to entering the real estate business, Mr. Wachtel was in private practice as a real estate attorney at the firm of Kramer, Levin, Naftalis, & Frankel LLP in New York.

Mr. Wachtel graduated in 1996 from the University of Pennsylvania with a BA in International Relations. He attended the London School of Economics where he completed the General Course with a concentration in International Relations. Mr. Wachtel went on to receive a JD in 1999 from Brooklyn Law School where he was a Lisle Merit Scholar and was elected an editor of the *Brooklyn Law Review*.

Mr. Wachtel currently resides in Brooklyn, New York with his wife, Catherine, and his daughter Annabelle. His studies in International Relations have served him well in his personal life, as his wife

Basic Science
Clinical
Education & Policy
Translational

From the Chair...

An amazing job, well done! I want to take a moment and thank fellow External Advisory Board member Dr. P.J. Brennan, his staff, and the many volunteers for all of their work in organizing, coordinating, and operating the 5K for the IOA and Memory Mile Walk in September.

Congratulations to all who participated! The race results are listed on page 3. We all enjoyed the opportunity to get our hearts and minds healthy with some good exercise and the chance to focus on aging and age related diseases. We hope for even greater results in terms of increased awareness of and support for aging research here at Penn and the Institute on Aging.



I was especially pleased to staff the IOA information table and talk to many of the participants about the efforts here at Penn in the areas of basic science and clinical research. We have much to be proud of, and no doubt even more critical findings will come from ongoing research in many different areas of aging.

We on the External Advisory Board fulfill a number of roles, not least of which are advocate and cheerleader. Several of our board members have taken the role of advocate to heart and hosted information sessions and gatherings over the past year on aging, aging research, and age related diseases like Alzheimer's and Parkinson's.

As professionals, we know that one-on-one communication can be key to making an impression and to having one's message heard. As much as we are working to raise awareness, secure financial support, and dispel myths, we are also sharing those personal reasons and stories that led us to join the IOA board and become vocal advocates for aging and age related disease research. Sometimes it's the personal touch that makes the connection and encourages others to join the fight.

O'Brien

Continued from facing page

Catherine hails from Paris, France.

Like many, Jonathan's life has been touched by Alzheimer's disease and Jonathan is committed to learning more and participating in whatever way possible in the battle against Alzheimer's.



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SMILOW CENTER FOR TRANSLATIONAL
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A 3D illustration of a DNA double helix structure, colored in red and blue, with several colorful markers (red, blue, green, purple) placed along it.

For information and to
register, visit [www.med.
upenn.edu/aging](http://www.med.upenn.edu/aging).

Co-sponsored by the Abramson Cancer Center and the Tumor
Biology Program of the Abramson Cancer Center