GOING UP? GOING DOWN?
WHAT LIVING LONGER MEANS FOR AMERICA

The adage says with age comes wisdom. With projections come cost estimates, budgets and funding, public policy decisions, and social programs; in short, plans for the future. As the 21st century progresses, these elements - age, wisdom, projections, public policy - will be even more important and topical as America lives longer.

We know Americans are living longer than ever, enjoying active lives well into their 70s, 80s and beyond. In 1900, life expectancy for the average American was around 49 years. Today, with improvements in healthcare, nutrition and the overall standard of living for most, average life expectancy has increased to around 76 years. Centenarians, people 100 years of age and older, are currently the fastest-growing segment of the American population. The number of Pennsylvanians aged 85 and older continues to experience dramatic growth. Around the corner, the Baby Boomers wait, ready to march into their senior years in massive numbers and with even more years - and healthcare needs and expectations - ahead of them.

On October 26, 2005, leading up to the White House Conference on Aging in December, Penn’s Institute on Aging (IOA) and Leonard Davis Institute of Health Economics (LDI) co-sponsored a half-day symposium, Living Longer and Paying the Price?: Healthcare Costs and Longevity in America. Invited were Mr. William Novelli, Chief Executive Officer of AARP, Mr. Stephen Goss, Chief Actuary of the U.S. Social Security Administration, and Dr. Jay Olshansky, from the University of Illinois at Chicago School of Public Health.

Continued on page 2
to discuss this important issue and share their insights. Dr. Olivia Mitchell, International Foundation of Employee Benefit Plans Professor of Insurance and Risk Management and Director of the Boettner Center for Pensions and Retirement Research at Wharton, added her much sought-after expertise to the symposium’s panel discussion.

In the words of Mr. Novelli, the question mark in the title is the key.

Will this upward trend in life expectancy continue? Or, as Dr. Olshansky cautions, will our modern American lifestyle and outside factors put the brakes on any further increases? What does this mean for the future of Medicare, Medicaid and Social Security, and for federal, state and local governments, employers, individuals and families? As panel moderator Dr. David Asch, Executive Director of LDI, asked, who will be paying the price for the costs associated with such large numbers of people growing older, living longer, and needing more advanced healthcare?

Projections from the U.S. Social Security Administration (SSA) form the basis for much of the planning done by government agencies like Medicare, by state and local agencies and departments of aging, by pension funds and retirement planners, and by health insurance companies and HMOs. The SSA takes the position that longevity will continue, and, while estimates are given in high, medium and low numbers, the arrows are distinctly pointing up.

As one of the main minds behind the projections, Mr. Goss explained that the process looks at the past and the conditions of the past and then examines, given the past, what conditions might be like in the future and how such conditions might contribute to or impact upon life expectancy. Even taking into account the 1918 flu epidemic and 20th century’s multiple armed conflicts, there is no real evidence to suggest that projections should be revised to indicate that life expectancy will plateau or even begin to decline. It is felt that people will eventually respond to campaigns and admonitions from the experts and organizations, like the AARP, and alter their behavior patterns, as was done with smoking in the latter part of the 20th century. While Mr. Goss cautions that projecting is not forecasting, with all that has been accomplished, continued increases in life expectancy among Americans remains plausible. The rate of increase may not be as dramatic as in the 20th century, but given periodic medical advances and discoveries, it is fair to say that longevity will continue its upward trend, albeit on a more modest and gradual track.

Here is where Dr. Olshansky cautions those making the projections. There is a storm ahead which will have devastating and heretofore unseen effects. Putting the issues of negligible senescence and engineering a non-aging society aside for a moment, the very real epidemic of obesity is having a profound impact on American public health – at younger and younger ages.
A WORLD OF OPPORTUNITY OPENS

Identifying biomarkers for Alzheimer’s disease, pinpointing how a lack of health insurance prior to age 65 impacts on one’s health in old age, examining the effect of transitional care programs on elderly patients discharged from hospice, investigating the mechanisms of olfactory dysfunction in aging, measuring the effects of state and federal prescription drug policies on elder health outcomes and medication adherence, identifying resource tools to target sources of caregiver stress and create referrals to supportive social agencies.

Everyday, research projects propose new questions, make new discoveries, and enhance our understanding of the aging process. With this in mind, each year the Institute on Aging (IOA) awards Pilot Grants to support new faculty entering the field of aging and to stimulate multidisciplinary projects that focus the diverse expertise at Penn toward aging research. Through this process the IOA advances the exploration of new directions in the field of aging on a broader scale.

In recognition of this program and its ongoing contributions to aging research, The Bingham Trust has chosen the IOA to receive a $1 million, 5-year matching grant. This grant will allow for the expansion of the IOA’s Pilot Grants program beginning in 2006 to include 4 additional Pilot Grants each year.

“We are thrilled at this development,” says Dr. John Q. Trojanowski, Director of the IOA. “Each year, there are a number of incredibly worthy Pilot Grant proposals which we are unable to fund - studies and projects that target certain understudied segments of the community or wish to utilize different approaches to solve some of the modern riddles in aging. I view the IOA Pilot Grants as a springboard for younger researchers to establish their projects and then, after having gathered some initial results/preliminary data and evidence, further expand their respective research with assistance from larger funding sources like the NIA, the other institutes at the NIH, and other major foundations who specifically support aging research.”

A private foundation, The Bingham Trust approached the IOA and requested additional information about the nature of the Pilot Grants program. “We respect The Bingham Trust’s privacy and are grateful it is permitting us to acknowledge this generous grant,” continues Dr. Trojanowski. “It’s exciting to be able to effectively double our efforts in investigating the full spectrum of aging…healthy brain aging, the physiological and mental aspects of the aging process, quality of care and support interventions, and aging-related disease; it’s the call and letter every researcher dreams of receiving.”

The five-year matching grant will begin in July, 2006, and continue to July, 2010, providing funding for an estimated 20 additional Pilot Grant proposals over the course of the grant.

Continued from cover

Message from the Director

ity and the community-at-large on the forefront of all the political, technological, medical, economic and social developments in the field of aging. To this end, we bring speakers of national importance to campus providing lectures and symposia that are open to the public, free of charge.

You will read in this issue about the recent “Living Longer and Paying the Price?” symposium the IOA hosted, in partnership with the University of Pennsylvania’s Leonard Davis Institute of Health Economics, which focused on the costs associated with current and future trends in longevity - giving a particular look at healthcare, long-term care and public programs - and what all of this means not only for government but for families, employers, and individuals as well.

On May 4, 2006, we are very pleased to be able to present Richard J. Hodes, MD, Director of the National Institute on Aging, as the Sylvan M. Cohen Visiting Scholar at the Institute on Aging Sylvan M. Cohen Annual Retreat with Poster Session. Dr. Hodes’ presentation will surely be timely and of interest to all of us who work and live with the issues.

As you read this issue, I hope that you will be inspired to attend our other collaborative symposia and lectures. Of course, these events are only

Continued on page 4
a small portion of the work we aim to achieve through the IOA.

This issue also reports on our recently awarded Pilot Grants, providing seed support to some of the University’s most innovative and inspiring aging research. This program, as you will discover, has been made even stronger with the five-year matching grant presented to the IOA by The Bingham Trust. You will also learn about some of the groundbreaking research for biomarkers for Alzheimer’s disease and projects in support of healthy brain aging supported by MetLife.

The White House Conference on Aging will be initiating a national conversation about the complex and vast problems we face as a rapidly aging society. I truly believe that the solutions are within our grasp and I look forward everyday to the role that the IOA can play in helping to forge a positive future for all of us.

Please refer to our website, http://www.med.upenn.edu/aging, to learn more about the White House Conference on Aging, aging research at Penn and all IOA activities. We thank you for your continued interest in the IOA and hope to see you at one of our many events this year.

MAKING METHODOLOGIES COMMUNITY-COMPATIBLE:
Translational Medicine for Aging and Aging-Related Diseases: New Center Funded

By Dina Greenberg

IOA Fellow, Christopher M. Clark, MD, is Principal Investigator for a translational research project that could set the stage for clinically meaningful advances in the diagnosis and treatment of Alzheimer’s Disease (AD) and Parkinson’s Disease (PD) with dementia. Clark, Director of the Memory Disorders Clinic and Associate Director of the Penn Alzheimer’s Disease Center, will head up The University of Pennsylvania Center of Excellence for Research on Neurodegenerative Diseases (CERND).

The Center, in partnership with the University of the Sciences in Philadelphia (USP), the Philadelphia Veterans Administration Medical Center, and the Maria de los Santos Health Center, has begun a tightly focused project to evaluate better methods to detect the pathological changes associated with AD and PD with dementia.

The $5 million research grant is underwritten through a portion of Pennsylvania’s share of the national Tobacco Master Settlement Agreement (MSA). Fulfilling the Commonwealth’s mandate to insure MSA funding will be used exclusively for initiatives designed to improve the health status of all of its citizens, Clark explains that through collaboration with these Philadelphia-based health care providers, “this project involves a full spectrum of the population, incorporating community groups of diverse ethnic backgrounds.”

The goal of the investigation is to develop methods that can be used in community health care settings to increase the reliability and efficiency of the detection of neurodegenerative pathology in individuals who are 65 years of age and older and who are at risk for developing AD and PD with dementia. The goal underscores Clark’s contention that moving away from research centers and into the communities where patients and family reside will ultimately provide the most effective model of care for these dementing illnesses.

Through the realization of four specific aims designed to test the hypothesis that biomarkers reflect the onset and progression of dementia, the project will evaluate the ability of a variety of biological markers to detect the presence of neurodegenerative pathology associated with AD and PD, the two most common causes of late-life dementia. “The earlier pathological changes are detected,” says Clark, “the more likely we are to reverse or even prevent cognitive impairment. With AD and PD, it is quite possible that the pathology may start decades before symptoms appear. Ideally, we would like to begin treating patients even before the first symptom of dementia is expressed.”

The longitudinal and cross-sectional studies will include three target groups: those who are cognitively normal, those at high risk for developing...
AD and PD dementia, and those who have the dementing illnesses. The studies include a total of 300 participants. “We will be looking at the illness in various stages,” says Clark, “from absence, to onset, to advanced dementia.”

Researchers will evaluate a variety of established and novel pathologically linked biomarkers using biochemical (CSF levels of phosphorylated-tau and CSF blood and urine F2-isoprostanes); functional (cortical evoked response discrete wavelet composition); anatomical (Magnetic Resonance Imaging (MRI)-defined regional brain atrophy); metabolic (Fluro-D-glucose (FDG)- Positron Emission Tomography (PET)-defined regional brain hypometabolism); and molecular (MRI T1p and Single Photon Emission Computed Tomography (SPECT) amyloid imaging) methods.

Clark describes the methods used in the studies as “a combination of high-tech and low-tech modalities.” While a nuclear imaging technology such as PET – used to assess the metabolic function of nerve cells – is currently quite expensive and not yet widely available outside of research centers, Clark points out that an engineering signal detection technology known as P-300 “a variation of an EEG that creates a fingerprint of how the brain responds electrically to sound” is a minimally invasive test available in many community labs. The project seeks to find the most reliable and cost-effective combination of modalities.

Clark underscores the critical need to enable community-based physicians to more accurately identify individuals with neurodegenerative illness and, specifically, to pinpoint AD. “Most of the roughly four million Americans with AD are evaluated and cared for in their communities. The goal is to make the methodologies [for identifying the most accurate biomarkers] as community-compatible as possible,” says Clark. By providing a blueprint for the most cost-effective combination of tests, Clark foresees this capability “within the grasp of routine, community-based care” in the not-too-distant future.

Clark emphasizes that from a public health perspective, the studies will allow detection of the pathological process in affected individuals at the earliest possible stage; this approach precipitates timely intervention and will also provide objective measures of response to therapy.

The partnership between the University of Pennsylvania and USP initiated by the CERND launches a long-term collaboration in clinical and basic science studies to detect neurodegenerative pathology in a cost-effective manner and, in collaboration with the recently established University of Pennsylvania Marian S. Ware Drug Discovery Program, will evaluate new treatments with the potential to improve the health and welfare of older Pennsylvanians at risk for dementia.
The IOA Announces 2006 Pilot Grant Awards for Research in Aging

The IOA has awarded four grants supporting pilot projects in aging-related research within the School of Medicine and the School of Nursing.

The IOA Pilot Grant program, now in its third year, is a highly valued component of the IOA, serving to support new faculty entering the field of aging and to stimulate multi-disciplinary projects that focus the diverse expertise at the University of Pennsylvania toward aging research. In doing so, the IOA aims to foster the exploration of new directions in the field of aging on a broader scale. This year, the Pilot Grant program awarded three research projects within the School of Medicine and, for the first time, co-sponsored a Pilot Grant with the School of Nursing.

The IOA Pilot Grant program provides initial support in both basic science and clinical areas in aging for investigators engaged in biomedical, epidemiological, behavioral or health services research. A salient goal is to assist Penn faculty in obtaining preliminary data to serve as the basis for grant applications to the NIH or other public or private agencies concerned with aging.

“Peripheral mechanisms of olfactory dysfunction in aging”

Olfactory problems are very common, especially among elderly people, but the underlying mechanisms are poorly understood. Olfactory loss is also an early clinical sign in a number of age-related neurodegenerative diseases including Alzheimer’s. The detection and discrimination power of the olfactory system fundamentally depends on the olfactory receptors expressed in the nose, which comprise the largest gene family in the mammalian genome. Dr. Ma’s project will focus on the peripheral mechanisms underlying smell loss. By combining molecular and physiological approaches, Dr. Ma’s team will study how the expression levels of the olfactory receptors and the sensitivities of the olfactory sensory neurons change with age, two major factors defining the odor detection thresholds. A better understanding will lead to better diagnosis and treatment of smell problems and improved quality of life.

Minghong Ma, PhD, Assistant Professor, Department of Neuroscience, IOA Fellow

“Improving advance care planning for dementia patients and their family members”

Planning for the future will be especially challenging for patients with dementia because they will gradually lose their ability to make decisions for themselves, requiring others, often family members, to make decisions for them. The emotional, physical, and economic impact on family members left to make decisions for their relative can be overwhelming. Few data exist on whether people who develop dementia value advance care planning. Dr. Hirschman’s project will survey...
persons in the early stages of dementia to identify what aspects of advance care planning are most important to them and what information would assist these individuals to navigate discussions about advance care planning. This will enable health care providers and legal professionals to better prepare patients with early stage dementia and their family members to plan for the future.

Karen Hirschman, PhD, MSW, Research Assistant Professor, School of Nursing, IOA Fellow

“Frontotemporal dementia and tissue microarrays: a novel method for identification of pathology-specific molecular probes for diagnostic and therapeutic applications”

FTD is one of the common age-dependent neurodegenerative diseases accounting for up to 20% of patients with presenile dementia. The clinical syndromes of FTD are well-documented. In contrast, there are numerous distinct neuropathological entities associated with the clinical features of FTD. There is a tremendous need for biomarkers that accurately predict pathology. Significant progress has been made in developing small molecule probes for imaging senile plaques, one of the principal pathological hallmarks of Alzheimer’s. Dr. Forman and his team will apply the novel application of tissue microarrays (TMA) to neurodegenerative disease and FTD, to identify molecular probes that could serve as biomarkers to distinguish the clinical syndrome of FTD. The microarrays can be analyzed using a variety of conventional methodologies and allow the simultaneous analysis of up to 1000 tissue samples under identical, standardized conditions on a single microscope slide. Recently, Dr. Forman’s lab developed and validated the use of TMA technology to qualitatively and quantitatively represent the key diagnostic pathological features of a large group of neurodegenerative diseases.

Mark S. Forman, MD, PhD, Assistant Professor, Pathology & Laboratory Medicine, IOA Fellow

“The impact of cost sharing on medication use in elderly patients with multiple chronic conditions”

Prescription drugs are an important component of medical care for all elderly patients; yet almost 25% of Medicare beneficiaries lack drug coverage. Numerous studies suggest that the lack of drug coverage lowers medication usage among the elderly. The new Medicare drug benefit, which begins January 2006, will offer voluntary drug coverage to all Medicare beneficiaries. However, the drug benefit’s cost-sharing structure may create barriers to optimal medication usage as elderly patients, who will face high out-of-pocket drug costs under the new benefit, will be at risk for making poor medication choices. Dr. Doshi’s study will use a private insurance claims dataset of active and retired employees aged 65 years or older to examine the impact of different cost-sharing structures on medication use and adherence among elderly patients with multiple chronic conditions.

Jalpa Doshi, PhD, Research Assistant Professor, General Internal Medicine, IOA Fellow

More information on the IOA Pilot Grant Program and the current grants can be found on the Institute on Aging’s website at www.med.upenn.edu/aging.
On June 8, 2005, over 200 people attended the Institute on Aging’s Sylvan M. Cohen Annual Retreat with Poster Session. The Annual Retreat is named in memory of Sylvan M. Cohen, the founding Chair of the Institute on Aging’s External Advisory Board at the University of Pennsylvania.

Featured in the exciting and diverse program was Sylvan M. Cohen Visiting Scholar, Majd Alwan, PhD, Assistant Professor and Director of Robotics and Eldercare Technologies, Medical Automation Research Center, University of Virginia. Dr. Alwan’s presentation entitled “Technology as a tool in high-touch care” described the many ways in which new technology is making use of sensors and computers to monitor health and prevent falls within the home. By making high-tech care more “high touch” and readily available to people in their homes, Dr. Alwan and his colleagues hope that they will be able to prevent the problems that commonly lead to institutionalization of the elderly and to significantly reduce caregiver burdens.

The IOA was also honored to have secured as Penn presenters Stuart L. Fine, MD, Professor and Chair, Department of Ophthalmology and Director, Scheie Eye Institute, and Joshua L. Dunaief, MD, PhD, Assistant Professor, Ophthalmology.

Dr. Fine presented “Treatment for age-related macular degeneration 2005,” providing an overview of the strides made in the treatment and prevention of macular degeneration. Dr. Dunaief presented “Similarities between age-related macular degeneration and Alzheimer’s disease: Accumulation of iron and amyloid beta.” Through his research, Dr. Dunaief is investigating the mechanisms that cause the death of vision cells and eventually lead to vision loss in age-related macular degeneration.
After the Retreat presentations, Drs. Alwan, Dunaief and Fine and Mrs. Alma Cohen, widow of the late Sylvan Cohen, were able to connect with attendees at the Poster Session. The Poster Session, held in the Hall of Flags, is designed to promote collaboration by providing a collegial setting within which people working in areas of common interest can share their knowledge and expertise. This year’s Session was a great success with 68 posters showcasing the combined efforts of hundreds of Penn clinicians and researchers, as well as a number of community leaders and organizations in the field of aging. The selection of the Poster Session Prize awardees was particularly difficult, but the judges were able to narrow the field down to the following Penn entrants:

**Basic Science:**

**First Prize:** Differential Expression of a regulator of the Antioxidant Response, NRF2, in Alzheimer Disease and Parkinson Disease presented by Kelly Jordan-Sciutto, School of Dental Medicine.

**Second Prize:** Iron overloaded Cp/-Heph/-retinas exhibit increased light damage and thinning of outer nuclear layer presented by Tzvete Dentchev, Department of Ophthalmology.

**Clinical Research:**

**First Prize:** An Image Analysis Protocol for Characterization of Normal and Abnormal Aging via Structural MRI presented by Christos Davatzikos, Department of Radiology.

**Second Prize:** The Capacity to Vote of Persons with Alzheimer’s Disease presented by Jason Karlawish, Department of Medicine.

**Educational Programs and Other Projects:**

**First Prize:** Agitation in dementia: Concept clarification presented by Eun-Hi Kong, School of Nursing.

**Second Prize:** The Roadblocks of Driving Safety and Parkinson’s Disease presented by Rebecca Martine and Heidi Watson, Veterans Affairs Medical Center.

Copies of the speaker presentations are available on the IOA website at www.med.upenn.edu/aging/retreat.shtml.

---

**IOA PROJECT COORDINATORS FORUM 2005-2006**

**June 20th:**
Stella L. Volpe, PhD, RD, LD/N, FACSM, Assistant Director, Integrative Research at The Institute for Diabetes, Obesity, and Metabolism; Associate Professor of Nursing, and Miriam Stirl Term Professor in Nutrition, Obesity and Diabetes, School of Nursing

**July 11th:**
Sangeeta Bhojwani, MSEd, Geriatric Education Center

**August 9th:** Open

If you are interested in presenting your research or project, or would simply like more information about the Forum, please contact the IOA via email at aging@mail.med.upenn.edu or by calling (215) 898-3163.

NOW AVAILABLE AT WWW.LEARNMEDICARE.COM

**Medicare Prescription Drug Coverage: Helping Patients With More Choices and Better Benefits**

This free continuing medical education activity is designed to educate physicians, nurses, and pharmacists on the new Medicare Prescription Drug Coverage implementation procedures and explain how the healthcare practitioner will be affected.

**Accreditation:** The University of Pennsylvania School of Medicine is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

This activity is approved for AMA PRA credit. Also approved for AAFP, ACPE, ANCC, and AOA credit.

This program is supported by an educational grant from Informed Decisions.
Dr. Virgina M.-Y. Lee, John H. Ware 3rd Professor in Alzheimer’s Research and Director, Center for Neurodegenerative Disease Research, and Dr. Mary Naylor, Marian S. Ware Professor in Gerontology, School of Nursing, have been elected as members to The Institute of Medicine of the National Academies. Members are elected through a highly selective process that recognizes people who have made major contributions to the advancement of the medical sciences, health care, and public health. Election is considered one of the highest honors in the fields of medicine and health. New members are elected by current active members and are selected from among candidates who are nominated for their professional achievement and commitment to service.

Dr. Virginia M.-Y. Lee and Dr. Mary Naylor

Dr. Neville Strumpf, Edith Clemmer Steinbright Professor in Gerontology and Director, Center for Gerontologic Nursing Science, has assumed the position of Chair of the University Faculty Senate for 2005-2006. Dr. Strumpf played a key role in developing the November 4th university-wide symposium, “Youth & Aging: Penn Integrates Knowledge Locally and Globally.” This symposium was part of an effort to make visible the faculty’s critical role in implementing President Gutmann’s compact on the integration of knowledge and greater interdisciplinary collaboration. Dr. Mary Naylor, Marian S. Ware Professor in Gerontology, School of Nursing, moderated the lively panel on aging, and Dr. John Trojanowski, Director of the IOA and Co-Director of the Center for Neurodegenerative Disease Research, participated as a panelist. IOA Fellows Drs. Joan Davitt, Lois Evans, Jerry Johnson, and Ann Slaughter also participated as panelists, contributing their perspectives to the discussion.

Dr. Neville Strumpf

Dr. Norman Hecht, William Shippen Jr. Professor of Human Reproduction in the School of Medicine, is the recipient of the 2006 Distinguished Andrologist Award presented by the American Society of Andrology (ASA). The award is presented to a senior investigator who has made outstanding contributions to the progress of andrology, the branch of medicine concerned with male diseases, especially those affecting the male reproductive system. Dr. Hecht has been one of the pioneers in the use of molecular biology to understand the pathways that control spermatogenesis, has served the ASA in a variety of capacities, and has trained many students who have gone on to successful independent careers.

Dr. Norman Hecht

Dr. Richard L. Doty, Director of the University of Pennsylvania Smell and Taste Center since its founding in 1980 and Professor in the Department of Otorhinolaryngology-Head and Neck Surgery, was presented the 2005 Max Mozell Award for Outstanding Achievement in the Chemical Senses. It is the highest honor bestowed by the Association for Chemoreception Sciences, in recogni-
tion of scientific accomplishments that have a major impact on research in the chemical senses. Dr. Doty is also one of six Penn faculty members who have been named Fellows of the American Association for the Advancement of Science, an international non-profit organization and publisher of the journal *Science*. Dr. Doty is widely known for developing the University of Pennsylvania Smell Identification Test, which standardizes the field of human olfactory psychophysics. Among his current research interests are factors that alter olfaction in neurodegenerative diseases.

**Cancer Society Awards: Dr. Norman**

Dr. Sandra Norman, Research Associate Professor of Epidemiology and a Senior Scholar in the Center for Clinical Epidemiology and Biostatistics (CCEB), is the honored recipient of the National American Cancer Society’s (ACS) St. George Award and the Pennsylvania ACS’s Sword of Hope Award. These are the highest service awards bestowed upon a member for distinguished, exemplary, and inspirational leadership. Dr. Norman is the first individual to have received both of these awards together at the ACS’s annual ceremony.

**Distinguished Investigator Award: Dr. Aiken**

Dr. Linda Aiken, Director of the Center for Health Outcomes and Policy Research, Claire M. Fagin Leadership Professor of Nursing, Professor of Sociology, and Senior Fellow at the Leonard Davis Institute of Health Economics, is the 2005 AcademyHealth Distinguished Investigator Awardee. Dr. Aiken and her co-authors were honored by AcademyHealth in 2003 with the Article-of-the-Year Award for their paper in *JAMA* documenting the effect of nursing staffing on surgical mortality. Dr. Aiken founded and directs the International Hospital Outcomes Research Consortium in eight countries.

**David Cogan Award: Dr. Dunaief**

Dr. Joshua L. Dunaief, Assistant Professor of Ophthalmology and Scientist, F. M. Kirby Center for Molecular Ophthalmology at the Scheie Eye Institute, has been identified as the recipient of the 2006 David Cogan Award from the Association for Research in Vision and Ophthalmology, the largest eye research organization in the world. The Cogan Award was established to commemorate the outstanding leadership of David G. Cogan, MD, and is intended to recognize a young researcher who is 40 years of age or younger at the time of nomination, who has made important and worthwhile contributions to research in ophthalmology or visual science that are directly related to disorders of the human eye or visual system, and who shows substantial promise for the future.

**PENN Medicine Award of Excellence: Dr. Polsky**

Dr. Daniel Polsky, Research Associate Professor of Medicine, Division of General and Internal Medicine and Associate Professor of Health Care Systems at Wharton, received the Samuel Martin Health Evaluation Sciences Research Award, one of sixteen Penn Medicine 2005 Awards of Excellence. Dr. Polsky is currently the principal investigator of two RO1s, including one funded by the NIA that is examining how access to Medicare at 65 for the previously uninsured has a different effect on health service use and health outcomes compared to the previously insured. This project received its original funding from an IOA Pilot Grant in 2003.

**Grants for Oral Cancer Studies: Dr. Feldman**

Dr. Roy Feldman, Adjunct Professor of Preventive and Restorative Sciences, SDM and Chief, Dental Service, Veterans Affairs Medical Center, has been awarded two grants to conduct oral cancer studies in diagnostics and in preventive therapy. He will be evaluating OraTest® in a Phase III clinical trial comparing the sensitivity and specificity of OraTest® in patients at high risk for oral cancer. He will also be conducting a randomized Phase IIb Trial of Bowman Birk Inhibitor Concentrate and Oral Leukoplakia. Dr. Feldman has also coordinated two major symposia this Fall: the Federal Services “Basic and Clinical Science Symposium” for the American Academy of Periodontology, held on September 25, 2005, and the “Dental Hygiene in the Age of Systemic Disease Symposium” for the NorthEast Society of Periodontology, held on October 28, 2005.

continued on page 12
The Institute on Aging External Advisory Board is comprised of 16 dynamic and dedicated individuals from all walks of life who share a common goal – to improve the quality of life for elderly people. Meeting three times a year, this body of informed, hands-on volunteer advisers is instrumental in forwarding the mission of the Institute on Aging. The Institute on Aging is honored to include Christine K. Cassel, MD, among the External Advisory Board.

Christine K. Cassel, MD

Who better to have on board ‘the board’ than an internationally-renowned gerontologist with extensive experience and expertise in teaching, practice, and theory, the editor of the seminal text in geriatric education, and a highly sought-after professional in medical ethics and quality of clinical care who is working for improvements in geriatric medicine, geriatric education, the recruitment of geriatric practitioners, and healthcare for the elderly?

Dr. Christine Cassel, President and CEO of the American Board of Internal Medicine (ABIM), says she has spent her whole life as a geriatrician. She finds geriatrics most rewarding because of the opportunity to genuinely help people sort through the many dimensions of their medical care and confront the new, daily challenges they may encounter as they age. As she describes it, geriatrics offers a powerful human dimension and intellectual challenge.

Trained as internist at the University of California, San Francisco, Dr. Cassel says she found that at morning rounds, the focus would be on reviewing and discussing the younger patients who had rare diseases or disorders that were “unusual and meaty and interesting to test one’s skills.”

However, she and others spent the day actually treating mostly elderly patients, who had relatively common diseases rarely brought up during rounds. In Dr. Cassel’s words, “I just felt a strong sense of ‘what’s wrong with this picture?’”

Coincidentally, geriatrics was just being born in the U.S.; it had already been established and accepted in Europe as a medical specialty. The Veterans Administration was supporting a few fellowship programs. Dr. Cassel characterizes her choice of geriatrics as a reflection of the mix of her innate practicality with a desire to be part of something new, something just beginning as a medical field. Treating the whole patient, and not focusing just on one organ system, strongly appealed to her.

For Dr. Cassel, being involved with the IOA at Penn places her at the forefront of the most exciting advances of basic science; she calls it a ‘win-win situation.’ A former dean of the Oregon Health and Sciences University in Portland, serving on the External Advisory Board and as an Adjunct Professor allows her to stay connected with what’s happening in geriatrics and with the continual research developments and work being

continued from page 11

AWARDS AND HONORS

Award for Distinguished Contributions: Dr. Spencer

Dr. Margaret Beale Spencer, GSE Board of Overseers Professor of Applied Psychology and Human Development in the Graduate School of Education and Professor of Psychology in the Psychology Department (SAS), is the 2005 recipient of the American Psychology Association (APA) Award for Distinguished Contributions to Psychology in the Public Interest. Dr. Spencer was recognized for her “seminal role in bridging and extending basic theories of human development to foster innovative research that acknowledges culture and assesses context in the field of developmental psychology.” She has been instrumental in integrating developmental principles with assessments of context characteristics and enhancing our understanding of resiliency and vulnerability.

Lindback Foundation Junior Faculty Award: Dr. Cuellar

Dr. Norma Cuellar, Assistant Professor in the Foundational Sciences and Health Systems Division at the School of Nursing, was awarded the Minority Junior Faculty Award by the Christian R. & Mary F. Lindback Foundation. The accompanying grant is in support of her project on the use of alternative medicine (valerian) for the sleep disorder Restless Leg Syndrome (RLS), a disorder which is characterized by unpleasant sensations in the legs. Dr. Cuellar, a native of Mississippi, has focused the majority of her studies in the older adult population and is currently working on three RLS research projects. She has over 15 years of experience as a nurse educator, teaching adult health nursing, leadership,

continued on page 13
done at the medical school level. Along with that comes the opportunity to play a role at Penn and the IOA, which, in her words, is one of the most successful Institutes on Aging in the country.

When asked about the relevance of an organization like the IOA and the potentially limited appeal of its name, Dr. Cassel jumps right in. “It is relevant, highly relevant. The more that we understand the research base of how we age and what happens, the more we can make aging a more positive experience for everyone. I understand that aging is scary to people,” says Dr. Cassel. “But, as Mark Twain said, it’s better than the alternative. I would like to see us embrace a multigenerational society and really see the success story of living as long as we do. I’m a practical person. As a doctor, I see and have seen us spend so much on things which help the lives or prolong the lives of a few. I’d like to see us also invest in things that make a genuine difference and improve the quality of life for the elderly - where quality of life can be improved.” Projects like those funded through the IOA’s Pilot Grant research funding program are prime examples of the impact the IOA can have and of the type of beneficial investigations that are needed.

Recent past president of the American Federation of Aging Research, Dr. Cassel faced questions about changing that organization’s name. “There are some questionable individuals out there doing so-called aging research because there is such a demand or drive for a pill or a ‘cure for aging’ among America’s Baby Boomers; it only reinforces the emphasis on looking for a ‘cure.’ What is more important is the legitimate need for science-based organizations, like the IOA at Penn, that are investigating aging, conducting research, and educating society,” explains Dr. Cassel.

A member of the prestigious Institute of Medicine (IOM), IOM Governing Council and Association of American Physicians, Dr. Cassel was formerly Chair of the Department of Geriatrics and Adult Development, and Professor of Geriatrics and Medicine at Mount Sinai School of Medicine in New York City. Among her many professional associations, she is a member of the Science Advisory Board at the Alliance for Aging Research, serves on the JAMA Oversight Committee for the American Medical Association and on the Advisory Committee to the Director of the NIH, and sits on the Board of Directors at the Greenwall Foundation, which supports work in bioethics. Dr. Cassel has authored or co-authored over 150 articles, served as editor or co-editor for numerous texts and publications and is the author of Medicare Matters: What Geriatric Medicine Can Teach American Health Care.

When asked about her approach to being an IOA External Advisory Board member, Dr. Cassel feels her role is not to be overly hands-on or intrusive. The most important things she can do are to be available and to serve as a resident expert or sounding board when needed by the IOA and its Fellows. “I am here to listen, to advise, and to encourage,” states Dr. Cassel. “And I’m happy to be of service.”

Sarah H. Kagan, PhD, RN, Associate Professor of Gerontological Nursing, has been selected as the 2005 International Award recipient of the Marie Hippensteel Lingeman Award for Excellence in Nursing Practice by the Honor Society of Nursing, Sigma Theta Tau International. The award recognizes extraordinary excellence in nursing practice and is one of the seven Founders Awards, each named for one of the six founding nurses of the society and the director of nursing at Indiana University for their insights in 1922 that advanced scholarship, leadership, research and practice. It will be presented to Dr. Kagan at the Honor Society of Nursing, Sigma Theta Tau International’s 38th Biennial Convention, November 12-16, 2005, in Indianapolis.

Dr. Christopher Coleman, Assistant Professor of Nursing, has been appointed by Mayor John Street to the Philadelphia Ryan White Title I Council for the Office of HIV Planning for 2005-2007. The Council engages in community health planning to prioritize services and allocate funding in an effort to optimize the care for people with HIV/AIDS in the Philadelphia Metropolitan Area. He also serves on the Board of Directors for the National Association of HIV

---

**AWARDS AND HONORS**

---

research, and gerontology and recently volunteered in the Gulf Coast areas devastated by Hurricane Katrina.

---

**Excellence in Nursing Practice: Dr. Kagan**

---

**Mayoral Appointee: Dr. Coleman**

---

**continued from page 12**

---

**continued on page 14**
It may seem odd to discuss the health of children in relation to aging. However, medical advances of the last century have shown that the seeds of many diseases are planted in one’s youth. For the first time ever, children are being diagnosed with adult Type II diabetes. What’s more, the cardiovascular systems of these children with Type II diabetes are equivalent to those of middle-aged men (41-59). According to studies published in *JAMA* in 2002, which tracked obesity for girls and boys ages 12-17 from 1966 to 2000, significant increases in obesity are evident for all children, with the largest jumps among African-American and Latino children.

Such early encounters with serious disease cannot be discounted when speaking of life expectancy and the healthcare needs of the future. The children of 1966-2000 are the older adults of the coming decades. To illustrate his point, Dr. Olshansky presented a color-coded map of the United States, which, slide by slide, chronicled the sweeping rates of obesity across the country from 1985 to 2003. In 1985, no state had an obesity rate higher than 14% among adults; 8 states ranked in the 10-14% category. In 2003, 35 states had an obesity rate among adults of 20% of the population or higher; 4 of those states had a rate of 25% or higher.

Obesity and its related diseases compromise one’s quality of life and even productivity in later years. As Dr. Olshansky and Mr. Novelli each point out, obesity is something we know how to prevent; we just need to do it.

While Mr. Goss and the SSA are projecting a modest continuation of American longevity, and nods have been given to the issue of obesity, with the current concerns about avian flu, the rise and re-emergence of infectious diseases, increasingly antibiotic-resistant microbes, the impact of global warming and the scope of natural disasters, Dr. Olshansky feels that these potent forces along with obesity may possibly lead to a decline rather than a simple slowing of the pace of life expectancy.

For Mr. Novelli, taking all of this into account, the issue is not how long we will live but how. His focus is on public policy and whether the American population can genuinely afford to grow older and do so without passing the bills for its aging and care onto its children and grandchildren. He urges that we must address the financial struggle that will occur between retirees and non-retirees now. In his words, can we really live longer and not pay the price? America must move to reinvent its current systems and alternatives for caring for the elderly. Rising medical costs are hurting Medicaid and Medicare, critical safety nets for the elderly and disabled in our country, and are impacting on the healthcare system in general. It is important to note, says Mr. Novelli, that rising healthcare costs are driving up the costs of Medicare and Medicaid, not vice versa. For all the challenge that is ascribed to the future of Social Security, Mr. Goss offers that healthcare and the needs of Medicare and Medicaid are the real challenges for the future.
By raising awareness, we can show how far science has taken us and how much more we can still do,” says Dr. Jason Karlawish, Assistant Professor, Department of Medicine, Division of Geriatrics; Associate Director, Memory Disorders Clinic; Director, Alzheimer’s Disease Center’s Education and Information Transfer Core, and IOA Fellow. “Specifically, we need to get the word out that the road to discovering what truly will ensure a lifetime of brain health will go only as far as Americans are willing to take it through their participation in research. In short, this is a call to action to move diagnosis, treatment, and, ultimately, prevention of late life cognitive disorders forward.”

With a recent, generous grant from MetLife Foundation, the University of Pennsylvania’s Institute on Aging (IOA) and Alzheimer’s Disease Center (ADC) – in collaboration with Drs. John Morris and Tom Meuser of the ADC at Washington University School of Medicine, Drs. Ron Petersen and Glenn Smith of the ADC at the Mayo Clinic, and Drs. Carl Cotman and Ruth Mulnard of the ADC at the University of California, Irvine – will be able to do just that. Drs. John Trojanowski, Jason Karlawish, and Kathy Jedrziewski and Carol Edwards, Associate Director of the Penn ADC’s Education and Information Transfer Core, will lead efforts at Penn.

The $300,000 grant provides funding for the production and piloting of two educational modules, consisting of a video and accompanying toolkit, each addressing an aspect of aging and cognitive function. Taped before a live audience, the videos will blend featured presenters with statistics and facts about each topic and will include audience members’ questions, concerns, and/or relating of personal experiences. With additional funding, the videos and kits will be distributed to each of the 34 Alzheimer’s Disease Centers, funded by the National Institute on Aging (NIA), and their respective Education and Information Transfer Cores across the U.S.

“This is a fantastic opportunity to engage the community in learning what we know and what we still need to discover in our efforts to improve how we diagnose and treat Alzheimer’s disease and maximize our brain health,” says Dr. Karlawish.

The Mayo Clinic and Washington University Alzheimer’s Disease Centers (ADCs) will develop the “Alzheimer’s Disease: What Do We Know and Where Research Can Take Us” module; this module will include a discussion of mild cognitive impairment and its distinction from normal aging and overt dementia. Penn will then partner with the University of California, Irvine ADC to work on the module “Healthy Brain Aging: What Do We Know and Where Research Can Take Us.”
If we are and if we want to live longer, then we must find ways of paying the price for such longevity - and for the accompanying care and needs. Mr. Novelli and AARP propose a ‘blueprint for the future,’ called “Reimagining America,” that would mobilize government, private organizations, and individuals to collaborate and not just plan for the future but take action. As Dr. John Trojanowski, Director of the IOA, mentions in his remarks, “if people had stopped when the iron lung had been invented and said we’ve done enough for polio, what a horrific world we would be living in today.” “We have to make the future,” Mr. Novelli challenges.

Included in the plan is the need to harness the efficiency, savings and safety of information technology, as IT has been shown to reduce errors by as much as 90%. Also key is the promotion of health and healthy behavior from birth onward, emphasizing not only a preventive model of healthcare but also exercise and nutrition. “If you have a moving part,” says Mr. Novelli, “move it.”

The blueprint includes medical malpractice reform to stem rising costs, fully supported-NIH research, reducing the costs of prescription drugs to maintain people’s independence and ability to work, and providing access to the healthcare system for all, including the 45 million+ who currently lack health insurance. Attention is given to improving the current retirement system and securing Social Security, as well as creating more livable communities that accommodate the needs of older people. As Mr. Novelli asserts, staying home costs less, and it’s where nearly everyone would rather be.

Mr. Novelli stresses that there is more to paying the price for our added years than rejuvenating and rethinking current systems. We will also have to let go of the traditional definition and view of retirement. Leaving the workforce at 65 is no longer a viable option for many Americans. In Dr. Mitchell’s opinion, retirement really has no meaning anymore. The definition of ‘elderly’ has already begun to change; with that change comes the need to change the expectations of workers and the expectations for what government should be doing. Government can revise conflicting policies and tax laws, but individuals must be encouraged to begin planning for living longer in their youth and to take actions to develop and maintain the skill sets they will need to remain active and involved in the workplace, however it may change over the years.

The sheer act of living longer is creating social change by creating an unprecedented senior population. It is precisely through social change that we can begin to address the resulting ‘price’ and accompanying issues that will arise from the very act of living longer. Getting back to the importance of the question mark, ultimately it seems that the question must be not only how long can and will we live but how well will we live and what are we prepared to do to live as well as we can.

Interested in the conversation? An unabridged version of this article and streaming video of the speakers are available at www.med.upenn.edu/aging/HealthcareCosts.shtml. You will need RealPlayer to view the video. You can also obtain a copy of the AARP’s “Reimagining America” at www.aarp.org/issues/reimagining_america.html.