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## Institute on Aging Moves to Millmont

On May 17, 2005, the Institute on Aging officially changed its location. We are now located at 1023 Millmont Street, next to the Millmont Shops. The Institute will share the building with several members of the psychology department.

## Encore Aging 101 Presentation

Due to the overwhelming popularity of the spring 2005 Aging 101 series, an encore presentation of “Physical Activity, Aging, and Independent Living” will take place on July 7, 2005 at 7 p.m. at the ACAC location in Albemarle Square Shopping Center. Drs. Arthur Weltman and Glenn Gaesser, both exercise physiologists at the University of Virginia, will discuss their research including cardiovascular and muscular fitness exercise options and interventions for older persons. This community lecture series intended for the general public will consist of two lectures, a group question and answer session, and a catered reception provided by Whole Foods Market during which speakers can answer individual questions. There is no admission fee, but you must RSVP by e-mail to [uvaging@virginia.edu](mailto:uvaging@virginia.edu) or by phone to 243-5695. Seating is limited. Free parking is available at ACAC.

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## Exercise Conference Held in April

On April 26, 2005, the Institute on Aging and the Curry School of Education presented “Research on Exercise and Healthy Aging,” (co-sponsored by the UVa School of Medicine Office of Continuing Medical Education) a half-day symposium offering continuing medical education credit in Jordan Hall Auditorium in the UVa Medical Complex. Featured speakers included Dr. Steven Blair of The Cooper Institute, Dr. William Evans of the University of Arkansas for Medical Sciences, and Dr. Edward McAuley of the Beckman Institute for Advanced Science and Technology and the University of Illinois. Dr. Blair spoke on the importance of physical activity and cardiorespiratory fitness in aging, Dr. Evans covered the topic of sarcopenia, and Dr. McAuley discussed physical activity and aging in terms of adherence, function, and quality of life. The symposium drew an audience of 200 that included physicians, physical therapists, graduate and undergraduate students, as well as members of the local community.

## Dresser to Speak at UVA in October

On October 11, 2005, Professor Rebecca Dresser will give a lecture discussing the different legal and ethical approaches to treatment decisions for dementia patients at 4:30 p.m. in Caplin Pavilion at the University of Virginia School of Law. Ms. Dresser is the Daniel Noyes Kirby Professor of Law and Professor of Ethics in Medicine at Washington University in St. Louis. Since 1983, she has taught both medical and law students about legal and ethical issues in end-of-life care, biomedical research, genetics, assisted reproduction, and related topics. Previously, Ms. Dresser taught at Baylor College of Medicine and Case Western Reserve University.

## Vaupel to Speak in Rotunda

On October 27, 2005, Dr. James Vaupel will give a lecture titled "How Long Will We Live and How Will We Live" at 3:30 p.m. in the Dome Room of the Rotunda. A reception will follow in the Lower West Oval Room. Dr. Vaupel is the founding director of the Max Planck Institute for Demographic Research, and currently conducts research in the following areas: biodemography, public policy, survival and longevity, mathematical and statistical methods of population analysis, and paleodemography.

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## Kandel Fills Old Cabell

On Friday, January 28, Nobel Laureate Dr. Eric Kandel, winner of the 2000 Nobel Prize in Physiology or Medicine for his work mapping the neural circuitry of aplysia, a giant marine snail, gave a stimulating lecture discussing the molecular biology of memory and age-related memory disorders. The lecture drew an overwhelming crowd of 1000, filling Old Cabell Hall to capacity. Overflow was sent to a large auditorium in nearby Wilson Hall. Dr. Kandel is University Professor at the Center for Neurobiology and Behavior of Columbia University College of Physicians and Surgeons, and his lab is currently studying implicit and explicit memory storage. This lecture, part of the Nobel Laureate Lecture Series, was sponsored by the Institute on Aging and the Office of the Vice President for Research and Graduate Studies.

## Spring 2005 Aging 101 Series

The Institute on Aging completed another successful Aging 101 community lecture series this spring. All lectures were held at the Holiday Inn at 1901 Emmet Street and each was well-attended. On March 8, Drs. Arthur Weltman and Glenn Gaesser discussed cardiovascular and muscular fitness exercise options and interventions for older persons. On March 22, Drs. Majd Alwan and John Lach described the passive monitoring technologies they have developed to assist the elderly, the results of their research, and prospects for mass adaptation of these technologies. On April 5, Professors Thomas Hafemeister and Thomas White addressed the nature, prevalence, indicators and cause of elder abuse, and discussed society's response. The Institute on Aging will sponsor its third Aging 101 series this fall. Potential topics to be covered include the biology of aging, driving and aging issues, and neurological issues associated with aging. An announcement will be made as soon as a location for this event has been determined.

## Deary Visit Well-Received

Dr. Ian Deary, professor of psychology at the University of Edinburgh, spoke to an audience of 65 in the Old Medical School Auditorium at UVa on March 18, 2005. Dr. Deary discussed the predictive value of childhood IQs on functioning late in life. His current research takes advantage of the fact that every Scottish schoolchild born in 1921 who attended school on the 1st of June, 1932, took The Moray House Test, a test of mental ability. 87,498 children participated in this intelligence testing, called the 'Scottish Mental Survey' (SMS) of 1932. Dr. Deary summarized the results of the testing and included photographs of individuals participating in the testing process in his presentation. For the first time, researchers were able to collect information about mental abilities in both early and late life. Factors that are being considered in Dr. Deary's research on cognitive aging include health, employment, level of education and genetic factors. This lecture was part of the Distinguished Speaker Series sponsored by the Institute on Aging.

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## Community Research Funding Awarded

The Institute on Aging at the University of Virginia and the Jefferson Area Board for Aging (JABA) announce the selection of six individuals to receive funding for collaborative, community-based research in the field of aging. Dr. Harriet Glosoff, Associate Professor and Director of the Counselor Education Program, will conduct a project that seeks to understand the mental health needs of seniors and their caregivers, identify existing mental health services, and address ways to fill gaps in available services while increasing awareness among the community's residents. Dr. James Roche, Associate Professor of Medicine, will conduct a collaborative project between UVa Medical School faculty, the Albemarle County Department of Social Services (DSS) and the Community Partnership for Improved Long-term Care (the Partnership) that will gather information that can be used to maximize the effectiveness of elder abuse prevention efforts in assisted living facilities and nursing homes in Region Ten. Professors William Morrish and David Phillips in the School of Architecture will focus on the location of problems and opportunities for the aging population in the Charlottesville-Albemarle urban area.

The Geographic Information Systems class taught by Professor Phillips will conduct a mapping project that incorporates social, economic, and cultural elements into the region served by the Jefferson Area Board for Aging (JABA). Richard Bonnie, John S. Battle Professor of Law, plans to conduct a study assessing voting behavior in long term care facilities. In this study, law students will complete voting practice surveys of 30 long term care facilities in the Charlottesville-Albemarle area. In a second study, Professor Bonnie seeks to identify the unmet legal needs experienced by the elderly in the Thomas Jefferson Planning District. Students will interview 150-200 local seniors regarding their legal problems and needs. Finally, Dr. Thomas Hafemeister in the School of Law will undertake a line of research that addresses the deficiency of research on financial abuse of the elderly and develop a literature base and suitable research methodology, and expand the researcher's network of relevant community contacts. The Institute on Aging hopes to hold a community forum this fall to present information from the first set of university-community funded projects and discuss the potential for future projects.

## Pilot Project Program

One of the primary goals of the Institute on Aging is to stimulate research related to issues of aging, and to encourage the formation of collaborative teams to pursue innovative approaches to topics relevant to later life. In support of this goal, the Institute has so far had two funding cycles for pilot projects that have a reasonable likelihood of generating data that will result in successful applications for external funding. The pilot projects are awarded for one year with a budget of up to \$30,000. In the first funding cycle, six individuals received awards. Barry Condron in the Department of Biology has completed 100% of the data collection proposed in his application, *In Vivo Monitoring of Taupathy in Fruit Flies*, and he has submitted a proposal to the National Institute of Mental Health (NIMH). Chad Dodson in the Department of Psychology, who is assessing the effects of age on monitoring and regulating memory accuracy, has completed 75% of his data collection and plans to submit a grant application to the National Institutes of Health (NIH) in the fall of 2005. John Lach in the Department of Computer Engineering, who is conducting research on a wearable sensor system for portable, non-invasive collection of physiological and functional data, has collected a significant amount of data and written a proposal to the International Essential Tremor Foundation using that data. In addition to the IETF proposal, Lach plans to submit proposals to NIH this summer. Bernhard Maier in the Department of Neuroscience, who is studying modulation of the mammalian life span by a short isoform of P53, reports that 75% of his data collection is complete and that he submitted an application for grant support from NIH on June 1, 2005.

Dr. Carol Manning in the Department of Neurology, who is assessing changes in brain biochemical activity and cognition in mild cognitive impairment, reports that 80% of the data has been collected, and she hopes to submit an application to NIH this fall or in early 2006. Bethany Teachman of the Department of Psychology, who is currently studying subjective cognitive complaints as a predictor of anxiety and obsessional thinking in older populations, reports that data collection is complete and two papers are partially written from the data, with a third planned for the summer.

In January 2005, the Institute awarded its second cycle of funding to four pilot research projects selected by its advisory board. Dr. Majd Alwan of the Medical Automation Research Center is currently assessing alternative non-invasive methods of detecting pressure ulcers in persons with high melanin concentrations. Dr. James Bennett, Jr. in the Department of Neurology has received support to investigate the feasibility of mitochondrial gene replacement therapy as a specific treatment for two major degenerative conditions of aging: neurodegeneration in the brain and myopathy of the cardiac muscle. Dr. Jack Knight-Scott in the Department of Biomedical Engineering is testing a new method for separating the contributions of cerebral spinal fluid (CSF) and brain tissue water in the human brain. Lastly, Dr. Jeffrey Smith in the Department of Biochemistry and Molecular Genetics is utilizing a simple yeast model of calorie restriction to rapidly identify novel longevity genes and genetic pathways that contribute to the beneficial life span effects of this dietary regimen.

## Dishman Speaks in Jordan Hall

Eric Dishman, Principal Engineer and Senior Research Scientist at Intel Corporation, spoke to an audience of 50 university faculty, staff and students, and members of the local community on February 3 in the Jordan Hall Conference Center Auditorium. Mr. Dishman is a nationally known speaker on the topics of aging and home health care technologies, and currently directs several consumer-oriented healthcare efforts at Intel, including the "Proactive Health" research lab to develop home health technologies for seniors and their families who are struggling with cognitive decline, cancer, and cardiovascular disease.

## Siedlecki Receives Aging Award

The Institute on Aging is proud to announce that Karen Siedlecki, a fourth year graduate student in the department of psychology pursuing her Ph.D. in the cognitive area, has received the Virginia Association on Aging Outstanding Gerontology Doctoral Student Scholarship Award for this year. Congratulations Karen! Karen's current research interest involves investigating the effects of non-cognitive factors on the age-cognition decline.

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## Salthouse Receives NIA Grant

Dr. Timothy Salthouse, Director of the Institute on Aging and Brown-Forman Professor of Psychology, was recently awarded a MERIT grant from the National Institute on Aging to investigate the hypothesis that age-related decline for some cognitive variables can be detected early in adulthood when sensitive assessment procedures are used. The proposed research will examine relations among different components of change in a variety of cognitive variables at different periods in adulthood. Lifestyle variables such as level of cognitive or physical activity are of particular interest, but relations of change in different cognitive variables to other individual difference characteristics such as gender, education, self-rated health, depression, and dimensions of personality will also be examined. Identification of the characteristics of people associated with differential amounts of cognitive decline can be expected to enhance understanding of the causes of age-related cognitive change.

## Swerdlow Receives NIA Grant

In the spring of 2005, Dr. Russell Swerdlow, Associate Professor of Neurology, was awarded a grant from the National Institute on Aging. His research is centered on the idea that mitochondria may play a role in nervous system senescence and late-onset neurodegenerative disease. Data suggest relevant mechanisms may include inadequate electron transport chain (ETC) function and/or ETC-derived reactive oxygen species (ROS) production. The underlying basis for these ETC-associated events is, however, unknown. This proposal will determine whether ETC gene polymorphisms influence ETC activity and ROS production. How mitochondrial DNA and nuclear-derived ETC protein subunits mesh may determine whether an individual's nervous system ages successfully or not. This work could help explain why complex genetic diseases are sometimes associated with mitochondrial dysfunction.

## Alwan Submits Aging-Related Proposal

Dr. Majd Alwan of the Medical Automation Research Center recently submitted a proposal to investigate the role of unobtrusive remote monitoring technology on activities of daily living of older adults in their own apartments in congregate senior living setting. He plans to examine the impact of utilizing the monitoring data coupled with professional caregiver decision-making and interventions on the health and quality of life outcomes of participating older adult residents. The specific aim of the study is to evaluate the effectiveness of monitoring technology in care coordination on the quality of life of monitored older adults and the quality of care delivered, as reflected by the health related quality of life of monitored residents in senior living apartments.

## Elder Abuse Grant Application Submitted

An interdisciplinary group of professors at UVa submitted a grant application to NIH in mid-June. The principal investigator for this submission is Professor Thomas Guterbock, Director of the Center for Survey Research. Co-PIs include Professor Richard Bonnie, Dr. Donna Chen, Dr. Jonathan Evans, Professor Thomas Hafemeister, and Dr. Shelly Jackson. The project coordinator is Lora Hamp, J.D., M.S. The proposed work is meant to bring the research community closer to a comprehensive epidemiological assessment of the prevalence of elder mistreatment in the general population. The group plans to develop and test in one local community the tools and procedures needed for a population-based survey of elder mistreatment using a self-administered instrument. The study population will be all adults, age 60 and older, living in telephone households in the Thomas Jefferson Health District, which includes the City of Charlottesville and five surrounding counties. The group plans to use random-digit dialing to reach a sample of households in the study area by telephone. The telephone interview will screen for any adults age 60 or older; inventory all adults 60+ in the household, including their demographic characteristics, functional status (IADLs); and recent contacts with health care providers, randomly pick an adult to participate in the study, screen that adult for cognitive function, and if qualified, recruit the adult to receive a study questionnaire and return it. From the mail-back results, they expect to be able to estimate, for cognitively intact adults (60+) living in telephone households: the prevalence of abuse, including physical, psychological, and sexual abuse, the prevalence of neglect by a trusted other, the prevalence of financial exploitation, and key risk factors for each of these forms of mistreatment. The work on the household segment of the population will be designed so that, if a complementary study based on a sampling of health care providers and their patients were carried out, overall estimates of the prevalence of elder mistreatment could ultimately be generated for the entire elder population of the study region.