

AGING Notes

UNIVERSITY OF WISCONSIN INSTITUTE ON AGING

FALL/WINTER 2005



Training Grant Supports New Researchers

A major goal of the Institute on Aging is to further multidisciplinary research in aging. One important aspect of accomplishing this goal is to train new researchers in the field of aging.

The Biology of Aging and Age-Related Diseases Training Grant, established in 1991 and funded by the National Institute on Aging, is a multidisciplinary program that provides annual support for four predoctoral students and four postdoctoral fellows. These individuals are currently working on important research topics at cellular and molecular levels in widely diverse areas such as Alzheimer's Disease, breast cancer, prostate cancer, immune response, and caloric restriction. Faculty mentors associated with

the grant come from a wide range of departments including medicine, biochemistry, pathology, pharmacology, ophthalmology, genetics, nutritional sciences, clinical oncology, veterinary medicine, surgery, and animal health and biomedical sciences.

The training grant was directed by Dr. Richard Weindruch, Professor, Department of Medicine, until May of 2005, when Dr. Sanjay Asthana became the project director. Dr. Asthana is an associate professor and head of the Section of Geriatrics and Gerontology in the Department of Medicine. He also directs the Geriatric Research, Education and Clinical Center at the Middleton VA Hospital and is an associate director of the Wisconsin Alzheimer's Institute.

"One of the sometimes overlooked features of the training grant is a travel stipend," said Dr. Anderson.

"The stipend permits trainees



to attend international scientific conferences in their area of research. I personally have found

this to be an invaluable aspect of the program. Often in the scientific arena, things are moving so fast that by the time the data reaches publication it is old news. In order to stay current in research, you need to be able to meet with other researchers and discuss current concepts and techniques. This ideology is also evident on a local level in the seminar series run through the Institute on Aging where researchers in the field of aging meet regularly to present their work and discuss current theories."

Working with Dr. Weindruch and having the support of Institute on Aging affiliates has enabled Dr. Anderson to advance her knowledge and scientific career by having exposure to cutting-edge programs of research across numerous subfields of aging.

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Trainee Profiles

Rozalyn Anderson joined the training grant as a postdoctoral fellow in July 2003. She works in Dr. Richard Weindruch's laboratory researching how calorie restriction (CR) slows aging and the onset of age-related disease. She previously completed a postdoctoral fellowship at Harvard Medical School where she also studied how CR extends longevity.

Training Grant Supports New Researchers

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Siobhan Wilson became a predoctoral trainee in January 2002. She has Bachelors degrees in Biology and Violin Performance from Oberlin College and Conservatory, and a Masters degree in Pathology from the University of Cambridge (England). She is currently in her 7th year of the M.D./Ph.D. program at the UW-Madison and will be completing her Ph.D. this spring, in the laboratory of Dr. Patricia Keely, Department of Pharmacology.

Ms. Wilson's research focuses on the relationship between breast epithelial cells and the extracellular matrix (ECM), the material in which cells grow. She models the cellular changes of breast cancer by inserting a mutated gene called R-Ras (38V). This causes cells to

become more migratory, adhesive, and invasive, and less able to group into the normal 3-dimensional arrangements crucial for proper breast function and cancer suppression. Ms. Wilson has found that one reason breast epithelial cells cannot form normal 3D structures when contacting certain ECM molecules is that increased R-Ras activity leads to a loss of specialized cell-to-cell attachments called adherens junctions (AJs). These junctions serve to bind cells together and function in inter-cellular communications. Ms. Wilson's initial findings indicate that increased R-Ras activity is interfering with the



proper shape and function of the cell's cytoskeleton, the skeletal framework that gives a cell its shape, and underlies the cell's ability to properly adhere to ECM molecules and to form AJs.

"My IOA-funded research has prepared me well for a mixed clinical/research career in oncology, cardiology, dermatology, and other types of medicine," said Ms. Wilson. "I can't thank the NIA enough for its support."

More information about Dr. Wilson's research can be found in Kwong L, Wozniak MA, Collins AS, Wilson SD, and Keely PJ. 2003. R-RAS promotes focal adhesion formation through FAK and p130Cas by a mechanism that differs from integrins. *Molecular and Cellular Biology* 23(3): 933-949.

More Biology in MIDUS



A National Study of Health & Well-Being

A supplement from the National Institute on Aging was recently awarded to the IOA to expand the biomedical measures included in MIDUS (Midlife in the U.S.), a national study of Americans aged 35 to 84. The new funding will allow investigators **to add assessments of bone health (bone mineral density and**

bone turnover) as well as new measures of inflammation and antioxidants. The objective of MIDUS is to investigate the linkages between psychosocial and biological factors (neuroendocrine, immune, cardiovascular, musculoskeletal) that contribute to risk for later life illness and disease, or provide protection against

such deleterious processes. The biological assessments are currently underway at three General Clinical Research Centers around the U.S. -- University of Wisconsin at Madison, Georgetown University in Washington University, and University of California at Los Angeles.

MARKS Receives New Grant to Study Social Inequalities in Health

Nadine Marks, Professor of Human Development and Family Studies and Institute on Aging affiliate, has received a four-year award from the National Institute on Aging to continue research that began in conjunction with the UW Center for Research on Mind-Body Interactions to investigate linkages between social inequalities, psychosocial factors, and adult physical health across the life course.

Dr. Marks will use population data to examine the role of socioeconomic status (e.g., education, occupational status, earnings, and wealth) and race or ethnicity in determining differences in psychological and social relationship fac-

tors. Psychological factors include positive and negative affect, sense of control, purpose in life, and spirituality. Social relationship factors include marital history, marital quality, and quality of intergenerational relationships. She and her colleagues will study how these factors influence health status (perceptions about health, how well people function, symptom and illness reports, and mortality).

Three theories will be tested:

- ◆ That differences in psychological and social relationship factors help explain and/or moderate the influence of socioeconomic status and race or ethnicity on health.

- ◆ That differences in these factors lead to differences in health behavior, which in turn lead to differences in physical health.

- ◆ That differences in these factors lead to differences in the way people adapt to disadvantage across their lives, which in turn leads to differences in physical health.

This research will help provide additional information about what social and psychological factors affect our health, which can help guide social policy, including health care policy.

Graduate Students Receive National Awards



Heejeong Choi, graduate student in the UW Department of Human Development and Family Services, has received The Gerontological Society of America (GSA) Student Research Award in The Behavioral and Social Sciences Section (Dissertation Level). The title

of Ms. Choi's dissertation is, "Socioeconomic Status, Marriage, and Functional Limitations: The Moderating Role of Marriage in the SES-Functional Limitations Association." The \$1,000 award will be presented at the 58th GSA Annual Meeting in Orlando, Florida on November 20, 2005. Ms. Choi was the 2001 recipient of the IOA Psychosocial New Investigator Award presented at the 13th Annual Colloquium on Aging.



Emily Greenfield, graduate student in the UW Department of Human Development and Family Services, will receive the 2005 Emerging Scholars and Professional Organization Interdisciplinary Paper Award from GSA. The \$250 award is given to honor her interdisciplinary

research paper, "Continuous participation in voluntary groups as a protective factor for the psychological well-being of midlife and older adults who develop functional limitations: Evidence from the National Survey of Families and Households" (with Marks). She also presented this research at the IOA 17th Annual Colloquium on Aging that was held on October 19, 2005, where she received the IOA Psychosocial New Investigator Award.

Both researchers work with Nadine Marks, IOA affiliate and Professor, UW Department of Human Development and Family Services.

Do You “Sense” Something Different?



The Beaver Dam Offspring Study (BOSS) will investigate hearing, vision, olfaction (sense of smell) and taste in adult children of participants in the Beaver Dam Eye Study (BDES) and the Beaver

Dam Epidemiology of Hearing Loss Study (EHLS). Approximately 5,000 residents of Beaver Dam, WI. had their eyes examined between 1988 and 1990. They were examined again 5, 10 and 15 years after the initial exams to study the factors leading to vision loss and the development of eye diseases. The EHLS was added in 1993, with 5-year followups to check hearing and sense of smell.

The BOSS will provide important information about how common sensory impairments are in the post-World War II, “baby boomer” population. The study results will

help scientists evaluate differences in the prevalence of eye disease, hearing loss and olfactory impairments between generations. The study will also provide important information regarding genetic and environmental risk factors for these conditions.

The BOSS is led by Dr. Karen J. Cruickshanks of the University of Wisconsin Medical School and is funded by the National Institutes of Health. Dr. Cruickshanks is also an IOA affiliate. For more information, please call 800 253-0986.

Study Addresses Quality of Life in Nursing Homes

Government officials, health care workers, residents of nursing homes and their families have voiced dissatisfaction with the quality of care in nursing homes. Specific concerns include ongoing occurrence of preventable conditions such as pressure ulcers, delayed identification of worsening health conditions, burdensome paper work requirements, low staffing levels, unappealing meals, and resident's choice of daily events. Also, nursing homes have one of the highest turnover rates of any industry, with approximately 80% for Certified Nursing Assistants (CNAs) and 40% for Directors of Nursing.

The Wellspring Program, a WI-born initiative, has received national attention for efforts to increase the quality of work for CNAs, reduce staff turnover, and increase the quality of care for residents. In response to a request by the

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Barbara J. Bowers, Associate Dean
UW School of Nursing

Commonwealth Fund, a team of researchers, including Dr. Barbara Bowers (Nursing) and Dr. Dave Zimmerman (Engineering) conducted a two-year study of the Wellspring Program in eleven nursing homes to explore their strategies for work quality improvement and turnover reduction.

The study revealed that current strategies and techniques used

to educate nursing staff do not acknowledge the diversity of nursing home staff backgrounds and do not help staff apply what they have learned, thus creating more turnover. When workers lack the ability or the authority to make decisions about the work process, the work is less effective, and they are less satisfied. Wellspring has shown the importance of increasing CNAs' sense of empowerment, their knowledge about technical aspects of care, and their participation in decision-making about care. CNAs, and their supervisors need a range of organizational skills that allow them to identify how to work effectively on teams in the nursing home environment. These skills will allow them to practice what they have learned in training.

As a result of the Wellspring study, useful changes have been made in educating nursing home employees in more than 50 nursing homes.

Nursing Initiatives in Aging

Susan Heidrich, Ph.D., R.N., UW Department of Nursing, IOA Affiliate

Nursing Students Apply Knowledge to Help Elders

Senior nursing students at UW-Madison School of Nursing are at the forefront of preparations to care for an aging society. UW-Madison is one of the few schools that require a semester-long course in aging, “Essentials of Gerontological Nursing,” for undergraduate nursing students. This course has grown to include about 25 service projects, giving students hands-on experience in working with community and health issues facing older people and their families. Students work in groups of 6-8 and partner with an agency, hospital, or community group to address community or institutional needs related to care of older adults.

Several undergraduate nursing students, Sarah Gilman, Kami Johaneck, Jessica Luckason, and Rebecca Weld, recently partnered with Peggy Weber, BSN, RN, coordinator for St. Mary's Hospital Parish Nursing, to discover how dehydration can be prevented in older adults. The students created a colorful, informative placemat and a three-page brochure to educate seniors about the problem of dehydration and the importance of maintaining

Preparing for an Aging Society

daily adequate fluid intake. Information about the project's success was disseminated to members of the Senior Citizen Advisory Committee for the City of Madison. The Committee is seeking approval to disseminate the information to senior centers and parishes to educate older people in the community and their caregivers about dehydration problems.

New Patient Center Initiative in School of Nursing

The UW-Madison School of Nursing continues its success in developing knowledge about patient-centered care through an exploratory Center for Patient-Centered Interventions (CPCI), recently funded by the National Institutes of Health/National Institute of Nursing Research. Patient-centered interventions address complex patient problems in complex care environments with particular at-

tention to the values, preferences, needs and resources of the patient. This center will support ongoing and new research in patient-centered interventions. Because the values, preferences, needs, and resources of older patients are often unique, the CPCI will provide an excellent laboratory for addressing the health needs of older persons. In the current health care system, patients are expected to make increasingly difficult decisions about their health and illness. Nurses help patients manage health problems and assist them in making decisions about their health. Research in the center will focus on how to make these interventions optimally effective.

One of the first pilot studies funded by the CPCI was awarded to Susan Heidrich, PhD, RN, who is testing a patient-centered informational intervention to improve self-care of symptoms in breast cancer survivors over the age of 64. The intervention consists of a telephone interview with an advanced practice nurse during which the woman's understanding of her symptoms is explored and strategies and goals for improved symptom management are planned. Follow-up phone calls for two months will be used to assist the woman in carrying out these plans. The Center plans to fund three to four pilot studies every year.

The New Medicare Part D: Why It's Important to Pay Attention

Roberta Riportella, Ph.D., School of Human Ecology

All people on Medicare are eligible to join a new program to help pay for prescription drugs, and there are programs to help some groups pay for this coverage. Those who currently have Medicaid will now have a separate prescription drug plan (PDP) to pay for prescription drugs. For the Medicaid population, this will be funded by the federal government with some funds coming from states. The states will enroll the Medicaid population in those plans automatically.

Limited income people may be eligible to receive extra assistance in paying for premiums and co-payments, however, they have to apply to determine eligibility. There is a lot of confusion about eligibility for this program, and some people may think they are not eligible for the Part D program when, in fact, they may be eligible.

Some people are already covered for prescription drugs in their current supplemental plans. However, in order for a person to remain in a current plan without facing additional premium penalties, those on Medicare must already be enrolled in a plan that is designated as compa-

rable (if they want to join a designated prescription drug plan later). For instance, Medicare is willing to let people stay with their current plan if switching to a new drug plan would not benefit them. If the plan is not creditable, the individual will face penalties by choosing to join after

the window of opportunity passes. The window for those currently on Medicare will be Nov 15, 2005 through May 15, 2006. There will be new windows as each new person becomes eligible for Medicare. This is also the way enrollment in Part B works. Those who don't sign up for coverage during a seven-month period (three months before, the

month of, and three months after eligibility begins) face a higher premium that continues forever.

There are important things that can be done now to prepare. The web site sponsored by the Wisconsin Medicare Part D Task Force (www.wismedrx.org) provides information on what to do before choosing a plan. This information is most helpful for those on Medicare who must prepare to make informed choices in the next few months (see www.wismedrx.org/gethelpwith/). For questions about the new Medicare Part D Prescription Drug Benefit, contact the Medicare Prescription Drug Helpline at 866-456-8211.

*Medicare D:
Know the rules
before you choose*

Remain Active and Independent: SAIL Program



A new program launched by the combined efforts of the Madison Area Continuing Care Consortium (MACCC), which includes the Attic Angel Association, Oakwood Lutheran Homes Association, Inc and Support for Active

Independent Lives (SAIL), allows older people to remain in their homes and continue living independently. SAIL is partially funded by the Madison Community Foundation and provides services through contracts with Home Health United and Hospice Care, Inc. Part of a national demonstration program funded by the Administration on Aging, SAIL began offering services on March 1, 2005.

Michael Hunt, UW Professor in the Department of Environment, Textile and Design, joined efforts with MACCC through his undergraduate design students' Service Learning Program offered in collaboration with Oakwood Lutheran Homes Association, a partner of MACCC.

Hunt quickly discovered the similarities between the SAIL program and a phenomenon he's studied for the past twenty years, the "Naturally Occurring Retirement Community" (NORC). Hunt coined this term in the early 80's, and SAIL is proud to be one of 23 NORC national demonstrations.

The goal of these combined programs is to develop innovative ways to help older people remain in their homes. They offer members a sense of community, with access to trustworthy service providers, transportation to medical appointments, house checks, health coaching, wellness programs, referrals to community agencies, volunteer services and opportunities, and computer assistance. Membership is expected to increase to 2,000 throughout Dane County over the next five years. At that time, SAIL expects to become self-sustaining.

For more information about membership in SAIL, call Ann Albert at 276-1560 or visit www.sailtoday.org.

Best Attendance Yet at the IOA Annual Colloquium

About 300 people participated in the 17th Annual Institute on Aging Colloquium held on October 19, 2005 at the Monona Terrace. The event included excellent presentations by:

- ◆ Dr. Steven Barczi, "Sleep Change in Later Life: Causes and Consequences,"
- ◆ Dr. Elliot Friedman, "Psychological Well-Being and Risk of Disease in Older Women," and
- ◆ Dr. Tracy Schroeffer, "Journeying Through the Dying Process: Strategies for Providing Quality Care to Terminally Ill Elders."

Guest Speaker, Dr. Harry R. Moody, presented "Conscious Aging and the Farther Reaches of Human Nature," with a rich array of illustrations from literature and art. The health fair covered many topics relating to housing, health care, and Medicare. New research in the field of aging was presented in the poster session, with awards presented to two investigators: Emily Greenfield and Michele Ries.

Aging on the Web

<http://www.aarp.org/health/comparedrugs/>



Visit this AARP website to get unbiased information about commonly-used prescription drugs. Learn what drugs are prescribed for various problems, their possible side effects, and how effective they are. Compare cost, safety and effectiveness between name-brand drugs and generics, simply by searching for a drug name or medical condition. You will also find many useful links to other websites. The information on this site is based on reports from the Drug Effectiveness Review Project, which provides a unique, unbiased basis for choosing the right prescription drug. The project will continue to update information on this easy-to-navigate website.

<http://www.firstgov.gov>



U.S. Census Bureau

This official U.S. Government website provides access to a wealth of information for citizens, businesses, non-profits, and others. From this site you can contact federal officials, renew a passport, apply for social security, shop government auctions, replace vital records, register for disaster assistance, and even do a zip code lookup. You can find information about consumer issues, housing, laws and regulations, museums, libraries, genealogy, environment, and many more. Of special interest is the government benefits section which includes information about social security, Medicare and Medicaid. Another section on health and nutrition includes information about diet, diseases, fitness, and other health-related issues.

www.niapublications.org/pubs/talking/index.asp



IT National Eye Institute,
National Institutes of Health

The National Institute on Aging website gives information about how you can download or order a pamphlet, "Talking with your Doctor: A Guide for Older People." The pamphlet contains a list of useful resources as well as information about the following topics:

- ◆ how to choose a doctor you can talk to
- ◆ how to get ready for an appointment
- ◆ what you should tell the doctor
- ◆ what to ask your doctor about your diagnosis, the medical tests ordered for you, and any recommended treatment including prescriptions
- ◆ what to ask if you need surgery
- ◆ how to talk about sensitive subjects
- ◆ advanced directives, such as living wills and health care power of attorneys

Calendar of Events

April 27-28, 2006

Emotions Symposium
608-263-6161

September 28, 2006

Current Concepts in Nutrition & Aging
"Order & Disorder in the Social Brain"
608-265-9101

October 18, 2006

18th Annual Colloquium on Aging
608-261-1493

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