

The Duke University Center for the Study of Aging and Human Development and the Claude D. Pepper Older Americans Independence Center present



# the Center Report

## \$1.85 Million Awarded Duke Older American Independence Center\*

**H**arvey Jay Cohen, MD, and Miriam Morey, PhD, co-Principal Investigators of the Duke Older Americans Independence Center, have been awarded a renewal of the Claude D. Pepper OAIC grant from the National Institute on Aging. The award is for \$616,815 per year for three years.

This marks more than 20 years of funding for this Center, said Dr. Cohen, Walter Kempner Professor of Medicine and director of the Center for the Study of Aging and Human Development.

The Duke OAIC seeks to understand and modify the multiple pathways of function decline. The grant will support three resource cores: an Analysis Core, a Biochemical Pathways Core, and a Metabolomics Core, as well as Research Career Development and Pilot Projects

Core. Each core is led by a core leader as follows:

**Analysis Core** – Carl Pieper, DPH, Assistant Professor of Biostatistics;

**Biochemical Pathways Core** – Virginia Kraus, MD, PhD, Professor of Medicine;

**Metabolomics Core** – James Bain, PhD, Senior Research Scientist;

**Research Career Development Core** – Kenneth Lyles, PhD, Professor of Medicine;

**Pilot Projects Core** – Kenneth Schmader, PhD, Professor of Medicine.

Several externally funded NIH, VA, or industry-sponsored grants, with relevant study aims will also receive support from these cores.

The OAIC is based in the Duke Center for the Study of Aging and Human

Development, an all-university program with strong connection to the Geriatric Research, Education and Clinical Center at the Durham VA Medical Center, the Hartford Center of excellence, the Duke Institute for Genomic Sciences and Policy, the Duke Translational Medicine Institute, the Duke Center for Living, and the Sarah W. Stedman Nutrition and Metabolism Center.

Together, these programs include 130 faculty who are Senior Fellow of the Aging Center and more than \$25 million of research germane to the goals of the OAIC.

“We welcome interest or inquiries from faculty and trainees whose work might interface with the theme of the center as we are always seeking collaborations,” said Dr. Morey. ■

\* Adapted from “Funding for Duke Older Americans Independence Center renewed” by Anton Zuiker.



## FEATURED RESEARCHER: Lisa Gwyther, MSW, LCSW



Lisa Gwyther

**M**y research interests over thirty-five years at the Duke Center for Aging have evolved from early studies with Drs. Linda George and Elizabeth Clipp of the emotional, physical and financial consequences of caring for a family member with dementia, to evaluating outcomes of dementia-specific care practices such as providing trained in-home respite care workers and individualized family education to reduce negative mental health effects of providing family dementia care. Later, I collaborated on National Institute on Aging multi-site studies of the effectiveness, benefits and limits of Alzheimer's special care units in nursing homes, culminating in a collaboration with UNC Sheps Center investigators titled "Families Matter in Long-Term Care", a group randomized trial funded by the National Institute on Aging. "Families Matter" was designed to help families work with staff and residents to create a role for themselves that would benefit the resident's quality of life and improve family/staff relations. The paper published

in the journal, *Seniors Housing and Care*, won the journal's Outstanding Research Paper award.

Families of assisted living and nursing home residents were helped to develop plans for their visits which included activities categorized as "doing things", "getting around", "looking good" and "eating well". Families of residents with dementia did not differ in their frequency of visits from other families, but they spent more time on nutrition, mobility and discussing care with staff. Overall, the program decreased family burden and improved resident quality of life. Residential care staff also reported less burnout and greater partnership with families. However, personal care staff reported greater burden and frustration and felt less in partnership and more controlling by families than their supervisors. We learned that creating roles for families may foster a greater sense of responsibility, but perhaps a concomitant realization that they hadn't been doing as much as they could or should, which resulted in increased family guilt and conflict.

Currently, I am working with Bobbi Matchar, MSW from the Duke Family Support Program on the "Alzheimer's Medical Advisor" project funded by the National Institute of Nursing Research, led by UNC geriatrician, Dr. Philip Sloane, with team members from the UNC Sheps Center.

When people with Alzheimer's disease or related dementias develop new symptoms, such as cough, abdominal pain, or fever, their family caregivers must decide whether the problem is minor enough to try treating at home, or whether to go to a physician's office or the emergency department. This can be challenging when the person with dementia has difficulty

communicating accurately how s/he feels or resists going to an office visit or evaluations by medical professionals. Families need tools to help them evaluate and manage symptoms that could represent new or evolving medical illness in a family member with Alzheimer's disease.

The "Alzheimer's Medical Advisor" is a series of materials in development to help family caregivers of persons with dementia deal with these issues. It consists of internet-based, written, and video tools to help concerned family understand, identify, communicate with health professionals, and make decisions about medical problems. The materials will: 1) inform families about common medical problems experienced by persons with dementia; 2) help family caregivers decide what to do next when their family member has a new or exacerbated medical problem; new physical symptom; 3) provide a way to record and communicate information that doctors want to know; and 4) provide home care tips for common medical conditions in persons with dementia. ■

## EDITORIAL\* – Correcting Myths about Medicare



By Erdman Palmore, PhD

**A**bout one in six Americans are covered by Medicare. Because of its size and growth, it becomes a target of criticisms every time the budget deficit is addressed. Many of these criticisms are based on false assumptions about Medicare, which need to be corrected. Here are the facts about the most frequent myths about Medicare.

**1. Medicare Fails to Control Costs.** It is true that Medicare's share of gross domestic product (GDP) is expected to increase from the current 3.7 percent to about 5 percent in 2030. However, since it began in 1965, its spending growth on a per-person basis, has stayed consistent with the increase in private health insurance programs. The addition of baby boomers is the single largest factor in Medicare's projected spending growth over the next few decades.

**2. Wealthy People do not pay a fair**

**share of the Medicare costs.** This is no longer the case. In fact, wealthy people now pay substantially more than others for Medicare. For workers with over \$200,000 annual income, the Medicare premium increased to 2.35 percent this year. Similarly, Medicare premiums for prescription drug coverage are now scaled to income.

**3. Medicare Benefits Are Too Generous.** In fact the current Medicare benefits package still resembles what was offered when the program started nearly fifty years ago. Benefits are less generous than in most private insurance plans.

**4. Cutting Medicare Is the Only Way to Save it.** Cutting payments are not the most effective way to control costs. Changing incentives offers much more promise. The current fee-for-service system rewards not value but volume of care. Medical providers should be paid

to change the way they operate so that patient outcomes are improved and waste reduced. Better patient engagement and public health programs, such as reducing obesity and its related diseases, can also lower costs.

**5. Medicare Needs Restructuring.** Several proposals would transform Medicare into a system of competing private plans. While some such proposals may help, there is virtually no data to support the assumption that they would restrain total costs, rather than just shifting costs onto the beneficiaries. Even the most efficient program cannot double its enrollment without a matching increase in money. It is true that Medicare costs need to be restrained, but containing health-care costs cannot be done for Medicare alone. Payment restraints and incentives that improve value must be applied to the entire health-care system to be effective. ■

\* Parts of this editorial are based on an article, "5 Myths about Medicare" by John Rother in THE WASHINGTON POST, February 26, 2012. The opinions expressed here are those of the author, and do not necessarily reflect any policy of the Duke Center for the Study of Aging.

## FAMILY SUPPORT CENTER OFFERS FREE CONSULTATIONS\*

**The Duke Family Support Program** offers free confidential one-on-one consultations at no charge to Duke staff and faculty who care for aging parents or relatives. The consultations are based on the Aging Center's extensive research on caring for the elderly, including those with Alzheimer's disease. Last year, 133 Duke employees used the consultations to learn about dementia, resources for seniors and tools to cope with the stress of caregiving.

Because people are living longer, more people are responsible for more elderly relatives than at any other time in our history," said Lisa Gwyther, Family Support Program director. (see separate article.) "Unlike in the past, many of the caregivers are also holding down jobs at the same time, which can be very stressful."

Gwyther said the consultation service is unique because of its responsiveness. "We usually meet with someone in-person or on the phone within 24 hours, which means we can help them when they are in crisis, as well as when they are just exploring," she said.

To schedule a consultation, call **919-660-7510** or email [lisa.gwyther@duke.edu](mailto:lisa.gwyther@duke.edu).

\* Based on "Help Caring for Aging Parents" by Marsha Green in the August/September, 2013, issue of Working@Duke, p. 13.



## Residents receive training in complex geriatrics care



By Heidi White, MD

**C**hief residents, assistant chief residents and fellows from Medicine, Surgery, Neurology, Family Medicine, Emergency Medicine, and Obstetrics & Gynecology, recently attended the **Chief Resident Immersion Training (CRIT) program in the care of older adults.**

The June 1-2 weekend retreat hosted by the Division of Geriatrics, with funding from the Hearst Foundation, highlighted appropriate care for older adults and provided an opportunity for incoming chiefs to get to know each other, develop leadership skills, and to consider collaborative care within Duke University Medical Center.

The retreat program, held at Graylyn Estates in Winston-Salem,

included an unfolding interactive case divided into three modules following a geriatric patient from presentation in clinic to the emergency department to hospital discharge. Each module included evidence-based mini-lectures on topics in geriatrics, small group interactive exercises and seminars designed to enhance teaching and leadership skills.

“I really can’t overstate what a great experience the Chief Resident Immersion Training was,” said **Carling Ursem, MD**, an Internal Medicine senior assistant resident

and assistant chief. “I had the opportunity to interact with outstanding residents in fields throughout the hospital who each brought their own unique experiences and perspectives to our discussions of the care of the elderly. Having such a diverse group of some of our most accomplished faculty and administrators also added valuable insight to the discussion.”

Many of the chiefs will be working in small groups with mentors over the first six months of their chief year to develop research,

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Current funding will allow the program to be repeated in June 2014; and co-directors Heidi White, MD, (geriatrician) and Sandhya Lagoo-Deenadayalan, M.D., Ph.D., (general surgeon) are actively pursuing funding options that will allow this program to continue to be an annual event for Duke Hospital chief residents.

# Researchers Analyze 40 Million Brains To Examine Aging\*



**L**umosity, which is best known for online brain training games, is letting scientists use its data base of over 40 million players to study how the brain works through The Human Cognition Project.

P. Murali Doraiswamy, MD, professor of psychiatry and senior fellow at the Center on Aging, hailed this data as the “largest human cognitive performance data set” in the world. Most cognitive experiments involve a handful of undergraduate volunteers or patients, Doraiswamy said; and that even large scale disease studies involve just a few thousand individuals. This is an order of magnitude bigger and draws on subjects from over 100 countries.

This size allowed Lumosity scientists and Dr. Doraiswamy to analyze cognitive changes in thousands of individuals at each year of age from 25 to 74 from over 180 countries. The results were published last month in the journal, *Frontiers*

in Neuroscience. The study found that, although raw cognitive performance peaks in young adulthood, the lifelong accumulation of knowledge compensates such that older adults can still perform at a high level.

The main problem with this data is that the study participants were self-selecting – people who were playing Lumosity games – however the study proved the feasibility of doing massive online research. The team is interested in furthering this by doing a large-scale randomized controlled study of seniors in a thousand retirement centers – the entire study will be done online.

This paradigm represents a new example of large scale internet and mobile phone based research. In such studies, the researchers take care to anonymize the data so that none of this data will use any unique identifiers such as email addresses. ■

\* Based on “Lumosity’s Unique Big Data Set Feeds Brain Research” by Ellis Booker in *Information Week Education*, June 20, 1013.

## SERVICE AWARDS CELEBRATED

The Center on Aging celebrated the many years of service provided by its long time faculty and staff on July 22. The following were given certificates at a reception to mark their years of service:

<b>Lisa Gwyther</b>	35 years
<b>Dick Landerman</b>	35 years
<b>Ken Lyles</b>	30 years
<b>Debby Gold</b>	25 years
<b>Connie Bales</b>	25 years
<b>Helen Hoenig</b>	20 years
<b>Miriam Morey</b>	20 years
<b>Toni Cutson</b>	15 years
<b>Patrick Sullivan</b>	15 years
<b>Susan Hastings</b>	10 years
<b>Michelle Morgan</b>	5 years
<b>Madeline Weiner</b>	5 years
<b>Jama Smith</b>	5 years

*Thanks to all for your years of devotion to the Center.*

## Residents receive training in complex geriatrics care, continued

quality improvement and educational projects.

Dr. Ursem is in the early stages of developing a standardized set of orders focused on preventing delirium in older hospitalized patients, after seeing patients suffer from delirium as a consequence of their hospitalization, and knowing how difficult it is to treat these patients. Ursem plans to base the set of orders on non-pharmacologic interventions that have been proven effective and is currently

gathering data to support decisions for what to include in the order set. She is also identifying and contacting key people who would be involved in implementation, and sees Maestro Care as a great tool for the project. “Attending the Chief Resident Immersion Training was the first step in moving forward with this project by connecting me with other people who are interested in this important topic,” Ursem said. ■

## the Center Report

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## Akusevich Presents Methods to Analyze Medicare Data

Igor Akusevich, PhD, presented a seminar on “Analysis of Medicare Data: from empirically-based approaches to advance modeling” on August 16. He pointed out that the availability of large-scale Medicare-based information opens up new opportunities for developing novel high-precision tools for prediction of health states and mortality in the U.S. population of older adults.

He presented a spectrum of approaches that allow for quantitative clinic-oriented

analyses of multiple topics including: 1) age patterns and time-trends of incidence rates of geriatric diseases, 2) recovery and survival from these diseases, 3) comorbidity and evaluation of multimorbidity, 4) interdependencies among disease risks, and 5) evaluation of time-dependent treatment effects.

The analyses are based on the reconstruction of individual medical histories from the records available in Medicare data which are then analyzed by empirical

methods, classic regressions, and advance modeling approaches. These new methods can be used in advancing treatment optimization and improved survival; primary and secondary preventive strategies; gaining new knowledge about disease mechanisms; and understanding the mechanisms of morbidity and survival trends to better predict their changes for medical care planning. ■

## Whitson Receives Two Grant Awards

**Heather Whitson, MD, MHS**, is an Aging Center investigator whose research focuses on the interface between age-related changes in eyes and brain. She been awarded two new grants to study age-related macular degeneration (AMD) and Alzheimer’s Disease (AD).

One grant is from the National Institute on Aging and will support a 5-year project to examine the relationship between cognitive changes and brain connectivity in age-related macular degeneration (AMD). The study will enroll patients with age-related macular degeneration as well as matched ‘controls.’ All the participants will receive a battery of cognitive tests and half of them will also receive a brain MRI. One goal is to better understand the cognitive processes that underlie verbal fluency, a cognitive process that is frequently affected in people with AMD. An additional goal is to understand how cognitive changes relate to functional

connectivity and white matter integrity in the brains of people with and without AMD. Dr. Whitson and her study team believe the results may shed light on the mechanism(s) that account for the epidemiologic link between AMD and cognitive decline.

The other grant is from the Alzheimer’s Association and will support a pilot study to explore retinal biomarkers for the early detection of Alzheimer’s Disease. This study will be enrolling persons whose cognitive status has been characterized in one of three categories: normal cognition, mild cognitive impairment/prodromal Alzheimer’s Disease, or moderate Alzheimer’s Disease. The investigators will obtain non-invasive images of participants’ retinas and use state-of-the-art imaging analysis techniques to determine whether specific retinal features distinguish the patients with Alzheimer’s Disease. If retinal biomarkers prove to be informative, doctors and researchers

may eventually be able to diagnose early Alzheimer’s Disease with greater confidence using quick, painless photographs of the back of the eyes.

These projects represent exciting collaborations between Duke’s Aging Center, Eye Center, Brain Imaging and Analysis Center, and Bryan Alzheimer’s Disease Research Center. ■

# Gold to Receive GSA's 2013 Distinguished Mentorship in Gerontology Award



The Gerontological Society of America (GSA) has chosen Deborah T. Gold, PhD, as the 2013 recipient of the Distinguished Mentorship in Gerontology Award.

This honor is given to individuals who have not only fostered excellence in the field, but have made a major impact by virtue of their mentoring, and whose inspiration is sought by students and colleagues.

The award presentation will take place at GSA's 66th Annual Scientific Meeting, which will be held from November 20 to 24 in New Orleans. This conference is organized to foster interdisciplinary collaboration among researchers, educators, and practitioners who specialize in the study of the aging process.

Gold is an associate professor of medical sociology in the Duke Departments of Psychiatry and Behavioral Sciences, Sociology, and Psychology and Neuro-

sciences; director of the Postdoctoral Research Training Program and a senior fellow in the Duke Aging Center; director of the Undergraduate Program in Human Development; and director of the Leadership in an Aging Society Program. Gold's research focuses on the psychosocial consequences of chronic illness in late life. In particular, she has studied the impact of an exercise and psychosocial intervention on women with osteoporosis living in retirement communities as well as the impact of chronic pain on community-dwelling older women with osteoporosis.

She has had a unique and important role in mentoring dozens of students who successfully completed graduate degrees and went on to take prominent roles in the field of gerontology. She was recognized for her efforts as the 2009 recipient of Duke University's Outstanding Postdoc Mentor Award.

Gold currently serves as the chair of GSA's Task Force on Mentoring and has been instrumental in the development of numerous mentoring programs within the organization. She helped to develop GSA's Mentoring Consultancies, which pair experienced researchers and teachers with emerging professionals in an informal setting. ■

## Clipp Symposium Discusses Trajectory Science

The Clipp Symposium, sponsored by the Center for the Study of Aging and by the School of Nursing, presented a panel and posters on trajectory science, as well as a tribute to Elizabeth "Jody" Clipp, on October 9, 2013. The tribute was presented by Linda George, PhD, and the panel included Ruth Anderson, PhD, Karen Steinhauser, PhD, Kenneth Land, PhD, and Angela O'Rand, PhD.

After questions and answers, there was reception during which posters on trajectory science were presented.



DUKE UNIVERSITY MEDICAL CENTER

### Have you noticed changes in memory or concentration? You May Be Eligible for the ENLIGHTEN Study!

If you are 55 years old or older, have heart disease or risk factors, and have experienced changes in memory or thinking, then you might be eligible to take part in the ENLIGHTEN Study.

Eligible participants are randomly assigned to:

- An exercise training program
- A special DASH diet
- Both exercise and diet
- Health education

Participants receive medical assessments at no cost and compensation for time/ & travel expenses.

Call 919-681-4747 for more information





## Welcome New Post-Docs

Please welcome our three new Postdoctoral Research Fellows:



LaBarron Hill, Ph.D.

**LaBarron Hill, Ph.D.** earned his PhD in Clinical Psychology, with a specialization in Health from The Ohio State University (Chair: Julian F. Thayer, Ph.D.). His dissertation, "The Influence of State and Trait Perseverative Cognition on Autonomic & Hemodynamic Regulation," focused on the impact of psychological factors on cardiac functioning. LaBarron's postdoctoral mentor is Dr. Keith Whitfield, Vice Provost of Academic Affairs and Professor of Psychology and Neuroscience. His postdoctoral research will examine the independent and interactive influence of psychosocial factors and underlying hemodynamic mechanisms on cognitive health and aging in African Americans.



Nichole Lighthall

**Nichole Lighthall** earned a B.A. (2003) in psychology from UC Berkeley and a Ph.D. (2012) in Gerontology from the University of Southern California (Chair: Mara Mather, Ph.D.). In her dissertation, "Mechanisms of stress effects on learning and decision making in younger and older adults," Nichole used biophysiological markers and functional MRI to determine how acute stress alters risk taking and reinforcement learning in early and late adulthood. Nichole's postdoctoral research with Dr. Roberto Cabeza and Dr. Scott Huettel at the Center for Cognitive Neuroscience, will focus on determining how age-related changes to memory function affect economic decision making using neuroimaging techniques. Nichole is also interested in how emotion and motivation impact decision making across the life course.



Abby Schwartz, Ph.D.

**Abby Schwartz, Ph.D.** earned a master's in Gerontology from Miami University (2005) and an MSW (2010) and PhD (2013) in Social Work from Boston College (Chair: Kathleen Mcinnis-Dittrich, Ph.D.). Her dissertation, "Moderators of the impact of sociodemographic and economic factors on the well-being of caregiving men: implications for social work practice and policy," explored issues of caregiving and men. Her postdoctoral co-mentors are Dr. Cristina Hendrix from DUSON and Dr. Deborah Gold. Dr. Schwartz's projects during her postdoc will include exploring the various predictors of caregiver psychological well-being and the conditions under which these predictor/well-being relationships may vary. Following the secondary data analysis, Abby will translate the quantitative findings into a qualitative exploration of the lived experience of cancer caregiving on the psychological well-being of the caregiver. This will include exploring why such significant relationships exist in the study model.

## COMING EVENTS



### November 7-8:

Annual Research Conference of the American Institute for Cancer Research (AICR) at Bethesda, Md. Contact [aicr.org/cancer-research/conference](http://aicr.org/cancer-research/conference).

### November 20-24:

*"Optimal Aging through Research"* Annual Scientific Meeting of the Gerontological Society of America in New Orleans, LA. Contact: [geron.org/annual\\_meeting](http://geron.org/annual_meeting).

### February 27 – March 2, 2014:

AGHE's 40th Annual Meeting, "Taking Educational Quality to New Heights." Denver, Colorado. Contact: [aghe.org/am](http://aghe.org/am).

### March 11-15, 2014:

"Aging in America." Annual Conference of the American Society on Aging at San Diego, CA. Contact: [asaging.org/aia](http://asaging.org/aia).

### April 3-6, 2014:

"Building the Bridge to the Future." 35th Annual meeting of the Southern Gerontological Society at Little Rock, AR. Contact: [www.southerngerontologicalsociety.org/meeting](http://www.southerngerontologicalsociety.org/meeting).