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

Vol. 31 No. 3 **Summer 2011**

the Center Report

Faculty Present Research at Geriatrics Society Meeting

Over fifty Center faculty and fellows presented their research at the annual meeting of the American Geriatrics Society meeting in National Harbor, MD on May 11-14.

■ R. Cohen, S. Lagoo-Deenadayalan, MT Heflin, R. Sloan, I. Eisen, JM Thacker, & H. Whitson presented a poster on **"Prevalence and predictors of complications in older surgical patients with significant comorbidity."** They concluded that post-operative complications were common; and a Braden score of 18 or more and use of specific medications occurred more frequently among those with complications.

■ A Ghazi, LR Landerman, & C Colon-Emeric presented a poster on **"The Impact of Race on the Incidence of Hypoglycemic Episodes in Hospitalized Older Adults with Type II Diabetes Mellitus."** They concluded that among older males, African-Americans are more likely to have 1 or more hypoglycemic event during hospitalization compared to non-African-Americans. This is partially explained by the difference in home therapy.

■ A Ghazi, S Pinheiro, G Buhr, & MT Heflin presented a poster on **"A multimodal evaluation of an Internal Medicine Geriatrics rotation."** They concluded that this evaluation process provided guidance to improve the rotation. It also revealed positive attitudes toward geriatrics.

■ SN Hastings, KM Stechuchak, KE Schmader, M Weinberger, DC Tucker, & EZ Oddone presented a poster on **"Emergency department discharge information: What is provided and do patients understand?"** They concluded that older veterans may not understand key pieces of information at the time of ED discharge, and the information may also be missing from printed ED discharge materials.

■ SN Hastings, VA Smith, M. Weinberger, KE Schmader, MK Olsen, EZ Odone presented a paper on **"Older veterans treated and released from VAMC emergency departments."** They concludedthat a substantial proportion of the veterans returned to the ED or were hospitalized within 30 days. Previous hospital or ED use are key predictors of subsequent

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Summer Interns for LASP Announced

The Duke Leadership in an Aging Society Program (LASP) is pleased to announce that four Duke students have been selected to be interns for 2011. The program, directed by Dr. Deborah T. Gold, funds summer learning experiences related to leadership in aging for Duke undergraduates and graduate students. Interns will work closely with a faculty mentor, complete internships or research projects, and present their experiences to their peers and to leaders in research on aging connected with the Center for the Study of Aging and Human Development. Congratulations to the 2011 Leadership in an Aging Society Interns!

Lauren Beaudry is a professional student pursuing both a Masters Degree in Nursing and a Masters Degree in Global Health. Under the guidance of her mentor, Joanna Asia Maselko, Lauren will conduct site visits and interviews to report on the basic structure, patient population, and overall functioning ability of long-term care facilities in Sri Lanka.

Beatriz Collada is a pre-med undergraduate student pursuing a BA in Biology; she is also pursuing a certificate in Human Development. She will complete a summer internship at the Center for Aging at the University of Miami. Betty will work with a social worker on two research-based projects focused on supporting and educating older adult caregivers.

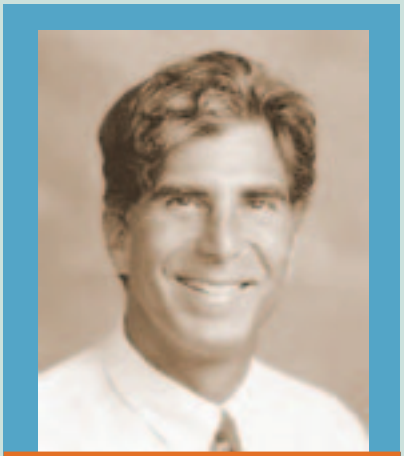
Jenni Day is a professional student pursuing a PhD in Nursing. Under the guidance of her mentor, Ruth Anderson, she will conduct interview-based dissertation research on compassion fatigue among adult daughter caregivers and its impact on both caregivers and patients.

Stefani Tica is an undergraduate student pursuing a BA in Literature and Chemistry (pre-med). She will participate in an internship with Beatrice Edwards at the Buehler Center on Aging, Health, and Society at Northwestern University. ■

Diet and Exercise as a Preventive Strategy for Dementia*

Patrick J. Smith, PhD; James A. Blumenthal, PhD
Department of Psychiatry and Behavioral Science

Patrick J. Smith, PhD



James A. Blumenthal, PhD

Regular exercise and a healthy diet have long been known to improve the health of the heart. Diets high in fruit and vegetable consumption, whole grains, low-fat dairy products, fish, and low in saturated fat, sugar, and calories have been shown to lower blood pressure and reduce the chances of developing heart disease. Recent evidence now suggests that these lifestyle factors may also help improve the health of your brain, protecting against stroke and slowing the onset of Alzheimer's disease.

One of the most consistent findings from recent studies is that becoming more physically active improves cognitive function among sedentary adults. We recently surveyed the literature on the effects of aerobic exercise on cognitive function. Combining results from 29 published intervention trials, aerobic exercise training was associated with significant improvements in cognitive function, such as memory and attention, and these improvements tended to be larger among adults with mild cognitive impairment1. Similarly, in a recent study of older adults, participants were randomized to either walk 40 minutes several times per week or to a stretching and toning condition, in which they did light calisthenics. After one year of exercise training, participants in the walking group showed improvements in spatial memory and they had a 2% increase in hippocampal volume, suggesting that regular walking reversed the age-related volume loss typically observed in this area of the brain.

Similar results have been reported from recent trials in adults with mild cognitive impairment (MCI). For example, a recent trial of 170 adults with MCI demonstrated that walking three times per week for 50 minutes protected against cognitive decline over an 18-month period.

In addition to exercise, dietary habits also have received research attention. It seems that every week a new study is published touting the beneficial effects of various dietary supplements. For decades, research has examined the relationship between dietary supplements and brain function, including antioxidants, omega-3 fatty acids, vitamins B-6, vitamin B-12, and folate. All of these supplements have been studied as possible ways of protecting against the development of dementia. Although some studies have shown a protective effect, results have been inconsistent. Meta-analyses of individual dietary components have shown little benefit on cognitive function, suggesting that these individual supplements do not consistently improve performance on cognitive tests.

Another recent area of interest has been caloric restriction, as lower caloric intake has been associated with reduced rates of dementia and 'healthier' aging in some observational studies. For example, longitudinal studies among centenarians living in Okinawa, Japan have reported remark-

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***the* Center Report**

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ably low levels of caloric intake among this group of healthy, elderly adults. A recent clinical trial also demonstrated improvements in memory following three months of caloric restriction.

One of the exciting areas of recent interest has been 'whole' dietary approaches to improving diet, in which people change the pattern of their diet instead of increasing the intake of a specific nutrient. Several recent studies have shown that both the Mediterranian diet and the Dietary Approaches to Stop Hypertension (DASH) diets may have a beneficial effect on brain function. Both diets emphasize high intake of vegetables, legumes, fruits, cereals , unsaturated fatty acids, and fish.

Another exciting finding is that lifestyle effects of both diet and physical activity on cognitive function appear to be additive: in other words, both improving your diet and getting more physical activity appear to reduce the risk of developing dementia, and doing both has the greatest effect. Scarmeas and colleagues examined this relationship in a study of older adults living in New York. They found that participants with either 'better' MeDi diets or who were more physically active had lower rates of AD, and that participants with both were the least likely to develop AD.

We recently published similar findings, examining the effects of the DASH diet alone or in combination with weight management, which included aerobic exercise and caloric restriction, among middle-aged adults with hypertension and obesity. Following four months of treatment, participants in the DASH alone group showed improvements in cognitive measures of psychomotor speed, while participants assigned to the DASH and aerobic exercise group showed improvements across multiple measures of cognitive function, including memory, executive function, and psychomotor speed, and these improvements were related to improvements in fitness. We also found that participants with the highest blood pressure and worst vascular disease showed the biggest benefits. Although these findings are encouraging, no randomized trials have examined the effects of either dietary modification or aerobic exercise as a means of preventing dementia. Several new trials are preparing to examine this question. The EXCEL trial: Exercise for Cognition and Everyday Living among seniors with Memory Complaints, is a 6-month randomized trial of aerobic exercise among adults diagnosed with MCI. In another study, researchers at Duke are in the planning phases of a diet and exercise intervention among individuals with cognitive impairment and vascular disease, but without dementia, a condition known as CIND (cognitive impairment, no dementia). The study, which may begin this summer, will examine the effects of the DASH diet, aerobic exercise, or a combination of both on cognitive function among individuals with CIND.

While the studies show promising preliminary results, people wishing to make lifestyle changes should always consult their doctors before making significant changes to their diet and engaging in new forms of exercise. Changing lifestyle habits is challenging, but may improve health and brain functioning. Perhaps, lifestyle changes may be as good, or better, than medications. ■

**Adapted from "Food for Thought" The Caregiver, Vol. 30, Issue 1, 2011.*

Harvey J. Cohen, MD

Cohen Receives Top Oncology Honor

Harvey Jay Cohen, MD, Director of the Center for the Study of Aging and Walter Kempner Professor of Medicine was named the recipient of the American Society of Clinical Oncology's B. J. Kennedy Award and Lecture for Scientific Excellence in Geriatric Oncology, 2010. Cohen has written more than 300 articles and book chapters on topics in geriatrics and hematology/oncology, with special emphasis on aspects of cancer and immunology disorders in the elderly. He has been President of the Gerontological Society of America, the American Geriatrics Society, and the International Society of Geriatric Oncology. He also recently received an Honorary Doctor of Science and gave the commencement address at the SUNY-Downstate School of Medicine.

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Faculty Present Research at Geriatrics Society Meeting

utilization, but other indicators of medical need and inadequate social support also identify veterans at risk.

■ KS Johnson, M. Kuchibhatla, JA Tulsky presented a paper on **"Race and residence: county-level variations in hospice use."** They concluded that Blacks may be less likely than whites to use hospice and more likely to use acute care services at the end of life because of greater preference for life-sustaining therapies and/or less knowledge about hospice.

■ L. Martinez, L. Vognar, G. Buhr, M. Yanamadala, B. Dotson presented a poster on **"Development of a novel tool for recognition of delirium in the long term care setting through a collaborative quality improvement project between nursing and medicine."** They concluded that they were successful in developing a novel cognitive assessment tool.

■ JM Pavon, C. Colon-Emeric, and L. Saunders presented a poster on **"Performance of screening guidelines for osteoporosis in an older male veteran population."** They concluded that accepted prescreening criteria have good sensitivity in identifying veterans who subsequently experience hip fractures, and are more sensitive than CMS criteria or OST.

■ S. Pinheiro, M. Yanamadala, & M. Heflin presented a poster abstract on **"Teaching practice based learning and improvement competency: a teaching skills mentoring program for geriatric fellows."** They concluded that this program was successful in enhancing participants' confidence in designing educational activities and teaching medical learners.

■ TJ Reed M.Yanamadala, V. Kaprielian, & MT Heflin presented a poster on **"Clinical core on aging: A problem-based learning curriculum for medical students."** They concluded that introduction of a PBL curriculum provided an effective means of educating second year medical students on core geriatrics subjects while also promoting clinical reasoning skills, recognition of the importance of interdisciplinary teamwork, and understanding key social and ethical issues in geriatrics.

■ K. Unroe, M. Greiner, C. Colon-Emeric, E. Peterson, and L. Curtis presented a poster on **"Association between published quality ratings of skilled nursing facilities and outcomes of Medicare beneficiaries with heart failure."** They concluded that publicly reported NHC lower quality ratings are modestly associated with more 90 day readmissions and mortality.

■ K. Unroe, G. Melissa, KS Johnson, L. Curtis, & S. Setoguchi presented a paper on **"Racial differences in Hospice use and end of life care among Medicare beneficiaries with heart failure."** They concluded that non-white patients were less likely to enroll in hospice, and if they did enroll they had higher acute care use.

■ H.White, E. Levin, K. Keller, P. Aisen, K. Weenes, P. Newhouse presented a paper on **"Transdermal nicotine treatment of mild cognitive impairment: A multicenter randomized controlled trial."** They concluded that transdermal nicotine treatment showed significant improvements in measures of memory and speed with several other measures also showing strong trends toward improvement.

■ HE Whitson, R. Malhotra, A. Chan, & T. Ostbye presented a poster on **"Impact of comorbidity cognitive and vision impairment on disability and self rated health."** They concluded that comorbid cognitive impairment was prevalent among visually impaired older adults in Singapore and it substantially increased the risk of disability. The comorbidity was associated with poorer self-rated health in both genders, though vision impairment was more detrimental in women.

■ HE Whitson, D. Whitaker, G. Potter, L. Sanders, S. Cousins, C. Pieper, & H. Cohen presented a poster on **"Memory deficits predict functional trajectories in low vision rehabilitation."** They concluded that among older adults receiving LVR for macular disease, those with deficits in item recall experienced declines, rather than improvements, in their ability to perform specific visually mediated tasks. However, comorbid deficits in logical memory may render some protection against the emotional toll of vision loss.

■ M. Yanamadala, S. Williams, B. Dotson, & G. Buhr presented a poster on, **"Team-based learning: is it effective in teaching quality improvement to interprofessional learners in geriatrics?"** They concluded that this learning activity was effective in teaching fellows and nursing students CGI principles and offered opportunities to improve teamwork and collaborative skills. ■

Global Aging Research

The Aging Center is collaborating with the Global Health Institute on a Global Aging Research Program. As part of this program several Duke investigators traveled to Singapore for a conference focused on creating collaborative research projects on aging-related topics with the Duke National University of Singapore School of Medicine. The investigators included Harvey Cohen, Heather Whitson, James Tulsky, and Helen Hoenig. Several collaborative projects are underway or in planning stages.

Monkeys Age Like Humans

The assumption that humans age more slowly than other animals may not be true. It seems all primates follow a similar pattern of getting older.

The findings [1] are from the first multi-species comparison of human aging patterns with those in chimps, gorillas, and other primates. Findings appear in the March 11 issue of Science.

We had good reason to think human aging was unique, says co-author Anne Bronikowski, an associate professor at Iowa State University. For one, humans live longer than many animals. There are some exceptions—parrots, seabirds, clams, and tortoises can all outlive us—but humans stand out as the longest-lived primates.

"Humans live for many more years past our reproductive prime," Bronikowski says. "If we were like other mammals, we would start dying fairly rapidly after we reach mid-life. But we don't."

The results also confirm a pattern observed in humans and elsewhere in the animal kingdom: As males age, they die sooner than their female counterparts. In primates, the mortality gap between males and females is narrowest for the species with the least amount of male-male aggression—a monkey called the muriqui—the researchers report.

"Muriquis are the only species in our sample in which males do not compete overtly with one another for access to mates," says co-author Karen Strier, an anthropologist at the University of Wisconsin who has studied muriquis since 1982.

The results suggest the reason why males of other species die faster than females may be the stress and strain of competition, the authors note.

(Courtesy: National Evolutionary Synthesis Center)

Aging in the wild

"There's been this argument in the scientific literature for a long time that human aging was unique, but we didn't have data on aging in wild primates besides chimps until recently," says co-author Susan Alberts, a biologist at Duke University [2].

The researchers combined data from long-term studies of seven species of wild primates: capuchin monkeys from Costa Rica, muriqui monkeys from Brazil, baboons and blue monkeys from Kenya, chimpanzees from Tanzania, gorillas from Rwanda, and sifaka lemurs from Madagascar.

The team focused not on the inevitable decline in health or fertility that come with advancing age, but rather on the risk of dying. When they compared human aging rates—measured as the rate at which mortality risk increases with age—to similar data for nearly 3,000 individual monkeys, apes and lemurs, the human data fell neatly within the primate continuum.

"Human patterns are not strikingly different, even though wild primates experience sources of mortality from which humans may be protected," the authors wrote in a letter to Science.

Do the findings have any practical implications for humans? Modern medicine is helping humans live longer than ever before, the researchers note. "Yet we still don't know what governs maximum life span," Alberts says. "Some human studies suggest we might be able to live a lot longer than we do now. Looking to other primates to understand where we are and aren't flexible in our aging will help answer that question."

**Article printed from Futurity.org: http://www.futurity.org*

DSM-5: The New Face of Neurocognitive Disorders

Dan Blazer MD, PhD

I serve as the co-chair of the DSM-5 workgroup developing diagnostic criteria for the neurocognitive disorders. In this report I review some of the proposed changes for these disorders. I will draw heavily from an editorial published by our group recently describing many of the proposed changes, a publication that also lists all the members of our work group (Ganguli M, Blacker D, Blazer D, Grant I, Jeste DV, Paulsen J, Petersen, Sachdev PS [The Neurocognitive Disorders Work Group of the American Psychiatric Association's (APA) DSM5 Task Force]: Classification of Neurocognitive Disorders in DSM-5: A Work in Progress. *American Journal of Geriatric Psychiatry* 19:205-210, 2011). The DSM-5 overall task force is charged with revising DSM-IV. I describe below some of the changes that we are proposing, a work in progress.

To begin, the domains available for evaluation of neurocognitive dysfunction have expanded significantly since DSM-IV. We set out to define more specifically the aspects of brain functioning that would be involved in the diagnoses of neurocognitive disorders. The domains we chose to focus upon include complex attention, learning and memory, executive ability, language, visuoconstructional-perceptual ability, and social cognition. We developed working definitions for each of these domains and the corresponding impairments in everyday functions that the clinician may elicit or observe. A major innovation, for which we have received considerable support, is our proposal to recognize neurocognitive impairment as a focus for diagnosis (and treatment) even if it

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J.P. Gibbons Professor of Psychiatry

does not rise to the threshold of affecting everyday functioning. We have used the term "mild neurocognitive disorder", with the more severe disorder being referred to as "major neurocognitive disorder." Both mild and major neurocognitive disorders have, for example, an Alzheimer's Disease subtype with additional criteria. In older adults, the term "Mild Cognitive Impairment" (MCI) has been in use for the past decade, describing a state intermediate in severity between normal aging and dementia (mostly Alzheimer's type), and frequently a precursor to a dementia. We have also suggested the removal of the term "dementia." We do not propose to eliminate the term dementia entirely from the nomenclature but to subsume entities currently known as dementia under the broad category of major neurocognitive disorders. Neurocognitive disorders span several age groups and etiological entities. The term dementia is most often used in Alzheimer's and Lewy Body diseases among the elderly Some feel that the term is pejorative given its past use, and there is a history of removal from successive versions of DSM terms that seemed to be stigmatizing—e.g., mental retardation We now propose to include the term dementia in parentheses. In this way, it can continue to be used in groups where dementia is the standard term, as in AD, without being imposed in settings where it is not customary.

We plan to provide specific criteria for many more neurocognitive disorders than found in DSM-IV (Dementia of the Alzheimer's Type and Vascular Dementia). We are working on specific criteria for: Alzheimer's disease, cerebrovascular disease, frontotemporal lobar degeneration, Lewy Body disease, Huntington's disease, traumatic brain injury (TBI), HIV disease, and possibly prion disease and substance-use-associated disease. For each, relevant biomarkers will be listed as diagnostic or supportive evidence as the case may be, to enhance diagnostic specificity. Given the advances in specifying the etiologies of these disorders, we are proposing that rather than noting a major or mild neurocognitive disorder "associated" with, for example, traumatic brain injury or HIV disease we propose that major/mild neurocognitive disorder be designated as "due to" a specific underlying etiology. Here we will again diverge from most of DSM-5 for there are relatively few other psychiatric disorders where clinicians and investigators can with confidence designate a symptom profile as due to an underlying neuropathological change.

Our work is far from finished but the above at least gives you a flavor of our work in one area of DSM-5. And we are open to comments!

Brain's "Autopilot Network"

Watching the brain's "autopilot" network in real time may help determine the onset of cognitive decline and potentially aid in making an early diagnosis of Alzheimer's disease, according to researchers at Duke University Medical Center.

While traditional MRI and imaging studies conducted in Alzheimer's disease have focused on the anatomy and function of individual regions of the brain, the Duke team conducted the first study to test how the integrity of an entire brain network relates to future cognitive decline.

This "autopilot" network, known more formally as the default mode network, has been linked with the presence of the hallmark amyloid plaques believed to underpin Alzheimer's disease.

The study found altered patterns of brain activity in the default mode network among people with mild memory problems who later progress to Alzheimer's disease compared to those whose memory remains intact over a two- to three-year period.

The default mode network is increasingly becoming a target for better understanding Alzheimer's disease. It is a unique network because it becomes more active when the brain turns inward, rather than when it is outwardly engaged in cognitive tasks.

"It's like a reservoir that holds cognitive reserves," said Jeffrey R. Petrella, MD, the study's lead author and associate professor of radiology at Duke. "The default mode network shuts down its resources to reallocate them to other networks that are actively participating in a task, such as reading, speaking or remembering."

"While the default mode network has been implicated in memory development and Alzheimer's disease, until now no one had tested its role in predicting future cognitive changes in those with mild memory complaints," Petrella said.

"Our study found a significant relationship between patterns of activity in the default mode network and future onset of Alzheimer's disease, which were seen above and beyond the typical measures used in routine clinical practice."

For the study, Petrella and colleagues set out to identify changes in network connectivity during a memory task and to correlate these changes with the degree of memory impairment present in patients with Alzheimer's disease or mild cognitive impairment over time. The researchers studied 12 patients with mild Alzheimer's disease, 31 patients with mild cognitive impairment, and 25 healthy controls.

Researchers found different levels of connectivity in the default mode network among patients with varying degrees of cognitive impairment. Such patterns were strongly associated with future changes in memory performance and functional ability in people with mild cognitive impairment (MCI), a group known to be at high risk for Alzheimer's.

There is speculation that overactivity in the default mode network in early and midlife may predispose a person to amyloid development later in life.

"When it comes to amyloid accumulation and network disruption in the brain, we have a chicken and egg phenomenon — we don't know which came first," said study co-author P. Murali Doraiswamy, MBBS, FRCP, professor of psychiatry and medicine at Duke.

"But our study, along with prior findings in the field, suggests that people who have both pathologic lesions and network disruptions are most vulnerable to development of Alzheimer's in the future."

"These findings may help explain why mental engagement may protect against Alzheimer's disease," Petrella said. "When someone is actively engaged in a task, the default mode network becomes less active."

The researchers said that functional MRI may eventually help to identify patients at risk for developing Alzheimer's disease and play a key role in early diagnosis when combined with clinical, genetic and other imaging markers.

Given the small size and limited follow-up time, a larger study is needed to confirm the findings. The next step is to conduct a larger, multicenter study to see if fMRI can be combined with other tests to scan for future disease.

*The study was published in Neurology, the medical journal of the American Academy of Neurology. The research was partly funded by the National Institute on Aging

Improv Used For Discussion of End-of-Life Decisions

Anthony Galanos, MD, and Tiffany Christensen presented an improvisation and discussion about end-of-life decisions recently to the Geriatrics Rounds. The purpose was to aid clinicians in their discussions with a variety of types of patients in honor of Health Care Decisions Day, April 13. Galanos is Medical Director of Palliative Care Consult Service and Christensen is Co-chair of the Patient Advocacy Council.

Unlocking the Genome's Secrets to Long Life*

By Liz Cirulli

If you're trying to discover the secrets to long life, studying people who live to age 100 and beyond — centenarians — is a good place to start. Recent research on centenarians, including a paper published in Science last year, has pinpointed numerous genetic variants that might account for their extra years.

The ability to sequence a person's entire genome has raised the bar for studies like these, enabling researchers to take a closer look at centenarians' DNA. Postdoc Elizabeth Cirulli of Duke University in Durham, North Carolina, and her adviser David Goldstein have launched the first whole-genome sequencing study of centenarians. The project is part of the Measurement to Understand the Reclassification of Disease of Cabarrus/Kannapolis (MURDOCK) Study, which is trying to find new ways to treat and prevent diseases by meshing health records and genomic information for the residents of the North Carolina city of Kannapolis and the surrounding county of Cabarrus. "Surviving to 100 means that you have avoided or made it past all of the diseases that might have killed you at a younger age," says Cirulli. "Therefore, discovering genetic variants related to longevity may provide information about general health at all ages."

Although still early in her career, Cirulli has already worked on studies that tracked elusive disease-resistance genes in hot peppers, probed why some people infected with HIV are better at keeping the virus in check, and identified the cause of a rare genetic disease. Along with this broad experience in genetics, she brings to the centenarian study her expertise in whole-genome sequencing.

The MURDOCK study is trying to find molecular signatures that would help doctors identify which patients' health is likely to get worse and who would benefit from treatments. Goldstein and Cirulli's centenarian portion of the study, which began last year, differs from previous analyses of centenarian DNA because it is relying on whole-genome sequencing instead of SNP analysis.

> ***"Surviving to 100 means that you have avoided or made it past all of the diseases that might have killed you at a younger age. Therefore, discovering genetic variants related to longevity may provide information about general health at all ages."***
>
> **— Liz Cirulli**

Liz Cirulli

Other genetic studies of centenarians have sought to identify specific beneficial variants that boost longevity. For example, a 2009 paper identified two SNPs in centenarians that might slow down the thyroid gland, a factor that stretches the life spans of lab animals. But Cirulli and Goldstein want to determine whether these folks survive so long in part because they carry fewer harmful genetic variants, such as those that might lead to faulty or nonfunctional proteins. So the scientists will be scanning the genomes of centenarians to determine whether they inherited fewer bad genes than the general population. The researchers have already sequenced the genomes of 10 centenarians, all participants in the MURDOCK study, and plan to complete as many more as possible.

Cirulli says that with her background, the transition to aging research hasn't been difficult. "Genetic tools and methodologies can be applied to just about any trait," she says. But she likes the work because unlike other traits she's studied, this one is personally relevant: Everybody ages.

**Adapted from CTSciNet.*

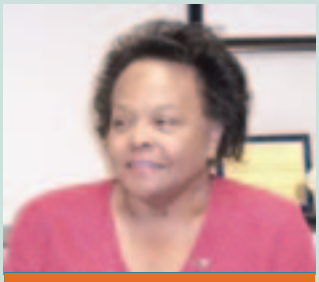
The Voice of the Duke Family Support Program*

By Lisa Gwyther, MSW

Edna Ballard, MSW, ACSW is winding down her twenty-seven year career as the attentive listener and helpful, reassuring voice of the Duke Family Support Program. If you read this newsletter, you "hear" that voice in her countless original "how to" features books and booklets written for and often with families facing dementia or helping professionals working with them. Perhaps you called our NC toll-free hotline and heard "Duke Family Support Program, Edna Ballard"?

Instantly, you know you were talking to a trusted knowledgeable friend. You may have heard Edna's voice at one of Duke's support groups, or recognized her as the speaking voice and graceful, dignified presence at your church, civic, professional or national conference.

Edna has been a voice of the Bryan Alzeheimer's Disease Research Center (ADRC) at twenty-five annual conferences and countless African-American events. She is the voice of elder care consultations for Duke employee families. Her mentoring voice taught 27 years of social work interns. It is Edna's voice in man NIA-distributed booklets or dementia-specific topics as diverse as anger, sexuality, and coping with the holidays.



Edna Ballard, MSW ACSW

Edna Ballard was recognized as the first Brandy McDaniel Duke Social Worker of the Year, and she later received the NC Division of Aging and Adult Services prestigious George L. Maddox award for creativity in programming for older adults. She can be reached at 800-646-2028 or elb@geri.duke.edu. Thank you, Edna, for your lasting contributions to our program!

** Reprinted from The Caregiver, Spring, 2011*

Biology of Aging Initiative Funded

Dr. Cohen and Dean Andrews co-chaired the Biology of Aging Initiative to be funded by the Dean's office. Thirty-three applications were received and after a rigorous review process, six proposals have been funded. They are:

- "Oxidative Stress and Decreased Progenitor Cell Function in the Aging Lung" — Bernard Fischer, PhD & Barry Stripp, PhD.
- "Ankyrin-B Mutations, Ethnicity, & Premature Senescence" — Kent R. Nisson, MD, & Vann Bennett, MD, PhD.
- "Protein Deacetylase-dependent Mitochondrial Adaptation in Aging" — TsoPang Yao, PhD.
- "Inappropriate Apoptosis in Non-renewable Cells and Aging" — Sally Kornbluth, PhD.
- "Tracking the Life of Hematopoietic Stem Cells in the Aged" — Yuan Zhuang
- "Age-dependent Decrease in Glucagon-like peptide-1 Receptors" — Geoffrey Pitt, MD, PhD, and Honggang Wang, PhD, MD.

The objective of the initiative is to support work that can lead to NIH grant applications and potentially to a program project grant. The goal is to encourage and substantially increase the Biology of Aging research at Duke.

Palmore Lectures in Korea

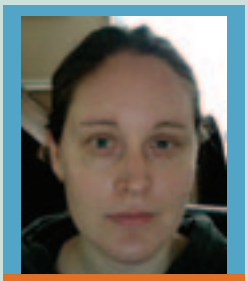
Erdman Palmore, PhD, Professor Emeritus and Editor of the *Center Report*, presented two lectures on ageism at the Seoul University, South Korea, on June 22 & 24. The first was on "Ageism, Welfare, and Law" presented at the Institute on Research in Law; and the second was on "Ageism: Measurement and Reduction" presented to the International Symposium on Ageism sponsored by the Sociology Department.

Palmore's recent books include the Encyclopedia of Ageism (Haworth, 2005) and The International Handbook on Aging (Praeger, 2009).

Welcome New Postdocs

We extend a warm welcome to the following new Postdoctoral Research Training Fellows:

Alexandra S. Atkins, Ph.D. received her Ph.D. in Cognition and Cognitive Neuroscience at the University of Michigan, and her dissertation was entitled "Distortions of short-term memory: False memory, interference, and familiarity." For the past year, Dr. Atkins was a postdoctoral associate with Dr. Roberto Cabeza from the Center for Cognitive Neuroscience; Cabeza will continue as her primary mentor.. Dr. Atkins will continue to investigate the neural mechanisms of age-related changes in episodic memory and reward-based processing.



Alexandra S. Atkins, Ph.D.

Liza Genao, **MD.** Dr. Genao received her medical degree from the UNPHU school of Medicine in the Dominican Republic, followed by an internship year in clinical investigation with the 10/66 Alzheimer's Research group, Dominican Republic branch. Subsequently, she completed her training in Internal Medicine at Mayo Clinic Rochester and her geriatrics fellowship at Duke. She is currently enrolled in the clinical research training program at Duke, with planned completion in the summer of 2012. Her research project for the Research Training Program at the Aging Center is titled; "Lung Transplantation in Older Adults: Healthcare utilization and functional status outcomes in the Post Allocation Score Era". Her mentors are Drs Schmader and Whitson in the Geriatrics Division and Dr David Zaas in the Heart-Lung Transplant Center at Duke.

Liza Genao, Ph.D.

Cassandra M. Germain, **Ph.D.**, comes to the Aging Center with a Ph.D. from North Carolina State University in Lifespan Human Development with a concentration in Cognitive Aging. Her dissertation was entitled "Effects of Activity on Cognitive Change: A Multilevel Analysis." Her primary mentor is Brenda Plassman from the Epidemiology of Dementia section of the Department of Psychiatry; she will also be mentored by Maragatha (Maggie) Kuchibhatla, PhD, Associate Professor in the Department of Biostatistics and Bioinformatics. Dr. Germain's research will examine risk factors for focus on Examining Risk Factors for cognitive impairment and dementia in middle and late life.

Cassandra M. Germain, Ph.D.

Adrienne Aiken Morgan, **PhD**, has joined the cohort of new Aging Center Postdoctoral Fellows. She received her PhD in clinical psychology, with concentrations in neuropsychology and gerontology, at the University of Florida. Her dissertation was entitled "Effects of Improved Physical Fitness on Cognitive/Psychological Functioning in Community-Dwelling, Sedentary Middle-Aged and Older Adults." Dr. Aiken Morgan's mentor for her fellowship is Dr. Keith Whitfield, Professor in the Department of Psychology and Neuroscience. The focus of her research during her fellowship will be to understand the influence of health and sociocultural factors on cognitive aging among African Americans.

Adrienne Aiken Morgan, Ph.D.

Ying-hui Chou, Sc.D., a Postdoctoral Fellow at the Aging Center, earned her ScD in Movement and Rehabilitation Sciences at Boston University and worked as a Postdoctoral Fellow in the Radiology Department at Brigham and Women's Hospital and Harvard Medical School in Boston. Her dissertation was entitled "Effects of symmetric and asymmetric optic flow speed manipulations on locomotion in younger and older adults." Dr. Chou's mentor is Dr. David J. Madden, Professor of Medical Psychology in the Department of Psychiatry and Behavioral Sciences. Dr. Chou's research will focus on neuroimaging measures of functional connectivity and their relation to age and physical status.

Ying-hui Chou, Sc.D.

Photograph courtesy of Don Thompson

Coming Events

August 9–11

Productive Aging in China: toward Evidence Based Practice and Policy. Peking University, Beijing, China. Contact: **acm5@columbia.edu.**

August 30–September 1

International Conference on Emerging Issues in Safe and Sustainable Mobility for Older Persons: International Conference on Emerging Issues in Safe and Sustainable Mobility. Washington, DC. Contact: **www.TRB.org/Conferences/OlderDriver2011.aspx**.

September 20–21

'Become an EPEC Trainer' Conference. Oak Brook, IL. Contact: Veronica Roman, **info@epec.net**.

November 16–18

9th International Reminiscence and Life Review Conference. Boston, MA. Visit www.reminiscenceandlifereview.org or contact **jkunz@uwsuper.edu**.

November 18–22

"Lifestyle – Lifespan." 64th Annual Scientific Meeting of the Gerontological Society of America. Boston, MA. Visit **www.geron.org/annualmeeting**.

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