



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

## Faculty Present Research At IAGG

Center faculty and students made over 20 presentations at the International Association of Gerontology and Geriatrics World Congress in San Francisco, July 23-27, 2017.

**I. Akushevich, A.P. Yashkin, J. Kravchenko, and A.I. Yashin** presented a paper on “Time trends of Alzheimer’s Disease: addressing contradictory issues.” They concluded that there is a high level of heterogeneity in the time-trends of Alzheimer’s disease and the measures representing contradictory issues; this heterogeneity is a strong contributor to the observed contradictions.

**I. Akushevich, A.P. Yashkin, J. Kravchenko, F. Fang, and A.I. Yashin** presented a paper on “Partitioning of time trends in mortality of lung cancer among older U.S. adults.” They concluded that the methodology developed in this study

increases the range of analysis that can be accomplished with SEER data and can serve as an additional tool for improvement in the quality of health outcomes research.

**C. Bales** presented a paper on “Interventions for obesity in frail older adults: findings and implications for function.” She concluded that increasing pro-



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## EDITORIAL What's In A Name?

*"What's in a name? That which we call a rose, by any other name would smell as sweet."*

**J**uliet, in *Romeo and Juliet*, was wrong about this. If a rose was called something bad like "stinkweed" it probably would not be perceived as smelling so sweet. Similarly, if an older person is called an "old fart" or "old hag" or even "old maid", they will probably not be perceived as sweet or attractive as they would if they are called a "veteran" or "senior citizen."

This has now been confirmed empirically by The Frameworks Institute, a communications research group acting on behalf of the Leaders of Aging Organizations (LAO). As a result of their

research, they recommended the use of "older person" as the term with the least negative and most positive connotations.

It seems odd that people find "older person" to be less negative and more positive than "old person". And I would have thought that "senior citizen" or "elder" would be more positive than "older person"; but apparently the connotations of words are not necessarily logical. I won't argue with the results of their scientific research. So I, for one, will plan to use "older person" as my preferred term for us older persons.

The Frameworks Institute also recommends that instead of using "Tidal wave," "tsunami," and similarly catastrophic terms for the growing population of older people, it is better to use positive terms, such as "our population is living longer and healthier lives."

This is more than being "Politically Correct." This is a matter of setting a more positive framework for attitudes toward aging and reducing the negative effects of ageist language. ■



## Taylor and Dong Win Busse Awards

**M**iles G. Taylor, PhD, won the 2017 social/behavioral science Busse Award and **XinQj Dong, MD, MPH**, won the biomedical Busse Award. They were presented the awards on July 25, 2017, at the International Association of Gerontology and Geriatrics World Congress in San Francisco.

Taylor presented a paper on "Life Course Determinants of Health Trajectories in Older Adulthood." She is an Associate Professor of Sociology and Faculty Associate of the Pepper Institute on Aging and Public Policy at Florida State University.



Miles G. Taylor, PhD



XinQj Dong, MD, MPH

Dong presented a paper on "Confucius v. Einstein: Who Would Be a Better Gerontologist?" He is Professor of Geriatric Medicine, Behavioral Sciences and Nursing; Director of the Chinese Health, Aging and Policy Program; and Associate Director of the Rush Institute for Healthy Aging at Rush University.

The Ewald W. Busse Research Awards were established in 1960 with an endowment to Duke University from Gerontology International, Inc., a foundation whose goal is to promote international research and education in gerontology. The purpose of these awards is to recognize the achievements of junior or mid-career scientists and to encourage their continued contribution to aging research. This endowment is administered by the Duke University Center for the Study of Aging and Human Development. ■

tein intake at meals and for the day to support lean mass retention and muscle function is a promising intervention.

**A.R. Bardo, T. Yamashita, and D. Liu** presented a paper on “Happy life expectancy and health: a crossnational study of Japan and Taiwan.” They concluded that adults with good health can expect to have relatively long and happy lives.

**D. Belsky** presented a paper on “Quantification of biological aging for testing geroprotective interventions.” He proposed and tested several algorithms to quantify biological aging. **Belsky** also presented a paper on “Impact of early personal history characteristics on the pace of aging.” He concluded that exposure to early adversity accelerates the rate of biological aging already by the middle of the life course. He also chaired a session on “Quantification and analysis of biological aging: genetic, genomic, and biomarker geroscience tools.”

**J. Bettger** presented a paper on “Can we measure resilience from administrative and secondary sources of data?” She demonstrated how examining consecutive days at home and integrating administrative data on service availability and use of assistive device can provide more insight into resilience after an acute hospitalization. **Bettger** also presented a paper on “Caregivers as the primary resource for post-hospital care in low-and middle-income countries.” Challenges to implementation and measurement and broader applicability of these models were discussed.

**C. Colon, H. Whitson, K. Manning, D. Belsky, and J. Bettger** made multiple presentations at a session on “Measuring physical resilience in older adults: trajectory, phenotype, and age discrepancy approaches.”

**S. Ge, X. Dong, and B. Wu** presented a poster on “Social support as facilitators of dental care utilization among low-income older Chinese immigrants.” They concluded that low-income older Chinese immigrants have unmet dental care needs and that children’s financial support played the most significant role in promoting dental care utilization among low-income community-dwelling older Chinese immigrants.

**C.M. Germain, E. Vasquez, and J.A. Batsis** presented a paper on “Body mass, cognitive status, and functional outcomes in older men and women.” They concluded that metabolic syndrome appeared to be associated with an increased risk of either ADL or IADL disability, especially in women.

**Germain** was also a coauthor of a paper on “Association of telomere length with functional impairments: data from NHANES 1999–2002.” They concluded that having physical limitations abrogates the benefits of longer telomere length in individuals with these impairments.

**Y. Guo, H. Whitson, T. Ostbye, A. Luciano, and R. Malhotra** presented a paper on “Care complexity and medication use among older Singaporeans.” They concluded that seniors with less education may be at risk for lower confidence or uncertainty in medication usage.

**K. Hall** presented a paper on “Making mentoring meaningful.” Hall was also a discussant at a session on “Insights into the key role of physical activity/exercise on successful aging in older adults.” She provided practical advice on how to start and sustain effective and mutually beneficial mentor and mentee relationships.

She also presented a paper on “Exploring the link between sedentary behavior and diminished functional health outcomes in adulthood.” She concluded that reducing sedentary behavior may help preserve functional independence and physiological regulation.

**Hall** was also co-chair with J. Hughes of a pre-conference workshop titled, “Crossing geographic and disciplinary boundaries.” She was also chair of a symposium on IAGG international council of the gerontology student organization: collaborative networks for emerging scholars: local, regional, and international perspectives.

**S. Hastings** presented a paper on “Association of age with patient experience of care in medically complex veterans.”

**L. He, I. Culminkaya, Y. Loika, K. Arbeev, O. Bagley, A.I. Yashin, and A. Kulminski** presented a paper on “Estimation of causal effects on hazards of major age-related diseases using mendelian randomization.” They concluded

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### the Center Report

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## Blazer Chairs NASEM Committee on Hearing Aids

**D**an Blazer, MD, Senior Fellow at our Center, chairs the National Academies of Science, Engineering, and Medicine (NASEM) committee, which produced the report "Hearing Health Care for Adults: Priorities for Improving Access and Affordability." This report was the primary basis for the bipartisan bill (the Over-the-Counter Hearing Aid Act of 2017) which as of this writing is moving through both houses of Congress.

This bill would help make hearing aids available to older persons at a reasonable price. Hearing aids and the services of audiologists are often bundled so that the cost averages \$4,700 for two hearing aids. This makes them unaffordable for millions of Americans. Direct access to over-the-counter (OTC) hearing aids is not possible under current regulations.

The legislation directs the U.S. Food and Drug Administration to create a

regulatory classification for OTC hearing aids including evidence-based performance standards and consumer protections.

For more information, go to <https://www.geron.org/images/gsa/policycenter/otchearingaidbackground2017>.

### Faculty Present Research At IAGG continued

that their findings have important implications in guiding effective intervention strategies to reduce the incidence of these diseases.

**C. Hendrix** presented a paper on "Caregiver support after hospital discharge: the duke elder family caregiver training (DEFT) program." DEFT aims to increase caregiver preparation for home care, reduce preventable health care utilization among patients, and increase competence among learners in interprofessional care and care transitions.

**H. Hoenig** presented a paper on "Use of home videotelehealth gait and balance measures to predict and intervene on functional decline." She concluded that TeleHOME has great promise to help promote resilience for at-risk community-dwelling elders.

**L. Jiang, C. Brown, and M. Gugliucci** presented a poster on "The mentoring switch: two way mentorship program 2nd round."

**B. Kang, E.S. McConnell, K. Scales, Y. Song, M. Lepore, and K.N. Corazzini** presented a paper on "Nursing home residents' narratives of their interpersonal relationships." They discussed the importance of their findings about interpersonal relationships and appreciative inquiry, a strengths-focused approach for helping nursing home residents, families, and staff co-create personally meaningful living and working environments.

**F. Keefe** was a co-author of a paper on "Global vs. momentary arthritis pain and emotional distress: emotional intelligence as moderator." They concluded that awareness and regulation of one's emotions can be a powerful tool for coping with osteoarthritis pain.

**S. Kennerly, and T. Yap** presented a paper on "Exploring the adaptive and technical challenges nursing staff experience in using new technology." Their findings revealed nursing staffs' enhanced experience by using new technology.

**I. Kulminskaya, Y. Loika, J. Huang, K. Arbeev, O. Bagley, A.I. Yashin, and A. Kulminski** presented a paper on "Pathways enrichment and age-related phenotypes: non-pleiotropic SNPs versus pleiotropic SNPs." They concluded that genes for highly pleiotropic SNPs are likely involved in fundamental pathways associated with regulation of inflammation as a risk factor for various chronic illnesses. Non-pleiotropic variants likely indicate disease-specific pathways.

**Y. Loika, L. He, J. Huang, K. Arbeev, I. Culminskaya, A.I. Yashin, and A. Kulminski** presented a paper on "Abundant non-pleiotropic and pleiotropic associations with age-related traits in a modest sample." Their findings demonstrate benefits of more comprehensive approaches than the currently prevailing ones to gain insights into the genetics of health span and life span.

**K. Lee, L. Galkowski, C.L. Downey, and E.S. McConnell** presented a paper

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## FEATURED RESEARCHER: Miles Berger, MD, PhD



Miles Berger, MD, PhD

I am an anesthesiologist with a PhD in neuro-endocrinology. As an anesthesiologist, on a weekly basis I care for older adults undergoing brain and spine surgery. These older adults often display postoperative delirium and confusion, both immediately after surgery in the recovery unit, and days later in their hospital rooms. Nervous patients (and their family members) have asked me if they will be the same after anesthesia and surgery, and older patients (including former physicians) have called me weeks after their surgery to complain of cognitive problems ranging from difficulty concentrating, to memory impairments and temperament changes. These experiences have convinced me that post-operative cognitive dysfunction (POCD) and delirium are serious clinical problems that interfere with quality of life, daily functioning and post-surgical recovery for our older patients.

From my Ph.D research training, I also believe that in order to prevent and treat POCD and delirium, we need to

better understand their cellular/molecular and brain network-level pathophysiology. Towards this goal, my colleagues and I are studying the role of Alzheimer's Disease (AD) pathology and neuroinflammation in POCD and delirium. Since in vitro studies have showed that both anesthetic drugs and surgical stress could accelerate AD pathogenesis (such as amyloid beta oligomerization and tau production and phosphorylation), we first asked whether these processes actually happen in vivo in our patients. We found that anesthesia and neurosurgical procedures were associated with a 3-fold elevation in cerebrospinal fluid (CSF) tau levels, into the same range seen in Alzheimer's disease.

To better understand the functional significance of these large CSF tau increases, we then initiated the MADCO-PC (Markers of Alzheimer's Disease and neurocognitive Outcomes after Perioperative Care) study. In MADCO-PC, surgical patients (and matched non-surgical controls) >60 years of age undergo pre- and post-operative CSF sampling, cognitive testing and functional MRI imaging. Our preliminary results suggest that higher baseline levels of AD pathology and postoperative neuroinflammation may both be risk factors for developing POCD. We have also found that the magnitude of POCD is associated with dysfunction in the brain's default mode network, a set of brain regions that show increased activity and connectivity when individuals are at rest and not completing cognitive tasks. In essence, the default mode network acts as a neutral ground state that allows the brain to then shift into different cognitive tasks

(i.e. verbal memory, executive function, attention, spatial memory, etc.), similar to the way a manual drive car has to go into neutral between switching gears.

Our preliminary data on the role of neuro-inflammation in POCD from the MADCO-PC trial, together with mouse model work on the role of brain monocyte influx in POCD, has led to a new study funded by a K76 Beeson grant that we were recently fortunate to receive. This new study is explicitly designed to study the role of CNS monocyte influx in POCD, POCD-associated default mode network connectivity deficits, and postoperative AD pathology. This work represents a team science approach to studying problems that spans fields ranging from basic cognitive neuroscience to cellular/molecular neuroimmunology to perioperative geriatric medicine, and represents a strong team effort from my colleagues across Duke including Drs. Joseph Mathew and Niccolo Terrando, Gene Moretti and numerous other Duke anesthesiologists who have helped obtain CSF samples; Drs Heather Whitson, Harvey Cohen and Miriam Morey of the Center for Aging; Drs. Roberto Cabeza, Marty Woldorff, and Jeff Browndyke from the Center for Cognitive Neuroscience, and Drs. Daniel Laskowitz and Ellen Bennet in the Neurology Department. I am deeply grateful to these wonderful colleagues, the collaborative relationship among anesthesiologists, surgeons and geriatricians, and the scientifically supportive atmosphere of the Center for Aging and Human Development in making this work possible. ■



## FREQUENTLY ASKED QUESTIONS\*

### Are there memory aids that really work?

*"Memory aids work if you can just remember them."* – Anonymous

**H**ere are some tried and true memory aids that really work (and are easy to remember).

- Write it down. The act of writing helps to process the memory as well as serving as a reminder if it is written on your calendar or posted in a prominent place.
- Create a visual image. This helps process the memory into another area of the memory banks.
- Associate it with something you already know. Connect the memory with another one, such as a similar name or word or image.
- Memorize small chunks at a time. Think of a phone number as three chunks (area code, the exchange, and the individual number), not one long number.
- Repeat the memory over and over to yourself.
- Be consistent about where you put things. Designate only one or two places that you put your glasses or keys or wallet or hearing aid. Do not put your wallet away until you have put your credit card back in it.
- Look for visual cues. To remember where you parked, look for specific landmarks, or write down the number of the space.
- Set a timer or alarm to remind you to take care of something, like turn off a burner or wake up from a nap. ■

\*Adapted from Palmore, *Older Can Be Bolder*. Amazon, 2011.

## WHITSON APPOINTED DEPUTY DIRECTOR

**H**arvey Cohen, MD, Director of our Center, announced that Dr. Heather Whitson has accepted appointment as Deputy Director of the Center for the Study of Aging and Human Development effective July 1, 2017. In this role Dr. Whitson will assist Dr. Cohen in some aspects of the day to day administration of the Center, but more importantly she will play a substantial role in strategic planning to expand the Center's capacity and reach. She will lead efforts to enhance our collaboration and integration with key stakeholders and entities such as the CTSA, the new Department of Population Health

Sciences, SSRI, Regeneration Next, Duke-NUS and others. She will work to advance, refine, and coordinate the Center's main scientific themes: physical resilience across the lifespan, social and behavioral science of aging, health services research for medically complex populations, and interventions to promote independence in late life. She will broaden our capacity to mentor and educate a future generation of researchers who are prepared to thrive in biomedical and social sciences that benefit an aging population.

Dr. Whitson is a geriatrician and an Associate Professor with Tenure in the Departments of Medicine and

Ophthalmology. She has been a Senior Fellow of the Aging Center since 2008 and serves as Pilot and Exploratory Studies Core Leader in our Claude D. Pepper Older Americans Independence Center. Dr. Whitson serves as Vice Chair of the American Geriatrics Society Research Committee and co-chairs the Research Development Council within the Department of Medicine. Dr. Whitson is an outstanding investigator and mentor with an impressive body of work in the area of multiple chronic conditions and function, with a concentration on sensory health and the aging brain. ■



## POSH Program Takes Team-Based Approach for Care of Older Patients Who Need Surgery\*

**B**ill Chism, 77, recently sailed through a serious surgery. “I had eight or nine hours of surgery,” Chism says. “Considering that, my recovery was very good. I did not lose my memory. I had no pain, (just some) discomfort.”

Chism participated in a Duke program designed to identify and proactively address issues in older adults that might lead to surgical complications.

That program is POSH—the [Perioperative Optimization of Senior Health](#). POSH is a team-based approach in which surgeons, geriatricians, advanced practice providers from anesthesia, and patients work together to head off potential problems before surgery. Older adults are at risk for complications because they are more likely to have more than one medical condition, multiple prescriptions, and decreased strength, vision, hearing, and/or cognition.

“Surgeons are seeing older and older patients,” says Shelley McDonald, DO, PhD, Assistant Professor of Medicine (Geriatrics). “We’ve learned that by working together, these patients can get through surgery with fewer complications.”

Research bears this out. A study at Duke showed that POSH patients undergoing elective abdominal surgeries were able to leave the hospital two days earlier on average than non-POSH patients, and were much less likely to be readmitted afterward.



Chism, who is from Lumberton, NC, had a complex surgery known as the Whipple procedure to remove a malignant tumor in a bile duct.

His surgeon recommended the POSH program, so several weeks before the surgery, he and his wife, Bobbie Britt, came to Duke for an appointment in the POSH clinic. A nurse took Chism’s vital signs and assessed his vision, cognition, mood, and gait speed, among other things.

Next, a nurse practitioner from the preoperative screening clinic carried out the necessary medical screening that all patients, regardless of age, must go through before surgery.

After that, Chism and Britt met with McDonald. “With every patient, we talk

about the surgery in the context of goals for health,” McDonald says. “We talk about how to minimize risks of delirium or loss of independence. We send them off with information to get ready for surgery. We also get people to start thinking about what they need when they go home.”

In Chism’s case, McDonald prescribed pre-surgery respiratory exercises to help him avoid lung problems while hospitalized. Chism was already a regular walker, but she suggested he add some core strengthening exercises. She also stressed the importance of getting up and walking with assistance in the hospital as soon as he was cleared by his surgeons to do so.

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\*Reprinted from Duke Medicine News, August 3, 2017.



## White elected President



Heidi White, MD, MEd, CMD

**H**eidi White, MD, MEd, CMD, Associate Professor of Medicine in the Division of Geriatrics and a Senior Fellow in the Duke Center for the Study of Aging and Human Development, was elected the 2017-2018 President of the Society for Post-Acute and Long-Term Services (AMDA) in March, 2017. “I am grateful that Society members have put their trust in me,” she says. “I hope to continue to add to the legacy of so many past presidents who have served the organization as well.”

AMDA: The Society for Post-Acute and Long-Term Care Services is the only medical specialty society representing the community of over 50,000 medical directors, physicians, nurse practitioners, physician assistants and other practitioners working in post-acute and long-term care settings.

**Congratulations Heidi!**

### *POSH Program Takes Team-Based Approach for Care of Older Patients Who Need Surgery continued*

To avoid delirium in the hospital, she adjusted some of his prescriptions and advised him to wear his hearing aids and glasses as much as possible so that he could stay engaged. Episodes of delirium, which are common among older patients, are deeply distressing to patients and family and can lead to falls and other medical problems.

She suggested he ward off anxiety and stress in the hospital by engaging in pleasurable activities, such as reading, playing cards, speaking with a chaplain, and listening to music.

Multiple studies have shown that listening to music can reduce perceptions of anxiety and pain in the hospital. Neema Sharda, MD, medical instructor in medicine (Geriatrics), works with the POSH team to provide patients with iPod Shuffles preloaded with their favorite music. She met with Chism before



Laura Preville, MD, and Bill Chism talk during a recent visit.

surgery to ask about the kind of music he enjoyed and to encourage him to listen at

least twice a day in the hospital. ■

## Faculty Present Research At IAGG continued

on “Emotional expression as evaluation of person-centered dementia-specific oral care for veterans.” They concluded that negative emotional expressions increased during oral care.

**K. Manning** and colleagues presented a paper on “Use of physical activity trackers to measure resilience pre- and post-surgery among older adults.” They concluded that using physical trackers, and collecting pre-stressor, stressor, and post-stressor measures are promising methods of assessing resilience in a vulnerable population.

**D. Matchar, P. Duncan, C.T. Lien, M.E. Ong, M. Lee, R. Sim, and K. Eom** presented a paper on “The steps to avoid falls in the elderly (SAFE) study.” The SAFE study showed that screening, risk modification and intensive, consistent and progressive physical therapy can effectively reduce the number of fallers and injurious falls.

**M. Morey** and colleagues presented a paper on “The 6th Vital Sign: a mobile app for population health surveillance of walking speed.” They concluded that the 6th Vital Sign study demonstrates the feasibility of designing and disseminating a smartphone-based app to assess population health.

**M. Morey, H.J. Cohen, K. Hall, D. Belsky, X. Zuo, and M. Peterson** made

multiple presentations at a symposium on “How young and full adult lifespan cohorts contribute to our understanding of late life function.”

**Morey** was also a coauthor of a paper on “Proactive reach and telehealth monitoring (GEROFIT) enhance resistance exercise at rural settings.” They concluded that proactive reach using EMR effectively identifies and delivers exercise interventions in rural PC, enhances physical activity, and increases awareness and implementation of resistance exercise.

**G.A. Noppert** presented a paper on “TB transmission in older populations: a re-examination of risk groups.” Noppert concluded that policies aimed at screening older populations for LTBI may be effective in reducing incidence overall among this population.

**H.K. Park, and C.C. Hendrix** presented a paper on “A literature review on the decision making process of older adults for end-of-life care.” They concluded that further studies are needed to explore how varied factors interplay in the decision-making process of older adults in end-of-life care.

**K. Porter, M. Lepore, K. Scales, K. Corazzini, E.S. McConnell, T. Thach, Y. Song, and R.A. Anderson** presented a paper on “Care planning in U.S. nursing homes, a framework for person-directed

care planning (PDCP). They concluded that the integrated themes highlight key aspects of engaging individuals in their own care planning, as well as adaptive and technical challenges to such engagement.

**K. Ramos and J. Fulton** presented a paper on “Tailoring interventions to promote dignity and well-being for patients with life-threatening illness.” They reviewed contributing factors to the success of this treatment delivery (e.g., interdisciplinary team collaboration, treatment adaptations to accommodate impaired functioning).

**K. Scales** chaired a symposium on “Empowerment, emotional labor, and everyday encounters in home care for persons with dementia.” Scales was also author or co-author of several papers at this symposium including: “Empowerment, emotional labor, and everyday encounters in home care for persons with dementia,” “Close encounters of the caring kind: examining everyday experiences of homecare using staff diaries,” and “Tact and duplicity in interpersonal relations between paid home caregivers and their clients.”

**P.D. Sloane, S. Zimmerman, A.S. Beeber, L.P. Gwyther, and B. Matchar**

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## VOLUNTEERS NEEDED FOR FLU VACCINE STUDY

Two new flu vaccines are now available for older adults (65 years or older): FLUAD and Fluzone. These vaccines show superior efficacy compared to standard influenza vaccine. However the relative safety and efficacy in older adults of these vaccines has not been compared with each other. Volunteers are needed to participate in a clinical trial to test which is better. Volunteers will be compensated for their participation. If interested, call Sue Doyle at 919-660-7581. Kenneth Schmader, MD, is the Principal Investigator.

## Faculty Present Research At IAGG continued

presented a paper on “Helping family caregivers attend to medical signs and symptoms of relatives with dementia.” They concluded that the use of a book and web-site entitled Alzheimer’s Medical Advisor, produced significant improvements in caregiver confidence knowing about, deciding about, taking care of, and enacting behaviors, as well as reduction in caregiver role strain.

**K. Starr** was a co-author of a poster on “Influence of protein intake during weight loss on inflammatory response of obese, frail older adults.” They concluded that findings from this pilot study show beneficial inflammatory responses to high protein weight loss in obese, frail older adults.

**S. Studenski** presented a paper on “Resilience, reserve and physical performance.” She concluded that resilience and reserve testing are most appropriate for individuals who perform at or near the ceiling on a performance test, but such high level testing can result in missing data in persons with poor performance.

**C. Van Houtven, J. Lindquist, V.A. Smith, J. Chapman, C.C. Hendrix, S.N. Hastings, E.Z. Oddone, and M. Weinberger** presented a paper on “effect

of family caregiver skills training on perceived quality of care and depressive symptoms.” They concluded that the HI-FIVES training program improved perceived quality of care, but did not reduce depressive symptoms.

**C. Van Houtven** and colleagues presented a poster on “Helping invested families improve veterans experience study (HI-FIVES)”. He concluded that HI-FIVES improves caregiver and patient perceived quality of care, but does not change caregiver depressive symptoms.

**A.I. Yashin** presented a paper on “Genetics of late onset Alzheimer’s disease: connection with aging, health, and longevity traits.” He concluded that the use of information on functional roles of detected genes (APOE, TOMM40, APOC1, PVRL2 among others), as well as on corresponding signaling and metabolic pathways, provides important insights on possible causes of this health disorder.

**A.I. Yashin, I. Akushevich, F. Fang, M. Kovtun, D. Wu, K. Arbeev, A. Kulminski, and S.V. Ukraintseva** presented a paper on “Cellular stress response genes in Alzheimer’s disease: insights from genome wide association studies.” They concluded that the genet-

ics of Alzheimer’s disease (AD) includes genes affecting vulnerability/resistance to AD-related cellular stresses, as well as “stress response” (resilience) genes influencing cellular ability to repair damage, and restore homeostasis.

**A.P. Yashkin, I. Akushevich, and A.I. Yashin** presented a paper on “The effect of adherence to diabetes guidelines on nursing home entry and health at time of admission.” The results of this study will aid in public health awareness efforts aimed at combating the diabetes pandemic, and reducing the burden of diabetes for both the patient and society.

**X. Zuo, A. Luciano, C. Pieper, and H.J. Cohen** presented a poster on “Creating biomarker burden and robustness indices for physical performance in older adults.” They concluded that the biomarkers included in their model have physiological and clinical implications on development of, or resilience to, physical performance decline in older adults.

**X. Zuo** and colleagues also presented a paper on “Default mode network connectivity, episodic memory and hearing and vision loss in older adults.” They concluded that default mode connectivity has a positive correlation with episodic memory. ■

SLOGAN FOR THE DAY:  
**Old age is not for sissies.**

# DUKE PEPPER CENTER



## INTERVENTION DEVELOPMENT WORKSHOP

The objective of this workshop is to support early investigators in developing and testing complex interventions targeting older populations.

Organized around the **Medical Research Council framework for the development and evaluation of complex interventions to improve health**, participants will have the opportunity to develop or refine their own intervention ideas over 7 sessions. Expert faculty facilitators review key points using case study examples, highlight resources and provide self-study materials. Ample time for discussion, small group work, and problem-solving around the scholars' research areas is provided.



### Workshop Dates/Location

2-3:30 pm, Aging Center Learning Lab, 1502 Blue Zone

- ◇ 9/15/17
- ◇ 9/22/17 (3-4:30)
- ◇ 10/20/17
- ◇ 11/10/17
- ◇ 11/17/17
- ◇ 12/1/17
- ◇ 12/15/17

## REGISTRATION INFORMATION

- ◇ Registration is limited to 15 participants
- ◇ Participants should commit to attending at least 6 sessions
- ◇ Email Cathleen Colon-Emeric ([cathleen.colonemeric@duke.edu](mailto:cathleen.colonemeric@duke.edu))
- ◇ Attach current CV or biosketch (any format)
- ◇ Briefly describe the type of intervention you are considering



Duke Pepper Center Mission:

*To understand and optimize reserve and resilience*

Contact us: 919 660-7500

<https://sites.duke.edu/centerforaging/contact-us/>



## COMING EVENTS



**October 27-28: "Caring for and Communicating with the Older Cancer Patient." Rockefeller Research Laboratories, New York City. Contact: [CME@mskcc.org](mailto:CME@mskcc.org).**

**March 1-4, 2018: The Association for Gerontology in Higher Education (AGHE) 44th Annual Meeting and Educational Leadership Conference at the Sheraton Atlanta Hotel in Atlanta, GA. Contact: [aghe.org/am](http://aghe.org/am).**