



the Center Report

Center Faculty Present Research at AGS Meeting

Several faculty presented papers, posters, and led symposia at the 2009 Annual Scientific Meeting of the American Geriatric Society at Chicago in April.

D. J. Anderson, Y. Choi, R. Sloan, and K. Schmader presented a poster on "Predictors for 90-day Mortality after Nosocomial Blood Stream Infection (BSI) in the elderly."

They concluded that Nosocomial BSI in elderly patients increases 90-day mortality two-fold even after controlling for functional status and differences in co-morbid conditions.

Busse Awards Presented

The 2009 Ewald W. Busse Research Awards were presented at the XIXth International Association of Gerontology and Geriatrics World Congress in Paris on July 8, 2009, to Kaarin J. Anstey, PhD, and Thomas M. Gill, MD. Anstey is Professor and Director of the Ageing Research Unit at the Australian National University. Gill is the Humana Foundation Professor of Geriatric Medicine and Professor of Epidemiology and Investigative Medicine, Yale University.

Dr. Anstey's lecture was on "Primary Aging, Secondary Aging, and Social Context as Influences on Cognitive Ageing through the Life-Course." Dr. Gill's lecture was on "Disentangling the Disabling Process: Insights from the Yale PEP Study."

Dr. Harvey Jay Cohen, MD, was the Jury Chair and presented the awards.

C. Colon-Emeric presented a poster on "The Impact of Zoledronic Acid (ZOL) on the Change in Charlson Co-Morbidity Index Score and its Relationship with Mortality after hip Fracture (HF)." She concluded that ZOL has a greater mortality benefit in patients with lower baseline co-morbidity scores than other patients.

C. Colon-Emeric and K. W. Lyles presented a poster on "Once-yearly Zoledronic Acid (ZOL) is Effective in Old Age." They concluded that in elderly osteoporotic women, once-yearly ZOL 5mg was associated with significant prevention of clinical fractures.

A. Dixit and M. Heflin presented a poster on "Establishing Diagnosis of White Coat Effect on Hypertension with Telehealth Care Coordination (CCHT)." They concluded that CCHT can coordinate patient care between a multidisciplinary team and the patient via technology to prevent unnecessary hospital visits/admissions.

S. M. Gharacholou, R. Sloane, H.J. Cohen, and K.E. Schmader presented a poster on "The Performance of Geriatric Inpatient Units in the Care of Frail Adults with Heart Failure." They concluded that inpatient geriatric assessment and management programs were associated with improvements in physical function and basic activities of



Kaarin J. Anstey, PhD



Thomas M. Gill, MD



Mortality and Osteoporosis: Can We Alter the Risk?

Osteoporosis, or low-density, poor quality bone that is prone to break, is a major problem for older adults. Nearly half of white women and 75% of nursing home residents have osteoporosis, and the disease affects all racial and ethnic groups. The high prevalence of osteoporosis in older adults translates into a very high risk of suffering painful and debilitating fractures. At age 50 years, 15% of men and 45% of women can expect to break at least 1 bone in their remaining lifetime.

For many years, researchers have recognized a link between osteoporosis and an increased risk of death. Patients who have had a broken a hip or spine bone have a 2-3 fold greater risk of death than similar patients without a broken bone. For patients with a broken hip this translates into a 20-30% chance of dying in the next year; the risk is especially high for men and for those who are already frail. However, even when low bone density does not result in a broken bone it is associated with a 1.5-2 fold higher risk of death when compared to people with higher bone density. It has never been clear, however, whether the low bone density was the cause of the increased risk, or whether it was simply a marker of patients who were particularly frail or sick with other illnesses.

Recently, researchers at the Aging Center conducted a trial (called HORIZON-RFT) of an osteoporosis medication, Zoledronic Acid (Reclast™) to see if it would reduce the chance of additional broken bones in patients with a recent hip fracture.

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Zoledronic acid is given once a year in an intravenous infusion. Surprisingly, in addition to decreasing the risk of more broken bones, this medication reduced the chance of death over 2 years by 28%. This was the first time that an osteoporosis medication was shown to have an effect on mortality, and the study raised some interesting questions. Did all patients receive a mortality benefit, regardless of their age, sex, race, or other health conditions? Was the mortality benefit due to the reduction in additional broken bones, which are known to increase the risk of death, or were there other conditions that were affected by the medication?

Recent work has attempted to answer some of these questions. Center Investigators Dr. Cathleen Colón-Emeric, Dr. Kenneth W. Lyles, Dr. Carl Pieper and collaborators re-analyzed data from the HORIZON-RFT trial, looking at the causes of death, other risk factors for death, and for groups of patients who particularly benefited from the drug. We found that men and women benefited equally, as did most other subgroups regardless of age, geographical region, body weight, and baseline bone density. Only patients who lived in a nursing home before their broken hip, had the highest number of other chronic illnesses, or who had high levels of cognitive impairment did not receive a mortality benefit from the drug. We found that the reduction in additional broken bones only accounted for a small amount (8%) of the mortality benefit, suggesting that Zoledronic Acid might have an impact on death from other causes.

Similar to previous studies, most patients in the HORIZON-RFT trial died from cardiovascular problems such as heart attacks, arrhythmias and strokes, from infections such as pneumonia, and from cancer. The risk of developing any one of these illnesses was very similar in patients who received Zoledronic Acid and those who received placebo. However, the risk of dying once you had developed the illness



Cathleen Color-Emeric, MD
Assistant Professor, Geriatrics

was lower for nearly every condition if the subject had received Zoledronic Acid. In particular, the risk of dying with cardiac arrhythmia or pneumonia was much lower in those who received Zoledronic acid.

Is it plausible that a medication like Zoledronic Acid could impact heart disease or infections? Zoledronic acid belongs to a class of drugs called the bisphosphonates. When given in intravenous form, they have a variety of effects on the immune system and inflammation, which are just beginning to be understood. Immune cell function and inflammation is also associated with heart disease, ability to fight infections, and other illnesses. It is therefore possible that medications like zoledronic acid may have beneficial effects not just on the bone, but also on the bodies' ability to fight other illnesses. Further studies are planned to explore this possibility.

In the meantime, the prevention and treatment of osteoporosis in order to reduce fractures and their associated increased mortality is an important part of health maintenance for all older adults.



EDITORIAL

Positive Slogans

Most people have negative attitudes toward “aging” and “old”. This is reflected in the fact that most of the synonyms for “old” are usually negative, such as debilitated, infirm, inactive, enfeebled, decrepit, impaired, senile, etc. Such synonyms encourage prejudice and discrimination against old people.

However, there are some positive slogans that can be used to counter these negative attitudes. Here are some of my favorites:

- Age is a case of mind over matter.
If you don't mind, it don't matter.
- Age is important only for wines and cheese.
- Age is just a number.
- Aged to perfection.
- Aging is living.
- Better over the hill than under it.
- Elders have done it longer.
- Gray Power.
- Grow old with me; the best is yet to be.
- How dare you think I'd rather be younger?
- It's not how old you are,
but how you are old.
- Old age is better than its alternative.
- Older is bolder.
- Old age is the consummation of life.
- Over the hill and loving it.
- Retired: rejuvenated, retreaded,
relaxed, remodeled.
- There may be snow on the roof,
but there's fire in the hearth.
- When you're over the hill,
you pick up speed.
- Youth is a gift of nature.
Age is a work of art.

Adapted from E. B. Palmore, *Ageism*, 2nd Edition. NY, NY: Springer, 1999.

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Center Faculty Present Research at AGS Meeting

daily living at hospital discharge without an increase in total costs.

S. N. Hastings, A. Barrett, M. Hocker, E. Z. Oddone, M. Weinberger, and K. E. Schmader presented a poster on “Older Patients’ Understanding of Emergency Department Discharge Information and its Relationship with Adverse Outcomes.” They concluded that a substantial number of older patients, or their proxies, may not understand Emergency Department discharge information, and this could have an adverse effect on patient outcomes.

S.N. Hastings, H.E. Whitson, J. Purser, R.J. Sloane, and K.S. Johnson presented a poster on “Variability in Adverse Outcomes According to Emergency Department Discharge Diagnosis.” They concluded that adverse events were more common among older patients with a discharge diagnosis classified as a chronic condition.

M. T. Heflin and E. Herbert presented a poster on “Getting Feedback from the Real Experts: A Survey of Older Adult Volunteers to Evaluate a Senior Mentor Program.” They concluded that Senior Mentors provided important feedback through a follow-up survey which measures completeness and quality of student performance on specific assessments.

K. S. Johnson, M. Kuchibhatla, and J. S. Tulsky presented a poster on “Racial Differences in Self-Reported Exposure to Hospice Information.” They concluded that African Americans reported less exposure to information about hospice than Whites. Greater exposure was associated with more favorable beliefs about some aspects of hospice, such as the desire for hospice in the future, but not to more fact-based items.

K. W. Lyles, C. Colon-Emeric, and C. Pieper presented a poster on “Bone Mineral Density (BMD) After Hip Fracture: Variation in Response to Once-Yearly i.v. Zoledronic

Acid (ZOL) 5 mg. They concluded that ZOL consistently showed a reduction in fracture risk and mortality as well as an increase in BMD with ZOL vs. placebo.

J. M. Pavon and G. T. Buhr presented a poster on “Impact of a Transition of Care (TOC) Experience on Internal Medicine Resident Training in Geriatrics” They concluded that that TOC intervention was effective in improving physician confidence in the care transition process, especially concerning medication reconciliation and inter-provider communication.

R. P. Petersen, M. T. Heflin, and S. A. Lago-Deenadayalan presented a poster on “Surgery Residents Desire more Training in Geriatric Care.” They concluded that among geriatric patients, residents felt comfortable performing standard tasks such as history and physicals. However, they identified subjects in which they perceived a need for additional instruction.

H. E. Whitson, L. R. Landerman, C. F. Pieper, and H. J. Cohen presented a paper on “Comorbidities and the Gender Difference in Disabilities: Analysis of the Cardiovascular Health Study.” They concluded that the gender gap in disability is due in part to higher rates of arthritis and obesity among women.

Whitson was also a coauthor of a poster on “Medication Prescribing Practices for Geriatric Prisoners in the Largest State Prison System.” They concluded that medication prescribing for geriatric prisoners in Texas is generally consistent with community practice, likely related to the affiliation between the Texas state prisons and the University of Texas. However, there is a need for improvement in geriatric-focused prescribing, including overuse of antihistamines and underuse of gastrointestinal prophylaxis.



Growth Hormone Drug May Reduce Frailty

A drug that stimulates the body to produce more growth hormone improves lean muscle mass and physical function in older adults, potentially helping to combat frailty, according to Heidi K. White, MD, MHS, associate professor of medicine at Duke. This is the conclusion of her report published in the April, 2009, issue of *The Journal of Clinical Endocrinology & Metabolism*.

A Phase II study is the first to show improvements in physical performance among at-risk seniors taking capromorelin, an oral compound developed by Pfizer, which can help the body release more growth hormone. Older adults have greatly reduced production of growth hormone, which regulates metabolism and aids in the building of muscle mass even after adolescent growth has been completed.

“As we age, decreased strength and physical agility trigger a cascade of events leading to loss of independence and disability,” says White, first author of the report. “By boosting the production of growth hormone, we may be able to slow this process and help people lead active lives longer.”

The study included 395 men and women aged 65-84 with mild functional limitations. Study participants were randomized to take a placebo or one of four doses of capromorelin.

White says that all four doses of capromorelin were shown to increase growth hormone production. These findings were sustained over one year of treatment. Researchers also observed a significant increase in lean body mass

(1.4 Kg versus 0.3 Kg for placebo) and improvements in two physical performance tests — tandem walking (heel to toe) and stair climbing.

“These findings support our hypothesis that stimulating growth hormone production not only increases the body’s ability to develop lean muscle, it also restores physical functioning,” White explains.

“The improvements seen in this study are promising but relatively mild, likely due to the general good health of the study participants,” White says. “Further research is warranted to determine if greater improvements in physical functioning are

seen among people who are already somewhat frail.”

To put the findings in context, researchers note that the study results can be compared to other studies that looked at the effect of exercise alone. A home-based exercise program among a similar patient population produced a 23-34 percent improvement in a stair climbing test after 10 weeks. Participants in the growth hormone study did not exercise, but their stair climbing ability improved by seven percent.

“Following further investigation, capromorelin could be used in combination with exercise,” White says.

Center Faculty Featured at ADMA Meeting

Several Center faculty presented papers or led discussions at the annual symposium of the American Medical Directors Association (AMDA) held in Charlotte, NC, last March. This is the professional organization for physicians who serve as medical directors of nursing homes and who care for patients in nursing homes.

The program featured the following faculty from Duke University:

- Ken Schmader and Cathleen Colon-Emeric from Duke University and Tony Caprio, MD from University of North Carolina at Chapel Hill provided the American Geriatrics Society sponsored session on Evidence-Based Decisions in LTC: “What Does the Evidence Tell Us about Biphosphonates, Zoster Vaccine and Feeding Tubes.”
- “A Day in the Life of a Nursing Home Administrator” featured two North Carolina administrators, Amber McIntosh from Hickory and Jonathan Thomas from Marshville along with Robert Sullivan, MD and Deborah Mathis. This session was organized and moderated by Heidi White, MD from Duke University.
- Nicki Hastings, MD, Heather Whitson, MD and Jack Twersky, MD from Duke University and the Durham VA Medical Center presented their data on telephone medicine which drew standing room only attendance.
- Ruth Anderson, PhD, Cathleen Colon-Emeric, MD and Kirsten Corazzini, PhD from Duke university Schools of medicine and Nursing provided and interactive session on Quality Improvement Strategies: Developing Mindfulness.
- Ellie McConnel, RN, PhD from Duke University School of Nursing presented a session, Implementing Clinical Practice Guidelines in Long Term care: The Role of Advance Practice Nurses.
- Heidi White, MD, senior fellow of the Duke Center on Aging and Associate Professor of Medicine at Duke University was elected to the AMDA Board of Directors for a three year term of service.
- Gwen Buhr, MD from the Duke Center on Aging participated in two sessions on care transitions and curricular strategies for teaching long-term care, and will be serving a two-year term as the president of our North Carolina State Chapter starting in October 2009.

We Are Number Four

Once again, the *U.S. News and World Report*, has ranked the Duke Division of Geriatrics as the fourth best in the nation. Duke Geriatrics has ranked among the top few divisions ever since these rankings began. The ranking is based on the responses of deans, department chairs and other national leaders in health care.



Nursing Care of Older Patients

Older Americans, those age 65 and older, currently account for 43 percent of all hospital days, a percentage that will continue to rise as this segment of the population grows. The demand for health care professionals who can recognize and respond to the unique care needs of older adults will be just as great.

“Traditional nursing training commits little time to the special needs of the elderly patient population, but caring for a 50-year-old patient with a hip fracture can be very different than caring for a 90-year-old with a hip fracture,” said **Ellie McConnell**, R.N., Ph.D., associate professor and gerontological nursing specialist and director of the Duke University School of Nursing’s Center of Excellence in Geriatric Nursing Education (COE-GNE).

The COE-GNE was funded by the Duke Endowment and the School of Nursing and is setting out to address this growing need by developing resources for students, faculty and clinicians.

“We need to be much more innovative and creative in how we educate health care professionals,” said **Loretta Matters**, R.N., MSN, associate director of the COE-GNE.

One way the Center is doing this is through a virtual learning community that connects nursing educators at community colleges and universities throughout the Carolinas and beyond.

The center is part of a statewide pilot program that shares evidence-based teaching materials, such as lesson plans, for use by faculty throughout local community colleges.

Nurse faculty and educators also have the option of completing two intensives, the Gero-Teaching intensive and the Clinical Instructor Development (CID) intensive, which have onsite and online components.

“The intensive was extremely valuable in helping us to apply knowledge and theory to a clinical setting,” said **Vickie Keathley**, a clinical instructor at the school and a graduate nursing student.

To address the needs of nurses providing direct care to older adults, the School of Nursing and the Health System have collaborated to implement NICHE (Nurses Improving Care for Health System Elders); a nurse-led interdisciplinary effort to provide extraordinary clinical care for older adults.

To date, 28 nurses have graduated from the NICHE program as geriatric resource nurses and 25 are currently enrolled from units at Duke University Hospital, Durham Regional Hospital, Duke Raleigh Hospital, Duke Home Health, and Hospice.

In order to become a geriatric resource nurse, interested clinicians undergo three days of professional development activities, review online modules for geriatric syndromes, and complete a clinical practice improvement project on their particular unit or department.

“They have to take something that they learned and come up with a project that they take back and apply on their unit. What that does is show outcomes right away,” said **Yvette West**, R.N., director of the Duke NICHE program.

For example, a worksheet developed by four nurses on Unit 8100 at DUH helped clinicians on that unit identify risk factors for hospital acquired delirium, a common geriatric syndrome.

Use of their risk-factor form has already resulted in the identification and reduction of delirium in 19 patients and also resulted in reduced rates of insomnia, lethargy and increased mobility.

Similar projects led by nurses throughout the Health System will be instrumental in improving quality of care for this ever-increasing patient population.

Adapted from “Improving care of older adults at Duke”. *Inside Duke Medicine*, May, 2009, p. 13.

Victims to Voices: Alzheimer’s and Family Care

Lisa P. Gwyther, MSW, LCSW, spoke on “Victims to Voices: Alzheimer’s and Family Care” at the annual George L. Maddox, PhD, lecture, April 14, 2009.

In her lecture, she asserted that over the last thirty years we have moved from descriptions of Alzheimer’s families as victims of personal tragedy to images of families of people with Alzheimer’s marching through Congressional offices wearing “Voices” t-shirts proclaiming a public health crisis. These families are no longer “hidden victims” seeking short-term personal fixes while waiting for definitive prevention, delay, disease-modifying, or curative treatments.

This presentation offered past, present, and future perspectives on health and social support services for families facing Alzheimer’s and related diseases.

Gwyther is an associate professor in the Department of Psychiatry and Behavioral Sciences and a Senior Fellow of the Center for the Study of Aging, past-president of the Gerontological Society of America, and coauthor of *The Alzheimer’s Action Plan*.



Did You Know?

Which is the best answer to the following questions?

1. Comparing widows with widowers among the aged:
 - a. Their numbers are about equal.
 - b. There are about twice as many widows as widowers.
 - c. There are about five times as many widows as widowers.
 - d. There are about twice as many widowers as widows.

2. Voter participation rates are usually:
 - a. Highest among those over 65.
 - b. Highest among those aged 55 to 64.
 - c. Highest among those aged 40 to 54.
 - d. Highest among those aged 20 to 39.

3. Being elected or appointed to public office is:
 - a. Rare among those over 65.
 - b. More frequent among those under 65.
 - c. More frequent among those over 65.
 - d. Similar in frequency among older and younger persons.

Answers:

1. **c.** There are about five times as many widows as widowers. This is the result of several factors: Women tend to marry men older than themselves, women tend to live longer than men, and widows do not remarry as often as do widowers, partly because of the scarcity of eligible widowers.

2. **b.** Voter participation rates are usually highest among those aged 55 to 64. However, sometimes the “young-old” (those 65 to 74) had a higher voting rate than those 55 to 64. Furthermore, it appears that the lower voting rate for those over 65 as a category is not due to aging processes, but to the larger proportion who are female or have less education.

3. **c.** There are proportionally more older persons in public office, and this is even more true of the highest officials. The generally positive relationship between old age and high political office is found throughout history and across all types of political systems.

Adapted from *The Facts on Aging Quiz*, 2nd Ed. by Erdman Palmore, NY: Springer Publishing Co., 1998.

Pepper Center Recognizes Junior Faculty Scholars

In 1992, the Duke Pepper Older American Independence Center was established to promote and support research and training directed towards improving the health, independence and quality of life of older Americans.

Since its inception, the Duke Pepper Center has produced an impressive portfolio of relevant research and innovation in faculty development. One of its many accomplishments is support and mentoring of numerous promising investigators whose careers focus on relevant aging-related research. In recognition of the contributions of these young investigators, the Duke Pepper Center has recently established a Duke Pepper Scholars Program.

The Center recently announced that the first Duke Pepper Scholars are Jama Purser, PT, PhD; Heather Whitson, MD; Kim Huffman, MD; Deborah Muola, PhD; Svati Shah, MD, MHS; and James Cavanaugh, PT, PhD.

Flaxseed Slows Prostate Cancer

A team of Duke University researchers recently reported at the annual meeting of the American Society of Clinical Oncology that regular consumption of flaxseed (not flaxseed oil) slowed the growth rate of prostate cancer cells. This conclusion was based on a study of 160 patients with prostate cancer.

Also, the Mayo Clinic in Rochester, Minn. reported that cancer patients taking ginseng daily found they had more energy than patients on a placebo. On the other hand, shark cartilage (often touted to reduce cancer) was found to be of no use in treating lung cancer, according to a three-year study of 384 patients by Houston's M.D. Anderson Center.



Recent Publications

The following are selected recent publications on aging by faculty of the Center for the Study of Aging.

Blay SL, Fillenbaum GG, Andreoli SB, Gastal FL. Equity of access to outpatient care and hospitalization among older community residents in Brazil. *Medical Care* 2008 Sept; 46(9):930-937.

Blay SL, Fillenbaum GG, Andreoli SB, Gastal FL. Correlates of and relationship among lifetime alcohol abuse and alcohol dependence in older community residents in Brazil. *Int Psychiatry* 2009; 6(2):40-44.

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Catterall JB, Barr D, Bolognesi M, Zura R, Kraus VB. Post-translational aging of proteins in osteoarthritic cartilage and synovial fluid as measured by isomerized aspartate. *Arthritis Research and Therapy* 2009; 11:R55.

Chen H-C, Shah SH, Stabler TV, Li YJ, and Kraus VB. Biomarkers associated with clinical phenotypes of hand osteoarthritis in a large multigenerational family: the CARRIAGE Family study. *Osteoarthritis and Cartilage* 2008 Sept;16(9):1054-9.

Chen H-C, Shah SH, Li YJ, Stabler TV, Jordan JM, and Kraus VB. Inverse association of general joint hypermobility with hand and knee osteoarthritis and serum cartilage oligomeric matrix protein levels. *Arthritis & Rheumatism* 2008;58(12):3854-64.

Hastings SN, Purser JL, Johnson KS, Sloane RJ, Whitson HE. Frailty predicts some but not all adverse outcomes in older adults discharged from the emergency department. *J Am Geriatric Soc* 2008 Sep; 56(9):1651-7.

Huffman KM, Slentz CA, Johnson JL, Samsa GP, Duscha BD, Tanner CJ, Annex BH, Houmard JA, and Kraus WE. Impact of Hormone Replacement Therapy on Exercise Training-Induced Improvements in Insulin Action in Sedentary Overweight Adults. *Metabolism-Clinical and Experimental* 2008;57(7):888-85.

Makowski L, Noland RC, Koves TR, Xing W, Ilkayeva OR, Muehlbauer MJ, Stevens RD, Muoio DM. Metabolic profiling of PPARalpha-/- mice reveals defects in carnitine and amino acid homeostasis that are partially reversed by oral carnitine supplementation. *FASEB J* 2009 Feb; 23(2):586-604.

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Purser JL, Kuchibhatla MN, Cohen HJ, Blazer DG, Miranda ML, Fillenbaum GG. Geographical

segregation and interleukin-6, a biomarker of chronic inflammation in older adults. *Biomarkers in Medicine* 2008; 2(4):335-348.

Snyder DC, Morey MC, Sloane R, Stull V, Cohen HJ, Peterson B, Pieper CF, Hartman TJ, Miller PE, Mitchell DC, Demark-Wahnefried W. Reach out to ENhance Wellness in older cancer survivors (RENEW): design, methods and recruitment challenges of a home-based exercise and diet intervention to improve physical function among long-term survivors of breast, prostate, and colorectal cancer. *Psycho-Oncology* 2009 Apr; 18(4):429-439.

Whitson HE, Cousins SW, Burchett BM, Hybels CF, Pieper CF, Cohen HJ. The combined effect of visual impairment and cognitive impairment on disability in older people. *J Am Geriatric Soc* 2007 Jun; 55(6):885-91.

Whitson HE, Purser JL, Cohen HJ. Frailty thy name is...phrailty? *J of Gerontol A Biol Sci Med Sci* 2007; 62(7):728-30.

Whitson HE, Hastings SN, Lekan DA, Sloane R, White HK, McConnell ES. A quality improvement program to enhance after-hours telephone communication between nurses and physicians in a long-term care facility. *J Am Geriatric Soc* 2008; 56(6):1080-6.

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In press

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Catterall JB, Barr D, Bolognesi M, Zura RD and Kraus VB. Post-translational aging of proteins in osteoarthritic cartilage and synovial fluid as measured by isomerized aspartate. *Arthritis Research & Therapy* 2009 (accepted with revision).

Hybels CF, Pieper CF, Blazer DG, Fillenbaum GG, Steffens DC. Trajectories of mobility and IADL function in older patients diagnosed with major depression. *Int J Geriatric Psychiatry* 2009 (in press).

Stabler TV, Byers SS, Zura RD, and Kraus VB. Amino acid racemization in osteoarthritic articular cartilage and meniscus. *Arthritis Research & Therapy* 2009; (in press).

Whitson HE, Ansah D, Whitaker D, Potter G, Cousins SW, MacDonald H, Pieper CF, Landerman L, Steffens D, Cohen HJ. Prevalence and patterns of comorbid cognitive impairment in low vision rehabilitation. *Archives of Gerontology and Geriatrics* 2009 (in press).



Coming Events

August 24–26

Florida Council on Aging Conference. St. Pete Beach, FL.
Call 850-222-8877 or go to www.fcoa.org.

September 23

Aging & Healthy Life Span Conference. Boston, MA.
Go to <http://healthylifespanconference.com>.

October 6

The Aging Heart. American Federation for Aging Research
conference. NY, NY. Go to www.afar.org/agingheartconf.html.

November 18–22

Amer. Ger. Soc. Annual Scientific Meeting. Atlanta, GA.
Go to www.geron.org/Annual%20Meeting.

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