



the compassion to care, the leadership to conquer

Contact: Kelly Hauer, Executive Director
Alzheimer's Association East Central Iowa Chapter
319-294-9699
Kelly.hauer@alz.org

NEW RESEARCH ADVANCES FROM THE ALZHEIMER'S ASSOCIATION INTERNATIONAL CONFERENCE ON ALZHEIMER'S DISEASE 2010

(Cedar Rapids, IA, July 14, 2010) – This week, nearly 4,000 scientists from around the world gathered to report and discuss the latest advances in research on treatments, risk factors, and diagnosis for the health epidemic of the 21st century – Alzheimer's disease – at the Alzheimer's Association 2010 International Conference on Alzheimer's Disease (AAICAD 2010) in Honolulu.

“With an aging baby boomer generation, the Alzheimer's disease crisis will continue to touch more lives and create an unsustainable fiscal toll on the nation's healthcare system – particularly Medicare and Medicaid,” said William Thies, PhD, Chief Medical and Scientific Officer at the Alzheimer's Association.

“This week we saw promising investigations being pursued on a variety of fronts – avenues that could very well lead to significant changes in Alzheimer diagnosis and treatment. However, the chronic underinvestment in Alzheimer research continues to be the greatest obstacle to bringing new, more effective therapies to people,” Thies said.

“Every day, researchers go to work with the sole purpose of advancing our understanding and knowledge about Alzheimer's, which is *the* defining disease of the baby boomer generation. We need a government response that shows equal commitment by providing the level of funding for research that will get us better diagnostic tests, treatments, and a cure,” Thies added.

Highlights from the AAICAD 2010 included:

- The Alzheimer's Association announced the launch of Alzheimer's Association TrialMatch™, a confidential, free, and interactive tool that provides comprehensive clinical trial information and an individualized trial matching service for people with Alzheimer's disease and related dementias. The Internet (www.alz.org/trialmatch) and phone-based (800-272-3900) program provides a first-of-its-kind service in Alzheimer's by delivering individualized matches to clinical trials for people with Alzheimer's, their healthcare professionals, caregivers, and healthy volunteers.
- The Dementia Demonstration Project (DDP), an interdisciplinary effort led by the Geriatric Research, Education and Clinic Center at the Minneapolis Veterans (VA) Medical Center, found that early detection, diagnosis and care management for people newly diagnosed with cognitive impairment and dementia can reduce outpatient costs by almost 30 percent. Veterans in the study who were diagnosed in the DDP clinics saw their average outpatient healthcare costs decline by an average of \$1,991 in the year after diagnosis of cognitive impairment compared with the year before diagnosis. In the DDP clinics, following evaluation, the dementia care team met with the patient and family to review the

results, discuss the diagnosis, and outline treatment recommendations. Informational material, assistance in identifying needed services, and direct support and training from team members was provided, as needed.

- Evidence from three long-term, large-scale studies (Framingham Study, Cardiovascular Health Study, NHANES III) supports the association of physical activity and certain dietary elements (tea, vitamin D) with possibly maintaining cognitive ability and reducing dementia risk in older adults. Plus, a new study in an animal model of Alzheimer's reported today at AAICAD 2010 suggests that an antioxidant-rich diet with walnuts may benefit brain function. Research has pointed towards a number of factors that may impact our risk of Alzheimer's and cognitive decline, the strongest being reducing cardiovascular risk factors. The Alzheimer's Association and others have repeatedly called for longer-term, larger-scale research studies to clarify the roles that these factors play in the health of the aging brain. These studies from AAICAD 2010 are some of the first reports of this type in Alzheimer's, and that is encouraging, but it is not yet definitive evidence.
- Scientists at AAICAD 2010 presented the first draft reports from three workgroups – covering Alzheimer's disease dementia, mild cognitive impairment (MCI) due to Alzheimer's disease, and preclinical Alzheimer's disease – convened by the National Institute on Aging (NIA) and the Alzheimer's Association to update the diagnostic criteria for Alzheimer's disease for the first time in 25 years. The proposals would change the existing criteria by better reflecting the various stages of the disease and the inclusion of Alzheimer's disease biomarkers. While the role of biomarkers differs in each of the three stages, much remains to be understood concerning their reliability and validity in diagnosis. This makes it critical that any new recommendations be thoroughly tested. Further input will be solicited by the NIA and the Association through a website launched immediately after the AAICAD presentations at www.alz.org/research/diagnostic_criteria.
- The primary therapeutic target in Alzheimer's disease has been the beta amyloid peptide, which clusters outside cells in the brain to form sticky clumps known as plaques. Recently, more attention has been given to the tau protein, which aggregates inside the brain cells of people with Alzheimer's, forming neurofibrillary tangles. Four new, though very preliminary, research studies reported at AAICAD 2010 described experimental immunotherapies for Alzheimer's – two of which target tau directly and two of which may reduce tau even though their primary target was beta amyloid. Importantly, these studies teach us more not only about tau-targeted therapies but also about the progression of Alzheimer's disease. It may be that amyloid changes in the brain happen early in Alzheimer's, and tau-related changes happen “downstream” where they have a more direct effect on cognitive function. Thus, immunotherapy treatments targeting amyloid may also alter neurodegenerative processes that occur later in the disease. However, this is still to be determined.

In an early finding reported at AAICAD 2010, a gene known as FTO, which appears to be correlated with obesity in humans, may also increase risk of Alzheimer's disease and dementia. When a person has certain variants of both FTO and a recognized Alzheimer's risk gene known as APOE, the risk of Alzheimer's could be doubled. FTO has previously been shown to affect body mass index (BMI) and the risk for diabetes. These vascular risk factors have also been associated with risk of Alzheimer's disease. However, the researchers found that the increased risk was independent of these traits, suggesting that there is a different mechanism by which FTO is associated with an increased risk for Alzheimer's. We need to see these results confirmed by other researchers. In fact, we need to know more, in general, about the genetics and other causes of Alzheimer's so that we have additional targets for therapies and preventions.

- Last minute scientific submissions to AAICAD 2010, known as “hot topics,” suggested that (1) a newly-discovered risk gene for Alzheimer's may have early impact on memory skills and brain volume, (2) intranasal insulin may be beneficial in Alzheimer's, and (3) beta amyloid deposits in the brains of people with Alzheimer's disease may take different shapes based on a known Alzheimer's risk gene.

- Two studies reported at AAICAD 2010 give us more information about the *TOMM40* gene – a newly identified risk gene for Alzheimer’s. They found that healthy, middle aged people who have the high risk version of *TOMM40* (a) did worse on memory tests and (b) had reduced brain volume in two regions affected early in Alzheimer’s.
 - A short-term (4 months) clinical trial of intranasal insulin in Alzheimer’s and mild cognitive impairment (MCI) showed statistically significant benefits on certain tests of memory and functioning, but no changes on others. In those who showed benefits on memory tests, there were also positive changes in Alzheimer’s biomarkers in spinal fluid. Larger, longer-term studies are planned.
 - Researchers using a new imaging tool suggest that there are different shapes of beta amyloid deposits in the Alzheimer brain based on which version a person has of a well-established Alzheimer’s risk gene, known as *APOE*. This may be especially important because in some recent drug trials the therapy provided benefits in people who had certain types of *APOE* but were less effective or not effective in others.
- Two new studies from AAICAD 2010 suggest that having Alzheimer’s disease may increase the risk of getting other potentially disabling health conditions, including seizures and anemia. Researchers in one study found that the rate of seizures, per 1,000 people per year, in a study population that included 14,838 people with Alzheimer’s aged 50 years or older and 14,838 randomly-selected, age- and sex-matched people without Alzheimer’s, was 9.1 among patients with Alzheimer’s compared with 1.4 for those without Alzheimer’s – an incidence rate that was 6.4 times higher. In a second study of 1,112 older adults (768 healthy controls, 133 MCI, 211 Alzheimer’s), people with anemia were found to have an increased risk of Alzheimer’s (odds ratio: 2.56). And people with Alzheimer’s in the study were found to have an increased risk of being anemic (odds ratio: 2.61). If Alzheimer’s also increases risk of other disabling conditions, then its impact may be more devastating than we’ve envisioned as the global population ages and as more countries become westernized in their habits and lifestyles.
 - Racially and ethnically diverse older adults are one of the fastest growing population segments in the United States. New research presented AAICAD 2010 revealed that older African-Americans and Latinos with significant cognitive impairment have a lower likelihood of nursing home placement and longer survival than White older adults in the study. These results have significant implications for caregiver burden and community resources. There is a greater than anticipated need for culturally-appropriate dementia care resources and home and community- based services for these populations.
 - These findings are particularly compelling since African-Americans are about two times more likely and Latinos about one and one-half times more likely to develop Alzheimer’s and dementia than Whites, according to the Alzheimer’s Association’s 2010 Alzheimer’s Disease Facts and Figures report.
 - Another study reported at AAICAD 2010 suggests that the bereavement process and mourning experience for Alzheimer caregivers after the death of their loved one varies greatly among different racial and ethnic groups.

About AAICAD

The Alzheimer’s Association International Conference on Alzheimer’s Disease (AAICAD) is the world’s largest conference of its kind, bringing together researchers from around the world to report and discuss groundbreaking research and information on the cause, diagnosis, treatment and prevention of Alzheimer’s disease and related disorders. As a part of the Alzheimer’s Association’s research program, AAICAD serves as a catalyst for generating new knowledge about dementia and fostering a vital, collegial research community.

About the Alzheimer’s Association

The Alzheimer’s Association is the leading voluntary health organization in Alzheimer care, support and research. Our mission is to eliminate Alzheimer’s disease through the advancement of research, to provide and enhance care and support for all affected, and to reduce the risk of dementia through the promotion of brain health. Our vision is a world without Alzheimer’s. Visit www.alz.org or call 800-272-3900.