

In 2011, the **Alzheimer's Association International Research Grant Program** awarded more than \$12.8 million in funding to 78 investigators. Funded projects represent the proposals ranked highest by peer reviewers in an extremely competitive field of 875 applications. Since 1982, the Alzheimer's Association has committed over **\$292 million** to more than 2,000 best-of-field grant proposals.

**N**ineteen percent of projects funded in 2011 explore the molecular mechanisms that contribute to the production of beta-amyloid, the mediators of beta-amyloid's toxicity, and its adverse effect on cell-to-cell communication.

**36 percent** investigate the abnormal chemical alterations of tau and the normal functions of related proteins implicated in Alzheimer's pathology, as well as the cellular properties and functions that normally protect and maintain neurons in the brain.

**14 percent** examine other factors that may contribute to Alzheimer's disease and other dementias, including blood vessel damage and genetic risk factors.

**9 percent** investigate brain imaging, biomarkers and clinical tools that may result in earlier and more accurate diagnoses, timely interventions and effective disease monitoring.

**18 percent** explore novel treatment strategies and nonpharmacological interventions.

**4 percent** study ways to improve care for people with dementia through new technologies and explore the values and beliefs of diverse cultures that impact use of health services.

## **Alzheimer's Associations Funded Researchers in Illinois 2011**

### **BAILA-C: Bypassing Alzheimer's, Increasing Latinos' Activity and Cognition**

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*2011 New Investigator Research Grant to Promote Diversity*

Among elderly persons of Latino ethnicity, the incidence of Alzheimer's disease is about twice as high as the incidence among elderly persons of white, non-Latino ethnicity. A number of identified risk factors may account for this difference, including differences in levels of physical activity. For example, only about half

as many elderly Latinos participate in physical activities as non-Latino whites. Physical activity, however, is known to reduce the risk of Alzheimer's disease by as much as 50%.

David X. Marquez, Ph.D. and colleagues have been developing ways to get Latino persons more involved in physical activity. They have developed an innovative and culturally appropriate dance program aimed at getting older persons of Latino ethnicity more active. The program was developed with feedback from older, inactive Latino persons and the help of a Latin dance instructor.



David X. Marquez, Ph.D.

Dr. Marquez and colleagues have tested the program in a small pilot study and found preliminary evidence of improved cognitive and physical function among participants. The researchers now plan to conduct a

larger, controlled trial of their program in older, inactive Latino persons. After 4 months of the program, they will study changes in cognitive and physical function, as well as quality of life in persons who participated in the dance program compared to similar individuals who did not. This study may help to identify a specific, culturally appropriate way to increase the physical activity of older Latino persons and reduce their risk of cognitive decline.

### **Mechanism Underlying Oligomeric Abeta-Induced Axonal Transport Dysfunction**

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Beta-amyloid (also known as Abeta) is a protein fragment known to be toxic to nerve cells and implicated in Alzheimer's disease. However, the mechanisms by which beta-amyloid leads to

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