

# 2005 Alzheimer's Association Research Grants

## — Portfolio Profile

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The Alzheimer's Association received 650 applications for our fiscal 2005 research grant program. We awarded \$17,862,000 in grants funding 93 proposals that were ranked highest by their peer reviewers. Since 1982, the Alzheimer's Association has awarded a total of more than \$185 million to 1,429 research projects.

### Awards by grant category

- 10 Zenith Fellows Awards were presented to veteran scientists studying novel, innovative approaches to early detection, causes, treatment or prevention of Alzheimer's disease.
- 4 Everyday Technologies for Alzheimer's Care grants were awarded—in partnership with Intel Corporation and Agilent Technologies, Inc.—to investigators exploring how televisions, computers, monitoring devices and other electronics can be used to meet the day-to-day needs of individuals with Alzheimer's and those who care for them.
- 53 Investigator-Initiated Research Grants were awarded to established investigators addressing virtually every critical question in dementia research.
- 26 New Investigator Research Grants were presented to individuals in the next generation of promising dementia researchers who have earned their doctoral degrees within the last 10 years.

Senior science staff at the Alzheimer's Association selected 10 Investigator-Initiated and 5 New Investigator research grants for inclusion in the Ronald and Nancy Reagan Research Institute, an initiative supporting innovative basic science in honor of the Reagan family's longstanding commitment to the Alzheimer cause.

### Research themes

- 24 percent of 2005 projects investigate the normal and disease-related biochemical properties of molecules implicated in Alzheimer's disease or explore their normal functions in the brain.
- 25 percent study disease mechanisms, including processes by which disease-related molecules cause the breakdown of cell-to-cell communication, cell degeneration and the onset of dementia symptoms.
- 5 percent expand on investigations to identify genes associated with a risk for developing Alzheimer's.
- 14 percent test compounds for their potential as disease-modifying or preventive treatments.
- 5 percent explore lifestyle and modifiable factors, such as diet, that may lower the risk of dementia.

- 9 percent investigate strategies to improve the reliability of current assessment tools or to introduce new tools, such as imaging or biological markers, for diagnosing and monitoring disease progression.
- 18 percent explore best practices in care and strategies to support diagnosed individuals, their caregivers and family members.

### Signs of progress

Proposals for new studies build upon and reflect progress in our understanding of Alzheimer's disease and efforts to advance treatments, prevention and care. Notable examples of this evolution include the following:

- **Breaking camp.** Only a few years ago, competing theories about Alzheimer's disease appeared to divide the research community into camps, often called the bAPPTists and tauists. But many recent investigations have focused on the interactions of beta-amyloid and tau, as well as the complex interplay of other factors in disease processes. Grants funding studies of disease mechanisms reflect this increasingly complex view of Alzheimer pathology.
- **Collaborative partnerships.** Collaborations among academic researchers, health care professionals, family care partners, and the Alzheimer's Association build bridges between research and practice. Three 2005 grants, in particular, reflect the Association's effort to promote and join collaborations that improve recruitment of minority participants in research and implement best practice recommendations.

### Alzheimer's Association peer review

For each research proposal, our Medical and Scientific Affairs Division engages a custom panel of three volunteer scientists with expertise in the proposed area of investigation to evaluate the merits of the project. Following this peer review process, our Medical and Scientific Advisory Council (MSAC) meets to assure the fairness of individual evaluations and fine-tune each year's awards, so that our overall portfolio covers significant established research areas and moves the field forward in important new directions. Based on scores awarded by peer reviewers and MSAC review, the Alzheimer's Association science staff estimates that 50 percent of 2005 proposals deserved funding. Only 14.2 percent could be funded with available resources.