

2007 Alzheimer's Association Research Grants

— Portfolio Profile

In fiscal 2007, the Alzheimer's Association funded a total of about \$21.6 million in research initiatives, including 109 awards to individual investigators through our annual grant competition. Funded projects represent the proposals ranked highest by their peer reviewers in an extremely competitive field of 639 applications. Since 1982, the Association has committed over \$220 million to more than 1,600 best-of-field grant proposals.

Awards by grant categories

- **9 Zenith Fellows Awards** support senior scientists who have made significant contributions to the field and continue to pursue promising approaches to early detection, treatment or prevention of Alzheimer's.
- **4 Everyday Technologies for Alzheimer Care** grants were awarded—in partnership with Intel Corporation—to investigators exploring how televisions, computers, monitoring devices and other household electronics can be used to better meet the day-to-day needs of individuals with Alzheimer's and those who care for them.
- **66 Investigator-Initiated Research Grants** fund established scientists exploring important questions across the entire dementia research spectrum, from basic neurobiology to treatment, prevention and care.
- **1 Senator Mark Hatfield Award in Clinical Research** focuses on strategies to make more accurate and earlier diagnoses.
- **29 New Investigator Research Grants** support the next generation of promising scientists who earned their doctoral degrees within the last 10 years.

Research themes

- 20 percent of 2007 projects explore the production of beta-amyloid, characterize the properties and toxicity of beta-amyloid structures, and test hypotheses about how beta-amyloid contributes to cell dysfunction and cell death.
- 20 percent study the role of other molecules in Alzheimer's disease pathology and characterize how they disrupt cell-to-cell communication, damage critical cellular structures, disrupt cellular activities, contribute to cell death or damage blood vessels in the brain.

- 8 percent examine naturally occurring agents in the brain that inhibit the production of beta-amyloid, block the assembly of toxic beta-amyloid structures or protect cells from other pathological assaults.
- 6 percent study genetic, lifestyle and other factors that either increase or decrease risk of Alzheimer's disease or other dementias.
- 3 percent characterize pathological features of other neurodegenerative disorders.
- 7 percent examine a wide spectrum of diagnostic issues, including brain-imaging strategies to make accurate and early diagnoses, identification of diagnostic biomarkers, and social and psychological factors affecting diagnosis.
- 16 percent develop, characterize or test anti-amyloid compounds and other novel therapies that may modify disease processes or improve brain function.
- 4 percent conduct clinical trials of cognitive training or other behavioral interventions that may improve memory, daily functional abilities and quality of life for people with dementia.
- 10 percent study best practices and novel approaches to care for the home, nursing homes and residential care facilities.
- 6 percent investigate the needs of caregivers, test strategies to support them, or characterize family perceptions of disease and caregiving.

Alzheimer's Association peer review

For each research proposal, staff engages a custom panel of three or four volunteer scientists with expertise in the proposed area of investigation to evaluate the merits of the project anonymously. Following this 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, science staff estimates that approximately 30 percent of 2007 proposals deserved funding. Only about 14 percent could be supported with available resources.