

2011 Alzheimer's Association Research Grants

— Portfolio Profile

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.

Awards by grant category

- **4 Zenith Society Awards** support senior scientists who have made significant contributions to the field and continue to pursue promising lines of investigation about disease mechanisms, diagnosis, novel treatments and quality care.
- **20 Investigator-Initiated Research Grants (IIRG)** fund established scientists exploring important questions across the entire research spectrum, from basic neurobiology and genetic risk factors to disease-modifying treatments and evidence-based, quality care.
- **41 New Investigator Research Grants (NIRG)** provide the next generation of scientists with funding that enables them to gather preliminary data, test procedures and develop hypotheses. These grants advance research while supporting the early-career development of researchers who have earned their doctoral degrees within the last 10 years.
- **2 Everyday Technologies for Alzheimer Care (ETAC) Grants** were awarded—in partnership with Intel Corporation—to investigators exploring how computers, monitoring devices and other electronics can be used to meet the day-to-day needs of people with Alzheimer's disease and those who care for them.
- **1 Novel Pharmacological Strategies to Prevent Alzheimer's Disease (NPSPAD) Grant** funds an investigator whose work is aimed at the identification and validation of a novel drug target, the screening and development of a drug for such a target, or the evaluation of drug safety and efficacy.
- **1 Non-Pharmacological Strategies to Ameliorate Symptoms of Alzheimer's Disease (NPSASA) Grant** funds a researcher whose work is aimed at the identification, investigation or validation of non-pharmacological approaches to improve the care of people with Alzheimer's and related disorders.
- **2 New Investigator Research Grants to Promote Diversity (NIRGD)** fund investigators currently underrepresented at academic institutions in Alzheimer's or related dementias research. These investigators from diverse backgrounds are conducting basic, clinical and social/behavioral research grounded in the advanced methods and experimental approaches needed to solve problems related to Alzheimer's disease.
- **1 Mentored New Investigator Research Grant to Promote Diversity (MNIRGD)** helps close the gap between diverse and non-diverse investigator populations. The MNIRGD is intended to enhance the capacity of scientists to conduct basic, clinical and social/behavioral research.
- **1 Multi-Center Project Grant (MCPG)** was awarded to support team science among **4 Individual Investigator Research Grant (IIRG) Projects** exploring mechanisms associated with Alzheimer's disease and identifying potential therapeutic targets for Alzheimer's. This award promotes collaboration between scientists, furthering interdisciplinary research and encouraging team science.
- **1 Senator Mark Hatfield Award (HAT) in Clinical Research** focuses on strategies to make earlier and more accurate diagnoses.
- **Other awards:**
In addition to funding individual scientists in 10 grant categories, the Alzheimer's Association awarded a special grant of \$250,000 in support of the **International Genetics of Alzheimer's Project (IGAP)**. Association funding supports this large, international collaboration that brings together well-established and highly regarded research groups throughout the world to enable an unprecedented sharing and analysis of Alzheimer's genetic data from more than 40,000 individuals. Funding also provides opportunities for participating research groups to convene to further the field's understanding of how information from genetics may be used by the field as a whole.

Research themes

- 19 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 non-pharmacological 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.

Peer-reviewed evaluation

The Alzheimer's Association Medical and Scientific Relations Division engages a panel of three or four volunteer scientists for each research proposal to evaluate the merits of the proposal anonymously. The Association's Medical and Scientific Advisory Council (MSAC) ensures the fairness of individual evaluations and fine-tunes each year's awards so that the overall portfolio covers established research areas and moves the field forward in important new directions. Based on peer-review scores and MSAC review, the Association's science staff estimates that 22 percent of proposals received in 2011 deserved funding. Only about 9 percent could be supported with available resources.