



Recovery Act



The historic investment in research through the American Recovery and Reinvestment Act is funding promising science that is improving health, while contributing to the economy. View more stories at www.sfn.org/recovery.

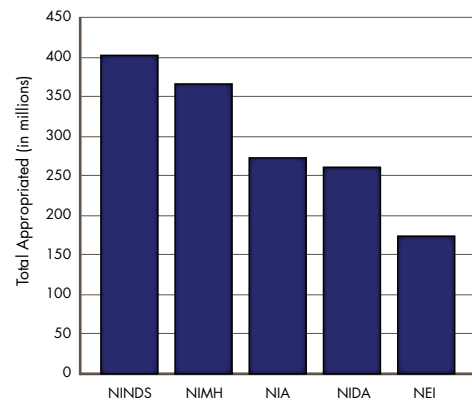
NIH NEUROSCIENCE RESEARCH

The historic investment in the National Institutes of Health (NIH) through the American Recovery and Reinvestment Act (ARRA) has energized the scientific community and provided exciting opportunities to advance valuable research. With these funds, neuroscientists and other researchers across the nation are creating and preserving jobs while opening new lines of research that can transform health and improve quality of life for all Americans.

When NIH invests in discovery, it spurs economic growth. NIH estimates that due to the ARRA funds, approximately 50,000 jobs will be created or retained. Additionally, biomedical research funded by NIH brings essential benefits to local communities. Eighty-five percent of the NIH budget is invested in U.S. communities through universities, medical schools, hospitals, research institutes, and innovative small businesses in every state.

To sustain the scientific and economic momentum created by ARRA, the nation must prioritize biomedical research by making permanent NIH's new capacity, thereby leveraging scientific potential to improve health. Robust, sustained funding for NIH will ensure neuroscience researchers can aggressively pursue solutions to the most challenging neurological diseases and conditions, such as Alzheimer's, Parkinson's and depression, bringing hope to millions.

ARRA Funds for Select NIH Blueprint for Neuroscience Research Institutes*



*The above chart displays ARRA funding received by just 5 of the 16 institutes comprising the NIH Blueprint for Neuroscience Research, which is a cooperative effort that supports the development of new tools, training opportunities, and other resources to assist neuroscientists in both basic and clinical research. The other institutes that make up the Blueprint include NCCAM, NCR, NIAAA, NIBIB, NICHD, NIDCD, NIDCR, NIEHS, NIGMS, NINR, OBSSR.

See the reverse side for examples of ARRA-funded research at these institutions.

For more information:
NIH and ARRA: recovery.nih.gov
NIH Blueprint for Neuroscience Research: neuroscienceblueprint.nih.gov

The Society for Neuroscience (SfN) is the world's largest organization of scientists and physicians devoted to advancing understanding of the brain and nervous system. Since its inception in 1969, the Society has grown from 500 members to more than 40,000.



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Below are examples of ARRA-funded neuroscience research supported by institutes that are part of the *NIH Blueprint for Neuroscience Research*.

NATIONAL INSTITUTE OF NEUROLOGICAL DISORDERS AND STROKE (NINDS):

- **ARRA Dollars:** \$402.9 million
- **Priority Topics:** Stroke, and neurological disorders such as Alzheimer's and Parkinson's
- **Research Example:** *Mechanisms of Neuronal Regeneration After Stroke*

The goal of this research is to define the cellular mechanism that stimulates neuroblast migration and localization to brain tissue after a stroke. Neuroblasts are immature neurons that migrate to the area of injury where cells have been lost and differentiate into more mature neurons. An understanding of the molecules that promote this neural stem cell response after stroke will help develop novel therapies to promote replacement of brain cells in this disease, which is the leading cause of adult disability. There are around 600,000 cases of stroke in the United States every year, making it the third leading cause of death.

NATIONAL INSTITUTE OF MENTAL HEALTH (NIMH):

- **ARRA Dollars:** \$366.8 million
- **Priority Topics:** Autism, Depression, Post-Traumatic Stress Disorder, Schizophrenia, etc.
- **Research Example:** *Recovery After an Initial Schizophrenia Episode (RAISE)*

This project focuses on exploring whether using early and aggressive treatment, individually targeted and integrating a variety of different therapeutic approaches, will reduce the symptoms and prevent the gradual deterioration of functioning that is characteristic of chronic schizophrenia. RAISE is a model example of how money from the Recovery Act can accelerate science related to public health problems and potentially benefit those citizens most in need.

NATIONAL INSTITUTE ON AGING (NIA):

- **ARRA Dollars:** \$273.3 million
- **Priority Topics:** Alzheimer's, cognitive impairment, disease prevention, and other aging-related issues
- **Research Example:** *Health and Retirement Study (HRS)*

HRS is the nation's premier long-term study and data resource on the combined health, economic, and social factors influencing the well-being of Americans over age 50. ARRA funds have allowed for the expansion of this project, which includes conducting pilot research on methods for the diagnosis of dementia and cognitive impairment in a sample of participants age 70 and older. This research will help set the stage for a better understanding of trends in the prevalence, causes, and outcomes of dementia in the United States.

NATIONAL INSTITUTE ON DRUG ABUSE (NIDA):

- **ARRA Dollars:** \$261.2 million
- **Priority Topics:** Alcohol abuse, tobacco addiction, drug abuse, prevention techniques, etc.
- **Research Example:** *Trial of NicVAX Anti-Nicotine Vaccine*

Researchers have developed the NicVAX vaccine to prevent tobacco addiction, with the Recovery Act providing much needed funds to help pay for the first pivotal Phase III trial of the drug. Earlier results show that smokers using the vaccine had higher rates of quitting and longer term cigarette abstinence than those given a placebo. Successful completion of the study will bring the vaccine closer to approval, which has already been given fast track designation by the U.S. Food and Drug Administration.

NATIONAL EYE INSTITUTE (NEI):

- **ARRA Dollars:** \$174.1 million
- **Priority Topics:** Macular Degeneration, cataracts, glaucoma and other eye diseases
- **Research Example:** *Biomarker for Neovascular Age-related Macular Degeneration (AMD)*

Researchers will use a recently discovered biomarker for choroidal neovascularization (CNV) - the growth of abnormal blood vessels into the retina responsible for 90 percent of vision loss associated with AMD- to develop an early detection method to minimize vision loss. This research could have an important impact on public health, as AMD is the leading cause of vision loss in the U.S. and is especially prevalent among the elderly.