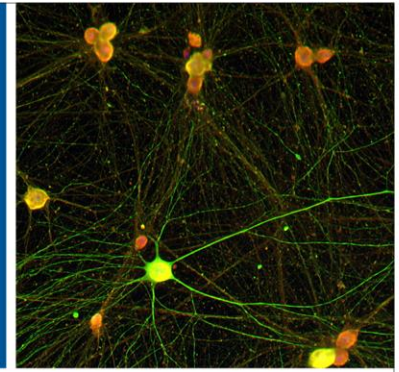


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# The BRAIN Initiative and Neuroscience Investments



## BRAIN Initiative

Brain Research through Advancing Innovative Neurotechnologies (BRAIN) Initiative

- A **multidisciplinary collaboration** involving public and private partners to develop technologies and revolutionize our understanding of the human brain.
- With funding from the BRAIN Initiative, researchers are developing the tools and knowledge needed for **lifesaving breakthroughs**.
- New resources will enable the broader field to **progress faster** in understanding the most complex biological structure in the universe.
- The BRAIN Initiative requires sustained, robust funding to make **vital discoveries** possible.
- As of FY 2018, NIH has contributed about **\$950 million** to the BRAIN Initiative<sup>1</sup>; NIH recommends **\$500 million** in funding per year for the second phase of the program.
- In FY 2018, **205 grants** were funded by the BRAIN Initiative.

## Catalyzing the Overall Neuroscience Investment

NIH: Collaboration among 15 NIH Institutes & Centers that support neuroscience

- BRAIN is a small, but important part of NIH funding, accounting for **1%** of the total neuroscience research budget.
- **Pooled resources** connect NIH institutes and centers to **confront research challenges** too complex to be handled by a single institute.

National Science Foundation (NSF) Led Project

- NSF's Understanding the Brain project aims to enable scientific understanding of the interaction between the brain, behavior, and environment through targeted **cross-disciplinary investments**.
- In FY 2018, **\$134 million<sup>2</sup>** in funding was dedicated to cognitive and neuroscience research done through this project, which includes funding for the **BRAIN Initiative**.
- These investments are resulting in **tool and technology** creation.

Partnerships

- **Additional federal departments and agencies participate** in the BRAIN Initiative, including the Department of Defense, the Department of Energy, Food and Drug Administration, and more.
- The BRAIN Initiative leverages **foundations** like the Kavli Foundation, the Simons Foundation, the Allen Institute for Brain Science, the Pediatric Brain Foundation, and the Howard Hughes Medical Institute.
- Includes **industry partners** like Google, GE, Inscopix, Medtronic, GlaxoSmithKline, and others.

## Recent Advancements

### Cleveland Clinic Performs Nation's First Deep Brain Stimulation (DBS) Surgery on Stroke Patient

In a trial co-funded by the NIH's **BRAIN Initiative**, doctors at the Cleveland Clinic successfully implanted a deep brain stimulation device in the cerebellum of a stroke victim. The goal of the study is to see whether DBS can, in combination with physical therapy, boost brain rehabilitation after a stroke.<sup>3</sup>

### New NIH-Funded Memory Drug Moves Into Phase 1 Clinical Study

With support from the **NIH Blueprint Neurotherapeutics Network**, a program designed to facilitate the development and discovery of novel neurological treatments, an experimental drug that may improve memory is now being tested in a Phase 1 safety trial. This new drug may be a possible treatment for dementia and Alzheimer's disease.<sup>4</sup>

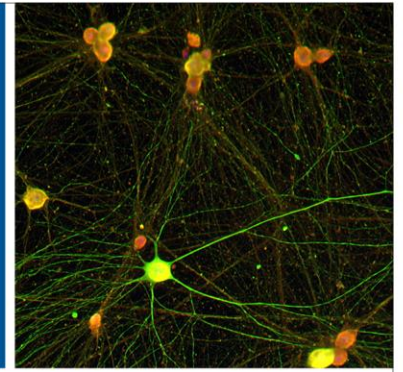
### Wearable Brain Scanner Measures Activity on the Go

Using funding from the **BRAIN Initiative**, scientists have developed a prototype for a portable brain scanner. This helmet-like device could make it easier to gain a deeper understanding of healthy brain function and neurological disorders.<sup>5</sup>

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## Sources

- <sup>1</sup> *The BRAIN Initiative*. National Institutes of Health. November 2015.
- <sup>2</sup> *Consolidated Appropriations Act of FY 2018*. National Science Foundation. January 2018.
- <sup>3</sup> Dubinsk, L. (2017, Jan 5). Cleveland clinic performs nation's first deep brain stimulation surgery on stroke patient. *Dotmed.com*.
- <sup>4</sup> NIH. (2015, Dec 30). New NIH-funded memory drug moves into phase 1 clinical study. *National Institutes of Health*.
- <sup>5</sup> Lewis, T. (2015, Jan 23). Wearable brain scanner measures activity on the go. *Live Science*.

*The Society for Neuroscience (SfN) is a nonprofit membership organization of over 37,000 scientists and physicians who study the brain and nervous system. Visit [Sfn.org](http://Sfn.org) or email [advocacy@sfn.org](mailto:advocacy@sfn.org) to learn more.*