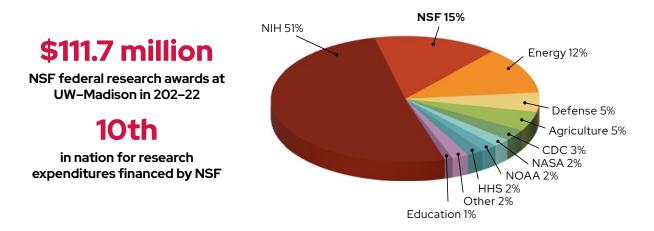
NATIONAL SCIENCE FOUNDATION RESEARCH

## UW-MADISON: RANKED #8 NATIONALLY WITH \$1.38 BILLION IN ANNUAL RESEARCH EXPENDITURES

The National Science Foundation (NSF) is the only federal agency whose mission includes support for all fields of fundamental science and engineering, except for medical sciences. NSF funds merit-based research across disciplines and supports science, math, and engineering education across the country. At UW–Madison, NSF research occurs across campus, from neurology to social science to astronomy and beyond.



## **EXAMPLES OF NSF RESEARCH AT UW-MADISON**

### Understanding the Brain

#### School of Medicine and Public Health

Scientists have gained new insight into brain and neuron function by making a surprising finding: a protein long known to play a role in communication between cells in the brain is also capable of obliterating cells if left unchecked. The work has helped researchers understand the suite of controls that makes this protein—called complexin—play nice and help neurons communicate by aiding in the release of compounds called neurotransmitters. The research moves neuroscientists a step closer to understanding the complexity of the human brain. <u>More online.</u>

## Laying the Groundwork for Discovery Morgridge Institute for Research

In 2022, a team of scientists and NSF shared the first-ever images of Sagitarrius A\*– the black hole at the center of the Milky Way. For these extraordinary images, the Event Horizon Telescope harnessed the power of the Open Science Pool (OSPool) that is operated by the OSG Consortium to help with the computational challenges behind the work. The OSG Consortium is a computing network built on principles pioneered at UW–Madison and supported by NSF. It has become the computational backbone for science pursuits and collaborations of all sizes that help to expand the limits of our understanding. More online.

# WHY UNIVERSITY RESEARCH MATTERS

By supporting NSF, you support the basic research and people who develop innovations to transform the future and keep the U.S. at the leading edge of discovery.

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