NSF & VERMONT

FAST FACTS

$6,118,000
Total NSF awards to Vermont in FY19

$6,118,000
Amount invested in fundamental research in Vermont in FY19

$750,000
Amount invested in Vermontian startups through NSF's small business program in FY19

$54,000
Amount dedicated to stimulating competitive research in Vermont through NSF EPSCoR

TOP 2 NSF-FUNDED ACADEMIC INSTITUTIONS FOR FY19

$4,614,000
University of Vermont

$1,241,000
Middlebury College

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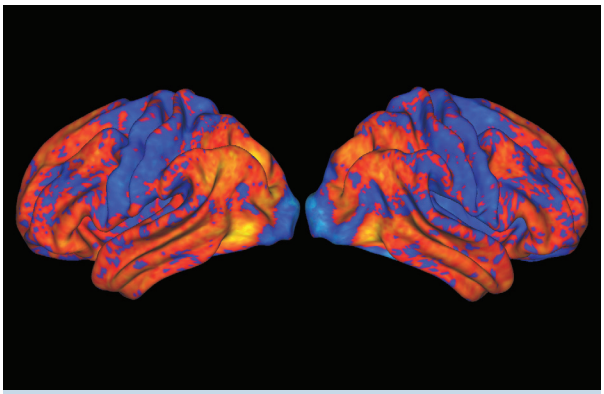
In Fiscal Year (FY) 2019, the **National Science Foundation made $6,118,000 in awards** to Vermont in support of fundamental research, advanced technical education, entrepreneurial training, STEM teacher training, long-term ecological monitoring, small business development, major research instrumentation and more.



NSF awarded the University of Vermont a $1 million grant to significantly upgrade its Vermont Advanced Computing Core. The NSF funded upgrade gave the university's faculty access to one of the fastest supercomputers in New England and one of the 100 fastest academic supercomputers in the country. The super computer, named "Deepgreen" will be used to analyze brain scans like the ones above to determine the impact of drugs and alcohol on brain development in youth.
Image Credit: Philip Spechler

DID YOU KNOW?

DISCOVERY | NSF-funded researchers from the University of Vermont have designed a new class of biological machines called "xenobots". These living robots, developed on the Deepgreen supercomputer, are made up of frog stem cells that can self-propel towards a target, push cargo, and heal themselves after being damaged. This work not only opens up a new realm of machine design but provides a new pathway for biologists to undercover the rules that govern living cells, organisms, and animals.

STEM WORKFORCE DEVELOPMENT | **Norwich University** participates in NSF's CyberCorps: Scholarship for Service program, which is designed to recruit and train the next generation to meet the needs of the cybersecurity mission for federal, state, local and tribal governments. The program provides scholarships for up to three years of support for cybersecurity undergraduate and graduate education and, in return, recipients agree to work after graduation for the U.S. government in a position related to cybersecurity.

SUPPORTING STUDENTS | Vermont's **Saint Michael's College** is the recipient of a $999,989 award through NSF's Scholarships in Science, Technology, Engineering, and Mathematics (S-STEM) program. The program supports the retention and graduation of high-achieving, low-income students with demonstrated financial need. The project at St. Michael's College will provide scholarships to students who are pursuing bachelor's degrees in life sciences, in combination with a major or minor in mathematics, computer science or statistics. Throughout its five years of funding, the project will fund 20 scholarships in five groups of four students.

SCIENCE & ENGINEERING (S&E) INDICATORS | **4.22 percent of the Vermont workforce is employed in S&E occupations** and 7.69 percent of Vermont business establishments are industries with high employment in science, engineering and technology occupations.[+]

STIMULATING RESARCH | **Middlebury College** received EPSCoR co-funding for a project that is looking at Marine protected areas. These areas can help recover a region's marine biodiversity and fisheries resources. This work will develop a systems-based model that spans multiple disciplines, including conservation biology, sociology, and political science, to holistically evaluate marine protected area effectiveness.

National Science Board, National Science Foundation. 2020. Science and Engineering Indicators 2020: The State of U.S. Science and Engineering. NSB-2020-1. Alexandria, VA. Available at https://ncses.nsf.gov/pubs/nsb20201/.