

COVID-19 RESPONSE FUNDING UPDATE

May 8-14, 2020

FACTS

\$61,296,195
Funds Mobilized

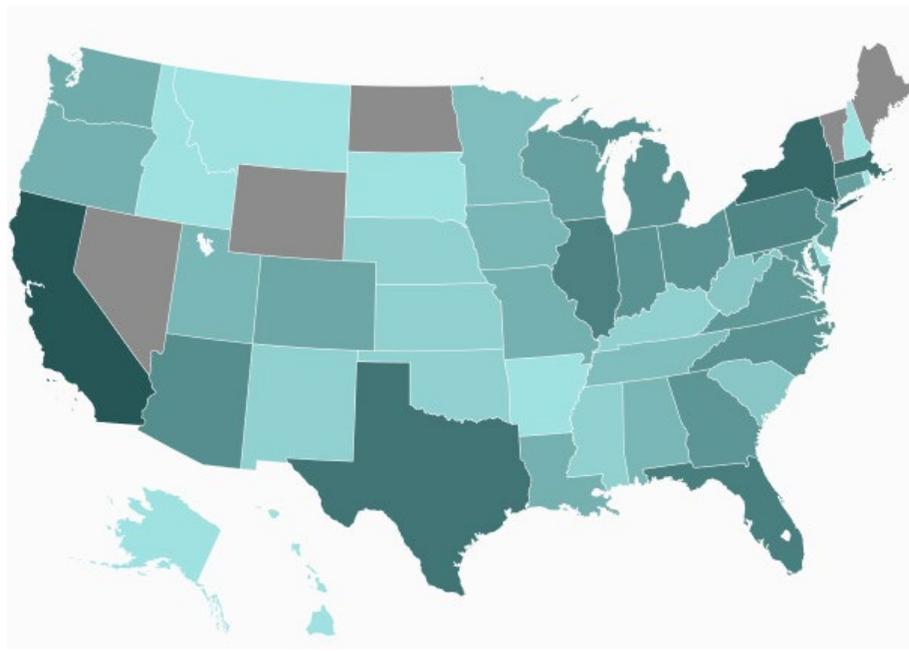
435 Grants Funded



OVERVIEW

In response to the COVID-19 virus, the National Science Foundation (NSF) is mobilizing funding from the FY2020 budget and supplemental appropriations through the Coronavirus Aid, Relief, and Economic Security (CARES) Act. CARES Act funding supports a wide range of research areas to help the country fight and recover from the COVID-19 crisis through several research funding mechanisms, including Rapid Response Research (RAPID), a fast-tracked grant process to accelerate critical discoveries.

AWARDS



COVID-19 related awards by state, shade of blue correlates to number of awards.

	CARES Act	All COVID-19
Number of Awards	317	435
Funding Deployed	\$45,954,541	\$61,296,195

This update spotlights several recent awards, just a snapshot of the essential work NSF is funding through the CARES Act and FY2020 appropriations. You can explore all of the COVID-19 related research grants awarded through the National Science Foundation at [this link](#).

DIVISION OF INDUSTRIAL INNOVATION AND PARTNERSHIPS

CARES Act \$256,000

Title	STTR Phase I: Enabling Rapid Scale-up of COVID-19 Treatment using Next-Generation Light Driven Chemistry
Institution	New Iridium; Boulder, CO
What	Researchers at a Colorado small business are working to improve the speed and efficiency of the production of Remdesivir, a potential treatment for COVID-19. Using photocatalysis—a process in which light is used to control chemical reactions—researchers aim to produce the chemical inputs for Remdesivir in fewer steps and with less toxic materials.
Why	Many medical therapies, including Remdesivir, are produced through slow or difficult chemical production processes that often rely on toxic components or highly specialized production environments. Research like this can help find new, more efficient ways to produce life-saving therapies.

DIVISION OF RESEARCH ON LEARNING IN FORMAL AND INFORMAL SETTINGS

CARES Act \$200,000

Title	RAPID: Using Popular Media to Educate Youth About the Biology of Viruses and the Current COVID-19 Pandemic
Institution	University of Nebraska Lincoln; Lincoln, NE
What	Building on more than 10 years of research and development, this project aims to deliver quality outreach materials—customizable graphics, illustrated stories, and essays—designed to engage middle school students in learning about infectious disease topics. Content will be no cost, widely available and can be integrated into different lesson plans.
Why	Children need accurate, engaging, and accessible materials to understand the basic biology underlying the COVID-19 pandemic, including transmission routes and mechanisms. It is important children are informed by research-based information so that they are less prone to rumors, hearsay, or gossip.

DIVISION OF ENVIRONMENTAL BIOLOGY

CARES Act \$199,705

- Title** RAPID: Subtyping and Identifying Shared Genomic Sequences of SARS-CoV-2 (COVID-19)
- Institution** University of Michigan; Ann Arbor, MI
- What** This research will help identify and categorize different strains of the coronavirus that causes COVID-19. Using machine learning, researchers will be able to identify what genetic material is shared between different strains and the key differences in sub-types of the virus.
- Why** Understanding the genetic variations between different strains of the virus is critical for developing vaccines, tests, or other medical therapies that can be effective against all types of the virus, as well as for tracking and understanding its evolution as it spreads.

DIVISION OF CIVIL, MECHANICAL AND MANUFACTURING INNOVATION

CARES Act \$58,871

- Title** RAPID: Underground Markets for Critical Equipment during the COVID-19 Pandemic
- Institution** Georgia State University; Atlanta, GA
- What** Researchers will track and analyze illicit markets in medical equipment that have flourished on the “dark web” due to shortages resulting from the COVID-19 crisis. NSF funding will enable researchers to make progress in the difficult task of tracing these black-market networks and understanding how they operate.
- Why** This research will help understand the participants in these networks and how the markets operate, providing important information for how to effectively disrupt these operations.

DIVISION OF SOCIAL AND ECONOMIC SCIENCES

CARES Act \$120,925

- Title** RAPID: Effective Recovery for Organizations from the COVID-19: Optimizing Strategic Responses
- Institution** University of Florida; Gainesville, FL
- What** This research will give business leaders insight and information on the strategic factors and conditions that matter for business recovery from the COVID-19 emergency. Researchers will synthesize how businesses have responded so far and what their results have been in order to produce effective models for predicting paths to recovery for businesses going forward.
- Why** This project will help businesses more effectively navigate the COVID-19 crisis, which is critical to supporting employees and the workforce, mitigating losses and other negative effects, preserving operations, and creating creating conditions for resuming business when it is safe to do so.

DIVISION OF MATERIALS RESEARCH

CARES Act \$200,000

- Title** RAPID: Mixed-Dimensional Heterostructure Materials based SERS for Trace Level Fingerprint Identification of SARS-CoV-2 RNA
- Institution** Jackson State University; Jackson, MS
- What** Researchers are developing a combined optical-nanomaterial approach to testing for COVID-19 that is able to rapidly identify the molecular “fingerprint” of the COVID-19 coronavirus from even trace amounts of the pathogen.
- Why** Increasing the speed, efficiency, and availability of COVID-19 testing is critical to controlling the spread of the disease. This research supports the creation of new tools that are fast, easy to use, and reliable, giving medical professional the tools they need and public health experts better information to control the spread of COVID-19.

OFFICE OF POLAR PROGRAMS

FY2020 \$185,799

Title	RAPID: Survey Study of COVID-19 Responses in Southeast Alaska
Institution	Sitka Sound Science Center; Sitka, AK
What	This project will study public attitudes in rural Alaskan communities about the COVID-19 crisis in order to better understand how different types of communities are reacting to this pandemic.
Why	The spread of COVID-19 has impacted communities around the country in different ways. From urban centers to rural communities, and in regions spanning the country, understanding the variations in pandemic response will help establish a historical record of the COVID-19 crisis as well as inform public health policy.

Related NSF Research News

- NSF Science Matters Blog: [Small business, big impact: How NSF-funded startups are joining the fight against COVID-19](#)
- [Researchers to measure 'coronavirus slide' in kids' reading skills](#)
- [Telemedicine transforms response to COVID-19 pandemic at NYU](#)
- [National Science Foundation-funded scientists developing more accurate statistical models of COVID-19](#)
- [Glacial ice will likely hold records of the COVID-19 pandemic, researchers say](#)
- [Immunity of recovered COVID-19 patients could cut risk of expanding economic activity](#)
- [New process considers numerous coronavirus models to reduce uncertainty](#)
- KSL-TV: [U Of U Professor Developing Portable, Reusable COVID-19 Test](#)
- WVNS-TV: [WVU creates rapid research response project to learn about the spread of COVID-19 through Appalachia](#)
- Fast Company: [Scientists are racing to design a face mask that can rip coronavirus apart](#)
- WESH2: [UCF researchers creating special cough drop that could help protect others from COVID-19](#)