



News from the NPI

Thursday, April 30, 2020

Washington Update

The COVID-19 crisis has dominated the attention of the Congress and the Administration since mid-March. The focus of the response has been on providing resources to frontline healthcare workers combatting the virus and financial support for workers and employers dealing with the economic fallout of the national lockdowns. The central piece of this effort has been the Coronavirus Aid, Relief, and Economic Security (CARES) Act, which was approved in late March. Additional funding for the small business support loan programs were approved in mid-April. It also included funding for multiple science-related agencies including:

- **NATIONAL INSTITUTE FOR STANDARDS AND TECHNOLOGY (NIST)** - \$6 million to support continuity of operations and \$50 million to be distributed among the 51 Manufacturing Extension Partnership (MEP) centers.
- **DEPARTMENT OF ENERGY/OFFICE OF SCIENCE** – \$99.5 million to support operations of the national laboratory scientific user facilities, including equipment, enabling technologies, and personnel to support research and development efforts related to coronavirus.
- **NATIONAL SCIENCE FOUNDATION (NSF)** – \$76 Million including \$75 million to support NSF’s ongoing RAPID grant response to coronavirus, which will support near real-time research at the cellular, physiological, and ecological levels to better understand coronavirus.
- **DEPARTMENT OF DEFENSE (DOD)** – \$10.5 billion – including \$415 million for the DEFENSE HEALTH PROGRAM for the development of vaccines, anti-virals, 24/7 lab operations and the procurement of diagnostic tests.

To learn more about the CARES Act, please click [HERE](#).

HOW OPTICS & PHOTONICS COMMUNITY IS HELPING COMBAT COVID-19

As healthcare professionals work to combat the COVID-19 pandemic, laboratories and companies around the world are using technologies developed by the optics and photonics community to help stem the spread and save lives. Optics and photonics technologies embedded in medical instruments like high-quantum-efficiency multispectral cameras, visible-light laser diodes and LEDs, infrared bolometer arrays, narrowband optical filters and wideband multispectral optical spectrometers are aiding healthcare professionals in their frontline fight against COVID-19. Researchers are also collaborating to share emerging discoveries in the effort to contain and eliminate the virus. To help foster these innovations, [the National Institute of Standards and Technology \(NIST\)](#) will be issuing awards to Manufacturing Extension Partnership (MEP) centers in all 50 states and Puerto Rico for projects related to COVID-19 using funds appropriated in the CARES Act.

As the fight against COVID-19 continues, optics and photonics technologies will play key roles in diagnosing patients, determining exposure to the virus, tracking the disease’s progress, and, eventually, developing a vaccine.

To learn more, click [HERE](#) and [HERE](#).

Industries of the Future Legislation

As lawmakers continue to advance COVID-19 relief, they are also looking for bipartisan ways to keep American innovation moving forward now and after the pandemic subsides. A potential vehicle for these efforts is the Industries of the Future Act, which was introduced in January and enjoys bipartisan support. The bill seeks to advance U.S. global leadership in artificial intelligence, advanced manufacturing, quantum information science, synthetic biology, and next generation wireless networks and infrastructure by prioritizing funding and planning for advanced technologies like quantum for the coming decade.

The legislation was introduced by Senate Commerce Committee Chairman Roger Wicker (R-Miss.), along with Sens. Cory Gardner (R-Colo.) and Tammy Baldwin (D-Wis.), chair and ranking member of the Subcommittee on Science, Oceans, Fisheries, and Weather, and Senator Gary Peters (D-Mich.) NPI has offered support for the Senate's efforts to advance American leadership in Industries of the Future and pass the legislation.

Energy Announces New Funding for Quantum Research

The U.S. Department of Energy (DOE) recently announced a plan to provide \$12 million for research in Quantum Information Science (QIS) for fusion energy and plasma science. Research is expected to focus on a range of topics including the design of quantum computing algorithms to solve problems in fusion energy, the development of quantum sensing diagnostics for fusion experiments, and the formation of novel quantum materials using high energy density plasmas.

Universities, nonprofits, private sector companies, and DOE national laboratories are eligible to apply. Funding is to be awarded competitively, based on peer review, and is expected to be in the form of three-year grants ranging from \$50,000 to \$1 million per year, beginning in the current fiscal year. Total planned funding will be \$12 million over three years, with up to \$7 million in Fiscal Year 2020 dollars and outyear funding contingent on congressional appropriations.

MESSAGE FROM THE CHAIRMAN

I hope you and your families are staying safe and healthy during these challenging times. I know that our community will continue to innovate and support efforts to build a better, brighter future through science and discovery. We thank you for your continued support.
All best,



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