United States Senate

WASHINGTON, DC 20510

May 11, 2021

The Honorable Charles Schumer Majority Leader U.S. Senate S-221 Capitol Bldg. Washington, DC 20510 The Honorable Mitch McConnell Minority Leader U.S. Senate S-230 Capitol Bldg. Washington, DC 20510

Dear Majority Leader Schumer and Minority Leader McConnell,

We are writing today in support of strengthening American leadership and competitiveness in science, technology, and innovation, specifically seeking to elevate the role of the Department of Energy and National Laboratories in that endeavor. There has always been strong, bipartisan support in ensuring the preeminence of America's science and technology enterprise. The America COMPETES Act, led by then-Senators Alexander and Bingaman and informed by a broad consensus of experts, charted the course to support America's S&T leadership through federally sponsored research and development across the entire U.S. innovation ecosystem. With this in mind, we request that the Endless Frontier Act be modified to ensure those investments in that entire ecosystem start by building on our strengths that have largely been focused in the people, facilities, and programs at the Department of Energy (DOE), our National Labs, and their associated user facilities, programs, and expertise.

The United States has long been the world leader in research and development with the DOE and National Laboratories as the centerpiece of our innovation ecosystem. From harnessing the atom to mapping the human genome, DOE and the National Laboratories have tackled some of the biggest challenges facing our nation and delivered results that have changed the world. Recent examples illustrate their fundamental role across science and technology, its research, development, and commercial application:

- DOE and all 17 National Laboratories have collaborated via a virtual lab and built on their longstanding relationships with public health agencies like the Centers for Disease Control and Prevention (CDC) to apply their computational capabilities, expertise in molecular biology, atmospheric and epidemiological modeling, and even advanced manufacturing tools to tackle the COVID-19 pandemic.
- In a major breakthrough for particle physics, the Fermilab National Accelerator Facility (Illinois) facilitated discoveries indicating an entire new realm in physics following experiments partially funded by the National Science Foundation and DOE.
- On the opposite end of the scale, new facilities like the Deep Underground Neutrino Experiment (South Dakota) will seek to understand the universe.
- Work currently underway on the MARVEL microreactor at the Idaho National Laboratory (INL) is one of many examples of how INL and other National Laboratories are demonstrating and commercializing the next generation of nuclear technologies.
- At the same time, groundwork laid by the DOE Office of Technology Transitions recently awarded 20 incubators across the country to expand their tech transfer activities.

These examples represent only a few areas where DOE and the National Laboratories have applied their expertise and capabilities, but their unique ability to apply multiple tools and draw on a deep well of expertise across fields of science and technology truly shines.

Our national lab system has long been the envy of the world, but our investments in R&D are being outpaced by China and other competitors. Countries like China are mimicking our model by investing billions to develop their own national lab system. Moreover, there are emerging tech-centered industries on which our nation's competitiveness, security, and prosperity will depend going forward. We should strategically grow the investment in research, development, and commercialization activities in key technology areas and across the innovation ecosystem, while accounting for the ability of agencies to absorb and effectively utilize enhanced levels of funding.

We are concerned that the current legislation does not invest in or strengthen the work of DOE and the National Laboratories across the legislation's key technology focus areas and the technology commercialization programs it would establish and could undermine its success. The National Science Foundation is an important part of the innovation ecosystem and provides universities with vital resources to conduct basic science research essential to the discovery process. But DOE and the National Labs have an established role, secure methods of research, and R&D capabilities that are – and should continue to be – unmatched in the United States and around the world. DOE and its labs are also better placed and experienced to prevent the theft of defense and other commercial technologies and know-how by competitors, including China.

We should leverage the expertise and strengths of all of our nation's research institutions in these areas that are critical to US economic and national security and take care in ensuring new missions are complementary, as duplicative missions could disservice our innovation pipeline. DOE's National Laboratories and user facilities must play a central role as we work to remain the world leader and set the standard for research and development excellence.

James E. Risch

United States Senator

John Barrasso, M.D.

United States Senator

Ben Ray Lujan

United States Senator

Richard J. Durbin United States Senator Wike Cryoo

Mike Crapo United States Senator Joseph Mandhin III United States Senator

Shelley Moore-Capito United States Senator

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~ Nurbourde

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/s/ Martin Heinrich Martin Heinrich United States Senator

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