To maintain the integrity of international scientific collaborations, security must be reliable and adaptive to emerging and evolving threats.

An Opportunity for Advancement and Transformation

President Biden's Fiscal Year 2022 request to Congress supports investing in the U.S. National Science Foundation's mission to safeguard U.S. economic and national security in a changing world. NSF's mandate is to strengthen U.S. leadership in identifying existing and emerging security concerns and developing technology to counteract threats and ensure the integrity of fundamental research and technology. This is an opportunity for NSF to strengthen scientific research security and integrity at home and around the globe.

Enabling and Enacting Solutions

In March 2020, NSF created a new position, Chief of Research Security Strategy and Policy (CRSSP), as part of its continuing effort to ensure the security and integrity of federally funded research while maintaining open international collaborations.

The FY 2022 request designates funding for NSF to invest in a secure and trustworthy cyberspace and thus safeguard a critical piece of infrastructure. The request also includes the establishment of a research program to understand the elements of research integrity and develop mitigation approaches in research security. In FY 2022, NSF will build its capabilities to proactively identify risks in research security such as in the merit review system and vulnerabilities of pre-publication research.

NSF initiated the establishment of the Sensitive Compartmentalized Information Facility (SCIF) at NSF headquarters. NSF will develop the SCIF to enhance situational awareness of threats to the research community so that the agency can work with federal partners and the science community to help mitigate those threats. NSF will continue to clearly communicate the benefits of international collaborations as well as the risks of foreign government interference.

To counteract such risks, NSF and its partners -- in federal research support, law enforcement and intelligence -- have been looking for ways to protect the integrity of research and U.S. intellectual property while preserving openness and international collaboration in research. Through creation of the CRSSP position and due to NSF's close connection to the academic research community, NSF is in a singular position to take on efforts related to research security to preserve the openness and integrity of the research ecosystem.

Contributing to Economic and National Security Interests

NSF investments contribute significantly to the economic and national security interests of the U.S. Since its creation, NSF has evolved to remain agile and responsive to national needs. In 2019, NSF tasked JASON, an independent science advisory group, with producing an unclassified report that provided data about specific research community concerns. Agencies throughout the federal government have been working to address the challenges outlined in the report.

Scientific research security is a critical component of national security that reaches far beyond the scientific research community. NSF plays a critical role in furthering scientific research security and providing innovative solutions to meet existing and emerging threats. The importance of scientific research integrity and security cannot be disregarded. Security is essential for free and collaborative scientific research.

NSF is committed to sustaining the United States' position as a global innovation leader and contributing to its economic strength and national security through basic research. These are the values that have driven NSF and its global research partners for decades.