



COMMITTEE ON

**SCIENCE, SPACE, AND TECHNOLOGY**

REPUBLICANS Frank Lucas, Ranking Member

## **Opening Statement of Ranking Member Frank Lucas**

*Subcommittee on Research and Technology Hearing on “National Science Foundation:  
Advancing Research for the Future of U.S. Innovation*

*April 28, 2021*

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Thank you Chairwoman Stevens and Ranking Member Waltz for holding today’s hearing on the future of the National Science Foundation and its role in advancing American innovation.

The National Science Foundation was created in 1950 at the start of the Cold War, when America’s global leadership and prosperity was under threat by Soviet Russia and the rise of communism. Congress established the NSF with a mission of funding basic research and STEM education to promote the progress of science; advance the national health, prosperity, and welfare; and secure the national defense.

NSF was just one part of a strategy to invest in America’s scientific capabilities. That period also saw the creation of NASA, the Department of Energy and the national laboratories, and Department of Defense laboratories. It is a research ecosystem that has been the envy of the world and given our nation great prosperity and technological achievements.

But 70 years later we face a new generational threat in the rise of China. Communist Chinese leadership is investing more in research than the U.S. and aggressively pursuing technological supremacy through foreign acquisitions, forced technology transfers, and, frequently, cyber espionage. We also face enormous national and societal challenges, like cybersecurity threats, the growth of AI and automation, the need for exceptional computing capacity, and a climate that is changing.

At the same time, science is becoming more multi-disciplinary, which we need to address and leverage. And we need to improve the diversity of our scientific workforce and ensure all Americans have opportunities to participate and excel in STEM education and employment. And yet, our research enterprise remains one of the best in the world, and we must maintain and strengthen the foundations that have made it so successful.

The question before us today is how do we grow and evolve NSF to meet the challenges of the 21<sup>st</sup> Century, while preserving what makes NSF great? It was with these challenges and opportunities in mind that I was proud to join Chairwoman Johnson in introducing the NSF for the Future Act.

Our legislation doubles down on basic research funding at NSF over the next 5 years. It focuses on building our domestic STEM workforce, while also creating a new directorate of NSF focused on science and engineering solutions. Importantly, we're working to improve how we apply discoveries in the lab to solving national and societal challenges. The NSF for the Future Act is the result of months of stakeholder engagement, hearings, and bipartisan discussions.

Today's hearing with the leadership of NSF and the National Science Board, as well as next week's hearing with NSF stakeholders, continues that open, transparent, and inclusive process of reauthorizing the Foundation. This is how the legislative process should work.

But the NSF alone can't meet the scientific challenges ahead. Earlier this month I reintroduced the Security American Leadership in Science and Technology Act, which comprehensively invests in research across the many federal agencies driving scientific progress. My legislation creates a national science and technology strategy, doubles basic research funding over the next 10 years, invests in our scientific infrastructure, improves technology transfer from lab to market, and protects American research from theft by foreign adversaries.

We have a unique window of opportunity before us. There is momentum on both sides of the aisle in the House and Senate for legislation to secure our global science and technology leadership. But it should be comprehensive, strategic, and sustainable. A \$100 billion slush fund for a top-down approach to developing technologies, as some have proposed, does not meet that criteria.

Instead, America's continued scientific leadership requires a comprehensive and strategic approach to research and development—one that is responsible and sustainable. It requires national collaboration and public-private partnerships and a focus on evolving technologies that are crucial to our national and economic security, like semiconductors and quantum sciences.

I also agree with many of my colleagues that we need to do more to ensure STEM opportunities reach more Americans. We need to make sure investment doesn't just happen in places like San Francisco and Boston, or at the top 10 universities, but also in places like Stillwater, Oklahoma and land-grant institutions like Oklahoma State or Historically Black Colleges and Universities like Langston University. I look forward to hearing ideas about how we can better achieve that goal.

I am committed to working with my colleagues on the Science Committee, the Senate Committees of jurisdiction, and stakeholders to move legislation that is as bold and ambitious as the greatest scientific minds in our country. But we also have the responsibility to ensure our solutions offer a sustainable path forward for the U.S. research enterprise. Innovation thrives on stable and predictable funding, and our nation's students, scientists and research institutions depend upon it.

I thank our witnesses for being here today, and I look forward to your testimony. I yield back madam chair.