

## OPENING STATEMENT

Ranking Member Eddie Bernice Johnson  
Committee on Science, Space, and Technology

Research & Technology Subcommittee Hearing  
*“Policies to Spur Innovative Medical Breakthroughs from Laboratories to Patients”*

July 17, 2014

Thank you, Mr. Chairman for holding this hearing. This morning we are talking about interdisciplinary research and federal policies to spur medical innovation. Encouraging innovative medical breakthroughs starts with investing in fundamental research, including in emerging interdisciplinary areas.

Today we will hear from some of the witnesses about engineering biology—which is research at the intersection of biology, the physical sciences, information technology, and engineering. This exciting new area will potentially allow researchers to create biological systems that do not occur naturally and to re-engineer existing biological systems to perform novel tasks. This powerful new research area has the potential to address many of our most serious societal challenges.

For example, in healthcare, this field could lead to new therapies that are tailored specifically to individuals based on their genetic information. In energy, this field could lead to the use of microorganisms such as bacteria to produce fuel. Many other potential applications of engineering biology, including for agriculture, chemicals, and manufacturing, could save lives and lead to significant economic growth.

Given this promise, I have been working on a draft bill, which I anticipate introducing in the near future, that would establish a framework for greater coordination of federal investments in engineering biology and lead to a national strategy for these investments. The bill would also focus on expanding public-private partnerships and on education and training for the next generation of engineering biology researchers.

Additionally, my bill will ensure that we address any potential ethical, legal, environmental, and societal issues associated with engineering biology. It will also ensure that public engagement and outreach are an integral part of this research initiative.

The goal of this legislation is to ensure that the United States remains competitive in this critical area of science and technology. If we do not make the necessary investments, we will lose our leadership position in engineering biology.

We are already seeing other countries make significant progress. The EU and others are making the necessary investments, working on coordinated strategies across their research infrastructure, and developing action plans to execute that strategy.

Right now, we are still lead in engineering biology, but we must continue our work to ensure that we do not cede our leadership position. This field has too much potential to grow our economy, create jobs, and improve our quality of life. Even though we are in an increasingly interconnected world, it is important to do all we can to promote innovation and job creation here at home.

I am hopeful that we can work together across the aisle to ensure that the United States remains a leader in engineering biology.

I want to thank the witnesses for being here today. Thank you, Mr. Chairman and I yield back the balance of my time.