U.S. HOUSE OF REPRESENTATIVES COMMITTEE ON
SCIENCE, SPACE, & TECHNOLOGY
Opening Statement

Chairwoman Eddie Bernice Johnson (D-TX)

Full Committee Markup of:
H.R. 4373, the "Engineering Biology Research and Development Act of 2019"
H.R. 4372, the "MSI STEM Achievement Act"
H.R. 4355, the "Identifying Outputs of Generative Adversarial Networks Act."
Wednesday, September 25, 2019

Welcome to today's Science Committee markup of three bipartisan bills.

First we will consider H.R. 4373, the Engineering Biology Research and Development Act of 2019. Engineering biology has the potential to address some of the most serious challenges facing our nation, from food production to environmental cleanup, to clean energy, and of course healthcare. It will also drive our economy in the 21st century. U.S. revenues from engineered biological systems reached at least $388 billion in 2017.

H.R. 4373 creates the foundation for U.S. leadership in the bio-economy while also ensuring that the United States is positioned to lead global discussions about responsible development and governance of engineering biology. H.R. 4373 would establish a federal engineering biology research initiative and require a national strategy for our investments and a framework for interagency coordination. The legislation would also expand public-private partnerships and expand education and training for the next generation of engineering biology researchers. It authorizes mission-relevant activities for several agencies within the jurisdiction of this Committee. Finally, throughout the legislation, we ensure that the Initiative would address potential ethical, legal, environmental, safety, and security issues associated with engineering biology research.

Next we will consider H.R. 4372, the MSI STEM Achievement Act. Our nation's underrepresented minority students have long been an underutilized resource for STEM talent. For our country to remain competitive in the 21st Century, this situation must change. Fortunately, America's minority serving institutions have been working for decades to prepare underrepresented minority students to enter STEM fields. Our MSIs have helped advance participation in STEM fields by developing tried and true models for inclusive curriculum, effective student mentoring, and fostering a welcoming campus climate.

The MSI STEM Achievement Act provides for increased transparency, accountability, and accessibility of Federal STEM education and research funding for MSIs. The bill directs the

Government Accountability Office to compile an inventory of Federal science agency programs targeted to MSIs and to make recommendations for steps agencies can take to encourage increased participation and success for MSIs in these programs. The National Science Foundation is authorized to support research on the challenges and successes MSIs have had in contributing to the STEM workforce, including approaches to build the research competitiveness of MSIs. Finally, the bill directs the Office of Science and Technology Policy to develop a government-wide strategic plan and sustained outreach program to support STEM education and research at MSIs.

The last bill we will consider today is H.R. 4355, the Identifying Outputs of Generative Adversarial Networks Act. This very technical topic is more commonly known as "Deep Fakes". The National Science Foundation and the National Institute of Standards and Technology both have critical roles to play in the research and standards development to counter the spread and consequences of Deep Fakes. Importantly, this legislation also emphasizes public-private partnerships in this area. I want to thank Mr. Gonzalez and his bipartisan cosponsors for introducing this good bill and I urge my colleagues to support it.

I think these are all good bills, and I look forward to a productive markup today.