

Statement of JoAnne L. Flynn, Ph.D., President of The American Association of Immunologists (AAI), to the Senate Finance Committee, for the June 5, 2019, Hearing Record on “Foreign Threats to Taxpayer-Funded Research: Oversight Opportunities and Policy Solutions”

The American Association of Immunologists (AAI), the nation’s largest professional association of research scientists and physicians who study the immune system, appreciates having this opportunity to submit testimony for the record regarding the Senate Finance Committee’s June 5, 2019, hearing on “Foreign Threats to Taxpayer-Funded Research: Oversight Opportunities and Policy Solutions.” AAI members are research scientists and physicians who live and work in the United States and in countries throughout the world. What they share is an academic expertise in, and professional commitment to, understanding the immune system and to advancing ways to prevent, treat, and cure disease.

AAI recognizes and greatly appreciates the strong support – and robust funding – that Congress and American taxpayers have provided for biomedical research. Most AAI members receive funding from the National Institutes of Health (NIH) to support their research, and are gratified that their work is strongly supported on a bipartisan basis. Our members know that, with this funding, comes the responsibility to work hard to both advance our research and protect the integrity of science and the scientific enterprise. AAI has been made aware in recent months by the NIH, this Committee, and press reports, among other sources, of concerns about threats posed by foreign countries and foreign nationals to U.S. national security and U.S. intellectual property. AAI looks forward to working with Congress and the NIH to address threats to the research and innovations to which our members devote their professional lives.

It is essential, however, before moving forward, for Congress to understand fully the collaborative nature of science and the urgent need for international collaborations if the U.S. is to advance science, foster innovation, and remain the world’s leader in biomedical research. I can best illustrate this, I believe, by describing my own experience. As a professor in the Department of Microbiology and Molecular Genetics at the University of Pittsburgh School of Medicine, I have spent most of my career studying tuberculosis (TB), an infection caused by a bacterium. With 10 million cases and 1.3 million deaths in 2017, TB causes even more deaths than HIV. According to the Centers for Disease Control and Prevention (CDC), 25 percent of the world’s population is currently infected with TB; if left untreated, about 5 – 10 percent of those infected will develop the disease. Preventing TB globally not only protects the U.S. from this disease, but also improves the health of people in some of the poorest nations in the world.

As a result of – and to further – my research, I have developed extensive ties in the international research community. I have deep experience collaborating with scientific partners in other countries through research projects sponsored by both the NIH and the Bill and Melinda Gates Foundation. In my view, it is essential for U.S. researchers studying TB to work with scientists in countries where the incidence of TB is high. Therefore, while TB research is performed in many countries, I have worked closely with scientists in Asia and Africa, where several poor countries have the largest number of cases. My lab has partnered

with outstanding scientists in South Africa, where the incidence of TB is very high; by coordinating our efforts, we are working to identify new methods for treatment and prevention of this disease. My colleagues and I are also working with scientists in the United Kingdom and Denmark, where new drugs, diagnostics, and vaccines against TB are being developed, providing these collaborators with an important avenue for testing potential interventions. I have also traveled to many different countries around the world, speaking about my research at seminars and international meetings, and discussing with individual scientists our shared interests. These interactions are critical to maintaining collaborative relationships and promoting outstanding science in all countries.

In conjunction with my research, I have trained more than a dozen young researchers from many different countries (including Bosnia and Herzegovina, Canada, China, Iceland, India, Malaysia, Moldova, New Zealand, Nigeria, and the former Soviet Union). I believe strongly that these young scientists are critical not only to the advancement of TB research, but also to the scientific enterprise of the U.S. While some of these scientists return to their home countries to perform research there (and may collaborate with U.S. scientists), others stay in the U.S. to run their own labs or work in the broader research enterprise.

Although AAI does not have sufficient expertise to recommend ways to promote national security or prevent the theft of intellectual property, we believe that better educating NIH-funded scientists and the institutions where they work about required disclosures (including of foreign grant support or faculty appointments, and affiliations with foreign labs); prohibited commercial and institutional relationships; and appropriate handling of proprietary or other confidential information; will go a long way towards addressing the Committee's concerns. Providing clear, specific guidance will help prevent inadvertent missteps by well-intentioned scientists and institutions, and may help limit increased scrutiny to those individuals and areas of the scientific or technological enterprise that pose a genuine threat.

AAI strongly believes that the vast majority of NIH-funded scientists are conducting research in a fair and transparent manner, and are abiding by rules governing the safeguarding of data and confidential manuscript or grant information. It is essential, therefore, that any steps that Congress takes to address these few bad actors do no harm to the ability of U.S. and foreign scientists to exchange ideas, work collaboratively, or travel freely. The U.S. must continue to be an open, welcoming place that will attract the most talented scientists and students from all over the world. If we lose those qualities, or if we impose burdensome rules that deter U.S. or foreign scientists or institutions from pursuing international collaborations, then our adversaries - who strive to surpass us and from whom Congress rightly seeks to protect us - will have won.