OPENING STATEMENT Ranking Member Daniel W. Lipinski (D-IL) of the Subcommittee on Research and Technology

House Committee on Science, Space, and Technology "Putting Food on the Table: A Review of the Importance of Agriculture Research" November 1, 2017

Thank you Chairwoman Comstock for holding this hearing and the witnesses for being here today. Often, the major research issues that we talk about on the Research and Technology Subcommittee are not the subjects of everyday dinner conversation. But today, we are actually talking about dinner. Putting safe and affordable food on the table is something many of us take for granted. However, there is an entire ecosystem of innovation and public-private partnerships that make it possible for farmers to continue to meet the needs of a growing population.

Agricultural science is multidisciplinary, spanning fields from engineering to economics. As Dr. Moose from the University of Illinois at Urbana-Champaign can attest, UIUC's Crop Sciences department includes research in statistics, ecology, environmental sciences, plant biology, horticulture, plant genetics, plant pathology, and weed science. Likewise, major discoveries and innovations that assist in crop production come from unexpected places. For example, new genetic editing technologies that began in a microbiology research lab promise major leaps forward for agriculture. In another example, NASA supported the development of satellite image refinement software for its research that also helps agricultural researchers study the effects of population and climate on crop field acreage.

Agricultural researchers work closely with farmers to help translate all of this science into practice, while farmers continue to help define the research agenda for food security. Research and development is a system of feedback loops, not a linear path. There is rarely a clean line between basic and applied research in any field of inquiry, and today's topic is no exception. It is important to remember this as we examine the need for flexible, sustainable federal support for agricultural research.

Both government and private sector investments support agricultural research. Multiple federal agencies support efforts to advance our nation's leadership in agricultural research. These agencies work in close collaboration with the agricultural industry. Unfortunately, as federal budgets are tightened, academic researchers have less funding to move their science through the development process; therefore, the private sector supports an increasing share of agricultural research. While the private sector has an important role, we must continue to provide a balance of public and private funding in order to ensure both a pipeline of basic research and a research agenda driven by the needs of farmers and the public. Our lack of dedication to sustainable funding could cost us global competitiveness in certain areas of agricultural technology and put our food security at risk within the lifetime of many of us.

A number of factors can affect the quality, availability, and safety of the plants and animals that help feed our families, including extreme weather, pests, and disease. In the face of emerging infectious diseases and new technological tools such as genetic editing, we must also be vigilant about intentional contamination and disruption of our food supply. I hope there is some discussion today about how researchers and industry are taking into consideration the agricultural impacts of a changing climate and growing population, and how those factors will help shape the research agenda. On the biosecurity front, which is one focus of this hearing, several of the today's witnesses will testify about the critical need to implement sustainable funding policies for the new National Bio and Agro-defense Facility under construction in Manhattan, Kansas.

Now is the time to consider a federal strategy to increase the scale of agricultural research across the relevant agencies, encourage balanced federal-private sector partnerships, and ensure that our future agricultural workforce is equipped with the necessary science and technology skills to meet the food and biosecurity challenges of today and tomorrow. Finally, I would like to note that agricultural research also has applications beyond food security. For example, the Department of Energy recently awarded UIUC five years of funding to establish one of four new Bioenergy Research Centers that will provide a new generation of sustainable bioenergy and other bio-based products. I thank all of the witnesses for being here to share their expertise, and I yield back.