OPENING STATEMENT

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Subcommittee on Research and Technology
Committee on Science, Space, and Technology

Nanotechnology: From Laboratories to Commercial Products

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Thank you Chairman Bucshon for holding this hearing today on nanotechnology. It has been a little more than three years since the committee last held a hearing on nanotechnology, so I am happy we are returning to one of my favorite topics. Federal investments in nanotechnology research have already led to job creation in my state and across the nation, and I believe the potential for return on our relatively modest federal investment is many times what we've already witnessed.

I'm fond of saying that I "drank the nanotech kool-aid" the first time I visited Chad Mirkin's lab at Northwestern. I was amazed by what he could do at the scale of a single atom. In nanotechnology there is now a branch of engineering that simply did not exist 26 years ago when I was getting my degree in mechanical engineering. By controlling individual atoms we can create new materials and products, and with that, companies and jobs.

The Science Committee recognized the promise of nanotechnology early on, holding our first hearing close to 15 years ago to review federal activities in the field. The Committee was subsequently instrumental in the development and enactment of a statute in 2003 that authorized the interagency National Nanotechnology Initiative – the NNI.

We have passed a widely supported, bipartisan update to the NNI bill in the House three times since 2008. Unfortunately, all three times the bill died in the Senate. But I hope that with the Chairman's help we will have an opportunity to take up an NNI Reauthorization bill once again in this Congress. Who knows, maybe the 4th time will be the charm?

I don't think the NNI requires major revisions. It seems to be working pretty well. But I do think there are opportunities to formalize some of the recommendations we have received in the last few years from PCAST and the National Academies on how to strengthen the program even further, without any additional costs. These opportunities include ways to strengthen technology transfer and streamline the reporting requirements for the program. I welcome thoughts from our witnesses today on how we can continue to improve upon the existing program.

Nanotechnology is a broad field encompassing much more than just materials science or semiconductors. For instance, nanotechnology is beginning to help us understand biology at the cellular level. We are now seeing applications that were not even imagined 13 years ago when the National Nanotechnology Initiative was first created. The range of potential applications is broad and will have enormous consequences for electronics, energy transformation and storage,

materials, and medicine and health, to name just a few examples. I am sure that we will hear about some of those applications from today's witnesses including Mr. Ivie from F Cubed.

Part of our discussion of nanotechnology must include the barriers and opportunities surrounding nanomanufacturing. I know that Dr. Persons will talk about some of the challenges that the United States is facing in this area today including a need for more U.S. involvement in international standard setting, continued sustained investment in this area, and a national vision for a U.S. nanomanufacturing capability.

Finally, I think it is also important to talk about the environmental, health, and safety – or EHS – research that must be part of any comprehensive nanotechnology research strategy. I know that Professor Hersam was part of a report on nanotechnology research directions that included a review and recommendations for nano-EHS research and hope we can spend some time during the Q&A on this important topic.

Once again, I am very happy we are having this hearing today. I look forward to all of the witness testimony and the Q&A, and I thank you all for being here today. I yield back the balance of my time.