U.S. HOUSE OF REPRESENTATIVES COMMITTEE ON
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Opening Statement

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of the Subcommittee on Energy

Joint Subcommittee Hearing:
Subcommittee on Research & Technology
Subcommittee on Energy

Federal Science Agencies and the Promise of AI in Driving Scientific Discoveries

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Good morning, and thank you to all of the distinguished witnesses for joining us today, as well as to Chairman Collins and Chairman Williams for holding this important hearing. While we have all gained awareness of some of the risks associated with AI - and we will certainly explore these risks further in our discussions this morning - this hearing will also present us with an opportunity to discuss the benefits of using these capabilities to further drive innovation and advance our national scientific enterprise.

DOE and its network of National Laboratories employ advanced computational systems and powerful supercomputers that enable them to be at the forefront of AI development. With their computational resources and tools, DOE researchers are well positioned to fully benefit from the capabilities of artificial intelligence. These advances may help us solve humanity's most pressing problems by enabling researchers to analyze huge data sets, rapidly generate and test new designs of life-saving medical treatments, and optimize new advanced manufacturing techniques.

DOE's supercomputing ecosystem and AI tools serve as a critical resource for academic and industry users from the U.S. and around the world. However, outside of a handful of well-resourced tech companies and universities, there is a general lack of access to computing resources that would allow them to train AI systems of comparable complexity with ChatGPT. This is particularly concerning with regard to serving marginalized communities. To ensure that we are sharing the benefits of AI and advanced computing equally, we need to pursue an agenda of scientific computing *for the people.* As I have said before, we need a skilled and diverse workforce to maintain the vitality of DOE's scientific computing ecosystem long into the future. To that end, I am looking forward to discussing with our witnesses how expanding access to these resources can tackle these challenges.

I would also note that while DOE's AI and supercomputing capabilities hold tremendous promise for accelerating scientific discovery, we need to use these capabilities responsibly and ethically. As the use of artificial intelligence becomes more commonplace in our everyday lives, we must ensure that its fundamental algorithms are designed to protect people's privacy and eradicate bias. We must also stop these tools from fortifying the structures of systemic racism, as

we have seen happen with things like predictive policing and facial recognition technology. This will only become more important as AI is further trained to be able to process, analyze, and store sensitive information, such as biomedical datasets.

All that said, I want to again thank our panel of witnesses assembled today, and I look forward to hearing your testimony. With that, I yield back.