UNIVERSITY of ROCHESTER

OFFICE OF GOVERNMENT & COMMUNITY RELATIONS

December 1, 2023

The Honorable Frank Lucas
Chairman
Committee on Science, Space, and Technology
2321 Rayburn House Office Building
Washington, DC 20515

The Honorable Zoe Lofgren
Ranking Member
Committee on Science, Space, and Technology
2321 Rayburn House Office Building
Washington, DC 20515

Dear Chairman Lucas and Ranking Member Lofgren:

Thank you for your work on H.R. 6213, The National Quantum Initiative Reauthorization. On behalf of the University of Rochester, we write in strong support of the legislation. Quantum Information Science, Engineering, and Technology (QISET) is a key technology area poised to enable a variety of transformative applications that fundamentally change our world. The University was a strong supporter of the first National Quantum Initiative Act, working with the National Photonics Initiative since its founding to build support for its passage, and similarly supports this reauthorization.

The University of Rochester has a long history of research accomplishments in the quantum sciences, perhaps most notably in quantum optics - the study of quantized light (photons) and its interaction with matter. In fact, the very term “quantum optics” was coined in Rochester, during the 1960’s as the field was being formalized. The advancement of quantum optics theory and experiments enabled remarkably precise tests of fundamental questions in physics, as well as applications ranging from lasers to quantum computing.

Currently, University faculty and students are pursing QISET research in many areas including quantum applications, quantum devices, quantum materials, quantum interconnects, and quantum theory. This research is conducted in a range of departments including chemistry, computer science, electrical engineering, mathematics, mechanical engineering, optics, physics and astronomy. This work is made possible with federal support from the National Science Foundation (NSF) and the Department of Energy Office (DOE) of Science, as well as, the National Aeronautics and Space Administration (NASA) and the Department of Defense.

We appreciate that the reauthorization supports additional areas of QISET, including application areas like quantum sensing, metrology and networking and that the bill strengthens quantum workforce development efforts. The University can make strong contributions to these objectives by building on existing research programs and on-going educational programs, such as our current NSF Research Experiences for Undergraduates (REU) in Nanophotonics, Quantum Photonics, and Vision/Biomedical Optics. We are also excited about the additional opportunities for expanded participation in the existing center-scale programs at NSF and DOE, as well as the new opportunities the bill would establish – an NSF Quantum Reskilling, Education, and Workforce (QREW) Coordination Hub, a NASA Quantum

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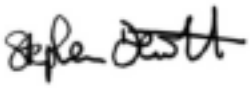
Institute, and 1-3 National Institute of Standards and Technology Quantum Centers that will prioritize quantum sensing and measurement and quantum engineering.

Thank you again for the Committee's bipartisan attention to all areas of quantum information science, engineering and technology. Your efforts to advance these key technologies will help ensure the United States retains our leadership and enjoys the scientific, economics, and security benefits QISET will make possible. Our future is made brighter through your leadership and support. If you should have any additional questions or if we can ever be a resource to the Committee, please do not hesitate to contact us.

Sincerely,



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cc: Josh Farrelman, Associate Vice President, Office of Government and Community Relations
Clayton Cox, Ph.D., Associate Federal Relations Director and Science Policy Advisor