

Call for Seed Proposals

Center for Quantum Information, Engineering, Science and Technology (QUIEST)

The Penn Center for Quantum Information, Engineering, Science and Technology (QUIEST) is excited to announce its second year call for seed project proposals. Proposed projects should address one or more of the center's priority research areas:

- **Materials for QUIEST** – Synthesis, characterization, and optimization of materials for the storage, manipulation, or transduction of quantum information.
- **Quantum Devices** – Design and realization of new quantum processors, quantum sensors, and quantum interconnects, especially in combination with integrated electronics and photonics architectures.
- **Quantum Systems** – Theory of quantum information processing, new architectures for intermediate-scale and fault-tolerant quantum processors, and quantum networking.
- **QUIEST Impact** – Optimization and application of quantum sensors for materials science, chemistry, biology, and medicine; the use of quantum computers for materials design and data science.

We are especially interested in supporting multi-investigator collaborations that will address a significant problem by generating preliminary evidence or establishing key capabilities that will support full-scale, externally funded research projects in QUIEST.

Selection Criteria: Proposals will be evaluated based on their scientific and technical merit, potential to develop into full-scale projects, and alignment with the QUIEST center goals. Evaluators may include internal QUIEST faculty as well as external experts in each project's research area. Proposals will be kept confidential and shared only with evaluators.

Eligibility: Proposed projects should have a principal investigator (PI) with a primary appointment in SEAS or SAS. Co-PIs from SEAS, SAS, or other schools at Penn may participate. Individual faculty may participate in multiple proposals, but may only submit a single proposal as PI.

Budget: Award amounts are expected to range from \$50k-\$150k. The amount will depend on factors including the number of proposals selected, the number of people involved, and the equipment required. Funds may be used to support graduate students and postdoctoral fellows, materials and supplies, user fees for facilities, or equipment purchases. Funds may not be used for faculty salaries or travel.

Duration: Seed grants are projected to start in early 2025 and will have a duration of one year, with a possible second year of funding contingent on progress.

Application Format: Proposals should not exceed two pages (11 pt font, 1" margins), not including references. The application should articulate the problem, provide relevant background information, describe the research plan, and explain how the research contributes to the center's goals as described above. Along with the proposal, the application should include NSF-style CVs and Current and Pending support for the PI and all Co-PIs as well as a budget request that outlines how funds will be used. The budget estimates can be approximate, however any equipment requests should be supported by quotes.

Application Deadline: Please send proposals as a single pdf file to Lee Bassett (lbassett@seas.upenn.edu) and Marian Bechtel (bmarian@seas.upenn.edu) by **Dec 15, 2024**.



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