PolarisQB Receives DARPA EEI Award to Advance Quantum Computing for Drug Design

DURHAM, NC, UNITED STATES, September 30, 2025 / EINPresswire.com/ -- The Defense Advanced Research Projects Agency (DARPA) awarded PolarisQB an Embedded Entrepreneurship Initiative (EEI) award to support the transition of PolarisQB's previously DARPA-funded IMPAQT research for commercial markets. This EEI award drives forward American leadership in quantum computing.

Previously, PolarisQB was awarded DARPA's Advanced Research Concept (ARC) topic, "Imagining Practical Applications for a Quantum Tomorrow" (IMPAQT), under the contract "Quantum Computing Solutions for Inhibiting Protein-Protein Interactions for Emerging Threats." During the contract, PolarisQB developed a novel variational quantum algorithm (VQA) that identifies small molecules that inhibit protein-protein interactions (PPIs), a challenging area in drug design, and applied it to the Ebola virus. Multiple white papers by Drs. Ken Byler, Anna Petroff, and Mr. Maurice Benson, have been published based on that work.

> Everyone at PolarisQB is thrilled and honored to continue to work with DARPA."
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> *Shahar Keinan, PolarisQB CEO*

Based on the success of the IMPAQT contract, PolarisQB received the EEI award to leverage embedded entrepreneurs and accelerate the commercialization of the Quantum-Aided Drug Design (QuADD) platform and technology, with applications in drug design and development, particularly in the CNS area. The QuADD SaaS platform enables users to explore a 10^30 chemical space in just a few hours, identifying

molecules optimized for specific biological targets and disease profiles. It enables users to find molecular hits at the speed of quantum computers and is currently available to drug discovery teams in biotech and pharmaceutical companies.

Polaris Quantum Biotech (PolarisQB), a leader in Quantum Computing for drug discovery, created the first drug discovery platform built on a Quantum Computer, Quantum-Aided Drug Design (QuADD). Founded in 2020 in Durham, North Carolina, PolarisQB utilizes the latest advancements in quantum and cloud computing, artificial intelligence, and machine learning to identify drug lead molecules from a chemical space comprising 10^30 molecular options. The QuADD platform can search a massive chemical space and deliver molecules specific to on-demand libraries, as well as de novo space. Final candidates, identified in minutes, possess custom drug-like characteristics for the discovery project and are represented in 3D conformations within the target protein pocket. Additional information is available at www.PolarisQB.com.

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