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Svigals + Partners creates home for Quantum Circuits, Inc.

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New Haven, CT Tech pioneers working on bringing quantum computing technology to the marketplace now have a new home tailored to their unique research type, thanks to the laboratory design experts at architecture, art, master planning and interiors firm Svigals + Partners.

Led by partner Bob Skolozdra, AIA, LEED AP, and drawing on decades of experience in the design of specialized commercial and institutional research space, the design team was able to meet an accelerated schedule for Quantum Circuits, Inc.— a startup founded by Yale University physics professor Robert Schoelkopf —giving them a critical head start in a competitive field.

“Robert’s team is racing for the quantum computing finish line against giants like IBM,” said Skolozdra. “They needed to get up and running fast, and their work is groundbreaking and unique. It was a specialized project that required a deep well of experience in creating lab, science and technology spaces.”

Having designed for Schoelkopf previously at Yale’s Becton Engineering and Applied Science Center, Skolozdra’s team of architects and engineers were able to dive directly into adapting the 3,900 s/f former PepsiCo lab suite at 25 Science Park. Removing rows of conventional wet benches from the 2,000 s/f double-height lab space, they worked with MHA Consulting Structural Engineers to build and mount an aluminum framework for suspending specialized machinery from the ceiling.

Svigals + Partners’ approach took advantage of an existing tissue culture space and its venting hoods to provide one of several partially automated clean rooms for processing and manufacturing circuitry. A mechanical room adjacent to the lab space was adapted to house supporting equipment, such as ultra-low temperature refrigeration for high-performing, superconducting hardware. Around the main laboratory, research and office spaces were designed using sustainable building materials.

“Even with the accelerated timeline and the unique requirements of this research type,” Skolozdra said, “We had to design for competitive bidding in order to comply with Quantum Circuits’ obligations to its investors.”

Despite the hurry, the Svigals + Partners architects designed in keeping with the firm’s mission to create productive playgrounds — environments that support innovation and productivity. “We listened and collaborated to ensure the scientists would have what they need at their fingertips, so they can have fun building quantum computers,” said Skolozdra.