

Oxford Instruments NanoScience Contributes Cutting-Edge Technology to OQC's New York Quantum-AI Data Centre

Oxford Instruments NanoScience's leading Cryofree® dilution refrigerator, the ProteoxLX, is forming part of OQC's Quantum-AI Data Centre in New York.

LONDON, UNITED KINGDOM, November 5, 2025 /EINPresswire.com/ -- [Oxford Instruments NanoScience](#) today announced that one of its leading Cryofree® dilution refrigerators, the [ProteoxLX](#), is forming part of [Oxford Quantum Circuits](#) (OQC) newly launched Quantum-AI Data Centre in New York. As the industry's first facility designed specifically to co-locate quantum computing and classical AI infrastructure at scale, the centre will leverage ProteoxLX's advanced cryogenic performance to support OQC's next-generation quantum processors, accelerating the development and deployment of quantum-enabled AI applications.

The announcement follows OQC's unveiling last month of its New York-based Quantum-AI Data Centre, powered by NVIDIA CPU/GPU Superchips, which marks a significant step toward scalable, real-world quantum computing applications. As part of OQC's logical-era quantum computer, OQC GENESIS, the ProteoxLX provides the ultra-low temperature environment and cooling power required to support the device, which features 16 logical qubits and is capable of delivering over 1,000



OQC's Quantum-AI Data Centre in New York

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Matthew Martin, Managing Director, Oxford Instruments NanoScience

quantum operations.

The system will enable breakthroughs across finance, security and data-driven industries, from accelerating financial modelling and mission-critical optimisation, to powering next-generation AI and quantum machine learning.

The contribution underscores Oxford Instruments NanoScience's growing role in the global quantum ecosystem. With data centre installations across Europe, North America, and Asia, OQC, in collaboration with Oxford Instruments NanoScience, is contributing to a globally distributed quantum computing infrastructure. The

companies are accelerating the practical deployment of quantum computing solutions, enabling applications across superconducting qubits for major industries such as the pharmaceutical sector.

"We're proud to support OQC in building the infrastructure that will define the next generation of computing, and it is a privilege to collaborate with our longstanding partner on this project," said Matthew Martin, Managing Director, Oxford Instruments NanoScience. "Our ProteoxLX is designed to allow users to scale, enabling them to maximise qubit counts with a large sample space and capacity for coaxial lines, so we're excited to see how OQC will harness this platform to accelerate breakthroughs in real-world application performance."

Oxford Instruments NanoScience's ProteoxLX, designed specifically for quantum computing scale-up and optimised to provide long-term reliability, stability and ease of use, provides the ultra-low temperature environment that qubits need to function. The system's market-leading modular, upgradable platform, which contains cross-compatible magnet systems, enables extensive user flexibility, allowing OQC to integrate increasingly complex superconducting qubit devices.

Simon Phillips, CTO, OQC, commented: "Oxford Instruments NanoScience's contribution supports the centre's goal of creating a hybrid quantum-classical computing capability, without modifying the data centre environment or generating the need for additional cooling."

About ProteoxLX

Optimised for quantum computing, the ProteoxLX is part of Oxford Instruments NanoScience's next-generation dilution refrigerator family, all featuring a shared modular layout for cross-compatibility and flexible cryogenic installations. It maximises qubit counts with a large sample space, ample coaxial wiring capacity, low-vibration features for reduced noise and long qubit

coherence times, and fully integrated signal conditioning components. ProteoxLX delivers >25 μ W cooling power at 20 mK, a base temperature <7 mK, and several watts of cooling capacity at 4 K via twin pulse tubes. It also includes two fully customisable Secondary Inserts for optimised cold-electronics layouts and high-capacity I/O lines, compatible and interchangeable across all Proteox systems (MX and QX).

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Issued for and on behalf of Oxford Instruments NanoScience

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About Oxford Instruments NanoScience

Oxford Instruments NanoScience designs, supplies and supports market-leading research tools that enable quantum technologies, new materials and device development in the physical sciences. Our tools support research down to the atomic scale through creation of high performance, cryogen-free low temperature and magnetic environments, based upon our core technologies in low and ultra-low temperatures, high magnetic fields and system integration, with ever-increasing levels of experimental and measurement readiness. Oxford Instruments NanoScience is a part of the Oxford Instruments plc group.

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