

Terumo Blood and Cell Technologies collaborates with MCQ to enable automated gas mixing for expansion of cell and gene therapies

- **Pairing of MCQ Nano 3 enables custom gas mixing for the Quantum Flex(R) Cell Expansion System**
- **Collaboration will simplify development of cell-based therapeutics in clean rooms with space or other limitations**

Lakewood, Colorado, US and Rome, Italy – September 21, 2023 – Terumo Blood and Cell Technologies (Terumo BCT), a medical technology company, and MCQ Instruments, a leading manufacturer of fully automated gas mixers, announced a collaboration to increase flexibility for cell therapy production by offering the Quantum Flex Cell Expansion System with the MCQ Nano 3. By accessing the platforms together, makers of advanced therapies now have an alternative for manufacturing spaces that cannot accommodate pre-mixed gas tanks.

Cell therapies, like the autologous CAR-T cell therapies marketed for hematologic cancers today, require precise conditions to produce a dose. The most time-consuming step is cell expansion, which requires specific conditions—including gases mixed in specific ratios—to grow enough cells for clinical use.

By offering the platforms together, Terumo BCT and MCQ are creating options for a critical step in the process to expand cells in a range of facilities. The combination enables a straightforward workflow from existing facility gas lines through to Quantum Flex, which uses hollow-fiber perfusion technology to enable continuous gas exchange, ensuring optimal conditions for cell expansion.

“Leading instrument developers like MCQ are key to help meet the needs of cell and gene therapy developers. These targeted, purposefully designed solutions build on our legacy of handling fragile cells, which our customers have come to depend on,” said Kathie Schneider, Director, Global Commercial Lead, Cell Therapy Technologies at Terumo BCT. “The cell culture environment matters so cells can not only grow but thrive. MCQ’s Nano 3 is designed specifically for the cell expansion process and enables automated, custom gas mixing without reconfiguring existing lines.”

“Terumo BCT’s global reach and technology leadership will help us provide the flexibility that more developers of cell-based therapies require. The Nano 3 gas mixer enables cell therapy researchers and manufacturers precise control over gas conditions,” said Giuseppe Canuti, CEO and Sales Manager at MCQ Instruments. “It offers GMP suitability, automated functionality and easy integration, helping laboratories overcome limitations and continue to drive advancements in cell-based therapies.”

Currently, the MCQ Nano 3 is available with the Quantum Flex system in Europe, the Middle East and Africa.

To learn more about Quantum Flex, visit <https://www.terumobct.com/quantum>.

About Terumo Blood and Cell Technologies

Terumo Blood and Cell Technologies is a medical technology company. Our products, software and services enable customers to collect and prepare blood and cells to help treat challenging diseases and conditions. Our employees worldwide believe in the potential of blood and cells to do even more for patients than they do today. This belief inspires our innovation and strengthens our collaboration with customers.

Terumo Blood and Cell Technologies' customers include blood centers, hospitals, therapeutic apheresis clinics, cell collection and processing organizations, researchers and private medical practices. Our customers are based in over 130 countries across the globe. We have 750+ granted patents, with more than 150 additionally pending.

We have global headquarters in Lakewood, Colorado, U.S.A., along with five regional headquarters, seven manufacturing sites and six innovation and development centers across the globe. Terumo Blood

and Cell Technologies is a subsidiary of Terumo Corporation (TSE: 4543), a global leader in medical technology.

About MCQ Instruments

MCQ Instruments, headquartered in Rome, Italy, is a leading manufacturer of fully automated Gas Mixers that offer precision in creating dynamic gas mixtures. The company provides solutions across a variety of industries including life science, pharma, material science, calibration, food and beverage and for R&D. User-friendly software allows customers to easily change flow rates in real time, making it a versatile solution for any laboratory setting. With full compatibility with other protocols, MCQ Instruments' gas mixers can be seamlessly integrated into existing systems.