

Taiwan Bio partners with Terumo Blood and Cell Technologies

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To advance automated Treg manufacturing on Quantum Flex



Terumo Blood and Cell Technologies (Terumo BCT), a medical technology company and global leader in blood management solutions, has entered into a collaboration with Taiwan Bio Therapeutics Inc. to transition regulatory T-cell (Treg) manufacturing onto the automated Quantum Flex platform, supporting a move from manual processes toward more scalable, repeatable production.

Taiwan Bio is leveraging the 2025 Nobel Prize-winning discovery of Tregs, which regulate immune tolerance, for the development of the TregCel therapy TRK-001, now in multicenter Phase 2 trials to test its ability to prevent graft rejection in kidney transplantation.

Through the new collaboration, the parties will integrate Taiwan Bio's existing Phase 2 Treg manufacturing platform with Quantum Flex to develop a new process for next-generation engineered Treg manufacturing. The work will build on Terumo BCT's integrated 3-in-1 protocol, published last year in *Cytotherapy* which automates cell activation, viral transduction and cell expansion within a single closed bioreactor, reducing manual handoffs and process variability.

The companies have begun to evaluate the 3-in-1 workflow's operational simplicity, manufacturing efficiency and scalability as part of Taiwan Bio's evolving clinical manufacturing strategy for Treg therapies, planning to complete initial transition and optimisation activities in the coming months.

Taiwan Bio will then use the integrated TRK-001 process adapted to Quantum Flex as a foundation to enable next-generation engineered Treg programmes, with the goal of advancing at least one next-generation Treg candidate to an Investigational New Drug (IND) application, while the companies plan to pursue joint industry engagement activities in the region.