Culture Biosciences Raises $80M Series B to Tackle Demand for Large-Scale Biomanufacturing

Culture is closing the gap in manufacturing capacity with its large-scale cloud bioreactors

27.10.2021 - Culture Biosciences, a company enabling biotech firms to develop and scale manufacturing processes in the cloud, announced a Series B financing of $80 million led by Northpond Ventures. Synthesis Capital also participated in the round. Existing investors Cultivian Sandbox Ventures, The Production Board, Craft Ventures, E14 Fund, Box Group, Verily Life Sciences, and Section 32 also contributed. Andrew Lee, Ph.D., of Northpond Ventures will join Culture’s Board of Directors.

"Recently there’s been an explosion in the number of new companies in synthetic biology and biopharmaceuticals, and large multinational corporations are also increasingly participating in this space," said Will Patrick, CEO and co-founder, Culture Biosciences. “Although demand for biomanufactured products—from food to clothing to vaccines—is surging, there’s a huge gap in the infrastructure required to produce these bioproducts at commercial scale."

Importantly, there currently isn’t enough manufacturing capacity in the world to support this new wave of synthetic biology products. Today’s global capacity falls 100x short of what would be needed to meet the demand for fermentation-based animal protein in 2030. This major gap in large-scale capacity is what Culture is aiming to tackle for its clients looking to scale their processes up to manufacturing, starting with pilot-scale bioreactors.

“Demand for sustainable bio-based products is rapidly increasing, but innovators face two key challenges,” explained Andrew Lee, Ph.D., Northpond Ventures. “Culture’s cloud bioreactor lab already addresses the first challenge: bench-scale process optimization. Companies still need to scale to commercial quantities, however. By expanding its technology and data infrastructure, Culture can address this growing market need. We’re excited at Northpond to help make that happen."
Since announcing a $15 million Series A in 2020, Culture has grown 3x year-over-year and invested in scaling out its facilities, offerings, and team. Key achievements include:

- Accelerating bioprocess development for 30+ of the world’s leading biotech companies
- Streamlining data analysis and cross-team collaboration for clients by launching Culture’s Cloud Console, a one-stop web app for experiment data and insights
- Launching new capabilities beyond fermentation, such as mammalian cell culture and analytical chemistry
- More than doubling full-time employee count in the past year

To date, Culture has raised over $100 million. This new round of funding will be used to build and scale 5L and 250L cloud bioreactors, supporting customer demand for larger quantities of material to use for testing and regulatory approval. In a survey conducted by the company in 2020, participating biopharma and synthetic biology companies indicated that, out of all potential new product offerings, pilot scale bioreactors would be the most beneficial to their work. Now, Culture’s clients can develop, optimize, and scale their bioproducts virtually. Many customers are already signing up to use the larger tanks when they become available.

“Access to 5L and 250L reactors through Culture’s services offers several advantages to companies like ours seeking to develop and scale bioprocesses,” said Ranjan Patnaik, CTO of The EVERY Company, which launched the world’s first animal-free egg protein last week. “Through Culture, we now have the option of a one-stop-shop for bench-scale testing and pilot-scale production. We can develop a process with Culture and easily make a large batch of material. Other benefits include accelerating product pipeline development, data-driven and lower-risk scaling, and saving the time and money required to build additional fermentation capacity.”

Beyond new synthetic biology startups, established players in the biopharmaceutical industry also stand to benefit from Culture’s cloud lab. By partnering with Culture, biopharma companies have accelerated their new product development through testing many different factors in parallel and optimizing their process quickly. These types of development and optimization studies would otherwise take months to complete internally.

“This funding will help create a new and improved customer journey within biomanufacturing,” explained Patrick. “Biotech companies will be able to use our cloud platform from bench to pilot scale, which is a big leap toward our goal of making biomanufacturing R&D a fully digital experience.”