

Sartorius launches new ambr 250 vessel for cell, gene therapy applications

28 June 2019 | News

New vessel is designed for gentle stirring and optimum growth of cell lines



Sartorius Stedim Biotech (SSB), a leading international partner of the biopharmaceutical industry has recently launched a new vessel for its ambr® 250 modular benchtop automated mini bioreactor system. The single-use vessel has been specially designed for therapeutic cell lines and offers the potential for accelerated process development of cell and gene therapy applications and scale-up into cGMP single-use bioreactors and bags.

The new unbaffled vessel design with a large pitched blade impeller has a working volume of 100-250 mL and provides an environment for gentle agitation and mixing without sedimentation, allowing optimal growth of single cell suspensions, cell aggregates or adherent cells on microcarriers. In trials with leading regenerative medicine companies, the new mini bioreactor has shown better cell culture performance compared with less predictive spinner or T-flask models, enabling rapid process optimization and improved scalability to larger bioreactors.

To further support culture of these cell lines, ambr® 250 modular systems also feature a new state-of-the-art motor (100rpm-4,500rpm), ideal for the lower stirrer speeds required by delicate therapeutic cell lines. The system is suitable for culturing cell lines including such as HEK293, CAR-T and other therapeutic cell lines, including a range of stem cells, enabling scalable media and supplement optimization, as well as process development of cell and gene therapies.

The bioreactor system is available with optional BioPAT® MODDE software for DoE (Design of Experiments), to support QBD (Quality by Design) for scale-up to SSB's BIOSTAT® STR stirred bioreactors and scale-out to BIOSTAT® RM TX rocking bags suitable for cGMP production of autologous and allogeneic cell and gene therapies.