

For immediate release

Emergent BioSolutions Expands Manufacturing Capability with ABEC Dual Purpose Single-Use Microbial Fermentation / Mammalian Cell Culture Systems

ABEC's **Custom Single Run (CSR®)** systems to enhance Emergent BioSolutions' manufacturing productivity, flexibility and economies of scale

Bethlehem, PA, USA September 24, 2018 – ABEC, a global provider of integrated solutions and services for biopharmaceutical manufacturing, today announced the shipment of Emergent BioSolutions' CSR dual purpose single-use systems for large scale 750L microbial fermentation and 500L mammalian cell culture. The dual purpose systems are custom designed to accommodate Emergent's process needs and operational requirements and complement Emergent's 4,000L CSR single-use bioreactor capability.

Integration of ABEC's CSR dual purpose systems significantly advances Emergent's commercial operations capabilities. Emergent can utilize the same equipment platform to provide multi-product, multi-platform and multi-scale manufacturing. This includes the ability to utilize the same CSR platform for microbial and cell culture. Changeover from microbial processing to mammalian and vice versa is accomplished simply by changing the <u>Disposable Container (DC)</u> used for these processes. The systems also deliver process performance comparable to stainless steel systems, a key benefit of the CSR platform. In particular, Emergent is now able to achieve the vigorous mixing and high gassing rates required for state-of-the-art microbial fermentation in a large-scale single-use system.

"Emergent's diverse customers require both mammalian and microbial processes to produce a wide variety of vaccines and therapeutics," said Scott Battist, Emergent BioSolutions Vice President and General Manager of the Bayview site, "We are now able to quickly and cost-effectively provide manufacturing services utilizing either of these technologies."

"We are proud of our contributions to Emergent's advanced manufacturing capabilities," said Scott Pickering, ABEC President and CEO. "The CSR dual purpose and microbial products are unique in the industry and further demonstrate ABEC's long-term industry leadership and commitment."

About ABEC

Since 1974, ABEC has been a global leader in delivering integrated process solutions and services for manufacturing in the biopharmaceutical industry. A majority of the world's pharmaceutical and biotech companies are ABEC customers; with many of today's leading therapies manufactured by processes and equipment engineered, manufactured, installed and serviced by ABEC. Whether adding capacity or improving existing facilities, ABEC's turn-key solutions and support services reduce overall cost and time to market while delivering maximum productivity. http://www.abec.com, http://www.abecsingleuse.com; follow us on LinkedIn.

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