

## *Press Release –*

Stratophase announces a joint collaboration agreement to develop advanced multi-component dynamic feeding control for upstream bioprocesses used in biopharma manufacturing

Romsey, United Kingdom, February 10<sup>th</sup> 2017 - Stratophase, a biotech services and technology company, announced today that it has entered into a joint collaboration agreement with Merck, a leading science and technology company. The collaboration will see the application of Stratophase's Ranger® technology to Merck's cell culture manufacturing platforms and the development of dynamic control strategies that enable complex feeding regimes to be optimised and controlled in real-time. Enhancement of the existing Ranger® system's capabilities to enable control of cell culture processes with complex feeding requirements is aligned with the biopharmaceutical industry's increasing need for high performance and robust processes that can be optimised and implemented within minimum timelines.

"We are proud to be collaborating with Merck to further the impact that Ranger® is having on revolutionising upstream process development and control for the manufacture of biologics," said Simon Saxby, CEO of Stratophase. "Merck's considerable expertise in media design and cell culture techniques, combined with Stratophase's unique process development knowledge leveraged by Ranger®, gives the ideal platform for developing, testing and implementing new control strategies".

"Biologics are becoming increasingly complex due to diversifying pipelines, leading to challenging manufacturing requirements," said Hervé Broly, Vice President, Biotech Process sciences at the biopharma business of Merck. "The collaboration with Stratophase offers a route to dynamic process monitoring and control and the ability to adapt the process in real-time for specific on-demand requirements, thereby ensuring high process performance and robustness at scale."

**Stratophase** is a biotech services company that is revolutionising the timelines to clinic and commercialisation for biologics. We do this by rapidly optimising process development using our Ranger technology that dynamically controls the bioreactor environment in real time.

The Ranger® service from Stratophase provides a valuable new approach to cell culture optimisation and is based on the real-time, on-line assessment of the metabolic activity of the cell culture, using patented technology, combined with Stratophase's application expertise, gained with industry leading biopharma innovators. This new insight into the health and activity of the cells themselves, is then used to direct process optimisation activities. The Ranger® technology is based on patented hardware originating from the Optical Research Centre of the University of Southampton in the early 2000's and the continuously developing suite of software IP developed by Stratophase, and is supported by the considerable experience Stratophase has gained working with customer cell culture processes.

**Merck** is a leading science and technology company in healthcare, life science and performance materials. Around 50,000 employees work to further develop technologies that improve and enhance life – from biopharmaceutical therapies to treat cancer or multiple sclerosis, cutting-edge systems for

scientific research and production, to liquid crystals for smartphones and LCD televisions. In 2015, Merck generated sales of € 12.85 billion in 66 countries.

Founded in 1668, Merck is the world's oldest pharmaceutical and chemical company. The founding family remains the majority owner of the publicly listed corporate group. Merck, Darmstadt, Germany holds the global rights to the Merck name and brand. The only exceptions are the United States and Canada, where the company operates as EMD Serono, MilliporeSigma and EMD Performance Materials.

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