

November 1, 2017

MilliporeSigma and Samsung BioLogics to Extend Strategic Alliance

- **Alliance on biopharmaceutical manufacturing and biologics process development**
- **MilliporeSigma to supply Mobius® single-use systems, cell line, cell culture media and chromatography to accelerate biologics development**

Burlington, Massachusetts, November 1, 2017 – MilliporeSigma today announced the signing of a Memorandum of Understanding (MoU) with Samsung BioLogics for a strategic alliance on biopharmaceutical manufacturing and biologics process development.

The alliance would accelerate process development and clinical material production at small biotech start-ups focusing on novel drug development for which Samsung BioLogics acts as a contract manufacturer. Under the agreement, MilliporeSigma would provide process development and support technical training, in addition to its Mobius® single-use systems to Samsung BioLogics.

The new MoU is an extension of a MoU signed in 2014 that encompasses a long-term supply agreement where MilliporeSigma would provide raw materials for biopharmaceutical manufacturing.

“Our collaboration with Samsung continues to strengthen with this agreement,” said Udit Batra, MilliporeSigma. “MilliporeSigma’s process development expertise and Mobius®, the wide single-use bioprocessing portfolio, will allow innovations to reach patients faster.”





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MilliporeSigma has been the key solution provider for Samsung BioLogics' 30KL facility and 152KL facility in Korea, and has trained Samsung BioLogics team on building a robust biologics development process.

"This alliance will create synergy and maximize our technology potential," said Dr. Tae-Han Kim, President and CEO of Samsung BioLogics.

MilliporeSigma's portfolio of Mobius® single-use systems delivers greater flexibility and continuity for scale-up, reducing the need to retrain operators. These are some of the multiple reasons that companies such as Samsung BioLogics have become early adopters of MilliporeSigma's technologies.

At MilliporeSigma's [M Lab™ Collaboration Centers](#), customers work with the company's scientists and engineers in a shared exploratory environment to solve customers' toughest biomanufacturing challenges and help accelerate development of new therapies. MilliporeSigma has nine M Lab™ Collaboration Centers around the world, including one in the U.S. and one in Korea.

MilliporeSigma is a premier supplier of process development and clinical-stage manufacturing solutions, materials and services needed to produce biopharmaceutical drugs. The company is committed to delivering superior bioreactor technology to manufacturers, several of which are already collaborating with the company in that space in North America, Europe and Asia.

In the growing biopharmaceutical market, manufacturers are moving toward end-to-end solutions — from process development and scale-up through to manufacturing for pre-clinical, clinical and commercial supply — as they seek to cut costs while increasing quality and efficiency. At the same time, single-use, disposable equipment and systems have increased in popularity because they offer many advantages over conventional stainless steel systems, such as improved batch success rates, less cross-contamination risk, decreased water and waste water requirements, shortened project duration and reduced project costs.

About Samsung BioLogics

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Samsung BioLogics is a global full-service provider of quality-driven contract process development and cGMP manufacturing to the global biopharmaceutical industry. Our facilities are custom designed for monoclonal & recombinant production with maximum flexibility. Our one-stop services include cell line generation, process and analytical method development, analytical services, clinical and commercial bulk cGMP manufacturing of drug substance and drug product including quality assurance, quality control, regulatory compliance standards & support for our customers. For additional information about the company, please visit www.samsungbiologics.com.

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About the Life Science Business of Merck KGaA, Darmstadt, Germany

The Life Science business of Merck KGaA, Darmstadt, Germany, which operates as MilliporeSigma in the U.S. and Canada, has 20,000 employees and 60 manufacturing sites worldwide, with a portfolio of more than 300,000 products enabling scientific discovery. Udit Batra is the global chief executive officer of MilliporeSigma.

Merck KGaA, Darmstadt, Germany completed its \$17 billion acquisition of Sigma-Aldrich in November 2015, creating a leader in the \$125 billion global life science industry.

Merck KGaA, Darmstadt, Germany is a leading company for innovative and top-quality high-tech products in healthcare, life science and performance materials. The company has five businesses – Biopharmaceuticals, Consumer Health, Allergopharma, Life Science and Performance Materials – and generated sales of €15 billion in 2016. Around 50,000 employees work in 66 countries to improve the quality of life for patients, to foster the success of customers and to help meet global challenges.

Merck KGaA, Darmstadt, Germany is the world's oldest pharmaceutical and chemical company – since 1668, the company has stood for innovation, business success and responsible entrepreneurship. Holding an approximately 70 percent interest, the founding family remains the majority owner of the company to this day. The company holds the global rights to the name and the trademark "Merck" internationally except for the United States and Canada, where the company operates as EMD Serono, MilliporeSigma and EMD Performance Materials.