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MilliporeSigma Launches Industry's First Off-the-Shelf Cell Culture Media for Perfusion Processes

- **Increases manufacturing flexibility**
- **Provides exceptional performance and consistency required for high-density perfusion cell culture processes**

Billerica, Massachusetts, May 15, 2017 – [MilliporeSigma](#) today took a significant step toward increasing manufacturing flexibility and enabling higher productivity with the launch of the EX-CELL® Advanced™ HD Perfusion Medium. This first off-the-shelf, high-density cell culture media supports perfusion processes and facilitates high productivity at low perfusion rates, increasing production yield and speed to clinic.

Biomanufacturers are moving toward perfusion processes, the next generation in manufacturing, as they seek to cut costs while increasing quality and efficiency. Perfusion processes, however, require a new type of medium to facilitate high productivity at low perfusion rates. MilliporeSigma's EX-CELL® Advanced™ HD Perfusion Medium meets "next-gen" manufacturing requirements, allowing customers to achieve a more optimal output than they would using conventional batch or fed-batch processes.

"This launch is a major milestone on the road to truly enabling next generation processing," said Udit Batra, CEO, MilliporeSigma. "The benefits of perfusion technology include increased cost efficiency, decreased risk and enhanced manufacturing flexibility—ultimately advancing our customers' production capabilities and increasing access to therapies for people worldwide."



News Release

A benefit of perfusion processing is higher protein yields, compared with fed-batch, which has been the primary mammalian cell cultivation mode for biopharma manufacturing over the past few decades. Perfusion technology is compatible with small portable plants and can be used with many drug types over a range of production scales.

MilliporeSigma's EX-CELL® Advanced™ HD Perfusion Medium is the most recent addition to the company's [EX-CELL® Advanced™](#) product line, which offers increased performance, streamlines regulatory compliance and provides the supply chain security needed in today's evolving biopharmaceutical environment.

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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 19,000 employees and 65 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 six businesses – Biopharmaceuticals, Consumer Health, Allergopharma, Biosimilars, 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.