

News Release

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MilliporeSigma Advances Bioprocessing Capabilities with Raman Technology Sensor Acquisition

- **Enables real-time monitoring and process control**
- **Combination of tailored software with Raman sensor technology brings unique offering to BioContinuum™ Platform**
- **Supports company's vision to deliver connected and continuous manufacturing**

Burlington, Massachusetts, July 1, 2020 – [MilliporeSigma](#) today enhanced its advanced bioprocess portfolio through the acquisition of [RESOLUTION Spectra Systems](#), a Meylan, France-based leader in bioprocess analytical monitoring. The company offers Raman spectroscopy analysis through its GMP-ready instrumentation and software. Financial details of the acquisition were not disclosed.

"This acquisition supports our vision of delivering intensified, connected and continuous bioprocessing," said Andrew Bulpin, head of Process Solutions at MilliporeSigma. "Raman measurement technology, coupled with the software to analyze and manage the generated data, allows us to offer unique and integrated solutions to help our customers optimize their bioprocesses."

Christophe Bonneville, co-founder of RESOLUTION Spectra Systems, added, "This acquisition validates our common strategy to support Process Analytical Technology implementation as a key element of biopharmaceutical industry digitalization."

RESOLUTION Spectra Systems specializes in bioprocessing monitoring sensors based on Raman technology, which:

- Provide real-time monitoring and process control.
- Measure broad range of bioprocessing parameters, including glucose, lactate, viable cell density and other process-related impurities.



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- Monitor all parameters simultaneously with a single probe.

This acquisition supports MilliporeSigma's recently launched [Bio4C™ Software Suite](#), a first-of-its-kind ecosystem that combines process control, analytics and plant-level automation. The Bio4C™ Software Suite is the latest component of Merck's expanding BioContinuum™ Platform, which allows for the convergence of intensified process and digital technologies to advance process speed, quality and flexibility, while reducing cost.

Raman technology's bioprocess monitoring sensors complement the "collect" dimension of the Bio4C™ Software Suite, as it provides real-time process analytics across multiple critical process parameters via in-line measurement. By combining these Raman technology sensors with the software to manage the data that they provide, MilliporeSigma is able to offer unique and integrated bioprocessing capabilities.

The acquisition of RESOLUTION Spectra Systems enhances MilliporeSigma's ability to provide advanced process analytical technologies across its bioprocess portfolio, another critical step toward enabling the biomanufacturing facility of the future.

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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 some 22,000 employees and 59 manufacturing sites worldwide, with a portfolio of more than 300,000 products focused on scientific discovery, biomanufacturing and testing services. 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, a leading science and technology company, operates across healthcare, life science and performance materials. Around 57,000 employees work to make a positive difference to millions of people's lives every day by creating more joyful and sustainable ways to live. From advancing gene-editing technologies and discovering unique ways to treat the most challenging diseases to enabling the intelligence of devices – the company is everywhere. In 2019, Merck KGaA, Darmstadt, Germany generated sales of €16.2 billion in 66 countries.



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The company holds the global rights to the name and trademark "Merck" internationally. The only exceptions are the United States and Canada, where the business sectors of Merck KGaA, Darmstadt, Germany operate as EMD Serono in healthcare, MilliporeSigma in life science, and EMD Performance Materials. Since its founding 1668, scientific exploration and responsible entrepreneurship have been key to the company's technological and scientific advances. To this day, the founding family remains the majority owner of the publicly listed company. For more information about Merck, KGaA, Darmstadt, Germany, visit www.emdgroup.com.