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MilliporeSigma and InnoCore Pharmaceuticals to Improve Patient Compliance with New Drug Delivery Technology

- **Platform for creating sustained release formulations for virtually any class of biological API**
- **Eliminates pharmaceutical development hurdles**
- **MilliporeSigma's global footprint makes InnoCore's proprietary SynBiosys® drug delivery technology platform more widely available**

Burlington, Massachusetts, July 26, 2018 – [MilliporeSigma](#) and [InnoCore Pharmaceuticals](#); Groningen, Netherlands, have entered into a global cooperation agreement to provide InnoCore's proprietary [SynBiosys®](#) biodegradable polymer platform. The drug delivery platform can be used to develop sustained release solutions for biologicals in injectable formulations.

"Until now, formulating large biological active pharmaceutical ingredients such as proteins and large peptides into long-acting sustained release formulations has been difficult, if not impossible," said Andrew Bulpin, head of Process Solutions at MilliporeSigma. "This collaboration will bring long-acting release of protein therapeutics to market, allowing new and potentially life-changing treatments. It will also improve patient compliance by reducing dosing frequency and maintaining drugs at therapeutic levels longer."

Sustained release solutions play an increasingly important role in drug formulation because they enhance patient adherence. The new proprietary technology developed by InnoCore Pharmaceuticals allows the development of injectable sustained release biological formulations with conserved bioactivity of these



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sensitive molecules. The SynBiosys® platform can be used for subcutaneous, intramuscular and site-specific injectable formulations in the form of microparticles and implants.

MilliporeSigma and InnoCore will support customers with formulation, process development and manufacturing services in using this technology to develop injectable sustained release drug products and overcome formulation challenges — especially for large peptides and proteins. This new, large biomolecule formulation and delivery capability complements MilliporeSigma's existing portfolio of biodegradable polylactic acid and polylactic glycolic acid (PLA/PLGA) polymers for sustained release in liquid/parenteral formulations. The PLA/PLGA technology applies primarily to small molecules, small hormones and peptides.

Poor compliance in the treatment of chronic diseases is a significant problem. The cost of non-compliance in the U.S. alone is estimated at between \$100 billion and \$290 billion per year, according to a [January 2018 article published by the U.S. National Library of Medicine National Institutes of Health](#).

Said Jan Hendriks, CEO, InnoCore Pharmaceuticals, "We are very excited that we have been able to set up this important collaboration with MilliporeSigma, a company that is widely recognized in providing drug formulation solutions for the global life sciences industry."

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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.

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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 €15.3 billion in 2017. Almost 53,000 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.