PRESS RELEASE

Feasibility Study with Evonik Confirms LEON's FR-JET Technology's Performance in Advanced Nanoparticle Manufacturing for Drug Delivery

Munich, Planegg (Germany), December 05, 2024 – leon-nanodrugs GmbH (LEON), a German Pharmatech company, is pleased to announce the successful conclusion of an independent feasibility study with Evonik Canada Inc., part of Evonik Industries, one of the world´s leading specialty chemicals companies. The study aimed to evaluate the capabilities of LEON's proprietary FR-JET technology and confirmed its exceptional performance in manufacturing nanoparticles for drug delivery.

Evonik´s team of nanoformulation experts rigorously tested LEON's FR-JET technology, demonstrating its ability to produce high-quality nanoparticles with remarkable efficiency, precision and consistency.

Multiple drug-loaded and placebo lipid-based and non-lipid nanoparticle formulations were successfully prepared with the FR-JET technology in the study, including lipid nanoparticles and polymer-based systems. In addition to showcasing its versatility, key conclusions highlighted the broad operating window of the single FR-JET system, which is crucial for successful formulation development projects. The technology also proved to be scalable, making it ideal for both small-scale research and large-scale commercial production. *"Today's diversity of API moieties and innovative delivery systems demands versatile manufacturing platforms. This ensures the right match between a drug and its production process, which can heighten a drug's performance and streamline production"*, said Dr. Andrea Engel, Head of Growth Projects Health Care at Evonik.

Nanoparticles are crucial components of next-generation drug delivery systems, especially with the rapid advancement of cell and gene therapies, where non-viral nanoparticle delivery systems are gaining increasing importance.

Dr. Setu Kasera, Chief Scientific Officer at LEON, expressed excitement about the study's outcomes: *"We are thrilled to have our technology validated by such a reputable industry partner. The results not only underscore the robustness of our nanoparticle manufacturing process but also pave the way for future advancements in drug delivery systems."*

Recognizing critical gaps in reliable manufacturing, LEON developed the FR-JET nanoencapsulation technology with highly controlled mixing conditions. Designed for easy handling and GMP compliance, FR-JET enables rapid process transfer, and consistent product quality at both low and high flow rates, outperforming common lipid nanoparticle systems. Integrated into LEON's NANOlab®, NANOme® and NANOus® manufacturing equipment, FR-JET supports nanoencapsulation from R&D to commercial production.

ABOUT LEON-NANODRUGS

Based in Munich, leon-nanodrugs GmbH is a Pharmatech company specializing in the development of equipment for the encapsulation of genetic material and other pharmaceutical active substances into nanocarriers, such as lipid nanoparticles (LNPs). The company leverages its proprietary FR-JET technology to build innovative solutions. Its equipment portfolio includes NANOlab® for process development, and NANOme® and NANOus® for GMP manufacture. These systems enable faster route to clinical batches and are suitable for both individualised scales and commercial production. LEON's platform aims to

empower pharmaceutical companies, small biotech, research institutes, and CDMOs, to capitalize on advancements in advanced therapies.
For further information, please visit https://leon-nanodrugs.com/ and follow us on LinkedIn.

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