CordenPharma Colorado Expands Lipid Excipients Purification

In response to the COVID-19 pandemic, mRNA (messenger RNA) vaccines have catapulted to center stage of the pharmaceutical and biotechnology industry. As of early 2021, there are eight ongoing human trials for mRNA vaccines led by Moderna, BioNTech / Pfizer, CureVac, Sanofi / TranslateBio, Arcturus / Duke-NUS Medical School (Singapore), Imperial College London, Chulalongkorn University (Thailand), and Providence Therapeutics.

Due to the increasing demand since the beginning of the pandemic for mRNA COVID-19 vaccines formulated with Lipid NanoParticle (LNP) delivery systems, CordenPharma has been continuously investing in expanded lipid supply chain at our facilities in Switzerland, France, and Colorado.

CordenPharma manufactures four lipids that are typically used to formulate LNPs for various synthetic mRNA-based vaccines:

- Cationic Lipids that encapsulate the negatively charged mRNA
- PEGylated Lipids that help to form a protective hydrophilic layer which sterically stabilises the LNP
- DiStearoylphosphatidylCholine (DSPC), a phospholipid that provides a stable bilayer-forming structure
- Plant-based Cholesterol (called CP BotaniChol) which stabilizes the LNP structures and facilitates endosome escape

LNP delivery systems not only efficiently express the mRNA-encoded immunogen after intramuscular injection, but also play an important role as adjuvants in vaccine reactogenicity. All four lipids components of an LNP delivery system require very high purity.

In order to accommodate this significant increase in market demand, CordenPharma is pleased to announce another major capital expenditure initiative, in addition to substantial investments in the past, which further enhances our lipid purification capacity in CordenPharma Colorado. The expansion includes additional production lines ready to be incorporated into the lipid manufacturing process as early as April 2021, confirming our leading position in both custom and Standard Lipids supply. By the end of July 2021, this investment will significantly decrease our lipid shipment delivery time.

CEO & President Dr. Michael Quirmbach comments, “CordenPharma is proud to contribute this major capital expansion to increase important lipid production for the global market. We have drawn upon longstanding expertise in specialized lipids to create an even stronger integrated network of facilities to support current and future projects.”
About CordenPharma

CordenPharma, the global pharmaceutical service & manufacturing platform of International Chemical Investors Group (ICIG), is a full-service partner in the Contract Development & Manufacturing (CDMO) of APIs, Drug Products, and associated Packaging Services. Through a growing network of cGMP facilities across Europe and the US organized under four Technology Platforms - Peptides, Lipids & Carbohydrates, Injectables, Highly Potent & Oncology, and Small Molecules - CordenPharma experts translate complex processes and projects at any stage of development into high-value products.

For more information about CordenPharma, contact us or visit cordenpharma.com.

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