

mRNA development and manufacturing services

Flexible mRNA service offering backed by decades of therapeutic manufacturing experience

mRNA has emerged as one of the most significant breakthroughs in modern medicine, demonstrating how a fast, adaptable platform can accelerate the development of more targeted and personalized therapies. Building on the momentum created during the COVID-19 pandemic, mRNA is now expanding beyond vaccines into a wider range of therapeutic applications, creating new possibilities for how serious diseases may be treated.

Thermo Fisher Scientific has responded by offering a flexible solutions model for mRNA vaccine and therapeutic development that spans the entire operational value chain, from early cloning services through cold chain logistics. Choose from our core mRNA service options and add upstream and downstream solutions to help fill any gaps in your capabilities or capacity. Our unique co-location of mRNA production, lipid nanoparticle (LNP) production, and fill-finish means you can consolidate key steps of the mRNA workflow all under one roof, minimizing complexity and risk.

<p>Process and analytical development</p>	<ul style="list-style-type: none"> • 1,420 sq. ft. analytical and process development lab • Process characterization studies • Scale-up and optimization (μL to L scale) • mRNA synthesis workflow definition and optimization • Lipid formulation and solvent removal development • Development and qualification of analytical methods
<p>QC and analytical testing</p>	<ul style="list-style-type: none"> • 1,500 sq. ft. dedicated QC labs • Standard analytical, in-process, and release testing • CGMP method transfers, validations, and stability studies • Analytical capabilities in continuous expansion, with ability to adapt to customer needs
<p>CGMP manufacturing</p>	<ul style="list-style-type: none"> • 10,800 sq. ft. dedicated CGMP platform • Up to 5 modular suites for synthesis and purification • Up to 4 modular LNP formulation areas • Dedicated HVAC and utilities • Support from early clinical to commercial (<1g up to 100 g scale) • Max capacity of 15 kg/year

Why Thermo Fisher for mRNA services?



Flexibility

À la carte options within integrated service offering, support for both small volumes and larger projects up to 100 g



Experience

Over 30 years of sterile injectables, biologics, and advanced therapy manufacturing experience



Capacity

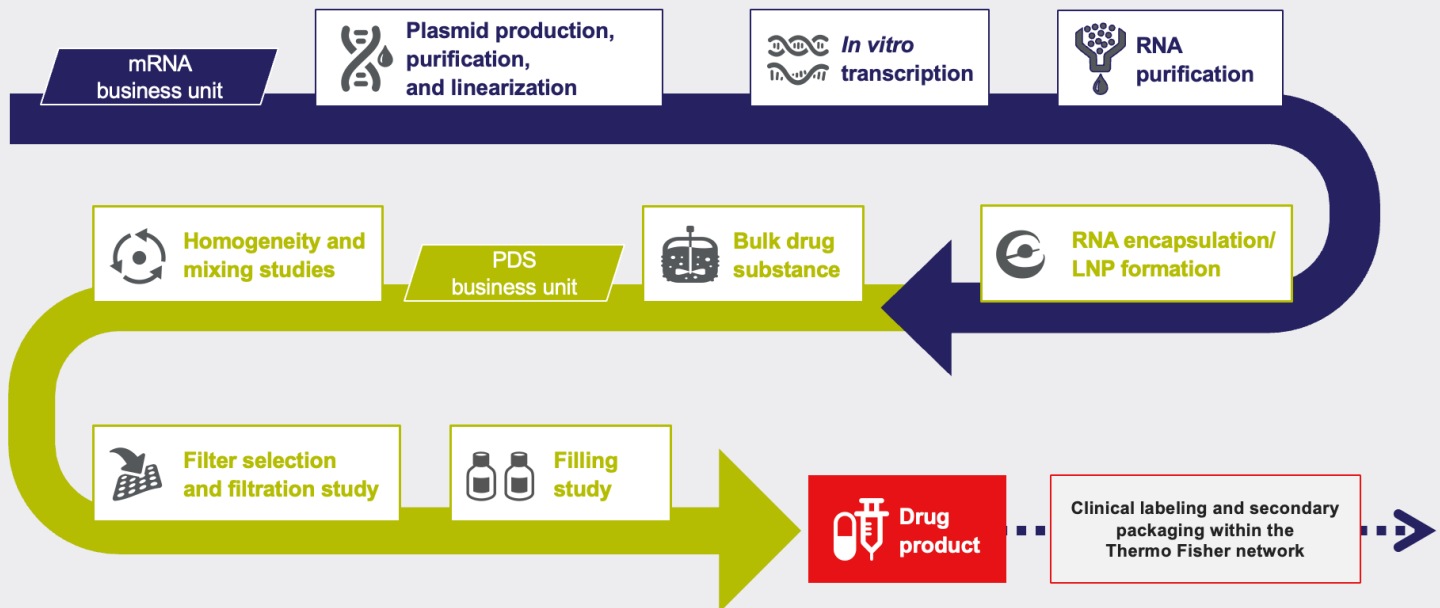
~15,000 sq. ft. for process development, CGMP mRNA and LNP production suites, and analytical/QC labs with potential to expand based on customer need



Integrated services

Combine early cloning services, mRNA synthesis and purification, LNP, fill-finish, regulatory, and cold chain logistics

Overview of mRNA workflow supported by Thermo Fisher at the Monza, Italy site



PDS: pharmaceutical development services

Learn more about our
or email us at patheon.com/mRNAservices
or call +1 919 226 3200