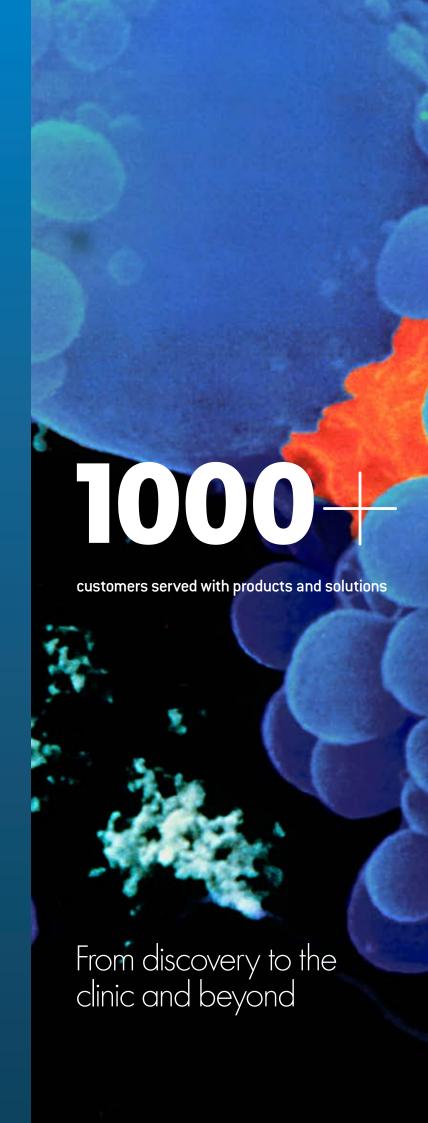


Cell and gene therapyProducts and solutions from discovery to commercialization

Cell and gene therapies are revolutionizing patient treatment and leading to cures for cancer and genetic diseases. However, to unlock the full potential of these advanced therapies, we need to overcome complex and unique challenges in development and manufacturing.

The drug discovery and development pathway for cell and gene therapies deviates from traditional approaches. Due to the complexities surrounding scaling up of manufacturing, it's important to have systems and instruments in place that are proven to seamlessly work together.

Whether you are working on early-stage research or need to efficiently scale up processes to fully GMP-compliant manufacturing, partnering with the right supplier of products and services can accelerate your path to success and bring your therapy to patients faster.



we'll walk it together

Our offer

At Lonza Pharma & Biotech, we are passionate about helping you accelerate the development of cell and gene therapies to get new treatments to patients faster.

Our scientists and engineers are dedicated to developing new technology platforms that are specifically designed to increase pipeline efficiencies. Our portfolio of research and manufacturing media, non-viral transfection technologies, primary cells and testing products support you through every step of the development and production of your cell and gene therapy.

Together with our Cell and Gene Therapy Development and Manufacturing Services, we can help you successfully navigate the path from early discovery to commercialization, and make your journey as easy as possible.

Why Lonza

Scalable technologies

Your needs are different depending upon where you are on the clinical development path. Our products deliver reproducible results and cost-efficiencies, and are available at research and manufacturing grades, in various volumes and formats.

Accelerate success

Time to market is a critical success factor for cell and gene therapies. Working with one trusted and experienced partner from discovery to commercialization prevents unnecessary iteration cycles.

De-risked process development

Systems that do not effectively work together pose a major risk for cell and gene therapy pathways and can result in lengthy delays and additional costs. We designed our platforms to work seamlessly together, helping to de-risk and accelerate your process development.

Products and expert support from one source

Our cell and gene therapy product portfolio, and development and manufacturing services, combined with an experienced scientific support team and proficient engineers, can help you find a faster path and overcome any challenges along the way.

Technology platforms tailored to your needs

TheraPEAK® Media

Our therapeutic cell culture media accelerate speed to market with robust, consistent and cost-efficient processes for cell and gene therapies. We continuously develop new products building on our expertise in regulatory and process efficiency, to meet the requirements of future manufacturing processes. Using TheraPEAK® Media Products with Lonza systems and services provides you with an end-to-end solution that can be easily adapted to various cell and gene therapy platforms.

Nucleofector® Technology

Our platform for non-viral, *ex vivo* transfection of human primary cells can transform workflows. The flexible electroporation-based platform supports numerous applications, such as CAR-T cell generation, CRISPR genome editing, or iPSC reprogramming. Ranging from small-scale to large-scale formats, Nucleofector® Products allow you to quickly translate research results into cell therapeutic applications. Using our TheraPEAK® Nucleofector® Consumables will further expedite your path towards a GMP process.



Primary cells and tissues

Our highly characterized, research-grade hematopoietic stem cells (CD34+ cells) are immediately available from bone marrow, mobilized blood, and cord blood. Additionally, using our diverse, established network we can find your specific donor and perform the time-consuming cell isolations and qualification through a robust QC process. Beyond CD34+ cells, we can offer an extensive portfolio of immune cells, such as PBMCs, T Cells, and NK cells to support your cell and gene therapy projects. Whether it's readily available cryopreserved cells or made-to-order from fresh whole tissue, we can help reach your discovery destination, faster.

Cell and gene therapy development and manufacturing services

With decades of scientific and engineering experience, our team provides you with an extensive service offering that includes tailored process and analytical development, cGMP manufacturing, and regulatory services. We are constantly investing in technologies and expertise to effectively support the development and commercialization of your therapy. Therefore, we created four Centers of Excellence for Cell and Gene Therapy globally across three continents to help customers get new therapeutics to patients faster.

Endotoxin detection

The Bacterial Endotoxin Test (BET) is a crucial regulatory requirement to ensure safety of any therapeutic before parenteral administration, and is specifically required before cells are transfused back into a patient. Endotoxin from gram-negative bacteria is the most potent pyrogen that may cause fever, septic shock or even death. With patient safety in mind and decades of experience, we provide a wide range of regulatory compliant testing solutions and services to ensure that your cell therapeutic can be used with confidence.

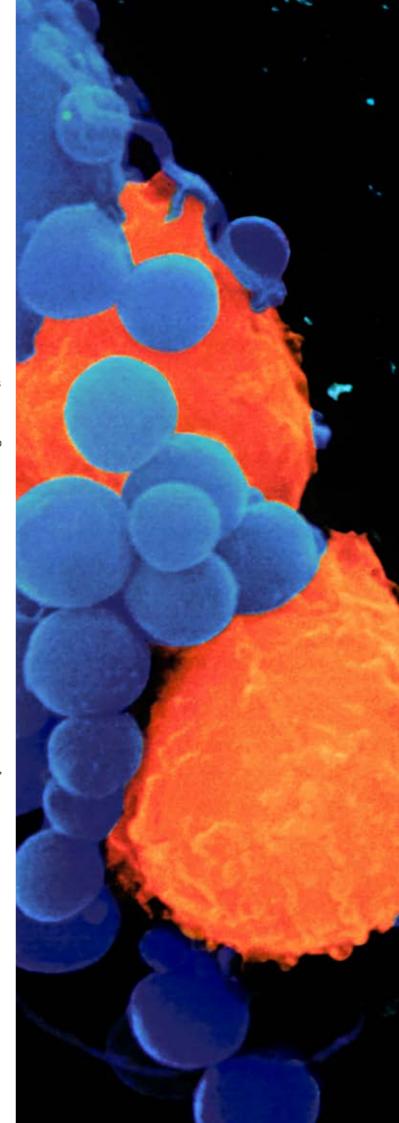
MODA® Solution

The MODA® Platform is a configurable, flexible and powerful solution for paperless data capture in laboratories and manufacturing facilities. With GMP compliance and tracking at its core, the MODA® Platform provides a cost-effective solution that is easy to implement and maintain. To best meet your needs, we developed the MODA-ES® Platform, which enables real-time data capture and eliminates calculation errors for improved workflow decisions.

Cocoon® Platform

Our Cocoon® Platform for automated and functionally closed patient-scale cell therapy manufacturing offers end-to-end manufacturing with integrated unit operations. Workflow steps automated include selection, activation, transduction/transfection, expansion, and harvest/final formulation. Flexible single-use components and programming enable an efficient path from early process development to commercial GMP manufacturing.





Your path from discovery to commercialization — we'll walk it together

With a comprehensive portfolio of products and services, we can seamlessly support cell and gene therapy workflows from discovery to commercialization. Together with our technical support team we can help to minimize time to market — and thereby shorten your path to success.

Discovery	Translational	Clinical trials	Commercial
Primary cells and tissues			Primary cells and tissues
Research media		TheraPeak® Media for manufacturing	
Nucleofector® Products for research		TheraPeak® Nucleofector® Products for manufacturing	
		Pyrogen and endotoxin testing	
			MODA® Platform — EBR and QC Data
		Cocoon® Platform, a	automated, patient-scale manufacturing
		Cell and gene therapy development and manufacturing services	

Our products and services in cell and gene therapy processes

