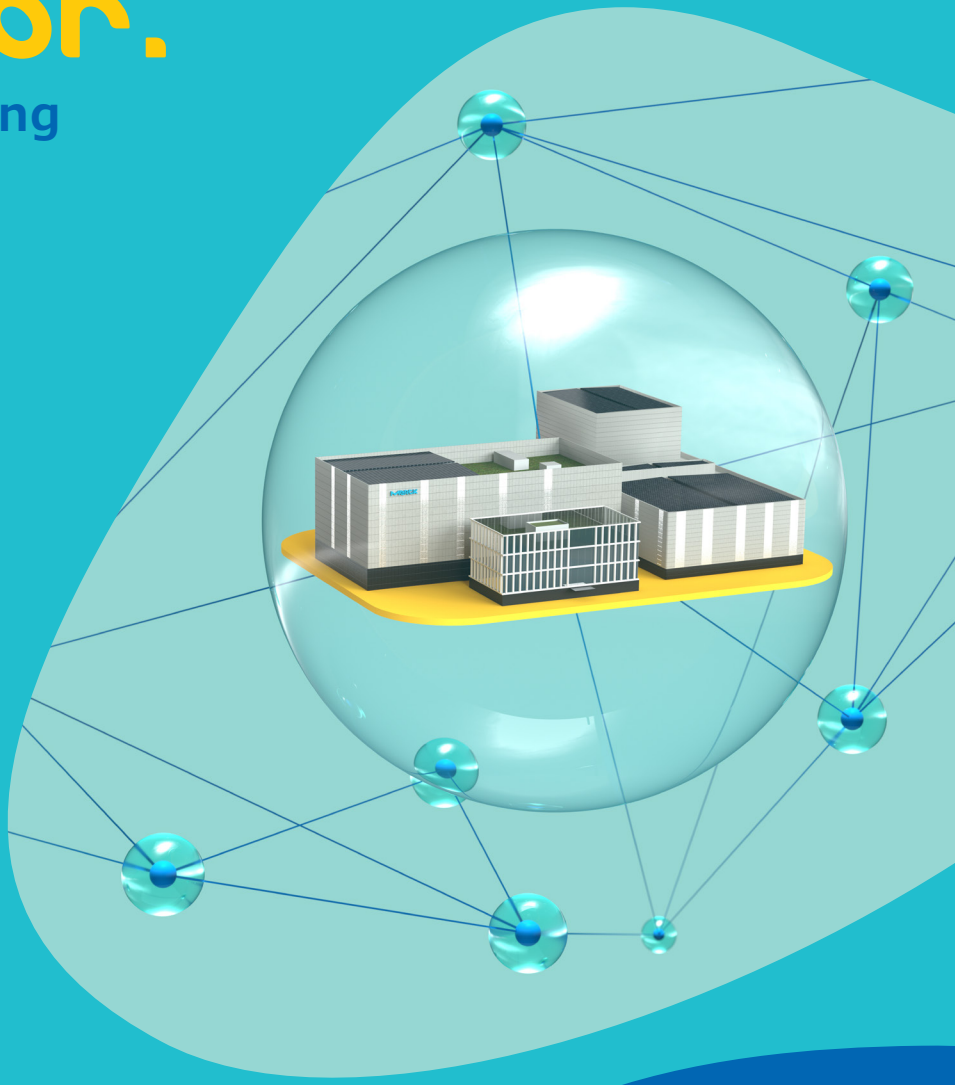
MERCK

Engineered to global standards.

Manufactured next door.

Our new bioprocessing center in Daejeon, South Korea.



Biopharma supply, reimagined.

Millipore®
Expert Pharm/BioPharm
Products & CTDMO Services

SAFC®
Pharma & Biopharma
Raw Material Solutions

welcome

to our new facility in Daejeon, South Korea.

We are expanding our global network of regional manufacturing sites, to meet the growing demand for bioprocessing solutions in Asia-Pacific.

Our new 44,500 m² production center in Daejeon, South Korea, set to open in Q4 2026, marks a significant expansion of our manufacturing capacities and capabilities. This investment is part of our multi-year, €2 billion Life Science investment to meet the growing demand worldwide and reinforces our commitment to the Asia-Pacific region.

Increased Production Capacity

Dedicated Regionalized Capabilities

Streamlined Logistics

2024
Groundbreaking in May

2026
Grand Opening Expected Q4

300+
Million Euros Investment

44,500
Square Meters Facility

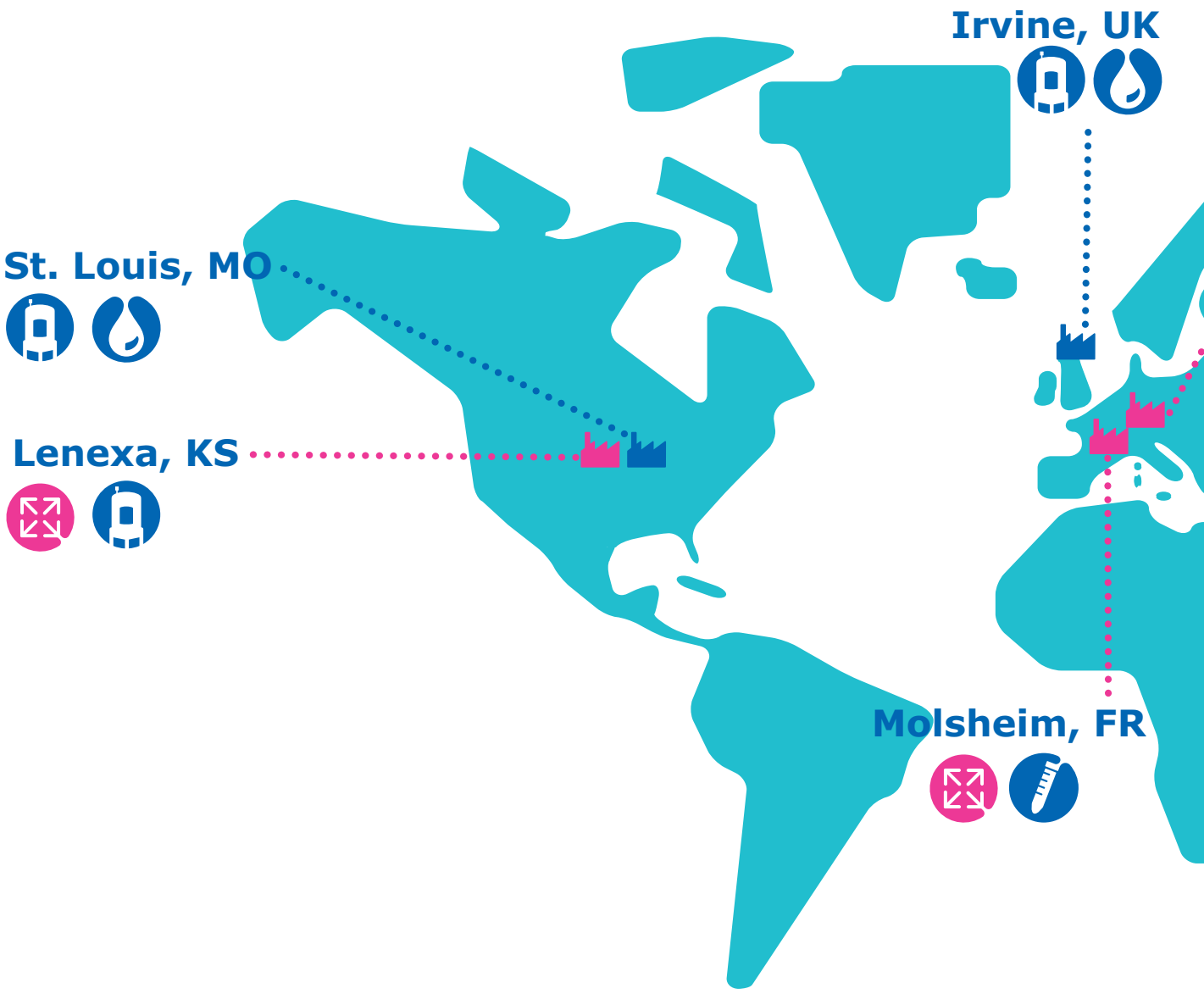
300+
New Jobs

Minimized Supply Disruption Risks

Efficient Manufacturing

Same Product Performance & Quality Standards

Global footprint

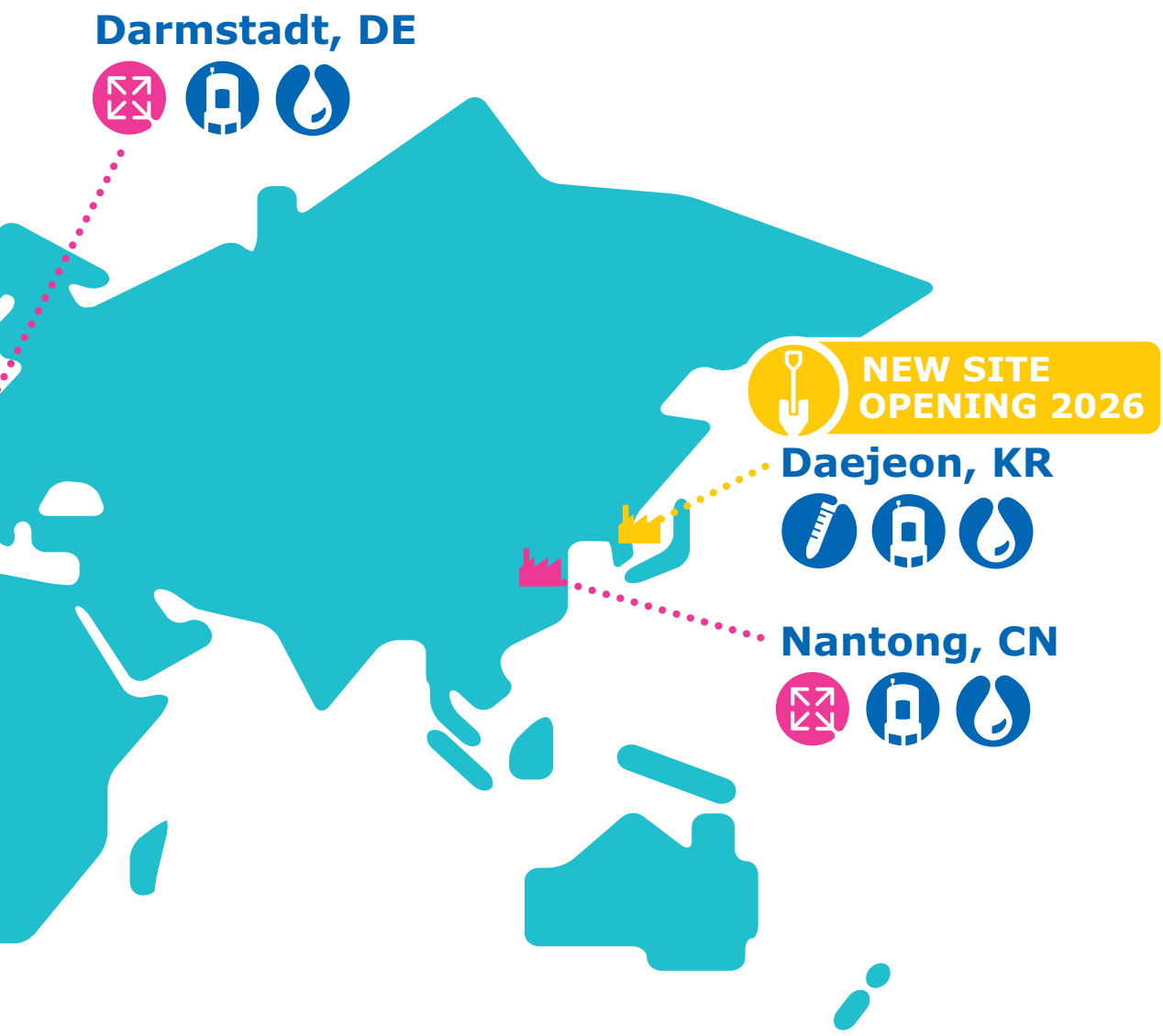


Sterile Sampling Systems

Cell Culture Media

Part of a global network of manufacturing sites.

The Daejeon manufacturing site is part of our global network of redundant manufacturing sites and offers the business continuity you need for today's challenging supply situations. Most importantly: you can expect consistent product performance, specifications, and global quality standards—supporting a reliable quality of your final product.



Process Liquids

SITE EXPANSION

Essential biotech products. Engineered to global standards. Manufactured next door.

Our Daejeon manufacturing site offers the same trusted biotech products—with the same product specification and same quality standards—from a site closer to you, with local support when you need it.

Dry powder and liquid cell culture media

Ready-to-use and available in a variety of standard or custom volumes, supporting upstream bioprocessing workflows from development through commercial production.

Custom formulations

From early-stage development to commercial scale, our custom media are precisely engineered to match your process requirements and cellular performance targets, supported by deep technical expertise, traceable raw materials, and flexible manufacturing capabilities.

Pre-GMP small-scale custom solutions

Our imMEDIAte ADVANTAGE® services for pre-GMP small-scale custom media, feeds, supplements, and buffers provide the quick turnaround you need to accelerate your development work—to get your molecule to the clinic faster.

Sterile-filtered process liquids

High-quality sterile filtered liquid capabilities for cell culture media–standard or custom formulation, downstream buffers and cleaning-in-place (CIP) solutions.

Sterile sampling solutions

Our NovaSeptum® sterile sampling solutions enable you to manually sample throughout your drug manufacturing to monitor both your product quality and process control. These plug-and-play sampling solutions are easy to use and provide representative samples with minimized contamination risk and maximum flexibility in both development and manufacturing environments.

Emprove® dossiers

Comprehensive documentation to facilitate your qualification, risk assessment, and process optimization is available for various products made in Daejeon, including buffers, CIP solutions, cell culture media, and sampling systems.

Cell culture media beyond standards.

The Daejeon manufacturing site features two dry powder production lines, together supporting batch sizes from 25 to 8,000 kg and liquid production lines (up to 10,000 L batch size). Like all of our factories in the world, our Daejeon site will use the same core production processes, technology, and raw materials from a single, globally approved supplier list, and redundancy will be proven by comparability studies—ensuring consistent cell culture media quality. The site is planned to receive certification in accordance with EXCiPACT® GMP standards* for Pharmaceutical Auxiliary Materials (PAM) by 2027.

ONE
Approved Supplier List

ONE
Global Harmonized Quality System

ONE
Production Technology

*EXCiPACT® GMP standards for Pharmaceutical Auxiliary Materials (PAM): A new industry standard for raw materials developed together with EXCiPACT® leadership and industry experts to ensure harmonized and certified quality for cell culture media production sites.

Lower emissions, same high standards.

We will use a variety of resource-efficient equipment including solar panels for electricity, a heat-pump system for heating, energy-efficient equipment and automation, and water collection systems to reduce water use. Shipping to Asia-Pacific customers from Daejeon results in shorter routes, and enables a shift from air to road, reducing CO_2 emissions from transportation as much as 98%.

Designed for Smart Manufacturing.

The Daejeon site will continuously implement smart manufacturing technologies over time, leveraging digital technologies like Internet of Things (IoT), AI, and big data to optimize production processes. In addition to digital innovation, Daejeon will apply advanced technologies such as automated guided vehicles, automated warehouse and industrial robots for operational efficiency.

Smart Manufacturing features will include:

- Interconnected machines and sensors for real-time data exchange to business operations systems.
- Automation for increased efficiency.
- Data analytics for real-time data driven decision-making.

All this will enable flexibility in adapting to changing demands and will increase efficiency.

Regional manufacturing with global oversight.

Same quality standards, same core capabilities, worldwide.

GMP Dry powder cell culture media manufacturing network capabilities

Dry Powder Cell Culture Media	Lenexa US	Irvine UK	Darmstadt DE	Nantong CN	Daejeon KR
Manufacturing batch size [kg]	25–4,000	25–6,000	25–2,500	25–250	25–8,000
Number of GMP production lines	3	2	3	1	2
Pin mill technology w/N_2	•	•	•	•	•
Conical blending technology (pre-blend)	•	+tumble blender	•	•	•
Conical post blending technology	•	+tumble blender	•	•	•
EZMix® compaction capabilities batch size [kg]	—	•	•	—	—
Packaging capabilities: Bags, bottles, buckets & barrels	•	•	•	•	•
Trusted weight / Right sized weighing	•	•	•	•	•
Single approved supplier list	•	•	•	•	•
EXCiPACT® GMP standards for pharmaceutical auxiliary materials (PAMs)	•	•	•	•	2027
ISO 9001:2015	•	•	•	•	2026
Animal component-free / Non-animal origin manufacture	•	•	•	•	•

GMP Liquid cell culture media manufacturing network capabilities

Liquid Cell Culture Media	St. Louis US	Irvine UK	Nantong CN	Daejeon KR
Manufacturing batch size [L]	50–10,000	50–10,000	170–1,000	50–10,000
HTST capabilities [L]	300-6,000	2,000-10,000	—	—
2D & 3D single-use bags 1-500 L & 1,000 L (standard and custom)	•	•	•	•
PET bottles [mL]	10–2,000	10–2,000	125–1,000	100–2,000
Comprehensive E+L data pack	•	•	•	•
ISTA testing for bag and outer container combination	•	•	•	•
Performance testing for bags (RT stability for water and CCM)	•	•	•	•
Single approved supplier list	•	•	•	•
EXCiPACT® GMP standards for pharmaceutical auxiliary materials (PAMs)	•	•	•	2027
ISO 9001:2015	•	•	•	2026
Animal component-free / Non-animal origin manufacture	•	•	•	•

Pre-GMP small scale custom manufacturing capabilities

Custom media, feeds, supplements, and buffers	Lenexa US	Nantong CN	Daejeon KR
Batch size liquid 1–200 L	•	•	•
Batch size powder 0.5–20 kg	•	•	•

Process liquids manufacturing capabilities

Description	St. Louis US	Irvine UK	Darmstadt GE	Daejeon KR
Liquid media and buffers, sterile filtered	•	•	—	•
Antifoam, gamma sterilized	•	—	—	•
Hazardous solutions*	—	—	Non-sterile	Non-sterile
Cleaning-in-place solutions*	—	Sterile-filtered	—	Sterile-filtered
Animal component-free / Non-animal origin manufacture	•	•	•	•
Animal component-containing manufacture (dedicated area)	•	—	—	—
Batch size capacity [L]	50-10,000	50-10,000	1,000-30,000	50-10,000
HTST capabilities [L]	300-6,000	2,000-10,000	—	—
Bottles [mL]	10-2,000	10-2,000	1,000-4,000	1,000-4,000
Jerrican/canister [L]	—	—	10-25	10-25
ISO 9001:2015	•	•	•	2026
EXCiPACT® GMP standards for pharmaceutical auxiliary materials (PAMs)	•	•	•	2027
Drums and IBCs [L]	—	—	190-950	190-950
2D & 3D single-use bags [L] standard & custom	1-500 & 1,000	1-500 & 1,000	—	1-500 & 1,000

* Aqueous dilutions, some site-specific and volume dependent limitations

For additional information
please visit **SigmaAldrich.com/asia-bioprocessing**

To place an order or receive technical assistance
please visit **SigmaAldrich.com/support**

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