

Sustainable Investment & Technology Excellence Redefine Modern Biomanufacturing

As industry collaborations deepen and strategic investments continue, Asymchem is steadily enhancing process development efficiency, strengthening its core technology capabilities, and improving overall operational performance and delivery reliability.

Capacity Expansion

On April 14, Asymchem signed a memorandum of cooperation with the Tianjin Economic-Technological Development Area (TEDA) Administrative Commission to **expand its CDMO R&D and Manufacturing Site for Larger Molecule Drugs**.

With **a total investment of 2 billion yuan**, the project will substantially strengthen Asymchem's integrated CDMO capabilities for peptides and oligonucleotides (TIDES), delivering more comprehensive service to global partners.



Capability Upgrade

Asymchem's Center of Excellence for Process Science (CEPS) is accelerating the construction of a **high-throughput automated workstation** which is scheduled for operation by the end of June. The platform integrates solid/liquid dispensing, reaction handling, and sampling to enable high-throughput laboratory automation.



Future **AI integration** will continuously drive service efficiency and quality breakthroughs for higher-level process support.

Technical Breakthrough



Asymchem has established a **dedicated isomer LC-MS detection platform** addressing key CAT method challenges and covering **natural and unnatural amino acids**. Completed in Q1 2026, the platform integrates derivatization and non-derivatization methods to **improve throughput** while **reducing cost and turnaround time**. The use of triple quadrupole and high-resolution mass spectrometry eliminates false-positive signals.

Cross-comparison of these methodologies significantly enhances the method accuracy and robustness for the chiral impurity assessment in peptide drug development, and the platform has now been applied across multiple real-world projects.

From R&D Complexity to Industrial Reality: Advanced Process Development and Manufacturing Solutions

Asymchem's Sandwich site transforms R&D challenges into manufacturing solutions by designing safer, more sustainable, and efficient processes. The **Route & Process Enabling workflow** provides a cost effective strategy to mitigate early stage risks.



1 Process Review

UK
SANDWICH

A **structured review** follows detailed discussions to identify potential scale-up vulnerabilities and prioritize at-risk unit operations.

The output is an **experimental plan** designed to generate key understanding and define strategies to **mitigate the identified risks**.

2 Laboratory Execution – Route & Process Design

Modern labs with **advanced instrumentation** and **highly experienced staff** rapidly explore process improvements.

Industry-leading **high-throughput experimentation** efficiently evaluates chemical space and identifies optimal reaction, extraction, and isolation conditions.

The **matrix team structure** enables process safety specialists to embed safety throughout development while reaction engineering experts address scale up risks at the earliest stages.

Analytical activities (method development and impurity identification) proceed concurrently to proactively mitigate quality risks.

Ongoing reviews and brainstorming drive innovation and continuous improvement.

3 Tech Transfer & Manufacture

Seamless technology transfer is supported by clear processes and strong collaboration.

Manufacture at the GMP Laboratory or GMP Plant enables **flexible delivery from gram to kilogram quantities**, with full QC testing ensuring quality and regulatory compliance.

Structured **after-action reviews** following each deliverable identify opportunities for continuous improvement, delivering measurable benefits throughout the development lifecycle.