



# DISCOVERY CHEMISTRY

ChemPartner has been a world leader in China-based chemistry outsourcing for 20 years. We are one of the largest and most experienced CROs in China. Our talented chemists come from a wide range of backgrounds and experience and have designed and synthesized molecules for hundreds of pharmaceutical and biotechnology companies. Additionally, our management team is comprised of a mix of internationally and locally-trained talent leading to a diverse company culture.

## CAPABILITIES

At ChemPartner we offer a wide range of chemistry services. Due to our size and 20 years of operation, we have experience in almost all areas of drug discovery chemistry.

### SYNTHETIC CHEMISTRY

- Large scale synthesis of intermediates or final compounds
- Synthetic troubleshooting and route optimization

### MEDICINAL CHEMISTRY

- Design of targets for SAR development
- Synthesis of targets for SAR study

### PEPTIDE CHEMISTRY

- Automated peptide synthesis and purification, macrocyclic, stapled, and complex peptides
- Synthesis of unnatural amino acid building blocks

### LIBRARY CHEMISTRY

- Synthesis of targeted libraries

### ANALYTICAL CHEMISTRY

- Analytical discovery chemistry support
- Chiral separations support

### ANTIBODY DRUG CONJUGATES (ADC)

- Linker and toxin synthesis
- Conjugation provided by Biologics group

### PROTAC CHEMISTRY

- PROTAC design
- Drug Target Ligands
- Linker optimization
- E3 Ligase

## SERVICE MODELS

At ChemPartner, we offer two main service models that can be customized to suit individual project needs.

### FULL TIME EQUIVALENT MODEL (FTE)

- Dedicated full time employees and teams
- Flexibility to increase or decrease team size
- Flexibility to reprioritize targets/project direction
- Synthetic chemistry support, medicinal chemistry, and blended teams with San Francisco-based leaders
- Ideal for projects requiring a significant degree of troubleshooting or route scouting

### FEE FOR SERVICE MODEL (FFS)

- Fixed price quote for amount of specific synthesis of compounds or a focused library
- Fixed price quote for a specific service
  - e.g. analytical characterization/separation, library screening (fragment-based, DNA encoded)
- Non-GMP Kilo scale-up available
- Ideal for projects with known or well-established chemistry

# ANALYTICAL CHEMISTRY

Our discovery chemistry teams are supported by dedicated teams of analytical chemists. These teams primarily support the analytical and purification requirements of the FTE and FFS teams.

An extensive array of standard structural characterization techniques are available, including mass spectroscopy, NMR, FT-IR, UV, elemental analysis, and counter-ion analysis. Specialized services are also available and can be requested separately as needed.

## ANALYSIS AND PURIFICATION, AUTOMATION

- HPLC with various detection techniques (UV/DAD/ MS/ELSD/CAD)
- SFC chiral analysis, method development and purification
- Large-scale purification
- Mass-directed autopurification

## STRUCTURAL CHARACTERIZATIONS

- Mass spectroscopy: LC/MS, GC/MS, LC/MS/MS
- NMR: <sup>1</sup>H-, <sup>13</sup>C-, <sup>19</sup>F-, <sup>31</sup>P-, COSY, NOESY, DEPT, HSQC, HMQC, etc.

## PHYSICAL CHARACTERIZATIONS

- Physicochemical properties: pKa, logP/logD, melting point
- XRPD, TGA, DSC, DVS, particle size

## CHEMICAL CHARACTERIZATIONS AND GENERAL TESTING

- Purity, residual solvents, KF titration, heavy metals, ROI, LOD
- HPLC, GC, LC/MS, GC/MS, titration, ion chromatography, atomic absorption
- HPLC/CLND, HPLC/FLD

LEARN MORE AT [CHEMPARTNER.COM/SERVICES/DISCOVERY-CHEMISTRY](https://chempartner.com/services/discovery-chemistry)