

# SYNTHETIC CHEMISTRY

ChemPartner has been a world leader in China-based outsourcing for synthetic chemistry for over 15 years. We are one of the largest and most experienced chemistry service organizations 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.

## SERVICE MODELS

At ChemPartner, we offer two main service models for synthetic chemistry, the particulars of each model are shown below. These models 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

## SCOPE OF SERVICE

### SYNTHETIC CHEMISTRY

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

### LIBRARY CHEMISTRY

- Synthesis of targeted libraries

### ANTIBODY DRUG CONJUGATES

- Linker and toxin synthesis
- Conjugation provided by biologics group

### 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

# 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. TSpecialized 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

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