



SYNTHETIC CHEMISTRY

GENERAL CHEMISTRY

ChemPartner has been a world leader in China-based outsourcing for synthetic chemistry for the last 15 years. We are one of the largest and most experienced Chemistry service organizations in China. Our Synthetic Chemists come from a wide range of backgrounds and experience and have designed and synthesized molecules for hundreds of pharmaceutical and biotechnology companies. In addition our management team comprises a mix of locally grown and internationally trained talent leading to a diverse company culture.

OUR SERVICES

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

FULL TIME EQUIVALENT MODEL (FTE)

- Dedicated full time employees
- Dedicated 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
- The FTE model ideal for projects where a significant degree of troubleshooting will be required

FEE FOR SERVICE MODEL (FFS)

- Fixed price quoted for amount of specific synthesis of a molecule, series of molecules, or small library
- Fixed price quoted for a specific service, e.g. chiral separation, fragment-based screening.
- Literature precedent very important for accurate quotation
- Non-GMP Kilo scale-up available
- The FFS model ideal for projects with known or well understood chemistry

These models can be used individually or combined as best suits your individual projects needs.

SCOPE OF SERVICE

At ChemPartner we offer a wide range of Synthetic Chemistry services and due to our size have experience in almost all areas of synthetic chemistry.

GENERAL 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

ANTIBODY DRUG CONJUGATES (ADC)

- Linker and toxin synthesis
- Conjugation provided by Biologics group

LIBRARY CHEMISTRY

- Synthesis of targeted libraries

ANALYTICAL CHEMISTRY



Our synthetic 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, counter-ion analysis. The following specialized services are also available and can be requested as needed.

ANALYSIS AND PURIFICATION, AUTOMATION

- HPLC with various detection techniques (UV/DAD/MS/ELSD/CAD)
- SFC chiral separation and method development
- Mass-directed autopurification

STRUCTURAL CHARACTERIZATIONS

- Mass spectroscopy: LC/MS, GC/MS, LC/MS/MS
- NMR: ^1H -, ^{13}C -, ^{19}F -, ^{31}P -, NOESY, DEPT, HSQC, HMQC

PHYSICAL CHARACTERIZATIONS

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

CHEMICAL CHARACTERIZATIONS AND GENERAL TESTING

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