ChemPartner
Dedicated to LifeScience

MEDICINAL CHEMISTRY

Small Molecule Drug Discovery at ChemPartner

Target Validation	Hit Finding	Hit-to-Lead and Lead Optimization	Lead Characterization	CMC
CRISPR-Cas9 mutagenesis and siRNA/shRNA knockdown Translational Models	SBDD, FBS, DELT and HTS *In Vitro* Assay Development	Medicinal Chemistry Analytical Chemistry Computational Chemistry DMPK	*In Vivo* Efficacy, PK in rat/dog/Cyno, Physical Properties, Toxicology Studies, Metabolite ID	GMP Synthesis, Process Development, Analytical Development, Manufacturing

Customizable Solutions at Every Phase and the Experience to Execute

Our Services

Our talented scientists provide individualized medicinal chemistry design and synthesis support focused on your project needs and goals. Our Medicinal Chemistry Leaders, based in Shanghai China and San Francisco USA, will work losely with your discovery teams to provide optimal support for every stage of the drug discovery process.

- Synthetic Chemistry Support (including synthetic route planning, troubleshooting and optimization)
- Medicinal Chemistry Design (Hit Identification, Lead Identification, Lead Optimization, Pre-Clinical and Clinical Candidate Identification)
- Library Synthesis (Screening and Targeted Libraries)
- Fully Integrated driven Drug Discover Solutions utilizing components of US and China-based support (including medicinal chemistry, synthetic chemistry, DMPK, *in-vitro/in-vivo* biological screening and structural biology support)
- Structure Based Drug Design (SBDD) and Fragment Based Drug Design (FBDD)
- Lead Generation Technologies Including HTS, DNA Encoded Libraries and Scaffold Hopping Using Computer Aided Drug Design (CADD)

Scientific Experience

Our chemists collaborate with the other functional disciplines at ChemPartner and can provide a complete solution from initial discovery all the way through to process development. Our Medicinal Chemistry teams are experienced advancing programs across a wide range of therapeutic areas and target types with experience using specialty chemistries.

Therapeutic Areas

- Inflammation
- Pain
- CNS
- Oncology
- Infectious Disease
- Cardiovascular
- Metabolic Disease

Target Types

- GPCR
- Ion Channels
- Kinases
- Enzymes
- Transporters
- Nuclear Hormone Receptors
- Protein-Protein Interactions

Specialty Chemistries

- Pro-Dug Design
- Novel Peptide Design
- Asymmetric Synthesis
- Carbohydrate Chemistry

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Experienced Scientists

Our medicinal chemistry team has experience successfully executing on projects in all stages of discovery research (hit identification, lead identification, and lead optimization through to preclinical candidate selection).

In addition their background and experience (at least 10+ years in big pharma or biotech) covers the full spectrum of therapeutic areas and biological target types.

Our medicinal chemists utilize computational chemistry methods, are well-versed in the latest tools and have access to industry standard software platforms.

All of our medicinal chemistry leaders have a proven track record of designing and delivering preclinical candidate compounds. They are now applying this extensive knowledge and experience to our client's drug discovery programs.

In addition, ChemPartner scientists have been instrumental in advancing many of our clients programs into preclinical and clinical development as evidenced by Case Study examples that we are pleased to share.

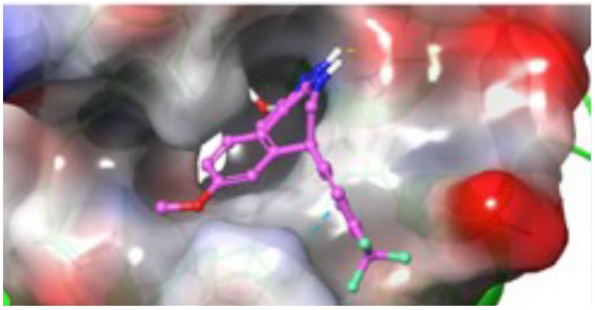
Structure-based and Fragment-based Drug Design

To support our Medicinal Chemists we have a group of computational chemistry experts in both Shanghai and South San Francisco with 40+ years' combined industry experience, 56 peer review articles, and 15 patent applications.

We have access to a wide variety of computational chemistry software and tools including MOE, Schrodinger and Cresset suites of software.

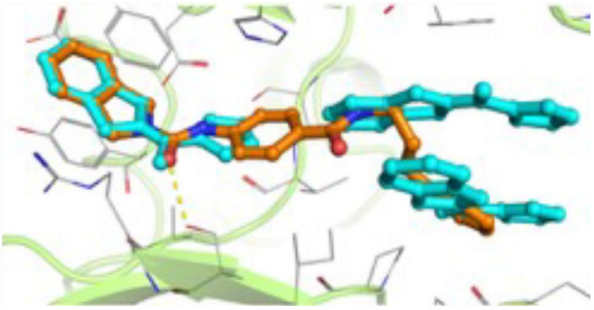
Structure-based Drug Design

Novel Compound Docked to Bromodomain Target



Fragment-based Drug Design

Ligand-bound Crystal Structure of Novel Fragment Screening Hit for NAMPT (overlaid with a known active)



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