CHEMISTRY RESEARCH SERVICES

From Focus Synthesis

Custom Synthetic Organic Chemistry

Exclusive small scale custom synthesis of candidate molecules, precursors and metabolites

Broad range of methods

Innovative, practical workarounds for synthetic chemistry, purification and scalability

Synthesis for drug discovery, drug development and other biotech (i.e. diagnostics, veterinary, research tools)

Drug Discovery

Define and optimize multi-step synthetic methods

Medicinal chemistry and computational services, including TIDEA™

Custom-designed and Knowledge-enabling Building Blocks: Cheminformatic Gap Fillers™

Rare and Unique Substructures®

Drug Development

Develop scalable, nontoxic synthetic methods

Identify workarounds to replace difficult-to-scale processes

Structure determination to strengthen IP

Synthesis of deuterated analogs, metabolites and impurities

Build and Strengthen IP*

Creative design services to generate novel, patentable ligands for your target biomolecules

Improve overall range of IP coverage for through exploration of uncharted regions of chemical space

Expand synthetic process IP

**Our clients retain all rights to IP developed under contract with Focus Synthesis*

CREATIVE PRACTICAL SOLUTIONS

FOCUS SYNTHESIS

Drug Discovery Services from Focus Synthesis

SYNTHESIS FOR DRUG DISCOVERY

- ◊ Our services are designed to streamline your drug discovery efforts by overcoming a range of problems related to genotoxicity, scalability, biological activity, and patentability
- ◊ We will define and optimize multistep synthetic methods to yield between 1 mg and 10 g of bioactive organic molecules.
- ◊ Our areas of strength include **chiral molecules**, **polycyclic heterocycles**, **fluoroalkyl compounds**, **distinctive monocyclic and bicyclic heterocycles** and other difficult syntheses

MEDICINAL CHEMISTRY SERVICES

- ◊ Achieve diversity and property space coverage with new substructures that are drugable and distinct from commercially-available building blocks
- ◊ Identify distinct building blocks to improve chemical space coverage in your corporate compound collection
- ◊ Leverage chiral chemistry to improve selectivity
- ◊ Combine the use of fragments that are also building blocks to efficiently move directly from FBLD to lead expansion
- ◊ Design novel building blocks customized to your specifications (e.g. PSA, ClogP, FW, EA, type of functionality, ring system, complexity, rule-of-five)

COMPUTER-AIDED DRUG DESIGN AND DISCOVERY

- ◊ Increase hit rates without sacrificing structural diversity using our proprietary TIDEA™ discovery technology
- ◊ Leverage synergies between shape-independent TIDEA™ and shape-based discovery approaches
- ◊ Utilize Cheminformatic Gap Fillers™ to increase diversity of combinatorial libraries
- ◊ Redesign leads to improve metabolic activity, oral bioavailability, and other ADMET characteristics

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FOCUS SYNTHESIS

CREATIVE PRACTICAL SOLUTIONS