OHSU Research Cores and Shared Resources

Medicinal Chemistry Core

The core's mission is to help researchers investigate the interactions between small molecules and biological systems by providing medicinal chemistry, chemical biology and computational chemistry expertise and organic synthesis and computational support.

Services
Please contact the core director for an estimate for any of the following services.

Custom Organic Synthesis
The core can perform organic synthesis of known compounds with well-characterized literature-based synthetic routes. Research organic synthesis will be considered on a case-by-case basis.

Custom Chemical Biology
The core can design experiments to identify biological targets of small molecules and design and synthesize molecular probes.

Medicinal Chemistry
The core can design and implement iterative structure activity relationship (SAR) approaches to small molecule optimization for drug discovery.

Large Scale Synthesis
The core can scale up syntheses (>5g) of known compounds with well-characterized literature-based synthetic routes.

Computational Chemistry
The core can identify potential ligands for new protein targets and optimize current leads using commercial, open source and in-house applications including the Schrödinger Small Molecule Discovery Suite.

Equipment
The Medicinal Chemistry Core has the following instrumentation available on a fee-for-use basis.

Synthesis
• Parr shaker hydrogenation apparatus
• Biotage Initiator+ SP wave microwave reactor and solid-phase synthesizer
• CEM Liberty Blue peptide synthesizer

Purification
• Agilent 1260 Infinity II preparative HPLC system
• Biotage Isolera Spektra automated flash purification system

Analysis
• Agilent 1260 Infinity II analytical HPLC system
• Thermo Electron DSQ II single quadrupole GC-MS instrument

Can We Help You?
Please visit our website at: www.ohsu.edu/mcc or contact the core director at nilsena@ohsu.edu