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

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 synthesize small molecule probes.

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

Large Scale Synthesis
The core can scale up synthesis (>5g) of a known compound with a well-characterized literature-based synthetic route.

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 Peptide Synthesizer

Purification
- Agilent 1260 Infinity II Analytical and Preparative High Performance Liquid Chromatography System
- Biotage Isolera Spektra Automated Flash Purification System

Analysis
- Thermo Electron DSQ II Single Quadrupole Gas Chromatography Mass Spectrometry Instrument

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