

# OHSU Research Cores and Shared Resources

## Medicinal Chemistry Core

OHSU's cores are your campus technology partners dedicated to the success of your project. For optimal results, take advantage of the state-of-the-art scientific resources within the OHSU community.

[www.ohsu.edu/cores](http://www.ohsu.edu/cores)



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.

### Director

Aaron Nilsen, Ph.D  
[nilsena@ohsu.edu](mailto:nilsena@ohsu.edu)

### Associate Director

Haihong Jin, Ph.D  
[jinh@ohsu.edu](mailto:jinh@ohsu.edu)

### Research Associates

Jordan Devereaux, Ph.D  
[devereaj@ohsu.edu](mailto:devereaj@ohsu.edu)  
Shanthi Nagarajan, Ph.D  
[nagaraja@ohsu.edu](mailto:nagaraja@ohsu.edu)

### Location

Richard Jones Hall 1549

### Address

3181 SW Sam Jackson  
Park Road, L229  
Portland, OR 97239

### Phone

503.494.9134 office  
503.494.8932 lab

### Web

[www.ohsu.edu/mcc](http://www.ohsu.edu/mcc)

### 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 quadrapole GC-MS instrument

### Can We Help You?

Please visit our website at: [www.ohsu.edu/mcc](http://www.ohsu.edu/mcc) or contact the core director at [nilsena@ohsu.edu](mailto:nilsena@ohsu.edu)