

# 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 and chemical biology expertise and organic and peptide synthesis.

### Director

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### Core Scientists

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### Services

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

#### Custom Organic Synthesis

The core performs 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 Peptide Synthesis

The core performs solid-phase peptide synthesis (SPPS) for modified peptides and purifies the resulting peptides using reversed-phase chromatography. Modifications include but are not limited to fluorophores, unnatural amino acids, cyclization, and N-/C-Terminal modifications. Unnatural amino acids can be synthesized, if not commercially available. Complex peptides and chemical ligation approaches 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 for these experiments.

#### Medicinal Chemistry

The core designs and implements iterative structure activity relationship (SAR) approaches to small molecule optimization for drug discovery.

#### Large Scale Synthesis

The core scales up syntheses (>5g) of known compounds with well-characterized literature-based synthetic routes.

### Equipment

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

#### Synthesis

- Biotage Initiator+ SP wave microwave reactor and solid-phase synthesizer
- CEM Liberty Blue solid-phase peptide synthesizer

#### Purification

- Biotage Isolera Spektra automated flash purification system
- Labconco CentriVap refrigerated speed vac
- Labconco lyophilizer

#### Analysis

- Advion compact mass spectrometer for analysis of synthetic samples
- Bruker AVANCE NEO 400 MHz Nuclear Magnetic Resonance spectrometer

### 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)

