

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



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.

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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 or contact the core director at nilsena@ohsu.edu

