Position Summary

The Johns lab in the Department of Biomedical Sciences at Oregon State University (OSU) is seeking a Postdoctoral Scholar who is passionate about organic synthesis and is interested in applying their experience to advance the discovery of new medicines. We are optimizing a series of compounds for Leishmaniasis, a Neglected Tropical Disease that infects an estimated 12 million people worldwide. We are also researching novel approaches for treating bacterial infections by combining our medicinal chemical insights with disease pathogenesis research, performed by our collaborators in adjacent laboratories. These diseases desperately need safer and more effective treatments. We use cutting-edge medicinal chemistry approaches to carefully design each compound, and select compounds for synthesis that efficiently test our hypotheses. The compounds we make are designed to have improved medicinal properties, advance our understanding of the biological target, and characterize the chemical structure requirements for activity. The selected Postdoctoral Scholar will work closely with Dr. Johns, who actively works in the laboratory and brings pharmaceutical industry experience, as well as a small number of undergraduate research students. We have a fun, diverse research group and work collaboratively to advance the research.

Dr. Johns is an Assistant Professor in the Department of Biomedical Sciences in the OSU Carlson College of Veterinary Medicine. She is an experienced drug discovery chemist and contributed to the discovery of multiple hits, leads, and two clinical compounds while working in the pharmaceutical industry. Her laboratory is in the Department of Biomedical Sciences, which conducts world-class basic science research to benefit both human and animal health. We have a collaborative, multidisciplinary research environment. One of our department’s key areas of expertise is infectious diseases, which includes expertise parasitology, pathogenesis, and microbiology research. Many of these colleagues are located in adjacent laboratories and collaborate with our group. We also collaborate with groups located across the US and in Brazil.
OSU is located in the beautiful Willamette valley of Oregon, known for outdoor activities, wine grapes, mild (but wet) climate, and a high quality of life. OSU is located in Corvallis, a small college town approximately 2 hours south of Portland, one hour from the Oregon coast, and 2 ½ hours from world-class skiing at Mt. Bachelor outside of Bend, Oregon. Corvallis has excellent open spaces, biking and hiking trails, and a strong scientific community.

Position Duties:

The primary responsibility of this position will be synthetic organic chemistry research to prepare small molecules with novel medicinal properties. The candidate will have the opportunity to advance their knowledge of medicinal chemistry and drug discovery chemistry. At least 15% of the appointment will be reserved for professional development.

- Multi-step organic synthesis of novel small molecules using a variety of synthetic methods
- Identification of synthetic routes and protocols using scientific literature and experience
- Maintain an organized library of synthesized compounds
- Identify and acquire supplies, reagents, and solvents needed for research in advance to avoid delays
- Maintain clean, safe, and organized workspaces
- Maintain laboratory equipment and make minor repairs as needed.
- Manage chemical inventory with the support of student researchers.
- Assist PI with training of student researchers.
- Maintain an accurate and detailed laboratory notebook and collection of spectra
- Present research results to collaborators, colleagues, and at national meetings
- Work with PI to prepare manuscripts

Minimum/Required Qualifications

A Ph.D. in Organic Chemistry or a closely related discipline awarded within the last four years is required for this position. A recent Ph.D. graduate is preferred. Experience in multi-step synthetic organic chemistry, including handling air-sensitive reagents, using an inert gas manifold, purification using flash chromatography, and analysis of NMR spectra is required. Demonstrated ability to work independently and use scientific search engines to identify synthetic strategies and conditions is needed.

This position is designated as a critical or security-sensitive position; therefore, the incumbent must successfully complete a Criminal History Check and be determined to be position qualified as per OSU Standard 576-055-0000 et seq. Incumbents are required to self-report convictions and those in Youth