Natural Products Omics Research

A postdoctoral scholar position is available immediately in the McPhail Lab working on an international collaborative ‘omics investigation of stromatolites (‘living rocks’) towards understanding how stromatolite communities are formed/lithified and how they differ from free-living assemblages of bacteria. Natural products chemistry skills are required, including isolation and structure elucidation of natural products, LC-MS/MS and NMR data acquisition, curation, processing and analysis, and use of online mass spectrometry and metabolomics platforms. Experience or familiarity with phylogenetic and genomic data analyses and microbiological techniques is desirable. Contribution to other ongoing collaborative projects, including investigation of methane seep communities and tunicate/microbiota consortia is possible.

Position Duties

**65% - Research**

Conduct scientific research in a natural products chemistry laboratory using mass spectrometry, NMR spectroscopy, chromatography and other analytical techniques, together with bioinformatics, to identify trends in metabolism and characterize metabolites of marine and freshwater organisms. Analyze, interpret, and draw conclusions from data, in conjunction with other members of the research team.

**20% - Publications**

Maintain comprehensive laboratory notebooks and contribute as author to writing and preparation of data for publication.

**15% - Lab Operations**

Contribute to maintaining instrumentation in acceptable working condition, curating chemical reagents, and maintaining safe and effective operation of the McPhail laboratory.

Minimum or Required Qualifications

Ph. D. in Organic Chemistry, Molecular Biology, Microbiology, Biochemistry or related discipline, involving research on natural products. Analytical chemistry skills including data acquisition and interpretation using NMR, MS and chromatography. Postdoctoral experience of 0-4 years.

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 programs may have additional criminal history checks every 24 months.

Preferred Qualifications

Experience with microbiological and molecular biological techniques, and fieldwork (design of experiments and collection of research samples).

Demonstrable commitment to promoting and enhancing diversity.

Please send inquiries, with cover letter and resume, to kerry.mcphail@oregonstate.edu.