

Postdoctoral Scholar Positions Open **Thermal Biology Institute, Montana State University**

Two recently funded Postdoctoral Scholar positions are available immediately in the Thermal Biology Institute (TBI) (www.TBI.montana.edu) at Montana State University (MSU). One position will focus on metagenomics and microbial ecology, and a closely aligned position to focus on proteomics and metabolomics of these same systems. TBI conducts research on the biology and interrelated physical and chemical processes of geothermal environments in the Greater Yellowstone Ecosystem, and was established in 1999 and has a successful history of high quality, interdisciplinary biological research in geothermal environments.

Duties and responsibilities:

Highly motivated, hard-working recent Ph.D. graduates with a strong record of publications in the physiology, ecology, and evolution of microbial ecosystems are encouraged to apply for these positions. For one position, applications are particularly welcome from candidates who have additional experience on the physiology and ecology of thermophilic bacteria and archaea, expertise using molecular methods and bioinformatics to assess phylogenetic and/or functional diversity of biota in natural systems, annotation of microbial genomes and/or metagenomes of environmental samples. For the second position, expertise in liquid chromatography-mass spectrometry (LC-MS/MS), gas chromatography mass spectrometry (GC-MS), metabolite profiling by NMR, standard proteomics and/or metabolomics work flows, biological statistics, and/or microbial metabolism is highly desired.

Research objectives will focus on the characterization and isolation of novel hyperthermophilic archaea found in geothermal alkaline springs of Yellowstone National Park. Further duties include assisting in the supervision of undergraduate honors student researchers, development of field and laboratory experiments, culturing novel thermoalkaliphiles, collection and analysis of data, interpretation of results, formulation of conclusions, and preparation and publication in high quality peer reviewed journals.

Required Qualifications- Experience, Education, Knowledge and Skills

1. Ph.D. in Microbiology, Chemical or Biological Engineering, Biochemistry, or related field.
2. Possess knowledge and hands on experience in metagenomics and microbial ecology, and/or proteomics and metabolomics
3. A strong record of peer reviewed publications.

Preferred Qualifications

We are seeking two candidates to discover, describe and isolate thermophilic microorganisms from alkaline environments in Yellowstone National Park. We do not anticipate that any candidate will have all the preferred qualifications listed below. Preferred qualifications include:

1. Publication in top peer-reviewed journals in the fields of microbiology, metagenomics, physiology, ecology, metaproteomics, and/or bioinformatics.
2. Research expertise on the physiology and ecology of thermophilic bacteria and archaea.
3. Demonstrated ability to isolate and grow difficult microorganisms from natural environments.
3. Experience using molecular methods and bioinformatics to assess phylogenetic and/or functional gene diversity of microorganisms in natural systems.





4. Experience in the annotation and analysis of microbial genomes and or metagenomes of environmental samples.
5. Experience with liquid chromatography-mass spectrometry, gas chromatography mass spectrometry, small molecule NMR, standard proteomics and/or metabolomics work flows, biological statistics, and/or microbial metabolism.
6. Experience in the geochemical characterization of environmental systems.
7. Experience mentoring undergraduate students leading to high quality undergraduate research productivity.

The Successful Candidate(s) Will Have:

Excellent written, oral, and interpersonal communications skills; the ability to multitask; the ability to pay careful attention to detail; the ability to mentor undergraduate students, and the ability to work both independently and collaboratively with professors and co-workers from multiple disciplines.

MSU Community Information: Founded in 1893 as a Land Grant University, MSU is composed of eight academic colleges and a graduate school and boasts a friendly, supportive faculty and campus environment. Currently, the University hosts an enrollment of over 15,000 students, including approximately 1,900 graduate students. MSU is located in Bozeman, Montana, an extended community of about 70,000 nestled in the Rocky Mountains in southwest Montana. In addition to providing access to an extraordinary ecosystem for teaching and research programs, Bozeman is renowned for year-round recreational and cultural opportunities to include access to world-class ski areas, multiple blue ribbon trout streams and nearby Yellowstone National Park. The local airport is served by seven national airlines. Named an All American City, Bozeman boasts high-quality medical facilities, a very low crime rate, many fine restaurants, acclaimed public and private schools, a symphony orchestra and choir, an annual opera, and nationally known events. Powder Magazine identified Bozeman, with "three distinctly different" major ski resorts within an hour's drive, as the number one place to live and ski in its November 2010 Magazine. Bizjournals.com ranked Bozeman #2 on the list of American "Dreamtowns" - small towns that offer the best quality of life without metropolitan hassles. Bozeman is located in the beautiful Gallatin Valley, 90 miles north of Yellowstone National Park.

For complete job announcement and application procedures, click on: <https://jobs.montana.edu/postings/4528>. Applications will be reviewed starting March 21, 2016 and will continue until positions are filled. Salary will be commensurate with experience. Equal Opportunity Employer, Veterans/Disabled

