

The American Society of Pharmacognosy

<https://www.pharmacognosy.us/job/postdoctoral-fellow-colorado-state/>

Postdoctoral Researcher- Colorado State

Description

The Natural Resource Ecology Laboratory seeks a postdoctoral researcher in the field of microbial metabolism to work as part of a larger team on several related projects intended to better understand carbohydrate anabolism and catabolism in soil organisms and the environment. This research theme, supported by grants from the USDA, the Keck Foundation, and the Grantham Foundation, engages several units across campus, including the NREL, the Ecosystem Science and Sustainability department, the Materials and Molecular Analysis Center (part of the CSU Analytical Resources Core), the department of Chemistry, the WM Keck Metabolism Collective and others. The primary goal of this position is to isolate and identify soil microorganisms capable of novel carbohydrate anabolism and catabolism and to understand how and why these microorganisms carry out these functions. To that end, the researcher will (1) use analytical platforms for understanding and characterizing the metabolic pathways by which rare carbohydrates are synthesized and consumed with the goal of (2) functionally characterizing these organisms, processes, enzymes, and genes. These positions are initially for one year with the potential for a one- to two-year extension based on performance.

Responsibilities

Research 75%: Conduct soil and culture-based experiments to understand transformations of rare sugars. Characterize small molecules and protein products that are involved in rare sugar metabolism. Train and supervise activities of RAs and student hourlies. Project Management 10% Manage timelines of many experiments that are all dependent on each other by close interaction and communication with all project participants to ensure project success within the allocation time allotted.

Manuscript Writing 10%: Write primary research manuscripts, potential review papers and white papers by synthesizing, analyzing and interpreting the results to effectively disseminate the results to the scientific community as well as the public. Work with team members to develop outlines and draft text for peer-review manuscripts. Submit manuscripts to peer review journals and address comments from reviewers.

Hiring organization

Colorado State University

Employment Type

Full-time

Job Location

Fort Collins, CO

Date posted

September 24, 2021

Valid through

04.10.2021

Grant Proposal Writing 5%: Develop new ideas in collaboration with supervisor. Assist with the writing grant proposals to state, federal, industry and other granting institutions to acquire future funding for this position.

Qualifications

Required:

- Candidates should have completed Ph.D. degree in Biochemistry, Microbial Ecology, Microbiology, Microbial Physiology, or other closely related field at time of application.
- Mass spectrometry experience
- Sound understanding of central carbon metabolism
- Experience elucidating novel biosynthetic pathways
- Demonstrated potential for independent research
- Excellent work ethic, ability to work independently and in a team
- Demonstrated ability to synthesize information and publish in peer-reviewed journals

Preferred:

- Experience with microbial physiology and microbial interactions with the environment
- Experience with stable isotope-assisted metabolomics• Experience with proteomics
- Advanced knowledge of carbohydrate transformations and transformation rates
- Previous experience working with soil organic matter cycling and stabilization
- Experience supervising students or other lab employees

Contacts

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