

Title - Postdoctoral Fellow - Protein Engineering

Organization - Smith College

Location - Northampton, MA

Website - https://smithcollege.wd5.myworkdayjobs.com/smithcollege/job/Smith-College/Postdoctoral-Fellow_R-202300755

Email - lgiddings@smith.edu

Job Description - The Department of Chemistry at Smith College invites applications for a 2-year, full-time, benefits-eligible Postdoctoral Fellow within the laboratory of Dr. Lesley-Ann Giddings. The Giddings lab studies microbial secondary metabolism in extreme environments and seeks a Postdoctoral Fellow to conduct research on the kinetic characterization and evolution of enzymes involved in siderophore biosynthesis. This project is funded by the National Science Foundation grant, CAREER: Characterization and Evolution of N-hydroxylase Biocatalysts: Solutions to Catalysis and Remediating Metal Pollution. A Ph.D. in Chemistry, Biology or related areas is expected by the time of appointment and the desired start date is Spring 2024. Women, historically underrepresented minorities, veterans, and individuals with disabilities are encouraged to apply.

Responsibilities - The goal of the project is to use a yeast-based activity screen to directly evolve siderophore biosynthetic enzymes to accept unnatural substrates as well as characterize new enzymes from metal-polluted environments. Specific experimental goals include developing and using a high throughput yeast-based screen for directed evolution, preparing mutant and DNA libraries, performing metagenomic sequencing, protein expression and purification, and enzyme kinetics. Relevant publications include PLOS ONE, PMID: 33784308 and PMID: 32785287. Other responsibilities include co-writing peer-reviewed articles, mentoring undergraduate researchers in the laboratory, and participating in weekly lab meetings. Participation in undergraduate courses is possible although not required. Candidates will also be provided financial support for conferences/workshop travel and career development.

Minimum Qualifications - Ph.D. in chemistry, biology, chemical or biomedical engineering, or a related discipline.

Skills- Mutagenesis, protein expression and purification, enzyme kinetics, and the ability to write scientific manuscripts in a timely manner.

Preferred Qualifications- An ideal candidate will have expertise in performing protein engineering in yeast, metagenomic sequencing, and/or bioinformatic analyses.

Contact - Lesley-Ann Giddings, lgiddings@smith.edu