

## Research Associate (Postdoc) – Bacterial Genetics, Systems Biology

Location – University of Wisconsin-Madison, U.S.A.

Expected start date – September 30, 2023

Application deadline – August 31, 2023

### *Job description*

A postdoctoral research position is available in Jason Peters's lab at the University of Wisconsin-Madison (<https://sites.google.com/wisc.edu/jasonpeterslab/home>) to use CRISPR-based functional genomics approaches to study bioenergy-relevant  $\alpha$ -Proteobacteria (e.g., *Zymomonas*, *Rhodobacter*, and *Novosphingobium*) as part of the Great Lakes Bioenergy Research Center ([www.glbrc.org](http://www.glbrc.org)).

We seek a motivated candidate to join our lab to identify and characterize genes that lead to increased biofuel/bioproduction yield. For instance, these genes may increase resistance to toxins found in plant feedstocks or mitigate inhibition by the biofuel/bioproduction itself.

The candidate will be responsible for constructing and phenotyping genome-scale CRISPR libraries in bioenergy-relevant  $\alpha$ -Proteobacteria, quantifying CRISPR screen results using Next Generation Sequencing (e.g., Illumina sequencing), bioinformatic analysis to identify and characterize screen hits, and follow up experiments to validate genes as potential engineering targets for biofuel/bioproduction production strains.

### *Required degree*

Ph.D. in Microbiology, Genetics, Molecular Biology, Systems Biology, Synthetic Biology, or related fields.

Candidates must be **within 2 years of PhD graduation** and Ph.D. must be granted by the start date.

### *Minimum requirements*

- Strong written and oral communication skills to collaborate and communicate effectively with a team of researchers from diverse scientific backgrounds.

### *Desired qualifications*

- Strong candidates will have knowledge of and skills in microbiology, genetics, and molecular biology.
- Experience in the genetic manipulation of model and non-model bacteria and/or synthetic biology, systems biology, and bioinformatics are highly desirable.

### *Required application materials*

Send a cover letter (up to 2 pages) describing your interest(s) in this position and relevant skills, a CV, and the name and contact information of three professional references.

To apply – Please direct completed applications to Jason Peters ([jason.peters@wisc.edu](mailto:jason.peters@wisc.edu)).

### *Additional information*

Initial appointment is available for one year with strong potential for continuation depending upon funding and performance. Salary is commensurate with experience, in accordance with the [NIH NRSA Stipend Level for Postdoctoral Trainees](#).

At GLBRC, we strive to provide a holistic and well-rounded experience to our postdoctoral trainees, and we recognize the importance of supporting their professional development needs to ensure their successful transition to the career of their choosing. To complement the scientific training received in their lab, postdocs at GLBRC can:

- Attend and present at scientific research symposiums and/or conferences.
- Access cross-discipline research environments and training opportunities within GLBRC and cross-BRCs.
- Benefit from integrated career and professional development support ([internal](#) and [external](#)).
- Take part in Outreach and Community Engagement opportunities.

#### *Departmental Statement*

The Great Lakes Bioenergy Research Center (GLBRC, [www.glbrc.org](http://www.glbrc.org)) is a cross-disciplinary and integrated research center funded by the U.S. Department of Energy (DOE) and led by the University of Wisconsin–Madison. With Michigan State University and other collaborators, GLBRC draws on the expertise of over 400 scientists to address today’s greatest challenges to produce transportation fuels and high-value chemicals while reducing greenhouse gas emissions.

Within the DOE-funded Bioenergy Research Centers (BRCs) program, GLBRC collaborates with three other BRCs, each led by a DOE National Laboratory or a top university. Interactions between the centers help forge strong partnerships within the bioenergy research community in the U.S. and abroad, as well as with industry and government partners.

GLBRC is committed to fostering a diverse, equitable, and inclusive environment that welcomes and supports everyone. We believe that a diverse research community is a prerequisite to conducting the foundational innovation necessary to achieve our mission. We strongly encourage applications from candidates who foster and promote these values.