Posting Title: Physical Biochemist/Biochemist

Requisition Number: 4084BR

Location: Golden, CO

Position Type: Postdoctoral Researcher

Hours Per Week: 40

Job/Research Summary:
The National Renewable Energy Laboratory (NREL), located at the foothills of the Rocky Mountains in Golden, Colorado is the Nation’s primary laboratory for research, development and deployment of renewable energy and energy efficiency technologies. NREL's Biosciences Center has an opening for a full-time (40 hours/week) Postdoctoral Research Associate to join the NREL team of the Biological Electron Transfer and Catalysis (BETCy) Center, a newly funded Department of Energy, Basic Energy Sciences, Energy Frontiers Research Center (EFRC). The broad goals of the BETCy Center, which includes teams at Montana State University (lead), Utah State University, University of Washington, Arizona State University, University of Kentucky, and University of Georgia are to integrate multi-disciplinary studies of microbial electron transfer networks, metallo-enzyme biochemistry, biophysics, and structural biology to advance understanding of electron bifurcation in biological energy conservation and for the production of reduced molecules.

The appointment is for one year; possible renewal for a second and a third year will depend on funding and performance.

Job Duties:
The postdoctoral researcher hire will conduct fundamental research on bifurcating hydrogenases and transhydrogenases using biochemical and biophysical techniques. Duties will include microbial cell culture, enzyme expression and purification, biochemical assays (e.g., redox mediators and mass spectrometry), and the preparation and poising of samples for EPR and FTIR spectroscopy. The candidate will also be expected to prepare result summaries for monthly meetings, and contribute to the preparation of manuscripts for publication.

In addition, the postdoc will be required to assist in maintaining laboratory equipment, participate in biweekly group meetings, present semi-annual group presentations, and to attend yearly scientific conferences.

Required Education and Experience:
Must be a recent PhD graduate within the last three years.

Additional Required Knowledge, Skills and Attributes:
- Ph.D. in Biochemistry, Biophysics, Physical Biochemistry, or related field.
- Experience with preparation (FPLC) and techniques for handling of oxygen sensitive enzymes and working under anaerobic conditions.
- Experience with anaerobic biochemical assays and redox reactions.
- Demonstrated ability to contribute and work in a multi-disciplinary team environment, ability to transition between experimental areas as project needs change.
Demonstrated excellence in scientific and technical writing, and a strong publication record.

Additional basic required knowledge skills and abilities:
- Experience with graphics and plotting programs (e.g., IGOR, Origin, etc.), and protein structure modeling programs (e.g., PyMol).
- Experience with ultrafast spectroscopic techniques and instrumentation.
- Electrochemical techniques for studying redox active enzymes.

Preferred Qualifications
- Preference will be given to candidates with experience in electron paramagnetic resonance (EPR), Fourier transform infrared (FTIR), and/or ultrafast transient absorbance spectroscopy techniques.
- Preference will be given to candidates with demonstrated experience with anaerobic microbiology as well as molecular biology techniques (e.g., DNA cloning, plasmid based gene expression, bacterial transformation).

Recruiter
Shervanne Thomas

Line Manager
Pin-Ching Maness

FLSA
Exempt

Salary Grade
0

EEO Policy
NREL is dedicated to the principles of equal employment opportunity. NREL promotes a work environment that does not discriminate against workers or job applicants and prohibits unlawful discrimination on the basis of race, color, religion, sex, national origin, disability, age, marital status, ancestry, actual or perceived sexual orientation, or veteran status, including special disabled veterans.

NREL validates right to work using E-Verify. NREL will provide the Social Security Administration (SSA) and, if necessary, the Department of Homeland Security (DHS), with information from each new employee’s Form I-9 to confirm work authorization. For additional information, please see [www.nrel.gov/employment/eeo.html](http://www.nrel.gov/employment/eeo.html).