DOE EFRC Systems Biology Post-Doctoral Research Associate

Tentative Start Date

November 1, 2014, Although other starting dates will be considered.

Duties and Responsibilities

A postdoctoral research position is available for the *in silico* study of metabolic electron fluxes for biofuels synthesis. The position will be the lead metabolic modeler for the new DOE Biological Electron Transfer and Catalysis (BETCy) EFRC Center lead by Montana State University. The multidisciplinary research will combine computational systems biology and experimental data and will require collaborating with fellow BETCy scientists (*e.g.* M. Adams, U of Georgia; C. Harwood, U of Washington; P. King NREL, Golden CO) to model, analyze and engineer electron fluxes for biofuels applications. The BETCy scientists study a number of well-characterized model systems which will serve as the bases for the computational research including hyperthermophile *Pyrococcus furiosus*, anoxygenic phototroph *Rhodopseudomonas palustrus* and acidophilic cellulose degrader *Clostridium thermocellum*. Travel to collaborators’ laboratories for training and experiments is expected. The candidate will be required to design and conduct experiments, implement research plans, develop required methods, prepare progress reports and publications. A successful candidate must possess excellent written, oral, and interpersonal communications skills and have the ability to work both independently and collaboratively with BETCy scientists. For more information on this research project, please contact Dr. Carlson.

Required Qualifications

Ph.D. in chemical engineering, biological/biochemical engineering, bioinformatics, biochemistry, microbiology, or related field with excellent computer skills and a proven track record of team work, creative research and peer-reviewed publications.

Preferred Qualifications

1. Experience in computational metabolic modeling such as flux balance analysis (FBA) or elementary flux mode analysis (EFMA).
2. Experience with microbial growth and analysis techniques.
3. Experience with modern techniques in systems biology such 13C fluxomics.

Application Procedure

Screening of applications will begin October 1, 2014 and will continue until position is filled. To apply, submit: (1) a letter of application that addresses the required and preferred qualifications listed above; (2) a curriculum vitae and (3) the names, addresses, e-mail addresses and telephone numbers of three professional references. Electronic submittals are preferred. MSU-Bozeman is an ADA/EEO/AA/Veteran’s Preference Employer.

Submit Materials to:

Ross Carlson, Ph.D.
Department of Chemical and Biological Engineering
Montana State University
306 Cobleigh Hall
Bozeman, MT 59717-3980
406-994-3631
rossc@erc.montana.edu