Postdoctoral Fellow, Transport in Porous Media and Biological Systems

R0114669

The Desert Research Institute in Reno, NV is accepting applications for a Postdoctoral Fellowship to participate in a project funded by the U.S. Department of Energy to conduct research aimed at understanding fundamental motion properties of motile microbes and upscale experimentally observed motion behavior to develop improved predictive models for bacterial transport and their role in metal bioremediation. The experimental part of the project will be conducted at the Environmental Molecular Sciences Laboratory (EMSL; [www.emsl.pnl.gov](http://www.emsl.pnl.gov)), located at the Pacific Northwest National Lab (PNNL). A Project team, consisting of DRI and EMSL scientists, will use microfluidic devices and advanced imaging techniques to conduct experiments with motile bacteria. Data obtained from micromodel experiments will be used to generalize and upscale bacterial transport to a broader range of pore geometries and flow conditions. The results will be used to parameterize effective transport and retention properties for field-scale models of bacterial transport and bioremediation.

This multidisciplinary position links ongoing research programs at DRI in biogeochemical and hydrologic sciences. The Fellow will have the opportunity to collaborate with hydrogeologists, hydrogeochemists, microbiologists, and numerical modelers developing flow and transport models as part of investigations in complex natural systems often coupled with unique contamination issues.

**Required Qualifications**

* Ph.D. in engineering, biophysical sciences, environmental sciences, hydrology, or other related discipline from an accredited institution
* Background in either theoretical or applied modeling of transport processes in natural systems
* Strong programming skills (MATLAB/C++/FORTRAN/Python preferred)
* Evidence of the ability to participate in and coordinate collaborative research
* Ability to work independently to fulfill project goals and meet project deadlines
* Ability to effectively analyze and report research findings to sponsors, at conferences, and in the scientific literature (clear written and spoken English)

**Compensation/Benefits**

Salaries are competitive and commensurate with qualifications, with continued appointment (assessed annually for up to a maximum of two years) being dependent upon performance and availability of funding. The successful candidate will be expected to participate in program development and reporting. Given satisfactory performance, and proven ability to generate research funding, this position has the potential to evolve into a regular research faculty position. This position is eligible for benefits and relocation; see Postdoctoral Fellow benefits summary for an overview: <http://www.dri.edu/careers/employee-benefits>.

Qualified individuals interested in this position must apply online at <https://nshe.wd1.myworkdayjobs.com/DRI-External/job/DRI---Reno-NV/Postdoctoral-Fellow--Transport-in-Porous-Media-and-Biological-Systems_R0114669-1>

To ensure full consideration, application packages should be received by April 4, 2019. Applicants can also apply after this date as the posting will stay open until filled.

For more detailed information about DRI, please visit us at www.dri.edu. For questions regarding this position or assistance with your application, please call the recruiting office at 702-862-5548.

**Required Attachments**

Please upload the following documents in the specified section:

* A cover letter detailing your research experience, career goals, project interests, and potential ties to DRI faculty and research programs
* A current curriculum vitae
* Contact information for three professional/work-related references, to be contacted at the appropriate phase of the recruitment process based on applicant permission

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*The Desert Research Institute (DRI) is an equal opportunity/ affirmative action employer and all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, age, sexual orientation, gender identity or expression, genetic information, national origin, political affiliation, disability status, protected veteran status or any other characteristic protected by law. DRI employs only U.S. citizens and persons lawfully authorized to work in the United States.*