

Postdoctoral Research Scholar

IIHR – Hydrosience & Engineering (<https://www.iihr.uiowa.edu/>) at the University of Iowa (<https://uiowa.edu/>) seeks a highly motivated postdoctoral research scholar to join Dr. Timothy Mattes' research group (<https://www.iihr.uiowa.edu/people/timothy-mattes/>). Pay is commensurate with experience. The appointment is full-time for 1 year, with the option for renewal for up to 3 years depending on performance, work needs, and funding. This is an immediate opening with a September 2022 start date. Applications will be considered until a successful candidate is identified.

Research will focus on elucidating mechanisms and interactions between dehalogenating microbial communities and black carbon materials that lead to improved bioremediation outcomes in laboratory-scale systems.

Key areas of responsibility include:

- Work independently on applied research projects with oversight by Principal Investigator (PI) Timothy Mattes.
- Perform experimental investigations to design, develop, test, and validate protocols for characterizing complex chlorinated-ethene respiring anaerobic microbial communities in the presence and absence of black carbon materials as needed.
- Collect, analyze and interpret laboratory chemical, molecular biology (DNA and RNA 'omics), and microscopy data obtained from an anaerobic dehalogenating microbial community in planktonic form and as a biofilm on material surfaces.
- Perform bioinformatics analysis of targeted and untargeted DNA and RNA sequencing data.
- Serve as a mentor to undergraduate and/or graduate students working on the project.
- Document and report research results to the research team, project sponsor, and in peer-reviewed literature.

The successful candidate will have the opportunity to work closely with faculty, staff, and students of IIHR-Hydrosience and Engineering (www.iihr.uiowa.edu), a national and global leader in environmental and fluids-related research, education, and service. The University of Iowa is one of the nation's top public research universities and is known around the world for its balanced commitment to the arts, sciences, and humanities. The University of Iowa is located in Iowa City, a community built around higher education, with vibrant cultural opportunities and a long history of international connections, leadership, and accomplishment. Iowa City offers the safe, friendly quality of life for which the Midwest is known. Information regarding some of the resources that the University of Iowa and the local area provide can be found at (<https://worklife.uiowa.edu>).

Required Qualifications: Ph.D. in a relevant science or engineering field (e.g., Civil & Environmental Engineering, Microbiology, Biotechnology or Bioengineering, etc.) prior to starting this position is required.

Experimental research experience in the broad area of environmental microbiology and bioremediation is required.

Desirable Qualifications:

Experience in culturing of anaerobic dehalogenating microorganisms, molecular microbial ecology methods (e.g., 'omics techniques), and bioinformatics analyses is highly desirable.

Experience performing fundamental or applied research related to interactions between microorganisms and material surfaces is desirable.

Applicants are required to submit a cover letter and resume/cv with a list of at least three references at <https://jobs.uiowa.edu/postdoc/view/3829>.

The University of Iowa is an equal opportunity/affirmative action employer. All qualified applicants are encouraged to apply and will receive consideration for employment free from discrimination on the basis of race, creed, color, religion, national origin, age, sex, pregnancy, disability, genetic information, status as a U.S. veteran, service in the U.S. military, sexual orientation, gender identity, associational preferences, or any other classification that deprives the person of consideration as an individual.