

Research Scientist

Carl R. Woese Institute for Genomic Biology
University of Illinois at Urbana Champaign

The Carl R. Woese Institute for Genomic Biology has an opening in a research group focused on evolutionary dynamics under environmental stresses. The Research Scientist will use a variety of geochemical, ecological, physiological, genomic and informatics methods to study response of microbes to variations in environmental conditions and the speed with which evolutionary adaptation takes place. The successful candidate will work as a member of an integrated team to oversight, coordinate, and integrate ongoing efforts to understand mechanisms and patterns of genome evolution in Yellowstone Hot Springs, extremely deep subsurface as well as the micro-environments with temporal and spatial antibiotic gradients.

Key Responsibilities:

The Research Scientist will develop geochemical, physiological, molecular and informatics tools for ongoing analysis of microbial evolution in natural and experimentally manipulated stresses and gradients. This will include conducting experiments to elucidate mechanisms of ecological, metabolic and other essential genetic functions as well as microbially mediated geochemistry. The Research Scientist will oversee ordering and budget expenditures for the external grants and supervise graduate and undergraduate research projects in consultation with the PI. Specific scientific duties will include:

- Analyze next generation sequencing data and compile the results from multiple environmental or experimental samples for evolutionary analyses
- Develop and implement statistical analyses of genomic data integrated across multiple levels (i.e. metagenomics, gene expression, protein expression and single nucleotide polymorphism).
- Develop and implement statistically robust, systems geobiology approaches to analyzing interactive mediation between microbes and different environmental conditions.
- Data analysis and presentation. Responsible for writing and presenting data as manuscripts and presentations at scientific meetings. Provide oral and written progress updates to PIs and other lab members.
- Assist and oversee with graduate and undergraduate research progress including development of protocols and guidance on new directions. The research scientist will supervise undergraduate students, and advise them on experimental protocols, experimental design, and new directions but the Professor will be the primary official mentor.

Minimum qualifications:

Experience and knowledge of experimental design, control and replication, knowledge of basic molecular techniques in microbiology, geochemical analyses, data analysis, presentation is required. Supervisory experience of research protocols and experience in informatics is preferred. Specific minimum qualifications include

- PhD in microbiology, environmental science, chemistry or a related field required.
- Molecular biology expertise
- Informatics skills, including meta-omic analyses
- Demonstrated ability to, and enthusiasm for, work in a multidisciplinary team
- Excellent organizational and communication skills

Desired Qualifications:

- Three years of experience beyond Ph.D. is preferred.
- Experience with field work and geochemical analyses
- Experience with extremophiles
- Hands-on experience with experimental design and analyses

Salary will be commensurate with experience and qualifications. This position is a 12-month, 100% time academic professional appointment with regular University benefits. The proposed starting date is negotiable after the close date.

Please create your candidate profile at <http://jobs.illinois.edu> and upload your letter of interest (including email address), resume and contact information for three professional letters of reference by May 13, 2016. Applicants may be interviewed before the closing date; however, no hiring decision will be made until after that date. All requested information must be submitted for your application to be considered. For further information regarding the application procedures, you may contact Kim Johnson, kljohns@igb.uiuc.edu.

Illinois is an equal opportunity employer and all qualified applicants will receive consideration for employment without regard to race, religion, color, national origin, sex, sexual orientation, gender identity, age, status as a protected veteran, status as a qualified individual with a disability, or criminal conviction history. Illinois welcomes individuals with diverse backgrounds, experiences, and ideas who embrace and value diversity and inclusivity. (www.inclusiveillinois.illinois.edu).