

REQ08679 Postdoctoral Fellow: Biogeochemistry

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Position Summary:

Florida Atlantic University is seeking a Postdoctoral Fellow (Geochemical) at the Harbor Branch Oceanographic Institute campus in Fort Pierce, FL. This position will be based in the Geochemical Sensing Lab and the candidate will work closely with Dr. Jordon Beckler, other members of the Geochemical Sensing Lab, and members of other labs involved in related research projects. The candidate will be the lab's lead researcher of a large, multi-institution, multiple investigator project focusing on the chemical ecology of harmful algal blooms of Lake Okeechobee. While Lake Okeechobee is a freshwater body, its waters discharge to both the Gulf of Mexico and Atlantic Ocean, creating environmental problems on both coasts. As such, we are partnering with primarily oceanographic agencies and institutions, with many opportunities to interact with both limnologists and oceanographers. As the interactions of *Microcystis aeruginosa* with sediments are a principle research theme, the ideal candidate will have a strong background in sediment geochemistry, specifically, redox processes and nutrient dynamics.

Over the duration of the project, the candidate will lead the development, testing, and deployment of multiple benthic landers to Lake Okeechobee lake bottom, while organizing and conducting the collection of ancillary validation data. The landers will be equipped with in situ electrochemical analyzers as well as benthic flux chambers, with one deployed over short discrete intervals, and the other monitoring sediment redox conditions over extended periods (weeks to months). The goal is to coordinate benthic and sediment redox oscillations with nutrient pore water concentrations and fluxes, measured in situ but also in sediment cores (collected by diver), ultimately revealing connections to algae blooms. The candidate will conduct statistical, harmonic, or diagenetic analyses/modeling to reveal these trends. The candidate is expected to author several scientific publications resulting from the work, including a methods-based journal article as well as traditional research reports. There will be opportunity for travel to state and national conferences. There is also likely to be numerous opportunities for media appearances given the importance of the environmental issue in Florida and nationally.

Summary of Responsibilities Include:

Manage the testing and deployment of novel in situ instrumentation, including seafloor benthic landers with sediment flux analyses equipment and in situ electrochemical analyses.

Participate in regular field sampling events.

Compare these datasets to other routinely collected sediment and water column samples.

Coordinate and conduct chemical analyses on water and sediment samples, including a combination of dissolved and solid phase nutrients and trace metals (spectrophotometry, electrochemistry, TOC analyzer, ion chromatography).

Prepare sediment samples for algal toxin analyses (via external analytical lab).

Maintain accurate data records, ensure data are compliant with lab standards, and regularly update lab database.

Assist or lead budgeting, literature research, and writing proposals, QA/QC documents, manuscripts, and reports.

Minimum Qualifications:

Ph.D. from an accredited institution in Environmental Sciences, Environmental Chemistry, Biogeochemistry, Oceanography, or related area of specialization by the time of application required.

Experience with sediments is preferred.

Extensive knowledge of biology and chemistry lab practices, procedures, and equipment. Must be familiar with lab safety standards, including proper labeling, storage, and disposal of chemicals. Independent problem solving and troubleshooting may be required to resolve any issues that arise and corrective action taken as needed.

Must be capable of collecting data following SOPs, ensuring data integrity and validity.

Must be able to interpret data and make inferences that can relate to future research studies.

Individual must be motivated, organized, and be able to work independently and as part of a team.

Occasional flexible hours are expected, including potential evening and weekend schedules as required for project needs.

A valid Florida driver's license is required or ability to obtain a Florida driver's license within 30 days.

Knowledge of boat operation or the willingness to learn to operate a boat is required.

The ability to lift up to 75 lbs.

Salary:

\$52,000

College or Department:

Harbor Branch Oceanographic Institute

Location:

Harbor Branch (HBOI) campus in Fort Pierce, Florida

Application Deadline:

Posted until filled.

Special Instructions to Applicant:

This position is open until filled and may close without prior notice.

All applicants must apply electronically to the currently posted position on the Office of Human Resources' job website (<https://fau.edu/jobs>) by completing the required employment application for this recruitment and submitting the related documents.

The site permits the attachment of required/requested documentation. In addition to completing the online application, please upload the following: a cover letter, curriculum vitae, and copies of official transcripts scanned into an electronic format.

PLEASE NOTE: A maximum of five (5) documents may be attached to your application. If more than five (5) documents are required for submission, please combine additional documents into one attachment to not exceed the maximum permitted.

Degrees from outside the United States must be validated by an organization belonging to the National Association of Credential Evaluation Service (NACES), with an indication of the documents the evaluation was prepared from (official transcripts, diplomas, dissertation abstracts). The evaluation should be scanned and electronically attached to one's application as with other US-based transcripts.

Prior to appointment, the candidate must submit official, sealed transcripts from all institutions where graduate coursework was attempted, whether or not a degree was obtained, as well as an original NACES evaluation, if applicable. Transcripts must be issued to Florida Atlantic University not to you as the student.

A background check will be required for the candidate selected for this position. This position is subject to funding.

Individuals requiring accommodation, please call 561-297-3057. 711

This position is funded with recurring grant funds with an expiration date on December 31, 2021. Renewal of funding is anticipated; however, not guaranteed