

Post-doctoral Research Associate for Convergence Research in Engineering Coral Restoration

We seek a post-doctoral research associate for an NSF-funded Convergence Research project. This exciting and interdisciplinary project aims to address the fundamental problem blocking robust coral reef recovery: recruitment and survival of coral juveniles. The goal is to comprehensively test settlement surface designs and materials in various flow regimes to produce improved surfaces for coral research and restoration. The project combines expertise, methods, and researchers from engineering (materials and mechanical) and biology (microbiology, coral reef science, biomineralization and geobiology) to make transformative advances in coral reproduction and juvenile survival. The research has the potential to have immediate application to the global restoration of threatened, ecologically-important, foundational marine species. Outcomes of the Convergence Research will also have relevance and long-term application to diverse fields including antifouling, aquaculture, biofilms, and bioactive materials.

The project is a collaboration between researchers at the University of Illinois at Urbana-Champaign, CARMABI Research Station in Curaçao, and San Diego State University.

Qualifications: Applicants should have completed a Ph.D. preferably in an Engineering or Physical Sciences-related field before starting the position. Strong candidates will have strong engineering/physical science skills and be willing to travel. Other relevant experience includes materials characterization (e.g. SEM, TEM, XRD, AFM, spectroscopy), experimental fluid mechanics (flow visualization, PIV/PTV, quantitative image analysis), and statistical analysis.

The post-doctoral researcher will divide research time between University of Illinois at Urbana-Champaign and the CARMABI Research Station in Curaçao, conducting field research. The candidate will have opportunities to receive appropriate dive training as needed.

Due to the dynamic and cross-disciplinary nature of the project, preference will be given to applicants who are particularly enthusiastic about team science and convergence research and who demonstrate effective communication (written and verbal) and team-working skills.

Appointment: The start date is as soon as possible. The initial appointment will be 12 months, renewable contingent on satisfactory performance.

Application procedure: Applications should include (1) a statement of experience, career goals, and research vision and interests relevant to the project, (2) curriculum vitae, (3) reprints of relevant publications, and (4) the names and contact information of three references who can provide letters of recommendation. Please email all materials as a single pdf document to both Prof. Amy Wagoner Johnson (ajwj@illinois.edu) and Dr. Kristen Marhaver (kristen@marhaverlab.com) with 'PostDoc Application – Convergence Research' in the subject line.

Applications will be reviewed as they are received and candidates considered until the position is filled. To ensure full consideration, applicants should submit applications by December 15th, 2020

Underrepresented groups in engineering and science are especially encouraged to apply.

The University of Illinois is an Equal Opportunity, Affirmative Action employer For information, <http://go.illinois.edu/EEO>. To learn more about the University's commitment to diversity, please visit diversity.illinois.edu. Information on the University of Illinois COVID response is at covid.illinois.edu