



Post-Doctoral Position
Microbial Source Tracking & Direct Pathogen Testing
Dauphin Island Sea Lab & University of South Alabama

The Dauphin Island Sea Lab seeks a post-doctoral researcher to support an EPA-funded project on microbial source tracking for coastal ecosystem and human health under the direction of Drs. Ruth H. Carmichael and Brandi Kiel Reese. The Postdoctoral Investigator will join a highly productive, multidisciplinary research team that leverages existing knowledge and established partnerships to conduct community-driven, spatially explicit water-quality analyses focused on impacts and benefits to disadvantaged and vulnerable coastal communities.

Work will assess potential health risks from water use (e.g., fishing, swimming) by defining wastewater-derived microbial sources to the waterways using traditional (fecal coliform, E. coli, MSC, direct pathogen testing), biogeochemical (nutrient, stable isotope), and advanced (genomics) microbial source-tracking approaches. Community engagement and integration is inherent in the project and outreach will be a major component of the work.

The Postdoctoral Investigator will help lead this newly funded research study in coastal Alabama. Responsibilities include assisting with data collection, analyses and interpretation; interacting with project partners and community members; project reporting; helping to supervise graduate and undergraduate students or interns; publishing papers from new and existing datasets; working closely with team members on related ongoing projects; developing new lines of inquiry that build on the core research studies; and disseminating data through scientific meetings and public presentations.

Applicants should have expertise in sample preparation and analysis for traditional microbial source tracking using established methods (e.g., EPA, FDA) for bacterial and viral indicators (fecal indicators) and/or for direct pathogen detection (e.g., norovirus, adenovirus, toxoplasma, others). Familiarity with or interest in learning nutrient analyses and stable isotope determination and knowledge of appropriate statistical methods and software programs to support analyses is required. Knowledge of genomic methods, bioinformatics, isotope mixing models or other modeling approaches, and co-production of research products is a plus but not essential to the position. Prior experience with student mentoring and project management preferred.

Applicants must hold an earned Ph.D., be fluent in written and spoken English, and be legally able to work in the USA at the time of application, without dependence on future institutional sponsorship. To apply, submit a letter of application and research interest, CV, 1-2 recently published works, and the names and contact information for at least three references by email to MSTpostdoc@disl.org. Inquiries may be sent to rcarmichael@disl.org. Review of applications will begin immediately and continue until the position is filled, with a preferred starting date in spring 2025. Salary highly competitive.
AA/EEO/M/F/D