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Georgia Southern University

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Application of rapid molecular methods allow for rapid response to mitigate waterborne disease outbreaks within hours and identify the sources of contamination accurately. Implementing these methods in routine monitoring programs at the local level needs good laboratory practice and precision in data acquisition. Georgia Southern University recently participated in a nationwide study directed by the United States Environmental Protection Agency (USEPA) to assess a new quantitative polymerase chain reaction method. The results of the study proposed data acceptance criteria to help evaluating the technical quality of future findings from the method.

“Standardized data quality acceptance criteria for a rapid *Escherichia coli* qPCR method (Draft Method C) for water quality monitoring at recreational beaches” was recently published in the journal *Water Research*.

Dr. Asli Aslan, assistant professor of environmental health sciences at the Georgia Southern University Jiann-Ping Hsu College of Public Health was a co-author of this study.
Researchers Participate in National Study to Evaluate Performance of New USEPA Method for Monitoring Recreational Waters

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Rapid molecular methods such as quantitative polymerase chain reaction (qPCR) allow for rapid response to mitigate waterborne disease outbreaks within hours and identify the sources of contamination accurately. United States Environmental Protection Agency (USEPA) has just recently published a new qPCR method to target for *Escherichia coli* (a fecal indicator bacterium to test for sewage pollution in water). Current recreational water quality criteria recommend states to adopt qPCR as a rapid method for routine monitoring. Georgia Southern University recently participated in a nation-wide study directed by the USEPA to assess this new method. The results of the study proposed a more standardized protocol for new laboratories adopting this method at the local level, and provide guidance on the preparation, storage, and handling of the samples, reference and control materials.

“Evaluation of multiple laboratory performance and variability in analysis of recreational freshwaters by a rapid *Escherichia coli* qPCR method (Draft Method C)” was recently published in the *Water Research* journal.

Dr. Asli Aslan, assistant professor of environmental health sciences at Georgia Southern University Jiann-Ping Hsu College of Public Health was a co-author of this study.