Risk awareness of disease and infection undergraduate study (RADIUS) combining teaching, research and community service

RADIUS (Risk Awareness of Disease and Infection Undergraduate Study) is a multipurpose project aimed at using modern biotechnology to investigate the presence of parasitic and microbial contaminants in public parks, playgrounds and public swimming pools in Zanesville, Ohio and provide Ohio University students with a superior learning experience through a field-based, hands-on and problem-based curriculum centered on scientific and critical thinking. Launched in the Fall-2007, RADIUS involved over 100 OUZ undergraduate students who collected swab and soil samples from public places and analyzed them in the lab using both biochemical and molecular approaches. Many bacterial and fungal pathogens have been identified. The project exposes students to modern biotechnology and its application to identify the potential environmental and epidemiological risk factors and the dynamics of infectious agents in the local community. The RADIUS activities represent a pilot model for incorporating biotechnology in teaching and learning, foster student-faculty research while providing service to the community. Initial feedback and outcomes indicated the value of this form of improved undergraduate learning and community service.

Biography
Mohannad Al-Saghir has joined Ohio University in 2006 and holds a PhD in Biology with Microbiology and Plant Biology focus. His research is centered on microbial evolution, medical microbiology and plant systematics and evolution. He is an Associate Professor of Biological Sciences at Ohio University Zanesville, USA. His most recent publication is “Immunohistochemical Localization of Aspergillus and p53 in human lung tissues” published in American Journal of Molecular Biology in 2015.

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