AAUW Greensboro Branch Newsletter for May 2024

Sarah Lewers

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Article Picture:



Biographical Information:

Sarah Lewers is a candidate for the Master of Science in Nanoengineering graduate degree program at the Joint School of Nanoscience and Nanoengineering in Greensboro, North Carolina. She is graduating in the Class of 2024. This is her third Master of Science degree to continue work in an Engineering career. Sarah is from Charlotte, North Carolina and joined the American Association of University Women as a graduate student in 2023. She previously completed an undergraduate degree in Chemical Engineering from North Carolina Agricultural and Technical State University for the Class of 2011. Since then, her work experience includes an engineering internship at the Air Force Research Laboratory Scholars Program at Eglin Air Force Base, graduate engineering assistantships, a certification in Environmental Health and Safety for the Interdisciplinary Environmental certificate program, a certification in Nanoengineering for Systems and Synthetic Biology, and previously graduated from the Master of Science degree programs for Technology Management and Information Technology in the College of Science and Technology at North Carolina Agricultural and Technical State University. In addition to coursework, her goals include writing an engineering Master’s Project; “Catalyzing Innovation in Nanocellulose Research: A Comprehensive Scoping Review and Educational Methodology Design.” This Master’s Project document is for innovative nanobiology research in Systems and Synthetic Biology during her work experience for the Dr. Kristen Dellinger Lab team. The lab mission: Our lab is comprised of interdisciplinary researchers committed to applying nanotechnology to develop solutions that benefit all communities and inspire the next generation of scientists and engineers. We do this through innovative research, collaborative teamwork, and effective communication. In our laboratory, we: (1) design and evaluate biosensors for the early detection of multifactorial diseases, such as cancer, Alzheimer’s and Parkinson’s disease; (2) explore the potential of extracellular vesicles to treat and diagnose diseases; (3) engineer functionalized nanoparticles and 2D platforms to create integrated optical sensors for biomedical and environmental applications.