



Mary E. Durbin

Research Assistant

NSF-NIEHS Oceans & Human Health Center Role: Research Experience for Undergraduates (REU) NSF OHH Award Recipient

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Education

- University of Miami Senior- Major: Environmental Engineering (Current)
- Broward Community College (August 1999 – August 2002)
Associate of Arts Degree, Graduated with Honors

Research Interests

My interests to this point have been greatly influenced by my education. Academically, I have taken engineering design classes, environmental microbiology, and have completed a year long Senior design project that entailed several areas, including; site assessment, cost analysis, and wastewater treatment plant upgrades, closures and turning an existing wastewater treatment plant into a reclaim facility.

I was fortunate to have received the Research Experience for Undergraduates (REU) this past year. It has allowed me to excel in research, that I may not otherwise have had the opportunity to experience. This funding has enabled me to perform research, write for publications, present at conferences, and to continue to learn as much as I can within the engineering science. These new experiences are far beyond what the classroom can teach. The situations I encounter with many professionals are providing me an on going learning atmosphere. Working as an active researcher is exciting and extremely interesting to me. My previous experiences, specifically in the COHH, have given me a jump-start into an exciting program that I hope will continue into my graduate education. My interest include assisting in these three areas: Intensive Environmental Monitoring, Sediment Study, and Microbe Monitoring Using Traditional Methods. I have previously met many of the professionals working with the COHH, and their vast experience and knowledge is inspiring. I wish to pursue my graduate studies and to be surrounded by successful individuals who aspire to work in a collaborative manner to better the environment. The REU has allowed me the opportunity to hone my scientific skills.

My research to date enabled me to win a student paper presentation for Florida Branch-ASM. Much of my success is the result of my REU experience. I have built relationships with COHH scientists, and am very excited about my association with the Center, particularly the environmental monitoring research. I am looking forward to continued participate in the future studies.. I believe my well-rounded personal strengths and scientific abilities will be an asset to the Center for Oceans and Human Health, as well as the learned approaches from all the professional I am surrounded by.

Publications and Presentations

Durbin, M.E., Zaher, A.M., Heybeck, N.F., Solo-Gabriele, H.M., Elmir, S., Goodwin, K.D., and Sinigalliano, C., 2005. The Source of Enterococci to a Subtropical Recreational Beach is the Inter-Tidal Zone. *Proceedings of the 105th General Meeting of the American Society for Microbiology*. (Abstract). (Poster Presentation).

Solo-Gabriele, H., Townsend, T., **Durbin, M.**, Dubey, B., Jacobi, G., 2005. *Educational Outreach and Stain Distribution Project for Identifying Copper-Treated Wood*, Final Technical Report #0232003-05. Florida Center for Solid and Hazardous Waste Management, Gainesville, FL.

Solo-Gabriele, H.M., **Durbin, M.E.**, Abdelzaher, A.M., Heybeck, N.F., Elmir, S., Goodwin, K.D., and Sinigalliano, C., 2005. Factors that Influence Fecal Indicator Microbe Levels. *Proceedings of the Annual Meeting of the Florida Branch of the American Society for Microbiology*. (Abstract).

Durbin, M.E., Zaher, A.M., Heybeck, N.F., Solo-Gabriele, H.M., Elmir, S., Goodwin, K.D., and Sinigalliano, C., 2005. The Source of Enterococci to a Subtropical Recreational Beach is the Inter-Tidal Zone. *Proceedings of the Annual Meeting of the Florida Branch of the American Society for Microbiology*. (Abstract). (Student Paper Presentation- First Prize).

Shalat, S.L., Solo-Gabriele, H.M., Fleming, L.E., Buckley, B.T., Black, K., Jimenez, M., Shibata, T., **Durbin, M.**, Graygo, J., Stephan, W., Van De Bogart, G., 2005. *A Pilot Study of Children's Exposure to CCA-Treated Wood from Playground Equipment*. Submitted to National Institute of Environmental Health Sciences (NIEHS-P30 ES05022) Centers at E.O.H.S.I. (jointly sponsored by UMDNJ-RWJMS and Rutgers the State University of New Jersey) and at the Rosenstiel School of Marine and Atmospheric Sciences (NIEHS-P30 ES05705) University of Miami, FL.

Solo-Gabriele, H., Townsend, T., Dubey, B., **Durbin, M.**, and Jacobi, G., 2004. *Educational Outreach and Stain Distribution Project for Identifying Copper-Treated Wood*, Draft Technical Report #04-XX. Florida Center for Solid and Hazardous Waste Management, Gainesville, FL.

Solo-Gabriele, H., Townsend, T., **Durbin, M.**, Fishbain, T., 2003. *Management and Disposal Options for CCA-Treated Wood Waste*, Final Technical Report. Florida Center for Solid and Hazardous Waste Management, Gainesville, FL.