

CURRICULUM VITAE
DeEtta Kay Mills
Department of Biological Sciences
Florida International University, Miami, FL 33199

EDUCATION

Degree	Institution	Field	Dates
PhD	George Mason University	Environmental Science & Public Policy	1996-2001
MS	Texas Christian University	Biology	1991-1993
BS	University of Kansas	Biology (Honors)	1987-1988

FULL-TIME ACADEMIC EXPERIENCE

Institution	Rank	Field	Date
Florida International Univ	Assistant Professor	Biology/Forensics	Aug 2011-present
Florida International Univ	Lecturer	Biology/Forensics	Aug 2005-Aug 2011
Florida International Univ	Post-doc	Biology	Jul 2002-Feb 2004

PART-TIME ACADEMIC EXPERIENCE

Institution	Rank	Field	Date
Florida International Univ	Honors College Fellow/Lecturer	Biology	Aug 2005-Jun 2009
N. VA Community College	Instructor	Biology	Jan 1994-May 1994

NON-ACADEMIC APPOINTMENTS

Place of Employment	Title	Dates
Florida International Univ	Director, Forensic DNA Profiling Facility, International Forensic Research Institute	Feb 2004-present
Florida International Univ	Manager, DNA sequencing CORE Facility	Jan 2001-July 2002
Center for Devices and Radiological Health, FDA Radiation Biology Branch	Research Biologist	Mar 1994-Mar 1996
Smithsonian Tropical Research Institute, Panama	Senior Research Assistant	Feb 1989-Apr 1991

EMPLOYMENT RECORD AT FIU

Rank	Dates
Assistant Professor	Aug, 2011-present
Lecturer/Graduate faculty	Aug 2002-Aug 2011
Director, Forensic DNA Profiling Facility, International Forensic Research Institute	Feb 2004-present
NSF ADVANCE Fellow	Feb 2004-Jan 2008
Manager, DNA sequencing CORE Facility	Jan 2001-July 2002

PUBLICATIONS IN DISCIPLINE (23 total, 14 since joining FIU).

Dananjeyan, B[#], Doud, M, Schneper, L, **Mills, D[^]**, Mathee, K, 2013. Long-term organic nutrient management fosters the eubacterial community diversity in the Indian semi-arid alfisol as revealed by length heterogeneity-PCR, Communications in Soil Science and Plant Analysis, (accepted, awaiting publication).

Entry, J, **Mills, D[^]**, Jayachandran, K, Sojka, R, 2013. High polyacrylamide application rates do not affect eubacterial structural diversity, Water, Air and Soil Pollution 224:1-10.

Moreno, L[#], **Mills, D[^]**, Fetscher, J, John-Williams, K, Meadows-Jantz, L, McCord, B. 2011. The application of amplicon length heterogeneity PCR (LH-PCR) for monitoring the dynamics of soil microbial communities associated with cadaver decomposition. Journal of Microbiological Methods, 84:388-393.

Mendoza, M[#], **Mills, D[^]**, Lata, H, Chandra, S, El Sohly, M, Almirall, J, 2009. Genetic individualization of *Cannabis sativa* by a short tandem repeat multiplex system. Analytical and Bioanalytical Chemistry, 393:719–726.

Entry, J, **Mills, D[^]**, Mathee, K, Jayachandran, K, Sojka, R, Narasimhan, G, 2008. Influence of irrigated agriculture on soil microbial diversity, Applied Soil Ecology, 40:146-154.

Mills, D[^], Entry, J, Voss, J, Gillevet, P, Mathee, K, 2007. Minireview: Assessing microbial community diversity using amplicon length heterogeneity PCR, Soil Science Society of America Journal, 71: 572-578.

Voss, J[#], **Mills, D[^]**, Myers, J, Remily, E, Richardson, L, 2007. Black band disease microbial community variation on corals in three regions of the wider Caribbean. Microbial Ecology, 54:730-739.

Voss, J[#], Richardson, L, **Mills, D[^]**, 2007. Variation in microbial community profiles associated with black band disease of corals, Microbial Ecology, 57:496-503.

Mills, D[^], Entry, J, Voss, J, Gillevet, P, Mathee, K, 2006. An assessment of the hypervariable domains of the 16S rRNA genes for their value in determining microbial community

- diversity: the paradox of traditional ecological indices. *FEMS Microbiology Ecology*, 52:496-503.
- Moreno, L[#], **Mills D[^]**, Entry, J, Sautter, R, Mathee, K, 2006. Microbial metagenome profiling using amplicon length heterogeneity-polymerase chain reaction proves more effective than elemental analysis in discriminating soil specimens, *Journal of Forensic Sciences*, 51:1315-1322.
- Yang, C[#], Wang, Y, **Mills, D[^]**, Mathee, K, Jayachandran, K, Sikaroodi, M, Gillevet, P, Entry, J, Narasimhan, G, 2006. Ecoinformatics tools for microbial diversity studies: Supervised classification of amplicon length heterogeneity (ALH) profiles of 16S rRNA, *Journal of Microbiological Methods*, 65: 42-63.
- Sekar, R, **Mills, D[^]**, Remily, E, Voss, J, Richardson, L, 2006. Microbial communities in the surface of mucopolysaccharide layer and the black band microbial mat of black band-diseased *Siderastrea siderea*, *Applied and Environmental Microbiology*, 72: 5963-5973.
- Viehman, S. [#], **Mills, D[^]**, Meichel, G, Richardson, L, 2006. Culture and identification of *Desulfovibrio* spp. from corals infected by black band disease on Dominican and Florida Keys reefs, *Diseases of Aquatic Organisms*, 69:119-127.
- Richardson, L, **Mills, D**, Remily, E, Voss, J, 2005. Development and field application of a molecular probe for the primary pathogen of the coral disease white plague Type II, *Revista de Biologia Tropical*, 53: Suppl 1-10.
- Mills, D[^]**, Fitzgerald, K, Litchfield, C, Gillevet, P, 2003. A comparison of DNA profiling techniques for monitoring nutrient impact on microbial community composition during bioremediation of petroleum-contaminated soils, *Journal of Microbiological Methods*, 54:57-74.
- Stern, R, Beer, J, **Mills D[^]**, 1999. Lack of consensus among experts on the choice of UV therapy for psoriasis, *Archive of Dermatology*, 135:1187-92.
- Stern, R, **Mills, D[^]**, Krell, K, Zmudzka, B, Beer, J, 1998. HIV-positive patients differ from HIV-negative patients in indications for and type of UV therapy used. *Journal of American Academy of Dermatology*, 39:48-55.
- Mills, D[^]**, Hartman, P, 1998. Lethal consequences of simulated solar radiation on the nematode, *Caenorhabditis elegans* in the presence and absence of photosensitizers. *Photochemistry and Photobiology*, 68:816-823.
- Knowlton, N, Weigt, L, Solorzano, A, **Mills, D[^]**, Bermingham, E, 1993. Divergence in proteins, mitochondrial DNA, and reproductive compatibility across the Isthmus of Panama, *Science*, 260:1629-1632.

Key= [^] 1st or co-author, * = technical mentor, # = I mentored the graduate student on project.

PROCEEDING PUBLICATIONS

White Paper: The Global Genome Question: Microbes as the Key to Understanding Evolution & Ecology, 2004. American Academy of Microbiology, Washington, DC (*invited academy participant and contributor to White paper with multiple contributors*).

Mills, D[^], Entry, J, Mathee, K, Jayachandran, K, Sojka, R, Busscher, W, 2003. Irrigated agriculture and tillage practices impact microbial community structure. Proceedings of the International Soil Tillage Research Organization, 16th Triennial Conference, Brisbane, Australia, July 2003.

Mills, D[^], Fitzgerald, K, Gillevet, P, Litchfield, C, 1999. Molecular monitoring of microbial populations during bioremediation of contaminated soils, p. 143-148. *In* B. C. Alleman and A. Leeson (ed.), *Bioreactor and Ex Situ Biological Treatment Technologies*, vol. 5(5). Battelle Press, Columbus, OH.

Knowlton, N and **Mills, D**[^], 1992. The systematic importance of color and color pattern: Evidence for complexes of sibling species of snapping shrimp (Caridea: Alpheidae: *Alpheus*) from the Caribbean and Pacific Coasts of Panama, Proceedings of the San Diego Society of Natural History, 18:1-5.

Key= [^] **1st or co-author**

PRESENTED PAPERS AND LECTURES BY MILLS

Pratte, A, **Mills, D**, Richardson, L, 2012. Changes in the microbial community composition in the surface mucopolysaccharide layer of corals transferred from natural to aquaria settings. ICRS, Cairnes, Australia (*platform*).

Mills, D, 2012. Man or Microbe? Non-human DNA in the courts. IFRI Annual Forensic Symposium, Florida International University, Miami, FL (*platform*).

Zayas, J, Mendoza, M, **Mills, D**, 2011. Diversity of two critical genes, *cel48* and *mcrA*, involved in biogeochemical carbon cycling in different soil types in Miami-Dade County, FL; Gordon Research Conference (Applied and Environmental Microbiology), Mount Holyoke College, South Hadley, MA (*poster*).

Mills, D, 2011. Application of separation science to the interpretation of complex metagenomes: An overview of collaborative research efforts between Florida International University and RPI, Rensselaer Polytechnic Institute, Department of Chemistry, Troy, NY (*platform*).

Mills, D, 2009. Forensic Research Projects at FIU's Forensic DNA Profiling Facility: A summary presented at FIU's "Meet the FIU Researchers lecture series", Florida International University, Miami, FL. (*platform*).

- Mills, D**, 2009. Bugs, Horses, Plants and Microbes: The growing field of non-human DNA forensics, Miami Science Museum (*platform*).
- Mills, D**, 2009. The “CSI effect” & beyond Human DNA, Alliance of the American College of Allergy, Asthma & Immunology, Miami Beach, FL (*platform*).
- Mills, D**, Voss, J, Sekar, R, Richardson, L, 2006. Amplicon length heterogeneity, a tool to investigate coral microbial communities, Ocean Science Meeting, Honolulu, HI (*platform*).
- Mills, D**, Furton, K, 2005. Graduate student and forensic research at Florida International University’s Forensic DNA Profiling Facility: A summary. ACS Florida Annual Meeting and Exposition (FAME), Orlando, Florida (*platform*).
- Mills, D**, Voss, J, Richardson, L, 2004. Investigating coral microbial communities associated with Black Band Disease, The Association of Tropical Biology and Conservation, Miami, FL, (*platform*).
- Mills, D**, Voss, J, Richardson, L, 2004. Amplicon length heterogeneity (ALH): A tool to investigate coral microbial communities, 29th Annual Eastern Fish Health Workshop, National Fish Health Research Laboratory, U.S. Geological Survey, Atlantic Beach, NC (*platform*).
- Mills, D**, Narasimhan, G, Entry, J, Jayachandran, K, Mathee, K, 2003. Applications of microbial DNA profiling: from ecosystems to crime scenes”, Florida International University, Biology Symposium, Miami, FL (*platform*).
- Mills, D**, Fitzgerald, K, Llorente, I, Litchfield, C, Gillevet, P, 2001. Amplicon length heterogeneity fingerprinting to monitor nutrient impact during bioremediation”, The Sixth International Symposium on *In Situ* and On-Site Bioremediation, San Diego, CA (*platform*).
- Mills, D**, Fitzgerald, K, Gillevet, P, Litchfield, C, 2000. Microbial community stability or dynamics during bioremediation of petroleum-contaminated soils? A comparison of techniques. American Society for Microbiology, 100th General Meeting, Los Angeles, CA (*poster*).
- Mills, D**, 2001. Molecular monitoring of microbial populations during bioremediation of contaminated soils, an update. Science to Achieve Results (STAR) Graduate Fellowship Conference, US EPA, Washington, DC (*poster*).
- Mills, D**, Fitzgerald, K, Gillevet, P, Litchfield, C, 1999. Molecular monitoring of microbial populations during bioremediation of contaminated soils, The Fifth International Symposium on *In Situ* and On-Site Bioremediation, San Diego, CA (*platform*).
- Mills, D**, Fitzgerald, K, Gillevet, P, Litchfield, C, 1999. Molecular monitoring of microbial

populations during bioremediation of contaminated soils", The 77th Annual Meeting of the Virginia Academy of Sciences, Norfolk, VA (*platform*).

Mills, D, Stern, R, Zmudzka, B, Krell, K, Beer, J, 1995. The use of UVtherapy for HIV-infected patients: design of a descriptive epidemiology study and preliminary data on the prevalence of HIV infection among UV therapy patients. The 23rd Annual Meeting of the American Society for Photobiology, Washington, DC (*platform*).

Mills, D, and Hartman, P, 1994. Near-UV photobiology of *Caenorhabditis elegans*: Effects of genetic background and photosensitizers". Center for Devices and Radiological Health, FDA, Rockville, MD (*platform*).

Mills, D, Hartman, P, 1993. Deoxyuridine sensitization of near-ultraviolet radiation killing in *C. elegans*", Ninth International *C. elegans* Meeting, Madison, WI (*poster*).

Knowlton, N **Mills, D**, 1990. Closely related pairs of alpheid shrimp species on the Pacific and Caribbean coast of Panama. Colloquium on Benthic Macro-crustaceans of the Eastern Tropical Pacific, Instituto de Ciencias del Mar y Limnologia, Universidad Nacional Autonoma de Mexico, Mazatlan, Mexico (*platform*).

WORKS IN PROGRESS

N/A

FUNDED RESEARCH

FY2012: *National Science Foundation* EAGER Use of ecogenomics and metabolomics to investigate the evolution of pathogenicity. PI: Laurie Richardson, co-PI. **DeEtta Mills**. \$290,900.00 (50% of FIU portion to Mills) (2012-2015).

Sloan Foundation/University of Central Florida: Development of a professional science Masters in forensic science, PI: **DeEtta Mills**, \$8000.00 (2012-2013).

FY2009: *National Science Foundation: Collaborative Grant:* New medium for DNA separation of microbial communities PIs: **DeEtta Mills**, Linda McGown. \$94,321.00 to Mills (2009-2012).

West Virginia University Research Corporation: Subcontract: Epithelial cell presence in human scent evidence. PI: Kenneth Furton, Co-PI: **DeEtta Mills**. \$211,255.00 (50% to Mills). (2009-2010).

Department of Defense, National Geospatial-Intelligence Agency: Microbial metagenomic profiling using multi-taxa DNA profiling, bioinformatics and new separation techniques to discriminate soil specimens. PI: **DeEtta Mills** \$239,143.00, (2009-2011).

FY2008: *National Institutes of Justice:* Workshops in advanced topics in DNA typing, population statistics and non-human forensics. PI: **DeEtta Mills**, co-PI: Bruce McCord (85% to Mills). \$282,505.00 (2008-2010).

FY2007: *Pino Entrepreneurship Center: Kauffman Professor's Award:* The development & marketing of three non-human DNA profiling kits: Canine, *Cannabis sativa* i.e., marijuana and equine DNA typing. PI: **DeEtta Mills** \$15,000.00. (2008-2009).

FY2004: *National Science Foundation:* ADVANCE Fellows Award: Functional and structural patterning of microbial communities in a natural soil ecosystem (Research Experience for Teachers (RET) Supplement), PI: **DeEtta Mills**, \$25,000.00 (2005-2006).

National Science Foundation: ADVANCE Fellows Award, Functional and Structural Patterning of Microbial Communities in a Natural Soil Ecosystem PI: **DeEtta Mills**, \$335, 431.00. (2004-2008).

CONTRACTS

FY2011: *West Virginia University Research Corporation/Federal Bureau of Investigation:* The development of a novel method of cell extraction using Pressure Cycling technology for samples collected with the STU-100 with respect to its usefulness for low copy number DNA samples”. \$207,852.18, (2011-2012) PI: **DeEtta Mills**, co-PI Dr Kenneth Furton (80% to Mills).

FY2009: *USDA-FOREST SERVICE:* Service Contract: Genetic inbreeding analyses for use in wild horse herd management. PI: **DeEtta Mills**, \$5,000.00 (2009- 2012).

West Virginia University Research Corporation: Subcontract: Epithelial cell presence in human scent evidence. PI: Kenneth Furton, Co-PI: **DeEtta Mills**. \$211,255.00 (50% to Mills). (2009-2010).

2005: Quality Forensics, Inc. Subcontract: *Proficiency test manufacturing for forensic laboratories.* PI: **DeEtta Mills**, \$34,000.00.

GRANTS SUBMITTED/PENDING:

FY 2013: *FIU FRSP: SEED:* Disease, Drones and Dogs: Early detection of laurel wilt disease in the avocado groves of South Florida. PI: DeEtta Mills, co-PIs: Kenneth Furton, Jennifer Gebelein, \$27, 975.89.

PROPOSALS SUBMITTED BUT NOT AWARDED

FY2012: *Gulf of Mexico Research Initiative, Phase 2:* “ROCC” reefs, oil, climate change, PI: **DeEtta Mills**, co-PIs: Laurie Richardson, Piero Gardinali, (collaborative grant with 21 other FL institutions) \$679,895.00 (1/3 to Mills).

National Science Foundation CBET: Collaborative Research: Two-dimensional Microfluidic Platform for Rapid Metagenomic Profiling by Fragment Length and Sequence; PI: DeEtta Mills, \$118,003.00.

National Institutes of Justice: PI: DeEtta Mills, co-PIs: Bruce McCord, Jeffrey Wells. Fundamental research on decomposition: verification of murine and porcine models as human cadaver surrogates using microbiological, entomological and chemical analysis of decomposition, \$579,088.00.

FY2011: Gulf of Mexico Research Initiative: Ecogenomic analyses of crude oil and dispersants on coral-associated microbial communities. PI: Laurie Richardson, Co-PI: **DeEtta Mills** (collaborative grant with 21 other FL institutions), \$478,159.00.

National Institutes of Justice: Elucidating the biological and chemical determinants of time since death utilizing an optimized murine model, PI: DeEtta Mills, co-PI: Kenneth Furton \$304,924.00 (50% to Mills).

National Institutes of Justice: Workshops in Advanced topics in DNA typing, population genetics and forensic entomology using a remote delivery system to increase participation. PI: DeEtta Mills, co-PIs: Bruce McCord and Jeffery Wells, \$233,991.00 (33% to Mills).

Department of Defense, Forensic Research and Development Program: White paper: DNA profiling of multiple taxa in soil using a novel polymer/microfluidic chip and eco-informatics classification for the provenance of soil specimens.

MENTOR FOR POST DOCTORAL RESEARCHERS, GRADUATE, UNDERGRADUATE STUDENTS & GRADUATE COMMITTEE MEMBER

Post Doctoral Advisor (past):

Dr. Maria Mendoza, Research: "Microbial metagenome profiling using multi-taxa DNA profiling, bioinformatics and new separation techniques to discriminate soil specimens."

PhD students Advisor (current):

Natalie Damaso: (MSFS/PhD) MSFS project: Comparison of novel polymers using the ABI 310 capillary electrophoresis & their adaptation for bio-separations (manuscript in preparation).

Julian Mendel: (MSFS/PhD): graduated, 2012: MSFS project: Vacuum collection of epithelial cells and a critical evaluation of a novel DNA extraction technique, Pressure Cycling (manuscript in preparation). Intellectual property to be filed.

Ketaki Deshpande: (MSFS/PhD): (finishing MSFS Spring 2013). PhD project: Major histocompatibility complex genes as genetic markers in the conservation and management of wild equids (manuscript in preparation).

Priyanka Kushwaha: PhD Biochemistry project: Comparative analysis of freshwater and marine *Geitlerinema spp.* to determine the role of iron in community virulence and black band disease in corals

Annia Mesa: PhD in Biology: Assessing diagnostic power of IgM anti-U1snRNP response in SLE and MCTD patients (two manuscripts in preparation).

Major Advisor to MSFS students (current):

Evelyn Perez, graduating Spring 2013. Comparison of mitochondrial DNA and Y chromosome analyses of wild and domestic horses (manuscript in preparation).

Melissa Villarreal, graduating Spring 2013. Differential extraction of fecal matter for non-invasive sampling of wild horse populations using Pressure Cycling Technology (manuscript in preparation).

Major Advisor to MSFS students (past):

Ashley Lekas: graduated, 2009: Research: Forensic profiling of microbial communities and development of a multiplex, multi-taxa approach.

Natalie Leyva: graduated, 2010: Research: Equine DNA profiling of wild mustangs for conservation and management purposes (manuscript in preparation).

Krista John Williams graduated, 2010: Research: Bacterial community profiling using a mouse model for post mortem interval determination.

Beatrice Kallifatidis: graduated, 2012: Research: Identification of hallucinogenic & toxic fungi by fluorescent Random Amplified Microsatellites (RAMS) (manuscript in preparation).

Jill Fetscher: The implementation of a MATLAB™-based application for the de-noising, peak identification and statistical analysis would greatly reduce the subjectivity of electropherogram interpretations (manuscript in preparation).

Research Advisor to Undergraduates (current):

Kevin Casin (McNair fellow): Research: Intrinsic antibiotic resistance in soil ecosystems and the effect of iron on resistance gene expression.

Leticia Perez: Research: Natural background of antibiotic resistance in soil microorganisms.

Aisleen Diaz: Research: The soil 'resistome': Implications and ecology of antibiotic resistant microbes in soil.

Janelis Gonzales: Research: Fluorescent multiplex PCR for assessment of *tet* resistance genes in multi-antibiotic resistant soil bacteria and the ecological implications.

Lauren Martin: Research: Coat color determination for wild Mustangs through the genotyping of multiple coat color loci utilizing the SNaPshot technique.

Research Advisor to Undergraduates (past):

Dayana Rodezno MBRS fellow, graduated, 2009, working at USDA-ARS, Miami, FL: Research: Selective inhibition of fungi or bacteria and the impact on community structure.

Alejandro Castaneda MBRS fellow, graduated, 2009, in FIU Medical School: Research: Temporal analysis of soil microbial communities under different stresses.

Monika Avello MBRS fellow, graduated, 2011, in MIT co-op program: Research: Changes in the gut flora of mice during the decomposition cycle.

Juanita Perez Honors College, graduated, 2009: Research: A survey of nitrogen cycling genes across four model systems (equine, bovine, ovine, and soil).

Christopher Abin MBRS fellow, graduated, 2011, NSF graduate fellowship, UGA: Research: Dynamic changes and impact caused by chemicals and the selective inhibition of bacteria and/or fungi within soil microbial communities.

Merly Suarez MBRS fellow, graduated, 2011, in pharmacy school: Research: Genetic disorders and coat color DNA markers in wild horses of the Ochoco National Forest, Oregon.

Yanie Oliva MBRS fellow, graduated 2011: Research: Do different soil types influence the plant/mycorrhizal fungal associations in similar plants?

Jacqueline Escobar MBRS fellow graduated 2012: Research: Bacterial resistance to antibiotics and fungicides used in agriculture.

Christopher Livia MBRS fellow, graduated 2011, in Mayo Clinic Post-bac program: Research: Diversity of nematode species across different soil types in South Florida.

Jacqueline Zayas MARC-USTAR fellow, graduated 2011, in Mayo Clinic Post-bac program: Research: Diversity of two critical genes, *cel48* and *mcrA*, involved in biogeochemical carbon cycling in different soil types in Miami-Dade County, FL (manuscript in preparation).

Jose Redondo graduated 2012, Honors in Biology: Research: Determination of the postmortem interval (PMI) or time since death of a cadaver using fungal DNA markers.

Yorlenis Rodriguez: graduated 2012, Honors College, ARCH: Research: Antibiotic resistance genes in soil ecosystems

Eduardo Maury Dual enrolled FIU-High School, now a MIT undergraduate: Research: Antibiotic resistance in soil microorganisms and analyses of multi-resistance.

Committee member (current): Member of 15 PhD and MSFS students in Biology and Chemistry.

INTELLECTUAL PROPERTY FILING

2008: Development and validation of a multi-taxa, multiplexed PCR kit for microbial ecology.

AWARDS and HONORS

2004: ADVANCE Fellows Award, National Science Foundation, Arlington, VA. Research title: Functional and Structural Patterning of Microbial Communities in a Natural Soil Ecosystem.

1999-2001: STAR Fellow, US EPA's Science to Achieve Results (STAR) Fellowship recipient; Research title: Molecular monitoring of microbial populations during bioremediation of contaminated soils.

1998: Graduate Fellowship Award & Stipend, College of Arts & Sciences, George Mason University, Fairfax, Virginia, Research in microbial community analyses.

1997: Graduate Research Assistantship, Department of Biology, George Mason University, Fairfax, Virginia, Research in molecular monitoring of microbial dynamics.

1995: Center for Devices and Radiological Health (CDRH, Food and Drug Administration) Special Recognition Award: For significant and exceptional contributions to a major CDRH clinical study of the effects of ultraviolet phototherapy on individuals infected with the human immunodeficiency virus.

1992: Adkins Research Fellow, Department of Biology, Texas Christian University, Fort Worth, Texas, Research in molecular and photobiology.

1988: Award of Excellence in Undergraduate Biology Research, Department of Biology, University of Kansas, Lawrence, Kansas, Research in DNA fingerprinting

PROFESSIONAL SOCIETIES

2000- present	Member, Sigma XI, the Scientific Research Society
1997-present	Member, American Society for Microbiology
2012-present	Member, International Society for Reef Studies
2012-present	Member, Association of Marine Laboratories of the Caribbean

OTHER PROFESSIONAL ACTIVITIES AND PUBLIC SERVICE

Department Service:

Search committee for Lecturers and Marine Biologist and also on the promotion committee for lecturers.

School of Integrated Science and Humanity Service/College of Arts and Sciences Service/University Service:

Development of a professional science Masters in Forensic Sciences for College of Arts and Sciences for implementation, Fall 2013.

Faculty participant: MIT Quantifying Biology Workshop, January 3-10, 2012.

Director, Forensic DNA Profiling Facility, CAS/SISH/IFRI, core recharge facility.

Faculty participant: Sunshine Scholars Symposium, Orlando, FL to promote FIU to potential undergraduates; development of a new PSM-FS for the university.

Selection/interview committee, faculty reviewer, for new coordinator for MBRS-RISE.

Tenure and Tenure earning workshops at FIU, mentee: Mentor, Dr Draper.

Community Service:

Expert witness for State of FL case involving slaughtered horses found in Miami-Dade County (*pro bono*).

Casework ongoing on slaughtered horse found in Broward County, FL (*pro bono*).

Journal Reviewer for: Electrophoresis (1), Water, Air, & Soil Pollution (1), Journal of Applied Microbiology (1), BMC Microbiology (1), Polar Research (1), Knowledge Project Nature Education (1)

Grant reviewer for:

Panel member, NSF Chemical and Biological Separations program, 2011 and 2012.

Selection Committee, reviewer for Advancing Hispanic Excellence in Technology, Engineering, Math and Science (AHETEMS) Scholarship Selection Committee, Arlington, TX, 2009-2010.