

Marc Slattery
University of Mississippi
Department of Pharmacognosy
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EDUCATION:

Ph.D. Biological Sciences. University of Alabama at Birmingham (1994); Doctoral Dissertation: A comparative study of population structure and chemical defenses in the soft corals *Alcyonium paessleri* May, *Clavularia frankliniana* Roule, and *Gersemia antarctica* Kukenthal in McMurdo Sound, Antarctica.

M.A. Marine Biology. San Jose State University at the Moss Landing Marine Laboratories (1987); Masters Thesis: Settlement and metamorphosis of red abalone (*Haliotis rufescens*) larvae: A critical examination of mucus, diatoms, and γ -aminobutyric acid (GABA) as inductive substrates.

B.S. Biology. Loyola Marymount University (1981); Senior Thesis: The ecology of sympatric species of octopuses (*Octopus fitchi* and *O. digueti*) at Coloraditos, Baja Ca.

RESEARCH INTERESTS:

Chemical defenses/natural products chemistry of marine & freshwater invertebrates, and microbes. Evolutionary ecology, and ecophysiological adaptations of organisms in aquatic communities; including coral reef, cave, sea grass, kelp forest, and polar ecosystems. Chemical signals in reproductive biology and larval ecology/recruitment, and their applications to aquaculture and biomedical sciences. Cnidarian, Sponge, Molluscan, and Echinoderm biology/ecology, population structure, symbioses and photobiological adaptations. Marine microbe competition and culture. Environmental toxicology.

EMPLOYMENT:

Professor of Pharmacognosy and Research Professor of RIPS, University of Mississippi, Oxford MS; 2008

Research Coordinator, UM Environmental Toxicology Research Program; 2004 to present

Division Director, NOAA's NIUST Ocean Biotechnology Center and Repository; 2001 to present

Interim Director; NOAA's National Institute for Undersea Science & Technology; 2001 to 2005

Interim Chair of Pharmacognosy, University of Mississippi, Oxford MS; 2004

Associate Professor of Pharmacognosy and Associate Research Professor of RIPS, University of Mississippi, Oxford MS; 2001 to 2008

Assistant Professor of Pharmacognosy and Assistant Research Professor of RIPS, University of Mississippi, Oxford MS; 1995 to 2001

Post-Doctoral Research Fellow, University of Guam Marine Laboratory, Mangilao Guam; 1994 to 1995

Research Assistant, University of Alabama at Birmingham, Department of Biology, Birmingham AL; 1989, 1990 to 1994

Aquatic Toxicology Project Manager, EA Engineering, Science, & Technology Inc., Lafayette CA; 1988 to 1990

Biology Instructor, National University, Santa Clara CA; 1987 to 1988

Scuba Instructor, Fort Ord Outdoor Recreation, Seaside CA; 1986 to 1990

Fisheries Consultant, Marine Biological Consultants, Costa Mesa CA; 1986

Scientific Assistant, CA Dept of Fish & Game, Menlo Park CA; 1985 to 1988

Assistant Aquarist, Monterey Bay Aquarium, Monterey CA; 1984 to 1985

Graduate Assistant, CA Dept of Fish & Game Marine Culture Lab, Monterey CA; 1984 to 1987

Marine Education Coordinator, Moss Landing Marine Laboratories, Moss Landing CA; 1984 to 1986

Teaching Assistant, Loyola Marymount University, Department of Biology, Los Angeles CA; 1979 to 1981

RESEARCH & PROFESSIONAL EXPERIENCE:

NOAA Mesophotic Coral Ecosystems. Chair of the Connectivity Working Group; 2008

NOAA Ocean Exploration. Scientific Consultant on Research Priorities for the R/V Okeanos Explorer; 2007

NOAA Ring of Fire Extremophile Cruise (Kermadec Arc, New Zealand). Chief Scientist; 2005

NOAA NURP Diving Control Board. Member; 2003 to present

NIUST OBCR. Division Director and Research Scientist; 2001 to present

NIUST. Interim Director; 2001 to 2005

Gulf of Mexico Project- Public Health Team. Marine Microbiology Consultant; 1998 to 2006

CDC- Public Health Action Plan to Combat Antimicrobial Resistance. Scientific Consultant on Research Directions; 1999

Gulf Oyster Industry Initiative. Scientific Consultant on Larval Settlement; 1998

1st Congress on the Reef Systems of the Mesoamerican Caribbean, Belize. Biodiversity/Biotechnology Consultant; 1997

University of Mississippi- Diving Control Board. Diving Safety Officer; 1995 to present

NSF- Natural products from common shallow-water soft corals of Guam: Reproductive considerations. Post-doctoral Fellow; 1994-96

NSF- Chemical ecology of shallow-water marine invertebrates in McMurdo Sound, Antarctica. Graduate Assistant; 1992-94

NSF EPSCoR- Chemical defenses of Florida seagrass tunicates. Research Director for 2 AMP students; 1993

NSF EPSCoR- Chemical ecology of deep-sea echinoderms from the northern Gulf of Mexico. Graduate Assistant; 1991-92

NSF- Physiological ecology of UV-absorbing compounds in Antarctic organisms. Research Assistant; 1991
NSF- Chemical ecology of Antarctic sponges. Research Assistant; 1989
CA Toxicology Standards Review Committee. Environmental Toxicology Consultant; 1989
CA Fish & Game Salmon Stock Assessments. Graduate Assistant; 1985 to 1987
Deep Rover Assessment Group Cruise (Monterey Bay CA). Research Assistant; 1985
VERTEX Cruise (Pacific Gyre). Research Assistant; 1982 to 83

HONORS:

NSF ARI Panelist, 2009
Featured Research Article, Hemispheres- August 2009
Outstanding Alumnus, University of Alabama at Birmingham NSM; January 2009
Chair SETAC 2008 Special Symposium, Oceans & Human Health- Impacts of Hurricane Katrina; November 2008
NOAA Coral Reef Panelist; October 2008
Chair NOAA Deep Reef Connectivity Working Group; July 2008
Invited Speaker & US Delegate to the United Nations, Marine Genetic Resources; 26 June 2007
Board of Directors, Pan American Marine Biotechnology Assoc; 2007 to 2010
OE 2007 Signature Expedition, PI of grant- New Ocean Resources: Exploration and Drug Discovery in the Twilight Zone:
<http://www.oceanexplorer.noaa.gov/explorations/07twilightzone/welcome.html>
NSF Biological Oceanography Panelist, 2007
Technical Committee member, Society of Environmental Toxicology and Chemistry; 2006 to 2010
Scientific Advisory Board member, Central Caribbean Marine Institute; 2006 to present
Invited Speaker, American Geophysical Union- Ocean Exploration, San Francisco CA; December 2006
Invited Plenary Speaker, Indo-US Conference on New Bioactive Molecules in Pharmaceutical Research, Hyderabad India; November 2006
Invited Plenary Speaker, 12th International Echinoderm Conference, Portsmouth NH; August 2006
Site Inspection Team, NSF OPP- McMurdo Station, Antarctica; November 2005
NIH SBIR Panelist, 2005
Delegate, Sigma Xi International Congress, Montreal Canada; November 2004
Invited Speaker, World Aquaculture Society- Pharmacological Aquaculture, Honolulu HI; March 2004
Invited Plenary Speaker, The Sustainable Use of Biodiversity of Egypt, Ismailia Egypt; April 2001
Invited Chapter, UNESCO Encyclopedia of Life: 6.52.1.3- Chemical Ecology of Bacteria and Algae
Invited Scientist, Multinational Research Program to Assess Coral Reef Development and Biodiversity in the Red Sea; Aug 2001-2002
Session Chair, Chemical Ecology and Natural Products of Wetlands, Wetlands 2000 Conference, Oxford MS; 2000
Featured Research Article, National Wildlife; Oct-Nov 2000

Session Chair, Biofouling, Marine Natural Products Gordon Conference; 1998
Featured Research Article, Geo Nr.; Oct 1997
Rho Chi, Pharmaceutical Sciences Honor Society; 1996
Chi Omicron Omega, Honor Society for Teaching; 1995
Dean's Award, UAB School of Natural Sciences & Mathematics; 1994
NSF Fellowship, Biological Adaptations of Antarctic Organisms-Molecular Approaches; 1994
Scientific Diving Control Board Member- NSF Office of Polar Programs, 4-yr appointment; 1993 to present (re-elected three times)
Harbor Branch Oceanographic Institution Fellowship, Biology of the Deep Sea Benthos; 1993
Graduate Research Award, Alabama Academy of Science; 1991
Phi Sigma, Honor Society for Biological Sciences; 1991
Antarctic Service Award, 1990
Kim Peppard Memorial Scholarship, Moss Landing Marine Laboratories; 1984
Sigma Xi, Honor Society for Research; 1980

GRANTS AWARDED:

NSF RAPID: Co-Principal Investigator on a grant entitled “Rapid Phase Shift to Algal Dominated Mesophotic Reef Communities in Response to Lionfish Invasion”. \$199,992 (2009-2010)
NOAA NURP: Co-Principal Investigator on a grant entitled “National Institute for Undersea Science & Technology”. \$1,154,084 to OBCR (2009-2010)
NOAA OER: Principal Investigator on a grant entitled “Ocean Exploration and Drug Discovery on Pacific Deep Reefs”. \$266,703 (2010-2011)
NASA: Principal Investigator on a grant entitled “Modeling Seagrass Community Change Using Remote Sensing and Real-time Instrument Packages”. \$229,403 (2007-2008)
NOAA NURP: Co-Principal Investigator on a grant entitled “National Institute for Undersea Science & Technology”. \$980,307 to OBCR (2007-2008)
NOAA NCDDC: Principal Investigator on a grant entitled “Mississippi Ecosystem Management in Response to Hurricane Katrina”. \$63,788 (2007)
NOAA OE: Principal Investigator on a grant entitled “New Ocean Resources: Exploration and Drug Discovery in the Twilight Zone”. \$369,233 (2006-2008)
NOAA NURP: Co-Principal Investigator on a grant entitled “National Institute for Undersea Science & Technology”. \$1,499,792 to OBCR (2005-2006)
NOAA NURP: Principal Investigator on a grant entitled “OBCR Extremophile Cruise to the Kermadec Arc, NZ”. \$428,917 (2005-2006)
NIH/NSF ICBG: Co-Principal Investigator on a planning grant entitled “New Drugs from Marine Natural Resources of Jamaican Reefs”. \$374,769 (2003-2005)
Mississippi Alabama Sea Grant: Principal Investigator on a research project entitled “Hybrid Soft Coral Antimicrobial Resistance: Combinatorial Genetics and Drug Discovery”. \$21,182 (2004-2005)
Water Resources Research Institute: Principal Investigator on a research project entitled “Chemical Mixtures: Consequences of WNV Eradication on Water Quality”. \$149,327 (2003-2005)
NOAA NURP: Principal Investigator on a grant entitled “National Institute for Undersea Science & Technology”. \$1,239,100 to OBCR (2003-2004)

NURP CMRC: Principal Investigator on a research project entitled “Marine Biotechnology: Antimicrobial Natural Products from Cave Sponges”. \$40,895 (2000-2002)

NURP CMRC: Co-Principal Investigator on a research project entitled “Survey of Anchialine Cave Fauna of the Exumas”. \$28,912 (2002-2003)

Mississippi Alabama Sea Grant: Principal Investigator on a research project entitled “Hybridization in Soft Corals- Combinatorial Genetics and Drug Discovery”. \$23,059 (2001-2002)

DOE: Principal Investigator on a research project entitled “Deep Sea Microbes as Sources of Biomedically-Important Natural Products”. \$50,110 + submersible time (2002-2004)

NOAA NURP: Marine Natural Products Drug Discovery Partnership (PI of Clusters 1 & 3). \$569,791 (2001), \$800,000 (2002)

Merck: Principal Investigator on a research project entitled “Drug Discovery: Marine Invertebrate and Algae Extract Activity”. \$500,000 (2000-2002)

Elsa U. Pardee Foundation: Principal Investigator on a research project entitled “Marine Metabolites as p53 Independent Inducers of Apoptosis”. \$29,124 (2000-2001)

CDC: Environmental Signals and Sensors (PI of Cluster 1). \$602,352 (2000), \$376,857 (2001)

US-Egypt Science & Technology Program: Principal Investigator on a research project entitled “Marine Biotechnology: Culture of the Red Sea Giant Clam *Tridacna maxima* for Biomedical Compounds”. \$24,839 (1999-01)

Merck: Principal Investigator on a research project entitled “Unrestricted Funds to Assess Marine Invertebrate Samples for Biomedical Research Potential- yr 3”. \$22,000 (1999)

Water Resources Research Institute: Principal Investigator on a research project entitled “Chemical Mixtures: Consequences for Water Quality”. \$81,469 (1998-00)

EPA NCERQA: Co-Principal Investigator on a research project entitled “Effects of Interacting Stressors in Agricultural Ecosystems: Mesocosm and Field Evaluation of Multi-level Indicators of Wetland Response”. \$897,634 (1998-2001)

Merck: Principal Investigator on a research project entitled “Unrestricted Funds to Assess Marine Invertebrate Samples for Biomedical Research Potential- yr 2”. \$14,000 (1998)

American Society of Pharmacognosy Research Starter Grant: Principal Investigator on a research project entitled “Marine Microbes as Novel Sources of Biomedical Compounds”. \$5,000 (1998)

University of Mississippi Faculty Research Award: Principal Investigator on a research project entitled “Biogeographic Comparisons of Soft Coral Defense Strategies and Predator Coadaptation”. \$3,000 (1998)

Caribbean Marine Research Center Ziperman Biotechnology Grant: Principal Investigator on a research project entitled “Marine Natural Products Collections: Optimization Strategies for Sustainability and Low Ecosystem Impact”. \$2,500 (1998)

Mississippi Alabama Sea Grant: Principal Investigator on a research project entitled “Microbial Induction of Marine Invertebrate Settlement: Applications for Aquaculture”. \$10,000 (1997)

Merck: Principal Investigator on a research project entitled “Unrestricted Funds to Assess Marine Invertebrate Samples for Biomedical Research Potential”. \$6,500 (1997)

Mississippi Alabama Sea Grant: Co-Principal Investigator on a research project entitled “Soft Coral Cembranolides as Prototypes of New Pharmaceutical Agents”. \$99,947 (1997)

Mississippi Alabama Sea Grant: Co-Principal Investigator on a research project entitled “Semisynthetic and Microbial Transformations of Marine Natural Products for Technological Development in Human Health and Agriculture”. \$322,731 (1998-01)

EPA EPSCoR: Co-Investigator on a research project entitled “Mississippi EPSCoR Program”. \$548,784 (1996-1997)

University of Mississippi Faculty Research Award: Principal Investigator on a research project entitled “The Evolution of Chemical Defenses in Octocorals”. \$18,611 (1996-97)

University of Mississippi Faculty Research Award: Principal Investigator on a research project entitled “The Source of Natural Sunscreens in the Sea Urchin *Lytechinus variegatus*: Microbial Considerations”. \$3,500 (1996)

NSF Marine Biotechnology Fellowship: Principal Investigator on a research project entitled "Natural Products from Common Shallow-water Soft Corals of Guam: Reproductive Considerations". \$83,771 (1994-96)

MEMBERSHIPS:

American Society of Limnology and Oceanography

American Society of Microbiologists

American Society of Pharmacognosy

Ecological Society of America

International Society of Chemical Ecology

International Society for Reef Studies

Pan-American Marine Biotechnology Association

Sigma Xi

Society of Environmental Toxicology & Chemistry

American Academy of Underwater Scientists

National Association of Underwater Instructors

PUBLICATIONS:

Peer-reviewed articles:

Slattery M, KL Willett, GP Cobb, WH Benson (2010) Multiple facets of environmental impacts from Hurricane Katrina. *Env Tox Chem* XX:1-2.

Ankisetty S, DJ Gochfeld, MC Diaz, SI Khan, **M Slattery** (submitted) Chemistry of the deep reef Caribbean sponges *Plakortis angulospiculatus* and *Plakortis halichondroides*. *Journal of Natural Products*.

Slattery M, DJ Gochfeld, S Ankisetty, JB Olson, MC Diaz, MP Lesser (submitted) Depth-dependent variability in antipredator defenses of the sponge *Plakortis angulospiculatus*. *Coral Reefs*

Lesser MP, **M Slattery**, M Stat, M Ojimi, R Gates, A Grottoli (2010) Photoacclimatization by the coral *Montastraea cavernosa* in the mesophotic zone: Light, food, and genetics. *Ecology* 91:990-1003

Kamel HN, YB Kim, JM Rimoldi, FR Fronczek, D Ferreira, **M Slattery**. (2009) Scalarane sesterterpenoids: semisynthesis and biological activity. *J Nat Prods* 72:1492-1496.

- Lesser MP, **M Slattery**, JJ Leichter (2009) Ecology of mesophotic coral reefs. *J Exp Mar Biol Ecol* 375:1-8
- Frankfater CR, MR Tellez, **M Slattery** (2009) The scent of alarm: ontogenetic and genetic variation in the osmeterial gland chemistry of *Papilio glaucus* caterpillars. *Chemoecology* 19:81-96
- Kamel HN, Y Ding, XC Li, D Ferreira, FR. Fronczek, **M. Slattery** (2009) Beyond polymaxenolide: New cembrane-africanene terpenoids from the hybrid soft coral *Sinularia maxima* x *S. polydactyla*. *J Nat Prods* 72:900-905
- Slattery M**, HN Kamel, S Ankisetty, DJ Gochfeld, CA Hoover, RW Thacker (2008) Hybrid vigor in a tropical Pacific soft coral community. *Ecol Monogr* 78:423-443
- Slattery M**, VJ Paul (2008) Indirect effects of bleaching on predator deterrence in the tropical Pacific soft coral *Sinularia maxima*. *Mar Ecol Prog Ser* 354:169-179
- Hoover CA, **M Slattery**, NM Targett, AG Marsh (2008) Transcriptome and metabolite responses to predation in a south Pacific soft coral. *Bio Bull* 214:319-328
- DeBusk BC, **M Slattery**, JS Ki, JS Lee, R Aparicio-Fabre, D Schlenk (2008) Species differences and effects of soft coral extracts from *Sinularia maxima* on the expression of cytochrome P4501A and 2N in butterflyfishes (*Chaetodon* spp.). *Fish Physio Biochem* 34:483-492
- Hoover CA, **M Slattery**, AG Marsh (2007) Gene expression profiling of two related soft corals, *Sinularia polydactyla* and *S. maxima*, and their putative hybrid at different life-history stages. *Comp Biochem Physiol Part D* 2:135-143
- Kamel HN, D Ferriera, LF Garcia-Fernandez, **M Slattery** (2007) Cytotoxic cembranoids from the hybrid soft coral *Sinularia maxima* x *polydactyla*. *J Nat Prod* 70:1223-1227
- Ankisetty S, M Kelly, **M Slattery** (2007) Alkaloids from an undescribed Thorectid sponge (Porifera: Dictyoceratida) from the Northern Marianas. *Nat Prod Comm* 2:1145-1148
- Hoover CA, **M Slattery**, AG Marsh (2007) A functional approach to transcriptome profiling: linking gene expression patterns to metabolites that matter. [invited-review] *Mar Biotech* 9:411-419
- Kamel HN, FR Fronczek, SI Khalifa, **M Slattery** (2007) Microbial transformation of 5-Episinuleptolide. *Chem Pharm Bull* 55:537-540
- Hoover CA, **M Slattery**, AG Marsh (2007) Profiling transcriptome complexity and secondary metabolite synthesis in a benthic soft coral, *Sinularia polydactyla*. *Mar Biotech* 9:1-13
- Olson JB, DJ Gochfeld, **M Slattery** (2006) *Aplysina* red band syndrome: a new threat to Caribbean sponges. *Dis Aquat Org* 71:163-168
- Gochfeld DJ, JB Olson, **M Slattery** (2006) Colony versus population variation in susceptibility and resistance to Dark Spot Syndrome in the Caribbean coral *Siderastrea siderea*. *Dis Aquat Org* 69:53-65
- Van Alstyne KL, PJ Schupp, **M Slattery** (2006) The distribution of dimethylsulfoniopropionate in tropical Pacific coral reef invertebrates. *Coral Reefs* 25:321-327
- Slattery M**, DJ Gochfeld, HN Kamel (2006) Hybrid Soft Coral Aquaculture to Produce Novel "Pharmaceutical Factories". *Glob Aqua Advoc* 8:42-43
- Quinn NJ, DJ Gochfeld, MT Hamann, **M Slattery**, L Walker, BL Kojis (2006) Documenting and conserving biodiversity of Jamaican coral reefs while exploring for pharmacologically interesting natural products. *Proc 10th Intl Coral Reef Symp* 3:800-809

- Kamel HN, **M Slattery** (2005) Terpenoids of *Sinularia*: Chemistry and biomedical applications. *Pharm Biol* 43:253-269
- Frankfater CR, W Schühly, FR Fronczek, **M Slattery** (2005) Processing of a sesquiterpene lactone by *Papilio glaucus* caterpillars. *J Chem Ecol* 31:2541-2550
- Hiranthi J, KB Herath, JG Ondeyka, Z Guan, RP Borris, S Tiwari, W de Jong, F Chavez, J Moss, DW Stevenson, HT Beck, **M Slattery**, N Zamora, M Schulman, A Ali, N Sharma, K MacNaul, N Hayes, JG Menke, SB Singh (2005) Diterpenoid, steroid, and triterpenoid agonists, of liver X receptors from diversified terrestrial plants and marine sources. *J Nat Prods* 68:1247-1252
- Ondeyka JG, KB Herath, H Jayasuriya, JD Polishook, GF Bills, AW Dombrowski, M Mojena, G Koch, J DiSalvo, J DeMartino, Z Guan, W Nanakorn, CM Morenberg, MJ Balick, DW Stevenson, **M Slattery**, RP Borris, SB Singh (2005) Discovery of structurally diverse natural product antagonists of chemokine receptor CXCR3. *J Molecular Diversity* 9:123-129
- Kamel HN, FR Fronczek, NH Fischer, **M Slattery** (2004) A novel metabolite from the hybrid soft coral *Sinularia maxima* x *Sinularia polydactyla*: a biosynthetically mixed skeleton linking cembrane and africanane terpenoids. *Tetrahedron Letts* 45:1995-1997
- Kuhajek JM, AW Douglas, AM Clark, **M Slattery** (2004) Site-specific variation in the root chemistry and antifungal activity of *Caltha leptosepala* and *Trollius laxus* (Ranunculaceae). *Biochem Syst Ecol* 32:949-967
- Kuhajek JM, AM Clark, **M Slattery** (2004) Ecological patterns in the antifungal activity of root extracts from Rocky Mountain wetland plants. *Pharmaceutical Biol* 41: 522-530
- Foran CM, J Weston, **M Slattery**, BW Brooks, DB Huggett (2004) Reproductive assessment of Japanese medaka (*Oryzias latipes*) following a four week Fluoxetine (SSRI) exposure. *Arch Env Cont Tox* 46:511-517
- Bryan PJ, JB McClintock, **M Slattery**, DJ Rittschof (2003) A comparative study of the non-acidic chemically mediated antifoulant properties of three sympatric species of ascidians associated with seagrass habitats. *Biofouling* 19:235-245
- Fronczek FR, HN Kamel, **M Slattery** (2003) Three polymorphs (a, b, and d) of d-mannitol at 100K. *Acta Crystallogr.* 59C:567
- Brooks BW, PK Turner, JK Stanley, J Weston, CM Foran, **M Slattery**, TW La Point, DB Huggett (2003) Waterborne and sediment toxicity of fluoxetine to select organisms. *Chemosphere* 52:135-142
- Brooks BW, CM Foran, SM Richards, J Weston, PK Turner, JK Stanley, KR Solomon, **M Slattery**, TW La Point (2003) Aquatic ecotoxicology of fluoxetine. *Toxicology Lett* 142: 169-183
- Gaston GR, **M Slattery** (2002) Ecological function of chemical deterrents in a tropical polychaete, *Eupolymnia crassicornis* (Annelida, Terebellidae). *Bull Mar Sci* 70:891-897
- Puglisi MP, VJ Paul, J Biggs, **M Slattery** (2002) Co-occurrence of chemical and structural defenses in the gorgonian corals of Guam. *Mar Ecol Prog Ser* 239:105-114
- Kuhajek JM, SN Jeffers, **M Slattery**, DE Wedge (2003) A rapid microbioassay for discovery of novel fungicides for *Phytophthora* spp. *Phytopathol* 93: 46-53
- Slattery M**, J Starmer, VJ Paul (2001) Temporal and spatial plasticity in chemical constituents of tropical Pacific soft corals *Sinularia maxima* and *S. polydactyla*. *Mar Biol* 138:1183-1193
- Slattery M**, I Rajbandhari, KJ Wesson (2001) Competition-mediated antibiotic induction in the marine bacterium *Streptomyces tenjimariensis*. *Microb Ecol* 41:90-96

- Puglisi MP, VJ Paul, **M. Slattery** (2000) Biogeographic comparisons of chemical and structural defenses of the Pacific gorgonians *Anella mollis* and *A. reticulata*. *Mar Ecol Progr Ser* 207:263-272
- Slattery M**, GA Hines, J Starmer, VJ Paul (1999) Chemical signals in gametogenesis, spawning, and larval settlement and defense of the soft coral *Sinularia polydactyla*. *Coral Reefs* 18:75-84
- Slattery M** (1999) Fungal pathogenesis of the sea fan *Gorgonia ventalina*: direct and indirect consequences. *Chemoecology* 9:97-104
- Bosch I, **M Slattery** (1999) Analysis of costs of development and brood protection in the Antarctic sea star, *Neosmilaster georgianus*. *Mar Biol* 134:449-459
- Steevens JA, **M Slattery**, DK Schlenk, A Aryl, WH Benson (1999) Effects of ultraviolet light and polyaromatic hydrocarbon exposure on sea urchin development and bacterial bioluminescence. *Mar Environ Res* 48:1-19
- Slattery M**, C Avila, J Starmer, VJ Paul (1998) A sequestered soft coral diterpene in the aeolid nudibranch *Phyllodesmium guamensis*. *J Exp Mar Biol Ecol* 226:33-49
- Avila C, M Ballesteros, **M Slattery**, J Starmer, VJ Paul (1998) *Phyllodesmium guamensis* (Nudibranchia, Aeolidioidea), a new species from Guam (Micronesia). *J Moll Stud* 64:147-160
- Slattery M**, MT Hamann, JB McClintock, TL Perry, MP Puglisi, W Yoshida (1997) Ecological roles for waterborne metabolites from Antarctic soft corals. *Mar Ecol Progr Ser* 161:133-144
- Slattery M**, D Bockus (1997) Sedimentation in McMurdo Sound, Antarctica: A disturbance mechanism for benthic invertebrates. *Polar Biol* 18:172-179
- Slattery M**, GA Hines, SA Watts (1997) Steroid metabolism in Antarctic soft corals. *Polar Biol* 18:76-82
- Slattery M**, JB McClintock, SS Bowser (1997) Deposit feeding: A novel mode of nutrition in the Antarctic colonial soft coral *Gersemia antarctica*. *Mar Ecol Progr Ser* 149:299-304
- Bryan PJ, **M Slattery** (1996) Reproductive behavior of the Gymnosomatous Pteropod *Clione antarctica*. *Invert Repro Dev* 29:143-148
- Slattery M**, JB McClintock (1995) Population structure and feeding deterrence in three Antarctic soft corals. *Mar Biol* 122:461-470
- Slattery M**, JB McClintock, J Heine (1995) Chemical defenses in Antarctic soft corals: Evidence for antifouling compounds. *J Exp Mar Biol Ecol* 190:61-78
- Brey T, J Pearse, J McClintock, L Basch, **M Slattery** (1995) Growth and production of *Sterechinus neumayeri* (Echinoidea, Echinodermata) in McMurdo Sound, Antarctica. *Mar Biol* 124:279-292
- McClintock JB, BJ Baker, **M Slattery**, JN Heine, PJ Bryan, W Yoshida, MT Davies-Coleman, DJ Faulkner (1994) Chemical defense of the common Antarctic shallow-water nudibranch *Tritoniella belli* Eliot (Mollusca: Tritonidae) and its prey, *Clavularia frankliniana* Rouel (Cnidaria: Octocorallia). *J Chem Ecol* 20:3361-3372
- McClintock JB, BJ Baker, MT Hamman, W Yoshida, **M Slattery**, JN Heine, PJ Bryan, GS Jayatilake, BH Moon (1994) Homarine as a feeding deterrent in the common shallow-water Antarctic lamellarian gastropod *Marseniopsis mollis*: a rare example of chemical defense in a marine prosobranch. *J Chem Ecol* 20:2539-2549
- McClintock JB, BJ Baker, **M Slattery**, M Hamman, R Kopitzke, J Heine (1994) Chemotactic tube-foot responses of the spongivorous sea star *Perknaster fuscus* to organic extracts from Antarctic sponges. *J Chem Ecol* 20:859-870

- Slattery M**, I Bosch (1993) Mating behavior of a brooding Antarctic asteroid, *Neosmilaster georgianus*. *Int J Invert Reprod Dev* 24:97-102
- Janssen J, **M Slattery**, W Jones (1993) Feeding responses to mechanical stimulation of the barbel in *Histiodraco velifer* (Artedidraconidae). *Copeia*. 1993: 885-889
- McClintock JB, **M Slattery**, C Thayer (1993) Energy content and chemical defense of the articulate brachiopod *Liothyrella uva* (Jackson, 1912) from the Antarctic Peninsula. *J Exp Mar Biol Ecol* 169: 103-116
- Slattery M** (1992) Larval settlement and juvenile survival in the red abalone (*Haliotis rufescens*): an examination of inductive cues and substrate selection. *Aquaculture* 102: 143-153
- McClintock JB, **M Slattery**, J Heine, J Weston (1992) Chemical defense, biochemical composition, and energy content of three shallow-water Antarctic gastropods. *Polar Biol* 11: 623-629
- McClintock JB, J Heine, **M Slattery**, J Weston (1991) Biochemical and energetic composition, population biology, and chemical defense of the Antarctic ascidian *Cnemidocarpa verrucosa* Lesson. *J Exp Mar Biol Ecol* 147:163-175
- Heine JN, JB McClintock, **M Slattery**, J Weston (1991) Energetic composition, biomass, and chemical defense in the common Antarctic nemertean *Parborlasia corrugatus* McIntosh. *J Exp Mar Biol Ecol* 153:15-25

Invited Book Chapters:

- Slattery M**, DJ Gochfeld (2010) Chemical Interactions among Marine Competitors, and Host-Pathogens. *Marine Natural Products Science: A Reference Book*. Springer, New York.
- Slattery M** (2010) Bioactive compounds from echinoderms: Ecological and evolutionary perspectives. In: LG Harris, SA Boettger, CW Walker & MP Lesser (eds) Echinoderms: Durham. CRC Press, Boca Raton FL, pp.591-600.
- Brooks BW, SM Richards, J Weston, PK Turner, JK Stanley, TW La Point, R Brain, EA Glidewell, ARD Massengale, W Smith, CL Blank, KR Solomon, **M Slattery**, CM Foran (2004) Aquatic Ecotoxicology of Fluoxetine: A Review of Recent Research. In: D Dietrich, S Webb, T Petry (eds), Hot Spot Pollutants: Pharmaceuticals in the Environment. Elsevier, pgs 165-188
- Slattery M**, DJ Gochfeld (2003) Chemical Ecology of Bacteria and Algae. UNESCO Encyclopedia of Life: 6.52.1.3
- Nagle D, AM Clark, **M Slattery** (2003) Chemical ecology and natural products from wetlands. In: MM Holland, E Blood, LR Schaffer (eds), Sustainability of Wetlands and Water Resources. Island Press, Covela CA, pp 157-169
- Slattery M** (1997) Chemical cues in marine invertebrate larval settlement. In: R Naghabushanum, JF Thompson (eds), Marine Woodboring and Fouling Organisms of the Indian Ocean: A Review. Oxford & IBH Publishing Co., New Dehli, pp 135-157
- Slattery M**, JB McClintock (1997) An overview of the population structure and chemical defenses of three species of Antarctic soft corals. In: B Battaglia, J Valencia, DWH Walton (eds), Antarctic Communities: Species, Structure and Survival. Cambridge University Press, England, pp 309-315

Patents:

Wedge D, **M Slattery** (2009) Methods of treating fungal infection in plants using Polybrominated Diphenyl Ethers. Provisional Patent on Behalf of the USDA, the University of Mississippi and NIUST. Assigned docket #: 0117.08.

Slattery M, J Rimoldi, S Ankisetty (2006) Antibacterial and Antifungal *Dysidea granulosa* compounds and methods for their use. Provisional Patent on Behalf of the University of Mississippi and NIUST. Assigned docket #: 11636N/042075.

Manuscripts in Preparation:

Slattery M, DJ Gochfeld, L Krentz, C Easson. Facilitation of coral reef biodiversity by cave sponge communities. (for: Ecology)

Marsh KE, DJ Gochfeld, **M Slattery**. Social and chemical interactions in a protogynous hermaphrodite, the bridled goby, *Coryphopterus glaucofraenum*. (for: Coral Reefs)

Slattery M. Seasonal variability in UV-absorbing Mycosporine-like Amino Acid (MAA's) in the sea urchin *Lytechinus variegatus* and its early life history stages (for: Marine Biology).

PRESENTATIONS AT SCIENTIFIC MEETINGS:

Slattery M, MP Lesser. Ocean Exploration: Consequences of lionfish invasion to stability of mesophotic coral reefs. Ocean Sciences Meeting, Portland OR, 22-26 March 2010.

Krentz L, KE Marsh, DJ Gochfeld, KL Willett, **M Slattery**. Effects of BaP, EE2 and a mixture of the two on the sex change event in the hermaphroditic Bridled Goby, *Coryphopterus glaucofraenum*. 30th Annual Meeting of SETAC, New Orleans LA, 19-23 November 2009

Easson CG, RW Thacker, JB Olson, **M Slattery**, KL Willett, A Boettcher, DJ Gochfeld. Effects of nutrient enrichment on competition between the alga *Microdictyon marinum* and the sponge *Aplysina cauliformis*. 30th Annual Meeting of SETAC, New Orleans LA, 19-23 November 2009

Slattery M, S Ankisetty, H Kamel, DJ Gochfeld, D Ferreira, J Rimoldi, JB Olson. Can marine ecology guide natural products discovery efforts? American Society of Pharmacognosy Meeting, Honolulu, HI, 27 June-1 July, 2009.

Ferreira D, **M Slattery**, H Kamel, Y Ding, XC Li. Absolute configuration of marine cembranoid diterpenes via circular dichroism. American Society of Pharmacognosy Meeting, Honolulu, HI, 27 June-1 July, 2009.

Krentz L, D Gochfeld, **M Slattery**. Do cave sponge communities facilitate nearby coral reef community diversity. 38th Benthic Ecology Meeting, Corpus Christi TX, 5-7 March 2009

Gochfeld, D.J., K.E. Pappas, S. Ankisetty and **M. Slattery**. Widespread but selective antibacterial chemical defenses among Caribbean corals. Benthic Ecology Meeting, Corpus Christi, TX, 4-7 March, 2009.

Ehmen, B., E. Goldman, C. May, A. Boettcher, A. Morris, D. Gochfeld, **M. Slattery** and H. MacIntyre. Assessment of habitat and population structure of seagrasses at Grand Bay National Estuarine Research Reserve. Southern Section of American Society of Plant Biologists meeting, Austin, TX, 28 February-2 March, 2009.

- Slattery M**, KL Willett, DJ Gochfeld, J Weston, C Warren, C Easson, G Easson, J Janaskie, A Boettcher, B Ehmen, CA May. Impacts of Hurricane Katrina on seagrass beds in Grand Bay, Mississippi. 29th Annual Meeting of SETAC, Tampa FL, 17-21 November 2008
- Ehmen, B., E. Goldman, C. May, A. Boettcher, D. Gochfeld, **M. Slattery**, H. MacIntyre. Predicting suitable seagrass habitat at Grand Bay National Estuarine Research Reserve. Mississippi-Alabama Bays & Bayous Symposium, Biloxi, MS, 28-29 October, 2008.
- Slattery M**, MP Lesser, S Ankisetty, DJ Gochfeld. Phenotypic plasticity in chemical defense and growth across a depth gradient on Caribbean sponges. 11th International Coral Reef Symposium, Fort Lauderdale FL, 7-11 July 2008
- Hodges TW, **M Slattery**, JB Olson. Phylogenetic variation of actinomycetes isolated from marine cave and coral reef sediment. 37th Benthic Ecology Meeting, Providence RI, 9-13 April 2008.
- Radwan M, S Ankisetty, S Manly, S Ross, M Ashfaq, J Rimoldi, **M Slattery**. Polybrominated diphenyl ethers (PBDEs) from marine invertebrates: I. Chemical characterization. 48th Annual Mtg of the American Society of Pharmacognosy, Portland ME, 14-18 July 2007
- Ankisetty S, M Radwan, S Manly, S Ross, M Ashfaq, J Rimoldi, **M Slattery**. Polybrominated diphenyl ethers (PBDEs) from marine invertebrates: II. Biological characterization. 48th Annual Mtg of the American Society of Pharmacognosy, Portland ME, 14-18 July 2007
- Slattery M**, D Gochfeld, J Olson, M Lesser. Ocean exploration and drug discovery in the twilight zone. American Geophysical Union Fall Meeting, San Francisco CA, 11-15 December 2006
- Weston J, **Slattery M**, S Threlkeld. Short-term water quality responses of a microtidal estuary to storm events. Alabama-Mississippi Bays and Bayous Symposium, Mobile AL, 27-29 November 2006
- Slattery M**. Marine natural products: Data mining in the NIUST OBCR repository. Indo-US Conference on New Bioactive Molecules in Pharmaceutical Research- Contribution of Natural Products, Hyderabad India, 13-14 November 2006
- Slattery M**. Soft corals as bioindicators of stress: In situ assessment. 27th Annual Meeting of SETAC, Montreal Canada, 5-9 November 2006
- Slattery M**. Bioactive compounds from Echinoderms: Ecological and evolutionary implications. 12th International Echinoderm Conference, Durham NH, 7-11 August 2006
- Slattery M**, J Weston, D Gochfeld. Effects of discharge and pharmaceuticals on sea urchin development. 12th International Echinoderm Conference, Durham NH, 7-11 August 2006
- Gochfeld D, L Harrison, J Olson, MP Lesser, S Ankisetty, **M Slattery**. Allelopathic effects of the Caribbean sponge *Svenzea zeai* on the coral *Montastraea annularis*. [Rio de Janeiro Museu Nacional Serie Livros 16:116]. 7th International Sponge Symposium, Buzios Brazil, 7-13 May 2006
- Gochfeld D, **M Slattery**, J Olson. *Aplysina* red band syndrome: a new condition affecting Caribbean sponges. [Rio de Janeiro Museu Nacional Serie Livros 16:117]. 7th International Sponge Symposium, Buzios Brazil, 7-13 May 2006
- Slattery M**, D Gochfeld, MP Lesser. Ecology and bioactivity of deep-reef sponge communities in the Bahamas. [Rio de Janeiro Museu Nacional Serie Livros 16:138]. 7th International Sponge Symposium, Buzios Brazil, 7-13 May 2006
- Slattery M**. Competition in microbial mat communities in Antarctic Dry Valley lakes. Intl Conference on Alpine and Polar Microbiology, Innsbruck Austria, 27-31 March 2006
- Lesser M, **M Slattery**. Biodiversity and ecology of deep-reef sponge communities in the Bahamas. 13th Ocean Sciences Meeting, Honolulu Hawaii, 20-24 February 2006

- Purcell J, **M Slattery**, D Gochfeld. Determining the bioactivity of a marine sponge extract against *Leishmania*. Annual Biomedical Research Conference for Minority Students, Atlanta GA, 2-4 November 2005
- Slattery M**, H Kamel, DJ Gochfeld, S Elshahawi, S Ankisetty. Hybridization in soft corals: genetic recombinations result in novel biogenic metabolites. NCNPR 10th Annual Poster Session, Oxford MS, September 2005
- Gochfeld, DJ, BA Avery, KE Marsh, RW Thacker, **M. Slattery**. Chemical ecology of Caribbean sponges: habitat-specific variability in chemical defenses. American Society of Pharmacognosy Meeting, Corvallis OR, 23-27 July 2005
- Slattery M**, DJ Gochfeld, S Ankisetty, J Miller, J Rimoldi, KL Willett, TJ Smilie, MR Jacob, AM Best, WR Chambliss, L Walker. The NIUST Ocean Biotechnology Center & Repository. American Society of Pharmacognosy Meeting, Corvallis OR, 23-27 July 2005
- Ankisetty S, **M Slattery**. Isolation and Structural Characterization of Alkaloids from an undescribed Sponge (*Euryspongia* sp.). American Society of Pharmacognosy Meeting, Corvallis OR, 23-27 July 2005
- Hoover CA, **M Slattery**, A Marsh. Changes in secondary metabolite production and transcriptome complexity in response to artificial predation in a benthic soft coral, *Sinularia polydactyla*. International Society of Chemical Ecology Meeting, Washington DC, 23-27 July 2005
- Slattery M**, DJ Gochfeld, P Houk, LR Harrison, A Chaudhary, KL Willett. Effects of environmental estrogens on populations of the tropical Pacific soft coral *Sinularia polydactyla*. [Mar Env Res 62:S267]. 13th International Symposium on Pollution Responses in Marine Organisms, Allessandria Italy, 19-22 June 2005
- Slattery M**, HN Kamel, CA Hoover, DJ Gochfeld, S ElShahawi, S Ankisetty. Hybridization in drug discovery: novel biogenic metabolite production. International Marine Biotechnology Conference, St. John Canada, 7-12 June 2005
- Weston J, **M Slattery**. Analytical detection and quantification of chemical mixtures: WNV eradication compounds and other xenobiotics. Society of Environmental Toxicology and Chemistry (SETAC) Joint Regional Meeting, Makanda IL. 16-18 May 2005
- Burt D, **M Slattery**. A bioassay-guided isolation of anti-malarial active compounds from a marine soft coral of the genus *Asterospicularia*. MALTO Meeting, Oxford MS, May 2005
- Elshahawi S, S Ankisetty, **M Slattery**. Structure elucidation and biological activities of the secondary metabolites of *Sinularia maxima*. MALTO Meeting, Oxford MS, May 2005
- Weston J, **M Slattery**. Analytical detection and quantification of chemical mixtures: WNV eradication compounds and other xenobiotics. Mississippi Water Resources 35th Annual Conference, Jackson MS, 26-27 April 2005
- Olson J, D Gochfeld, **M Slattery**. *Aplysina* red band disease: a new sponge disease in the Caribbean. 34th Benthic Ecology Meeting, Williamsburg VA, 6-10 April 2005
- Hoover CA, AG Marsh, **M Slattery**. Secondary metabolite synthesis and variability in the soft coral, *Sinularia polydactyla*. Society of Integrative and Comparative Biology Annual Meeting, San Diego CA, 4-8 January 2005
- Gochfeld D, **M Slattery**, MT Hamann, K Sullivan, N Quinn, L Walker. New drugs from marine natural resources of Jamaican reefs: development of an International Cooperative Biodiversity Group program. International Congress on Natural Products Research, Phoenix AZ, 31 July-4 August 2004

- Slattery M**, H Kamel, DJ Gochfeld, S Elshahawi, S Ankisetty. Hybridization in soft corals: genetic recombinations result in novel biogenic metabolites. International Congress on Natural Products Research, Phoenix AZ, 31 July-4 August 2004
- Slattery M**, HN Kamel, DJ Gochfeld, RW Thacker. Chemical resistance in the hybrid soft coral *Sinularia maxima* x *S. polydactyla*. 10th Intl Coral Reef Symposium, Okinawa Japan, 28 June-2 July 2004
- Weston J, **M Slattery**. Chemical mixtures (phase I): consequences of WNV eradication on the amphipod *Hyaella azteca*. 34th Annual Mississippi Water Resources Conference, Raymond MS, 20-21 April 2004
- Hoover CA, KT Fielman, **M Slattery**, AG Marsh. Secondary metabolite synthesis, variability and regulation in the soft corals *Sinularia polydactyla* and *Sinularia maxima*. Benthic Ecology Meeting, Mobile AL, 25-27 March 2004
- Slattery M**, DJ Gochfeld, HN Kamel, RW Thacker. Phenotypic plasticity and hybridization in drug discovery: soft coral chemical resistance. World Aquaculture Society Mtg, Honolulu HI, 1-5 March 2004
- Kamel HN, FR Fronczek, D Ferreira, NH Fischer, **M Slattery**. Chemical investigation of the soft coral *Sinularia maxima* x *Sinularia polydactyla*. Gordon Research Conference on Marine Natural Products, Ventura CA, February 2004
- Slattery M**, DJ Gochfeld, JJ Weston, GA Hines, J Starmer. Spawning synchrony in the soft coral *Sinularia polydactyla* and the effects of estrogenic compounds. 24th Mtg of SETAC, Austin TX, 9-14 November 2003
- Brooks BW, W Smith, CL Blank, J Weston, **M Slattery**, CM Foran. Pharmaceutical neuromodulation of teleost catecholamines. 24th Mtg of SETAC, Austin TX, 9-14 November 2003
- Slattery M**, HN Kamel, DJ Gochfeld, RW Thacker. Chemical resistance in the hybrid soft coral *Sinularia maxima* x *S. polydactyla*. Intl Symposium on the Chemistry & Biology of Marine Organisms, Crete Greece, 21-26 September 2003
- Weston J, **M Slattery**. Effect of point source discharge on sea urchin (*Lytechinus variegatus*) development. Pollution Responses In Marine Organisms, St. Petersburg FL, May 2003
- DeBusk BC, A Beeler, JM Rimoldi, **M Slattery**, DK Schlenk. Effects of the feeding deterrent and sponge natural product 4,5-Dibromopyrole-2-carboxylic acid on biotransformation enzymes in a nonspongivorous and spongivorous fish. Pollution Responses In Marine Organisms, St. Petersburg FL, May 2003
- Slattery M**, DJ Gochfeld, KE Marsh, BC DeBusk, D Schlenk. The chemical arms race and flamingo tongue prey preferences. Benthic Ecology Meeting, Groton CT, 27-30 March 2003
- Marsh KE, DJ Gochfeld, **M Slattery**. Evidence for pheromonal mediation of sex change in a protogynously hermaphroditic reef fish. Benthic Ecology Meeting, Groton CT, 27-30 March 2003
- Gochfeld DJ, KE Marsh, **M Slattery**. Antimicrobial activity of the Caribbean reef coral *Siderastrea siderea* and temporal changes in susceptibility to Dark Spot Syndrome. Benthic Ecology Meeting, Groton CT, 27-30 March 2003
- Gochfeld DJ, **M Slattery**, J Weston, T McClanahan. Inducible defenses in hard corals: a natural experiment in Kenyan marine parks. Benthic Ecology Meeting, Groton CT, 27-30 March 2003

- Slattery M**, CM Foran, BW Brooks, J Weston. Effects of fluoxetine on development in the sea urchin *Lytechinus varigatus*. 23rd Mtg. of SETAC, Salt Lake City UT, 16-20 November 2002
- Weston J, DB Huggett, CM Foran, **M Slattery**. Effects of the selective serotonin reuptake inhibitor, Prozac(TM), on the reproduction of Japanese medaka. 23rd Mtg. of SETAC, Salt Lake City UT, 16-20 November 2002
- Weston J, DB Huggett, CM Foran, **M Slattery**. Effects of Prozac™, fluoxetine, on reproductive and biochemical responses in Japanese medaka. 23rd Mtg. of SETAC, Salt Lake City UT, 16-20 November 2002
- Brooks BW, PK Turner, JK Stanley, J Weston, E Glidewell, CM Foran, **M Slattery**, DB Huggett. Waterborne and sediment toxicity of fluoxetine to selected organisms. 23rd Mtg. of SETAC, Salt Lake City UT, 16-20 November 2002
- Weston J, DB Huggett, **M Slattery**. Evaluation of reproductive variability in Japanese medaka non-exposed conditions. 23rd Mtg. of SETAC, Salt Lake City UT, 16-20 November 2002
- Slattery M**, DJ Gochfeld, T Iliffe, B Kakuk, M Kelly. Biodiversity and Competitive Interactions of Cave Sponges in the Bahamas. 6th Intl Sponge Conference, Genoa Italy, 29 September-5 October 2002
- Gochfeld DJ, MT Hamann, BA Avery, KE Marsh, RW Thacker, **M Slattery**. Chemical variability and ecological activity of compounds from the Caribbean sponge *Plakortis* sp. 6th Intl Sponge Conference, Genoa Italy, 29 September-5 October 2002
- Slattery M**, VJ Paul, R Thacker. Hybrid resistance in the tropical Pacific soft coral *Sinularia maxima* x *S. polydactyla*: Biomedical considerations. 43rd Mtg American Society of Pharmacognosy, New Brunswick NJ, 27-31 July 2002
- Gochfeld D, **M. Slattery**. Coral diseases and chemical resistance mechanisms. 43rd Mtg American Society of Pharmacognosy, New Brunswick NJ, 27-31 July 2002
- Slattery M**, VJ Paul, R Thacker. Hybrid resistance in the tropical Pacific soft coral *Sinularia maxima* x *S. polydactyla*: Chemical and structural defenses. 31st Annual Meeting Marine Benthic Ecology, Orlando FL, 22-24 March 2002
- Gochfeld DJ, **M Slattery**. Chemical ecology of reef and cave sponges of the Bahamas: Predator deterrent vs antimicrobial activity. 31st Annual Meeting Marine Benthic Ecology, Orlando FL, 22-24 March 2002
- Weston JJ, DB Huggett, CM Foran, **M Slattery**. Effects of the selective serotonin reuptake inhibitor, Prozac, on the reproduction of Japanese Medaka. Society of Toxicology, Nashville TN, 18-22 March 2002
- Weston JJ, DB Huggett, J Rimoldi, CM Foran, **M Slattery**. Determination of fluoxetine (Prozac) and norfluoxetine in aquatic environments. 22nd Annual Mtg of SETAC. Baltimore MD, 11-15 November 2001
- Slattery M**, ML Flagg, AM Clark. Chemotaxonomy: Research perspectives and prospects. 42nd Mtg. American Society of Pharmacognosy, Oaxaca Mexico, 14-18 July 2001
- Gochfeld DJ, MT Hamann, BA Avery, **M Slattery**. Environment-specific variability in bioactivity and chemistry of the Caribbean sponge *Plakortis* sp. 42nd Mtg. American Society of Pharmacognosy, Oaxaca Mexico, 14-18 July 2001
- Kamel H, S Khalifa, **M Slattery**. Site-specific variability in bioactive metabolites from the tropical sponge *Axinella* sp. 42nd Mtg. American Society of Pharmacognosy, Oaxaca Mexico, 14-18 July 2001

- Puglisi MP, VJ Paul, R deNys, PD Steinberg, **M Slattery**. Biogeographic comparisons of the gorgonian *Rhumphella* sp. 42nd Mtg. American Society of Pharmacognosy, Oaxaca Mexico, 14-18 July 2001
- Slattery M**. Biodiversity and chemical plasticity of sponges and soft corals from the Red Sea. Workshop on Conservation and Sustainable Use of Biodiversity in Egypt, Mansoura Egypt, 3-5 April 2001
- Slattery M**, D Block, BC DeBusk, DK Schlenk. Effects of various estrogenic compounds and industrial wastewater discharge on sea urchin development. 21st Annual Mtg of SETAC, Nashville TN, 12-16 November 2000
- Block DS, JC Allgood, **M Slattery**, WH Benson. Evaluation of chlorpyrifos partitioning in sediment: An assessment of chemical mixture and microbial influences. 21st Annual Mtg of SETAC, Nashville TN, 12-16 November 2000
- DeBusk BC, **M Slattery**, D Schlenk. Isolation and sequencing of CYP1A cDNAs from a number of butterflyfish species: A case for diet-driven evolution in a critical biotransformation enzyme. 21st Annual Mtg of SETAC, Nashville TN, 12-16 November 2000
- Slattery M**, DJ Gochfeld, BC DeBusk, GR Gaston, DK Schlenk. Chemical and structural defenses mediate gorgonian prey preference of *Cyphoma gibbosum*. 9th Intl. Coral Reef Symp, Bali Indonesia, 23-27 October 2000
- Gochfeld DJ, **M Slattery**, BA Avery, MT Hamann. Site- and depth-specific variability in the chemistry of the Caribbean sponge *Plakortis* sp. 9th Intl. Coral Reef Symp, Bali Indonesia, 23-27 October 2000
- Slattery M**, S Khalifa, R Kilada, PW Hseuh, T Maniwavie, VJ Paul. Site-specific variability in bioactive metabolites from tropical soft corals. 41st Mtg. American Society of Pharmacognosy, Seattle WA, 22-26 July 2000
- Puglisi MP, VJ Paul, **M Slattery**. Evidence for marine chemical ecology as a tool for drug discovery? 41st Mtg. American Society of Pharmacognosy, Seattle WA, 22-26 July 2000
- Kuhajek JM, AM Clark, DE Wedge, **M Slattery**. Ecological patterns influence the antifungal activity of root extracts from Rocky Mountain wetland plants. American Society of Pharmacognosy, Seattle WA, 22-26 July 2000
- Puglisi MP, VJ Paul, **M Slattery**. Geographic variability in the chemical defense systems of the Pacific gorgonians *Annella mollis* and *Annella reticulata*. Wetlands 2000 Mtg, Oxford MS, 23-25 May 2000
- Kuhajek JM, AM Clark, DE Wedge, **M Slattery**. Temporal and spatial variability affect levels of antifungal activity in root extracts from Rocky Mountain wetland plants. Wetlands 2000 Mtg, Oxford MS, 23-25 May 2000
- DeBusk BC, **M Slattery**, D Schlenk. Isolation and sequencing of CYP1A cDNA's from a number of butterflyfish species: A case for diet-driven evolution in a critical biotransformation enzyme. 29th Annual Meeting Marine Benthic Ecology, Wilmington NC, 9-12 March 2000
- Puglisi MP, VJ Paul, **M Slattery**. Biogeographic differences in physical and chemical defenses of the Pacific gorgonians *Annella mollis* and *A. reticulata*. 29th Annual Meeting Marine Benthic Ecology, Wilmington NC, 9-12 March 2000
- DeBusk BC, **M Slattery**, D Schlenk. Isolation and sequencing of CYP1A cDNA's from five butterflyfish species: A case for diet-driven evolution in a critical biotransformation enzyme. Society of Toxicology, Philadelphia PA, March 2000

- Slattery M**, I Rajbhandari, K Wesson. Competition-mediated optimization of antibiotic production in marine bacteria. Gordon Research Conference, Ventura CA, 27 Feb-3 March 2000
- Puglisi MP, VJ Paul, **M Slattery**. The chemical defense systems of the Pacific gorgonians *Annella mollis* and *Annella reticulata*. Gordon Research Conference, Ventura CA, 27 Feb-3 March 2000
- Slattery M**. Fungal pathogenesis of the sea fan *Gorgonia ventalina*: direct and indirect consequences. Intl. Conf. on Scientific Aspects of Coral Reef Assessment. Fort Lauderdale FL, 14-16 April 1999
- Kuhajek JM, AM Clark, DE Wedge, **M Slattery**. Spatial variability in the antifungal activity of root extracts from Rocky Mountain wetland plants. American Society of Pharmacognosy Interim Mtg, Tunica MS, 29 April-1 May 1999
- Frankfater CR, DE Wedge, **M Slattery**. Antifungal compounds with agricultural utility from the marine cave sponge *Plakortis* sp. American Society of Pharmacognosy Interim Mtg, Tunica MS, 29 April-1 May 1999
- Slattery M**, J Starmer, VJ Paul. Temporal and spatial variation in chemical defenses of tropical Pacific soft corals: Adaptive plasticity. 39th Mtg American Society of Pharmacognosy, Orlando FL, 19-24 July 1998
- Puglisi MP, VJ Paul, **M Slattery**. Intracolony variation of chemical and physical defenses in Pacific gorgonian corals. 39th Mtg American Society of Pharmacognosy, Orlando FL, 19-24 July 1998
- Slattery M**, C Avila, J Starmer, VJ Paul. Chemical Defenses in the Tropical Pacific Soft Coral *Sinularia maxima*: Effects of UV Light. 26th Annual Meeting Marine Benthic Ecology, Melbourne FL, 13-15 March 1998
- Puglisi MP, VJ Paul, **M Slattery**. Ecological clues as leads for novel bioactive metabolites. Feeding deterrent Calamenene sesquiterpenes from the Pacific gorgonian *Subergorgia* sp. Gordon Research Conference, Ventura CA, 22-27 February 1998
- DeBusk BC, **M Slattery**, D Schlenk. Effect of dietary exposure of the tunicate, *Amourcium* sp. on hepatic expression of CYP1A and GST's in the pinfish, *Lagodon rhomboides*. 19th Annual Mtg of SETAC, Williamsburg VA, 12-16 November 1998
- Wesson KJ, JM Kuhajek, M Warren, MP Puglisi, DC Dunbar, **M Slattery**. Biomedical compounds from marine and terrestrial microbes: the influence of nutrition on bioactivity. 38th Mtg American Society of Pharmacognosy, Iowa City IA, 26-30 July 1997
- Puglisi MP, MT Hamann, **M Slattery**. Isolation of antibacterial water-borne metabolites from the soft coral *Gersemia antarctica*. 38th Mtg American Society of Pharmacognosy, Iowa City IA, 26-30 July 1997
- Bartyzel P, M Judge, MP Puglisi, **M Slattery**, TL Perry, MT Hamann, JK Zwajiony. Soft coral *Sarcophyton trocheliophorum* from Guam as a potential source of sarcophine. 38th Mtg American Society of Pharmacognosy, Iowa City IA, 26-30 July 1997
- Slattery M**, D Schlenk, A Ariel, J Steevens, WH Benson. Effects of ultraviolet light and polyaromatic hydrocarbon exposure on sea urchin development and microtox bioassays. ASTM 7th Symposium on Environmental Toxicology and Risk Assessment, St. Louis MO, 6-8 April 1997
- Slattery M**, MT Hamann, IA Kahn, T Perry, D Comfort, W Walker, J Starmer, VJ Paul. Chemical variation in tropical Pacific soft corals. 37th Mtg American Society of Pharmacognosy, Santa Cruz CA, 25-30 July 1996

- Slattery M**, VJ Paul. Temporal and spatial variability in chemical defenses from tropical Pacific soft corals. 8th Intl Coral Reef Symp, Panama City Panama, 24-29 June 1996
- Slattery M**, VJ Paul, KL Van Alstyne, CR Wylie. Ecological roles for secondary metabolites in tropical Pacific soft corals and their eggs. [J Cell Biochem 19B: 342]. Keystone Symposia: Molecular Approaches to Marine Ecology and Evolution, Santa Fe NM, 5-11 March 1995
- Slattery M**, GA Hines, SA Watts. Progesterone and androstenedione metabolism in Antarctic Soft Corals. [Am Zool 34(5): 106A]. 105th Annual Meeting American Society of Zoologists, St. Louis MO, 4-8 January 1995
- Slattery M**, VJ Paul, KL Van Alstyne, CR Wylie. Ecological roles for secondary metabolites in tropical Pacific soft corals and their eggs. 75th Annual Meeting Western Society of Naturalists, Monterey CA, 27-30 December 1994
- Slattery M**, JB McClintock. An overview of the population structure and chemical defenses of three species of Antarctic soft corals. 6th International Meeting Scientific Committee on Antarctic Research, Venice Italy, 30 May-3 June 1994
- McClintock JB, BJ Baker, **M Slattery**, M Hamann, RW Kopitzke, P Bryan, J Heine, W Yoshida. The chemical ecology of shallow-water marine invertebrates in McMurdo Sound, Antarctica. 6th International Meeting Scientific Committee on Antarctic Research, Venice Italy, 30 May-3 June 1994
- Slattery M**, W Yoshida, M Hamann, J McClintock. The Antarctic soft coral sweats and predators flee: cholesterol as an associative allomone. 22nd Annual Meeting Marine Benthic Ecology, Mystic CN, 18-20 March 1994
- Slattery M**, I Bosch. Costs of brooding and development in an Antarctic asteroid. [Am Zool 32(5): 120A]. 103rd Annual Meeting American Society of Zoologists, Vancouver BC Canada, 26-30 December 1992
- Slattery M**, I Bosch. Possible costs of brooding and embryonic development in an Antarctic asteroid. North American Friends of Echinoderms, Fort Pierce FL, 9-11 July 1992
- Slattery M**, JB McClintock, TS Hopkins. Chemical and structural defenses in the soft coral *Neospongodes* sp. 69th Annual Meeting Alabama Academy of Sciences, Tuscaloosa AL, 15-18 April 1992
- Slattery M**, JB McClintock. Antimicrobial properties and potential antifouling activities the Antarctic soft coral *Alcyonium paessleri*. 20th Annual Meeting Marine Benthic Ecology, Newport RI, 26-29 March 1992
- Slattery M**, JB McClintock, J Heine, J Weston. Chemical defense, biochemical composition and energetic content of three Antarctic opisthobranchs. [Am Zool 31(5): 151A]. 102nd Annual Meeting American Society of Zoologists, Atlanta GA, 27-30 December 1991
- Slattery M**, JB McClintock, J Heine, J Weston. Biochemical composition, energy content, and chemical defense in the Antarctic soft coral *Alcyonium paessleri*. 19th Annual Meeting Marine Benthic Ecology, Williamsburg VA, 7-10 March 1991
- Slattery M**. Larval settlement and juvenile survival in the red abalone (*Haliotis rufescens*): an examination of inductive cues and settlement substrates. 68th Annual Meeting Alabama Academy of Sciences, Jacksonville AL, 6-10 March 1991
- Slattery M**, JB McClintock, J Heine, J Weston. The chemical ecology of the Antarctic soft coral *Alcyonium paessleri*. [Am Zool 30(4): 130A]. 101st Annual Meeting American Society of Zoologists, San Antonio TX, 27-30 December 1990

INVITED SEMINARS:

Intl Society of Barristers, FL 2010
University of Alabama 2009
Simon Fraser University 2008
United Nations, New York 2007
National Heritage Trust, Little Cayman 2007, 2008
University of Alabama at Birmingham 2006
Mountain Brook High School, Birmingham AL 2006
University of Alabama In Service 2006
University of Guam Marine Laboratory; 2005
University of Delaware; 2004
University of Alabama; 2003
University of Belize; 2003
Caribbean Marine Research Center; 2003
Oauchita Baptist University; 2003
UAB, Sigma Xi Speaker Series; 2002
Harbor Branch Oceanographic Institution; 2002
University of Central Washington; 2001
University of Alaska-Fairbanks; 2000
University of Miami RSAMS; 2000
UAB Medical School; 2000
Suez Canal University, Egypt; 1999
39th Intl American Society of Pharmacognosy Conference, Orlando; 1998
University of Alabama at Birmingham; 1997
8th Intl Coral Reef Conference, Panama; 1996
6th Intl Southern Conference on Antarctic Research, Venice, Italy; 1994
University of Mississippi; 1994
McMurdo Station, Antarctica; 1993
McMurdo Station, Antarctica; 1992
University of Guam; 1992

UNIVERSITY ACTIVITIES:

Courses:

Pathogenesis of Infectious Diseases (UM: PHCG321) Spring 2009, Fall 2009
Pathogenesis and Etiology of Infectious Diseases (UM: PHCG421, see website:
www.olemiss.edu/courses/phcg421) Fall 1995, 1996, 1997, 1998, 1999, 2000, 2001,
2002, 2003, 2004, 2005, 2006, 2008
Coral Reef Stress (UM PHCG541) Summer 2010, 2011
Chemical Ecology (UM: PHCG520), Spring 1997, Fall 1999, 2001, 2002, 2004, Spring
2008, 2009
Environmental Toxicology (UM: PHCL547- team taught), Spring 2008, 209
Scientific Diving (UM: PHCG 541), Fall 2005, Spring 2008
Biochemical Adaptations (UM: PHCG 620), Spring 1998, Fall 2000, 2003
Topics in Endocrinology (UM: PHCG 620), Spring 2003

Analysis of Natural Products I: Isolation (UM: PHCG 631), Spring 1997, Fall 1998, 1999, 2000
Coastal Reef Dynamics of the Belize Barrier Reef (UM & AUIP: NR 482), Spring 1997, 1998, 1999, 2000
Marine Chemical Ecology (UOG: MS 599), Spring 1995, 1998
Invertebrate Zoology (lab) (UAB: BIO 370), Fall 1990
Biological Oceanography (NU: BIO 490), Fall 1987
Marine Ecology (NU: BIO 499), Spring 1988
Anatomy & Physiology (NU: BIO 472), Spring 1988

Graduate Committees:

As Committee Chair

Cole Easson, ETGP: [M.S. 2010] (D Gochfeld, co-Chair)
Lindsay Krentz, ETGP: M.S. 2010
Duane Burt, Pharmacognosy: M.S. 2006
Sherif Elshawahi, Pharmacognosy: M.S. 2006
Cheryl Frankfater, Pharmacognosy: Ph.D. 2004
Haidy Kamel, Pharmacognosy: Ph.D. 2004
Erica Marsh, Biology: M.S. 2003 (G Parsons, co-Chair)
Bryan DeBusk, Pharmacology: Ph.D. 2001 (D Schlenk, co-Chair)
Jeanne Kuhajek, Pharmacognosy: Ph.D. 2000
Melany Puglisi, Pharmacognosy: Ph.D. 2000
David Block, Pharmacology: M.S. 2000 (W Benson, co-Chair)

As Committee Member

Kartick Shirur, Biology: [Ph.D. 2012]
Christine Bertz, Biology: [Ph.D. 2010]
Hong Jia, Pharmacognosy: [M.S. 2009]
Jing Li, Pharmacognosy: [Ph.D. 2009]
Christina Coleman, Pharmacognosy: [Ph.D. 2009]
Cameron Johnson, Biology: [M.S. 2009]
Bryan Cage, Biology: [Ph.D. 2009]
Jim Weston: Biology: [Ph.D. 2009]
Steven Stein; Pharmacognosy: [dnf]
Yatin Shukla, Pharmacognosy: Ph.D. 2009
Jianping Zhao, Pharmacognosy: Ph.D. 2008
Jen Wentao, Pharmacognosy: Ph.D. 2007
Kaleem Mohammed: Ph.D. 2005
Mounirah Al-Azeib: Pharmacognosy: M.S. 2004
Fortune Obego, Biology: Ph.D. 2004
Amber Hale: Pharmacognosy: M.S. 2003
Ira Rajbandhari, Pharmacognosy: M.S. 2001
Wendell Haag, Biology: Ph.D. 2001
Scott Wilkins, Pharmacognosy: Ph.D. 2000
Jeff Steevens, Pharmacology: Ph.D. 1999
Chuck Dunbar, Pharmacognosy: Ph.D. 1998
Kyeongsik Rhew, Biology: Ph.D. 1998
David Limburg, Medicinal Chemistry: M.S. 1996

As External Committee Member

Jessica Jarrett (University of New Hampshire, M Lesser- Chair): [Ph.D. 2012]
Cara Fiore (University of New Hampshire, M Lesser- Chair): [Ph.D. 2013]
Lucy Harrison (Simon Fraser University, I Cote- Chair): M.S. 2008
Tyler Hodges (University of Alabama, J Olson- Chair): Ph.D. 2008
Patrick Erwin (University of Alabama at Birmingham, R Thacker- Chair): Ph.D. 2007
Cindi Hoover (University of Delaware, A Marsh- Chair): Ph.D. 2006

Undergraduate committees:

Mallory de Johnson: HC 2010
Katerina Pappas: HC 2010
Laura Godfrey: HC 2005

Service:

UM Competitive Enhancement Task Force, 2007
Treasurer: Sigma Xi, 2006-present
School of Pharmacy, Honors, Awards and Commencement, 2004 to 2007
Past President: Sigma Xi, 2005-2006
President: Sigma Xi, 2004-2005
Pharmacognosy Graduate Coordinator: 2004 to present
Biotechnology Working Group member, 2004 to present
Provost's Task Force on Research, Chair 2004-2005
President Elect: Sigma Xi, 2003-2004
Faculty Research Program Panelist 2001, 2005
Project leader: Drug-resistant pathogens research group, 1997 to present
Sigma Xi Graduate Poster Judge 1998 to present
Faculty Council, 1998 to 2003 (Chair 2001 to 2003)
Faculty Senate, 1996 to 1999
Executive Committee of Faculty Senate, 1997 to 1999
Curriculum Committee, 1996 to 2003
Scholastic Standards, 2003 to present
University Elections, 1997 to 1999
Pharmacy Elections Committee, 1995 to 1997
Campus Improvements, 1997 to 2002
Faculty-Student Relations Committee, 1995 to 2003 (Chair 1996 to 2001)
Minority Apprenticeship Program mentor, 1995 to present
Science-by-Mail mentor, 1996 to 2002
Science Fair Judge (Best of Fair) 1996 to present
Search Committee: Pharmacognosy Asst, 1997
Search Committee: Pharmacognosy Chair, 1996 to 1999
Search Committee: Environmental Toxicology Program Coordinator, 2000
Search Committee: Vice Chancellor for Research, 2000
Search Committee: Pharmacognosy Chair, 2003
Search Committee: Executive Director of NIUST, 2004
Diving Safety Officer: UM Diving Control Board, 1996-present

OTHER PROFESSIONAL ACTIVITIES:

Publication Review:

Aquatic Toxicology
Biological Bulletin
Coral Reefs
Journal of the American Chemical Society
Journal of Biomolecular Screening
Journal of Comparative Biochemistry and Physiology
Journal of Experimental Marine Biology and Ecology
Journal of Natural Products
Marine Ecology Progress Series
Marine Biology
Planta Medica

Proposal Review:

NSF Biological Oceanography
NSF Office of Polar Programs
NIH SBIR
Sea Grant (CA, MS-AL, HI, MD, NC, FL),
USDA
NOAA NURP- HURL, SEGM
National Environmental Research Council- UK
Hawaii Coral Reef Initiative

Text Review:

Holt Environmental Science [2008; Holt, Rinehart & Winston]: Chapter 4- “The Organization of Life”; Chapter 20- “The Environment and Human Health”
Ecology, Genetics, and Evolution of Metapopulations. [Edited by I. Hanski & O.E. Gaggiotti. Elsevier Academic Press, Amsterdam, 2004]. *Journal of Natural Products* 67:2156-2157.
Detection Methods for Cyanobacterial Toxins. [Edited by G.A. Codd, T.M. Jefferies, C.W. Keevil, & E. Porter. The Royal Society of Chemistry, Cambridge, UK. 1994]. *Journal of the American Chemical Society* 118:5161-5162.

Scientific Diving:

University of Mississippi, Chair, Diving Control Board, 1996-present
NOAA NURP, Council of DSO's, 2003-present
NSF OPP Diving Control Board member, 1993-present
PIMS, Diving Control Board member, 2005-present
Applied Subsea Technologies, Diving Control Board member, 2002-2005

NAUI Scuba Instructor (#8980)- over 600 students certified since 1985
Other certifications: IANTD Nitrox: 06/04/01
NSS CDC Cave: 11/28/01
IANTD Trimix: 05/23/02

IANTD Rebreather- CCR 2000: 08/05/03
IANTD Rebreather- Evolution: 06/04/06
IANTD Gas Blender: 01/06/08