

Jessica E. Martin, PhD

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Current Position:

Interim Dean (August 2023 to current)

Professor of Chemistry (Tenured; August 2018 to current)

Gregg Wadley College of Science and Health Professions

Northeastern State University, Tahlequah, Oklahoma

August 2006 to present (Assistant Professor August 2006 to July 2012; Associate Professor August 2012 to July 2018)

Courses taught: *Undergraduate:* General Chemistry 1 and 2 and labs, Inorganic Chemistry, Inorganic Chemistry Lab, Environmental Chemistry, Biological Inorganic Chemistry, Chemistry Seminar I, Research in Chemistry 1 and 2. Also taught College Strategies (Fall 2011) and University Strategies (Fall 2014, Fall 2015, Fall 2017, Fall 2018, and Fall 2020) courses designed to help incoming freshmen transition to a successful college career. *Graduate:* Topics in Natural Sciences (a course where ethics, safety, and other aspects of research are formally discussed) and Natural Science Capstone I.

Education:

Ph.D. in Chemistry (June 2006)

Dissertation: Siderophore production by marine bacterium *Ochrobactrum* sp. SP18

Dissertation advisor: Professor Alison Butler

University of California, Santa Barbara, California

M.S. in Chemistry (May 1998) and **B.S.** in Chemistry (May 1996)

Thesis: Relationships between nutrient concentrations and fecal coliform levels at Pine Flats in Oak Creek, Arizona

Thesis advisor: Professor Richard Foust

Northern Arizona University, Flagstaff, Arizona

Formal Leadership Training

ACE Leadership Academy (Chicago, IL, October 2014)

Educators' Leadership Academy Higher Education Department Chair training (University of Central Oklahoma, 2017-2018)

Other Relevant Employment:

Associate Dean (January 2019 to July 2023)

College of Science and Health Professions

Northeastern State University, Tahlequah, Oklahoma

Department Chair (2015-2018, *interim* 2014-2015)

Department of Natural Sciences

Northeastern State University, Tahlequah, Oklahoma

Scientific Consultant for Professional Education

Duties include review of current scientific literature regarding the chemistry and activity of vitamins, minerals, and dietary supplements and compilation of summary manuscripts for education of physicians, pharmacists, and other healthcare professionals.

Pharmavite, LLC, Northridge, California. Full-time, on-site October 1998 to January 2000. Off-site consultant January 2000 to 2014.

Academic Honors and Awards:

Circle of Excellence Award in Research (2010-2011)

Nominated for Circle of Excellence Award in Service (2016-2017)

Nominated for Circle of Excellence Award in Research (2007-2008)

Nominated for Circle of Excellence Award in Teaching (2006-2007)

Outstanding Teaching Assistant Award (2000-2001), Department of Chemistry and Biochemistry, University of California, Santa Barbara, California

Peer-Reviewed Publications: (undergraduate student author indicated with *; graduate student author indicated with †)

McQueen, A. † and Martin J. Siderophore production by marine fungus *Penicillium raistrickii* ATCC 42470. *Biometals*. In preparation for submission.

Kuhn, J.-U., Martin, J.D., and Butler, A. Photoreactivity of aerobactin and ochrobactin, citrate-derived marine siderophores. *Inorganic Chemistry*. In preparation for submission.

Stalls, M.C. †, McKinney, V.*, Connell, L., and Martin, J.D. Siderophore production by Antarctic *Leucosporidium* strains. *Biometals*. In preparation for submission.

Sweeney, S., Adams, A.D., Hicks, J.L., and Martin, J.D. Three distinct measures of in-service science teacher gains in chemistry and physics content knowledge: objective item exams, structural concept maps, and surveys. *Proceedings of the 2015 Annual International Conference of the Association for the Education of Teachers in Science*. Paper #10190 (2015)

Sandy, M.; Franklin, J.N.C.; Martin, J.D.; Butler, A. Vanadium bromoperoxidase from *Delisea pulchra*: enzyme-catalyzed formation of bromofuranone and attendant disruption of quorum sensing. *Chem. Commun.* 2011, 47, 12086-12088. *Chemical Communications* publishes urgent high quality communications from across the chemical sciences. Impact factor: 5.787 (2011)

Holinsworth, B.*; Martin, J.D. Siderophore production by marine-derived fungi. *Biometals*, 2009, 22, 625-632. *Biometals* is the only established journal to feature the important role of metal ions in chemistry, biology, biochemistry, environmental science, and medicine. Impact factor: 3.172 (2009)

Martin, J.D.; Homann, V.V.; Butler, A. Structure and membrane affinity of novel lipophilic siderophores produced by *Ochrobactrum* sp. SP18. *Journal of Biological Inorganic Chemistry*, 2006, 11, 633-641. The

Journal of Biological Inorganic Chemistry covers advances in the understanding of systems involving one or more metal ions set in a biological matrix - particularly metalloproteins and metal-nucleic acid complexes - in order to understand biological function at the molecular level. Impact factor: 3.415 (2009)

Butler, A.; Martin, J.D. The marine biogeochemistry of iron. In *Metal Ions in Biological Systems* (A. Sigel, H. Sigel, and R.K.O. Sigel, Eds.), 2005, Vol. 44, Marcel Dekker, NY.

Martinez, J.S.; Carter-Franklin, J.N.; Mann, E.L.; Martin, J.D.; Haygood, M.G.; Butler, A. Structure and membrane affinity of a new suite of amphiphilic siderophores produced by a marine bacterium. *Proceedings of the National Academy of Sciences, USA* 2003, 100, 3754-3759. PNAS is one of the world's most-cited multidisciplinary scientific serials. Impact factor: 9.432 (2009).

Other Publications

Martin, J.D. Guided adventures in real-life chemistry at NSU. *CTL Newsletter—Excellence in Teaching and Learning*. February 2012

Martin, J.D. Reviews of current literature in the field of nutritional support and dietary supplements. Published online at www.vitaminherbuniversity.com; this site has now been migrated into a login only continuing education site for pharmacists and registered dietitians managed by Pharmavite, LLC. Topics included 101 new or updated manuscripts in the following topics:

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| • Acetyl-L Carnitine | • | • |
| • N-Acetyl-Cysteine | • SAM-e | • Fluoride |
| • Acidophilus | • Theanine | • Iodine |
| • ALA alpha lipoic acid | • Biotin | • Iron |
| • Astaxanthin | • Choline | • Magnesium |
| • Chondroitin | • Folic Acid | • Manganese |
| • Cod liver oil | • Multivitamin | • Molybdenum |
| • CoQ10 | • Niacin | • Potassium |
| • S-Equol | • Pantothenic Acid | • Selenium |
| • Fish Oil (Omegas 3,6,9) | • Vitamin A | • Zinc |
| • Flaxseed | • Vitamin B-1 (thiamine) | • Herbals/botanicals |
| • Glucosamine | • Vitamin B-12 | • Acai |
| • Hyaluronic Acid | • Vitamin B-2 (riboflavin) | • Bilberry |
| • L-lysine | • Vitamin B-6 | • Cinnamon |
| • L-Theanine | • Vitamin C | • Cranberry |
| • Lutein | • Vitamin D | • Echinacea |
| • Lycopene | • Vitamin E | • Ginkgo |
| • Melatonin | • Vitamin K | • Green Tea catechins |
| • MSM methyl sulfonyl methane | • Boron | • Milk Thistle |
| • Pantethine | • Calcium | • Soy isoflavones |
| • Probiotics | • Chromium | • Turmeric |
| • Stanols/sterols | • Cobalt | • White Willow Bark |
| | • Copper | |

Outreach:

Synthesis of gold nanoparticles and analysis by TEM. Dr. Nathan Green and I hosted high school students from Francis Tuttle Technology Center at the **Northeastern State University**, Broken Arrow campus to do hands on activities and learn about transmission electron microscopy. Broken Arrow, Oklahoma May 2023.

Cells! An exploration through microscopy. Hosted sixth grade science students from Immanuel Lutheran Christian Academy at the **Northeastern State University**, Broken Arrow campus for an intensive experience learning about different types of cells. Broken Arrow, Oklahoma February 2023.

A microscopic exploration of animal, plant, and bacterial cells. Hosted special needs ninth grade science students from Broken Arrow Public School's Freshman Academy at the **Northeastern State University**, Broken Arrow campus for an intensive experience learning about different types of cells. Broken Arrow, Oklahoma February 2023.

Synthesis of gold nanoparticles and analysis by TEM. Dr. Nathan Green and I hosted high school chemistry students from Immanuel Lutheran Christian Academy at the **Northeastern State University**, Broken Arrow campus to do hands on activities and learn about transmission electron microscopy. Broken Arrow, Oklahoma November 2022.

Served as Judge for Science Fair. **Shiloh Christian School** Science Fair, Tahlequah, Oklahoma February 2020.

Served as Judge for Science Fair. **Shiloh Christian School** Science Fair, Tahlequah, Oklahoma November 2018.

Superconductivity – features and applications. Presentation and hands-on activities for fifth through eighth graders at a local elementary school. **Shiloh Christian School**, Tahlequah, Oklahoma April 2017.

NSU-Chemistry and Physics Academy. The NSU Chemistry and Physics Academy (NSU-CAPA) provides research-based professional development for certified science teachers who want to become certified to teach Chemistry and Physics. The program focuses on teacher knowledge, teacher practice, and student achievement in Chemistry and Physics. Role: Chemistry Instructor and Content Expert. **Northeastern State University**, Tahlequah, Oklahoma; Workshop July 2013, 2014, and 2015. Additional support for teachers during each academic year

Leadership Tahlequah tours and presentations. Each year in March, the Leadership Tahlequah group visits the Northeastern State University Tahlequah campus. I meet with them describing the research activities taking place in the Natural Sciences Research Facility. **Northeastern State University**, Tahlequah, Oklahoma March 2013, 2014, and 2015

From atoms to insects: how chemistry and life interact. Presentation and hands-on activities conducted jointly with Dr. Joseph Ahlander for the Oliver Scholars' Program. **Oliver Middle School**, Broken Arrow, Oklahoma February 2015.

Chemistry and biology of molecules produced by marine bacteria and fungi. A four week-research experience involving the STEP into STEM students (a high school to college bridge program). **Northeastern State University**, Tahlequah, Oklahoma July 2013

Chemistry: it's a gas! Presentation and demonstrations for middle and high school science teachers. **Endeavor Teachers Workshop**, Shawnee, Oklahoma November 2013

We're scientists, we have these white labcoat thingies. So, what do scientists do anyway? Presentation to the STEP into STEM students (a high school to college bridge program). **Northeastern State University**, Tahlequah, Oklahoma July 2011

Iron in the oceans: marine siderophores. Presentation to the STEP into STEM students (a high school to college bridge program). **Northeastern State University**, Tahlequah, Oklahoma July 2009

Investigating marine fungal siderophores. A four week-research experience involving the STEP into STEM students (a high school to college bridge program). **Northeastern State University**, Tahlequah, Oklahoma July 2009

Chemistry is Fun! (Easy chemistry demonstrations for all age groups). Presentation at the Northeastern Oklahoma Mathematics and Science Teacher Association 8th Annual Meeting. **Northeastern State University**, Tahlequah, Oklahoma January 2010

The chirality of scent and investigating density for elementary and middle schools. Presentation conducted jointly with Dr. Jody Buckholtz at the Northeastern Oklahoma Mathematics and Science Teacher Association 6th Annual Meeting. **Northeastern State University**, Tahlequah, Oklahoma January 2008

Transition metal complexes in solution. Chemistry demonstrations as part of Family Science Night II at Santa Barbara Junior High School. Hosted by Let's Explore Applied Physical Science, a National Science Foundation GK-12 program. **Santa Barbara Junior High School**, Santa Barbara, California May 2004

Iron complexes in solution. Chemistry demonstrations for Spanish speaking parents and students as part of Family Science Night I at Santa Barbara Junior High School. Hosted by Let's Explore Applied Physical Science, a National Science Foundation GK-12 program. **Santa Barbara Junior High School**, Santa Barbara, California May 2004

Chirality and perception of scent. Outreach program for fourth and fifth graders at Montessori School, in conjunction with Professor Alison Butler and the National Institutes of Health. **Montessori Center School**, Goleta, California March 2003

Summary of Grants Received:

Extramural funding of experimental/innovative teaching:

Funding period: June 2007 to May 2008

Title: Process-oriented, guided-inquiry learning activities for inorganic chemistry.

Funding agency: The POGIL Project, funded by the National Science Foundation

P.I.: Dr. Jessica Martin and Dr. Jens-Uwe Kuhn

Total Award: \$1,000.

Funding period: October 2021 to September 2022

Title: Strengthening Oklahoma Research - RCR Collaborative Conference for RUSO Institutions

Funding agency: Department of Health and Human Services, Office of Research Integrity.

P.I.: Dr. Jessica Martin

Co-P.I.: Dr. Cammi Valdez

Total Award: \$25,000.

This project supported hosting a workshop for faculty and staff at Regional University System of Oklahoma institutions to learn about responsible conduct of research training for undergraduate students.

Funding period: January 2023 to December 2025

Title: Investigation of Faculty Perceptions of Course-based Undergraduate Research Experiences and Barriers to Their Implementation

Funding agency: National Science Foundation.

P.I.: Dr. Jessica Martin

Co-P.I.: Dr. Martha Parrott

Total Award: \$287,614.

This project provides support for hosting workshops at NSU about Course-based Undergraduate Research Experiences (CUREs) as well as sponsoring eight faculty to develop new CUREs with the support of experienced project mentors.

Extramural funding – infrastructure support:

Funding period: September 2010 to August 2013

Title: Renovation of the Natural Sciences Research Facility.

Funding agency: National Science Foundation, American Recovery and Reinvestment Act.

P.I.: Dr. April Adams

Co-P.I.s: Dr. Jessica Martin and Dr. John deBanzie

Total Award: \$571,628.

This grant provided funding to renovate the research facilities formerly known as the Oklahoma State Bureau of Investigations laboratory (located on the west side of campus).

Funding period: January 2014 to April 2014

Title: INBRE Equipment 2014.

Funding agency: Oklahoma IDeA Network for Biomedical Research Excellence.

P.I.: Dr. Jessica Martin

Total Award: \$25,000.

This award is for purchase of specific equipment for use by faculty and students at NSU in the pursuit of knowledge in biomedical sciences.

Funding period: January 2015 to April 2015

Title: INBRE Equipment 2015.

Funding agency: Oklahoma IDeA Network for Biomedical Research Excellence.

P.I.: Dr. Jessica Martin

Total Award: \$25,000.

This award is for purchase of specific equipment for use by faculty and students at NSU in the pursuit of knowledge in biomedical sciences.

Funding period: January 2016 to April 2016

Title: INBRE Equipment 2016.

Funding agency: Oklahoma IDeA Network for Biomedical Research Excellence.

P.I.: Dr. Jessica Martin

Total Award: \$25,000.

This award is for purchase of specific equipment for use by faculty and students at NSU in the pursuit of knowledge in biomedical sciences.

Funding period: January 2017 to April 2017

Title: INBRE Equipment 2017.

Funding agency: Oklahoma IDeA Network for Biomedical Research Excellence.

P.I.: Dr. Jessica Martin

Total Award: \$25,000.

This award is for purchase of specific equipment for use by faculty and students at NSU in the pursuit of knowledge in biomedical sciences.

Funding period: January 2018 to April 2018

Title: INBRE Equipment 2018.

Funding agency: Oklahoma IDeA Network for Biomedical Research Excellence.

P.I.: Dr. Jessica Martin

Total Award: \$19,992.

This award is for purchase of specific equipment for use by faculty and students at NSU in the pursuit of knowledge in biomedical sciences.

Funding period: January 2021 to April 2021

Title: Scientific Equipment Purchase.

Funding agency: Oklahoma IDeA Network for Biomedical Research Excellence.

P.I.: Dr. Jessica Martin

Total Award: \$100,000.

This award is for purchase of specific equipment for use by faculty and students at NSU in the pursuit of knowledge in biomedical sciences.

Funding period: May 2021 to October 2021

Title: INBRE Equipment 2021 – Refrigerated Shakers for NSU.

Funding agency: Oklahoma IDeA Network for Biomedical Research Excellence.

P.I.: Dr. Jessica Martin

Total Award: \$19,442.

This award is for purchase of specific equipment for use by faculty and students at NSU in the pursuit of knowledge in biomedical sciences.

Extramural funding – teacher academies:

Funding period: March 2013 to June 2015

Title: NSU Chemistry and Physics Academy

Funding agency: Improving Teacher Quality – Oklahoma State Regents for Higher Education

P.I.: Dr. April Adams (science education expert)

Co-P.I.s: Dr. Jessica Martin (chemistry content expert), Dr. James Hicks (physics content expert), and Dr. Sophia Sweeney (internal evaluator)

Total award: \$129,414

Chemistry and Physics Academy (NSU-CAPA): CAPA is a research-based professional development opportunity for science teachers who desire to become certified to teach chemistry or physics, thereby increasing student achievement in chemistry and physics in Oklahoma.

Funding period: March 2015-June 2016

Title: NSU Chemistry and Physics Academy

Funding agency: Improving Teacher Quality – Oklahoma State Regents for Higher Education

P.I.: Dr. April Adams (science education expert)

Co-P.I.s: Dr. Jessica Martin (chemistry content expert), Dr. James Hicks (physics content expert), and Dr. Sophia Sweeney (internal evaluator)

Total award: \$64,670

Chemistry and Physics Academy (NSU-CAPA): CAPA is a research-based professional development opportunity for science teachers who desire to become certified to teach chemistry or physics, thereby increasing student achievement in chemistry and physics in Oklahoma.

Extramural funding of my research:

Funding period: December 2007 to April 2009

Title: Isolation and structural characterization of novel siderophores from marine-derived fungi.

Funding agency: Oklahoma IDeA Network of Biomedical Research Excellence (OK-INBRE) Junior Investigator Award. OK-INBRE is funded by the National Institutes of Health.

P.I.: Dr. Jessica Martin

Total Award: \$167,069.

This project involved characterization of iron-binding compounds produced by *Cunninghamella elegans* ATCC36112, a marine-derived fungus.

Funding period: May 2009 to October 2011

Title: Isolation and structural characterization of marine fungal siderophores.

Funding agency: Oklahoma IDeA Network of Biomedical Research Excellence (OK-INBRE) Junior Investigator Award. OK-INBRE is funded by the National Institutes of Health.

P.I.: Dr. Jessica Martin

Total Award: \$291,496.

This project involves isolation and characterization of novel compounds produced by marine-derived fungi, towards identification of compounds with biomedical applications.

Funding period: October 2011 to April 2014

Title: Applications of novel marine fungal siderophores.

Funding agency: Oklahoma IDeA Network of Biomedical Research Excellence (OK-INBRE) Junior Investigator Award. OK-INBRE is funded by the National Institutes of Health.

P.I.: Dr. Jessica Martin

Total Award: \$292,276.

This project involved analysis of the antimicrobial and anticancer properties of novel compounds produced by marine-derived fungi in addition to structural characterization of additional compounds.

Funding period: May 2016 to April 2017

Title: Time dependence of iron-binding compound production in marine microorganisms with potential antimicrobial applications.

Funding agency: Oklahoma IDeA Network of Biomedical Research Excellence (OK-INBRE) Summer Mentoring and Research Training (SMaRT) Program. OK-INBRE is funded by the National Institutes of Health.

P.I.: Dr. Jessica Martin

Total Award: \$8,494.

This project involved analysis of the production of iron binding compounds by marine microorganisms toward identification of novel, bioactive compounds. The Summer Mentoring and Research Training (SMaRT) Program supports freshmen and sophomore summer research opportunities in an effort to increase research involvement of students early in their undergraduate careers.

Funding period: June 2019 to April 2020

Title: Time dependence of iron-binding compound production in marine microorganisms with potential antimicrobial applications.

Funding agency: Oklahoma IDeA Network of Biomedical Research Excellence (OK-INBRE) Summer Mentoring and Research Training (SMaRT) Program. OK-INBRE is funded by the National Institutes of Health.

P.I.: Dr. Jessica Martin

Total Award: \$4,144.

This project involved continuation of a prior study of the production of iron binding compounds by marine microorganisms toward identification of novel, bioactive compounds. The Summer Mentoring and Research Training (SMaRT) Program supports freshmen and sophomore summer research opportunities in an effort to increase research involvement of students early in their undergraduate careers.

Funding period: May 2020 to April 2021

Title: INBRE support for student research 2020.

Funding agency: Oklahoma IDeA Network of Biomedical Research Excellence (OK-INBRE) undergraduate research program. OK-INBRE is funded by the National Institutes of Health.

P.I.: Dr. Jessica Martin

Total Award: \$25,696.

This project will continue work characterizing the structures and reactivity of iron(III)-binding compounds called siderophores. These compounds and others produced by these marine fungi and bacteria have potential for antimicrobial and antineoplastic applications. Our work will focus on the growth, isolation, and characterization (via HPLC, MS, and NMR) of novel compounds.

Funding period: May 2021 to August 2021

Title: Effects of carbon source on siderophore production by marine fungi 2021.

Funding agency: Oklahoma IDeA Network of Biomedical Research Excellence (OK-INBRE) Summer Mentoring and Research Training (SMaRT) Program. OK-INBRE is funded by the National Institutes of Health.

P.I.: Dr. Jessica Martin

Total Award: \$3,015.

This project involved continuation of a prior study of the production of iron binding compounds by marine microorganisms under conditions with varied carbon sources. The Summer Mentoring and Research Training (SMaRT) Program supports freshmen and sophomore summer research opportunities in an effort to increase research involvement of students early in their undergraduate careers.

Funding period: November 2021 to April 2022

Title: INBRE Additional Funding 2021-2022.

Funding agency: Oklahoma IDeA Network of Biomedical Research Excellence (OK-INBRE). OK-INBRE is funded by the National Institutes of Health.

P.I.: Dr. Jessica Martin

Total Award: \$56,818.

This project supported 15 freshman/sophomore level students' participation in an early research experience, three junior students participation in intensive research experiences, one upper division student to assist with the early research experience, and various pieces of equipment to support biomedical research projects at NSU.

Intramural funding of my research:

Funding period: July 2007 to June 2008

Title: Iron(III)-binding compounds produced by marine fungi.

Funding agency: Northeastern State University Faculty Research Committee.

P.I.: Dr. Jessica Martin

Total Award: \$8,000.

This project involved characterization of iron-binding compounds produced by *Cunninghamella elegans* ATCC36112, a marine-derived fungus.

Funding period: July 2009 to June 2010

Title: Siderophore production by marine fungi during biological challenge.

Funding agency: Northeastern State University Faculty Research Committee.

P.I.: Dr. Jessica Martin

Total Award: \$8,000.

This project involved analysis of siderophore production during biological challenge with marine fungi.

Funding period: July 2014 to June 2015

Title: Siderophore production by marine fungi during biological challenge.

Funding agency: Northeastern State University Faculty Research Committee.

P.I.: Dr. Jessica Martin

Total Award: \$8,000.

This project continued investigations of siderophore production during biological challenge with marine fungi, expanding to interactions with marine bacteria.

Funding period: July 2020 to June 2021

Title: Production of natural products by marine microbes during periods of biological challenge.

Funding agency: Northeastern State University Faculty Research Committee.

P.I.: Dr. Jessica Martin

Total Award: \$7,358.

This project continued investigations of siderophore production during biological challenge with marine fungi and bacteria, expanding to broadly defined natural products with biological activity.

Presentations: (Presenting author in **Bold**)

*Supporting undergraduate research – transitioning to a Center for Undergraduate Research at Northeastern State University. **Martin, J.D.** Undergraduate Research Programs Conference of the Council on Undergraduate Research, Columbus, Ohio, June 2019*

*Supporting undergraduate research – strategies employed at Northeastern State University. **Martin, J.D.** Undergraduate Research Program Directors Meeting of the Council on Undergraduate Research, Flagstaff, AZ, June 2017*

*Three distinct measures of in-service science teacher gains in chemistry and physics content knowledge: objective item exams, structural concept maps, and surveys. **Sweeney, S.**, Adams, A.D., Hicks, J.L., and Martin, J.D. International Association for Science Teacher Education Annual Meeting, Portland, OR, January 2015*

*NSU-CAPA: a professional development program to increase the number of teachers certified in chemistry and physics. **Adams, A.**, Saeed, S., **Sweeney, S.**, Martin J., and Hicks, J. International Association for Science Teacher Education Annual Meeting, San Antonio, TX, January 2014*

*Teaching chemistry and physics: a workshop for teachers. **Martin, J.D.**, **Hicks, J.**, **Goodnight, J.**, **Greenwood, W.**, **Hellard, C.**, **Landreville, S.**, and **Moore, C.** Oklahoma Science Teacher Association Meeting at the University of Central Oklahoma, Edmond, OK, November 2013*

Applications of novel marine fungal siderophores. **Martin, J.** Invited presentation at the Oklahoma IDeA Network for Biomedical Research Excellence (OK-INBRE) annual External Advisory Board Committee Meeting, funded by the National Institutes of Health. **Presbyterian Health Foundation Research Park**, Oklahoma City, OK, August 2012

Metal ion induced changes of phase: amphiphiles, microbes, and physics. **Martin, J.** Presentation for the YO Physics Club. **Northeastern State University**, Tahlequah, OK, April 2012.

The Importance of Undergraduate Research. **Martin, J.** Invited presentation at NSU's Undergraduate Research Day about the importance of undergraduate research in the training of students, in accomplishing faculty research goals, and for contributions to the profession. **Northeastern State University Undergraduate Research Day**, Tahlequah, OK, April 2012

Isolation and structural characterization of marine fungal siderophores. **Martin, J.** Invited presentation at the Oklahoma IDeA Network for Biomedical Research Excellence (OK-INBRE) annual Steering Committee Meeting, funded by the National Institutes of Health. **Presbyterian Health Foundation Research Park**, Oklahoma City, OK, September 2010

Isolation and structural characterization of marine fungal siderophores. **Martin, J.** Invited presentation at the Oklahoma IDeA Network for Biomedical Research Excellence (OK-INBRE) annual External Advisory Board Committee Meeting, funded by the National Institutes of Health. **Presbyterian Health Foundation Research Park**, Oklahoma City, OK, February 2010

Isolation and structural characterization of marine fungal siderophores. **Martin, J.** Invited presentation at the Oklahoma IDeA Network for Biomedical Research Excellence (OK-INBRE) annual Steering Committee Meeting, funded by the National Institutes of Health. **Presbyterian Health Foundation Research Park**, Oklahoma City, OK, September 2009

Marine natural products: novel iron binding compounds produced by marine fungi. **Martin, J.** Invited presentation for Organic Chemistry Seminar Series. **University of Missouri Department of Chemistry**, Columbia, MO, February 2009

Structural characterization of marine fungal siderophores. **Martin, J.** Invited presentation in the special symposium "Role of Siderophores: From Biogeochemistry to Medical Applications" at the American Chemical Society Fall 2008 National Meeting. **Fall 2008 ACS National Meeting**, Philadelphia, PA, August 2008

Marine fungal siderophores. **Martin, J.** Invited presentation at the Oklahoma IDeA Network for Biomedical Research Excellence (OK-INBRE) annual Steering Committee Meeting, funded by the National Institutes of Health. **Presbyterian Health Foundation Research Park**, Oklahoma City, OK, August 2007

Marine fungal siderophores. **Martin, J.** Invited presentation at the Summer 2007 meeting of the Center for Environmental BiInorganic Chemistry (CEBIC), funded by the National Science Foundation. **Princeton University**, Princeton, NJ, June 2007

Marine cyanobacterial and α -Proteobacterial siderophores: Photoreactive and amphiphilic. **Martin, J.** Invited presentation at the Summer 2005 meeting of the Center for Environmental BiInorganic Chemistry (CEBIC), funded by the National Science Foundation. **Princeton University**, Princeton, NJ, June 2005

New amphiphilic siderophores from marine bacteria. **Martin, J.** Invited presentation at the Summer 2003 meeting of the Center for Environmental BiInorganic Chemistry (CEBIC), funded by the National Science Foundation. **Princeton University**, Princeton, NJ, June 2003

Biochemistry of vitamin C. **Martin, J.** Invited presentation for nutrition specialists. Annual meeting of Consumer Education Specialists in conjunction with National Science Advisory Board Meeting. **Pharmavite Corporation**, Department of Consumer Education, Northridge, CA, February 2000

Poster Presentations: (presenting author in **bold**)

The effect of various sodium chloride and iron concentrations on cell density and siderophore production in Halomonas cupida ATCC 35135 cultures. **C. Marin** and J.D. Martin. **National Summer Undergraduate Research Project Presentations**, August 2020, virtual poster presentation hosted by **NSURP and Arizona State University**, Phoenix, AZ.

Iron-binding compound production in marine microorganisms. **K. Brown, S. Littlejohn, P. Huling**, A. Jenison, and J.D. Martin. **Oklahoma Research Day**, March 2020, **Southwestern Oklahoma State University**, Weatherford, OK

Competition between fungi and siderophore production. **K. Whitlock** and J.D. Martin. **Oklahoma Research Day**, March 2020, **Southwestern Oklahoma State University**, Weatherford, OK

The production of siderophores and the methods of testing for new siderophores. **S. Hinkle** and J.D. Martin. **Oklahoma Research Day**, March 2020, **Southwestern Oklahoma State University**, Weatherford, OK

Time dependence of iron-binding compound production in marine microorganisms under competitive growth conditions. **K. Brown, S. Littlejohn, A. Jenison**, and J.D. Martin. **American Chemical Society National Meeting**, August 2019, San Diego, CA

The isolation and purification of siderophores from marine Halomonas strains. **A. Jenison** and J.D. Martin. **Oklahoma Research Day**, March 2019, **Southwestern Oklahoma State University**, Weatherford, OK

Iron binding by chrome azurol sulfonate. J.D. Martin, **L. Lariviere**, and D. Sanders. **Oklahoma Research Day**, March 2017, **Northwestern Oklahoma State University**, Alva, OK

Iron binding by chrome azurol sulfonate. **J.D. Martin, L. Lariviere**, and **D. Sanders**. **Tulsa Research Day**, November 2016, **Oklahoma Innovation Institute/University of Tulsa**, Tulsa, OK

Siderophore production by marine fungi. **J.D. Martin**. **Oklahoma Research Day**, March 2015, **Northeastern State University**, Tahlequah, OK

Structure determination of the siderophore: rhodotorulic acid. **M.F. Penland** and J.D. Martin. **Oklahoma Research Day**, March 2015, **Northeastern State University**, Tahlequah, OK

Analysis of marine derived fungal siderophores by LC-MS. **M. Stalls** and J.D. Martin. **Oklahoma Research Day**, March 2014, **University of Central Oklahoma**, Edmond, OK

Analysis of marine derived fungal siderophores by LC-MS. **M. Stalls** and J.D. Martin. **Central Region IDEa Conference**, May 2013, Kansas City, MO.

Production of siderophores by marine fungi. V. McKinney and **J.D. Martin**. **American Chemical Society National Meeting**, Spring 2012, San Diego, CA

Identifying aerobactin synthesis gene in bacteria. **G. Herrera** and J.D. Martin. **NSU Undergraduate Research Day**, April 2012, **Northeastern State University**, Tahlequah, OK

Novel siderophores produced by marine fungi. **V. McKinney**, **R. McBride**, and J. D. Martin. **NIH, NIGMS Fourth Biennial National IDeA Symposium of Biomedical Research Excellence**, June 2012, Washington, DC.

Production of siderophores by the marine fungus Sporobolomyces roseus. **D. Hanna**, **V. McKinney**, **E. Rouse**, and J.D. Martin. **OK-INBRE Undergraduate Research Program Meeting**, July 2012, Oklahoma City, OK

Transition metal binding by desferrioxamine. **B. Broad** and J.D. Martin. **Louis-Stokes Alliance for Minority Participation Conference**, Fall 2012, **Oklahoma State University**, Stillwater, OK

Elucidation of the Structure of Siderophores Produced by Various Marine Fungi. **V. McKinney**, **E. Butson**, and J.D. Martin. **Oklahoma Research Day**, November 2011, Cameron University, Lawton, OK

PCR detection of ferrichrome and ferrichrome A biosynthesis in fungi. **R.D. McFarland** and J.D. Martin. **OK-LSAMP Symposium**, September 2010, Oklahoma State University, Stillwater, OK

Isolation and characterization of siderophores produced by marine derived fungi. **K. Stewart**, J.D. Martin. **Oklahoma Native American Research Centers for Health (ONARCH) Pathways to Wellness – Native American Research Partnerships**, August 2010, Cox Convention Center, Oklahoma City, OK

Isolation and characterization of siderophores produced by marine derived fungi. **K. Stewart**, J.D. Martin. **Oklahoma Native American Research Centers for Health (ONARCH) Undergraduate Research Program Meeting**, July 2010, University of Oklahoma, Oklahoma City, OK

Isolation and characterization of siderophores produced by marine derived fungi. **K. Stewart**, J.D. Martin. **OK-INBRE Undergraduate Research Program Meeting**, July 2010, Oklahoma City, OK

Isolation and structural characterization of siderophores from marine fungi. **H. Nichols**, J.D. Martin. **Seventh International BioMetals Symposium**, July 2010, Tucson, AZ

Isolation and characterization of siderophores produced by marine fungus Penicillium raistrickii ATCC 42470. **B. Buckholz**, J.D. Martin. **NIH, NCRR 3rd Biennial National IDeA Symposium of Biomedical Research Excellence (NISBRE)**, June 2010, Baltimore, MD

Isolation and structural characterization of siderophores produced by marine fungi. **H. Nichols**, **L. Coppick**, **L. Connell**, J.D. Martin. **Oklahoma Research Day**, November 2009, Northeastern State University, Tahlequah, OK

Growth and isolation of siderophores produced by marine fungi. **B. Broad**, **H. Dragoo**, **L. Falwell**, **C. Hutson**, **L. Sarten**, **T. Tryon**, **L. Coppick**, **L. Connell**, J.D. Martin. **Oklahoma Research Day**, November 2009, Northeastern State University, Tahlequah, OK

Marine fungal siderophores. **J.D. Martin**. **Oklahoma Research Day**, November 2009, **Northeastern State University**, Tahlequah, OK

Isolation and structural characterization of siderophores produced by marine fungi. **H. Nichols**, **L. Coppick**, **L. Connell**, J.D. Martin. **OK-INBRE Undergraduate Research Program Meeting**, July 2009, University of Oklahoma, Oklahoma City, OK

Iron-binding compounds produced by marine-derived fungi. L. Coppick and J.D. Martin. **NIH, NCRR IDeA Central Region Conference**, May 2009, Oklahoma City, OK

Isolation and structural characterization of siderophores from the marine fungus, Sporidiobolus sp. 05-001. L. Coppick, K. Elam, J.D. Martin. **Oklahoma Research Day**, November 2008, Northeastern State University, Tahlequah, OK

Isolation and characterization of siderophores produced by marine fungus Cunninghamella elegans ATCC 36112. J. Reedy and J.D. Martin. **Oklahoma Research Day**, November 2008, **Northeastern State University**, Tahlequah, OK

Siderophores produced by marine-derived fungi. L. Coppick, K. Elam, L. Connell, and J.D. Martin. **American Chemical Society National Meeting**, Fall 2008, Philadelphia, PA

POGIL activities for advanced inorganic chemistry: outcomes and future directions (pt. 2). J.D. Martin and J.-U. Kuhn. **American Chemical Society National Meeting**, Fall 2008, Philadelphia, PA

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Structural characterization of marine fungal siderophores. J.D. Martin. **American Chemical Society National Meeting**, Spring 2008, New Orleans, LA

POGIL activities for advanced inorganic chemistry: outcomes and future directions. J.D. Martin and J.-U. Kuhn. **American Chemical Society National Meeting**, Spring 2008, New Orleans, LA

Isolation and characterization of siderophores produced by marine fungus Cunninghamella elegans ATCC 36112. B. Holinsworth and J.D. Martin. **Oklahoma Research Day**, October 2007, University of Central Oklahoma, Edmond, OK

Marine fungal siderophores. J.D. Martin. **Center for Environmental BioInorganic Chemistry (CEBIC) Summer Meeting**, June 2007, Princeton University, Princeton, NJ

New amphiphilic, photoreactive siderophores produced by Synechococcus sp. PCC7002 and Ochrobactrum sp. SP18. J.D. Martin, Y. Ito, V.V. Homann, M.G. Haygood, A. Butler. **Center for Environmental BioInorganic Chemistry (CEBIC) Summer Meeting**, June 2005, Princeton University, Princeton, NJ

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The effect of recreational activities on water quality in Oak Creek, Arizona. J.E. Dryden, R. Donald, R. Foust, Jr., G. Southam. **American Chemical Society, National Meeting** 1997, September 1997, Las Vegas, NV

National Organization Service:

Member of the CUR Content Advisory Council (August 2023 to current)
Representative for the Council on Undergraduate Research (CUR), At-Large Division (July 2023 to June 2026, elected position with 3-yr term)
Councilor for the Council on Undergraduate Research (CUR), At-Large Division (July 2020 to June 2023, elected position with 3-yr term)
Member of the Virtual Undergraduate Research Office ad hoc committee, CUR Student Programs Task Force (SPTF) Committee (June 2020 to September 2022)

Committee Service at Northeastern State University:

Member of the University Strategic Planning Committee (2020 to 2018)
Chair of the Undergraduate Research Certificate Exploration Committee (2020 to 2022)
Member of the RASP Director Selection Committee (July 2020)
Chair of the Broken Arrow and Tahlequah Science Lab Manager Selection Committees (July 2020)
Member of the Assistant Vice President for Student Affairs Selection Committee (2019)
Member of the Circle of Excellence Selection Committee (2011-2012, 2012-2013, and 2019-2020)
Member of the University Retention Committee (2017 to 2019)
Member of the Policy and Planning Subcommittee of the Graduate Council (2017 to 2018)
Member of the Center for Teaching and Learning Advisory Committee (2016 to 2018)
Member of the College Curriculum Committee (September 2016 to 2018)
Member of the B.S. and M.Ed. Science Education Committee (2013 to 2019)
Member of the M.S. Natural Sciences Committee (2012-2017)
Member of the Fish and Wildlife Search and Selection Committee (2012-2013)
Member of the Department of Natural Sciences Bylaws Committee (2011-2012)

Professional, Honorary, and Other Learned Societies:

Alpha Chi Sigma (National Chemistry Fraternity, 1996)
American Chemical Society (1996 to current)
Council on Undergraduate Research (2004)