Linette M. Watkins, Ph.D.

Professor and Head
Department of Chemistry and Biochemistry
James Madison University
901 Carrier Dr. MSC 4501
Harrisonburg, VA 22807
540-568-8804 (office)
WatkinLM@JMU.edu

ACADEMIC/PROFESSIONAL BACKGROUND

Educational Background

Degree	Year	University	Major	Thesis/Dissertation
Ph.D.	1996	University of Notre Dame	Biochemistry	Characterization of the Active of Avian Liver Phosphoenolpyruvate Carboxykinase Research supervisor: Thomas Nowak
B.S.	1989	Trinity University	Biochemistry	Research supervisor: Michael Doyle

University Leadership and Experience

Position	University	Dates
Professor and Department Head	James Madison University	2014 – present

Major accomplishments: Worked with Biology, Physics and the College to develop and fund a new student success program for general chemistry students (new faculty line, tutoring and new support course); Established a new model for faculty mentoring in department; Developed and funded of a complete revision of general chemistry labs to provide project and research-based lab experiences for all general chemistry students (new faculty line, new equipment and new curriculum); Hired 6 new lecturers and 2 new tenure-track faculty; developed departmental initiatives to increase in extramural funding and the publication rate of the department; creation of an endowed undergraduate research endowment fund.

Duties: Responsible for the budgeting and safe operation of a chemistry department that provides an inclusive environment for the education of over 3000 pre-professional, health science, and STEM students each semester; completing annual evaluations of 28 faculty and 3 staff; preparing annual and periodic American Chemical Society approval reports; overseeing development of five year plan for 2018-2023; overseeing revision of policy documents to provide for lecturers in departmental governance; maintaining and supporting facilities (building space and \$8 million in equipment) to support the research activities of 21 tenured and tenure-track faculty, and their 100+ undergraduate research students.

Sabbatical Research Fellow	Bioo Scientific Corporation, Austin, TX	2012 - 2013
NSF Senior Discovery Corps Fellow	San Antonio College	2006 - 2007
Associate Professor	Texas State University	2003 - 2014
Research Faculty Fellow	University of Texas at Austin	2003 - 2005
Assistant Professor	Southwest Texas State University (renamed Texas State University)	1997 – 2003
Post-doctoral Research Associate	Texas A&M University Research supervisor: Dr. Frank Raushel	1995 – 1997

PROFESSIONAL AWARDS

<u>Clare Boothe Luce STEM Scholarship to HERS Institute in Denver 2017</u>- The Clare Booth Luce Foundation supported the attendance of six STEM women at the Denver 2017 Institute.

American Chemical Society Fellow Class of 2014-Contribution to the science/profession: Recognized for enzymology research focused on bacterial desulfurization and bioremediation. Promoted active learning in the biochemistry classroom and advocated for mentoring and undergraduate research as tools to increase student

success. Contribution to the ACS community: Advocated for diversity and inclusion as Chair of the Committee on Minority Affairs, through ACS Scholars, and as a founding member of the Women Chemists of Color program. Also served as a local section leader, Chair of the 2011 Southwest Regional Meeting, and organizer of Minority Affairs Subdivision programming for the Division of Professional Relations.

University Service Honors and Awards:

2012	Texas State Mariel Muir Faculty Award for Excellence in Mentoring- This university award was
	presented for the "breadth of service" mentoring students and faculty at Texas State and across the
	country through service with the ACS.

2011	Texas State Office of Disability Services Faculty Service Award renamed the Linette Watkins
	Faculty Service Award- The Faculty Service award was renamed the Linette Watkins Faculty
	Service award in honor of the years of service working with the office of disability services as an
	advisor, student advocate, and faculty liaison.

	advisor, student advocate, and faculty haison.
2010	College Nominee, Texas State Presidential Award for Excellence in Service
2006	Finalist, Texas State Mariel Muir Award for Excellence in Mentoring
2006	College Nominee, Texas State Presidential Award for Excellence in Service
2003	Winner, SWT Presidential Award for Excellence in Service
2002	College Nominee, SWT Presidential Award for Excellence in Service

Teaching Honors and Awards:

Departmental Nominee for the Presidential Award for Excellence in Teaching, Texas State 2011 Departmental Nominee for the Presidential Award for Excellence in Teaching, Texas State 2009 College Nominee for the Presidential Award for Excellence in Teaching, Texas State 2008 College Nominee for the Presidential Award for Excellence in Teaching, Texas State 2007 College Nominee for the Presidential Award for Excellence in Teaching, Texas State 2005

Scholarly Honors and Awards:

National Science Foundation Senior Discovery Corps Fellow, 2006-2007

Nominee, Norm Hackerman Award in Chemical Research, 2006

Runner-Up for the Presidential Award for Excellence in Research, SWT 2002

Nominated for the Presidential Award for Excellence in Research, SWT, 2000

Reilly Graduate Fellowship, University of Notre Dame, 1992

Ford Foundation Predoctoral Fellowship Honorable Mention, University of Notre Dame, 1991

NSF Minority Graduate Fellowship Honorable Mention, University of Notre Dame, 1991

Clare Boothe Luce Fellowship, University of Notre Dame, 1989–1992

PROFESSIONAL DEVELOPMENT

HERS Institute in Denver 2017- The curriculum covered general leadership principles, higher education trends, change management, budgets and financial statements, career planning, legal issues, inclusive excellence, and fundraising.

ACS Leadership Development Workshops- The American Chemical Society provides on-line and four-hour facilitated courses address essential leadership competencies while providing hands-on learning and networking opportunities for ACS leaders. The Extraordinary Leaders 360 workshop is an eight-hour workshop using personal feedback on a set of leadership competencies to create a plan for developing our leadership strengths.

Strategic Planning, Fall 2017

ACS Advancing the Extraordinary Leader 360 Workshop, Fall 2014

Coaching and Feedback, Fall 2009

Leading Change, Fall 2007

Fostering Innovation, Fall 2007

Coaching Volunteers, Spring 2007

Leading without Authority, Spring 2007

Collaborating Across Boundaries, Spring 2007

ACS Extraordinary Leader 360 Workshop, Fall 2006

Committee Chair Leadership Development Track, Jan 2006

Local Section Leadership Development Track, Jan 2004

COACh workshops- The topics of the workshop include the importance of negotiation to advance research and career objectives, identification of negotiables, necessary elements of a successful negotiation, the importance of developing alternatives to an agreement, techniques for handling difficult people and conversations, the importance of listening and appreciating different viewpoints and identification of short and long-term negotiation goals.

COAChing Strong Women in the Art of Negotiation, Feb 2007

COAChing Strong Women in the Art of Strategic Persuasion, Sept 2006

STEM Women of Color- National forum for STEM women of color from institutions of higher education. The Conclave serves as a catalyst harnessing a centralized body of knowledge and best practices related to women of color and holistically promoting the personal and professional development of women of color in the academy.

STEM Women of Color Conclave, Sept 2017

"The Tie That Binds for Effective Leadership" STEM Women of Color Leadership Academy, Sept 2017

SERVICE AND LEADERSHIP ROLES

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American Chemical Society (ACS)
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Council Policy Committee

2015 to 2020 Elected member, two terms

2018 to present Member, Long range planning committee

2015 to present Member, Nominations committee

National Awards Committee

2015 to present National Award committee member

Committee on Minority Affairs

2006 to 2008	Chair, Committee on Minority Affairs
2006 to 2015	Chair, ACS Scholars Subcommittee
2006 to 2015	Chair, ACS Scholars Selection Committee
2006 to present	Member, ACS Scholars Selection Committee

2006 to 2009 Working Group on Minority Serving Institution Workshops, ACS

2007 Program Review Advisory Group
 2007 External Review Workshop
 2006 to 2008 CMA Subcommittee on Education

2005 to 2009 Working Group on 2 Year College (2YC) Chemistry Program Guidelines

2000 to 2008 Member, Committee on Minority Affairs

2002 to 2006 Chair, CMA 2YC subcommittee

2004 to 2006 CMA Subcommittee on Awards, Local Sections and Regional Meetings

2004 to 2006 Chair, CMA Working Group on Education

2002 to 2004 CMA Subcommittee on Local Sections and Regional Meetings

2002 to 2003 Working Group on the Database on Women and Minorities in Chemistry

2002 to 2003 Advisory Board for data collection on 2YC faculty

1999 Associate Member, Committee on Minority Affairs (CMA)

Committee on Community Activities

2004 to 2006 Chair, Working Group on Chemists Celebrate Earth Day

2004 to 2006 Developing Programs Subcommittee

2004 to 2006 Member, Committee on Community Activities (CCA)

2001 to 2004 Task Force on National Chemistry Week

2001 to 2004 Liaison, Local Section Assistance and Development Subcommittee

2001 to 2003 Leadership Subcommittee

Division of Professional Relations (PROF)

2010 to present Program chair, Minority Affairs subdivision 2010 to 2014 Liaison to Committee on Minority Affairs

2012 Immediate past chair, Minority Affairs subdivision

2010 to 2011 Chair, Minority Affairs subdivision

2005 to present Alternate Councilor

2003 to 2004 Member–at–large, PROF Executive Committee

Southwest Regional Board

2013 to 2014 Representative on the Program Abstract System Replacement Advisory Group

2012 to 2013 Chair 2011 to 2012 Chair-elect

2008 to 2014 Central Texas Local Section Representative

Southeastern Regional Board

2015 to 2016 Chair 2014 to 2015 Chair-elect

2014 to 2015 Representative on the Program Abstract System Replacement Advisory Group

Chemical and Engineering News

2012 to 2015 Advisory Board member

Women Chemists of Color

2010 to present Mentor

2010 to 2013 Steering Committee member

National Science Foundation (NSF)

2018 NSF CHE REU 2018 PI meeting organizing committee

2016 to 2017 NSF CHE REU Leadership group, Chair 2016 NSF PAN REU Workshop participant 2012 to present NSF CHE REU Leadership group member 2012 to 2013 NSF CHE Division Committee of Visitors

2000 to present Panel Reviewer, Chemistry, Biology, and EHR Directorates

Council on Undergraduate Research

2010 Campus Consultant, Institutionalizing Undergraduate Research 2008 Facilitator, Institutionalizing Undergraduate Research Workshop

University Service and Leadership:

Committees:

2017 to prese	nt JMU Compensation Advisory Council
2017 to 2018	JMU Provost's Task Force on Diversity, subgroup on Classroom Inclusivity
2017 to 2018	JMU Provost's Onboarding committee
2010 to 2014	Texas State Office of Disability Services Advisory Roard

2010 to 2014 Texas State Office of Disability Services Advisory Board 2009 to 2014 Texas State College of Science Curriculum Committee

2009 to 2010 Texas State Puentes Steering Committee

2009 to 2010 Texas State University Equity and Access Committee

2009 to 2014 Texas State University Honors Committee

2009 to 2014 Texas State University Honors Scholarship Committee

2009 Texas State College of Science Academic Advisor Search Committee
 2005 to 2006 Texas State President's Council for Women in Higher Education
 2005 to 2008 Texas State Durrenberger Scholarship Steering Committee
 2001 Texas State Diversity Workshop Development Committee

2001 Texas State Diversity Train the Trainer Workshops, Training & facilitating- A two-week

training program led to facilitating diversity training sessions for faculty and staff. As an

assistant professor, I facilitated diversity training for over 100 faculty, staff and

administrators.

2000 Texas State Steering Committee, Alliance for Minority Participation

2000 to 2008 Texas State Dorothy Coker Fellowship Award

Mentoring and Advising:

2001 to 2014	Texas State Alliance for Minority Participati	on Mentor
2001 to 201 4	1 CAAS State Amance for willionly I articipan	OII IVICIILOI

2000 to 2003 Texas State Faculty Advisor, NIH Bridges to the Baccalaureate

2000 to 2001 Texas State University Mentoring Program Mentor

1998 to 2002 Texas State Faculty Advisor, NSF Science, Math, and Technology Education Institute

Search Committees:

2018 to present JMU Biology Head search chair

2016 to 2017 JMU Provost search

2015 to 2016 JMU College of Science and Mathematics Dean search 2002 Texas State College of Science Academic Advisor search

1998 Texas State Mitte Chair in Cancer Research search

Miscellaneous Assignments:

1999 Texas State Honorary Coach, SWT Football Team 1998 Texas State Section Leader, University Fund Drive

1997 Texas State Recruiting trip, SACNAS

Departmental Service and Leadership:

Committees:

2015 to present JMU Biophysical Chemistry Assessment committee chair

2008 to 2014 Texas State Scholarship committee

2000 to 2014 Texas State Biochemistry Curriculum committee

1997 to 2002 Texas State Space committee

Search Committees:

2009 to 2010 Texas State Chemical Education Assistant Professor search
2008 to 2009 Texas State Biochemistry Assistant Professor search
2002 to 2004 Chair, Texas State Biochemistry Assistant Professor search

2000 to 2001 Texas State Biochemistry Assistant Professor search 1999 to 2000 Texas State Biochemistry Assistant Professor search 1999 Texas State Biochemistry Assistant Professor search

Advising:

2014 to present JMU Transfer student advisor

2010 to 2012 Texas State Pre-Pharmacy Club faculty advisor

2008 to 2012 Texas State Departmental undergraduate academic advisor

2003 to 2008 Texas State Biochemistry academic advisor

Community:

2015-present Judge, Shenandoah Regional Science Fair

2012 Presenter, Capital Area Boy Scouts STEM Adventure Weekend

2001 Presenter, Eanes Elementary Science Night

2000 Presenter, Expanding your Horizons Program, The University of Texas, Austin

Sponsor, SWT–MAES Science Extravaganza
 Mentor, Youth Opportunities Unlimited
 Faculty Advisor, Catholic Student Organization

Central Texas ACS Local Section

2012 to 2013 Councilor

2008 to 2011 General Chair– ACS SWRM 2011 Regional Meeting

2006 to 2014 Membership Chair 2006 to 2012 Alternate Councilor 2006 to 2007 Nominations Chair 2005 Immediate Past—chair

2004 to 2006 Coordinator – Chemists Celebrate Earth Day 2003 to 2006 Coordinator – National Chemistry Week

2003 to 2004 Chair

2003 Chair–elect– Central Texas Local Section of the American Chemical Society

Virginia ACS Local Section

2016 to present Strategic Planning Committee2015 to 2017 Co-chair, ChemOlympiad Site Exam

2014 to present Councilor

TEACHING

Courses Taught at Texas State:

CHEM1410L/1141 General Chemistry I Laboratory
CHEM1430 Chemistry for Non–Science Majors

CHEM1430L Chemistry for Non–Science Majors Laboratory CHEM2130 Laboratory Technique in Organic Chemistry

CHEM2330 Organic Chemistry

CHEM2410L/2141 Organic Chemistry I Laboratory
CHEM2420L Organic Chemistry II Laboratory
CHEM2450/2350 Biochemistry & Metabolism

CHEM2450L/2150 Biochemistry & Metabolism Laboratory

CHEM3375 Principles of Biochemistry
CHEM4375/5375 Fundamentals of Biochemistry

CHEM4385/5385 Metabolism

CHEM4299 Undergraduate Research CHEM5110 Seminar in Chemistry

CHEM5370/5382 Enzymology CHEM5399 Graduate Research US1100 University Seminar

Courses Prepared and Curriculum Development at Texas State:

CHEM2130 Laboratory Techniques in Organic Chemistry

CHEM2330 Organic Chemistry
CHEM2450/2350 Biochemistry

CHEM2450L/2150 Biochemistry Laboratory
CHEM3375 Principles of Biochemistry
CHEM5110 Seminar in Chemistry

CHEM5370/5382 Enzymology

Curriculum development efforts were directed at increasing the success of students, especially those underrepresented in STEM and first-generation students, using guided inquiry learning (POGIL), multicultural transformation of the biochemistry curriculum, and gene annotation projects. POGIL was used to transform upper division courses into guided inquiry learning sessions. Between 2002 and 2014, over 1000 students were enrolled in these classes and DFW rates (the percentage of students earning a D, F or W in the class) decreased by 50%, enabling more than a hundred students to continue in their major and graduate on time. Curriculum was adapted to include examples of multicultural topics in two upper division biochemistry classes. Between 2010 and 2014, over 350 students were engaged in courses taught with multicultural content. The Joint Genome Institute Project allowed students to annotate genes in the organism adopted by the Biochemistry department at Texas State, and incorporated bioinformatics research into classes for Biochemistry students.

Incorporation of Process Oriented Guided Inquiry Learning (POGIL) into existing courses

CHEM3375 Principles of Biochemistry

CHEM4385/5385 Metabolism

Incorporation of Multicultural Curriculum into existing courses
CHEM3375 Principles of Biochemistry

CHEM4385/5385 Metabolism

Incorporation of Joint Genome Institute Project into Existing Courses

CHEM3375 Principles of Biochemistry

CHEM4385/5385 Metabolism CHEM5382 Enzymology

Courses taught at JMU

CHEM 361 Biochemistry I (POGIL and in-class CURE incorporated in Fall 2018)

CHEM 366L Biochemistry Lab (research based, group project lab)

CHEM 390 Problems in Chemistry (supervised research)

CHEM 497 Undergraduate Chemistry Research BIO and CHEM 499 A,B Undergraduate Honors Research

Internal grants supported diversity initiatives in the department. These have included course revisions, intervention strategies for student success, building study areas to enhance retention of diverse student groups, engaging students from community colleges in research, and bringing faculty and students from local minority serving institutions to campus. These initiatives contributed to increased retention and increased student success.

Funded Internal Teaching Grants and Contracts:

4VA Grant for revision of General Chemistry Labs, JMU7/2018 to present4VA Grant for Student success in General Chemistry I, JMU9/2015-7/2018Office of Equity and Access Grant, Texas State9/2012-8/2013

Multicultural Curriculum Transformation Grant, Texas State 5/2010

Office of Equity and Access Grant, Texas State 1/2008-8/2008

Integration of Instruction Technology Grant, Texas State 8/2007

Office of Equity and Access Grant, Texas State 1/2006-8/2006

Student Research Supervision

Graduate Thesis Committees:

Served as a Thesis committee member for 28 Masters students between 1998 and 2014

Graduate Thesis Supervised:

Served as the Research Thesis Advisor for 11 Masters graduates between 1997 and 2014

These students include 7 women, and 5 Hispanic/Latino/a and 2 African American students. (Five of the women were women of color) Eight of the 11 went on to graduate school for their PhD

Undergraduates supervised:

Supervised the research of over 80 Texas State undergraduates between 1997 and 2014

Over 60% of the undergraduates mentored were women, more than 20% women of color. Overall more than 40% were students underrepresented in the sciences. More than 40% went on to graduate or professional school.

Supervised the research of twelve JMU undergraduates and two post-baccalaureates since 2014

Community College students:

Supervised the research of 10 Community College undergraduates between 2000 and 2014 Through the Bridges and Discovery Corp Fellowships, mentored community college students at Texas State and San Antonio College. All of the students mentored were either women, Hispanic or had a physical disability.

Other teachers:

Supervised the research of one Community College teacher and five public school teachers
These teachers served schools with large minority populations. Mentored middle and high school teacher's research projects, visited their classrooms, and assisted the teachers in curriculum and lab development.

NSF Chautauqua workshops

Increasing the Retention of Under-Represented Groups--And the Learning of All Groups— In Science, Technology, Engineering and Mathematics Courses, Summer 2004

Women and Minorities in the Sciences: A History of the Past and Strategies for the Future, Summer 2004

NSF POGIL workshops

Biochemistry Core Collaborators Meeting, Summer 2011, Summer 2014

South Central Regional POGIL Workshop, Summer 2010

Advanced Workshop on POGIL in the Biochemistry classroom (invited), Summer 2009

Advanced Workshop on Improving Facilitation Skills, Texas State University (organizer), Summer 2006

Three Day Workshop, Texas Wesleyan University, Summer 2005

Half Day Introductory Workshop, St. Edwards University, Fall 2004

SCHOLARLY/CREATIVE

Publications since 1999: (*undergraduate author)

1. Griep MA, Watkins L. Eds. (2018). Best Practices for Chemistry REU Programs American Chemical Society Symposium Series Vol 1295, American Chemical Society DOI: 10.1021/bk-2018-1295

- 2. Griep MA, Watkins L. Overview of best practices for chemistry REU programs. In: Best practices for chemistry REU programs. Vol 1295. American Chemical Society; 2018:1-16. https://doi.org/10.1021/bk-2018-1295.ch001. 10.1021/bk-2018-1295.ch001.
- 3. Watkins LM, Evanseck JD. Chemistry REU leadership group: Support for the chemistry undergraduate research community. In: Best practices for chemistry REU programs. Vol 1295. American Chemical Society; 2018:73-83. https://doi.org/10.1021/bk-2018-1295.ch006. 10.1021/bk-2018-1295.ch006.
- 4. Thomas, G., Wilson, Z., Watkins, L. 2014 "STEM women of color: What's their story?" *ASBMB Today*, January 2014, 31.
- 5. Watkins, L. M., 2009 "Strengthening Inter-institutional Ties: Extending Research Partnerships to a Two-Year Campus." *Broadening Participation in Undergraduate Research*, M. Boyd and J. Wesemann, Eds., Council of Undergraduate Research, Washington, D.C.
- 6. Watkins, L. M., Rodriguez, R., Schneider, D., Broderick, R.*, Cruz, M.* Mrachko, G. "Purification and characterization of the aromatic desulfinase, 2–(2'–hydroxyphenyl)benzenesulfinate desulfinase" *Arch. Biochem. Biophys*, 415(2003) 14–23.
- 7. Rudzinski, W. E., Sassman, S., Watkins, L. M., 2000 "Electrospray Ionization/Mass Spectrometry Study of Organosulfur Heterocycles Found in the Aromatic Fraction of a Maya Crude Oil." *Prepr. Am. Chem. Soc., Div. Pet. Chem.*, 45(3), 574–576.
- 8. Watkins, L. M., Sheedy, M., Whitney, K., Spencer, L., Sassman, S., Aminabhavi, T. M., Rudzinski, W. E., 2000 "Isolation, characterization and desulfurization studies on Maya crude oil fractions." *Prepr.– Am. Chem. Soc., Div. Pet. Chem.*, 45(1), 64–67.
- 9. Rudzinski, W. E., Aminabhavi, T. M., Tarbox, T., Sassman, S., Whitney, K., Watkins, L. M., 2000 "Liquid chromatography/electrospray ionization/mass spectrometry study of the interactions between palladium and sulfur heterocycles." *Prepr. Am. Chem. Soc, Div. Pet. Chem*, 45(1), 60-63.
- 10. Rudzinski, W. E., Watkins, L., Sassman, S.M., 2000 "Liquid chromatography/Electrospray Ionization/ Mass Spectrometry Study of Sulfur Heterocycles." *Proceedings of the 48th ASMS Conference on Mass spectrometry and Allied Topics*, Long Beach, CA.
- 11. Rudzinski, W. E., Aminabhavi, T. M., Sassman, S., Watkins, L. M., 2000 "Isolation and Characterization of the Saturate and Aromatic Fractions of a Maya Crude Oil." *Energy Fuels* 14, 839–844.
- 12. Watkins, L. M., Rodriguez, R., Sassman, S., Sheedy, M.*, Smith, T.*, Watkins, L. M. 1999 "Bacterial desulfurization studies of organosulfur–enriched Mayan crude oil extracts using liquid chromatography/atmospheric pressure chemical ionization/mass spectrometry." *Prepr. Symp Am. Chem. Soc, Div. Fuel Chem.* 44, 28–31.

Presentations at Professional Meetings: (*undergraduate author)

Research Presentations

ASBMB National Meeting, San Diego, CA April 2018

- 1. "Effect of immobilization on the specificity and stability of choline oxidase." A. Fischel, J. Schmidt, K. Holton, L.M. Watkins
- 2. "Altering the Specificity Properties of 2-(2'-hydroxyphenyl)benzenesulfinate desulfinase from *N. asteroides* A3H1." E. Smith*, D. Hoang*, L.M. Watkins
- 3. "Comparing *E. coli* Expression and Enzyme Kinetics of Wildtype and Codon Optimized 2-(2'-hydroxyphenyl)benzenesulfinate desulfinase (DszB) from *Nocardia asteroides* A3H1 and *Rhodococcus erythropolis* IGTS8." St. George, M*, K. Idrizi*, J. Gumpf*, L.M. Watkins

ASBMB National Meeting, Chicago, IL April 2017

- 4. "Expression, purification, and characterization of codon optimized DszB from *N. asteroides*." K. Idrizi*, J. Gumpf*, L.M. Watkins
- 5. "Specificity studies of the aromatic desulfinase, 2-(2'-hydroxyphenyl)benzenesulfinate desulfinase (DszB) from *Nocardia asteroides* A3H1" D. Hoang*, E. Smith*, L.M. Watkins

ACS National Meeting, San Francisco, CA March 2017

- 6. "Identification of novel folate metabolizing proteins." K. Holton*, L.M. Watkins
- 7. "Expression, purification, and characterization of codon optimized DszB from *N. asteroides*." K. Idrizi*, J. Gumpf*, L.M. Watkins

University of Maryland, Baltimore County Undergraduate Research Symposium, October 2016

8. "Identification of novel folate metabolizing enzymes." K. Holton*, L.M. Watkins

9. "Expression, purification, and characterization of codon optimized DszB from *N. asteroides*." K. Idrizi*, L.M. Watkins

ASBMB National Meeting, San Diego, CA April 2016

- 10. "Comparison of Stability and Kinetic Properties of DszB from *N. asteroides* A3H1 and *R. erythropolis* IGTS8." A. Hutchinson-Lundy*, A. Crithary*, J.M. Schmitz, L. Watkins.
- 11. "Effect of immobilization on the stability and specificity of choline oxidase." (poster) J. Schmitz and L.M. Watkins
- 12. "Comparison of Stability and Kinetic Properties of DszB from *N. asteroides* A3H1 and *R. erythropolis* IGTS8." (invited oral session) L.M. Watkins, A. Hutchinson-Lundy*, A. Crithary*, J. Schmitz

University of Maryland, Baltimore County Undergraduate Research Symposium, October 2015

13. "Comparison of kinetic properties of aromatic desulfinases." (poster) Watkins L.M., A. Hutchinson-Lundy*, A. Crithary*, J. Schmitz

Virginia Academy of Science 93rd annual meeting. JMU, Harrisonburg, Virginia May '15

- 14. "Effect of immobilization on the stability and specificity of choline oxidase." (poster) Watkins L.M. and J. Schmitz
- 15. "Comparison of kinetic properties of aromatic desulfinases." (poster) Watkins L.M., A. Hutchinson-Lundy*, A. Crithary*, J. Schmitz

University of Texas at San Antonio Research Symposium, San Antonio, TX October 2012

16. "Specificity Trends Between Various Alcohol Dehydrogenases and Alcohols" (poster) Roberto Puente*, Gustav Agbley, Jaime Correa*, Linette Watkins

ACS National Meeting, Boston, MA August 2007

17. "Purification and characterization of recombinant 2-(2'-hydroxyphenyl)benzenesulfinate desulfinase from *Nocardia asteroides* A3H1" (poster)

Enzyme Mechanisms Conference, West Palm Beach, FL January 2007

18. "Mechanistic Studies of the Aromatic Desulfinase, 2-(2'-Hydroxyphenyl)Benzenesulfinate Desulfinase" (poster) Linette M Watkins, Candice Gonzales, Rodolfo Jimenez*, Brian Gloor*, Michelle Tellez*, Asha James*, Greg Sawyer, and Jon Robertus

Texas Enzyme Mechanisms Conference, Austin, TX January 2006

- 19. "Purification and Characterization of Native and Recombinant 2-(2'-Hydroxyphenyl)benzenesulfinate Desulfinase from *Rhodococcus erythropolis* strain sp. IGTS8" (poster) Linette M. Watkins, Joel Gray*, Rene Rodriguez, Dawn Schneider, Rose Broderick*, Mario Cruz*, Raychel Chambers, Erica Ruckman*, Melissa Cody, Greg Sawyer and Jon Robertus
- 20. "Purification and Characterization of Recombinant 2-(2'-Hydroxyphenyl)benzenesulfinate Desulfinase from Norcardia Asteroids A3H1" (poster) Brian Gloor*, Michelle Tellez*, Asha James*, Greg Sawyer, Jon Robertus, and Linette M. Watkins

Midwest Enzyme Conference, Chicago, IL, October 2003

21. "Mechanism of novel aromatic desulfinase," (oral) L. M. Watkins, M. Cody, R. Rodriguez, and R. Chambers

ACS National Meeting, Boston, MA, August 2002

22. "Mechanism of an aromatic desulfinase, 2–(2'–Hydroxyphenyl) benzenesulfinate desulfinase" (poster) L. M. Watkins, M. Cody, R. Rodriguez, and R. Chambers

Midwest Enzyme Conference, Chicago, IL, October 2001

23. "Investigation of the Novel Aromatic Desulfinase, 2–(2'–Hydroxyphenyl) benzenesulfinate Desulfinase" (poster) L. M. Watkins, R. C. Rodriguez, M. Cody, R. Broderick*, M. Cruz*, R. Chambers and E. Ruckman*.

ACS National Meeting, Chicago, IL, August 2001

24. "Purification and characterization of 2–(2'–hydroxyphenyl)benzenesulfinate desulfinase" (poster) L. M. Watkins, R. C. Rodriguez, M. Cody

49th ASMS Conference on Mass Spectrometry, San Diego, CA, May 2001

25. "Characterization of Corrosive Compounds in Petroleum Using API/MS" (oral) W. Rudzinski, D. Mendoza, S. Sassman, B. Najera, L. Watkins and C. Hsu

SACNAS Meeting, Atlanta, GA, October 2000

26. "Purification and characterization of 2–(2'–hydroxyphenyl)benzenesulfinate desulfinase" (poster) R. C. Rodriguez, D. S. Schneider, L. M. Watkins

Green Conference, Washington, D.C., June 2000

27. "Isolation, Characterization and Desulfurization Studies on the Saturate and Aromatic Fractions of a Maya Crude Oil" (poster) W. E. Rudzinski, T. M. Aminabhavi, S. Sassman, M. Sheedy*, K. Whitney, L. M. Watkins

ACS National Meeting, San Francisco, CA, March 2000

- 28. "Liquid chromatography/electrospray ionization/mass spectrometry study of the interactions between palladium and sulfur heterocycles." (oral) W. E. Rudzinski, T. M. Aminabhavi, T. Tarbox*, S. Sassman, K. Whitney, L. M. Watkins
- 29. "Isolation, characterization and desulfurization studies on Maya crude oil fractions." (oral) L. M. Watkins, M. Sheedy*, K. Whitney, L. Spencer, S. Sassman, T. M. Aminabhavi, W. E. Rudzinski
- 30. "Understanding the specificity of desulfurization by Rhodococcus erythropolis sp. IGTS8" (poster) T. R. Smith*, P. J. Smith*, L. M. Watkins
- 31. "Purification and partial characterization of 2–(2'–hydroxyphenyl)benzenesulfinate desulfinase" (poster) R. C. Rodriguez, D. S. Schneider, L. M. Watkins

ACS National Meeting, Anaheim, CA, March 1999

32. "Bacterial desulfurization of organosulfur–enriched Mayan crude–oil extracts using liquid chromatography atmospheric pressure chemical ionization/mass spectrometry." (oral) W. E. Rudzinski, R. Rodriguez, S. Sassman, M. Sheedy*, T. Smith*, L. M. Watkins

Education and Outreach Presentations

ACS National Meeting, Boston, MA August 2018

1. "How do you balance career and family?" Invited panelist at the Women Chemists of Color Mentoring Networking Event

Appalachian College Association Annual Meeting, September 2018

2. "Undergraduate research: An essential tool for broadening participation in the sciences" (invited keynote address)

ACS National Meeting, Washington, DC August 2017

3. "PROF Minority Affairs: Advancing the Success of Minorities in the Chemical Enterprise" (invited talk) Z. Wilson-Kennedy, L. Watkins, L. Winfield, G. Thomas

ACS National Meeting, Boston, MA August 2015

4. "100 years of service to chemistry in Virginia" (poster) A. Sullivan, K. Smetana, L. Watkins, J. Asper, J. Crockett

Biennial Conference on Chemical Education, August 2014, Grand Rapids, MI

5. "Undergraduate research as a tool to increase diversity in the chemical sciences" (invited talk)

ACS National Meeting, Philadelphia, PA August 2012

6. "Legacy of Dr. Henry A. Hill" (poster)

NSF Chemistry REU PI Meeting, San Antonio, July 2012

7. "Strategies for broadening participation in Chemistry REU Programs" (invited speaker)

National Academies of Science, Washington, DC, June 2012

8. "Seeking Solutions: Maximizing American Talent by Advancing Women of Color in Academe: Supporting Women of Color through Professional Societies" (invited panelist representing the ACS Women Chemists of Color initiative)

SWRM ACS Regional Meeting, Austin, TX November 2011

9. "Using undergraduate research to broaden participation in the chemical sciences" (invited speaker)

SWRM/SERMACS ACS Regional Meeting, New Orleans, LA December 2010

- 10. "Women Chemists of Color Round Table" Linette M Watkins (invited speaker)
- 11. "Undergraduate research: An essential tool for broadening participation in the chemical sciences" (invited speaker)

ACS National Meeting, Boston, MA August 2010

- 12. "Women Chemists of Color: Getting to the Table" (invited speaker)
- 13. "Legacy of Dr. Henry A. Hill" (poster)

Biennial Conference on Chemical Education, Denton, TX August 2010

- 14. "Evolution of Biochemistry POGIL at Texas State University-San Marcos" (oral)
- 15. "Managing biochemistry POGIL activities with medium-large classes in lecture classrooms" (poster)

South Central Regional POGIL Meeting, Norman, OK July 2010

16. "Biochemistry POGIL at Texas State University-San Marcos" (poster)

ACS National Meeting, Washington, DC August 2009

17. "Henry Hill and the PROF Henry Hill Award" (poster)

18. "Five Year of POGIL in the biochemistry classroom at Texas State University-San Marcos" (oral)

ACS National Meeting, New Orleans, LA April 2008

19. "REACCh: Research Experiences Achieved through Collaborations in Chemistry" Invited speaker Southeast Regional Meeting, Greenville, SC November 2007

20. "The Stan Israel Legacy" (oral)

ACS National Meeting, Boston, MA August 2007

21. "Teaching at primarily undergraduate serving institutions" (invited oral)

22. "POGIL in the biochemistry classroom" (oral)

Biennial Conference on Chemical Education, West Lafayette, IN July 2006

23. "POGIL in the Biochemistry Classroom" (oral)

ACS National Meeting, Washington, DC, August 2005

24. "Chemists celebrate Earth Day 2005: Air -- here, there, everywhere" (poster)

ACS National Meeting, San Diego, CA, April 2005

25. "Undergraduate Research as a Way to Recruit and Retain Students in Chemistry" (oral) Invited speaker at the Pimental Award Symposium in Honor of Phoebe Dea

Southwest Regional Meeting of the ACS, October 2004

26. "Outcomes from the Undergraduate Research Summit" (oral)

ACS National Meeting, Orlando, FL, April 2002

- 27. "Using undergraduate research to fill the pipeline: Experiences at Southwest Texas State University" (oral) Invited speaker at the Pimental Award Symposium in Honor of Michael P. Doyle
- 28. "Making the Transition from Two-Year to Four-Year Colleges: Successful Minority Recruitment/Retention Strategies" (oral) Invited panel member at the ACS Presidential Event

Symposia organized

ACS National Meeting, Boston, MA August 2018

1. "Women of Color in the Academy: Empirical Studies & Models of Success"

ACS National Meeting, New Orleans, LA March 2018

2. "Chemistry Students at the Nexus: REU Award Winners"

ACS National Meeting, San Francisco, CA March 2017

3. "REU Chemistry in Action: Student Perspectives"

ACS National Meeting, San Diego, CA March 2016

4. "Successful REU Programs"

Pacifichem 2015, Honolulu, HI December 2015

5. "Women in Chemistry: Changing the Face of Chemistry"

ACS National Meeting, Boston, MA August 2015

- 6. "ACS Scholars: Rising Stars in Academe"
- 7. "ACS Scholars: Rising Stars in Industry"

ACS National Meeting, Denver, CO March 2015

- 8. "Proposing and Administering a Successful REU Program"
- 9. "Native American Chemists of Color"

ACS National Meeting, San Francisco, CA, August 2014

10. "Asian-American Women Chemists: Career Experiences"

ACS National Meeting, Dallas, TX March 2014

- 11. "Proposing and Administering a Successful REU Program"
- 12. "Women Chemists of Color in Government"

ACS National Meeting, New Orleans, LA March 2013

- 13. "Proposing and Administering a Successful REU Program"
- 14. "Women Chemists of Color in Industry"

ACS National Meeting, Denver, CO August 2011

15. "Empirical Studies on Women of Color in STEM"

ACS National Meeting, Boston, MA August 2010

16. "ACS Scholars Program Results: Stories Highlighting 15 Successful Years"

ACS National Meeting, San Francisco, CA March 2010

17. "Research by ACS Scholars: Celebrating the 15th Year of the Program"

ACS National Meeting, Boston, MA August 2007

- 18. "Many Faces of Chemistry: ACS Scholars' Contributions to the Chemical Sciences"
- 19. "Many Faces of Chemistry: Stories from ACS Scholars"
- 20. "Many Faces of Chemistry: The Role of Two-Year Colleges in Changing the Face of Chemistry" ACS National Meeting, Washington, DC, August 2005
- 21. "Post Doctoral Appointments: Maximizing Career Impact"

Invited Talks, Lectures, Presentations:

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James Madison University, Biology Department, Harrisonburg, VA	October 2015
Texas State University, Multicultural Curriculum Transformation Workshop Lecture	August 2011
Texas State University, Technology Integration Lecture	March 2008
St. Edward's University, Biology Department, Austin, TX	October 2008
University of Texas, Career Symposium, Austin, TX	January 2008
James Madison University, College of Science Visiting Fellow, Harrisonburg, VA	September 2007
University of Texas at San Antonio, Biology Department, San Antonio, TX	March 2003
University of Texas, at Dallas, Department of Chemistry, Dallas, TX	February 2002
University of Texas, School of Pharmacy, Austin, TX	November 2001
Trinity University, Department of Chemistry and Biochemistry, San Antonio, TX	June 2000
Southwest Texas State University, Biology Department, San Marcos, TX	November 97
Southwest Texas State University, Chemistry Club, San Marcos, TX	October 97

Funded External Grants and Contracts:

Fun	ided External Grants and Contracts:			
1.	Expanding the Reach of the REU Experience: The Chemistry REU Leadership Group (co-PI) with S. France (PI) and K. Buchmueller (co-PI))	National Science Foundation	\$253,411	9/18-8/21
2.	Effect of immobilization on oxidase reactions (PI)	Huntsman Corp The Woodlands, TX	\$12,000	1/18-12/18
3.	Synthesis and scale-up of oxidase reactions (PI)	Huntsman Corp The Woodlands, TX	\$12,000	8/16-12/17
4.	Bioanalytical Evaluation of Oxidase Enzymes (PI)	Huntsman Corp The Woodlands, TX	\$12,000	1/15-8/16
5.	Bridges to the Masters (faculty mentor with R. Walter and R. Booth-PI)	National Institutes of Health	\$1,399,933	06/13-5/18
6.	Bridges to the Baccalaureate (senior personnel with R. Walter-PI)	National Institutes of Health	\$1,514,015	06/13-5/18
7.	A Chemistry REU on Molecular Innovation and Entrepreneurship (CheMIE) (PI)	National Science Foundation	\$300,000	9/12-8/15
8.	Industrial testing contract investigating the properties of oxidases and hydrolases (PI-industrial contract)	Huntsman Corp The Woodlands, TX	\$28,000	9/11-8/13
9.	American Chemical Society Women Chemists of Color Summit (senior personnel with Gloria Thomas-PI at Xavier University)	National Science Foundation	\$62,361	8/10-8/12
10.	Industrial research contract investigating the fluorescence properties of specified compounds	Signature Science Austin, Tx	\$8,000	01/08-3/08

11. Discovery Corps Senior Fellowship: Initiating undergraduate research experiences at San Antonio College	National Science Foundation	\$200,000	07/06–6/08
12. Characterization of a Library of Biodesulfurization Enzymes	TX Higher Ed Coordinating Board	\$135,000	01/04-5/06
13. Structure and Mechanism in the Tautomerase Superfamily – Research Supplement for Faculty (PI Chris Whitman)	National Institutes of Health	\$248,837	08/03-07/05
14. Biodesulfurization of Recalcitrant Organosulfur Compounds in Petroleum	TX Higher Ed Coordinating Board	\$100,000	01/02-12/03
15. Characterization of a <i>dszB</i> library in–kind use of two libraries, each containing 40,000 mutants of 2–(2'–hydroxyphenyl)benzenesulfinate desulfinase	Enchira Biotechnology Corp.	\$40,000 (in-kind)	07/01-05/02
16. Effectiveness of Bacterial Desulfurization by <i>Rhodococcus</i> sp. IGTS8 on Polyaromatic Sulfur Heterocycles	EPA(through TxS WMMRC)	\$30,000 (direct)	05/00-06/02
17. Determination of the Structure of 2–(2'– hydroxyphenyl)benzenesulfinate desulfinase	TX Higher Ed Coordinating Board	\$113,642	01/00-12/01
18. Mechanistic Investigation of an Aromatic Desulfinase, 2–(2'–Hydroxyphenyl) benzenesulfinate desulfinase	Research Corporation	\$28,329	05/00 - 04/02
19. Defining the Active Site Specificity of the Aromatic Desulfinase, 2–(2'–Hydroxyphenyl) benzenesulfinate Desulfinase	EPA (through TxS WMMRC)	\$71,074 (direct)	04/98-04/00
20. Using Substrate Analogs to Define the Active Site of 2-(2'-Hydroxyphenyl)benzenesulfinate desulfinase	Petroleum Research Fund	\$20,000	09/98-08/00