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EDUCATION AND TRAINING

Tufts University Postdoctoral Associate TEACRS (Training in Education and Critical Research Skills) fellow	Medford, MA 2010 - 2014
University of Wisconsin – Madison Ph.D. Molecular and Environmental Toxicology	Madison, WI 2004 - 2010
University of Michigan, School of Natural Resources and Environment B.S. Resource Ecology and Management	Ann Arbor, MI 1998 – 2002
School for International Training Semester Abroad: Rainforest, Reef and Cultural Ecology, Cairns, Australia	Brattleboro, VT Spring 2001

TEACHING EXPERIENCE

Assistant Professor Northeastern Illinois University	2014 – present
<ul style="list-style-type: none">• Taught undergraduate courses in General Biology, Essential Skills for Biologists, Cell Biology, Genetics and a graduate course in Biological Literature.• Designed and taught “Current Topics in Genetics,” a seminar-style graduate course.	
Instructor Tufts University, Boston, MA Public Health Biology (MPH 200)	Fall 2012, 2013
<ul style="list-style-type: none">• Co-designed and taught a seminar-style course for Masters of Public Health students without an undergraduate biology background• Presented interactive, chalk-talk style lectures and implemented case studies to present biological concepts in context of public health issues	
Adjunct Professor of Biology Bunker Hill Community College, Boston, MA Cell Biology (BIO 207)	Spring 2012
<ul style="list-style-type: none">• Designed and implemented two new laboratory exercises• Developed a poster session for students to present cell biology topics of their choosing	
Trainee in the Graduate Institute for Teaching Tufts University, Medford, MA	Summer 2011
<ul style="list-style-type: none">• Received training in the following topics: course development, integration of technology in teaching, syllabus writing, designing writing assignments, assessment, discussion management in a five-week training course	

Certificate in Teaching and Learning

2009 - 2010

University of Wisconsin, Madison, WI
Delta Program in Teaching and Learning

- Completed coursework and participated in learning communities to further skills and knowledge of instruction in higher education
- Designed, obtained IRB approval, conducted and defended an independent teaching research project involving integrating primary research into a lecture-based course. A report on this study and how it influenced my teaching approach is included in my teaching portfolio.

STUDENTS MENTORED

Student	Level	Project	Dates
Vada Becker ³	NEIU undergraduate	Role of TDPI in oxidative stress response	2018 – present
Derek Epiney ³	NEIU undergraduate	Role of WRNexo in oxidative stress response	2018 – present
Rolan Milutinovic ³	NEIU undergraduate	Measuring responses of SOD mutant alleles to oxidative stress	2017 – present
Chris Corso	NEIU undergraduate	Role of TDPI in oxidative stress response	2017 – present
Deborah Onofrei	NEIU undergraduate	Role of TDPI in oxidative stress response	2017 – present
Charlotte Salameh ³	NEIU undergraduate	Responses of RecQ mutants to oxidative stress	2016 – present
Deirdre Cassidy ²	NEIU undergraduate	Aging and oxidative stress in WRNexo and BLM mutants	2016 – 2017
Joshua Kruithof ^{2,3,4}	NEIU undergraduate	Physical interactions between WRNexo and BLM	2016 – 2017
Winnie Jiang	NEIU Chemistry M.S.	Physical interactions between WRNexo and BLM	2016 – 2017
Terry Blaszcak ^{4,5}	NEIU undergraduate	Effects of acetaminophen on development (co-PI: Mary Kimble, NEIU)	2015 – 2018
Tracy Zhou	NEIU graduate student	Aging and oxidative stress in WRNexo mutants	2016
Raluca Ciupuliga ^{4,5}	NEIU undergraduate	Effects of acetaminophen on development (co-PI: Mary Kimble, NEIU)	2015 – 2016
Fareha Nazneen ⁵	NEIU undergraduate	Effects of acetaminophen on development (co-PI: Mary Kimble, NEIU)	2015 – 2016
Stephanie Fonceca	NEIU undergraduate	Effects of acetaminophen on development (co-PI: Mary Kimble, NEIU)	2015 – 2016
Imad Rebiai ^{2,3,4,5}	NEIU undergraduate	Physical interactions between WRNexo and BLM	2015 – 2016
Jacqueline Alvarez	NEIU Biology M.S.	Tumor development in BLM mutants	2015 – 2016
Janet Garcia ^{3,4}	NEIU undergraduate	Antioxidant activity in Drosophila RecQ mutants	2015 – 2016
Barbara Rokita ⁴	NEIU undergraduate	Antioxidant activity in Drosophila RecQ mutants	2015 – 2016
Molly Ahern	Tufts University undergraduate	The role of WRNexo in DNA repair	Spring 2014
Rachel Rivero ^{1,2,4}	Tufts University undergraduate	Interactions between the RecQ helicases, WRNexo and BLM	2012 – 2013
Melissa Marquez ^{1,4}	Mount St. Mary's College undergraduate	Interactions between WRNexo and site specific endonucleases	Summer 2013
Rachel Cox ^{1,2}	Tufts University undergraduate	Role of SNM1 in DNA repair	2011 - 2012

¹ Participant in the NSF-sponsored, summer program in Research Experiences for Undergraduates

² Participated in research for course credit

³ Participant in SCSE Undergraduate Summer Research and Professional Training Program

⁴ Presented work at a local or regional meeting

⁵ Presented work at a national meeting

RESEARCH EXPERIENCE

- Postdoctoral research, Tufts University, Medford, MA 2010 - present
Research advisor: Mitch McVey
 Mutations in the progeroid proteins, Werner and Bloom, cause premature aging in humans. I investigated the consequences of these mutations in DNA replication, development, and tumorigenesis in *Drosophila*.
- Doctoral research, University of Wisconsin, Madison, WI 2007 - 2010
Research advisor: B. Lynn Allen-Hoffmann
 Dissertation title: “*Effects of TCDD on differentiation and epithelial to mesenchymal transition in human embryonic stem cells*”
 2, 3, 7, 8-tetrachlorodibenzodioxin (TCDD) is a carcinogenic byproduct of industrial processes and is a ubiquitous environmental toxin. I used molecular biology and immunohistochemistry techniques to investigate the effects of TCDD on human embryonic stem cell differentiation. We found that TCDD inhibited cell differentiation, and the process of epithelial to mesenchymal transition, only when cells were the process of spontaneously differentiating as detected by changes in cellular morphology and expression of key differentiation markers.
- Doctoral research, University of Wisconsin, Madison, WI 2004 - 2007
Research advisor: Nancy Keller
 Investigated RNAi mechanism in *Aspergillus nidulans* using various molecular biological techniques.

MANUSCRIPTS

Undergraduate mentees are underlined

Bolterstein, E.A. and Allen-Hoffmann, B.L. “TCDD inhibits spontaneous differentiation in human embryonic stem cells” accepted to *Trends in Developmental Biology*, November, 2014.

Bolterstein, E., Rivero, R., Marquez, M. and McVey, M. (2014) The *Drosophila* Werner exonuclease participates in an exonuclease-independent response to replication stress. *Genetics*. 197(2): 643-52.

De Abrew, K.N., Thomas-Virnig, C.L., Rasmussen, C.A., **Bolterstein, E.A.**, Schlosser, S.J., and Allen-Hoffmann, B.L. (2013) TCDD induces dermal accumulation of keratinocyte-derived matrix metalloproteinase-10 in an organotypic model of human skin. *Toxicology and Applied Pharmacology*. 1; 276(3): 171-8.

SELECT CONFERENCE PRESENTATIONS

Undergraduate mentees are underlined

Bolterstein, E., Salomon, R., McVey, M., Cassidy, D., Onofrei, D., and Zhou, T. “Werner protein protects against aging and oxidative stress in *Drosophila*” oral presentation at the Environmental Mutagenesis and Genomics Society 48th Annual Meeting in Raleigh, NC (September 9-13, 2017).

Bolterstein, E. “Methods for genotoxicity using *Drosophila melanogaster*” presented workshop at the Environmental Mutagenesis and Genomics Society 48th Annual Meeting in Raleigh, NC (September 9-13, 2017).

Bolterstein, E., Nuss, K, and Robalino, J. “The Biology of Skin Color: Using HHMI’s free teaching materials to engage students in evidence-based reasoning” presented workshop at the Association of College and Undergraduate Biology Educators (ACUBE) 60th Annual Meeting in Milwaukee, WI (October 21-22, 2016).

Bolterstein, E., Salomon, R., McVey, M., Garcia, J., Rokita, B., Cassidy, D., and Zhou, T. “BLM and WRNexo protect against aging and tumorigenesis in *Drosophila*” presented poster at the 57th Annual Drosophila Research Conference in Orlando, FL (July 13-17, 2016) and at the Environmental Mutagenesis and Genomics Society 47th Annual Meeting in Kansas City, MO (September 24-28, 2016).

Bolterstein, E., Ahern, M., Salomon, R., and McVey, M., “The role of RecQ proteins, BLM and WRNexo, in DNA repair, aging, and tumorigenesis” presented poster at the 56th Annual Drosophila Research Conference in Chicago, IL (March 4-8, 2015) and the 17th Annual Midwest DNA Repair Symposium in Bloomington, IN (June 6-7, 2015).

Bolterstein, E., Rivero, R., Salomon, R., Marquez, M. and McVey, M., “The *Drosophila* Werner Exonuclease Participates in an Exonuclease-independent Response to Replication Stress” presented poster at the Gordon Research Conferences: DNA Repair, Mutation and Cancer. Ventura Beach, CA (March, 2014)

Bolterstein, E., Rivero, R., Salomon, R., Marquez, M. and McVey, M., “Werner syndrome protein mediates fork restart in response to replication stress in *Drosophila*” presented poster at the Gordon Research Conferences: Cellular & Molecular Mechanisms of Toxicity in Andover, NH (August, 2013)

Bolterstein, E., Rivero, R., Salomon, R. and McVey, M., “The role of WRNexo and Blm in DNA repair in *Drosophila*” presented poster at the Keystone Symposium: DNA Repair and Genomic Instability in Banff, Alberta, Canada (March, 2013) and at the IRACDA National Conference, Emory University, Atlanta, GA (June, 2013)

Bolterstein, E., “A picture’s worth a thousand words: A method of teaching figure interpretation at Bunker Hill Community College in Boston, MA” presented poster at the IRACDA National Conference at the University of Pennsylvania, Philadelphia, PA (June, 2012)

Bolterstein, E. and Allen-Hoffmann, B.L., “Effects of TCDD on differentiation of human embryonic stem cells” presented poster at the Keystone Symposium: Stem Cell Differentiation and Dedifferentiation in Keystone, CO (February, 2010)

Bolterstein, E. and Allen-Hoffmann, B.L. “AhR pathway genes are expressed in human embryonic stem cells” presented poster at the Society of Toxicology Annual Meeting in Seattle, WA (March, 2008) and at the World Stem Cell Summit in Madison, WI (August, 2008)

INVITED SEMINARS

Undergraduate mentees are underlined

Bolterstein, E., Salomon, R., McVey, M., Cassidy, D., Onofrei, D., and Zhou, T. “Using genetic disease mutants to investigate the link between oxidative stress and aging in *Drosophila melanogaster*” Purdue Northwest Seminar Series, Hammond, IN (March, 2017)

Bolterstein, E., Salomon, R., McVey, M., Garcia, J., Rokita, B., and Rebiai, I. “The role of RecQ proteins in preventing DNA damage, aging, and tumorigenesis in *Drosophila*” UIC College of Pharmacy Seminar Series, Rockford, IL (February, 2016)

Bolterstein, E., Rivero, R., Marquez, M. and McVey, M. “Werner exonuclease exhibits an exonuclease-independent role in response to replication stress in *Drosophila*” DNA Repair And Mutagenesis (DRAM). Massachusetts Institute of Technology, Cambridge, MA (November, 2013)

Bolterstein, E., Rivero, R., Salomon, R. and McVey, M. “The role of *Drosophila* Werner syndrome protein in DNA repair” Boston Aging Data Series. Harvard Medical School, Boston, MA (January, 2013)

Bolterstein, E. and McVey, M. “The role of DNA repair mechanisms in *Drosophila* cuticle development” Tufts University Biology Departmental Seminar Series. Medford, MA (February, 2012)

FELLOWSHIPS AND AWARDS

2016, 2018	NEIU Research and Creative Activities Travel Fund Award
2016-2017 2014-2015	NEIU Teaching Excellence Award
2015-2016	NEIU Research Communities Award, Mary Kimble Co-PI
2015, 2018	NEIU Summer Research Project Stipend Award
2010 - 2013	TEACRS Postdoctoral Fellowship, NIH Institutional Research and Academic Career Development Award (K12), Tufts University, Boston, MA

PROFESSIONAL MEMBERSHIPS

Genetics Society of America	2010 – present
Association of College and University Biology Educators	2015 – present
Environmental Mutagenesis and Genomics Society	2016 - present

PROFESSIONAL DEVELOPMENT

Association of College and University Biology Educators – Annual Meeting	2015, 2016
Grant Writing Workshop A five-part workshop on writing grants for NSF, NIH Research Enhancement Award (AREA) and NIH RO1 Grants. Faculty presenters included Robert Fairman (Haverford College), Jane Liu (Pomona College), Robert Kurt (Lafayette College) and Dan Jay (Tufts University)	Spring 2013
Responsible Conduct of Research Training Kirby Johnson, PhD, Tufts University	Spring 2013
Process Oriented Guided Inquiry Learning (POGIL) workshop	Fall 2011
Workshop on Using Case Studies in Teaching Science Clyde Herreid, PhD, Director of the National Center for Case Study Teaching in Science	Spring 2011

ACADEMIC SERVICE

- 2016 Organizer of the Spotlight of Undergraduate Research Workshop at the 57th Annual Drosophila Research Conference
- Worked with a committee to design, create application, and chose presenters for a 2-hour seminar highlighting undergraduate research
- 2015 - 2018 Faculty Council on Institutional Advancement, NEIU, Chicago, IL
- 2014 - present Biology Department Undergraduate Curriculum Committee, NEIU, Chicago, IL
- Coordinated faculty open advising schedule
 - Examined current undergraduate biology core courses and made recommendations to biology faculty for restructuring of course content, organization, and course objectives for these classes.
- 2011 - 2013 TEACRS program, Tufts University, Boston, MA
- Served as Chairperson (2012-2013), workshop organizer (2013), and STEM panelist organizer and participant (2011-2012)
 - Coordinated with program directors, trainees and administrative assistants to organize and facilitate business meetings and professional development meetings for the upcoming year
- 2008 - 2010 Cofounder and Organizer, Wisconsin Stem Cell Roundtable (WiSCR), Madison, WI
- Coordinated and presented at monthly discussions where graduate students and postdocs presented their data in stem cell research
- 2005 - 2009 Student Liaison Committee, Molecular and Environmental Toxicology Center, University of Wisconsin, Madison, WI
- Served as President (2008-2009), Student Curriculum Representative (2006-2008), and New Student Representative (2005-2005)
 - Coordinated with directors to implement positive changes to program structure and recruitment
 - Created the first toxicology program-sponsored outreach program for elementary school students and members of the Madison community

OUTREACH

- 2015 Science Fair Judge, Lincoln Park High School, Chicago, IL
- 2015, 2016 Science Fair Judge, NEIU Regional Science Fair, Chicago, IL
- 2013 Science Fair Judge, Boston Collegiate Charter School, Boston, MA
- 2008 - 2009 Outreach Organizer, Molecular and Environmental Toxicology Center, Madison, WI
- Created interactive project and poster to teach elementary school students about uptake of environmental contaminants by wildlife.
 - Coordinated volunteers and participated in outreach events at University of Wisconsin and schools in the greater-Madison area.

2007 - 2009 Troop Leader and Volunteer, Girl Scouts of America, Madison, WI