Curriculum Vitae

Emily E. Schmitt, PhD
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EDUCATION----------

2015	PhD	Kinesiology Texas A&M University Department of Health and Kinesiology College Station, Texas Dissertation: "Endocrine Disruptors and the Regulation of Voluntary Physical Activity in Mice" Mentor: J. Timothy Lightfoot, PhD
2009	MS	Clinical Exercise Physiology University of North Carolina at Charlotte Department of Kinesiology Charlotte, North Carolina Thesis: "Weekly Physical Activity Levels of Two Groups of Older Adults" Mentor: Michael Turner, PhD
2007	BS	Exercise/Sport Science Minor: Psychology Elon University Department of Health and Human Performance Elon, North Carolina Mentors: Paul Miller, PhD Wally Bixby, PhD Eric Hall, PhD

PROFESSIONAL EXPERIENCE----------

August 2018	**Assistant Professor**, University of Wyoming College: Health Sciences Department: Kinesiology and Health *University of Wyoming* *Laramie, Wyoming*
May 2015-July 2018	**Post-Doctoral Fellow**, T32 Ruth L. Kirschstein National Research Service Award at Texas A&M University Regulatory Science in Environmental Health and Toxicology Training Grant, PI: Ivan Rusyn (Awarded July 2017-June 2018) *Mentor*, Weston W. Porter, PhD Research Topic: "Circadian Regulation of Polyaromatic Hydrocarbon Metabolism" *Texas A&M University* *Veterinary Integrative Biosciences*

June 2017-Present

Science Writer for ADIDAS, through the American College of Sports Medicine. Writing on various health topics for their "All Day" fitness app.

August 2014-May 2015

Director of Athlete Testing, Huffines Institute for Sports Medicine

Texas A&M University
Department of Health and Kinesiology

January 2011-December 2014

Graduate Teaching Assistant under Mr. Frank Thomas
Physical Education Activity Program
Courses taught: Kinesiology 198, Kinesiology 199

- Physical Activities:
  - Running, Yoga, Boot Camp, Step Aerobics, Total Fitness, Strength Training, Modified
- In classroom topics:
  - Nutrition, Personal Fitness, Hypokinetic Diseases, Sexual Health, Overall Wellness

Texas A&M University
Department of Health and Kinesiology

September 2009-December 2010

Clinical Exercise Physiologist
Strides to Strength Cancer Rehabilitation Program

Presbyterian Hospital
Charlotte, North Carolina

September 2009-December 2010

Customer Service/Internship Preceptor/
Seniors' Health Insurance Information Program

Charlotte-Mecklenburg Senior Centers
Charlotte, North Carolina

August 2007-August 2009

Graduate Assistant
Health and Wellness Coordinator

The University of North Carolina at Charlotte
Charlotte-Mecklenburg Senior Centers
Charlotte, North Carolina

Spring 2006-Spring 2007

Research Assistant
Health and Human Performance

Elon University
Elon, North Carolina

ORGANIZATIONS----------

August 2016-August 2017

Vice President
Post-Doctoral Association

Texas A&M University
Department of Veterinary Medicine

May 2011-December 2014

Treasurer
Graduate Student Organization

Texas A&M University

August 2012-May 2015 — *POWER*, Writing Consultant
Promoting Outstanding Writing for Excellence in Research
Texas A&M University
College of Education and Human Development

CLINICAL GRADUATE INTERNSHIPS----------

Fall 2008 — *Strides to Strength* Cancer Rehabilitation Program, 200 hours
Presbyterian Hospital
Charlotte, North Carolina

Summer 2008 — Cardiac and Pulmonary Rehabilitation Program, 200 hours
Carolinas Medical Center-Northeast
Concord, North Carolina

Spring 2008 — Health Suite, 55+ Health and Wellness, 200 hours
Charlotte-Mecklenburg Senior Centers
Charlotte, North Carolina

RESEARCH SKILLS----------

Human Laboratory Skills:

- VO2 max testing and submax testing
- DEXA and various body composition measurements and interpretation
- EKGs set up and interpretation
- Exercise prescription, evaluation, and exercise program development for healthy and diseased populations
- Heart rate, blood pressure, and oxygen saturation measurements and interpretation

Basic Laboratory Skills:

- Western blotting
- Chromatin Immunoprecipitation
- Real Time qPCR
- Development of primers and morpholinos
- Histology staining
- Tissue cell culture
- Mouse breeding
- Identification of puberty development in mice
- Mouse dissection
- Mouse blood draw (heart stick)
- Mouse Injections: tail vein, gavage, intraperitoneal
- ELISAs
- Interpreting echoMRI for mice
- Transfection for tissue culture

AWARDS & HONORS----------

Spring 2017 — Top 5 Poster Award
Texas Circadian Biology & Medicine Meeting

Houston, Texas

Spring 2017	First Place Post Doc Flash Talk, Three-Minute Thesis *Texas A&M University* *College of Veterinary Medicine*
Spring 2015	Outstanding Graduate Student of the Year in Kinesiology *Texas A&M University* *Department of Health and Kinesiology*
Spring 2012	Outstanding Graduate Assistant Nominee Physical Education Activity Program *Texas A&M University* *Department of Health and Kinesiology*
Spring 2004-Spring 2007	Elon University Women's Division 1-AA Track Scholarship *Elon University* *Elon, North Carolina*
Fall 2004-Spring 2007	All-Southern Conference Academic Honor Roll *Elon University* *Elon, North Carolina*

TRAVEL FUND AWARDS----------

Spring 2018	Post-Doctoral Travel Fund Recipient to attend Society of Toxicology National Meeting, San Antonio, TX
Summer 2016	Travel Fund Recipient to attend the Aryl Hydrocarbon Receptor as a Central Mediator of Health and Disease conference, Rochester, NY
Spring 2016	Post-Doctoral Travel Fund Recipient to attend Society of Toxicology National Meeting, New Orleans, LA

PROFESSIONAL MEMBERSHIPS----------

2018-Present	American Heart Association
2015-2018	Society of Toxicology
2015-2018	Postdoctoral Association in the Dept. of Vet Medicine
2015-2018	American Association for the Advancement of Science
2006-2015	American College of Sports Medicine
2010-2015	American Physiological Society
2010-2015	Texas Chapter of American College of Sports Medicine
2006-2009	Southeast Chapter of American College of Sports Medicine

MENTORING----------

During my years as a PhD student and Post-Doc Associate, I had the privilege to mentor several undergrad research scholars

2013	Analisa Jimenez	Analisa was instrumental in helping with day-to-day functions of the lab • Analisa is now a Doctor of Physical Therapy
2014	Conor Irwin	"Androgen Receptor Formation in Prenatally Endocrine Disrupted Mice" • *2nd place finish in undergraduate research forum* • Conor continued onto medical school
2016	Brooke Ferguson	Brooke was very helpful in conducting our Circadian Rhythm studies • Brooke is now in the Masters of Health Administration program

SEMINARS & PRESENTATIONS----------

February 2018	Toxicology Seminar Series, Texas A&M University "Effects of Physical Activity and the Molecular Clock on Polyaromatic Hydrocarbon Metabolism"
August 2017	Late-Breaking Speaker at Gordon Conference: Cellular and Molecular Mechanisms of Toxicity, Andover, NH 2017 "Circadian Regulation of Benzo[a]Pyrene Metabolism and DNA Adduct Formation in Breast Cells and the Mouse Mammary Gland"
January 2017	Post-Doc Flash Talk (Three-Minute Thesis), CVM Research Symposium "Circadian Regulation of Benzo[a]Pyrene Metabolism and DNA Adduct Formation in Breast Cells and the Mouse Mammary Gland"
January 2017	Presenter for Lab Meeting at Baylor College of Medicine, (J. Rosen Lab) Houston, TX "Circadian Regulation of Benzo[a]Pyrene Metabolism and DNA Adduct Formation in Breast Cells and the Mouse Mammary Gland"
October 2016	Presenter for Weekly Toxicology Seminar, Texas A&M University "Circadian Regulation of Benzo[a]Pyrene Metabolism and DNA Adduct Formation in Breast Cells and the Mouse Mammary Gland"
March 2016	Platform Session, Society of Toxicology, New Orleans, LA "Circadian Regulation of PAH Metabolism in Breast Cancer and Mouse Mammary Gland" Presentation #3392
November 2015	Professional Development Seminar for Health and Kinesiology Grad Students Texas A&M University, College Station, TX "How to get the Post-Doc Fellowship of Your Dreams"
April 2015	Exercise Physiology Beer Seminar Texas A&M University, College Station, TX "Endocrine Disruption and the Regulation of Physical Activity in Mice"

September 2014	Department of Health and Kinesiology, Exercise Physiology Seminar Texas A&M University, College Station, TX "Endocrine Disruption and the Regulation of Physical Activity in Mice"
April 2014	Center for Translational Environmental Health Research Houston, TX Project Update: "The Effect of Environmental Endocrine Disrupters on the Regulation of Physical Activity"

MANUSCRIPT REVIWER----------

2015-Present	Medicine & Science in Sports & Exercise

PUBLICATIONS-*Peer Reviewed*----------

McQueen CM*, **Schmitt EE***, Roy Sarkar T, Elswood J, Metz RP, Earnest D, Rijnkels M, Porter WW. PER2 Regulation of Mammary Gland Branching Morphogenesis. (2018), Development. ID#: DEVELOP/2017/157966.
*Co-first author

Morris D, Popp J, Tang L, Gibbs H, **Schmitt E**, Chaki S, Yeh A, Porter W, Burghardt R, Barhoumi R, Rivera G. (2017) Nck is required for breast carcinoma progression and metastasis. Molecular Biology of the Cell. Manuscript #: E17-02-0106R Vol 28 p. 3500- 3516

Emily E. Schmitt, Rola Barhoumi, Richard P. Metz, Weston W. Porter (2017). Circadian Regulation of Benzo[a]Pyrene Metabolism and DNA Adduct Formation in Breast Cells and the Mouse Mammary Gland. Molecular Pharmacology 91:1-11. http://dx.doi.org/10.1124/mol.116.106740

Emily E Schmitt, Heather L Vellers, Weston W Porter, J. Timothy Lightfoot (2016). Environmental Endocrine Disruptor Affects Voluntary Physical Activity in Mice. Medicine & Science in Sports & Exercise. Vol. 48, No 7, pp 1251-1258. doi 10.1249/MSS.0000000000000908

Turner MJ, **Schmitt EE***, Hubbard-Turner T (2016). Weekly Physical Activity Levels of Older Adults Regularly Using a Fitness Facility. Journal of Aging Research. Volume 2016, Article ID 5010285. http://dx.doi.org/10.1155/2016/5010285***Master Thesis**

Ferguson DP, Dangott LF, Vellers HL, **Schmitt EE,** Lightfoot JT (2015) Differential Protein Expression in the Nucleus Accumbens of High and Low Active Mice. Behavioral Brain Research. Ms. Ref. No.: BBR-D-14-01113R1

Ferguson DP, **Schmitt EE**, Lightfoot JT (2013) Vivo-Morpholinos Induced Transient Knockdown of Physical Activity Related Proteins. PLoS ONE 8(4): e61472. doi:10.1371/journal.pone.0061472

Ferguson DP, Dangott LJ, **Schmitt EE**, Vellers HL, Lightfoot JT (2013) JAPPL-00911-2013 Differential Skeletal Muscle Proteome of High and Low Active mice. Journal of Applied Physiology. doi:10.1152/japplphysiol.00911.2013

PUBLICATIONS-*In Press*----------

PUBLICATIONS-*Under Review*----------

BOOK CHAPTERS----------

In Press **The Routledge Handbook of Sport and Exercise Systems Genetics.** Chapter 11: Environmental Factors that May Affect the Genetic Regulation of Activity (***Emily Schmitt***, Texas A&M University, USA and Heather Vellers, National Institute of Environmental Health Sciences, USA)

POSTER PRESENTATIONS & PUBLISHED ABSTRACTS----------

Emily E. Schmitt, Rola Barhoumi, Cole McQueen, Weston W. Porter. Circadian Regulation of AhR Induced CYP1A1 Gene Expression is Dependent Upon p53 Binding Activity. Society of Toxicology, San Antonio, TX March 2018

Emily E. Schmitt, Rola Barhoumi, Richard P. Metz, Weston W. Porter. Circadian Regulation of Benzo[a]Pyrene Metabolism and DNA Adduct Formation in Breast Cells and the Mouse Mammary Gland 2017 Annual Toxicology Regulatory Science Symposium: Texas A&M University

Emily E. Schmitt, Rola Barhoumi, Richard P. Metz, Weston W. Porter. Circadian Regulation of Benzo[a]Pyrene Metabolism and DNA Adduct Formation in Breast Cells and the Mouse Mammary Gland Gordon Conference: Cellular and Molecular Mechanisms of Toxicity, Andover, NH 2017

Emily E. Schmitt, Rola Barhoumi, Richard P. Metz, Weston W. Porter. Circadian Regulation of Benzo[a]Pyrene Metabolism and DNA Adduct Formation in Breast Cells and the Mouse Mammary Gland* Texas Circadian Biology & Medicine Meeting, Houston, TX 2017 *Poster Award Winner

Emily E. Schmitt, Rola Barhoumi, Richard P. Metz, Weston W. Porter. Circadian Regulation of Benzo[a]Pyrene Metabolism and DNA Adduct Formation in Breast Cells and the Mouse Mammary Gland. CTEHR Clocks Symposium, Tic Tox: “Circadian Rhythms and the Environment”, College Station, TX 2016.

Emily E. Schmitt, Rola Barhoumi, Richard P. Metz, Weston W. Porter. Circadian Regulation of Benzo[a]Pyrene Metabolism and DNA Adduct Formation in Breast Cells and the Mouse Mammary Gland. TAMU Post-Doctoral research symposium, College Station, TX 2016.

Emily E. Schmitt, Rola Barhoumi, Richard P. Metz, Weston W. Porter. Circadian Regulation of Benzo[a]Pyrene Metabolism and DNA Adduct Formation in Breast Cells and the Mouse Mammary Gland. The Aryl Hydrocarbon Receptor as a Central Mediator of Health and Disease Conference, Rochester, NY 2016.

Emily E. Schmitt, Weston W. Porter, J. Timothy Lightfoot. Endocrine-Disruption and the Regulation of Physical Activity and Mammary Gland Development in Mice. American College of Sports Medicine San Diego, CA 2015.

Emily E. Schmitt, Weston W. Porter, J. Timothy Lightfoot. Endocrine-Disruption and the Regulation of Physical Activity and Mammary Gland Development in Mice. Breast Cancer Retreat, Lake Conroe, TX 2014.

Emily E. Schmitt, Heather L. Vellers, Conor D. Irwin, Timothy Lightfoot. Endocrine-disruption and Regulation of Physical Activity in Mice. American College of Sports Medicine Orlando, FL 2014. (Thematic Poster Presentation Abstract #2807vbCrLf)

Emily E. Schmitt, David P. Ferguson, J. Timothy Lightfoot. Potential Wash-out of Vmat2 Gene Silencing by Exercise Exposure. American College of Sports Medicine San Francisco, CA 2012. (Poster Presentation #2907)

PT Downey, TM Ballard, **EE Schmitt**, PL Nebus. Cancer Rehabilitation: Observed Trends of Cancer Survivors' Physical Activity Levels Prior to Diagnosis and When Starting the Strides to Strength Group Exercise Program. Medicine & Science in Sports & Exercise. American College of Sports Medicine San Francisco, CA 2012. (Poster Board #27)

E.E. Schmitt, D.P. Ferguson, J.T. Lightfoot. Knockdown of Vmat2 in mouse right striatum and physical activity. Experimental Biology San Diego, CA 2012. (Poster Presentation #1151.11)

D.P. Ferguson, **E.E. Schmitt**, J.T. Lightfoot. The effect of vivo-morpholino targeting Vmat2 on daily physical activity in mouse soleus compared to scrambled-morpholino control. Experimental Biology San Diego, CA 2012. (Poster Presentation #716.8)

Ferguson, David P.; **Schmitt, Emily** E.; and J. Timothy Lightfoot (2012) "Evaluation of a Vivo-Morpholino Delivery Method to the Brain and the Affect on Physical Activity," *International Journal of Exercise Science: Conference Abstract Submissions*: Vol. 2: Iss. 4, Article 60. (Texas ACSM Poster Presentation) Available at: http://digitalcommons.wku.edu/ijesab/vol2/iss4/60

Schmitt Emily E.; Hubbard Tricia J.; Turner Michael J. Fitness Facility Use Does Not Increase Step Activity in Independent Living Older Adults. Conference: 57th Annual Meeting of the American-College-Sports-Medicine/Inaugural World Congress on Exercise is Medicine Location: Baltimore, MD Date: JUN 05, 2010 Sponsor(s): Amer Col Sports Med. Source: MEDICINE AND SCIENCE IN SPORTS AND EXERCISE Volume: 42 Issue: 5 Supplement: 1 Pages: 596-596 Meeting Abstract: 2349 Published: May 2010

Ferguson, DP, TL Moore-Harrison, RS Bowen, KJ Hall, **EE Schmitt**, AT Hamilton, A Mosher, JT Lightfoot. Heart rate and core temperature responses of pit crew athletes during elite automobile races. American College of Sports Medicine. Seattle, WA. May 27-30, 2009. *Medicine and Science in Sports and Exercise*, 41(5 Suppl.):S305, 2009. (Poster Presentation)

Schmitt, Emily; Pyden, Caitlan**;** Miller, Paul. Relationships Between Treadmill Running Performance and Preference and Tolerance of Exercise Intensity. Southeast American College of Sports Medicine. Charlotte, NC. February 2007. (Poster Presentation)

"IN THE NEWS AND PUBLIC OUTREACH"----------

Podcast with Dr. Timothy Lightfoot, Director of the Huffines Institute for Sports Medicine. We talked about our current research, specifically endocrine disruptors and the environment, circadian rhythms, and where our research is headed. **December 2016**

Manuscript titled "Environmental Endocrine Disruptors Alters Physical Activity in Mice" was highlighted in the editors "News and Views" **July 2016** issue by the Editor-in-Chief of MSSE, Dr. Bruce Gladden

Interviewed by the New York Times by Gretchen Reynolds regarding my dissertation research. "Could Environmental Chemicals Shape Our Exercise Habits?" published **June 29, 2016**

Project mentioned in Self Magazine, **December 2006**, page 77. Relationships Between Treadmill Running Performance and Preference and Tolerance of Exercise Intensity. Mentor: Paul Miller, Elon University

FUNDING----------

Texas A&M Center for Translational Environmental Health Research

Pilot Project Program 2013
The Effect of Environmental Endocrine Disrupters on the Regulation of Physical Activity;
PI-J. Timothy Lightfoot
(Funded, Direct Costs: $44,000)
Role: **Emily E. Schmitt**, Project Director

APPLIED for FUNDING----------

SUBMITTED April 10, 2017: NIH F32 – Post-Doctoral Fellowship Award
NIEHS Study Section
Not Discussed
The Effect of Flavonoids and Physical Activity on PAH Metabolism
PI: E. Schmitt (Under Direction of Dr. Weston Porter, Post-Doc Mentor)