Michael B. Williams, M.S. Curriculum vitae

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# Personal Information

* Date of Birth: September 25th, 1987
* Born in Sheffield Alabama
* Native Born Citizen of the United States of America
* European ancestry
* Male, unmarried, no children

# Education

**University of Alabama at Birmingham Fall 2014 – Present**

Doctor of Philosophy in Biological Sciences

* Dissertation: The Role of the Circadian Clock bZIP Transcription Factors in Body Composition and Metabolic Health in Zebrafish Under Different Dietary Conditions
* Phi Sigma Biology Honors Society
* GPA: 3.9

**University of Alabama at Birmingham Summer 2012 – Summer 2014**

Masters of Science of Biology

* Thesis: Combinatorial effects of Corexit EC 9500A with abiotic and biotic stressors in the rotifer *Brachionus plicatilis*
* Magna Cum Laude
* GPA: 3.8

**University of Alabama at Birmingham Fall 2010 – Spring 2012**

Bachelor of Science of Biology and Minor in Chemistry

* Biology Departmental Honors
* Cum Laude
* Presidential Honors, Fall 2010
* Presidential Honors, Spring 2012
* GPA: 3.52

**Jefferson State Community College Summer 2007 – Summer 2010**

Applied Science of Biology

* President’s List, Summer 2007
* President’s List, Fall 2008
* President’s List, Summer 2010
* Phi Theta Kappa Honor Society (2009 - 2010)
* GPA: 3.53

# Academic Experience

**Laboratory of Stephen A. Watts PhD. Summer 2011 – Present**

* Nutrition, obesity, and aging in aquatic models

# Work Experience

**University of Alabama at Birmingham – Birmingham, AL Summer 2012 – Present**

**Teaching Assistant**

* Instructing students in Biology and Environmental Science laboratories
* Writing material for tests and quizzes
* Hosting field exercises

**UAB – Research Support Building – Birmingham, AL Fall 2012 – Summer 2012**

**Animal Care Technician**

* Provided husbandry care to aquatic research animals
* Cultured plankton stocks

**Brunswick Riverview Lanes – Birmingham, AL** **Winter 2010 – Fall 2012 Counter Control Operator**

* Providing customer service and event hosting
* Reconciling funds at end of day

**Modern Watch Company – Birmingham, AL Fall 2009 – Fall 2010**

**Sales Associate**

* Offered excellent customer service (often leading in sales)
* Maintained detailed product knowledge by intense study of products in the market

# Teaching Experience – 78 contact hours

* **ENV109 – Environmental Sciences Lab**: **Fall 2013 (3 sections, 6 hours), Spring 2014 (3 sections, 6 hours), Summer 2014 (1 section, 3 hours), Fall 2014 (3 sections, 6 hours), Summer 2015 (1 section, 3 hours), Summer 2016 (1 section, 3 hours)**

Position: laboratory instructor

Course’s primary student body: freshman to junior non-science majors (18 students)

* **BY116L – Human Physiology Lab**: **Summer 2012 (1 section, 2 hours), Spring 2017 (1 section 2 hours), Summer 2017 (1 section, 2 hours), Spring 2018 (3 sections, 6 hours), Fall 2018 (2 sections, 4 hours)**

Position: laboratory instructor

Course’s primary student body: freshman to senior pre-nursing majors (10 to 24 students)

* **BY123L – Introductory Biology Lab**: **Fall 2012 (1 section, 3 hours), Spring 2013 (2 sections, 6 hours), Fall 2016 (1 section, 3 hours), Fall 2017 (2 sections, 6 hours)**

Position: laboratory instructor

Course’s primary student body: freshman to sophomore biology majors (18 students)

* **BY124L – Introductory Biology Lab**: **Fall 2015 (2 section, 6 hours)**

Position: laboratory instructor

Course’s primary student body: freshman to sophomore biology majors (20 students)

* **BY271L – Microbiology Lab: Spring 2015 (1 section, 4 hours)**

Position: laboratory instructor

Course’s primary student body: sophomore to senior biology majors (18 students)

* **BY409L – Mammalian Physiology Lab: Summer 2018 (1 section, 3 hours)**

Position: laboratory instructor

Course’s primary student body: senior biology majors (10 to 24 students)

* **BY101 – Introductory Biology**: **Fall 2015 (1 section, 1 hour)**

Position: guest lecturer (3 classes)

Course’s primary student body: freshman to sophomore non-biology majors (50 students)

* **BY123 – Introductory Biology**: **Spring 2018 (1 sections, 1 hour)**

Position: guest lecturer (3 classes)

Course’s primary student body: freshman to sophomore biology majors (200 students)

* **BY330 – Cell Biology**: **Summer 2013 (1 section, 2 hour), Summer 2014 (1 section, 2 hour) Spring 2016 (1 section, 1 hour)**

Position: guest lecturer (3 classes)

Course’s primary student body: junior to senior molecular biology concentration (20 to 75 students)

* **BY416 – Cell Physiology: Spring 2016 (1 sections, 1 hour)**

Position: guest lecturer (1 class)

Course’s primary student body: junior to senior molecular biology concentration (50 students)

* **BY755 – Biometry: Spring 2016 (1 section, 3 hours)**

Position: teaching assistant

Course’s primary student body: graduate students in biology and public health (60 students)

Full teaching portfolio with student reviews available for viewing at: https://uab.box.com/s/luxvsgrfwxv68viddc60zo3iz0pzenwl

# Professional and Community Societies

* Alabama Academy of Sciences
* American Society of Nutrition
* Phi Sigma Biology Honors Society

# Mentoring Experience

* **Johnathan Sahawneh – Biology undergraduate Summer 2014 – Spring 2015**

Position: Mentor

* **Erica Anderson – Public Health Masters Student** **Fall 2012 – Fall 2014**

Position: Mentor

* **Millena Oliveira – Jefferson County International Fall 2011**

**Baccalaureate H.S. Student**

Position: Mentor

# Professional and Community Service

* Assisted with UAB CAS Biology Department Freshmen Welcome Reception **– August 2018**
* Elected to serve as a Budget Committee Member for the Graduate Student Government **July 2017 – Current**
* Served as judge for the UAB Expo**, July 2018**
* Served as judge for Alabama Junior Academy of Science **March 2018**
* Elected to serve as Treasurer for the Graduate Student Government **June 2015 – July 2017**
* Abstract Reviewer for ASN's Scientific Sessions & Annual Meeting at EB **2017**
* Served as a volunteer at the UAB CAS Biology Departmental Picnic **2016**
* Served on Departmental Seminar Committee **Fall 2015 – Spring 2016**
* Served as a graduate student representative for 3 UAB undergraduate recruitment events **March 2015 – October 2015**
* Assisted for Freshman Move in Day 2015 UAB **August 2015**
* Served as judge for Alabama Junior Academy of Science **March 2015**
* Served as the Graduate Student Government representative for the search committee for the Vice President of Student Affairs **2015**
* Served as a volunteer worker at UAB Earth Day **2014**
* Served as a volunteer at the UAB CAS Biology Departmental Picnic **2014**
* Served as Sargent at Arms and Senator for the Graduate Student Government **Fall 2014 – Summer 2015**
* Served on the Graduate Student Government Resource Committee **Summer 2012 – Summer 2014**
* Served as judge for the Community Outreach Development (CORD) Summer Student Intern Science Fair **July 2014**
* Served as judge for the UAB Expo **April 2014**
* Served as judge for the Avondale Elementary Science Fair **November 2013**
* Served as judge for the Community Outreach Development (CORD) Summer Student Intern Science Fair **July 2013**
* Served as judge for the UAB Expo, **April 2013**
* Served as judge for Alabama Junior Academy of Science **March 2013**
* Served as a volunteer at the UAB CAS Biology Departmental Picnic **2013**
* Served as a volunteer at the UAB CAS Biology Departmental Picnic **2012**

# Academic Presentations

* **2017** Poster Presentation 8th Aquatic Animal Models of Human Disease Conference: Effect of Dietary Protein Source and Quantity on the Growth and Body Composition of Juvenile *Danio Rerio*
* **2016** Poster Presentation for the American Society of Nutrition: Dietary protein source and quantity affects growth and body composition of juvenile *Danio rerio*
* **2015** Oral Presentation for the92nd Annual Meeting of the Alabama Academy of Sciences: Dietary protein source and quantity affects growth and body composition of juvenile *Danio rerio*
* **2014** Oral Presentation for the University of Alabama at Birmingham Graduate Student Research Day: Combinatorial effects of Corexit EC 9500A with abiotic and biotic stressors in the rotifer *Brachionus plicatilis*
* **2014** Oral Presentation for the Society for Integrative and Comparative Biology Annual Meeting: Combinatorial effects of Corexit EC 9500A with abiotic and biotic stressors in the rotifer *Brachionus plicatilis*
* **2013** Oral Presentation for the 90th Meeting of the Alabama Academy of Sciences: Combinatorial effects of Corexit EC 9500A with abiotic and biotic stressors in the rotifer *Brachionus plicatilis*
* **2013** Oral Presentation for the World Aquaculture Society Tri-Annual International Meeting: Oil Spill Aftermath: The Effects of the Dispersant Corexit 9500A on Zooplankton Populations with Implications for Coastal Fisheries
* **2012** Poster Presentation for the University of Alabama Undergraduate Research and Creative Activities Conference: Oil Spill Aftermath: The Effects of the Dispersant Corexit 9500A on Zooplankton Populations
* **2012** Poster Presentation for the UAB Expo: Oil Spill Aftermath: The Effects of the Dispersant Corexit 9500A on Zooplankton Populations

# Publications

**Abstracts in Print**

* **2017** 8th Aquatic Animal Models of Human Disease Conference: Effect of Dietary Protein Source and Quantity on the Growth and Body Composition of Juvenile *Danio Rerio* **Michael B. Williams**, Lacey N. Dennis, Nathan D. Miyasaki, Robert J. Berry, Mickie L. Powell, Stephen A. Watts, Daniel L. Smith, Jr.
* **2016** American Society of Nutrition / Experimental Biology San Diego:Effect of Dietary Protein Source and Quantity on the Growth and Body Composition of Juvenile *Danio Rerio* **Michael B. Williams**, Lacey N. Dennis, Nathan D. Miyasaki, Robert J. Berry, Mickie L. Powell, Stephen A. Watts, Daniel L. Smith, Jr.
* **2016** American Society of Nutrition / Experimental Biology San Diego: Do Standard Laboratory Practices Lead to Obese Zebrafish Populations? Stephen A. Watts, L.N. Dennis, L.A. Fowler**, M.B. Williams**, Yuan Yuan, R.J. Barry, S. Farmer, L.R. D’Abramo and M.L. Powell
* **2015** 92nd Annual Meeting of the Alabama Academy of Sciences: Dietary protein source and quantity affects growth and body composition of juvenile *Danio rerio*. **Michael B. Williams**, Lacey N. Dennis, Nathan D. Miyasaki, Robert J. Berry, Mickie L. Powell, Stephen A. Watts, Daniel L. Smith, Jr.
* **2014** 91st Annual Meeting of the Alabama Academy of Sciences: Combinatorial Effects of Corexit 9500A and Temperature Stressors on Embryo Development in the Zebrafish *Danio rerio* \*Erica Anderson\*, **Michael B. Williams**, Stephen A. Watts, Julia Gohlke, and Dale Dickinson
* **2014** Society of integrative and Comparative Biology: Combinatorial effects of Corexit EC 9500A with abiotic and biotic stressors in the rotifer *Brachionus plicatilis* **Michael B. Williams**, Mickie L. Powell, and Stephen A. Watts
* **2014** Society of integrative and Comparative Biology: Dietary β-carotene supplementation in broodstock affects F1 embryonic development and embryonic stress response to UVR in the sea urchin *Lytechinus variegatus*. J. Christopher Taylor, **Michael B. Williams**, Santosh K. Katiyar, Stephen A. Watts
* **2014** Society of integrative and Comparative Biology: Effects of Corexit 9500A on gill structure and oxygen consumption in *Danio rerio*. Susan L. Moore, Octavio M. Oliva1, **Michael B. Williams**, Mickie L. Powell, Mark E. Meade2, Veena B. Antony1 and Stephen A. Watts
* **2013** 90th Annual Meeting of the Alabama Academy of Sciences: Combinatorial effects of Corexit EC 9500A with abiotic and biotic stressors in the rotifer *Brachionus plicatilis* **Michael B Williams**, Mickie L. Powell, and Stephen A. Watts
* **2013** 90th Annual Meeting of the Alabama Academy of Sciences: Parental supplementation with dietary β-carotene affects early development of F1 larvae exposed to UV radiation. J. Christopher Taylor, **Michael B. Williams**, Santosh K. Katiyar, Stephen A. Watts
* **2013** 90th Annual Meeting of the Alabama Academy of Sciences: Effects of Corexit exposure on gill structure and oxygen consumption in *Danio rerio*. Susan Moore, Octavio M. Oliva, **Michael B. Williams,** Mickie M. Powell, Veena B. Antony, and Stephen A. Watts

**Papers in Print**

* **2017** Journal of the Alabama Academy of Science: Combinatorial Effects of Corexit 9500A and Temperature Stressors on Embryo Development in the Zebrafish *Danio rerio,* Erica Anderson and **Michael B. Williams**, Stephen A. Watts, Julia Gohlke, and Dale Dickinson
* **2016** Comparative Biochemistry and Physiology - Part C: Toxicology & Pharmacology: Combined Effects of Corexit EC 9500A with Secondary Abiotic and Biotic Factors in the rotifer *Brachionus plicatilis*, **Michael B Williams**, Mickie L. Powell, and Stephen A. Watts
* **2016** Aquaculture: Production and Economic Optimization of Dietary Protein and Carbohydrate in the Culture of Juvenile Sea Urchin *Lytechinus variegatus* Laura E. Heflin, Robert Makowsky, J. Christopher Taylor, **Michael B. Williams**, Addison L. Lawrence and Stephen A. Watts

**Book Chapters in Print**

* **2018** “34. Feeding/Nutrition”The Zebrafish in Biomedical Research, Ed. 1. The American College of Laboratory Animal Medicine, Chester NH, L. Adele Fowler and **Michael B. Williams**, Louis R. D’Abramo, and Stephen A. Watts

**Papers in Preparation**

* **2018** Frontiers in Nutrition: Sex-Specific Influences of Dietary n-6/n-3 Fatty Acid Ratios and Total Fat on Weight Gain and Nutrient Allocation in a Zebrafish Model, L.A. Fowler, L.N. Dennis, J.A. Dawson, R.J. Barry, J.L. Davis, M.L. Powell, Y. Yuan, **M.B. Williams**, R. Makowsky, and S.A. Watts
* **2018** Frontiers in Nutrition: Influence of Commercial and Laboratory Diets on Growth, Body Composition, and Reproduction in the Zebrafish *Danio rerio*. Lauren A. Fowler, **Michael B. Williams**, Lacey N. Dennis, Robert J. Berry, Mickie L. Powell, Stephen A. Watts
* **2018** Aquaculture Nutrition: Effect of Dietary Protein Source and Quantity on the Growth and Body Composition of Juvenile *Danio Rerio*, **Michael B. Williams**, Lacey N. Dennis, Nathan D. Miyasaki, Robert J. Berry, Mickie L. Powell, Stephen A. Watts, Daniel L. Smith, Jr.

**Papers Submitted for Publication**

* **2018** Journal of the Alabama Academy of Science: Parental supplementation with dietary β-carotene affects early development of F1 larvae exposed to UV radiation, J. Christopher Taylor, **Michael B. Williams**, Santosh K. Katiyar, Stephen A. Watts

# Awards

* **2018** Certificate of Appreciation for Service to the Graduate Student Government
* **2018** Alabama Academy of Science Carmichael Award Winner
* **2017** Certificate of Appreciation for Service to the Graduate Student Government
* **2016** Certificate of Appreciation for Service to the Graduate Student Government
* **2014** Department of Biology Altruist Award
* **2013** First place oral presentation for the South-Eastern Division of the Society of Environmental Toxicology and Chemistry at the 90th Annual Meeting of the Alabama Academy of Sciences
* **2012** Second place poster presentation for the 2012 University of Alabama Undergraduate Research and Creative Activities Conference
* **2012** Honorable Mention poster presentation for the UAB Expo

# Grants and Funding

* **2016-2017** Nutation Obesity Research Center Pilot Grant under PI Shahid Mukhtar $10,000
* **2016** Phi Sigma Travel Award $500.00
* **2016** UAB Graduate Student Government Travel Grant Award $400.00
* **2016** UAB Biology Departmental Travel Grant $400.00
* **2015** Alabama Academy of Sciences Travel Grants $26.64
* **2014** UAB Biology Departmental Travel Grant $400.00
* **2014** Alabama Academy of Sciences Student Research Grant $200.00
* **2013** UAB Graduate Student Government Travel Grant Award $400.00
* **2013** UAB Biology Departmental Travel Grant $ 400.00

# Additional Certifications and Training Courses

* **2016** Center for Clinical and Translational Science Research Training Program
* **2014** CIRTL Associate Program Teaching Certification