

## Michael W. Greene, Ph.D.

Department of Nutrition, Dietetics, and Hospitality Management

College of Human Sciences

Auburn University

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Lab Website: <http://auburn.edu/greenelab>

Online Research Profiles: [ResearchGate Profile](#) and [Google Scholar Profile](#)

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### EDUCATION:

- |      |   |
|------|---|
| 2003 | Postdoctoral Fellowship<br>Department of Molecular Pharmacology<br>Stanford University, Stanford, CA<br>(Advisor: Richard A. Roth, Ph.D.)   |
| 2000 | Postdoctoral Fellowship<br>Department of Cardiovascular and Metabolic Diseases<br>Pfizer Inc., Groton, CT<br>(Advisor: Robert S. Garofalo, Ph.D.)   |
| 1998 | Ph.D. in Molecular and Cell Biology<br>University of Connecticut, Storrs, Connecticut<br>(Advisor: Thomas T. Chen, Ph.D.)<br><br>University of Maryland, Baltimore County, Baltimore, Maryland<br>(transferred to University of Connecticut with advisor) |
| 1992 | M.S. in Aquatic Toxicology<br>School of Fisheries<br>University of Washington, Seattle, Washington<br>(Advisor: Richard Kocan, Ph.D.)   |
| 1988 | B.S. in Biology and Marine Science<br>University of Miami, Coral Gables, Florida<br>(Senior Thesis: Michael C. Schmale, Ph.D.)  |

**PROFESSIONAL POSITIONS:**

- 2014-present Director, Auburn University Metabolic Phenotyping Laboratory (AUMPL), Auburn University, Auburn, AL
- 2013-present Member, Cellular and Molecular Biosciences Program, Auburn University, Auburn, AL
- 2012-present Investigator, Boshell Diabetes and Metabolic Disease Research Program, Auburn University, Auburn, AL
- 2012-present Investigator, Auburn University Research Initiative in Cancer (AURIC), Auburn University, Auburn, AL
- 2012-present Assistant Professor, College of Human Sciences, Auburn University, Auburn, AL
- 2010-2012 Head, Basic Science Group, Bassett Research Institute, Mary Imogene Bassett Hospital, Bassett HealthCare Network, Cooperstown, NY
- 2004-2012 Research Scientist, Bassett Research Institute, Mary Imogene Bassett Hospital, Bassett HealthCare Network, Cooperstown, NY
- 2003 Consultant, CellGate, Inc., Sunnyvale, CA
- 1995-1998 Graduate Assistant, Department of Molecular and Cell Biology, University of Connecticut, Storrs, CT
- 1993 Research Assistant, Department of Pathology, Portland VA Medical Center, Portland, OR
- 1990-1992 Consultant, School of Fisheries, University of Washington, Seattle, WA
- 1985-1990 Research technician, Rosenstiel School of Marine and Atmospheric Sciences, University of Miami, Miami, FL

**PUBLICATIONS:**

1. O'Neill, A.M., Burrington, C. M., Gillaspie, E.A., Lynch, D.T., Horsman, M.J., and **Greene, M.W.** (2016) High fat western diet induced obesity contributes to increased tumor growth in mouse models of human colon cancer. *Nutrition Research*. doi: 10.1016/j.nutres.2016.10.005. Epub 2016 Oct 21.  
*Impact Factor: 2.523 (#30 out of 80 in Endocrinology & Metabolism by Eigenfactor Score)*

2. Kothari, V., Luo, Y., Tornabene, T., O'Neill, A.M., **Greene, M.W.** Thangiah, G., and Babu, J.R. (2016) High fat diet induces brain insulin resistance and cognitive impairment in mice. *BBA – Molecular Basis of Disease*. doi: 10.1016/j.bbadis.2016.10.006. Epub 2016 Oct 19.  
*Impact Factor: 5.158* (#57 out of 289 in Endocrinology & Metabolism by Eigenfactor Score)
3. Luo, Y., Burrington, C. M., Graff, E.C., Zhang, J., Judd, R.L., Suksaranjit, P., Kaewpoowat, Q., Davenport, S.K., O'Neill, A.M., and **Greene, M.W.** (2016) Metabolic phenotype and adipose and liver features in the high fat Western diet-induced mouse model of obesity-linked NAFLD. *Am J Physiol Endocrinol Metab*. Mar 15; 310(6):E418-39. doi: 10.1152/ajpendo.00319.2015. Epub 2015 Dec 15.  
*Impact Factor: 3.785* (#12 out of 128 in Endocrinology & Metabolism by Eigenfactor Score)
4. Blask, D. E., Dauchy, R. T., Dauchy, E. M., Mao, L., Hill, S. M., **Greene, M. W.**, Belancio, V. P., Sauer, L. A., and Davidson, L. (2014). Light exposure at night disrupts host/cancer circadian regulatory dynamics: impact on the warburg effect, lipid signaling and tumor growth prevention. *PLoS One* 9(8): e102776.  
*Impact Factor: 3.534* (#4 out of 55 in Multidisciplinary Sciences by Eigenfactor Score)
5. Zhang, J., Burrington, C.M., Davenport, S.K., Johnson, A.K., Horsman. M.J., Chowdhry, S., and **Greene, M.W.** (2014) PKCdelta regulates hepatic triglyceride accumulation and insulin signaling in Lepr mice. *Biochem Biophys Res Commun*. doi: 10.1016/j.bbrc.2014.07.048. Epub 2014 Jul 15.  
*Impact Factor: 2.281* (#11 out of 291 in Biochemistry and Molecular Biology by Eigenfactor Score)
6. **Greene, M.W.**, Burrington, C. M., Luo, Y., Ruhoff, M. S., Lynch, D. T., and Chaithongdi, N. (2014) PKC $\delta$  is activated in the liver of obese Zucker rats and mediates diet-induced whole body insulin resistance and hepatocyte cellular insulin resistance. *J. Nutr. Biochem*. 25(3):281-8. doi: 10.1016/j.jnutbio.2013.10.008. Epub 2013 Nov 15.  
*Impact Factor: 4.592* (#12 out of 79 in Nutrition and Dietetics by Eigenfactor Score)
7. **Greene, M.W.**, Burrington, C. M., Lynch, D. T., Davenport, S. K., Johnson, A. J., Horsman, M. J., Chowdhry, S., Zhang, J., Sparks, J. D., and Tirrell, P. C. (2014) Lipid metabolism, oxidative stress and cell death are regulated by PKC delta in a dietary model of nonalcoholic steatohepatitis. *PLoS ONE* 9(1): e85848. doi:10.1371/journal.pone.0085848  
*Impact Factor: 3.534* (#4 out of 55 in Multidisciplinary Sciences by Eigenfactor Score)
8. **Greene, M.W.** (2012) Circadian rhythms and tumor growth. *Cancer Lett*. 318(2):115-123.  
*Impact Factor: 5.016* (#23 out of 203 in Oncology by Eigenfactor Score)
9. Wu, J., Dauchy, R.T., Tirrell, P.C., Wu, S. S., Lynch, D. T., Jitawatanarat,J., Burrington, C. M., Dauchy, E.M., Blask, D. E. and **Greene, M.W.**, (2011) Light at night activates IGF-

1R/PDK1 signaling and accelerates tumor growth in human breast cancer xenografts. Cancer Res. 71(1):2622-2631.

*Impact Factor: 9.284 (#2 out of 203 in Oncology by Eigenfactor Score)*

10. **Greene, M. W.**, Burrington, C. M., Ruhoff, M. S., Johnson, A. J., Chongkairatanakul, T. and Kangwanpornsir, A. (2010) Protein kinase C (PKC) delta is activated in a dietary model of steatohepatitis and regulates endoplasmic reticulum stress and cell death. J. Biol. Chem. 285(53):42115-42129.  
*Impact Factor: 4.600 (#1 out of 291 in Biochemistry and Molecular Biology by Eigenfactor Score)*
11. Dauchy, R.T., Dauchy, E.M., Tirrell, R.P., Hill, C.R., Davidson, L.K., **Greene, M.W.**, Tirrell, P.C., Wu, J., Sauer, L.A., and Blask, D. E. (2010) Dark-phase light contamination disrupts circadian rhythms in plasma measures of endocrine physiology and metabolism in rats. Comp Med. 60(5):348-56.  
*Impact Factor: 0.760 (#53 out of 132 in Biochemistry and Molecular Biology by Eigenfactor Score)*
12. **Greene, M. W.**, Ruhoff, M. S., Burrington, C. M., Garofalo, R. S., and Orena, S. J. (2010) TNF $\alpha$ -induced insulin resistance in hepatocytes is mediated by PKC $\delta$ . Cell. Signalling 22(2):274-84.  
*Impact Factor: 4.471 (#47 out of 185 in Cell Biology by Eigenfactor Score)*
13. Ruhoff, M. S., **Greene, M. W.**, and Peters, T. (2010) Location of the Mutation Site in the First Two Reported Cases of Analbuminemia. Clinical Biochemistry 43(4-5):525-527.  
*Impact Factor: 2.229 (#4 out of 31 in Medical Laboratory Technology by Eigenfactor Score)*
14. Dauchy, R.T., Blask, D.E., Dauchy, E.M., Davidson, L.K., Tirrell, P.C., **Greene, M.W.**, Tirrell, R.P., Hill, C.R., and Sauer, L.A. (2009) Antineoplastic effects of melatonin on a rare malignancy of mesenchymal origin: melatonin receptor-mediated inhibition of signal transduction, linoleic acid metabolism and growth in tissue-isolated human leiomyosarcoma xenografts. J Pineal Res. 47:32-34.  
*Impact Factor: 7.812 (#47 out of 124 in Endocrinology by Eigenfactor Score)*
15. **Greene, M. W.**, Ruhoff, M. S., Roth, R. A., Kim, J., Quon, M. J., and Krause, J. A. (2006) PKC $\delta$ -mediated IRS-1 Ser24 phosphorylation negatively regulates IRS-1 function. Biochem. Biophys. Res. Commun. 349(3): 976-986.  
*Impact Factor: 2.281 (#11 out of 291 in Biochemistry and Molecular Biology by Eigenfactor Score)*
16. **Greene, M. W.**, Morrice, N., Garofalo, R. S., and Roth R. A. (2004). Modulation of human insulin receptor substrate-1 tyrosine phosphorylation by protein kinase Cdelta. Biochem J. 378(1): 105-116.

*Impact Factor: 4.779 (#22 out of 291 in Biochemistry and Molecular Biology by Eigenfactor Score)*

17. **Greene, M. W.**, Sakaue, H, Wang, L., Alessi, D., and Roth, R. A. (2003). Modulation of insulin-stimulated degradation of human insulin receptor substrate-1 by serine 312 phosphorylation. *J. Biol. Chem.* 278(10):8199-8211.  
*Impact Factor: 4.600 (#1 out of 291 in Biochemistry and Molecular Biology by Eigenfactor Score)*
18. **Greene, M. W.** and Garofalo, R. S. (2002). Positive and negative regulatory role of insulin receptor substrate 1 and 2 (IRS-1 and IRS-2) serine/threonine phosphorylation. *Biochemistry* 41(22):7082-7092.  
*Impact Factor: 3.194 (#10 out of 291 in Biochemistry and Molecular Biology by Eigenfactor Score)*
19. Yang, B. Y., **Greene, M.**, and Chen, T. T. (1999). Early embryonic expression of the growth hormone family protein genes in the developing rainbow trout, *Oncorhynchus mykiss*. *Mol. Reprod. Dev.* 53(2):127-34.  
*Impact Factor: 2.675 (#157 out of 291 in Biochemistry and Molecular Biology by Eigenfactor Score)*
20. **Greene M. W.**, Shambloott M. J., and Chen T. T. (1999). Presence of GH-dependent IGF-II mRNA in the diffuse pancreatic tissue of a teleost. *Comp. Biochem. Physiol. Part B* 122:287-292.  
*Impact Factor: 2.175 (#160 out of 291 in Biochemistry and Molecular Biology by Eigenfactor Score)*
21. **Greene, M. W.** and Chen, T. T. (1999a). Characterization of insulin receptor family members. I. Developmental expression of insulin receptor messenger RNAs in rainbow trout. *Gen. Comp. Endocrinol.* 115:254-269.  
*Impact Factor: 2.674 (#29 out of 124 in Endocrinology by Eigenfactor Score)*
22. **Greene, M. W.** and Chen, T. T. (1999b). Characterization of insulin receptor family members. II. Developmental expression of IGF receptor messenger RNAs in rainbow trout. *Gen. Comp. Endocrinol.* 115:270-281.  
*Impact Factor: 2.674 (#29 out of 124 in Endocrinology by Eigenfactor Score)*
23. **Greene, M. W.** and Chen, T. T. (1999c). Quantitation of IGF-I, IGF-II, and multiple insulin receptor family member messenger RNAs during embryonic development in rainbow trout. *Mol. Reprod. Dev.* 54:348-361.  
*Impact Factor: 2.675 (#157 out of 291 in Biochemistry and Molecular Biology by Eigenfactor Score)*

24. Shambloott, M. J., Leung, M., **Greene, M. W.**, and Chen, T. T. (1998). Characterization of rainbow trout IGF-II gene: evidence for promoter CAAAT enhancer binding (C/EBP) sites and hepatic C/EBP. *Mar. Mol. Biol. Biotechnol.* 7(3):181-90.  
*No Impact Factor for the journal*
25. **Greene, M. W.** and Chen, T. T. (1997). Temporal expression pattern of IGF mRNA during embryonic development in rainbow trout (*Oncorhynchus mykiss*). *Mar. Mol. Biol. Biotechnol.* 6(2):144-151.  
*No Impact Factor for the journal*
26. **Greene, M. W.** and Kocan, R. M. (1997). Toxicological mechanisms of a multicomponent agricultural seed protectant in the rainbow trout (*Oncorhynchus mykiss*) and fathead minnow (*Pimephales promelas*). *Can. J. Fish. Aquat. Sci.* 54:1387-1390.  
*Impact Factor: 2.276 (#4 out of 50 in Fisheries by Eigenfactor Score)*

#### THESIS PUBLICATIONS:

- 1998 Greene, M. W. Developmental expression of insulin-like growth factor and insulin receptor family member messenger RNAs in rainbow trout (*Oncorhynchus mykiss*). Doctoral Dissertation, University of Connecticut
- 1992 Greene, M. W. The interaction toxicity of thiram and ethylene glycol: toxicological mechanisms in the rainbow trout (*Oncorhynchus mykiss*) and fathead minnow (*Pimephales promelas*). Masters Thesis, University of Washington

#### BOOK CHAPTER OR ONLINE CONTENT:

- 2016 Greene M.W. Glucose Metabolism. In: Schwabe M, editor. Encyclopedia of Cancer. Springer Press. <http://www.springerreference.com/docs/html/chapterdbid/306845.html>
- 2012 Greene M.W. Glucose Metabolism. In: Schwabe M, editor. Encyclopedia of Cancer. Springer Press. <http://www.springerreference.com/docs/html/chapterdbid/306845.html>

#### NEWSPAPER ARTICLES:

- Greene, M. W.** and Marincic, P. Z. (2016, Sept 23). Fruits and Vegetables: Things you may not know. *In Opelika-Auburn News.*
- Marincic, P. Z. and **Greene, M. W.** (2016, Mar 4). The results are in for the Dietary Guidelines 2015, and the winners are... . *In Opelika-Auburn News.*

**Greene, M. W.** and Marincic, P. Z. (2016, Jan 15). The annual obsession with diets. In *Opelika-Auburn News*.

Marincic, P. Z. and **Greene, M. W.** (2015, Nov 20). Summer gives way to winter squash. In *Opelika-Auburn News*.

**Greene, M. W.** and Marincic, P. Z. (2015, Oct 2). With the new season comes fall fruits, vegetables. In *Opelika-Auburn News*.

Marincic, P. Z. and **Greene, M. W.** (2015, Sept 3). Back to School: Nutrition Tips for Young Athletes. In *Opelika-Auburn News*.

**Greene, M. W.** and Marincic, P. Z. (2015, July 24). The Dog Days of Summer and Extra Virgin Olive Oil. In *Opelika-Auburn News*.

Marincic, P. Z. and **Greene, M. W.** (2015, June 26). Spinach: Nature's True Super Food! In *Opelika-Auburn News*.

**Greene, M. W.** and Marincic, P. Z. (2015, May 7). Herbs and Spices: Seasonings in your backyard and from around the World. In *Opelika-Auburn News*.

Marincic, P. Z. and **Greene, M. W.** (2015, March 26). Does the Easter Bunny have it right? In *Opelika-Auburn News*.

**Greene, M. W.** and Marincic, P. Z. (2015, February 26). The not so "bad" egg. In *Opelika-Auburn News*.

Marincic, P. Z. and **Greene, M. W.** (2015, January 24). Maintaining a Healthy Weight: Small Steps can Make Big Differences. In *Opelika-Auburn News*.

**Greene, M. W.** and Marincic, P. Z. (2014, December 21). Is it bad to skip a meal during the Holidays? In *Opelika-Auburn News*.

**Greene, M. W.** and Marincic, P. Z. (2014, November 23). The Humble Sweet Potato: It's not just for Thanksgiving. In *Opelika-Auburn News*.

Marincic, P. Z. and **Greene, M. W.** (2014, October 19). Nutritious Nuts: The Finer Fats. In *Opelika-Auburn News*.

**Greene, M. W.** and Marincic, P. Z. (2014, September 21). The not so sweet side of sugar sweetened beverages. In *Opelika-Auburn News*.

## **PRESS/NEWS FEATURES**

- March 2016 EagleEyeTv.com news article on the 'Western diet'. First aired: March 11, 2016.  
<http://www.eagleeyetv.com/auburn-nutrition-expert-helps-students-stay-healthy-while-eating-on-campus/>
- March 2016 Auburn News Article titled 'Assistant professor, students' investigation of Western diet presented at Boshell Research Day' featured on the Auburn University homepage.  
[http://ocm.auburn.edu/newsroom/news\\_articles/2016/03/assistant-professor-students-investigation-of-western-diet-presented-at-boshell-research-day.htm](http://ocm.auburn.edu/newsroom/news_articles/2016/03/assistant-professor-students-investigation-of-western-diet-presented-at-boshell-research-day.htm)
- Sept. 2015 Auburn News Article titled 'New study tour option lets students experience Mediterranean Diet in Southern Italy' featured on the Auburn University homepage.  
[http://ocm.auburn.edu/newsroom/news\\_articles/2015/09/new-study-tour-option-lets-students-experience-mediterranean-diet-in-southern-italy.htm](http://ocm.auburn.edu/newsroom/news_articles/2015/09/new-study-tour-option-lets-students-experience-mediterranean-diet-in-southern-italy.htm)

#### **AWARDS AND HONORS RECEIVED:**

- 2016 Honorary Member Alpha Epsilon Delta Honor Society  
1998-present Member of Phi Kappa Phi Honor Society  
1991-1992 John N. Cobb Memorial Scholarship

#### **INSTITUTIONAL SERVICE:**

##### **Auburn University**

###### *Department*

- 2015-present Haggard Family Annual Undergraduate Research Award Committee  
2015-present Fred and Charlene Kam Endowed Fund for Research Excellence in Nutrition-Dietetics Committee  
2014-present Research sub-committee faculty head, Nutrition Advisory Board  
2013-present Malone-Zallen Award Committee

###### *College*

- 2015 College of Human Sciences Professional Development Contributor  
2013 Center for Health Ecology Research Draft Committee

###### *University*

- 2016-present University Senate, Departmental Senator  
2014 Research Infrastructure Task Force  
2013-present Honors College Advisory Committee

##### **Mary Imogene Bassett Hospital**



2011-2012	General Medical Education Committee
2009-2012	E. Donnell Thomas Resident Research Review Committee (Chair)
2007-2012	Institutional Animal Care and Use Committee
2007-2012	E. Donnell Thomas Resident Research Review Committee (Member)
2007-2012	Radiation Safety Committee

**MANUSCRIPT PEER REVIEW:**

Cancer, Cancer Letters, European Journal of Lipid Science and Technology, Gastroenterology, Journal of Hepatology, Journal of the American Association for Laboratory Animal Science, Journal of Proteome Research, Journal of Translational Medicine, Metabolism, Molecular and Cellular Endocrinology, Nutrition and Diabetes, Oxidative Metabolism and Cellular Longevity, Physiology & Behavior, PLOS Computational Biology, and PLOS One

**GRANT PEER REVIEW:**

2016	Croatian Science Foundation (HRZZ) August Review Cycle
2016	Worldwide Cancer Research (formerly known as AICR) February Review Cycle
2016	USDA, Alabama Agricultural Experiment Station (AAES) Hatch Review
2015	USDA, National Institute of Food and Agriculture: Exploratory Research Program July Review Cycle
2015	Diabetes UK: Project Grant Program (Feb and July Review Cycles)
2014	USDA, Alabama Agricultural Experiment Station (AAES) Hatch Review
2013	AU Research Initiative in Cancer: Seed Award
2013	USDA, Alabama Agricultural Experiment Station (AAES) Hatch Review
2012	NIH ZRG1 EMNR-S (90) AREA: Endocrinology, Metabolism, Nutrition and Reproduction October Review Cycle
2012	NIH IPOD Integrative Physiology of Obesity and Diabetes Study Section October Review Cycle
2007	Israel Science Foundation

## TEACHING EXPERIENCE:

### Auburn University

<i>Course</i>	<i>Credits</i>	<i>Students</i>	<i>Term</i>
Minerals (NTRI 7500)	3	12	Fall 2016
Minerals – Distance (NTRI 7506)	3	6	Fall 2016
Mediterranean Diet Study Abroad (NTRI 5380)	5	8	Summer 2016
Mediterranean Diet Study Abroad (NTRI 6380)	5	2	Summer 2016
Nutrition in Disease Prevention (NTRI 5100)	2	5	Summer 2016
Advanced Independent Study (NTRI 7930)	3	1	Summer 2016
Mediterranean Diet Pre-Study Abroad (NTRI 5380)	1	8	Spring 2016
Mediterranean Diet Pre-Study Abroad (NTRI 6380)	1	2	Spring 2016
Nutrition in Disease Prevention (NTRI 5100 sec 01)	2	25	Spring 2016
Nutrition in Disease Prevention (NTRI 5100 sec 02)	2	3	Spring 2016
Nutrition in Disease Prevention (NTRI 6100)	2	2	Spring 2016
Nutrition in Disease Prevention (NTRI 6106)	2	1	Spring 2016
Nutrition and Health (NTRI 2000)	3	249	Spring 2016
Honors Nutrition and Health (NTRI 2007)	3	8	Spring 2016
Honors Thesis (NTRI 4997)	2	1	Spring 2016
Minerals (NTRI 7500)	3	15	Fall 2015
Minerals – Distance (NTRI 7506)	3	5	Fall 2015
Methods of Research (NTRI 7050)	2	22	Fall 2015
Methods of Research – Distance (NTRI 7056)	2	10	Fall 2015
Research Seminar (NTRI 7850-8850)	1	7	Fall 2015
Special Problems (NTRI 7960)	3	1	Fall 2015
Mediterranean Diet Study Abroad (NTRI 5380)	5	12	Summer 2015
Honors Research Seminar (HONR 3987)	3	12	Spring 2015
Mediterranean Diet Pre-Study Abroad (NTRI 5380)	1	12	Spring 2015
Nutrition in Disease Prevention (NTRI 5100)	2	15	Spring 2015
Nutrition in Disease Prevention (NTRI 6100)	2	2	Spring 2015
Honors Nutrition and Health (NTRI 2007)	3	12	Spring 2015
Undergraduate Research and Study (NTRI 4980)	2	1	Spring 2015
Directed Studies (NTRI 4930)	1	1	Spring 2015
Nutrition in Disease Prevention (NTRI 5100)	2	15	Fall 2014
Nutrition in Disease Prevention (NTRI 6100)	2	3	Fall 2014
Minerals (NTRI 7500)	3	12	Fall 2014
Honors Nutrition and Health (NTRI 2007)	3	8	Fall 2014
Nutrition in Disease Prevention (NTRI 5100)	2	14	Spring 2014
Honors Nutrition and Health (NTRI 2007)	3	9	Spring 2014

Honors Nutrition and Health (NTRI 2007)	3	25	Fall 2013
Minerals (NTRI 7500)	2	12	Fall 2013
Undergraduate Research and Study (NTRI 4980)	2	2	Fall 2013
Honors Nutrition and Health (NTRI 2007)	3	20 (sec 001)	Spring 2013
Honors Nutrition and Health (NTRI 2007)	3	20 (sec 002)	Spring 2013
Nutrition and Health (NTRI 2000)	3	109	Fall 2012

### University of Connecticut

Experiments in Molecular Genetics Lab	2007 (Fall)
Head TA (MCB 215/323)	
Intro. Biology Lab - TA (BIO 107)	1995-1997 (Fall and Spring)

### University of Maryland, Baltimore County

Cell Biology Lab - TA (BIOL 303)	1994 (Fall)
Intro. Biology Lab -TA (BIOL 101)	1993 (Fall)

## COURSE DEVELOPMENT:

### Auburn University

Minerals – Distance (NTRI 7506)	<b>Description</b> new class offering (Fall 2015)
Methods of Research (NTRI 7050)	redesign (Fall 2015)
Methods of Research – Distance (NTRI 7056)	redesign (Fall 2015)
Mediterranean Diet Study Abroad (NTRI 5380)	new class offering (Spring 2015)
Honors Research Seminar (HONR 3987)	new class offering (Spring 2015)
Nutrition in Disease Prevention (NTRI 5100)	new class offering (Spring 2014)
Nutrition in Disease Prevention (NTRI 6100)	new class offering (Fall 2014)
Minerals (NTRI 7500)	redesign from 2 to 3 credit hours (2014)

## PROFFESIONAL DEVELOPMENT:

### Instructional

2013	Mid-Semester Small Group Instructional Feedback (NTRI 2007)
2012	AU Biggio Center Seminar: PDS: Concept Mapping for Learning Complex Topics
2012	AU Biggio Center Seminar: Effective Evaluation of Teaching: A Guide for Faculty and Administrators
2012	Mid-Semester Feedback (NTRI 2000)
2012-present	Weekly Online Continuing Education <a href="mailto:tomorrows-professor-bounces@mailman.stanford.edu">tomorrows-professor-bounces@mailman.stanford.edu</a>
2012	New Faculty Teaching Scholar

## Technical

2014 Sable Systems Spirometry Course. Las Vegas, NV  
1999 BIA Basic Training Course. BIACORE AB, Piscataway, NJ

## MENTORING EXPERIENCE:

### Current Trainees

#### Graduate Student

Yuwen Luo (5<sup>th</sup> Yr)  
Amy Willis (3<sup>rd</sup> Yr)  
Lauren Woodie (2<sup>nd</sup> Yr)  
Bulbul Ahmed (2<sup>nd</sup> Yr)  
Makenzie Callahan (2<sup>nd</sup> Yr)  
Erin Landgrebe (2<sup>nd</sup> Yr)

#### Current Position

PhD student, Auburn University  
PhD student, Auburn University  
PhD student, Auburn University  
PhD student, Auburn University  
MS student, Auburn University  
MS student, Auburn University

#### Undergraduate Students

Morgan Satterfield

#### Position

Undergraduate Asst.

#### Institution

Auburn University

### Past Trainees

#### Post-doctoral Fellow

Jinghai Wu, M.D., Ph.D.  
Ann Marie O'Neill, Ph.D.

#### Current Position

Research Scientist  
Assistant Professor

#### Current Institution

Ohio State University  
Auburn University at  
Montgomery

#### Masters Graduate Student

Michael Wayne  
Mary Rose Bottcher

#### Current Position

Research Asst.  
Dietetic Intern

#### Current Institution

UT Southwestern  
Baylor Univ. Medical Center

#### Internal Medicine Residents

Matthew P. Gilbert, D.O., M.P.H.  
Niyutchai Chaithongdi, M.D.  
Petpring Prajuabpansri, M.D.  
Tepsiri Chongkairatanakul, M.D.  
Atipon Kangwanpornisiri, M.D.  
Potjana Jitawatanarat, M.D.  
Saleem Chowdhry, MBBS  
Promporn Suksaranjit, M.D.  
Quanhathai Kaewpoowat, M.D.  
Nischala Ammannagari, MBBS

#### Current Position

Attending - Endo  
Attending - Endo  
Attending - Internal  
Attending - Neph  
Attending - Neph  
Fellow - Hem/Oncol  
Fellow - GI  
Fellow - Cardio  
Fellow - ID  
Fellow - Hem/Oncol

#### Current Institution

University of Vermont  
Sanford Clinic, ND  
Little Rock, AR  
Boston, MA  
San Luis Obispo, CA  
Roswell Park/SUNY, Buffalo  
Case Western Univ.  
University of Utah  
University of Texas  
Roswell Park/SUNY, Buffalo

#### Surgery Resident

#### Current Position

#### Current Institution

Erin Gillaspie, M.D.	Attending – Surgery	Vanderbilt University
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<u>Undergraduate Students</u>	<u>Position</u>	<u>Institution</u>
Hulkar Mamayusupova	Senior Thesis student	Hartwick College
Adam Wood	Senior Thesis student	Hartwick College
Jason Henderson	Senior Thesis student	Hartwick College
Brian Reis	Summer Student	Harvard University
Kristen Gue	Independent Study	Auburn University
Julia Bottcher	Independent Study	Auburn University
Sarah Bode	Independent Study	Auburn University
Alex Cool	Summer Research Fellow	Auburn University
Griffin Russell	Summer Research Fellow	Auburn University
Jamie Reece	Research Fellow	Auburn University
Katie Nahay	Research Fellow	Auburn University
Josef Jackson	Undergraduate Asst.	Auburn University

<u>High School Students</u>	<u>Position</u>	<u>Institution</u>
Allison Chapple	Summer Student	Nevada Union HS, CA
Cassidy Griger	Summer Student	Cooperstown HS, NY
Erik Mebust	Summer Student	Cooperstown HS, NY

#### GRADUATE THESIS/DISSERTATION COMMITTEE EXPERIENCE:

##### PhD Candidates

<u>Student</u>	<u>Department</u>	<u>Year Graduated</u>	<u>Role</u>
Lauren Woodie	Nutrition	N/A	Major Professor
Bulbul Ahmed	Nutrition	N/A	Major Professor
Yuwen Luo	Nutrition	N/A	Major Professor
Amy Willis	Nutrition	N/A	Major Professor
Robert Johnson	Biology	N/A	Committee Member
Han Fang	Anatomy, Physiology	N/A	Committee Member
Iman Hassani	Chem. Engineering	N/A	Committee Member
Haley Hallowell	Biology	N/A	Committee Member
Zhao Yang	Anatomy, Physiology	2016	Committee Member
Farruk Kabir	Pathobiology	2014	University Reader
Allison M. Bradbury	Pathobiology	2014	University Reader
Nootan Bhattarai	Chemistry	2013	University Reader

##### MS Candidates

<u>Student</u>	<u>Department</u>	<u>Year Graduated</u>	<u>Role</u>
Makenzie Callahan	Nutrition	N/A	Major Professor
Erin Landgrebe	Nutrition	N/A	Major Professor

Lauren Lynch	Nutrition	N/A	Committee Member
Talia Tornabene	Nutrition	N/A	Committee Member
Maria Victoria Salazar	Nutrition	N/A	Committee Member
Mary Rose Bottcher	Nutrition	2016	Major Professor
Michelle Hoffman	Pathobiology	2016	Committee Member
Kathryn Heidt	Nutrition	2016	Committee Member
Michael Wayne	Nutrition	2015	Major Professor
Carly J. Moss	Nutrition	2013	Committee Member

## STUDENT OR MENTEE ACHIEVEMENTS AND RESEARCH SUPPORT:

- 2016 Auburn University Honors Thesis. *Role of Sugary Water Consumption in Adipose Gene Expression*. Awarded to Jami Reece. Role: Mentor.
- 2016 Auburn University International Graduate Student Achievement Award. Awarded to Yuwen Luo. Role: Mentor.
- 2016 Auburn University Malone-Zallen Graduate Research Fellowship. Awarded to Amy Willis. Role: Mentor. Total Award: \$4500. Project Funds: \$4500.
- 2016 Auburn University Haggard Family Annual Award in Nutrition and Dietetics. Awarded to Morgan Satterfield. Role: Mentor. Total Award: \$1000. Project Funds: \$1000.
- 2016 Boshell Diabetes and Metabolic Diseases 9th Annual Research Day at Auburn University. 2<sup>nd</sup> place prize for best graduate student presentation awarded to Isabelle Crouch. Note: Isabelle Crouch competed in the graduate student category even though she is an undergraduate student. Role: Mentor.
- 2016 Boshell Diabetes and Metabolic Diseases 9th Annual Research Day at Auburn University. 2<sup>nd</sup> place prize for best graduate student poster awarded to Lauren Woodie. Role: Mentor.
- 2015 Auburn University Haggard Family Annual Award in Nutrition and Dietetics. Awarded to Katie Nahay. Role: Mentor. Total Award: \$500. Project Funds: \$500.
- 2015 Auburn University Malone-Zallen Graduate Research Fellowship. Awarded to Yuwen Luo. Role: Mentor. Total Award: \$6000. Project Funds: \$6000.
- 2015 Auburn University Cellular and Molecular Biology Undergraduate Research Fellowship. Awarded to Griffin Russell. Role: Mentor. Total Award: \$4000. Project Funds: \$2000.
- 2015 Auburn University Undergraduate Research Fellowship. Awarded to Jamie Reece. Role: Mentor. Total Award: \$3000. Project Funds: \$2000.

- 2014 Auburn University Undergraduate Research Fellowship. Awarded to Alex Cool. Role: Mentor. Total Award: \$2000. Project Funds: \$2000.
- 2013 American College of Physicians, New York Chapter Meeting Abstract/Poster Competition Award (1<sup>st</sup> Place). Awarded to Nischala Ammannagari, MBBS. Role: Mentor
- 2012 E.D. Thomas Outstanding Research Presentation Award at the Bassett Medical Center (1<sup>st</sup> Place). Awarded to Erin Gillaspie, M.D. Role: Mentor
- 2012 American College of Physicians, New York Chapter Meeting Abstract/Poster Competition Award (2<sup>st</sup> Place). Awarded to Quanhathai Kaewpoowat, M.D. Role: Mentor
- 2012 E.D. Thomas Medical Resident Fellowship. Awarded to Quanhathai Kaewpoowat, M.D. Role: Mentor. Total Award: \$12,075. Project Funds: \$12,075.
- 2012 E.D. Thomas Medical Resident Fellowship. Awarded to Promporn Suksaranjit, M.D. Role: Mentor. Total Award: \$11,180. Project Funds: \$11,180.
- 2012 E.D. Thomas Medical Resident Fellowship. Awarded to Nischala Ammannagari, MBBS. Role: Mentor. Total Award: \$10,812. Project Funds: \$10,812.
- 2011 American College of Physicians, National Meeting Abstract/Poster Competition Award (1<sup>st</sup> Place). Awarded to Atipon Kangwanpornisiri, M.D. Role: Mentor
- 2010 E.D. Thomas Medical Resident Fellowship. Awarded to Erin Gillaspie, M.D. Role: Mentor. Total Award: \$25,000. Project Funds: \$25,000.
- 2010 E.D. Thomas Medical Resident Fellowship. Awarded to Potjana Jitawatanarat, M.D. Role: Mentor. Total Award: \$13,200. Project Funds: \$13,200.
- 2009 E.D. Thomas Outstanding Research Presentation Award at the Bassett Medical Center (1<sup>st</sup> Place). Awarded to Tepsiri Chongkairatanakul, M.D. Role: Mentor
- 2009 E.D. Thomas Medical Resident Fellowship. Awarded to Tatpong Chit-ua-aree, M.D. Role: Mentor. Total Award: \$24,552. Project Funds: \$24,552.
- 2009 E.D. Thomas Medical Resident Fellowship. Awarded to Saleem Chowdhry, MBBS. Role: Mentor. Total Award: \$24,652. Project Funds: \$13,474.
- 2007 E.D. Thomas Medical Resident Fellowship. Awarded to Tepsiri Chongkairatanakul M.D. Role: Mentor. Total Award: \$24,964. Project Funds: \$12,839.
- 2007 E.D. Thomas Medical Resident Fellowship. Awarded to Niyutchai Chaithongdi, M.D. Role: Mentor. Total Award: \$24,955. Project Funds: \$12,830.

2005 E.D. Thomas Medical Resident Fellowship. Awarded to Mathew Gilbert, DO, MPH. Role: Mentor. Total Award: \$24,994. Project Funds: \$8,800.

**PAPERS AND POSTERS PRESENTED:**

1. Nutrition Knowledge and Mediterranean Diet Adherence: Validation of a Field Based Survey Instrument. Food and Nutrition Conference and Expo, Boston, Mass. – October 2016.
2. Role of Western diet in maladies of the gut, liver, adipose tissue, and brain. Boshell Diabetes and Metabolic Diseases 9th Annual Research Day at Auburn University. Auburn, Alabama – February 2016 (Oral Presenter).
3. How I Came to Study Sugar. Auburn Talks. This is Research: Faculty Symposium at Auburn University. Auburn, Alabama – September 2015 (Oral Presenter).
4. Genome-wide transcriptome analysis of liver and adipose tissue in a western diet-induced model of NAFLD. Boshell Diabetes and Metabolic Diseases 8th Annual Research Day at Auburn University. Auburn, Alabama – February 2015 (Oral Presenter).
5. Sugary Water Consumption Leads to Adipose, Liver, and Metabolic Dysfunction in a Western Diet-Induced Model of NAFLD. American Diabetes Association 74<sup>th</sup> Scientific Sessions, San Francisco, California – Jun 2014
6. Development and characterization of a novel congenic rat strain for obesity and cancer research. Boshell Diabetes and Metabolic Diseases 6th Annual Research Day at Auburn University. Auburn, Alabama – February 2014 (Oral Presenter).
7. Development and characterization of a novel congenic rat strain for obesity and cancer research. Metabolic Signaling & Disease: from cell to organism. Cold Spring Harbor Laboratory, NY – August 2013.
8. Role of Fructose/Sucrose in Fatty Liver Disease Progression. Boshell Diabetes and Metabolic Diseases 6th Annual Research Day at Auburn University. Auburn, Alabama – February 2013 (Oral Presenter).
9. Obesity impairs the efficacy of colon cancer treatment in mice. American College of Physicians, New York Chapter Meeting. Rye Brook, New York - February 2013.  
**(Awarded a First prize in the Abstract Competition)**
10. Role of a High Carbohydrate Diet in Fatty Liver Disease Progression. American College of Physicians Annual Meeting. Albany, New York – Aug 2012. **(Awarded a Second prize in the Abstract Competition).**



11. Lipid metabolism, oxidative stress and cell death are regulated by protein kinase C (PKC)  $\delta$  in dietary models of steatohepatitis. American Diabetes Association 72<sup>nd</sup> Scientific Sessions, Philadelphia, Pennsylvania – Jun 2012.
12. Breast cancer growth and activation of insulin/IGF-1 signaling by circadian disruption. XI<sup>th</sup> International Symposium on Insulin Receptors and Insulin Action, Naples, Italy – Oct 2010 (oral presenter).
13. PKC $\delta$  and metabolic disease. XI<sup>th</sup> International Symposium on Insulin Receptors and Insulin Action, Naples, Italy – Oct 2010.
14. Circadian disruption induced by light at night upregulates PCNA expression in tissue-isolated human breast cancer xenografts in nude rats. American Association for Cancer Research. Washington, DC – Apr 2010.
15. Role of PKC $\delta$  in high fat diet-induced insulin resistance. American Diabetes Association 69<sup>th</sup> Scientific Sessions, New Orleans, Louisiana – Jun 2009.
16. PKC $\delta$  activation in vivo and in vitro in experimental models of nonalcoholic steatohepatitis. American College of Physicians Annual Meeting. Philadelphia, Pennsylvania – Apr 2009. **(Awarded a Best Poster prize in National Abstract Competition)**
17. Circadian disruption induced by dark-phase light contamination in laboratory animal facilities stimulates human tumor growth and metabolism in nude rats. Proceedings, 59<sup>th</sup> Annual Meeting, J. Am. Assoc. Lab. Anim. Sci., 47(6), Abstr. PS79, p. 94, 2008 (co-presenter).
18. Hepatic PKC $\delta$  is activated in a diet-induced model of nonalcoholic steatohepatitis. American Diabetes Association 68<sup>th</sup> Scientific Sessions, San Francisco, California – Jun 2008
19. FFA and TNF $\alpha$ -mediated PKC $\delta$  activation in primary rat hepatocytes. American Diabetes Association 67<sup>th</sup> Scientific Sessions, Chicago, Illinois – Jun 2007
20. Role of PKC $\delta$  in TNF $\alpha$ -induced insulin resistance. X<sup>th</sup> International Symposium on Insulin Receptors and Insulin Action, Stockholm, Sweden – May 2007 (oral presenter).
21. Knockdown of PKC $\delta$  blocks TNF $\alpha$ -mediated inhibition of insulin signaling. American Diabetes Association 66<sup>th</sup> Scientific Sessions, Washington, DC – Jun 2006 (Late-Breaking Abstract).
22. Modulation of IRS-1 PH and PTB Domain Function by Phosphorylation. American Diabetes Association 65<sup>nd</sup> Scientific Sessions, San Diego, California – Jun 2005

23. Modulation of IRS-1 tyrosine phosphorylation by PKC $\delta$ . American Diabetes Association 62<sup>nd</sup> Scientific Sessions, San Francisco, California – Jun 2002 (oral presenter).
24. IRS-2 tyrosine phosphorylation by the insulin receptor kinase is modulated by serine phosphorylation *in vitro* by multiple Ser/Thr kinases. American Diabetes Association 60<sup>th</sup> Scientific Sessions, San Antonio, Texas – Jun 2000.
25. Expression of growth hormone, prolactin, somatolactin, IGF-I and IGF-II genes in rainbow trout (*Oncorhynchus mykiss*). 2nd IUBS Toronto Symposium “Advances in the Molecular Endocrinology of Fish”, Toronto, Canada – May 1997 (co-presenter).
26. Insulin-like growth factor mRNA detection in the diffuse pancreatic tissue of rainbow trout by *in situ* hybridization using digoxigenin labeled cRNA probes. 3<sup>rd</sup> International Symposium on Fish Endocrinology, Hakodaido, Japan – May 1996.
27. Expression of growth hormone and insulin-like growth factor genes in rainbow trout. 3<sup>rd</sup> International Symposium on Fish Endocrinology, Hakodaido, Japan – May 1996 (co-presenter).
28. Insulin-like growth factor mRNA detection in rainbow trout tissue by *in situ* hybridization using digoxigenin-labeled cRNA probes. 55<sup>th</sup> Annual Endocrine Society Meeting, Washington, DC – Jun 1995.
29. The interaction toxicity of thiram and ethylene glycol: toxicological mechanisms in the fathead minnow (*Pimephales promelas*). Pacific Northwest Chapter of the Society of Environmental Toxicology and Chemistry, Bellingham, Washington – Jun 1992.
30. Characterization of neoplastic transformation of cells involved in Damselfish Neurofibromatosis utilizing *in vitro* techniques. American Fisheries Society/Fish Health Section and Western Fish Disease Conference, Newport, Oregon – Aug 1991 (co-presenter).

**RESEARCH SUPPORT:**

**Project Title:** Meal timing to improve cognitive deficits

**Funding Organization:** Auburn University Honors College

**Project Director:** Michael Greene, Ph.D.

**Funding Period:** Oct 2016-Sept 2017; **Award:** \$10,000

**Role:** Principal Investigator

**Project Title:** *In vivo* selection of RNA aptamers for CRC detection and therapy

**Funding Organization:** Auburn University Research Initiative in Cancer (AURIC)

**Project Director:** Jacek Wower, Ph.D.

**Funding Period:** Oct 2016 – Sept 2017; **Award:** \$20,000

**Role:** co-Principal Investigator

**Project Title:** AAES Research Support Application

**Funding Organization:** Alabama Agricultural Experiment Station, Hatch Funding Program

**Project Director:** Greene, Michael

**Years Funded:** May 2016-April 2017; **Award:** \$18,744

**Role:** Principle Investigator

**Project Title:** Bacteriophage as a regulator of gut microbiome in obesity

**Funding Organization:** Auburn University – Good to Great Grant

**Project Director:** Schwartz, Elizabeth

**Years Funded:** May 2016-April 2017; **Award:** \$41,000

**Role:** co-Investigator

**Project Title:** Microenvironmental Stimulation of Obesity-linked and Health Disparity-Associated Patient-derived Colon Cancer Tumor Growth

**Funding Organization:** Auburn University Research Initiative in Cancer

**Project Director:** Greene, Michael W. and Lipke, Elizabeth

**Years Funded:** August 2015-July 2017; **Award:** \$200,000

**Role:** co-Principal Investigator

**Project Title:** Mediterranean Diet Study Abroad in Italy

**Funding Organization:** Auburn University College of Human Sciences Study Abroad Grant Program

**Project Director:** Greene, Michael W.

**Years Funded:** May 2015-June 2015; **Award:** \$5,000

**Role:** Principal Investigator

**Project Title:** Role of sugary drinks in the development of obesity

**Funding Organization:** Auburn University Honors College

**Project Director:** Greene, Michael W.

**Years Funded:** Jan 2015-May 2015; **Award:** \$10,000

**Role:** Principal Investigator

**Project Title:** Metabolic cages for cancer, drug, and metabolic disease research

**Funding Organization:** Auburn University Research Initiative in Cancer and Auburn University Intramural Grants Program

**Project Director:** Greene, Michael W.

**Years Funded:** Nov 2013-Oct 2014; **Award:** \$182,078

**Role:** Principal Investigator

**Project Title:** RNA profiling to determine the role of sugar in obesity-linked non-alcoholic fatty liver disease progression

**Funding Organization:** Alabama Agricultural Experiment Station, Hatch Funding Program – Young Investigator Research Support Program

**Project Director:** Greene, Michael W.

**Years Funded:** Oct 2013-Sept 2015; **Award:** \$50,000

**Role:** Principal Investigator

**Project Title:** Orthotopic Models of Human Colon Cancer

**Funding Organization:** Auburn University Research Initiative in Cancer

**Project Director:** Greene, Michael W.

**Years Funded:** May 2012-Apr 2013; **Award:** \$20,000

**Role:** Principal Investigator

**Project Title:** PKC activation and inhibition of VLDL export defines a mechanism for non-alcoholic fatty liver disease: Reversal of hepatic steatosis by selective inhibition of PKC

**Funding Organization:** National Institutes of Health, CTSA: Pilot Collaborative Translational and Clinical Sciences Award

**Project Director:** Greene, Michael W.

**Years Funded:** Jul 2011-Jun 2012; **Award:** \$50,000

**Role:** Co - Principal Investigator

**Project Title:** Melatonin Supplementation in Complementary Breast Cancer Prevention

**Funding Organization:** National Institutes of Health, National Cancer Institute

**Project Director:** Blask, David E.

**Years Funded:** Apr 2008-Mar 2011; **Award:** \$162,596

**Role:** Co - Investigator

**Project Title:** Animal Facility Dark-Phase Light Contamination: Impact on Human Cancer Metabolism

**Funding Organization:** Association for Assessment and Accreditation of Laboratory Animal Care

**Project Director:** Dauchy, Robert T.

**Years Funded:** Jul 2007-Jun 2008; **Award:** \$24,949

**Role:** Co - Investigator

**Project Title:** IRS-1 Membrane Localization and Phosphoinositide Binding Mutants

**Funding Organization:** National Diabetes Trust Foundation

**Project Director:** Greene, Michael W.

**Years Funded:** Jul 2004-Jun 2005; **Award:** \$16,700

**Role:** Principal Investigator