

## B. Douglas White

Associate Professor  
Department of Nutrition, Dietetics, and Hospitality Management  
College of Human Sciences  
and

Adjunct Associate Professor  
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### Work

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### Home

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## Education

Louisiana State University Medical Center, New Orleans, LA. August 1984  
to August 1988.

Degree: Ph.D. (Physiology)  
Major Professor: Dr. Johnny R. Porter

Auburn University, Auburn, AL. September 1980 to March 1984.

Degree: M.S. (Physiology)  
Major Professor: Dr. John F. Pritchett

Auburn University, Auburn, AL. September 1977 to August 1980.

Degree: B.S. in Arts and Sciences.  
Major: Chemistry

## Professional Experience

2004 – 2009	Department Head, Department of Nutrition and Food Science, Auburn University, AL
2001-present	Associate Professor, Department of Nutrition and Food Science, Auburn University, AL
2000-present	Adjunct Appointment, Department of Anatomy, Physiology, and Pharmacology, College of Veterinary Medicine, Auburn University, AL.
1996-2001	Assistant Professor, Department of Nutrition and Food Science, Auburn University, AL
1991-1996	Assistant Research Scientist, Department of Foods and Nutrition, University of Georgia, GA
1989-1991	Research Coordinator, Department of Foods and Nutrition, University of Georgia, GA
1988-1989	Postdoctoral Associate, Department of Foods and Nutrition, University of Georgia, GA

## Honors and Awards

Outstanding Faculty Member in the College of Human Science by SGA (2000-2001)  
 Named an outstanding professor by the A.U. Panhellenic Council (Spring '99)  
 Recipient of a National Research Service Award (1985 - 1988)  
 Member of American Physiological Society, Society for Neuroscience, Society for the Study of Ingestive Behavior.

## Allocation of Time

Year	Teaching (%)	Advising (%)	Research (%)	Service (%)
2014	54.17	10	30.83	5
2013	54.17	10	30.83	5
2012	50	10	35	5
2011	50	10	35	5

Year	Administration	Teaching (%)	Research (%)	Service (%)
2010 - 2011	0	60	35	5
2009 - 2010	0	50	45	5
2008 - 2009	50	15	30	5
2007 - 2008	50	15	30	5
2006 – 2007	50	15	30	5
2005 - 2006	50	15	30	5

2004 - 2005	50	15	30	5
2003 - 2004	0	49	46	5
2002 - 2003	0	49	46	5
2001 - 2002	0	49	46	5
2000 - 2001	0	49	46	5
1999 - 2000	0	49	46	5
1998 - 1999	0	49	46	5
1997 - 1998	0	58	37	5
1996* - 1997	0	67	28	5

\* Employment at Auburn University began Fall quarter 1996

## Scholarly Contributions

### A. Teaching

#### 1. Courses Taught

Term and year	Course	Lecture hours	Laboratory hours	Enrollment
Fall '14	BCHE 3180: Nutritional Biochemistry	3	0	61
	NTRI 5820/6820 Nutrition in the Lifecycle	3	0	56 under 7 grad
Spring '14	NTRI 2000: Nutrition and Health	3	0	164
	NTRI 7520: Macronutrients Team taught (1 taught 1 hour)	4	0	10
Fall '13	BCHE 3180: Nutritional Biochemistry	3	0	65
	NTRI 5820/6820 Nutrition in the Lifecycle	3	0	48 under 9 grad
	VBMS 7070: Endocrinology (3 lectures)			
Spring '13	NTRI 2000: Nutrition and Health	3	0	223
	NTRI 7520: Macronutrients Team taught (I taught 1 hour)	4	0	10
Fall '12	BCHE 3180: Nutritional Biochemistry	3	0	62
	NTRI 5820/6820: Nutrition in the Lifecycle	3	0	49 under 10 grad
Summer '12	NTRI 7520: Macronutrients Team taught (I taught 1 hour)	4	0	9
Spring '12	NTRI 2000: Nutrition and Health	3	0	187
Fall '11	BCHE 3180: Nutritional Biochemistry	3	0	60
	NTRI 5860: Nutrition in the Lifecycle	3	0	44
Spring '11	NUFS 2000: Nutrition and Health	3	0	137
	NUFS 7280: Macronutrients (team-taught)	1	0	13
Fall '10	BCHE 3180: Nutritional Biochemistry	3	0	53
	NUFS 5820: Nutrition in the Lifecycle	3	0	47
Spring '10	NUFS 2000: Nutrition and Health	3	0	137
	NUFS 2000: Nutrition and Health	3	0	77
Fall '09	BCHE 3180: Nutritional Biochemistry	3	0	53
	NUFS 2000: Nutrition and Health	3	0	136
Fall '08	BCHE 3180: Nutritional Biochemistry	3	0	44
Fall '07	BCHE 3180: Nutritional Biochemistry	3	0	25
Fall '06	BCHE 3180: Nutritional Biochemistry	3	0	32
Fall '05	BCHE 3180: Nutritional Biochemistry	3	0	42
Fall '04	BCHE 3180: Nutritional Biochemistry	3	0	27
Spring '04	NUFS 2000: Nutrition and Health	3	0	145
	NUFS 2000: Nutrition and Health	3	0	138
	NUFS 7520: Macronutrients (team taught)	1	0	7
	NUFS 8910: Supervised Teaching	1	0	1
Fall '03	NUFS 2000: Nutrition and Health	3	0	142

	BCHE 3180: Nutritional Biochemistry	3	0	17
Summer '03	NUFS 2000: Nutrition and Health	3	0	42
	NUFS 7850: Master's Seminar	1	0	6
	NUFS 8850: Doctoral Seminar	1	0	4
	VBMS 7080: Molecular Endocrinology (team taught)	0.5	0	7
Spring '03	NUFS 2000: Nutrition and Health	3	0	141
	NUFS 7850: Master's Seminar	1	0	2
	NUFS 8850: Doctoral Seminar	1	0	2
	NUFS 7900: Advanced Independent Study	0	3	1
Fall '02	NUFS 2000: Nutrition and Health	3	0	98
	BCHE 3180: Nutritional Biochemistry	3	0	21
	NUFS 7850: Master's Seminar	1	0	2
	NUFS 8850: Doctoral Seminar	1	0	1
Summer '02	NUFS 8850: Doctoral Seminar	1	0	1
Spring '02	NUFS 2000: Nutrition and Health	3	0	125
	NUFS 7950: Master's Seminar	1	0	2
	NUFS 8850: Doctoral Seminar	1	0	2
Fall '01	NUFS 2000: Nutrition and Health	3	0	141
	BCHE 3180: Nutritional Biochemistry	3	0	34
	NUFS 7280: Laboratory Research Methods in Nutrition and Food Science	1	0	8
Summer '01	VBMS 7080: Molecular Endocrinology (team taught)	0.5	0	8
Spring '01	NUFS 2000: Nutrition and Health	3	0	105
	NUFS 7520: Macronutrients (team taught)	1	0	6
	NUFS 8910: Supervised Teaching	1		1
Fall '00 *	NUFS 2000: Nutrition and Health	3	0	100
	BCHE 3180: Nutritional Biochemistry	3	0	42

NUFS 2000 (NUFS 200): Nutrition and Health - introductory course in nutrition. Part of the core curriculum for students in the College of Human Sciences, also taken as an elective by many students from a variety of disciplines.

BCHE 3180 (NUFS 318): Nutritional Biochemistry - junior level course in intermediary metabolism. This course is a prerequisite for the upper level undergraduate Nutrition courses. Required for Nutrition/Dietetic and Nutrition Science students, also taken by Environmental Science majors and a few graduate students. With the transition to the semester system, this course is now part of the Biochemistry curriculum.

NUFS 5820: Nutrition in the Lifecycle - senior level course required for nutrition/dietetic and nutrition science students.

NUFS 7280 (NUFS 628): Laboratory Research Methods in Nutrition and Food Science - graduate level laboratory course. Required for doctoral students in Nutrition and Food Science, but also taken by Master's students. Course is team-taught. Each instructor teaches 2 weeks on a specific topic. The candidate's topic is spectrophotometry. (Note - The lecture and laboratory hours listed above only represent the candidate's contribution to the course.)

NUFS 7520: Macronutrients: Integration and Metabolism – graduate level nutrition course. Required for graduate students in Nutrition and Food Science.

NUFS 8970 (NUFS 798): Advanced Topics in Nutrition and Food Science, Regulation of Food Intake and Energy Balance - graduate course developed by the candidate (see section A.4)

NUFS 7950: Master's Seminar: Master's level seminar course. Replaced NUFs 655 Required for Master's students in Nutrition and Food Science.

NUFS 8850: Doctoral Seminar: Doctoral level seminar course. Replaced NUFs 655 Required for Doctoral student in Nutrition and Food Science. Each student is required to take it twice.

VBMS 7080: Molecular Endocrinology – graduate course taught out of the Department of Anatomy, Physiology, and Pharmacology. Team taught with Dr. Jim Sartin, Dr. Robert Judd, and Dr. Dean Schwartz.

## 2. Graduate Students Completed

### a. Major Professor (Doctoral)

<u>Name</u>	<u>Dissertation Title</u>	<u>Year</u>	<u>Current Position</u>
Shuhui Wang	Studies on extraction of fucoxanthin and its potential antiobesity effect	2014	
Yuan Kang	Inhibitory effect of central leptin on hepatic glucose production in streptozotocin (STZ)-induced diabetic rats	2010	
Jinpin Wang	Central leptin, but not central insulin attenuates the decrease of adiponectin concentration and increases insulin sensitivity in streptozotocin-(STZ)-induced diabetic rats	2005	Works in industry (Boehringer Ingelheim, Singapore)
Chia-yu Lin	Central leptin administration increases insulin sensitivity, independent of food intake, and sympathetic activity in diabetic	2002	

rats

Allan Higginbotham	A low protein diet as a model of leptin resistance	2001	Assistant Professor at Southern Mississippi University
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### b. Major Professor (Master's)

<u>Name</u>	<u>Thesis Title</u>	<u>Year</u>	<u>Current Position</u>
Kristin Rowland	Does chronic leptin treatment decrease glucagon responsiveness in STZ-induced type 1 diabetic rats?	2013	Doing Dietetic Internship at UAB
Chenchen Yu	Leptin treatment in STZ-induced diabetic rats inhibits glucagon responsiveness and hepatic gluconeogenic gene expression	2010	Research Tech. University of Michigan
Jason Patten	Assessment of the gluconeogenic capabilities of leptin-treated diabetic rats by feeding albumin and fructose diets	2007	Medical student (UAB)
MaryAnne Gragg	The apparent increase in insulin sensitivity of leptin-treated rats appears to be due to a decrease in blood glucose concentrations due to fasting	2007	Intern at Southern Progress
Lance Ratcliff	Physical Activity, Inactivity, and Body Mass Index of Black Children in Rural Alabama	2005	
Fangyan Du	Food intake, body composition and energy balance in rats fed various levels of low dietary protein	1999	Working in Computer Sciences in California

### c. Committee Member

<u>Name</u>	<u>Degree (Department)</u>	<u>Year</u>
Grace Flowers	M.S. (nonthesis-Nutrition)	2014
Matthew Rogatski	Ph.D. (Kinesiology)	2014
Gauri Desai	Ph.D. (Nutrition)	2014
Lynsey Wilson	Ph.D (HRMT)	2014
Emma Cook	M.S. (nonthesis-Nutrition)	2013
Emily Jenkins	M.S. (nonthesis-Nutrition)	2013
Megan Phillips	M.S. (nonthesis-Nutrition)	2013
Martha Lee Ann Ryals	M.S. (nonthesis-Nutrition)	2013
Haley Shumaker	M.S. (nonthesis-Nutrition)	2013
Beth Latham	M.S. (nonthesis- Nutrition)	2012
Fan Yang	Ph.D. (Anatomy, Physiology, and Pharmacology)	2012

Ann Johnson	Ph.D. (Nutrition)	2012
Jian (Albert) Zhang	Ph.D. (Nutrition)	2012
Yinghui Rong	Ph.D. (Nutrition)	2012
Frank Newell	M.S. (Nutrition)	2011
Doug Murray	Ph.D. (Hospitality Management)	2011
Alisha Gaines	M.S. (Nutrition and Food Science)	2008
Francis Tayie	Ph.D. (Nutrition and Food Science)	2008
Zhenchuan Fan	Ph.D. (Anatomy, Physiology, and Pharmacology)	2008
Edmond Huang	M.S. (Nutrition and Food Science)	2008
Brenda White	M.S. (Nutrition and Food Science)	2007
Keerthi Cherukuri	M.S. (Horticulture)	2007
Deepa Bedi	Ph.D. (Anatomy, Physiology and Pharmacology)	2007
Jamie Papizan	M.S. (Nutrition and Food Science)	2007
Amy Jo Riggs	Ph.D. (Nutrition and Food Science)	2006
Eric Plaisance	Ph.D. (Exercise Science)	2006
Kristen Clarke	Ph.D. (Anatomy, Physiology, and Pharmacology)	2005
Erin Sharpe	M.S. (Nutrition and Food Science)	2005
Niki Schier	M.S. (Nutrition and Food Science)	2005
Min Ding	M.S. (Anatomy, Physiology, and Pharmacology)	2005
Sofiya Alhassan	Ph.D. (Exercise Science)	2004
Erin Glimore	M.S. (Nutrition and Food Science)	2004
Pam Galloway	M.S. (Nutrition and Food Science)	2004
India Sachitano	M.S. (Nutrition and Food Science)	2004
Greg Goodwin	M.S. (Hotel and Restaurant Management)	2004
Sarah Kerr	M.S. (Nutrition and Food Science)	2002
Jona Cary	M.S. (Hotel and Restaurant Management)	2002
Xu Yinghui	M.S. (Nutrition and Food Science)	2001
Michelle Bader	M.S. (Nutrition and Food Science)	2000
Lirong Zhong	M.S. (Nutrition and Food Science)	2000
Sofiya Alhassa	M.S. (Health and Human Performance)	2000
Nicole Britton	M.S. (Hotel and Restaurant Management)	1999
Merrideth Sloan	M.S. (Nutrition and Food Science)	1999
Kyle Willian	M.S. (Nutrition and Food Science)	1998
Tracy Gardner	M.S. (Nutrition and Food Science)	1998

#### d. Outside Reader

<u>Name</u>	<u>Degree (Department)</u>	<u>Year</u>
Xiu-Lei Mo	Ph.D. (Anatomy, Physiology, and Pharmacology)	2013
Desi Wander	Ph.D. (Anatomy, Physiology, and Pharmacology)	2012
Robert Bower	Ph.D. (Health and Human Performance)	2009



Gede Sumiarsa	Ph.D. (Fisheries & Allied Aquacultures)	2003
Steve McAnulty	Ph.D. (Health and Human Performance)	2000
David Gunter	Ph.D. (Anatomy, Physiology, and Pharmacology)	2000

### 3. Graduate Students Presently Serving

#### a. Major Professor

<u>Name</u>	<u>Degree Expected (Department)</u>
Yijing (Alina) Qi	M.S. (Nutrition)

#### b. Committee Member

<u>Name</u>	<u>Degree Expected (Department)</u>
Yueru Li	Ph.D. (Nutrition)
Yinglin Zhang	M.S. (Biosystems Engineering)
Cheng Zheng	Ph.D. (Nutrition)
Jessica-Lauren Newby	Ph.D. (Nutrition)
Zhao Yang	Ph.D. (Anatomy, Physiology, and Pharmacology)

### 4. Undergraduate Student Research

Students that have either taken NUFS 4980: Undergraduate Research and Study (currently NTRI 4890) under my supervision, have been awarded a CMB summer fellowship under my supervision, or did an Honors Thesis under my supervision.

<u>Name</u>	<u>Year</u>	<u>Department/College</u>	<u>Type of research experience</u>
Catharine Couch	2014	NTRI	NTRI 4980
Brian Powers	2013	COSAM	NTRI 4980
Mia Donley	2013	NTRI	NTRI 4980
Rebekah DeWitt	2013	NTRI	Summer research experience
Cameron Turner	2013	COSAM	Summer research experience
Garrett Fox	2012	COSAM	NTRI 4980
Anna Bailey	2012	NTRI	Honors class of NTRI 2000
Kate Iampietro	2012	NTRI	NTRI 4980
Leigh Smalley	2011	COSAM	NTRI 4980
Jacob Basarge	2011	COSAM	NTRI 4980
Van Carol	2010	COSAM	NUFS 4980
Samatha Linder	2010	Connecticut College	Summer research experience
Allison Bradford	2009	NUFS	CMB summer fellow
Michelle Mullin	2009	COSAM	NUFS 4980
Teresa Kilborn	2007 - 2008	COSAM	Honors Thesis

Virginia Anderson	2007	NUFS	CMB summer fellow
Travis Petell	2007	COSAM	NUFS 4980
Stephanie Ditmer*	2006	NUFS	CMB summer fellow
Daniel Whisenant	2006	COSAM	NUFS 4980
Joshua Stiltzky	2005	COSAM	NUFS 4980
Theresa Garren	2005	NUFS	CMB summer fellow

COSAM - College of Science and Mathematics

NUFS - Dept. of Nutrition and Food Science (older name)

NTRI - Dept. of Nutrition, Dietetics, and Hospitality Management

\* - Stephanie Ditmer was awarded first place for best poster presentation in Undergraduate Research Forum.

## 5. Courses Developed

NUFS 8970: Advanced Topics in Nutrition and Food Science, Regulation of Food Intake and Energy Balance. (Taught for the first time Summer '99). The candidate designed this course to introduce graduate students to the physiological mechanisms involved in the regulation of food intake and body fat, an emerging area of study. Topics covered include an overview of human obesity, an introduction to neuroscience, brain areas involved in the regulation of energy balance, animal models of genetic obesity, leptin and the regulation of energy balance, animal models of diet-induced obesity, and short-term regulators of feeding. Articles from the current literature are read and discussed, and students give presentations on various relevant topics. This course is expected to be taught every other year.

NUFS 2000: Nutrition and Health. This course was offered prior to the candidate's arrival at Auburn. The candidate improved the class by incorporating a multimedia approach to the instruction. PowerPoint-based outlines are shown during the lectures and supplemented with relevant Quicktime movies from a CD, along with other visual aids. The students' response to this change has been very favorable. All instructors of this class now use the multimedia format.

BCHE 3180: Nutritional Biochemistry. This course was offered prior to the candidate's arrival at Auburn. The candidate improved the class by changing the textbook from Harper's *Biochemistry*, which is a review of biochemistry, to *Basic Medical Biochemistry* by Smith, Smith and Marks. This textbook is more easily understood and more appropriate for this level of student. Subsequently, Dr. Margaret Craig-Schmidt adopted this textbook for auxiliary use in NUF 4820: Macronutrients, which immediately follows BCHE 3180 in the Nutrition/Dietetics curriculum. These changes have helped to integrate the Nutritional Biochemistry class and the Macronutrients class within the Nutrition/Dietetics curriculum. Lectures have been formatted to be PowerPoint based.

## 6. Other Contributions to Teaching

### a. Academic Advising

The candidate has been the academic advisor for up to 40 Nutrition/Dietetics and Nutrition Science undergraduate students at a time. Currently, the candidate has 20 undergraduate advisees. The majority of these students meet with the candidate on a semester basis to discuss their schedules for the following term. Many of the students require letters of recommendation to be written by the candidate as part of their application to dietetic internships or professional schools.

### b. Guest Lectures

The candidate has been a guest lecturer on dietary fiber and body weight regulation in NUFs 4820: Macronutrients, (3-4 lectures per term (Spring '98, '99, and '00)). The candidate also regularly gives one guest lecture per term in NUFs 7050: Methods of Research (Spring '97, '99, '00, '02 and '03) on the use of animals in research. Because of the candidate's research on the hormone leptin, guest lectures are also given in VBMS 7070: Endocrinology (Fall '98, '99, '01 and '03 - '10), a class offered through the Department of Anatomy, Physiology, and Pharmacology in the College of Veterinary Medicine. A guest lecture was given in UNIV 2777: Honors Lyceum on the candidate's research area "Obesity and its Consequences" (Spring '03)

### c. Journal Club

Over the past eighteen years, the candidate has maintained a weekly journal club with graduate and advanced undergraduate students to discuss recently published articles in the area of obesity and diabetes research. Initially, the journal club involved only the candidate's students. However, over the past several years, faculty and graduate student from several departments (Animal Science, Pharmacal Sciences, Chemistry and Biochemistry) have also been regular participants. The purpose of this journal club is to help students stay abreast of recent advances in obesity and diabetes research and to sharpen their critical thinking skills.

### d. Student Achievements

The candidate has assisted his graduate students in receiving funding for their research projects.

- Chenchen Yu (\$1,500) (Feb. 2011) Leptin treatment influence hepatic gene expression in diabetic rats.
- Yuan Kang, (\$2,000) Women's Philanthropy Board Graduate Student Award. (Oct. 2008).
- Chia-Yu Lin, (\$1,000) Graduate School Grant-in-Aid, Sympathetic Nervous Activity may Mediate the Increased Insulin Sensitivity Caused by Brain Leptin in Diabetic Animals. (April 2001)

- D. Allan Higginbotham, (\$1,000) Graduate School Grant-in-Aid, Alteration of Leptin Sensitivity with Low-Protein Diets. (April, 2000)
- Fangyan Du, (\$1,000) Graduate School Grant-in-Aid, Nitrogen Metabolism and Leptin Status in Obese Rats Induced by Low Dietary Protein. (May, 1998)

The candidate has also assisted his graduate students in making presentations of their research at national meetings (i.e., Experimental Biology, Meeting of the Society for Neuroscience). These presentations have resulted in published abstracts.

- Kang, Y., C.M. Wernette, R.L. Judd, and B.D. White. Blunted hepatic glucose production from lactate in leptin-treated streptozotocin-induced diabetic rats. *Experimental Biology*. 2009
- Lin, C.-Y., M.J. Lehmkuhl, R.L.Judd, and B.D. White. Central leptin increases sympathetic activity and reverses hyperglycemia in streptozotocin-induced diabetic rats. *FASEB J*. 2002.
- Lin, C.-Y., D.A. Higginbotham, R.L. Judd, and B.D. White. Central leptin increases insulin sensitivity and normalizes blood glucose concentrations in streptozotocin-treated diabetic rats. *FASEB J*. 15:A625, 2001.
- Higginbotham, D.A., B.J. Tarleton, M.J. Lehmkuhl, A.A. Wiley, F.F. Bartol, and B.D. White. Low dietary protein reduces responsiveness to leptin. *Soc. for Neurosci*. 2000.
- Du, F., D.A. Higginbotham, and B.D. White. Dose-dependent effects of low dietary protein on food intake, energy balance, and serum leptin. *FASEB J*. 13: A225, 1999.
- Higginbotham, D.A., F. Du, and B.D. White. Low-protein-induced hyperphagia is delayed by nonessential amino acid supplementation. *FASEB J*. 13: A225, 1999.
- \* D.A. Higginbotham was one of four graduate students at Auburn University to receive a Merriwether Fellowship. (May, 2000)

## 7. Teaching Philosophy and Self-Assessment

### a. Philosophy

Teaching is an integral part of my job as a scientist at Auburn University. My roles as an educator and a researcher are complementary to each other. Being an active researcher allows the educator in me to be informed of the current state of knowledge in a subject, while being an active educator allows the researcher in me a broader perspective from which to look at research questions. I feel teaching a science-based course is much more than the presentation of facts. Facts can be presented in a handout, in a book, over the Internet, or in any of a number of different ways that do not require the immediate presence of an educator. What an educator provides to students that these formats cannot is a sense of wonder and excitement about the subject matter. I feel this is the real challenge of education. For an educator to instill wonder and excitement, students need to feel involved with the subject matter. They need to feel that the subject is relevant to them on a personal level. This is best illustrated in my Nutrition and Health class, which is an elective for approximately half the students, most of whom are not science majors. One method I have used to make these students more excited about the subject matter is to present the material in a more "user friendly" fashion. In a multimedia classroom, lectures are accompanied by PowerPoint-generated outlines,

interspersed with relevant Quicktime movies from a CD and other visual aids. This helps to engage the students. However, in itself this is not sufficient. I believe I also need to impart my own excitement about the subject matter to the students. I ask a lot of questions of the students in my classes in an effort to get them actively involved in thinking about the subject. As an example of helping to bring the subject material to a personal level, I ask Nutrition and Health students to make a record of their own diets and analyze them for adequacy and moderation. I have received many positive comments from students about this exercise, mostly because they feel that it has made them more aware of their diet and helped them to relate their daily diet to their long-term health. I feel when students begin to see how the parts of nature work together as an integrated whole they begin to see the beauty within the natural world. Ideally, if students can adopt a sense of wonder and excitement about nature, they will begin to ask their own questions and look for their own answers. They will become independent thinkers capable of self-direction. This is the ultimate goal of an educator. Though independent thinking and self-directed learning cannot be fully realized within a single course, the basic foundation of excitement can begin to be laid. As students progress through their academic careers, they will become more independent. Hopefully, by the time their formal education is complete, they will be able to set their own direction. In doing so, they will have the skills necessary for a lifetime of learning, regardless of the subject. By helping students achieve this level of independent learning, I feel that I am doing my job as an educator.

## b. Self-Assessment

The assessment of effective teaching is difficult. I strive to get as much feedback as possible from students and my peers. It helps me to ask questions in class and try to be a good listener. Listening to student responses as well as evaluating student questions helps me determine whether the students are grasping the material. Also, I give bonus quizzes throughout the course. At the end of the course, as one of the bonus quizzes, I ask the students how they would improve the class if they had to teach it the following term. I take their responses seriously and have implemented some of their suggestions. I have asked the students to officially evaluate my classes every quarter I have taught. Again, I take the students' comments seriously and use them to help improve the class. In two of the courses I teach (NUFS 2000: Nutrition and Health, BCHE 3180: Nutritional Biochemistry) I have asked peers in my department to evaluate my teaching and course materials (see Peer Evaluations of Teaching). Their comments and suggestions have been incorporated into subsequent classes. Finally, some of the most gratifying feedback I have received is when I least expected it. For example, our graduating seniors have an exit interview with our Associate Dean, Dr. Dotty Cavender. Dr. Cavender related to me that one of the students told her "no other teacher in the department nor the university had motivated her more or was a more excellent teacher than Dr. White." Though this was the comment of only a single student, unsolicited comments such as this are gratifying and encouraging.

## B. Research

Student contributions are marked with an asterisk and the percent contribution of the candidate is noted in parentheses after each citation. The leading journals in the field are the *American Journal of Physiology* and the *Journal of Nutrition*. The *American Journal of Physiology* is the flagship journal of the American Physiological Society, while the *Journal of Nutrition* is the

flagship journal of the American Society for Nutritional Sciences. (Significance of author order on publications - First authorship is most significant; last authorship usually denotes the laboratory from which the work was performed. Other contributions decrease as the order of appearance decreases).

## 1. Publications

### a. Book Chapter

Wang, Y., D. White. Comprehensive utilization of microalgae: Functional food and biofuel. In Auburn Speaks: On Food Systems. 2014, pp. 226-233.

White, B.D., B. He\*, M.H. Porter\*, and R.J. Martin. Nutritional Aspects of Neuropeptide Gene Expression, in *Nutrition and Gene Expression: Clinical Aspects*, Berdanier, C. D., Ed., CRC Press, Boca Raton, FL. 1996, pp. 51-82. (candidate's contribution ~90%, wrote review)

### b. Refereed Journal Articles

Cook, E.A., Y.M. Lee, B.D. White, S.S. Gropper. The diet of inmates: An analysis of a 28-day cycle menu used in a large county jail in the state of Georgia. *Journal of Correctional Health Care*. 21(4) 2015 (accepted)

Desai, G.S., C. Zheng, T. Geetha, S.T. Mathews, B.D. White, K.W. Huggins, C. Zizza, C. T.L. Broderick, J.R. Babu. The pancreas-brain axis: Insight into disrupted mechanisms associating type 2 diabetes and Alzheimer's disease. *Journal of Alzheimer's Disease*. 42: 347-356, 2014.

Wanders, D., E.C. Graff, B.D. White, and R.L. Judd. Niacin increases adiponectin and decreases adipose tissue inflammation in high fat diet-fed mice. *PLoS ONE* 8(8) e7185 doi:10.1371/journal.pone.0071285. 2013.

Gropper, S.S., F.H. Newell, A. Zaremba-Morgan, M.K. Keiley, B.D. White, K.W. Huggins, K.P. Simmons, L.J. Connell, and P.V. Ulrich. The impact of physical activity on body weight and fat gains during the first 3 years of college. *International Journal of Health Promotion and Education*. 50(6): 296-310, 2012.

Geetha, T., C. Zheng, W.C. McGregor, B.D. White, M.T. Diaz-Meco, J. Moscat, and J.R. Babu. TRAF6 and p62 inhibit amyloid  $\beta$ -induced neuronal death through p75 neurotrophin receptor. *Neurochemistry International* 61: 1289-1293, 2012.

Wernette, C.M., B.D. White, and C.A. Zizza. Signaling proteins that influence energy intake may affect unintentional weight loss in the elderly. *Journal Am. Dietetics Associ.* 111: 864-873, 2011. (candidate contribution - 25% wrote portions of review article.)

- Ratcliff, L., S.S. Gropper, B.D. White, D.M. Shannon, and K.W. Huggins. The influence of habitual exercise training and meal form on diet-induced thermogenesis in college-age men. *Int. J. Sport Nutr. Exerc. Metabol.* 21: 11-18, 2011. (candidate contribution - 15% performed statistical analysis).
- Mansour, M., B.D. White, C. Wernette, J. Dennis, Y.-X. Tao, R. Collins, L. Parker, and E. Morrison. Pancreatic neuronal melanocortin-4 receptor modulates serum insulin levels independent of leptin receptor. *Endocrine* 37(1): 220-230, 2010 (candidate contribution ~ 20%, performed ICV cannulation on rats which allowed experiment to occur.)
- Wang, J.\*, C.M. Wernette, R.L. Judd, K.W. Huggins, and B.D. White. Guanethidine treatment does not block the ability of central leptin administration to decrease blood glucose concentrations in streptozotocin-induced diabetic rats. *Journal of Endocrinology* 198(3):541-548,2008. (candidate contribution ~ 60% directed graduate student, designed and funded study, performed statistical analysis, wrote paper.)
- Riggs, A.J., B.D. White, and S.S. Gropper. Changes in energy expenditure associated with ingestion of high protein, high fat versus high protein, low fat meals among underweight, normal weight, and overweight females. *Nutrition Journal* 6(1):40-48, 2007. (candidate contribution ~ 10%, performed statistical analysis of the data and prepared figures for publication.)
- Gropper, S.S., S.Yannicelli, B.D. White, and D.M. Medeiros, Plasma Phenylalanine Concentrations are Associated with Hepatic Iron Content in a Murine Model for Phenylketonuria. *Molecular Genetics and Metabolism.* 82: 76-82, 2004. (candidate contribution ~ 5%, performed statistical analysis of some of the data and help with data interpretation.
- White, B.D., F. Du \*, and D.A. Higginbotham\*. Low Dietary Protein is Associated with an Increase in Food Intake and a Decrease in the In Vitro Release of Radiolabeled Glutamate and GABA from the Lateral Hypothalamus. *Nutritional Neuroscience* 6:361-367, 2003 (candidate contribution ~ 85%, directed graduate students, designed experiment, obtained funding, collected data, performed statistical analysis, wrote paper)
- Gropper, S.S., D.M.Bader-Crowe \*, L.S. McNulty \*, B.D. White, and R.E. Keith. Non-Anemic Iron Depletion, Oral Iron Supplementation and Indices of Copper Status in College-Aged Females. *J. Am. Coll. Nutr.* 21: 545-552, 2002. (candidate contribution ~ 5%, performed statistical analysis of some of the data and help with data interpretation.)
- Lin, C.-Y. \*, D.A. Higginbotham\*, R.L. Judd, and B.D. White. Central Leptin Increases Insulin Sensitivity in Streptozotocin-Induced Diabetic Rats. *Am. J. Physiol. Endocrinol. Metab.* 282: E1084-E1091, 2002 (candidate contribution ~ 50%, directed graduate student, designed experiment, obtained funding, assisted with surgery and sample collection, helped write revised manuscript)

- White, B.D., M.H. Porter\*, and R.J. Martin. Protein Selection, Food Intake, and Body Composition in Response to the Amount of Dietary Protein. *Physiology and Behavior* 69: 383-389, 2000. (candidate's contribution ~80%, directed graduate student, designed experiment, obtained funding, assisted with sample collection, assisted with performing assays, wrote manuscript)
- White B.D., M.H. Porter\*, and R.J. Martin. Effects of Age on the Feeding Response of Moderately Low Levels of Dietary Protein in Rats. *Physiology and Behavior* 68: 673-681, 2000. (candidate's contribution ~80%, directed graduate student, designed experiment, obtained funding, assisted with sample collection, assisted with performing assays, wrote manuscript)
- Du, F.\* , D.A. Higginbotham\*, and B.D. White. Food Intake, Energy Balance, and Serum Leptin Concentrations in Rats Fed Low-Protein Diets. *Journal of Nutrition* 130: 514-521, 2000. (candidate's contribution ~65%, directed graduate students, designed experiment, obtained funding, assisted with sample collection, edited final version of manuscript)
- White, B.D., R.G. Dean and R.J. Martin. An Association Between Low Levels of Dietary Protein, Elevated NPY Gene Expression in the Basomedial Hypothalamus and Increased Food Intake. *Nutritional Neuroscience* 1: 173-182, 1998. (candidate's contribution ~95%, designed experiment, obtained funding, collected samples, performed assays, wrote manuscript)
- He, B.\* , B.D. White, G.L. Edwards and R.J. Martin. Neuropeptide Y Antibody Attenuates 2-deoxy-D-Glucose Induced Feeding in Rats. *Brain Research* 781: 348-350, 1998. (candidate's contribution ~20%, directed graduate student, supervised ICV cannulations, assisted with performing assays)
- He, B.\* , B.D. White, G.L. Edwards and R.J. Martin. Longer-Term Fourth Ventricular 5-Thioglucose Infusion Increases Body Fat in the Rat. *Proceedings of the Society of Experimental Biology and Medicine* 217: 168-172, 1998. (candidate's contribution ~20%, directed graduate student, supervised ICV cannulations, assisted with performing assays)
- White, B.D. and R.J. Martin. Evidence for a Central Mechanism of Obesity in the Zucker Rat: Role of Neuropeptide Y and Leptin. *Proceedings of the Society of Experimental Biology and Medicine* 214: 222-232, 1997. (candidate's contribution ~95%, wrote review)
- Edwards, G.L., B.D. White, B. He\*, R.G. Dean, and R.J. Martin. Elevated Hypothalamic Neuropeptide Y levels in Rats with Dorsomedial Hindbrain Lesions. *Brain Research* 755: 84-90, 1997. (candidate's contribution ~25%, assisted with sample collection, assisted with performing assays)
- White, B.D., G.L. Edwards, and R.J. Martin. Interaction of Type I and Type II Corticosteroid Receptor Stimulation on Carcass Energy and Carcass Water. *American Journal of Physiology* 270: R1099-R1108, 1996. (candidate's contribution ~70%, designed experiment, obtained funding, assisted with sample collection, assisted with performing assays, wrote manuscript)



- Hulsey, M.G., C.M. Pless\*, B.D. White and R.J. Martin. ICV Administration of Anti-NPY Antisense Oligonucleotide: Effects on Feeding Behavior, Body Weight, Peptide Content and Peptide Release. *Regulatory Peptides* 56: 207-214, 1995. (candidate's contribution ~15%, assisted with sample collection, assisted with performing assays)
- Roberts, T.J.\* , M.J. Azain, B.D. White, and R.J. Martin. Rats Treated with Somatotropin Select Diets Higher in Protein. *Journal of Nutrition* 125: 2669-2678, 1995. (candidate's contribution ~10%, assisted with diet design and data interpretation)
- Chen, N.X.\* , B.D. White and G.J. Hausman. Glucocorticoid Receptor Binding in Porcine Preadipocytes During Development. *Journal of Animal Science* 73: 722-727, 1995. (candidate's contribution ~15%, provided expertise with glucocorticoid receptor assay, assisted with data analysis and interpretation)
- White, B.D., B. He\* , R.G. Dean and R.J. Martin. Low Protein Diets Increase Neuropeptide Y (NPY) Gene Expression in the Basomedial Hypothalamus of the Rat. *Journal of Nutrition* 124: 1152-1160, 1994. (candidate's contribution ~80%, designed experiment, obtained funding, assisted with sample collection, performed assays, wrote manuscript)
- Grossman, B.M., B.D. White, G.L. Edwards and R.J. Martin. Vagotomy and Mercaptoacetate Influence the Effect of Dietary Fat on Macronutrient Selection by Rats. *Journal of Nutrition* 124: 804-809, 1994. (candidate's contribution ~25%, assisted with surgeries and data interpretation)
- White, B.D., R.G. Dean, G.L. Edwards and R.J. Martin. Type II Corticosteroid Receptor Stimulation Increases Neuropeptide Y (NPY) Gene Expression in the Basomedial Hypothalamus of the Rat. *American Journal of Physiology* 266: R1523-R1529, 1994. (candidate's contribution ~80%, designed experiment, obtained funding, assisted with sample collection, performed assays, wrote manuscript)
- White, B.D., K.D. Hunsicker\* , and R.J. Martin. Affinity of Hepatic Glucocorticoid Receptors is Influenced by Energy/Feeding Status. *Physiology and Behavior* 54: 1155-1158, 1993. (candidate's contribution ~70%, directed undergraduate student, designed experiment, obtained funding, assisted with sample collection, assisted with performing assays, wrote manuscript)
- Burden, V.R.\* , B.D. White and R.J. Martin. Activity-Based Anorexia Increases the Activity of the Hypothalamic-Pituitary-Adrenal Axis in the Rat. *Journal of Nutrition* 123: 1217-1225, 1993. (candidate's contribution ~35%, directed graduate student, assisted with sample collection, assisted with performing assays)
- White, B.D., R.G. Dean and R.J. Martin. Adrenalectomy Decreases Neuropeptide Y mRNA Levels in the Arcuate Nucleus. *Brain Research Bulletin* 25: 711-715, 1990. (candidate's contribution ~75%, designed experiment, collected samples, assisted with performing assays, wrote manuscript)

White, B.D. and R.J. Martin. Alterations in the Binding Characteristics of Glucocorticoid Receptors From Obese Zucker Rats. *Journal of Steroid Biochemistry* 36(6):681-686, 1990. (candidate's contribution ~90%, designed experiment, collected samples, performed assays, wrote manuscript)

Dean, R.G. and B.D. White. Neuropeptide Y Expression in Rat Brain: Effects of Adrenalectomy. *Neuroscience Letters* 114: 339-344, 1990. (candidate's contribution ~40%, designed experiment, collected data, assisted with performing assays)

White, B.D., C.B. Corll and J.R. Porter. The Metabolic Clearance Rate of Corticosterone in Lean and Obese Male Zucker Rats. *Metabolism* 38(6): 530-536, 1989. (candidate's contribution ~80%, designed experiment, collected data, performed assays, wrote manuscript)

White, B.D., W.D. Davenport and J.R. Porter. Responsiveness of Isolated Adrenocortical Cells from Lean and Obese Zucker Rats to ACTH. *American Journal of Physiology* 255: E229-E235, 1988. (candidate's contribution ~75%, designed experiment, collected data, assisted with performing assays, wrote manuscript)

### c. Invited Articles

Martin, R.J., B.D. White and M.G. Hulsey. The Regulation of Body Weight. *American Scientist* 79: 528-541, 1991. (candidate's contribution ~20%, helped write review article)

### d. Published Abstracts

White, B.D., and K.E. Rowland. Does chronic leptin treatment decrease glucagon responsiveness in STZ-induced type 1 diabetic rat? 7th Annual Boshell Research Day. Auburn AL. p. 56, 2014.

Zaremba Morgan, A., Keiley, M.K., Gropper, S.S., Connell, L.J., Simmons, K.P., Ulrich, P.V. Newell, F.H., White, B.D., & Huggins, K.W. (2013, February). Strength training may reduce or prevent percent body fat and weight gains for females during the college years. Poster presented at the joint 2013 Annual Conference of the Southeastern Council on Family Relations (SECFR) and the Alabama Association for Marriage and Family Therapy (ALAMFT), Birmingham, AL.

Wanders, D., E.C. Graff, B.D. White, and R.L. Judd. Niacin increases adiponectin and decreases markers of adipose tissue inflammation in obese mice. 6th Annual Boshell Research Day, Auburn, AL p. 51, 2013.

Yu, C., and B.D. White. Central leptin treatment reverses the activation of gluconeogenic pathways seen in STZ-induced diabetic rats independent of changing serum glucagon concentrations. 5th Annual Boshell Research Day. Auburn, AL 2012.

White, B.D. Y. Kang, C.M. Wernette, and C. Yu. Glucose output from hepatocytes derived from STZ-induced diabetic rats chronically administered ICV leptin. 4th Annual Boshell Research Day. Auburn, AL 2011.

Yu, C., C.M. Wernette, and B.D. White. Glucagon responsiveness in leptin-treated STZ-induced diabetic rats. 4th Annual Boshell Research Day, Auburn, AL 2011.

White, B.D., C.M. Wernette, Y. Kang, and G.L. Edwards. Hepatic vagotomy does not block the ability of ICV leptin administration to normalize blood glucose concentrations in streptozotocin-induced diabetic rats. 3rd Annual Boshell Research Day. Auburn, AL 2010

Kang, Y., C.M. Wernette, R.L. Judd, and B.D. White. Blunted hepatic glucose production from lactate in leptin-treated streptozotocin-induced diabetic rats. *Experimental Biology*. 2009

Mansour, M.M., R. Collins, D. White, C. Wernette, J. Dennis, E. Morrison, Y-X. Tao. Central activation of melanocortin system modulates pancreatic function independent of leptin. *Experimental Biology* 2009.

Kang, Y., C.M. Wernette, and B.D. White. Hepatic glucose production from lactate and fructose in leptin-treated streptozotocin-induced diabetic rats. 2nd Annual Boshell Research Day, Auburn, AL 2009

Wernette, C.M. M. Gragg, and B.D. White. Effects of leptin and fasting on the expression of genes important for obesity and diabetes. 2nd Annual Boshell Research Day. Auburn, AL 2009.

White, B.D., C.M. Wernette, J.R. Patten, and Y. Kang. Assessment of the gluconeogenic capabilities of leptin-treated diabetic rats by feeding albumin and fructose diets. *Keystone Symposia, Diabetes Mellitus, Insulin Action and Resistance*, Keystone, CO #347, p.105, 2008

Huang, E.Y., T. Kim, B.D. White, and S.T. Mathews. Dexamethasone-induced insulin resistance with increased fetuin-A levels in rats. *Keystone Symposia, Diabetes Mellitus, Insulin Action and Resistance*, Keystone, CO #211, p.80, 2008

White, B.D., C.M. Wernette, M. Gragg, Y. Kang, R.L. Judd. Normalization of blood glucose concentrations in leptin-treated STZ-induced diabetic rats may not be due to enhanced insulin sensitivity. *Keystone Symposia, Diabetes: Molecular Genetics, Signaling Pathways and Integrated Physiology*, Keystone, CO #338, p.90, 2007

Papizan JB, Kim T, Wernette C, White BD, Mathews ST: A novel role for leptin in regulating phosphorylation status of alpha2-HS glycoprotein, a physiological inhibitor of insulin action. *Keystone Symposia, Diabetes: Molecular Genetics, Signaling Pathways and Integrated Physiology*, Keystone, CO, #302, p.81, 2007

White, B.D., C.M. Wernette, S. Mathews, T. Kim, and R.L. Judd. Leptin-treated diabetic rats become hypoglycemic during a short-term fast and cannot derive glucose from lactate or alanine. *Keystone Symposia, Diabetes Mellitus and the Control of Cellular Energy Metabolism* #332 p. 88. 2006.

White, B.D., J. Wang, D. Bedi, K. Clarke, B. Brunson, M. Ding, and R.L. Judd. Central leptin and insulin administration on peripheral insulin sensitivity and plasma adiponectin concentrations. *FASEB J.* 18(4): A137. 2004

Gropper, S.S, B.D. White, P. Galloway, E. Gilmore, L. Ratcliff, J. Johnson, S.J. Weese. Growth, body weight gain, and change in body mass index in children in three rural Alabama counties. *FASEB J.* 18(5): A901, 2004.

Lin, C.-Y., M.J. Lehmkuhl, R.L.Judd, and B.D. White. Central leptin increases sympathetic activity and reverses hyperglycemia in streptozotocin-induced diabetic rats. *FASEB J.* 16:785, 2002.

White, B.D., M.J. Lehmkuhl, J. Wang, D.P. Melvin and C.-Y. Lin. Low dietary protein attenuates the ability of leptin to inhibit body fat accumulation. *FASEB J.* 16: A1013, 2002.

Lin, C.-Y. D.A. Higginbotham, R.L. Judd, and B.D. White. Central leptin increases insulin sensitivity and normalizes blood glucose concentrations in streptozotocin-treated diabetic rats. *FASEB J.* 15:A625, 2001.

Higginbotham, D.A., B.J. Tarleton, M.J. Lehmkuhl, A.A. Wiley, F.F. Bartol, and B.D. White. Low dietary protein reduces responsiveness to leptin. *Soc. for Neuroscience* 26: 279, 2000.

Lin, C.-Y., D.A. Higginbotham, P. Raman, D.D. Schwartz, B.D. White, and R.L. Judd. Effect of intracerebroventricular leptin on cardiac fructose-2,6-bisphosphate. *Diabetes* 48: 1152, 2000.

White, B.D. Effects of moderately low dietary protein on food intake, body fat, and serum leptin. *Reg. Peptides* 86:30, 2000.

Du, F., D.A. Higginbotham, and B.D. White. Dose-dependent effects of low dietary protein on food intake, energy balance, and serum leptin. *FASEB J.* 13: A225, 1999.

Higginbotham, D.A., F. Du, and B.D. White. Low-protein-induced hyperphagia is delayed by nonessential amino acid supplementation. *FASEB J.* 13: A225, 1999.

White, B.D., F. Du, and D.A. Higginbotham. Low dietary protein increases food intake and decreases the in vitro release of labeled GABA and glutamate from the lateral hypothalamus. *Soc. for Neuroscience* 24: 192, 1998.

White, B.D., D. Hausman, M.G. Hulse, M. Latimer, and R.J. Martin. Chronic infusion of antisense NPY oligonucleotide in lean and obese Zucker rats. *FASEB J.* 11: A352. 1997.

White, B.D., G.L. Edwards, and R.J. Martin. Chronic aldosterone-induced increases in carcass water and soluble carcass sodium are negated by concomitant Type II glucocorticoid receptor stimulation. *FASEB J.* 9: A6, 1995.

Porter, M.H., B.D. White, and R.J. Martin. The effects of dietary protein levels on food intake in young and mature rats *FASEB J.* 9: A1003, 1995.

He, B., B.D. White, G.L. Edwards, and R.J. Martin. 2-Deoxy-D-Glucose and NPY gene expression in the arcuate nucleus and specific brainstem nuclei in the rat. *FASEB J.* 9: A582, 1995.

Grossman, B.M., B.D. White, and R.J. Martin. Effects of high fat or high carbohydrate diet on food intake, body weight and hypothalamic neuropeptide Y in Osborne-Mendel rats. *FASEB J.* 9: A189, 1995.

White, B.D., R.G. Dean, and R.J. Martin. Short-term dexamethasone treatment increases food intake, but apparently not through changes in NPY content in the PVN. *Ann. N.Y. Acad. Sci.* 739: 339-340, 1994.

Edwards, G.L., B.D. White, W. Zhao, B. He, R.G. Dean and R. J. Martin. Lesions of the area postrema/adjacent nucleus of the solitary tract (NTS) result in enhanced hypothalamic neuropeptide Y (NPY) levels. *Ann. N.Y. Acad. Sci.* 739: 337-338, 1994.

He, B., B.D. White, and R.J. Martin. Chronic 4th ventricular infusion of 5-thioglucose increases body fat in the rat. *FASEB J.* 8: A172, 1994.

Porter, M.H., B.D. White, R.J. Martin. Protein selection in animals fed diets containing various amounts of protein. *FASEB J.* 8: A729, 1994.

Roberts, T.J., M.J. Azain, B.D. White, and R.J. Martin. Diet selection and composition of gain in somatotropin treated rats. *FASEB J.* 8: A158, 1994.

White, B.D., B. He, R.G. Dean, and R.J. Martin. Neuropeptide Y gene expression is increased in the arcuate nucleus following a diet restricted in protein. *FASEB J.* 7: A206, 1993.

He, B., B.D. White and R.J. Martin. Neuropeptide Y does not appear to be involved in 2-deoxyglucose induced feeding. *FASEB J.* 7: A88, 1993.

Chen, X., B.D. White and G.J. Hausman. Glucocorticoid receptor binding in porcine adipose precursor cells during development. *J. Animal. Sci.* 1992.

White, B.D., R.G. Dean and R.J. Martin. Effects of central Type I and Type II glucocorticoid receptor stimulation on food intake, body weight gain, and food efficiency. *Soc. for Neuroscience.* 17: 494, 1991.

Burden, V.R., B.D. White and R.J. Martin. Central blockade of glucocorticoid receptors in the Zucker rat. *Soc. for Neuroscience.* 17: 494, 1991.

White, B.D., R.G. Dean, and R.J. Martin. Permissive effect of corticosterone on NPY mRNA levels in the arcuate nucleus. *FASEB J.* 5(4): A863, 1991.

Dean, R., B.D. White and R.J. Martin. Regulatory elements in the neuropeptide Y gene. *FASEB J.* 5(5): A1316, 1991.

Burden, V.R., B.D. White and R.J. Martin. Adrenal output increases in activity-based anorexia: Possible involvement of the hypothalamic-pituitary-adrenal (HPA) axis. *FASEB J.* 5(6): A1657, 1991.

White, B.D., R.G. Dean, and R.J. Martin. Differential effects of adrenalectomy on NPY mRNA levels in the arcuate nucleus and brainstem. *Soc. for Neuroscience.* 16: 1171, 1990.

White, B.D., R.G. Dean, and R.J. Martin. Adrenalectomy decreases gene expression of neuropeptide Y in the hypothalamus and striatum. *FASEB J.* 4(4): A916, 1990.

Burden, V.R., R.G. Dean, B.D. White, and R.J. Martin. Gene expression for neuropeptide Y is increased in the hypothalamus by food restriction. *FASEB J.* 4(4): A1167, 1990.

Hunsicker, K.D., B.D. White, and R.J. Martin. Food restriction increases the sensitivity of liver glucocorticoid receptors. *FASEB J.* 4(4): A377, 1990.

White, B.D. and R.J. Martin. Alterations in the binding characteristics of glucocorticoids in obese Zucker rats. *Soc. for Neuroscience.* 15: 1319, 1989.

White, D., L. Keefer, C. Lang, and Johnny R. Porter. The effects of adrenalectomy and streptozotocin-treatment on the liver tyrosine aminotransferase activity in 15 week-old lean and obese male Zucker rats. *FASEB J.* 3(3): A352, 1989.

Porter, J.R., F. Alarrayed, C. Corll and D. White. The levels of various neurotransmitters in regional brain areas of intact and adrenalectomized fatty (fa/fa) rats. *FASEB J.* 2(4):A434, 1988.

Alarrayed, F., D. White, J. Porter and A.D. Hartman. Glucocorticoids and cholesterol homeostasis in the obese Zucker rats. *FASEB J.* 2(5):A1215, 1988.

White, D. and J.R. Porter. The metabolic clearance rate of corticosterone in lean and obese Zucker rats. *Physiologist.* 30:125, 1987.

White, D. and J.R. Porter. The sensitivity and maximal responsiveness to ACTH of isolated adrenal cells derived from lean and obese Zucker rats. *Fed. Proc.* 46(3):580, 1987.

Porter, J.R., D. Roane, D. White and A.D. Hartman. Does a defect exist in a specific serotonergic brain area of the obese Zucker rat? *Physiologist.* 20:150, 1986.

White, D. and J.R. Porter. Perfusion of adrenal pieces in adult obese and lean Zucker rats. *Fed. Proc.* 44(5):1559, 1985.

White, D., J.F. Pritchett, D.N. Marple, C.H. Rahe and J.T. Bradley. The effects of chronic cold-stress on *in vitro* adrenal corticosterone secretion the rat. *J. Alabama Acad. Sci.* 55(3):140, 1984.

## 2. Papers and Lectures

### a. Papers at Professional Meetings

#### i. Presentations With Abstracts

Abstracts listed above with candidate as first author represent either an oral or poster presentation at a national or regional meeting.

- FASEB J. and Fed. Proc. - Experimental Biology (formerly FASEB (Federation of the American Societies for Experimental Biology))
- Soc. of Neuroscience - The Annual Meeting of the Society for Neurosciences
- Annual Boshell Research Day, Auburn, AL
- Physiologist - The Spring Meeting of the American Physiological Society
- Reg. Peptide and Ann. N.Y. Acad. Sci. - Winter Neuropeptide Conference
- J. Alabama Acad. Sci. - The Alabama Academy of Science

#### ii. Presentations Without Abstracts

Poster presentation at the Keystone Symposia. Obesity: New Insights into Pathogenesis and Treatment (January 2003). Subdiaphragmatic vagotomy prevents low-protein induced hyperphagia in rat. Keystone, CO.

Poster presentation at the 16<sup>th</sup> European Winter conference on Brain Research. (March 1996) Effects of an antisense oligonucleotide directed against NPY mRNA on food intake following 24-hour food deprivation. Serre-Chevalier, France.

Poster presentation at the 16<sup>th</sup> annual Winter Neuropeptide Conference. (January 1995) Paradoxical increase in the *in vitro* release of neuropeptide Y (NPY) from the PVN following ICV administration of an antisense-NPY oligoneucleotide. Breckenridge, CO.

#### iii. Invited Symposium Lectures

Effects of moderately low dietary protein on food intake, body fat, and serum leptin. Twenty-first Annual Winter Neuropeptide Conference. Breckenridge, CO. 2000.

Glucocorticoid control of NPY gene expression. International Conference of the Physiology of Food and Fluid Intake. Oxford University, Oxford, England. 1993.

Corticosteroids and body weight regulation. Annual meeting of the Federation of American Societies for Experiment Biology (FASEB). Anaheim, CA. 1992. (Candidate was co-chair of the symposium)

b. Invited Departmental Seminars

i. Auburn University

Leptin and its possible role in glucose homeostasis. Department of Anatomy, Physiology, and Pharmacology, Auburn University, 2008.

Low dietary protein as a model of diet-induced obesity. Department of Nutrition and Food Science, Auburn University, 2000.

Moderately low dietary protein as a model of diet-induced obesity. Department of Anatomy, Physiology, and Pharmacology, Auburn University, 2000.

Hormonal and dietary regulation of neuropeptide Y gene expression. Department of Animal and Dairy Sciences, Auburn University, 1998.

Hormonal and dietary regulation of neuropeptide Y gene expression. Department of Physiology and Pharmacology, Auburn University, 1997.

ii. Other Universities

Low dietary protein as a model of diet-induced obesity. Clinical Nutrition Research Center/Nutrition Sciences, University of Alabama in Birmingham. 2002.

Moderately low dietary protein as a model of diet-induced obesity. Department of Pharmacology and Toxicology, University of Louisiana at Monroe, 2000.

Effects of low dietary protein on the regulation of food intake and energy balance. Joint seminar through the University of Alabama in Birmingham (UAB) Department of Nutrition Sciences Seminar Series, 1998.

Adrenal steroids and obesity. Department of Foods & Nutrition, University of Georgia, 1992.

Adrenal steroids and obesity. Department of Physiology, University of Texas Southwestern Medical Center, 1992.

3. Grants

a. Grants Funded

AU-IGP. PI-Doug White. Leptin and regulation of serum glucagon concentrations. (4/14-3/15)  
\$6,000



Alabama Agricultural Experiment Station. Central leptin and the regulation of blood glucose concentrations. (2013-2018) ~ \$12,000 per year.

Hatch/Multistate AAES grant. PI – Dr. Yifen Wang Co-investigator – Dr. Doug White, Optimization of the extraction of fucoxanthin and its potential as an antiobesity functional food. (10/10 – 9/12) \$50,000

Hatch/Multistate AAES grant. Co-PI- Robert Judd. Glucose production in liver cells derived from leptin-treated diabetic rats. (10/08-9/10) \$49,984

Alabama Agricultural Experiment Station. How does central leptin normalize blood glucose concentrations in STZ-induced diabetic rats. (2008-2013) ~ \$12,000 per year.

Animal Health and Disease Research. PI – Dr. Mahmoud Mansour, Co-PIs – Drs Ya-Xiong Tao and Doug White. Central Melanocortin activates neural pancreatic MC4R to regulate insulin and glucose levels. (8/07-8/09) \$30,000

Alabama Agricultural Initiative on National and Human Resources Award. Co-PI - Dr. Robert Judd Determination of the gluconeogenic capability of diabetic rats treated with central leptin. (1/07-9/07) \$21,352

Alabama Agricultural Experiment Station (AAES) (supplemental grant). Co-PIs- Drs. Suresh Mathews and Kevin Huggins) Lack of central leptin and insulin resistance: a potential connection between obesity and diabetes. (1/07-9/07) \$45,365

Diabetes Action Research and Education Foundation. Dr. Robert Judd – collaborator. Fasting and Blood Glucose Regulation in STZ-Induced Diabetic Rats Treated with Leptin (1/05 – 12/06) \$60,000.

AAES Foundation. Co PIs - Drs. Robert Judd and Elaine Coleman. Signal Transduction Pathway for Central Leptin and Insulin as Related to Peripheral Insulin Sensitivity. (7/03-6/06) \$92,293.

Alabama Agricultural Experiment Station. Lack of Central Leptin and Insulin Resistance: a Potential Connection Between Obesity and Type 2 Diabetes. (2002-2007) ~\$12,000 per year.

Food Assistance and Nutrition Research Program (FANRP). PI - Dr. Jean Weese, Collaborating PIs - Drs. Doug White, Sareen Gropper, Evelyn Crayton, Bruce Lewis. Diet Quality and Its Relationship to Obesity in Rural Alabama African-American Children. (2002-2003) \$148,424.

Vice-President for Research Office, Biogrant, Brain Leptin and the Sympathetic Nervous System: A Possible Link between Obesity and Type 2 Diabetes. Candidate as PI. Co-Investigators – Drs Robert Judd and Dean Schwartz. (2001-2003) \$27,865.

Vice-President for Research Office, Small Equipment Grant, Need for Syringe Pumps to Determine Insulin Sensitivity in Rats. Candidate as PI. (2001) \$3,015

Southeast Affiliate of the American Heart Association, Beginning-Grant-in-Aid, Low Dietary Protein as a Model of Diet-Induced Leptin Resistance and its Implications on the Development of Obesity. Candidate as PI. (2000-2003) \$98,217.

Alabama Agricultural Experiment Station, Effects of Diet on the Regulation of Feeding and Body Weight. Candidate as PI. (1997-2002) ~\$12,000 per year.

USDA, National Research Initiative Competitive Grants Program (NRICGP), Potential Mechanism of Increased Food Intake Associated with Low-Protein Diets. Candidate as PI. (1995-1999) \$130,000.

USDA, National Research Initiative Competitive Grants Program (NRICGP), Competitive Renewal, Macronutrients and Regulation of Neuropeptide Gene Expression. Dr. Roy Martin as PI, Candidate as Collaborating Investigator. (1993-1995) \$160,000 (Candidate designed experiments, wrote grant, and performed experiments)

USDA, National Research Initiative Competitive Grants Program (NRICGP), Macronutrients and Regulation of Neuropeptide Gene Expression. Dr. Roy Martin as PI, Candidate as Collaborating Investigator. (1991-1993) \$150,000 (Candidate designed experiments, wrote grant, and performed experiments)

Biotechnology Award from the University of Georgia, In situ Hybridization and Immunohistochemistry of Neuropeptides Involved in Energy Balance Regulation. Dr. Roy Martin as PI, Candidate as Collaborating Investigator. (1991-1993) \$61,330 (Candidate designed experiments, wrote grant, and performed experiments)

Student Fellowship from the Louisiana Affiliate of the American Diabetes Association, Candidate as PI. (1987-1988) \$1,500.

**b. Grant Proposals Pending**

none

**c. Grant Proposals Not Funded**

Diabetes Action Research and Education Foundation. Does central leptin administration lead to a decrease in the responsiveness to glucagon (9/13 – 8/14) \$40,000.

Novo Nordisk Diabetes Innovation Award Program. Does central leptin administration decrease the responsiveness to glucagon and epinephrine in type 1 diabetic rats? Candidate as PI. (1/12 - 12/13), \$376,252

JDRF, Innovative Grant, Central leptin and blood glucose concentrations in type 1 diabetes. Candidate as PI. (9/10 - 8/11), \$104,710.

NIH, NIDDK, An animal model for exploring potential non-insulin treatments for diabetes.  
Candidate as PI. (8/07-7/09), \$292,000

Diabetes Trust Fund, Fasting and Blood Glucose Regulation in STZ-Induced Diabetic Rats  
Treated with Leptin. Candidate as PI. Dr. Robert Judd – Collaborator (7/04-6/06)  
\$ 31,440.

USDA. Nutrition, Education, Physical Activity, and Parental Involvement to Reduce Progression,  
of Excessive Weight Gain in Young Children and Teens. Dr. Jean Weese – PI. Drs.  
Doug White, and Sareen Gropper Co-PI. (9/04 – 8/08) \$999,984

American Heart Association, Role of Resistin in the Regulation of Cardiac Metabolism and  
Function. Candidate as Collaborator, Dr. Robert Judd – PI, Drs. Schwartz, Kempainen,  
and Zhong – Collaborators. (7/04-6/06) \$ 161,552

American Diabetes Association, Central Leptin in a Model of Peripheral Insulin Resistance:  
Central Intracellular Signaling and Peripheral AMP-Dependent Protein Kinase Activation.  
Candidate as PI, Dr. Robert Judd – Co-Investigator, (7/03-6/06) \$296,774.

American Heart Association, Resistin: a Novel Adipocyte-Derived Hormone Involved in the  
Regulation of Cardiac Metabolism and Function. Candidate as Collaborating  
Investigator, Dr. Robert Judd – PI, Drs. Dean Schwartz, Juming Zhong, Bob  
Kempainen – Collaborating Investigators, Drs Mitch Lazar and Joe Janicki –  
Consultants. (07/01/03- 06/30/05) \$154,000.

AAES Foundation, Diet Quality and Lifestyle Factors and their Relationship to Obesity in  
Alabama Children. Candidate as Co-Investigator. Dr. Sareen Gropper – PI. Drs Jean  
Weese, Evelyn Crayton, and H.R. Clayton - Co-Investigators. (7/03-6/06) \$117,126.

National Institutes of Health, Resistin: Role in Obesity-Related Cardiovascular Disease.  
Candidate as Co-Investigator, Dr. Robert Judd – PI, Drs Greg Brower, Bob Kempainen,  
Dean Schwartz, Juming Zhong – Co-Investigators, Drs Joe Janicki, Mitch Lazar, and  
Steve Lenz – Collaborators. (12/01/03-11/30/08) \$1,812,500. National Institutes of  
Health, Pathophysiologic mechanisms of obesity-associated cardiovascular disease, Dr.  
Robert Judd – PI, Candidate as Co-Investigator (2003-2006) \$870,000.

American Diabetes Association, Central Leptin and its Relationship to Peripheral Insulin  
Sensitivity and Glucose Homeostasis, Candidate as PI, Robert Judd – Co-Investigator,  
(2003 –2005) \$ 292,433.

USDA, National Research Initiative Competitive Grants Program (NRICGP), Inhibition of  
melanocortin receptors as a mechanism for increasing food intake in ruminants. Dr. Jim  
Sartin – Project Director. Candidate as Co-Project Director. (2002-2005) \$299,915.

American Diabetes Association. Role of resistin in hepatic glucose metabolism. Dr. Robert Judd-  
PI. Candidate as Associate Investigator. (2002-2004) \$279,436.

Food Assistance and Nutrition Research Program (FANRP), Diet Quality and Its Relationship to Obesity in Rural Alabama African-American Children. PI - Dr. Jean Weese, Collaborating PIs - Drs. Doug White, Sareen Gropper, Faye Jackson, Evelyn Crayton, and Thomas Petee. (2001) \$148,424.

Auburn University Biogrant, The Role of Diet on Leptin Resistance and its Relationship to Obesity. Candidate as PI. (2000) \$50,429.

Southeast Affiliate of the American Heart Association, Grant-in-Aid, Effect of Leptin on Cardiac Metabolism and Function. PI - Dr. Robert Judd, Collaborating Investigators - Drs. Dean Schwartz and Doug White. (2000) \$114,538.

Auburn University Biogrant, Cardiac Metabolism and Function in Diabetes. PI - Dr. Dean Schwartz, Collaborating Investigators - Drs. Robert Judd, James Sartin, Doug White, and Alex Lange. (2000) \$69,200.

USDA, National Research Initiative Competitive Grants Program (NRICGP), Competitive Renewal, Potential Mechanism of Increased Food Intake Associated with Low-Protein Diets. Candidate as PI. (1999) \$153,122.

Faculty-Mentor Program, Vice President for Research Office, Auburn University, Leptin Responsiveness During Dietary-Induced Obesity. Candidate as PI, Dr. Frank Bartol as mentor. (1998) \$3,000.

USDA, National Research Initiative Competitive Grants Program (NRICGP), Competitive Renewal, A Potential Mechanism of Increased Food Intake Associated with Low-Protein Diets, Candidate as PI. (1998) \$137,188.

Ralph E. Powe Junior Faculty Enhancement Award, Dietary-Induced Obesity and Leptin Resistance. Candidate as PI. (1998) \$10,000.

National Institutes of Health, FIRST Award, Regulation of NPY and its Role in Nocturnal Feeding. Candidate as PI. (1996) \$349,936.

National Institutes of Health, FIRST Award, Effects of Glucocorticoids and Insulin on NPY activity. Candidate as PI. (1995) \$349,998.

National Institutes of Health, FIRST Award, Effects of Glucocorticoids and Insulin on NPY activity. Candidate as PI. (1994) \$509,038.

National Institutes of Health, FIRST Award, Macronutrients and Neuropeptide Gene Expression. Candidate as PI. (1993) \$509,761.

Southeast Affiliate of the American Heart Association, Grant-in-Aid, Prolonged Water Retention During Selective Corticosteroid Treatment: Effects on Plasma Volume and Blood Pressure. PI - Gaylen Edwards, Candidate as collaborating investigator. (1993) \$17,492.

National Science Foundation, Regulation of Feeding Behavior and Neuropeptide Y (NPY). Dr. Roy Martin as PI. Candidate as Collaborating PI. (1990) \$1,119,152. (Candidate designed experiments and wrote grant)

Helen Hay Whitney Fellowship, A Potential Alteration of the Glucocorticoid Receptor in the Obese Zucker Rat. Candidate as PI. (1988) \$63,000.

#### 4. Scholarly Program

##### a. Description of Research Program

My career has been involved with improving our understanding of obesity and diabetes. Obesity is associated with heart disease, stroke, and some forms of cancer: the three leading causes of death in the United States. It is also highly associated with type 2 diabetes. Currently, type 2 diabetes is epidemic in the U.S. population. The State of Alabama ranks first in the nation in the reported cases of diabetes per capita and consistently ranks among the states with the highest incidence of obesity. Currently, over 66% of the adult population in the United States is considered overweight or obese. Thus, obesity has become a serious public health problem that not only contributes to human suffering, but also puts a large burden on the health care system. Originally, my research program was concerned with the role of glucocorticoids in the development of obesity. This led us to examine the effects of adrenalectomy on the gene expression of a potent neuropeptide involved in feeding, neuropeptide Y (NPY). This led to the effect of diet on NPY gene expression, in which I demonstrated that low protein diets would increase NPY gene expression in the basomedial hypothalamus. This led to work on low protein diets and leptin resistance.

This led to me to examine the effects of central leptin administration on glucose regulation in diabetic rats. To my amazement, chronic central leptin administration normalized blood glucose concentrations in type 1 diabetic rats, while it did not apparently affect blood glucose concentrations in nondiabetic rats. The mechanism by which leptin normalizes blood glucose concentrations in type 1 diabetic rats is not known. My recent research efforts have been centered on elucidating these mechanisms for the leptin-induced reduction in blood glucose concentrations. It has been shown that the decrease in blood glucose concentration is not related to leptin's ability to decrease food intake, increased urinary glucose excretion, or to increased endogenous insulin concentrations. My current hypothesis is that central leptin administration inhibits the responsiveness of glucagon and epinephrine, thereby lowering hepatic glucose output. Identifying the mechanisms by which leptin affects glucose homeostasis will suggest new insulin-independent targets that can be used to treat both type 1 and type 2 diabetes.

The candidate has been published 37 peer-reviewed articles and has been cited 616 times by other investigators in the field. In addition, the candidate has assisted local news organizations and civic groups by explaining the significance of recent advances in obesity research to the general public (see section D.3). It is hoped that the insights gained from the candidate's work will eventually lead to better dietary recommendations for the prevention of obesity or point to alternative modes by which therapeutic agents can be used for its treatment, thus, reducing the incidence of a major public health problem.

b. Work in Progress

- We have studies underway to determine whether chronic central administration of leptin inhibits the responsiveness to glucagon and epinephrine, which in turn leads to a decrease in hepatic glucose production.

C. Outreach

The candidate does not have an appointment directly related to Outreach, but has addressed questions from the public and the media on nutrition-related issues (see section D.3).

D. Service

1. University Service

a. Service to the University

- Alternate Member, Institutional Animal Care and Use Committee (IACUC) (2013-2016)
- Member, University Student Discipline Committee (2011-2012)
- Co-chair, University Student Discipline Committee (2012-2014)
- Member, University Curriculum Committee (2010-2013).
- Member, Patent and Invention Disclosure Committee (2010 -2013)
- Temporary Member, University Faculty Research Committee (finished Leonard Bell's term) (2010).
- Member, Committee for Program Review of Department of Animal Sciences (Auburn University) (2007).
- Member, University Biosafety Committee (2002 – 2005).
- Member, Executive Committee for the CMB Peak of Excellence (2002 – 2006).
- Member, Ad Hoc Committee evaluating the Vice President's Incentive Plan (Dr. Bill Gale – chair) (2002-2003).
- Member, University Biogrant Committee (2001-2004.)
- Member, Graduate Student Affairs Committee for the CMB Peak of Excellence (2001-present).

- Member, Education Subcommittee of Sponsored Programs (2001).
- Member, University Equipment Committee (1999-2001).
- Member, University Biochemistry Curriculum Committee (1998-1999).
- Science judge, Seventh Annual Graduate Student Organization Research Forum (1997).

b. Service to the College of Human Sciences

- Chair, Search Committee for Associate Dean of Academic Affairs. (2006)
- Member, Diversity Committee (2005-2006)

c. Service to the Department of Nutrition and Food Science

- Chair, Departmental search for director of DPD program (2012)
- Member, Departmental Scholarship Committee (2011 - present)
- Coordinator, Departmental peer-teaching review program (2011 - present)
- Chair, Departmental search for director of DPD program (2011)
- Ex-Officio Member, Dietary Manager's Advisory Committee (2004-2009)
- Departmental representative in the Faculty Senate (2001-2004)
- Chair, Molecular Nutritionist Faculty Search Committee (2002 – 2003)
- Member, Department Head Search Committee (2002 – 2003)
- Member, Undergraduate NUFS SACS Accreditation Committee (2001)
- Member, Hotel and Restaurant Management (HRMT) Faculty Search Committee. (2001)
- Member, Hotel and Restaurant Management (HRMT) Faculty Search Committee. (1999)
- Chair, Committee for the semester conversion of Nutrition graduate courses. (1997-1998)
- Member, Committee for the semester conversion of Nutrition undergraduate courses. (1997-1998)

## 2. Professional Service

- Reviewer for AAES Research Proposals for College of Human Sciences, Auburn University. (2 in 2009, 3 in 2011)
- Reviewer for Animal Health and Disease Research Proposal for College of Veterinary Medicine, Auburn University (2011).
- Moderator of graduate student oral presentations at Annual Boshell Research Day (2009 - 2013).
- Ad Hoc Reviewer, proposal from Maryland Industrial Partnerships (MIPS) program (2006).
- Member, Panel for Improving Human Nutrition for Optimal Health, USDA/NRICGP (2000-2001)
- Member, Development and Writing Committee of regional grant, USDA, Cooperative State Research, Education, and Extension Service (CSREES), (Genetic and Dietary Contributions to Obesity) (2000).
- Reviewer, textbook chapter for Wadsworth Publishing. Chapter 9: Energy balance and healthy body weight, in *Nutrition: Concepts and Controversies* bySizer and Whitney, 9<sup>th</sup> Edition (2001).
- Ad Hoc Reviewer, 7 grant proposals for Improving Human Nutrition for Optimal Health, a program of the USDA, National Research Initiative Competitive Grants Program (NRICGP), (1996-2002).
- Ad Hoc Reviewer, grant proposal for the Whitehall Foundation (1992).
- Ad Hoc Reviewer, 96 articles in the following journals. (1991-present)
  - *American Journal of Clinical Nutrition*
  - *American Journal of Physiology*
  - *Biochemistry, Pharmacology and Behavior*
  - *British Journal of Nutrition*
  - *Canadian Journal of Physiology*
  - *Comparative Biochemistry and Physiology*
  - *Diabetologia*
  - *Domestic Animal Endocrinology*
  - *Experimental Biology and Medicine*
  - *Journal of Nutrition*
  - *Life Sciences*
  - *Metabolism*
  - *Neuroscience Letters*
  - *Nutrition*
  - *Nutrition Research*
  - *Nutritional Neuroscience*



- *Obesity*
- *Obesity Research*
- *Peptides*
- *Physiology and Behavior*

### 3. Community Service

- Source for article by Auburn Plainsman on weight watching over spring break (2011).
- Received two-day training course on C-CERT. Agreed to be a C-CERT member for the Poultry Science Building (2010).
- Speaker at Auburn University employees' "Scale Back Alabama". (2008 & 2010).
- Interview by Auburn Plainsman for "Ask a Professor" column, "Can someone drink a gallon of milk (2010).
- Source for article by Auburn Plainsman on foods that appear healthy, but aren't (2010).
- Source for two newspaper articles by Auburn Plainsman, one on lactose intolerance and one on vegetarianism (2009).
- Source for newspaper article on obesity by Opelika-Auburn News (2008).
- Interviewed by the school newspaper, The Plainsman, concerning the Adkins diet (2004).
- Member, Speaker Bureau of the local Sigma Xi chapter. The Bureau was established to serve Auburn-Opelika area schools as a source for speakers/experts on specialized topics. The candidate's area of specialty is obesity, regulation of food intake and body weight, and human nutrition. (1998-present).
- Panel Discussion Member, Sponsored by KON, Discussed graduate school application process with prospective students. Attended by approximately 40 students (2001).
- Guest Speaker, presented educational seminar to the Auburn District of the American Dietetics Association, The seminar was entitled, "Obesity in the U.S.: Progress in our understanding of the regulation of energy balance. Attended by approximately, 20 dietitians (2002).
- Spokesperson, interviewed by WRBL News concerning the recent advances in obesity research (1998).
- Spokesperson, interviewed by WTVM News concerning the recent advances in obesity research (1998 & 2002).

- Spokesperson, interviewed by University Relations concerning the recent advances in obesity research. The interview was broadcast nationally by various news organizations (1998).
- Guest speaker, Smiths Station Ruritan Club. The new research findings concerning our understanding of the control of body weight. 40-45 attendees (1997).