

CURRICULUM VITAE

I. Name: Nancy Delane Turner

Rank: Associate Professor

Unit: Department of Nutrition & Food Science

Date: October 25, 2015

Date of Appointment: July 15, 1984 to Research Associate
January 2, 1996 to Assistant Research Scientist
July 1, 1998 to Research Assistant Professor
September 1, 2003 to Associate Professor
January 1, 2005 Appointment changed to 12.5% TAMU/87.5% TAES
September 1, 2014 to Research Professor

II. Education and Experience

A. Education

B.S. Animal Science, Texas A&M University, 1978

M.S. Animal Nutrition, Texas A&M University, 1984

Ph.D. Nutrition, Texas A&M University, 1995

B. Experience

1984 - 95 Research Associate, Animal Science Department, Texas A&M University

1996 - 98 Assistant Research Scientist, Animal Science Department, Texas A&M University

1997 - 05 Associate Member, Intercollegiate Faculty of Nutrition

1998 - 03 Research Assistant Professor, Animal Science Department, Texas A&M University

1999 - 07 Associate Member, Center for Environmental and Rural Health

2001 - Member, Faculty of Toxicology

2001 - 05 Member of the Center for Nutrition, Health and Food Genomics of the Texas A&M Institute of Food Science and Engineering

2003 - 05 Associate Professor, Animal Science Department, Texas A&M University

2004 - 05 Co-Lead of Health Benefits Team, Vegetable and Fruit Improvement Center

2005 - 12 Member, Intercollegiate Faculty of Nutrition

2005 - 14 Associate Professor, Nutrition & Food Science Department, Texas A&M University

2005 - 08 Chair, Intercollegiate Faculty of Nutrition

2009 - 12 Member, Intercollegiate Faculty of Food Science

2009 - Member, Intercollegiate Faculty of Genetics

2011 - Faculty Affiliate, Huffines Institute for Sports Medicine & Human Performance, Texas A&M University

2012 - 16 Nutrition Chair, Graduate Program Committee

2014 - Research Professor, Nutrition & Food Science Department, Texas A&M University

2015 - Research Professor, Department of Veterinary Pathobiology (joint appointment), Texas A&M University

III. Position Description (87.5% research and 12.5% teaching)

Teaching: Coordination and instruction of NUTR 481 (Seminar), KINE/NUEN/NUTR 646 (Fundamentals of Space Life Sciences), NUTR 681 section 602 (Graduate Seminar), NUTR 681 section 610 (Seminar in Space Life Sciences)

Counseling: Provide academic and career counseling to undergraduate Nutritional Science majors, dietetic interns, and other graduate students.

Administration: None

Research: Conduct research in nutritional sciences

- Qualifications:**
1. Ph.D. in nutrition or related field
 2. Research program and publications in nutrition

The responsibilities of my position are primarily targeted at research (50% effort), which is focused on identifying foods and compounds contained in them (bioactive compounds) capable of suppressing chronic diseases of the colon. In particular, we use models of colon cancer and inflammatory bowel disease to discover these chemopreventive agents and to identify the mechanisms whereby they affect tumor development and inflammatory mediators. However, considerable time (40% effort) is devoted to teaching (Fall and Spring semesters) and coordinating the undergraduate NUTR 481 Seminar course (Writing Intensive/Communication) for the Department of Nutrition & Food Science. In addition, I am responsible for teaching a graduate course (KINE/NUEN/NUTR 646) in support of our NSBRI-funded multidisciplinary Ph.D. Training program in Space Life Sciences (every other Fall semester). Every 3 years I serve as the instructor of a seminar course (KINE/NUEN/NUTR 681, section 610) in support of the training program as well. I am also responsible for teaching a graduate seminar class (NUTR 681, section 602, Spring semester) devoted to training students to present in both a short, professional meeting format and in an extended format such as would be used for invited seminars or interview lectures. My service responsibilities (10% effort) include serving as the Nutrition Chair for the departmental Graduate Program Committee, Chairing the Awards Committee, and serving on the Undergraduate Program Committee, Subcommittee on Undergraduate Assessment, and the Tenure and Promotion Committee. In addition, I continue to serve as a reviewer for journals and as editorial board member for *Advances in Nutrition*, *Molecules* (special issue editor), and *Experimental Biology and Medicine*. I serve as a COALS representative to the Faculty Senate and also serve as our college representative to the non-tenure track faculty committee of the Faculty Senate.

IV. Report of Assigned Activities

A. Teaching

1. Percent of budgeted time = 12.5%, 40% of effort

To me, teaching is a process where you identify the boundaries of your students understanding, and then you work to engage them in lectures, activities, assignments that allow them to reach the desired level of understanding. When a student finishes one of my courses, my greatest aspiration is that they will have learned how to compile pieces of information into a cohesive idea for themselves. Basically, I adhere to the “teach a person to fish” philosophy.

One of my courses, NUTR 481 serves as an example. It is designed primarily to prepare students for public speaking. However, long ago I realized that although the students could do a relatively good job of speaking without too much input, they had little-to-no appreciation of scientific literature or how to find information they would need in their future employment. Their perception was that they were learning everything they would ever need to know in their college courses. Since then I have worked to convince them that learning is a life-long process, and that to be successful in their careers they would have to continue to “teach themselves” all the new information generated by scientists. One revision to the course was to modify it to meet the University Writing/Communication course requirements. This allows me to provide instruction and provide feedback on written assignments in an attempt to further improve this characteristic in the graduates from our department.

2. Coursework taught

- 1985/86 Graduate *Animal Science 603*. Experimental Nutrition (3). Laboratory instructor.
- 1986/87 Graduate *Animal Science 603*. Experimental Nutrition (3). Laboratory instructor.
- 1987/88 Graduate *Animal Science 603*. Experimental Nutrition (3). Laboratory instructor.
- 1988/89 Graduate *Animal Science 681*. Seminar (1). Coordinated seminar series.
- 1990/91 Undergraduate *Animal Science 303*. Principles of Animal Nutrition (3). Gave 2 lectures.
- 1991/92 Undergraduate
Animal Science 303. Principles of Animal Nutrition (3). Gave 1 lecture.
Animal Science 318. Feeds and Feeding (3). Gave 1 lecture.
- 1992/93 Undergraduate
Animal Science 303. Principles of Animal Nutrition (3). Gave 1 lecture.
Animal Science 318. Feeds and Feeding (3). Gave 1 lecture.
- 1993/94 Graduate
Animal Science 601. Comparative Animal Nutrition (3). Assisted in planning and implementation of team-taught graduate nutrition course, gave some lectures.
- 1994/95 Graduate
Animal Science 601. Comparative Animal Nutrition (3). Assisted in coordination of team-taught graduate nutrition course, gave some lectures.
- 1996/97
Fall Undergraduate *Nutrition 481*. Coordinated 3 and taught 1 section of Seminar (1).
Spring Undergraduate *Nutrition 481*. Coordinated 3 and taught 1 section of Seminar (1).
- 1997/98
Fall Undergraduate *Nutrition 481*. Coordinated 3 and taught 1 section of Seminar (1).
Spring Undergraduate *Nutrition 481*. Coordinated 3 and taught 1 section of Seminar (1).
- 1998/99
Fall Undergraduate *Nutrition 481*. Coordinated 3 and taught 1 section of Seminar (1).
Spring Undergraduate *Nutrition 481*. Coordinated 4 and taught 1 section of Seminar (1).
Graduate Lecture on dietary fiber to FSTC 630 Cereal grains for human food.
- 1999/00
Fall Undergraduate *Nutrition 481*. Coordinated 3 and taught 1 section of Seminar (1).
Spring Undergraduate *Nutrition 481*. Coordinated 3 and taught 1 section of Seminar (1).
- 2000/01
Fall Undergraduate *Nutrition 481*. Coordinated 3 and taught 1 section of Seminar (1).
Spring Undergraduate *Nutrition 481*. Coordinated 3 and taught 1 section of Seminar (1).
Graduate *Horticulture 689*. Phytochemicals in fruits and vegetables to improve human health. Lecture on colon cancer.
- Summer* Undergraduate *Nutrition 481*. Taught Senior Seminar for one student as a 485 class.
- 2001/02
Fall Undergraduate *Nutrition 481*. Coordinated 3 and taught 1 section of Seminar (1).
Spring Undergraduate *Nutrition 481*. Coordinated 3 sections of Seminar (1).
Nutrition 470. Gave a guest lecture on lipid digestion and absorption.

2002/03

- Fall* Undergraduate *Nutrition 481*. Coordinated 3 sections of Seminar (1).
Spring Undergraduate *Nutrition 481*. Coordinated 2 sections of Seminar (1).
 Graduate *Horticulture 689*. Phytochemicals in fruits and vegetables to improve human health. Lecture on colon cancer.
Summer Undergraduate *Nutrition 481*. Coordinated 2 sections of Seminar (1).

2004/05

- Spring* Undergraduate *Nutrition 481*. Coordinated Seminar (1).
 Graduate *Horticulture 689*. Phytochemicals in fruits and vegetables to improve human health. Lecture on colon cancer.
 Nutrition 691. Tety Leonardi (1 h)
Summer Undergraduate *Biochemistry 491*. Lauren Casey
 Nutrition 485. Rebecca Akins
 Graduate *Nutrition 691*. Kim Paulhill and Dean Xu (4 h)

2005/06

- Fall* Undergraduate *Nutrition 481*. Taught 1 section of Seminar (1).
 AGLS 105H. Guest lecture on Nutrition and Cancer in 2 sections.
 Biochemistry 491. Nicole Lebahn
 Nutrition 485. Rebecca Akins (2 h)
 Graduate *Nutrition 691*. Kim Paulhill, Jennifer Creel, Brenda Bustillos, Mi Kim, Dagoberto Sanchez, Anthony Siccardi (28 h)
Spring Undergraduate *Nutrition 481*. Taught 2 sections of Seminar (1).
 Nutrition 485. Kristi Warrick (1 h)
 Graduate *Nutrition 691*. Kim Paulhill and Brenda Bustillos (10 h)
 FSTC 630. Guest lecture on Dietary Fiber and Human Health
Summer Graduate *Nutrition 691*. Kim Paulhill, Gentle Chikani and Brenda Bustillos (10 h)

2006/07

- Fall* Undergraduate *Nutrition 481*. Taught 1 section of Seminar (1).
 Graduate *Nutrition 691*. Kim Paulhill, Dagoberto Sanchez, Shawn Woods (11 h)
Spring Undergraduate *Nutrition 481*. Taught 1 section of Seminar (1).
 Graduate *Nutrition 681*. Taught 1 section of Seminar (1).
 Nutrition 691. Kim Paulhill (9 h).
Summer Graduate *Nutrition 691*. Kim Paulhill, Jayme Lewis (10 h)

2007/08

- Fall* Undergraduate *Nutrition 481*. Seminar (1). Taught 1 section.
 Graduate *Nutrition 689*. Fundamentals of Space Life Sciences (3).
 Nutrition 691. Graduate Research. Kim Paulhill, Jayme Lewis (10).
 Horticulture 640. Phytochemicals in fruits and vegetables to improve human health. Lecture on colon cancer.
Spring Undergraduate *Nutrition 481*. Seminar (1). Taught 2 sections.
 Graduate *Nutrition 691*. Graduate Research. Kim Paulhill, Jayme Lewis (15 h).
Summer Graduate *Nutrition 691*. Graduate Research. Kim Paulhill, Jayme Lewis (12 h).

2008/09

- Fall* Undergraduate *Nutrition 481*. Seminar (1). Taught 1 section.
 Graduate *Nutrition 646*. Fundamentals of Space Life Sciences (3).
 Nutrition 489/689. Critical evaluation of nutrition and food science literature: Evidence based reviews. Guest lectures.

<i>Spring</i>	<u>Undergraduate</u>	<i>Nutrition 481</i> . Seminar (1). Taught 1 section. <i>Nutrition/Food Science 289</i> . Horizons in Nutrition and Food Science Guest lecture.
	<u>Graduate</u>	<i>Nutrition 681. Section 602</i> . Taught 1 section of Seminar (1). <i>Nutrition/Kinesiology/Nuclear Engineering 681. Section 610</i> . Space Life Sciences Seminar (1). <i>FSTC 630</i> . Guest lecture on Dietary Fiber and Human Health
<i>Summer</i>	<u>Graduate</u>	<i>Nutrition 691</i> . Graduate Research. Lauren Ritchie (6 h).
2009/10		
<i>Fall</i>	<u>Undergraduate</u>	<i>Nutrition 481</i> . Seminar (1). Taught 1 section. <i>Nutrition/Food Science 210</i> . Horizons in Nutrition and Food Science. Guest lecture.
	<u>Graduate</u>	<i>Nutrition 489/689</i> . Critical evaluation of nutrition and food science literature: Evidence based reviews. Guest lectures. <i>Nutrition 691</i> . Graduate Research. Lauren Ritchie (6 h).
<i>Spring</i>	<u>Undergraduate</u>	<i>Nutrition 481</i> . Seminar (1). Taught 1 section. <i>Nutrition/Food Science 210</i> . Horizons in Nutrition and Food Science. Guest lecture. <i>Nutrition 485</i> . Erica Gundry, Jacqueline Uthlaut, Leigh Ann Pieffer (4 h)
	<u>Graduate</u>	<i>Nutrition 681. Section 602</i> . Taught 1 section of Seminar (1 h). <i>FSTC 630</i> . Guest lecture on Dietary Fiber and Human Health <i>Genetics 691</i> . Graduate Research. Lauren Ritchie (5 h). <i>Nutrition 691</i> . Graduate Research. Rachel Stehm (5 h).
<i>Summer</i>	<u>Graduate</u>	<i>Nutrition 691</i> . Graduate Research. Lauren Ritchie (6 h).
2010/11		
<i>Fall</i>	<u>Undergraduate</u>	<i>Nutrition 481</i> . Seminar (1). Taught 1 section. <i>Nutrition/Food Science 210</i> . Horizons in Nutrition and Food Science. Guest lecture.
	<u>Graduate</u>	<i>Nutrition 646</i> . Fundamentals of Space Life Sciences (3 h) <i>Genetics 691</i> . Graduate Research. Lauren Ritchie (3 h). <i>Nutrition 691</i> . Graduate Research. Leigh Ann Pieffer (1 h).
<i>Spring</i>	<u>Undergraduate</u>	<i>Nutrition 481</i> . Seminar (1). Taught 1 section. <i>Nutrition/Food Science 210</i> . Horizons in Nutrition and Food Science. Guest lecture.
	<u>Graduate</u>	<i>Nutrition 681. Section 602</i> . Taught 1 section of Seminar (1 h). <i>FSTC 630</i> . Guest lecture on Dietary Fiber and Human Health <i>Nutrition 691</i> . Graduate Research. Lauren Ritchie (8 h), Leigh Ann Piefer (1 h), Wesley Daniels (3 h).
<i>Summer</i>	<u>Graduate</u>	<i>Nutrition 691</i> . Graduate Research. Wesley Daniels (6 h), Leigh Ann Piefer (3 h), Lauren Ritchie (3 h). <i>Nutrition 685</i> . Directed Studies. Lauren Ritchie (3 h)
2011/12		
<i>Fall</i>	<u>Undergraduate</u>	<i>Nutrition 481</i> . Seminar (1). Taught 1 section. <i>Nutrition/Food Science 210</i> . Horizons in Nutrition and Food Science. Guest lecture.
	<u>Graduate</u>	<i>Genetics 691</i> . Graduate Research. Lauren Ritchie (9 h), Derek Seidel (1 h). <i>Nutrition 685</i> . Directed Studies. Wesley Daniels (2 h). <i>Nutrition 691</i> . Graduate Research. Leigh Ann Pieffer (6 h), Wesley Daniels (3 h).
<i>Spring</i>	<u>Undergraduate</u>	<i>Nutrition 481</i> . Seminar (1). Taught 1 section.

		<i>Nutrition/Food Science 210</i> . Horizons in Nutrition and Food Science. Guest lecture.
		<i>Nutrition 485</i> . Directed Studies. Unnati Chotai (1 h).
	<u>Graduate</u>	<i>Nutrition 681. Section 602</i> . Taught 1 section of Seminar (1 h). <i>NUTR/KINE/NUEN 681. Section 610</i> . (1 h). <i>Nutrition 691</i> . Graduate Research. Lauren Ritchie (3 h), Leigh Ann Piefer (5 h), Wesley Daniels (6 h). <i>Genetics 691</i> . Graduate Research. Derek Seidel (1 h).
Summer	<u>Graduate</u>	<i>Nutrition 691</i> . Graduate Research. Wesley Daniels (6 h), Leigh Ann Piefer (6 h), Lauren Ritchie (6 h), Derek Seidel (3 h). <i>Nutrition 685</i> . Directed Studies. Derek Seidel (3 h)
2012/13		
Fall	<u>Undergraduate</u>	<i>Nutrition 481</i> . Seminar (1). Taught 1 section. <i>Nutrition/Food Science 210</i> . Horizons in Nutrition and Food Science. Guest lecture.
	<u>Graduate</u>	<i>Nutrition 646</i> . Fundamentals of Space Life Sciences (3 h) <i>Genetics 691</i> . Graduate Research. Lauren Ritchie (6 h), Derek Seidel (3 h).
Spring	<u>Undergraduate</u>	<i>Nutrition 202</i> . Fundamentals of Human Nutrition (3 h). <i>Nutrition 481</i> . Seminar (1). Taught 1 section. <i>Nutrition/Food Science 210</i> . Horizons in Nutrition and Food Science. Guest lecture.
	<u>Graduate</u>	<i>Nutrition 681. Section 602</i> . Taught 1 section of Seminar (1 h). <i>Genetics 691</i> . Graduate Research. Lauren Ritchie (4 h), Derek Seidel (2 h).
Summer	<u>Undergraduate</u>	<i>Nutrition 485</i> . Directed Studies. Catherine Williamson (1 h).
	<u>Graduate</u>	<i>Nutrition 691</i> . Graduate Research. Wesley Daniels (6 h). <i>Genetics 691</i> . Graduate Research. Lauren Ritchie (3 h), Derek Seidel (6 h).
2013/14		
Fall	<u>Undergraduate</u>	<i>Nutrition 481</i> . Seminar (1). Taught 1 section. <i>Nutrition 291</i> . Research. Lena Matsushita (3 h). <i>Nutrition 485</i> . Directed Studies. Ashley Luciano (3 h). <i>Nutrition/Food Science 210</i> . Horizons in Nutrition and Food Science. Guest lecture.
	<u>Graduate</u>	<i>Genetics 691</i> . Graduate Research. Lauren Ritchie (4 h), Derek Seidel (5 h). <i>Nutrition 691</i> . Graduate Research. Wesley Daniels (9 h), Kristen Hicks (1 h).
Spring	<u>Undergraduate</u>	<i>Nutrition 203</i> . Scientific Principles of Nutrition (3 h). <i>Nutrition 481</i> . Seminar (1). Taught 1 section. <i>Nutrition/Food Science 210</i> . Horizons in Nutrition and Food Science. Guest lecture. <i>Nutrition 485</i> . Directed Studies. Yun-An Chen (3 h), Justin Kroeger (3 h), Lena Matsushita (2 h), and Shannon Swickard (2 h). <i>Nutrition 491</i> . Research. Ashley Luciano (1 h), and Zarmeen Zaheer (1 h).
	<u>Graduate</u>	<i>Nutrition 681. Section 602</i> . Taught 1 section of Seminar (1 h). <i>Nutrition 685</i> . Directed Studies. Kristen Hicks (3 h). <i>Nutrition 691</i> . Graduate Research. Wesley Daniels (9 h). <i>Genetics 691</i> . Graduate Research. Derek Seidel (6 h).
Summer	<u>Graduate</u>	<i>Nutrition 691</i> . Graduate Research. Wesley Daniels (6 h), Kristen Hicks (3 h). <i>Genetics 691</i> . Directed Studies. Derek Seidel (6 h).
2014/15		
Fall	<u>Undergraduate</u>	<i>Nutrition 481</i> . Seminar (1). Taught 1 section.

		<i>Nutrition/Food Science 210</i> . Horizons in Nutrition and Food Science. Guest lecture.
		<i>Nutrition 485</i> . Directed Studies. Nicholas Prijic (3 h)
		<i>Nutrition 491</i> . Research. Shannon Swickard (1 h).
<u>Graduate</u>		<i>Nutrition 646</i> . Fundamentals of Space Life Sciences (3 h)
		<i>Genetics 691</i> . Graduate Research. Derek Seidel (6 h).
		<i>Nutrition 691</i> . Graduate Research. Wesley Daniels (1 h), Kristen Hicks (2 h), Shannon Lloyd (1 h).
<i>Spring</i>	<u>Undergraduate</u>	<i>Nutrition 481</i> . Seminar (1). Teaching 1 section.
		<i>Nutrition 491</i> . Research. Nicholas Prijic (1 h)
		<i>BIMS 491</i> . Research. Ryan Bindel (1 h).
	<u>Graduate</u>	<i>Nutrition 681</i> . Section 602. Teaching 1 section of Seminar (1 h).
		<i>NUTR/KINE/NUEN 681</i> . Section 610. Teaching 1 section of Seminar (1 h)
		<i>Nutrition 685</i> . Directed Studies. Kristen Hicks (3 h).
		<i>Nutrition 691</i> . Graduate Research. Wesley Daniels (9 h).
		<i>Genetics 691</i> . Graduate Research. Derek Seidel (6 h).
2015/16		
<i>Fall</i>	<u>Undergraduate</u>	<i>Nutrition 481</i> . Seminar (1). Taught 1 section.
		<i>Nutrition/Food Science 210</i> . Horizons in Nutrition and Food Science. Guest lecture.
		<i>Nutrition 491</i> . Research. Nicholas Prijic (1 h).
		<i>BIMS 491</i> . Ryan Bindel (1 h).
		<i>BICH 491</i> . Anthony Arizpe (1 h).
	<u>Graduate</u>	<i>Genetics 691</i> . Graduate Research. Derek Seidel (9 h).
		<i>Nutrition 691</i> . Graduate Research. Shannon Lloyd (3 h), Michelle Summerfield (1 h).
		<i>Veterinary Pathobiology 691</i> . Kimberly Wahl (9 h).

3. Direction of Graduate Students

a. Major Professor. The following graduate students were supervised:

Master of Science

- 1) Holli Booe. Co-major advisor with Wayne Sampson. Nutrition. Graduated August, 1999.
- 2) Dawn Blaschke. Co-major advisor with Wayne Sampson. Nutrition. Graduated August, 1999.
- 3) Kendra Brown. Co-major advisor with Jim Calvin. Statistics. Started June 1999. Terminated program – transferred.
- 4) Christina Schulte. Co-major advisor with Wayne Sampson. Nutrition. Graduated August 2001.
- 5) Cynthia Warren. Nutrition. Started 6/01. Graduated May 2004.
- 6) Tety Leonardi. Nutrition. Started 7/02. Graduated May 2005.
- 7) Kimberly Paulhill. Nutrition. Started 8/04. Graduated August 2008.
- 8) Jayme Lewis. Nutrition. Started 8/06. Graduated December 2008.
- 9) Rachel Stehm. Nutrition. Started 1/10. Left to attend Pharmacy School, September 2010.
- 10) Leigh Ann Piefer. Nutrition. Started September 2010. Graduated August 2012.
- 11) Wesley Daniels. Nutrition. Started December 2010. Graduated December 2014.
- 12) Evelyn Yuen. Co-Chair with Sue Bloomfield. Nutrition. Started 9/2011. Graduated May 2013.

Doctor of Philosophy

- 1) Sybil Miller Swift. Co-Chair with Sue Bloomfield. Nutrition. Graduated August 2010.
- 2) Lauren Ritchie. Genetics. Started June 2009. Graduated December 2013.
- 3) Derek Seidel. Genetics. Started September 2011.
- 4) Shannon Lloyd. Nutrition. Started September 2014.

- 5) Kimberly Wahl. Veterinary Pathobiology. Started June 2015.
- 6) Michelle Summerfield. Nutrition. Started September 2015.

b. Committee Member

Master of Science

- 1) Heather Spears. Wayne Sampson and Joanne Lupton were co-major advisors. Nutrition. Graduated 1999.
- 2) April Carney. Joanne Lupton was major advisor. Nutrition. Left program after internship.
- 3) Cara Everett. Joanne Lupton was major advisor. Nutrition. Graduated December 2001.
- 4) Jiaxing Li. Bhimanagouda Patil was major advisor. Horticulture. Graduated May 2002.
- 5) Crystal Rudiger. Lloyd Rooney was major advisor. Food Science. Graduated May 2002.
- 6) Natasa Popovic. Joanne Lupton was major advisor. Nutrition (NT). Graduated May 2003.
- 7) Anne Newton. Joanne Lupton was major advisor. Nutrition. Graduated August 2004.
- 8) Kristy Covert. Joanne Lupton is major advisor. Nutrition. Graduated May 2005.
- 9) Sripriya Rayadurgam. Les Braby is major advisor. Health Physics. Graduated May 2005.
- 10) John Mann. Joanne Lupton is major advisor. Nutrition. Graduated August 2005.
- 11) Angelina De Castro Palomino Siller. Lloyd Rooney is major advisor. Food Science and Technology. Graduated May 2006.
- 12) Alexis Dawn Lazarine. John Ford is major advisor. Health Physics. Graduated August 2006.
- 13) Beth Anne Kahlich. Joanne Lupton is major advisor. Nutrition. Graduated August 2006.
- 14) Matthew VanDerVoort. Daniel Reece is major advisor. Health Physics. Entered medical school.
- 15) Monica Munsey. Sue Bloomfield is major advisor. Exercise Physiology. Did not pass exams.
- 16) Zachary Ryan Bailey. John Ford is major advisor. Health Physics.
- 17) Zachary Dean Paddock. Gordon Carstens is major advisor. Nutrition. Changed committee.
- 18) Liyi Yang. Joseph Awika is major advisor. Food Science and Technology. Graduated December 2009.
- 19) Sara Boswell. Lloyd Rooney is major advisor. Food Science and Technology. Graduated December 2010.
- 20) Luz Eliana Pinilla. Lloyd Rooney is major advisor. Food Science and Technology. Graduated December 2010.
- 21) Janie Womac. Stephen Crouse is major advisor. Nutrition (non thesis). Graduated August 2010.
- 22) Shaoyong Feng. Les Braby is major advisor. Health Physics. Graduated August 2010.
- 23) Kaleigh Teel. Sue Bloomfield is major advisor. Nutrition. Graduated May 2013.
- 24) Aundrie Blanchard. John Ford is major advisor. Health Physics.
- 25) Rachel Cutts. Steven Riechman is major advisor. Kinesiology. Graduated August 2012.
- 26) Rachel Cutts. Steven Riechman is major advisor. Nutrition (NT). Graduated December 2012.
- 27) John Deaver. Susan Bloomfield is major advisor. Kinesiology. Graduated May 2013.
- 28) Kristen Dunn. Joseph Awika is major advisor. Food Science and Technology. Graduated May 2014.
- 29) Ashley Booth. John Ford is major advisor. Health Physics.
- 30) Amanda Tinder. Jeffrey Tomberlin is major advisor. Entomology.
- 31) Ryan Barnes. Stephen Talcott is major advisor. Food Science and Technology.
- 32) Yesenia Gonzalez. John Ford is major advisor. Nuclear Engineering.
- 33) Hope Alvarez. John for is major advisor. Nuclear Engineering, Health Physics.

Doctor of Philosophy

- 1) Jeffrey S. Morris. Raymond J. Carroll was major advisor. Statistics. Graduated August 2000.
- 2) Hua Liang. Raymond C. Carroll was major advisor. Statistics. Graduated 2001.
- 3) Jairam Vanamala. Bhimu Patil was major advisor. Horticulture. Graduated August 2004.

- 4) Lisa Sanders. Joanne Lupton is major advisor. Nutrition. Graduated May 2005. Selected to participate in the Dannon Nutrition Leadership Institute, June 2005.
- 5) Tanya Apanasovich. Raymond J. Carroll was major advisor. Statistics. Graduated August 2004.
- 6) Jennifer Waters. Stephen King was major advisor. Molecular and Environmental Plant Sciences. Graduated December 2008.
- 7) Lynda Njongmeta Nenga. Lloyd Rooney is major advisor. Food Science and Technology (changed research program/committee)
- 8) Dilek L. Austin. Lloyd Rooney was major advisor. Food Science and Technology. Graduated December 2008.
- 9) Hyemee Kim. Joanne Lupton is major advisor. Nutrition. Changed committee.
- 10) Youngmi Cho. Joanne Lupton is major advisor. Nutrition. Graduated August 2012.
- 11) Daniel Francis Kesack, Jr. John Ford is major advisor. Health Physics.
- 12) Bradley Cox. Leslie Braby is major advisor. Nuclear Engineering. Graduated August 2011.
- 13) Cameron Armstrong. Clinton Allred is major advisor. Nutrition. Graduated December 2013.
- 14) Jaiwei Wei. Raymond J. Carroll is major advisor. Statistics. Graduated August 2010.
- 15) Ryan Dalton. Richard Kreider is major advisor. Kinesiology. Graduated May 2013.
- 16) Rubin Wei. Raymond Carroll is major advisor. Statistics. Graduated May 2014.
- 17) Kimberly Krenek. Stephen Talcott is major advisor. Food Science & Technology. Graduated August 2013.
- 18) Frederico Barros. Lloyd Rooney is major advisor. Food Science & Technology. Graduated December 2012.
- 19) Fada Guan. John Poston is major advisor. Nuclear Engineering. Graduated May 2012.
- 20) Tara Price. Rose Walzem is major advisor. Nutrition.
- 21) Rihana Bokhari. Susan Bloomfield is major advisor. Kinesiology.
- 22) Maria Schreckinger. Luis Cisneros-Zevallos is major advisor. Food Science and Technology.
- 23) Derrick Amoako. Joseph Awika is major advisor. Food Science and Technology.

c. Postdoctoral Trainees

Jairam Vanamala. June 2004-June 2006.

Maria Joseph. March 2013-June 2014.

d. Graduate students receiving degrees for whom I was a major professor.

Dawn Blaschke	M.S.	Nutrition 8/99
Holli Booe	M.S.	Nutrition 8/99
Christina Stine (Schulte)	M.S.	Nutrition 8/01
Cynthia Warren	M.S.	Nutrition 5/04
Tety Leonardi	M.S.	Nutrition 5/05
Kim Paulhill	M.S.	Nutrition 8/08
Jayne Lewis	M.S.	Nutrition 12/08
Sibyl Swift	Ph.D.	Nutrition 8/10
Leigh Ann Piefer	M.S.	Nutrition 8/12
Lauren Ritchie	Ph.D.	Nutrition 12/13
Wesley Daniels	M.S.	Nutrition 12/14

e. Advisor to unassigned graduate students

Jennifer Creel, M.S. Nutrition. Started Fall 2004.

Grady Kaiser, Ph.D. Nutrition. Started Fall 2004.

Gentle Chikani, Ph.D. Nutrition. Started Summer 2006.

f. Visiting graduate students

Erica Moraes – Universidade Estadual de Campina, Brazil. April 2015-September 2015

4. Advisor to Undergraduate students:

Teresa Garcia, BIMS undergrad, Howard Hughes Fellow
 Carol Perez, NUTR undergrad, Howard Hughes Fellow
 Jennifer Schaefer, BICH undergrad, Howard Hughes Fellow
 Lara Broemmer, GENE undergrad, Howard Hughes Fellow
 Jennifer Burford, BICH undergrad, Howard Hughes Fellow
 Shameka Hodge, Summer Research Opportunity Program participant from Prairie View
 Emillia Cristina, BIOL undergrad, Howard Hughes Fellow
 Cynthia Elizondo, BIMS undergrad, Howard Hughes Fellow
 Melissa Boyle, ANSC undergrad, Howard Hughes Fellow
 Cara Everette, NUTR undergrad, 485 student
 Stephanie Osborn, NUTR undergrad, 485 student
 Alexandria Hill, NUTR undergrad, 485 student
 Melinda Morris, NUTR undergrad, 485 student
 Dietra Banks, high school intern for summer research experience
 John Mann, NUTR undergrad, 485 student
 Kim Paulhill, NUTR undergrad, 485 student
 Lori Lynn Finch, Nutrition undergraduate, supervised NUTR 485 project
 Stephanie Wilks, ONR/NSF Summer Intern from Jackson State University, MS
 Libby Spoede, Nutrition undergraduate, supervised NUTR 485 project
 Lauren Casey, BICH/GENE undergraduate, supervised BICH 491 project
 Rebecca Akins, NUTR undergraduate, supervised NUTR 485 project
 Larissa Riojas, ONR/NSF Summer Intern from St. Mary's University
 Nicole Lebahn, BICH undergraduate, supervised BICH 491 project
 Kristi Warrick, NUTR undergraduate, supervised NUTR 485 project
 Valerie Lumpkins, NUTR junior, summer 2008
 Erica Gundry, NUTR undergrad, 485 project, spring 2010
 Elise Uthlaut, NUTR undergrad, 485 project, spring 2010
 Leigh Ann Peiffer, NUTR undergrad, 485 project, spring 2010
 Unnati Chotai, NUTR undergrad, 485 project, spring 2012
 Catherine Williamson, NUTR undergrad, 485 project, summer 2013
 Ashley Luciano, NUTR undergrad, 485 project, fall 2013-spring 2014
 Yun-An Chen, NUTR undergrad, 485 project, spring 2014
 Justin Kroeger, NUTR undergrad, 485 project, spring 2014
 Lena Matsushita, NUTR undergrad, 485 project, spring 2014
 Shannon Swickard, NUTR undergrad, 485 project, spring 2014-spring 2015 (Received first place prize
 at Student Research Week for Poster, April 2015
 Zarmee Zaheer, NUTR undergrad, 491 project, spring 2014
 Nicholas Prijic, NUTR undergrad, 485 project, fall 2014-fall 2015
 Ryan Bindel, BIMS undergrad, 285 project, spring-fall 2015
 Anthony Arizpe, BICH undergrad, 485 project, fall 2015

5. Other activities related to teaching:

Supervised the research project of G. Ashok, Master student in Chemical Engineering
 Assisted in planning projects conducted by a Moroccan student while at Texas A&M
 Helped design and supervise the research projects of two INRA students from France (6 months
 training program).

Completed "Designing Effective Library Assignments" workshop, January 30, 1997

Submitted proposal to develop an Honors section of NUTR 481 (489H), March 25, 1999

Participated in the 2007 National Conference on Changing Higher Education in Agriculture and Related Sciences, College Station, TX.
 Participated in the Faculty Teaching Academy, Fall 07/Spring 08, College Station, TX.
 Teaching Mentor for GTA Fellow Candidate Liyi Yang (2008-09).
 Completed workshop held by the University Writing Center on how to improve student ability to give oral presentations (1/2011).
 Completed workshop held by the Honors and Undergraduate Research office on “Mentoring Undergraduates in Research” (9/9/11).
 Completed Fundamentals of Teaching Online Workshop (Fall 2011).
 Completed Content Design and Development Workshop (Fall 2011).
 Participated in 2011 Instructional Technology Showcase (Fall 2011).
 Completed Writing Intensive Course Workshop (Fall 2011).
 Participated in Universal Design Faculty Learning Community Training Program (Fall 2011/Spring 2012).

6. Acquisition of funds to support teaching

- 1) Center for Teaching Excellence. Equipment support for NUTR 481. PI. Total costs \$1,000. Approved 2/99.
- 2) University Honors Program. Equipment support for development of an honor's section of NUTR 481 (489H). Co-PI. Total costs \$2,000. Approved 4/99.
- 3) NSBRI. Co-PI. A graduate education program focusing on space life sciences. Joanne Lupton is PI. \$72,961 direct costs/\$105,771 total costs for 1 year. 11/1/04-5/31/06.
- 4) NSBRI. Co-PI. Ph.D. training program in critical areas of space life sciences. \$972,216 direct costs/\$1,050,000 total costs for 6 years. Funded 7/1/06 – 6/30/12.
- 5) AAAS. PI. BEN Scholar. \$1000 and travel costs. Funded 11/1/11 – 5/1/13.
- 6) TAMU. Pathways to the Doctorate Fellowship. One fellowship (\$38,000) each year + 1,000 for recruiting. Funded 2012-15.
- 7) NSBRI. PI. Ph.D. training program in critical areas of space life sciences. \$925,930 direct costs/\$1,000,000 total costs for 5 years. Funded 7/1/12 – 6/30/17.
- 8) NIH. Collaborator with Larry Johnson. Veterinary medical “One-Health” real-world applications for rural middle schools employing next generation science standards. \$1,250,000 direct costs/\$1,342,000 total costs for 5 years (7/1/16-6/30/21). Submitted June 22, 2015.

B. Research

1. Percent of budgeted time = 87.5%, 50 % of effort

The main goal of my research is the identification of dietary components capable of suppressing carcinogenesis or inflammation in the colon. I use primarily animal models to determine how bioactive compounds (phytochemicals) found in fiber containing foods affect the colonic environment, with most of the observations focused on early and intermediate time points, when diet is more likely to have a chemopreventive effect. Most experiments address how these compounds influence cell proliferation, apoptosis induction, inflammatory processes, signaling cascades involved in the regulation of these processes, and the impact of dietary and microbe-derived metabolites on colonocyte gene transcription and epigenetic profiles. Upon identification of a solid physiological response in vivo, we are positioned to determine the specific mechanisms/pathways involved in the response using in vivo and in vitro techniques. Recognition that the commensal bacteria within the colon and the colonocytes interact extensively and that aberrations in the signaling between them may drive inflammation and eventually cancer in the colon has led to an expansion of my research to determine how phytochemicals may influence this dynamic environment. The most recent outcomes of the work have identified dietary interventions containing polyphenolic molecules that protect against colon disease through the establishment of beneficial bacterial populations that produce desirable microbial metabolic byproducts. In two recent studies, microbial metabolites were shown to impact epigenetic

regulation of gene transcription, and the induction of apoptosis. Another recent observation was that microbial modifications induced by a bioactive-containing dietary intervention contributed to a beneficial host metabolomic profile indicative of improved glucose tolerance and reduced risk of developing metabolic syndrome in overweight/obese human subjects. Because obesity is a known promoter of colon cancer, I will be expanding my research program to determine the impact of dietary interventions on microbiota and microbial metabolites in obesity-related colon disease. My research program is multidisciplinary in nature involving scientists in the Soil and Crop Sciences Department, Horticulture Department, Health and Kinesiology Department, Nuclear Engineering, Statistics, and the Vegetable and Fruit Improvement Center.

2. Acquisition of research funds (total amount \$20,570,013)
 - 1) TAMU, Faculty/staff minigrant program. Microscopic Analysis of Ammoniated Hay Structure. PI. Total costs \$700.00.
 - 2) Pitman-Moore. Metabolic Indices for Growth. Co-investigator with Floyd Byers (Animal Science). Total costs \$100,000. Final report submitted to company, which was used to further their FDA application for increase in commercial implant dosages. 1989-1992.
 - 3) Pitman-Moore. Measurement of Serum Zeranone in Steers. Co-investigator with Floyd Byers (Animal Science). Total costs \$150,000. Final report submitted to company, which was used to further their FDA application for increase in commercial implant dosages. 1990-1992.
 - 4) EPA. Targeting Technology to Reduce Methane Production. Co-investigator with Floyd Byers (Animal Science). Total costs \$112,150. Final report to EPA prepared and submitted, which was used to estimate methane production by US cattle industry, and to identify potential technologies for reduction of emissions. 1989-1990.
 - 5) Houston Livestock Show and Rodeo. Development of a Sensitive Monoclonal Antibody Assay for the Mold Toxin Zearalenone in Feeds and Foods. PI. Total costs \$3,000. 1997-1998.
 - 6) American Institute for Cancer Research. Phytate Promotes Apoptosis in Colonocytes via Inhibition of the PI3 Kinase/Akt Signaling Pathway. PI. Total costs \$16,500. 7/1/98-6/31/00.
 - 7) TAMU, Faculty minigrant program. Determination of the Effects of Dietary Fiber on Fecal Short Chain Fatty Acid Concentrations in Normal Cats. Co-investigator with Bill Burkholder (PI) and Deb Zoran (Veterinary College). Total costs \$3,000.
 - 8) TAMU, Center for Environmental and Rural Health. Dietary Fibers/Phytoestrogens and Colon Carcinogenesis. PI. Total costs \$15,000. Pilot project program, 1998.
 - 9) Houston Livestock Show and Rodeo. Dietary Estrogen and Colon Cancer. PI. Total costs \$1,900. Approved for funding 1/4/99. Abstract presented at national meeting.
 - 10) USDA/Hatch. Role of Dietary Phytochemicals in Prevention of Colon Cancer. PI. Variable funding. 07/01/99 - 06/30/04 (renewed).
 - 11) NIH. Response to DNA Damage: Colon vs Small Intestine. Collaborator with Joanne Lupton. \$1,007,164. Funded for 06/01/00 – 5/31/04. No cost extension to 5/31/05.
 - 12) NIH. Diet, Apoptosis and Colon Carcinogenesis. Collaborator with Joanne Lupton. \$1,146,427 for 4 years. Funded for 4/1/01 – 1/31/05. No cost extension to 1/31/2007.
 - 13) NSBRI. Nutritional Countermeasures to Radiation Exposure. Co-PI with Joanne Lupton. \$1,197,063 for 3 years. Funded for 3/1/01 – 2/28/04. No cost extension to 9/30/04.
 - 14) USDA/VFIC. Assessment of the ability of quercetin to inhibit colon carcinogenesis. PI. \$20,000. Funded for 9/1/03 – 9/14/04.
 - 15) NIH/NCI. Nutrition, Biostatistics, and Bioinformatics. NCI Training grant. Co-investigator, Nutrition coordinator with Raymond Carroll (Statistics). Total funding \$2,469,801 for 5 years. Funded 8/1/01 – 7/31/06 (renewed).
 - 16) Texas A&M Life Sciences Initiative. Biostatistics, Biomedical Imaging and the Biology of Nutrition and Cancer. Co-investigator, Nutrition Coordinator with Raymond Carroll (Statistics). Total funding \$170,200 for 9/1/01 – 8/31/02.
 - 17) USDA. IFAFS program. Evaluation of citrus limonoids as colon cancer chemopreventives. Segment PI. \$49,428 for 4 years. Part of \$1,075,165 requested for entire project “Exploring biological activities of citrus limonoids: A multidisciplinary approach (PI – B. Patil/Horticulture). Funded, 1/1/02 – 12/31/05.
 - 18) THECB. Co-I with Naisyin Wang (Statistics). Advanced Methodologies for Longitudinal/Clustered Data with Applications to Nutrition and Cancer. \$10,000 from overall grant (\$47,000). Funded, 1/02/02 - 8/31/04.

- 19) THECB. Co-I. Exploring biological activities of citrus flavonoids: A multidisciplinary approach (J. Brodbelt/University of Texas, Austin). \$49,926 for 2 years. Part of overall grant \$249,370. Funded 1/02/02 - 8/31/04.
- 20) USDA/CSREES. PI. Mechanisms behind the antioxidant properties of quercetin, a potential colon cancer chemopreventive agent. Funded \$62,801, 9/1/03 - 8/31/04.
- 21) NASA. Co-PI with Joanne Lupton. Gene expression in radiation-enhanced colon cancer. Funded \$349,995, 5/15/03 – 5/31/05.
- 22) CERH. Co-Investigator with Mee Young Hong (post doc). Dietary fish oil protects against oxidative DNA damage. Funded \$25,000 direct costs, 7/15/04-7/14-05.
- 23) NSBRI/NASA. Co-PI with Joanne Lupton. Nutritional countermeasures to radiation-enhanced colon cancer. Funded \$842,139 direct costs, 11/1/04 – 10/31/08.
- 24) USDA/CSREES/Hatch. PI. Role of dietary phytochemicals in prevention of colon cancer. Approved July 14, 2004. New dates are 6/10/2004 – 6/9/2010.
- 25) USDA/CSREES. PI. Integrative study of quercetin effects on iNOS, cyclooxygenase and lipoxygenase enzymes. Funded \$40,304, 9/1/04 – 8/31/05.
- 26) NSBRI. Co-PI with Joanne Lupton. A graduate education program focusing on space life sciences. Funded \$62,310 direct costs/\$90,661 total costs, 11/1/04-5/31/06.
- 27) NIEHS/CERH. Co-Investigator with Phil Mirkes (Veterinary College). Center for Rural and Environmental Health – Bioinformatics Core Support. \$5,000 direct costs/\$7,275 total costs. Overall project was for \$15,000 direct costs and \$21,825 total costs. Funded 6/1/05 – 3/31/06.
- 28) USDA/ARS. PI. Sorghum bioactive constituents as colon cancer chemoprotectants. \$28,800 direct costs 9/1/05 – 6/30/07. 58-5430-5-339
- 29) CSREES/VFIC. PI. Does the antioxidant activity of quercetin influence the chemoprotective action of dietary n-3 fatty acids? \$49,000 direct costs 9/1/05 – 8/31/06.
- 30) AICR. Co-Investigator/Mentor with Jairam Vanamala (post doc). Fish oil and pectin enhances apoptosis in colonocytes via inhibition of PGE2 and PPAR delta signaling and promotion of death receptor pathway. \$25,000 direct costs 1/2/06 – 1/1/07.
- 31) NSBRI. Co-PI with Joanne Lupton. Ph.D. training program in critical areas of space life sciences. \$1,050,000 for 6 years. Funded 7/1/06 – 6/30/12. EO01001.
- 32) NIH/NCI. Co-PI/Nutrition Coordinator with Raymond Carroll (Statistics). Nutrition, biostatistics and bioinformatics. Training grant renewal. \$2,427,495 direct costs for 5 years. Funded 7/1/06 – 7/31/11. 5 R25 CA090301-07.
- 33) USDA/ARS. PI. Sorghum bioactive constituents as colon cancer chemoprotectants. \$32,000 direct costs for 1 year. Funded 9/1/06 – 8/31/07. 58-5430-5-339
- 34) USDA/VFIC. PI. Isolation and identification of quercetin and quercetin metabolites in plasma, urine, feces and liver. \$42,000 direct costs for 1 year. Funded 9/1/06 – 8/31/08.
- 35) USDA/ARS. PI. Sorghum bioactive constituents as colon cancer chemoprotectants. \$32,000 direct costs requested for 1 year. Funded 9/1/07 – 6/30/09. 58-5430-5-339
- 36) CSREES/VFIC. PI. Quercetin's role in the regulation of Phase I and Phase II enzyme expression patterns. \$24,000 direct costs for 1 year. Funded 9/1/07-8/31/09. 06-118409-86875
- 37) CSREES/VFIC. PI. Stone fruit bioactives as colon inflammation suppressors. \$34,000, direct costs for 1 year. Funded 9/1/08-8/31/10. 2008-34402-19195.
- 38) United Sorghum Checkoff Program. Co-PI with Lloyd Rooney (Soil & Crop Sciences). Developing healthy foods from special sorghums. \$51,000 direct costs for 1 year. Funded 8/1/09 – 8/31/11. Roo31A-09.
- 39) USDA/CSREES/VFIC. PI. Stone fruit bioactives – inflammatory mediators operating through toll-like receptors? \$22,000 direct costs for 1 year. Funded 9/1/09-8/31/11. 2009-34402-19831.
- 40) United Sorghum Checkoff Program. Co-PI with Lloyd Rooney (Soil & Crop Sciences). Developing healthy foods from special sorghums. \$56,100 direct costs for 1 year. Funded 6/1/10 – 7/31/11. Roo31A-10.
- 41) USDA/VFIC. PI with Bhimu Patil as Collaborator. Citrus limonoids and flavonoids as mediators of toll-like receptor signaling. \$20,000 total costs for 1 year. Funded 9/1/10 – 8/31/12. 2010-34402-20875.
- 42) USDA/VFIC. Collaborator with David Byrne and Susanne Talcott. Colon cancer prevention with stone-fruit pulp. \$22,000 total costs. Funded 9/1/10 – 8/31/12. 2010-34402-20875.
- 43) USDA/Hatch. PI. Role of dietary phytochemicals in prevention of colon cancer and inflammation. Approved August 26, 2010. New dates are 8/11/2010 – 8/10/2015.

- 44) USCP. PI with co-investigators at Texas A&M University, Kansas State University and University of Nebraska. Metabolic syndrome – Mitigation through multi-system effects of dietary exposure to sorghum bioactive compounds. \$199,982 direct/total costs. Funded 1/15/11-12/30/12.
 - 45) NASA HRP. Collaborator with Sara Zwart, Scott Smith, and Honglu Wu of NASA/JSC. Evaluation of the combined effects of gamma radiation and high dietary iron on oxidative damage and antioxidant status in rats. Approved for 6/15/11 – 12/15/12.
 - 46) NASA/JSC. Collaborator with Sara Zwart and Scott Smith of NASA/JSC. STS-135 Tissue Sharing. Approved.
 - 47) NIH. Co-Investigator with Robert Chapkin (PI). Chemoprotective effects of natural products on colonic adult stem cells. \$1,083,312 direct costs and \$1,553,116 total costs. Funded 9/8/11 – 7/31/16. 1R01CA168312-01.
 - 48) NIH/NCI. Co-PI/Nutrition Coordinator with Raymond Carroll (Statistics). Nutrition, biostatistics and bioinformatics. \$2,467,870 direct costs and \$2,665,300 total costs for 5 years. Training grant renewal. Funded 7/1/11 – 6/30/16. 5 R25 CA090301.
 - 49) USDA/NIFA. Texas PI. Multistate, Regional project HM-2122. W2122: Beneficial and adverse effects of natural, bioactive dietary chemicals on human health and food safety.
 - 50) Dry Bean Board. Co-PI with Tim Hall (Biology) and Rene Garcia (Biology). Harvesting colon cancer-suppressing compounds from beans. \$20,000. Gift funded 3/1/12.
 - 51) TAMU/OGS. PI. Pathways to the Doctorate. \$38,000. Funded for one fellowship each year starting with the Fall 2012 semester. (Total funds to date = 114,000).
 - 52) California Dried Plum Board. PI. Dried plums contribute to colon health through microbial-derived mechanisms. \$122,776 direct costs. Funded 1/1/13-9/30/15.
 - 53) USCP. PI with co-investigator Lloyd Rooney (first year). Sorghum's role in digestive health – maintenance of beneficial bacterial populations. \$72,782 direct/total costs. Funded 4/1/13-3/31/15.
 - 54) NSBRI. PI. Ph.D. training program in critical areas of space life sciences. \$925,930 direct costs/\$1,000,000 total costs for 5 years. Funded 7/1/12 – 6/30/17. EO02001.
 - 55) NASA. Co-Investigator with Sue Bloomfield (PI). Iron overload and oxidative damage: Regulators of bone homeostasis in the space environment. \$536,974 direct costs/\$749,219 total costs for 3 years. Funded 8/1/13-7/31/16. NNX13AL25G.
 - 56) USCP. PI. Impacts of sorghum varieties on lipoprotein profiles. \$9,000 direct costs for 1 year. Funded 4/1/14 – 3/31/2015. HVM01-14.
 - 57) NCBA. PI. Evaluation of the existing knowledge base regarding the relationship between meat consumption and cancer development, and recommendations for future research needs. Total costs \$11,000 for a 6 month project. Funded 7/12/14 – 1/30/15. R-03-2013.
 - 58) NASA. PI with Robb Chapkin. Radiation-induced apoptosis avoidance and colon tumorigenesis: Epigenetic regulation in adult stem cells. Direct costs \$888,218/total costs \$1,267,846 for a 3 year project. Funded 1/7/15 – 1/6/18. NNX15AD64G.
 - 59) USCP. PI. Colon cancer chemoprevention with sorghum – impact of cooking. Direct costs \$184,971. Funded 6/1/15 – 5/31/17. RN001-15.
 - 60) USCP. PI with Preston Buff (Nutro, Inc). Feline skin/coat quality and intestinal health – sorghum grain and bran impacts. Direct costs \$172,204. Funded 6/1/15 – 5/31/17. HVM06-15.
3. Research proposals submitted (in excess of 33 million)
 - 1) NIH/NCCAM. Co-investigator with Robert Chapkin. Promotion of gut resilience using botanical & microbiome-derived AhR ligands. Direct costs \$7,407,975/total costs \$9,234,499 for a 5 year project. Submitted 6/4/14. Not funded.
 - 2) SEPA. Co-investigator with Larry Johnson. One Health research education for rural middle schools and communities. Internal proposal submitted 6/17/14. Accepted for full proposal submission.
 - 3) NIH/NIDDK. Co-I with Chaodong Wu and others. Texas A&M University Obesity Research Center. Submitted 10/14. Not Funded.
 - 4) CPRIT. Mentor with Robert Chapkin (PI). Texas A&M University primary cancer prevention training program (TAMU-PCP). Direct costs \$3,377,506/total costs \$3,555,265 for a 5 year project. Proposal submitted 5/20/15.
 - 5) NASA. Co-investigator with Sue Bloomfield. Mitigating radiation-induced bone loss via dietary modulation of inflammatory cytokines. Phase I submitted 9/4/15.
 5. Documentation of Research
 - a. Refereed journal articles

- 1) Turner, N. D., G. T. Schelling, P. G. Harms, L. W. Greene and F. M. Byers. 1987. A comparison of the protein requirements for growth and reproduction in the rat. *Nutr. Rep. Int.* 36:73.
- 2) Turner, N. D., G. T. Schelling, L. W. Greene and F. M. Byers. 1990. Modification of in vitro and in situ dry matter digestibility of forages with chemical treatment. *J. Prod. Agric.* 3:83.
- 3) Knapp, J. R., W. Y. Chen, N. D. Turner, F. M. Byers, and J. J. Kopchick. 1994. Growth patterns and body composition of transgenic mice expressing mutated bovine somatotropin genes. *J. Anim. Sci.* 72:2812-2819.
- 4) Turner, N. D., L. W. Greene, F. M. Byers and D. C. Kenison. 1995. Influence of incremental zeranol implant doses on the chemical and physical characteristics of third metacarpal bone, and chemical composition of liver and soft tissue from feedlot steers. *J. Anim. Sci.* 73:1-8.
- 5) Ashok, G., N. D. Turner, F. M. Byers, M. T. Holtzapple, and K. A. Overhulse. 1995. Effect of treatment temperature on dietary quality of Ammonia Fiber Explosion (AFEX)-treated casein for rats. *Anim. Feed Sci. Technol.* 53:267-277.
- 6) Turner, N. D., C. M. McDonough, F. M. Byers, and B. E. Dale. 1995. Nutrient and microstructural indices of maize and sorghum responses to ammonia pressurization/depressurization. *Cereal Chem.* 72:589-593.
- 7) Hufstedler, G. D., P. L. Gillman, G. E. Carstens, L. W. Greene, and N. D. Turner. 1996. Physiological and hormonal responses of lambs repeatedly implanted with zeranol and provided two levels of feed intake. *J. Anim. Sci.* 74:2376-2384.
- 8) Maciorowski, K.G., N.D. Turner, J.R. Lupton, R.S. Chapkin, C.L. Shermer, S.D. Ha, S.C. Ricke. 1997. Diet and carcinogen alter the fecal microbial populations of rats. *J. Nutr.* 127:449-457.
- 9) Zoran, D.L., N.D. Turner, S.S. Taddeo, R.S. Chapkin, and J.R. Lupton. 1997. Wheat bran diet reduces tumor incidence in a rat model of colon cancer independent of effects on distal luminal butyrate concentrations. *J. Nutr.* 127:2217-2225.
- 10) Ghandi, J., M.T. Holtzapple, A. Ferrer, F.M. Byers, N.D. Turner, M. Nagwani, and S. Chang. 1997. Lime treatment of agricultural residues to improve rumen digestibility. *Anim. Feed Sci. Technol.* 68:195-211.
- 11) Davidson, L.A., C.M. Aymond, Y.-H. Jiang, N.D. Turner, J.R. Lupton, and R.S. Chapkin. 1998. Non-invasive detection of fecal protein kinase C β_{II} and ζ messenger RNA: Putative biomarkers for colon cancer. *Carcinogenesis* 19:253-257.
- 12) Turner, N. D., J. R. Knapp, F. M. Byers, J. J. Kopchick. 1998. Expression of mutant bovine growth hormone genes in mice perturbs age-related nutrient utilization patterns. *J. Nutr.* 128:520-524.
- 13) Lupton, J.R., and N.D. Turner. 1999. Potential protective mechanisms of wheat bran fiber. *Am. J. Med.* 106 (1A) 24S-27S.
- 14) Fan, Y.-Y., J. Zhang, R. Barhoumi, R. C. Burghardt, N. D. Turner, J. R. Lupton, and R. S. Chapkin. 1999. Antagonism of CD95 signaling blocks butyrate induction of apoptosis in young adult mouse colonic cells. *Am. J. Physiol.* 277:C310-C319.
- 15) Hong, M.Y., Chapkin, R.S., Morris, J.S., Wang, N., Carroll, R.J., Turner, N.D., and Lupton, J.R. 1999. Relationship between DNA adduct levels, repair enzyme and apoptosis as a function of DNA methylation by azoxymethane. *Cell Growth Differ.* 10:749-758.
- 16) Maier, S.M., N.D. Turner, and J.R. Lupton. 2000. Serum lipids in hypercholesterolemic men and women consuming oat bran and amaranth products. *Cereal Chem.* 77:297-302.
- 17) Davidson, L.A., R.E. Brown, W.-C.L. Chang, J.R. Lupton, J.S. Morris, N.Wang, R.J. Carroll, N.D. Turner, and R.S. Chapkin. 2000. Morphodensitometric analysis of protein kinase C β_{II} expression in rat colon: Modulation by diet and relation to in situ cell proliferation and apoptosis. *Carcinogenesis* 21:1513-1519.
- 18) Turner, N. D., F. M. Byers, J. R. Knapp, and J. J. Kopchick. 2001. Physical and mechanical characteristics of tibias from transgenic mice expressing mutated bovine growth hormone genes. *Exp. Biol. Med.* 226:133-139.

- 19) Morris, J.S., N. Wang, J.R. Lupton, R.S. Chapkin, N.D. Turner, M.Y. Hong, and R.J. Carroll. 2001. Parametric and nonparametric methods for understanding the relationship between carcinogen-induced DNA adduct levels in distal and proximal regions of the colon. *J. Amer. Stat. Assoc.* 96:816-826.
- 20) Hong, M. H., R.S. Chapkin, J.S. Morris, N. Wang, R.J. Carroll, N.D. Turner, W.-C.L. Chang, L. A. Davidson, and J.R. Lupton. 2001. Anatomical site-specific response to DNA damage is related to later tumor development in the rat azoxymethane colon carcinogenesis model. *Carcinogenesis* 22:1831-1835.
- 21) Chapkin, R.S., M.Y. Hong, Y.-Y. Fan, L.A. Davidson, L.M. Sanders, C.E. Henderson, R. Barhoumi, R.C. Burghardt, N.D. Turner, and J.R. Lupton. 2002. Dietary n-3 polyunsaturated fatty acids alter colonic mitochondrial membrane composition and function. *Lipids* 37:193-199.
- 22) Turner, N.D., J. Zhang, L.A. Davidson, J.R. Lupton, and R.S. Chapkin. 2002. Oncogenic ras alters sensitivity of mouse colonocytes to butyrate and fatty acid mediated growth arrest and apoptosis. *Cancer Lett.* 186:29-35.
- 23) Turner, N.D., L.A. Braby, J. Ford, and J.R. Lupton. 2002. Opportunities for nutritional amelioration of radiation-induced cellular damage. *Nutrition* 18:904-912.
- 24) Lupton, J.R., and N.D. Turner. 2002. Nutrition in Space. (Issue Introduction) *Nutrition* 18:793.
- 25) Hong, M. Y., Chapkin, R.S., Barhoumi, R., Burghardt, R.C., Turner, N.D., Henderson, C.E., Sanders, L.M., Fan, Y.Y., Davidson, L.A., Murphy, M.E., Spinka, C.M., Carroll, R.J., Lupton, J.R. 2002. Fish oil increases mitochondrial phospholipid unsaturation, upregulating reactive oxygen species and apoptosis in rat colonocytes. *Carcinogenesis* 23:1919-1925.
- 26) Morris, J.S., N. Wang, J.R. Lupton, R.S. Chapkin, N.D. Turner, M.Y. Hong, and R.J. Carroll. 2002. A Bayesian analysis of colonic crypt structure and coordinated response to carcinogen exposure incorporating missing crypts. *Biostatistics* 3:529-546.
- 27) Hong, M. Y., R.S. Chapkin, L.A. Davidson, N.D. Turner, J.S. Morris, R.J. Carroll, and J.R. Lupton. 2003. Fish oil enhances targeted apoptosis during colon tumor initiation in part by down regulating bcl-2. *Nutr. Cancer* 46:44-51.
- 28) Lupton, J.R. and N.D. Turner. 2003. Dietary fiber and coronary disease: Does the evidence support an association? *Curr Atheroscler. Rep.* 5:500-505.
- 29) Apanasovich, T.V., S. Sheather, J.R. Lupton, N. Popovic, N.D. Turner, R.S. Chapkin, and R.J. Carroll. 2003. Testing for spatial correlation in binary data with application to aberrant crypt foci in colon carcinogenesis. *Biometrics* 59:752-761.
- 30) Morris, J.S., N. Wang, J.R. Lupton, R.S. Chapkin, N.D. Turner, M.Y. Hong, and R.J. Carroll. 2003. Understanding the relationship between carcinogen-induced DNA adduct levels in distal and proximal regions of the colon. *Adv. Exp. Med. Biol.* 537:105-116.
- 31) Wu, G., Y.-Z. Fang, S. Yang, J.R. Lupton, and N.D. Turner. 2004. Glutathione metabolism and its implications for health. *J. Nutr.* 134:489-492.
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- 65) Schreurs, A-S., Y. Shirazi-Fard, M. Shahnazari, J.S. Alwood, T.A. Truong, C.G.T. Tahimic, C.L. Limoli, N.D. Turner, B. Halloran, and R.K. Globus. Dried plum diet protects from radiation-induced bone loss. *Scientific Reports (Submitted)*.

- 66) Ritchie, L.E., S.S. Taddeo, B.R. Weeks, R.J. Carroll, L. Dykes, L.W. Rooney, and N.D. Turner. Assessment of novel sorghum bran diet effects during DSS-induced colitis. (Submitted).
 - 67) Kim, H., Y.M. Cho, N.D. Turner, J.C. Mann, S.S. Taddeo, L.A. Davidson, N. Wang, M. Vannucci, R.J. Carroll, R.S. Chapkin, and J.R. Lupton. A fish oil/pectin diet down-regulates the Wnt/ β -catenin signaling pathway in the progression of radiation-enhanced colon carcinogenesis. (In preparation/revision).
 - 68) Piefer, L.A., K. Krenek, A. Ambrus, S.T. Taddeo, B.R. Weeks, R.J. Carroll, D.H. Byrne, and N.D. Turner. Chlorogenic acid mitigated DSS-induced increases in IL-1 and IL-12 expression and decreases in SLC5A8 expression. (In preparation).
 - 69) Seidel, D.V., I. Martinez, S.S. Taddeo, M.L. Joseph, R.J. Carroll, M.D. Haub, J. Walter, and N.D. Turner. Polyphenol-rich sumac sorghum dietary intervention alters colon microbiota and plasma metabolites in overweight human subjects. (In Preparation).
- b. Theses and dissertations of graduate students
- 1) Blaschke, D.L. 1999 (August). The effects of alcohol consumption after menopause on bone regulating hormones. M.S. Nutrition. Co-Chair.
 - 2) Booe, H.L. 1999 (August). The effects of life long alcohol consumption on calcium regulating and sex hormones. M.S. Nutrition. Co-Chair.
 - 3) Stine (Schultz), C.N. 2001 (May). Analyzing the effects of alcohol on IGF-I in bone and plasma and on IGF-I mRNA in the liver and bone. M.S. Nutrition. Co-Chair.
 - 4) Warren, C.A. 2004 (May). An assessment of the ability of quercetin to inhibit colon carcinogenesis. M.S. Nutrition. Chair.
 - 5) Vanamala, J. 2004 (August). Postharvest irradiation treatment effect on grapefruit functional components and their role in prevention of colon cancer. Ph.D. Horticulture. Member (Directed some research studies).
 - 6) Newton, A.H. 2004 (August). Effects of fish oil and butyrate on diet-mediated apoptosis at the promotion stage of colon carcinogenesis. M.S. Nutrition. Member (Directed some research studies).
 - 7) Leonardi, T. 2005 (May). Dietary apigenin and naringenin protect against colon carcinogenesis by lowering high multiplicity aberrant crypt foci and enhancing apoptosis in azoxymethane-treated rats. M.S. Nutrition. Chair.
 - 8) Paulhill, K.J. 2008 (August). Quercetin and dietary lipids alter the cellular redox environment of the colonocyte in the promotion stage of colon carcinogenesis. M.S. Nutrition. Chair.
 - 9) Lewis, J.B. 2008 (December). Effects of bran from sorghum grains containing different classes and levels of bioactive compounds in colon carcinogenesis. M.S. Nutrition. Chair.
 - 10) Swift, S.N. 2010 (August). Energy restriction effects on estrogen status and the skeletal response to loading. Ph.D. Nutrition. Co-Chair.
 - 11) Boswell, S. 2010 (December). The use of sorghum to develop gluten free breads. M.S. Food Science & Technology. Member (Directed some research studies).
 - 12) Piefer, Leigh Ann. 2012 (August). Quercetin and chlorogenic acid mitigate DSS-induced changes in expression of select pro-inflammatory cytokines and short chain fatty acid transporter genes. M.S. Nutrition. Chair.
 - 13) Yuen, Evelyn. 2013 (May). Effects of high dietary iron and gamma radiation on oxidative stress and bone. M.S. Nutrition. Co-Chair.
 - 14) Ritchie, Lauren E. 2013 (December). Diet, disease state, and the space environment modify the intestinal microbiota and mucosal environment via microbiota-directed alterations in colonocyte signaling. Ph.D. Genetics. Chair.
 - 15) Daniels, Wesley D. 2014 (December). Apigenin and naringenin increase apoptosis and decrease proliferation via transcriptional regulation. M.S. Nutrition. Chair.
- c. Popular articles/non-refereed journal articles

- 1) May, B. J., N. D. Turner, G. T. Schelling, J. M. Sweeten, F. M. Byers and L. W. Greene. 1984. The effect of heat treatment on ruminal protein degradation of sorghum stillage. *Beef Cattle Research in Texas*, PR 4210.
- 2) Turner, N. D., G. T. Schelling, B. J. May, L. W. Greene and F. M. Byers. 1988. Chemical treatments effect on in vitro and in situ dry matter digestibility of hays of different qualities. *Beef Cattle Research in Texas*, PR 4646.
- 3) Wille, D. T., G. T. Schelling, N. D. Turner, F. M. Byers and L. W. Greene. 1988. In vitro fermentation responses to actaplanin. *Beef Cattle Research in Texas*, PR 4647.
- 4) Turner, N. D., G. T. Schelling, L. W. Greene and F. M. Byers. 1988. Modification of feedstuff digestibility using chemical treatment and reconstitution. *Beef Cattle Research in Texas*, PR 4644.
- 5) Turner, N. D., G. T. Schelling, D. T. Thompson, C. E. Coppock, F. M. Byers and L. W. Greene. 1988. Development of a product to replace whole cottonseed in cattle diets. *Beef Cattle Research in Texas*, PR 4645.
- 6) Byers, F. M., N. D. Turner, H. R. Cross, L. W. Greene and G. E. Carstens. 1989. Development of a cascade system for validation of indirect measures of carcass lean in large-scale growth regulation studies. *Proc. West. Sect., Am. Soc. Anim. Sci.* 40:161.
- 7) Byers, F. M., N. D. Turner, H. R. Cross, L. W. Greene and G. E. Carstens. 1990. Development of a cascade system for validation of carcass lean from indirect measures in large-scale studies. *Beef Cattle Research in Texas*, PR 4694.
- 8) Byers, F. M., N. D. Turner, H. R. Cross, L. W. Greene and G. E. Carstens. 1990. Optimal growth regulator levels for enhancing carcass lean. *Proc. West. Sect., Am. Soc. Anim. Sci.* 41:422.
- 9) Turner, N. D., C. M. McDonough, F. M. Byers, M. T. Holtzapple, B. E. Dale, J. H. Jun and L. W. Greene. 1990. Disruption of forage structure with an ammonia fiber explosion process. *Proc. West. Sect., Am. Soc. Anim. Sci.* 41:494.
- 10) Turner, N. D., L. W. Greene, L. A. Hurley and F. M. Byers. 1991. Influence of zeranol implants on the chemical and physical characteristics of the third metacarpal bone, liver and soft tissue from feedlot steers. *Beef Cattle Research in Texas*. PR 4847.
- 11) Turner, N. D., C. M. McDonough, F. M. Byers, M. T. Holtzapple, B. E. Dale and L. W. Greene. 1991. An investigation into a mechanism for improved forage digestibility resulting from a new ammonia treatment process. *Beef Cattle Research in Texas*. PR 4846.
- 12) Byers, F. M., N. D. Turner, H. R. Cross, L. W. Greene and G. E. Carstens. 1991. Optimal zeranol levels for enhancing lean retail product. *Beef Cattle Research in Texas*. PR 4837.
- 13) Byers, F. M. and N. D. Turner. 1991. The role of methane from beef cattle in global warming. *Beef Cattle Research in Texas*. PR 4838.
- 14) Reinhardt, C. D., F. M. Byers, N. D. Turner, G. E. Carstens and D. C. Kenison. 1993. Metabolic indices for growth: Endocrine profile of steers on different nutritional and growth regulation regimens. *Beef Cattle Research in Texas*, 1992. PR 5064.
- 15) Turner, N. D., F. M. Byers and D. C. Kenison. 1993. Plasma kinetics of zeranol in steers receiving variable doses in implant or osmotic pump form. *Beef Cattle Research in Texas*, 1992. PR 5070.
- 16) Turner, N. D., F. M. Byers, and D. C. Kenison. 1993. Metabolic and hormonal changes occurring in response to level and pattern of zeranol delivery to steers. *Beef Cattle Research in Texas*, 1992. PR 5069.
- 17) Turner, N. D., F. M. Byers, J. R. Knapp and J. J. Kopchick. 1993. Dimension, weight and strength characteristics of bones from transgenic mice carrying mutated bGH genes. *Proc. West. Sect., Am. Soc. Anim. Sci.* 44:139.
- 18) Byers, F. M., N. D. Turner, J. R. Knapp and J. J. Kopchick. 1993. Regulation of protein and fat growth in transgenic mice expressing native or mutated bGH constructs. *Proc. West. Sect., Am. Soc. Anim. Sci.* 44:155.
- 19) Byers, F. M., N. D. Turner, J. R. Knapp, and J. J. Kopchick. 1994. Mechanisms of growth regulation through bovine growth hormone: Assessment in a transgenic mouse model. *Beef Cattle Research in Texas*, 1993. PR-5192.

- 20) Turner, N. D., F. M. Byers, J. R. Knapp, and J. J. Kopchick. 1994. Assessment of the role of bovine growth hormone in skeletal growth with transgenic mouse models. Beef Cattle Research in Texas, 1993. PR-5183.
- 21) Turner, N. D., C. M. McDonough, F. M. Byers, and B. E. Dale. 1994. Nutritional characteristics of corn and sorghum grain treated with a novel ammonia process. Beef Cattle Research in Texas, 1993. PR-5175.
- 22) Ashok, G., N. D. Turner, F. M. Byers, and M. T. Holtzaple. 1995. Effect of treatment temperature on dietary quality of protein treated with the Ammonia Fiber Expansion (AFEX) process. Beef Cattle Research in Texas, 1994. pp. 49-57.
- 23) Turner, N.D. 1999. Nutrition Research Core. CERH Highlights 1(2):5-6.
- 24) Turner, N.D. 2003. A diet to maintain health. Partnership News, 6:Spring 2003. VFIC newsletter.
- 25) Dig in, get healthy. 2005. Research on grapefruit was described in Woman's Day magazine 68 (5):48.
- 26) Quoted in story about Nutritional Implications of Sorghum. 2009. Sorghum Grower, 3(4):20.
- 27) Turner, N.D., and J.R. Lupton. 2011. Whole grains vs refined grains – This doesn't always equate to Good vs Evil. World of Food Ingredients. Nutrition Insight, 40.
- 28) Quoted in story on Extruded Sorghum Research Project. 2012. Sorghum Grower, 5(3):10-11.
- 29) Quoted in story "Health Benefits Sparking Interest in Sorghum". 2012. Sorghum Grower, 6(4):18-19.
- 30) Interviewed for Weight Watcher's magazine about dietary fiber and weight loss. May, 2014.

d. Abstracts

- 1) Turner, N. D., G. T. Schelling, P. G. Harms and W. C. Ellis. 1982. Protein requirements for growth and puberty in the rat. J. Anim. Sci. 55 (Suppl. 1):69.
- 2) Turner, N. D., G. T. Schelling, P. G. Harms, F. M. Byers and L. W. Greene. 1984. Influence of protein on growth and reproduction in the rat. J. Anim. Sci. 59 (Suppl. 1):66.
- 3) Hegerle, K. M., N. D. Turner, G. T. Schelling, L. W. Greene and F. M. Byers. 1985. The use of guanine to cytosine ratios for determining ruminal escape of dietary nucleic acids. J. Anim. Sci. 61 (Suppl. 1):63.
- 4) May, B. J., N. D. Turner, G. T. Schelling, F. M. Byers and L. W. Greene. 1985. The effect of heat treatment on ruminal protein degradation of corn and sorghum stillage. J. Anim. Sci. 61 (Suppl. 1):63.
- 5) Turner, N. D., G. T. Schelling, B. J. May, L. W. Greene and F. M. Byers. 1985. In vitro and in situ digestibility of various hays after chemical treatment. J. Anim. Sci. 61 (Suppl. 1):356.
- 6) Turner, N. D., J. W. Tanner, R. Y. Lary, F. M. Byers, H. R. Cross, G. T. Schelling and L. W. Greene. 1986. Muscle tissue levels of zeranol and zeranol metabolites in response to varied implant and injection doses. J. Anim. Sci. 63 (Suppl 1):232.
- 7) Turner, N. D., G. T. Schelling, L. W. Greene and L. M. Schake. 1986. Alteration of feedstuff digestibility with chemical treatment and reconstitution. J. Anim. Sci. 63 (Suppl. 1):47.
- 8) Wille, D. T., G. T. Schelling, F. M. Byers, L. W. Greene and N. D. Turner. 1986. Effect of actaplanin on in vitro forage digestibility. J. Anim. Sci. 63 (Suppl. 1):72.
- 9) Turner, N. D., G. Steinmetz, G. T. Schelling, L. W. Greene and F. M. Byers. 1987. Physical and chemical effects of ammonia treatment on forages. J. Anim. Sci. 65 (Suppl. 1):328.
- 10) Turner, N. D., G. T. Schelling, D. T. Thompson, C. E. Coppock, E. W. Lusas, T. Wondafrash, F. M. Byers and L. W. Greene. 1988. Development of a replacement product for whole cottonseed in cattle feed. J. Anim. Sci. 66 (Suppl. 1):507.
- 11) Turner, N. D., F. M. Byers, H. R. Cross, G. T. Schelling, D. K. Lunt, and L. W. Greene. 1989. Carcass fat, cholesterol and fatty acid composition of longissimus dorsi muscles from Longhorn, Hereford and Hereford x Longhorn crossbred steers. J. Anim. Sci. 67 (Suppl. 1):570.

- 12) Byers, F. M., N. D. Turner, H. R. Cross, L. W. Greene and G. E. Carstens. 1989. Development of a cascade system for validation of indirect measures of carcass lean in large-scale growth regulation studies. *J. Anim. Sci.* 67 (Suppl. 2):183.
- 13) Byers, F. M., N. D. Turner, H. R. Cross, L. W. Greene and G. E. Carstens. 1990. Optimal growth regulator levels for enhancing carcass lean. *J. Anim. Sci.* 68 (Suppl. 1):195.
- 14) Turner, N. D., F. M. Byers, C. M. McDonough, M. T. Holtzapple, B. E. Dale, J. H. Jun and L. W. Greene. 1990. Disruption of forage structure with an ammonia fiber explosion process. *J. Anim. Sci.* 68 (Suppl. 1):194.
- 15) Turner, N. D., L. W. Greene, L. A. Hurley and F. M. Byers. 1990. Influence of zeranol implants on the chemical and physical characteristics of third metacarpal bones from feedlot steers. *J. Anim. Sci.* 68 (Suppl. 1):314.
- 16) Reinhardt, C. D., F. M. Byers, G. E. Carstens, N. D. Turner and L. W. Greene. 1991. Metabolic indices for growth of beef cattle. *J. Anim. Sci.* 69 (Suppl. 1):319.
- 17) Turner, N. D. and F. M. Byers. 1991. Evaluation and adaptation of a monoclonal antibody radioimmunoassay for zeranol in bovine plasma. *J. Anim. Sci.* 69 (Suppl. 1):315.
- 18) Turner, N. D., F. M. Byers and D. C. Kenison. 1992. Plasma zeranol concentrations in steers after variable doses of zeranol using implants or osmotic pumps. *J. Anim. Sci.* 70 (Suppl. 1):211.
- 19) Turk, D. C., F. M. Byers and N. D. Turner. 1993. Survey of cattle management and technology use for cow/calf, stocker and feedlot operations in the U.S. *J. Anim. Sci.* 71 (Suppl. 1):109
- 20) Knapp, J. R., W. Y. Chen, N. D. Turner, F. M. Byers and J. J. Kopchick. 1993. Growth and feed efficiencies of transgenic mice carrying mutated bovine growth hormone (bGH) genes. *FASEB* 7:A645.
- 21) Turner, N. D., F. M. Byers, J. R. Knapp and J. J. Kopchick. 1993. Dimension, weight and strength characteristics of bones from transgenic mice carrying mutated bGH genes. *J. Anim. Sci.* 71 (Suppl. 1):140.
- 22) Byers, F. M., N. D. Turner, J. R. Knapp and J. J. Kopchick. 1993. Regulation of protein and fat growth in transgenic mice expressing native or mutated bGH constructs. *J. Anim. Sci.* 71 (Suppl. 1):140.
- 23) Goodall, D. A., F. M. Byers and N. D. Turner. 1993. Limitations to delivery of management and technology in beef cattle systems. *J. Anim. Sci.* 71 (Suppl. 1):121.
- 24) Turner, N. D., F. M. Byers, M. Austin, and B. E. Dale. 1993. Use of an ammonia pressure expansion process to enhance corn and sorghum grain nutrient availability. *Cereal Foods World* 38:626. (Abstr. of poster presented at American Association of Cereal Chemists meeting).
- 25) Knapp, J. R., N. D. Turner, F. M. Byers, and J. J. Kopchick. 1994. Energetic efficiencies of growth in transgenic mice expressing mutated bovine growth hormone genes. *J. Anim. Sci.* 72 (Suppl. 1):161.
- 26) Turner, N. D., F. M. Byers, C. M. McDonough, and B. E. Dale. 1994. Use of an ammonia pressure/expansion process to enhance corn and sorghum nutrient availability. *J. Anim. Sci.* 72 (Suppl. 1):193.
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- 112) Vanamala, J., A. Glagolenko, R.J. Carroll, M.E. Murphy, S.S. Taddeo, R.S. Chapkin, N.D. Turner, and J.R. Lupton. 2006. Fish oil and pectin enhance apoptosis in irradiated rat colonocytes via suppression of PGE synthase-2 and Wnt pathway. *FASEB J.* 20:A993.
- 113) Hong, M.Y., N.D. Turner, M.E. Murphy, R.J. Carroll, L.K. Bancroft, L.A. Davidson, R.S. Chapkin, and J.R. Lupton. 2006. Dietary fish oil down-regulates pro-inflammatory gene expression in colonocytes. *FASEB J.* 20:A150.
- 114) Zhou, G.-D., M. Richardson, J.R. Lupton, N.D. Turner, R.S. Chapkin, and K.C. Donnelly. 2006. Colonic cyclopurines induced by azoxymethane and irradiation are decreased by dietary fish oil. *Proc. Amer. Assoc. Cancer Res.* 47:[Abstract # 1910].
- 115) Vanamala, J., A. Glagolenko, R.J. Carroll, M.E. Murphy, S.S. Taddeo, R.S. Chapkin, N.D. Turner, and J.R. Lupton. 2006. Combination of fish oil and pectin suppressed beta catenin nuclear translocation, an important molecular event in colon carcinogenesis. AICR, July 13, 2006, Washington, DC.
- 116) Lupton, J.R., N.D. Turner, L.A. Braby, J.R. Ford, R.J. Carroll and R.S. Chapkin. 2006. A combination of omega-3 fatty acids and a butyrate-producing fiber mitigates colon cancer development. 57th International Astronautics Congress, October 2-6, 2006, Valencia, Spain.

- 117) McDonough, C.M., L. Dykes, R.J. Carroll, L.W. Rooney and N.D. Turner. 2006. Antioxidant activity in sorghum bran diets and their effect on colon carcinogenesis. *Amer. Assoc. Cereal Chem.* P271 <http://www.aaccnet.org/meetings/2006/abstracts/p-271.htm>. Accessed 10/20/06.
- 118) Turner, N.D., L.A. Davidson, M. Vannucci, Q. Mo, R.J. Carroll, R.S. Chapkin and J.R. Lupton. 2007. Differential expression of genes over time induced by radiation and diet in exfoliated rat colonocytes. NASA Human Research Program Investigator's Workshop. February 11-14, 2007, Houston, TX.
- 119) Vanamala, J., A. Glagolenko, P. Yang, R.J. Carroll, M.E. Murphy, R.A. Newman, R.S. Chapkin, N.D. Turner, and J.R. Lupton. 2007. A diet containing fish oil and pectin ameliorates radiation-enhanced colon carcinogenesis by suppression of PPAR δ and PGE synthase-2 (PGES₂) and elevation of PGE₃. *FASEB J.* 21:A166.
- 120) Paulhill, K.J., S.S. Taddeo, R.J. Carroll, R.S. Chapkin, J.R. Lupton, and N.D. Turner. 2007. Quercetin does not significantly affect the protection of a fish oil diet in early colon carcinogenesis. *FASEB J.* 21:A58.
- 121) Lupton, J.R., L.A. Davidson, M. Vannucci, Q. Mo, R.J. Carroll, R.S. Chapkin, and N.D. Turner. 2007. Detection of radiation exposure and countermeasure responses in vivo using exfoliated rat colonocytes collected over time. *Humans in Space 07 Conference*, China, May 22, 2007.
- 122) Schirmer, A., S. Ferreri, L.M. Miller, Y.X. Qin, N. Turner, J. Lupton, and S. Judex. 2007. Interrelation between dietary fatty acids and fibers in modulating bone quantity and quality during skeletal growth. 29th Annual meeting of the American Society for Bone and Mineral Research, September 16-19, 2007, S481.
- 123) Turner, N.D., L.A. Davidson, M. Vannucci, Q. Mo, R.J. Carroll, R.S. Chapkin, and J.R. Lupton. 2007. Radiation- and diet-induced differential expression of genes measured over time in exfoliated rat colonocytes. 18th Annual NASA Space Radiation Investigators' Workshop, July 13-15, 2007, Rohnert Park, CA, pp. 12.
- 124) Turner, N.D., K.J. Paulhill, C.A. Warren, R.J. Carroll, N. Wang, R.S. Chapkin, and J.R. Lupton. 2007. Quercetin suppresses early colon carcinogenesis partly through inhibition of inflammatory mediators. Presented at the 2nd International Symposium on the Human Health Effects of Fruits and Vegetables, October 9-13, 2007, Houston, TX, pp. 58-59.
- 125) Turner, N.D., K.J. Paulhill, C.A. Warren, R.J. Carroll, N. Wang, R.S. Chapkin, and J.R. Lupton. 2007. Quercetin suppresses COX-1 and COX-2 expression during early-stage colon carcinogenesis. Presented at the AICR Annual Meeting, November 1-2, Washington, DC.
- 126) Lewis, J.B., S.S. Taddeo, C.M. McDonough, L.W. Rooney, R.J. Carroll, and N.D. Turner. 2007. Anthocyanin-containing black sorghum bran increases SOD activity in rat colonocytes during early stage carcinogenesis. Presented at AICR annual meeting, November 1-2, Washington, DC.
- 127) Paulhill, K.J., S.S. Taddeo, G. Wu, R.J. Carroll, R.S. Chapkin, J.R. Lupton and N.D. Turner. 2007. Quercetin-dependent induction of colonocyte apoptosis depends on the dietary lipid source. Presented at the AACR Frontiers in Cancer Prevention Research Conference, December 5-8, Philadelphia, PA.
- 128) Turner, N.D., T. Leonardi, J. Vanamala, L.A. Davidson, B.S. Patil, N. Wang, R.J. Carroll, R.S. Chapkin and J.R. Lupton. 2007. Apigenin and naringenin favorably modulate aberrant crypt foci development and colonic cell cytokinetics. Presented at the AACR Frontiers in Cancer Prevention Research Conference, December 5-8, Philadelphia, PA.
- 129) Cho, Y.M., H.M. Kim, N.D. Turner, S.S. Taddeo, L.A. Davidson, N. Wang, M. Vannucci, R.S. Chapkin, R.J. Carroll, and J.R. Lupton. 2008. Monitoring dietary countermeasure effectiveness with colon gene expression profiles using a non-invasive technology. NASA Human Research Program Investigators' Workshop, Feb. 4-6, 2008, League City, TX.
- 130) Turner, N.D., L.R. Briggs, N.G. Goolsby, and J.R. Lupton. 2008. Successes in the Texas A&M University "Ph.D. Training Program in Critical Areas of Space Life Sciences". NASA Human Research Program Investigators' Workshop, Feb. 4-6, 2008, League City, TX.

- 131) Lewis, J.B., S.S. Taddeo, C.M. McDonough, L.W. Rooney, R.J. Carroll, and N.D. Turner. 2008. Sorghum bran varieties differentially influence endogenous antioxidant enzymes to protect against oxidative stress during colon carcinogenesis. *FASEB J.* 22:A887.7.
- 132) Cho, Y., J.G. Martinez, N.D. Turner, S.S. Taddeo, L.A. Davidson, N. Wang, M. Vannucci, R.J. Carroll, R.S. Chapkin, and J.R. Lupton. 2008. Fish oil and pectin may suppress colon carcinogenesis via inhibition of the MAPK and TGF β pathways. *FASEB J.* 22:A885.8.
- 133) Paulhill, K.J., S.S. Taddeo, G. Wu, R.J. Carroll, R.S. Chapkin, J.R. Lupton, and N.D. Turner. 2008. Endogenous antioxidant enzyme activities and colonocyte redox balance are altered by dietary lipids and quercetin. *FASEB J.* 22:A311.5.
- 134) Kim, H., N.D. Turner, S.S. Taddeo, L.A. Davidson, N. Wang, M. Vannucci, R.S. Chapkin, R.J. Carroll, and J.R. Lupton. 2008. A fish oil/pectin diet beneficially altered gene profiles during radiation-enhanced colon carcinogenesis. *FASEB J.* 22:A885.9.
- 135) Hong, M.Y., V. Baladandayuthanpani, Y. Li, R.J. Carroll, N.D. Turner, and J.R. Lupton. 2008. Coordinated p27^{Kip1} expression as a function of distance between crypts – Potential inter-crypt signaling. *FASEB J.* 22:A865.4.
- 136) Turner, N.D. 2008. Molecular mechanisms of dietary fibers in colon cancer and gut health. Presented at the Iowa State “Gut Health: Microbes, Immunity, Diet, Exercise, and Disease Prevention” symposium, May 7-9, Ames, IA.
- 137) Turner, N.D., L.M. Sanders, G. Wu, L.A. Davidson, L.A. Braby, J.R. Ford, R.J. Carroll, R.S. Chapkin, and J.R. Lupton. 2008. Dietary mitigation of the oxidative damage resulting from radiation exposure. 79th Annual Scientific Meeting of the Aerospace Medical Association, May 11-15, Boston, MA. *Aviat. Space Environ. Med* 79:215-216.
- 138) Turner, N.D., L.M. Sanders, G. Wu, L.A. Davidson, J.R. Ford, L.A. Braby, R.J. Carroll, R.S. Chapkin, and J.R. Lupton. 2008. Relationship between oxidative damage and colon carcinogenesis in irradiated rats: influence of dietary countermeasures. 37th COSPAR Scientific Assembly, July 13-20, Montreal, Canada. Abstract F24-0004-08.
- 139) Turner, N.D., S.S. Taddeo, L.A. Davidson, R.S. Chapkin, R.J. Carroll, J.R. Ford, L.A. Braby, J.R. Lupton. 2009. Radiation responsiveness of colonic mucosa detected from initiation through tumor development. NASA HRP Investigator’s Workshop. February 2-4, League City, TX.
- 140) Kim, H., N.D. Turner, S.S. Taddeo, L.A. Davidson, N. Wang, M. Vannucci, R.S. Chapkin, R.J. Carroll, and J.R. Lupton. 2009. A fish oil/pectin diet suppresses radiation-enhanced colon carcinogenesis via down-regulation of the β -catenin signaling pathway. *FASEB J.* 23:897.6.
- 141) Cho, Y., N.D. Turner, S.S. Taddeo, L.A. Davidson, N. Wang, M. Vannucci, R.J. Carroll, R.S. Chapkin, and J.R. Lupton. 2009. Chemoprotective fish oil/pectin diets temporally alter gene expression profiles in exfoliated colonocytes. *FASEB J.* 23:222.1.
- 142) Turner, N.D., S.S. Taddeo, J.B. Lewis, C.M. McDonough, and L.W. Rooney. 2009. Rats consuming bran from black and brown sorghums have lower short chain fatty acid concentrations and fewer aberrant colonic crypts. *FASEB J.* 23:560.2.
- 143) Paulhill, K.J., S.S. Taddeo, L.A. Davidson, R.J. Carroll, R.S. Chapkin, J.R. Lupton, and N.D. Turner. 2009. Dietary lipid source alters quercetin effects on antioxidant enzyme/phase I and II gene expression in rat colon. *FASEB J.* 23:897.5.
- 144) Lewis, J.B., S.S. Taddeo, C.M. McDonough, L.W. Rooney, R.J. Carroll, and N.D. Turner. 2009. Sorghum bran varieties protect against oxidative stress during colon carcinogenesis in part by differentially influencing endogenous antioxidant enzyme activities. *Frontiers of Cancer Research: Biology, Emerging Technologies and Therapeutics*. Presented 3/26/09, Houston, TX.
- 145) Turner, N.D., S.S. Taddeo, L.A. Davidson, R.S. Chapkin, R.J. Carroll, J.R. Ford, L.A. Braby, and J.R. Lupton. 2009. Radiation-induced gene expression changes in colonic mucosa detected at initiation through tumor development. *Frontiers of Cancer Research: Biology, Emerging Technologies and Therapeutics*. Presented 3/26/09, Houston, TX.
- 146) Paulhill, K.J., S.S. Taddeo, G. Wu, R.J. Carroll, R.S. Chapkin, J.R. Lupton, and N.D. Turner. 2009. Dietary lipids and quercetin alter endogenous antioxidant enzyme activities and colonocyte

- redox balance. *Frontiers of Cancer Research: Biology, Emerging Technologies and Therapeutics*. Presented 3/26/09, Houston, TX.
- 147) Lewis, J.B., S.S. Taddeo, C.M. McDonough, L.W. Rooney, R.J. Carroll, and N.D. Turner. 2009. Some sorghum brans protect against oxidative stress during colon carcinogenesis in part by differentially influencing endogenous antioxidant enzymes. Presented at the 2009 SICNA meeting, Amarillo, TX, August 11-12.
 - 148) Paulhill, K.J., S.S. Taddeo, G. Wu, R.J. Carroll, R.S. Chapkin, J.R. Lupton, and N.D. Turner. 2009. Dietary lipids and quercetin alter endogenous antioxidant enzyme activities and colonocyte redox balance. Poster at the 2009 VFIC Conference, August 21, 2009, Austin, TX.
 - 149) Turner, N.D., S.S. Taddeo, J.B. Lewis, R.J. Carroll, C.M. McDonough, and L.W. Rooney. 2009. Lower fecal short chain fatty acid concentrations in rats consuming polyphenol-rich sorghum bran diets results in fewer aberrant crypts. *Cereal Foods World* 54 (4, Suppl.):A69.
 - 150) Ferguson, C.M., K. Pokusaeva, I. Zorych, L.N. Thomas, S.S. Taddeo, E.S. Callaway, Y.Y. Fan, N.D. Turner, R.S. Chapkin, J.R. Lupton, and J.M. Sturino. 2009. Resistant starch differentially stimulates the proliferation of native gastrointestinal bifidobacteria. Presented at the United States National Academy of Sciences Sackler Symposium on Microbes and Health (Irvine, CA), November 2009.
 - 151) Turner, N.D., S.S. Taddeo, E.S. Callaway, Y.Y. Fan, L.A. Davidson, L.N. Thomas, C.M. Ferguson, J.M. Sturino, R.S. Chapkin, and J.R. Lupton. 2010. Differential activation of NF- κ B in colonic mucosa of DSS-challenged rats consuming fermentable fiber sources. *FASEB J.* 24:727.1.
 - 152) Turner, N.D., S.S. Taddeo, C.M. McDonough, and L.W. Rooney. 2010. Polyphenol-rich sorghum brans promote fecal water retention and alter short chain fatty acids in Sprague Dawley rats. *Cereal Foods World* 55 (4, Suppl.):A72-73.
 - 153) Ritchie, L.E., R.J. Carroll, B. Weeks, and N.D. Turner. 2010. Inflammation-induced injury suppression with novel brans. Presented at AICR Conference, October 22, 2010, Washington, DC.
 - 154) Piefer, L.A., R.E. Stehm, K.A. Krenek, B.R. Weeks, R.J. Carroll, D.H. Byrne, S.T. Talcott, and N.D. Turner. 2011. Chlorogenic acid reduced DSS-induced injury and NF- κ B activation in a rat colitis model. *FASEB J.* 25:773.13.
 - 155) Cho, Y., N.D. Turner, L.A. Davidson, R.S. Chapkin, and J.R. Lupton. 2011. A chemoprotective fish oil/pectin diet regulates the expression of the bcl-2 oncogene by altering CpG island methylator phenotype (CIMP) in colon cancer. *FASEB J.* 25:977.7.
 - 156) Ritchie, L.E., R.J. Carroll, B.R. Weeks, C.M. McDonough, L. Dykes, L.W. Rooney, and N.D. Turner. 2011. Reduction in DSS-induced enhancement of colonic injury and NF- κ B activation in rats consuming a diet containing black sorghum bran. *FASEB J.* 25:977.4.
 - 157) Ritchie, L.E., B.R. Weeks, L. Dykes, L.W. Rooney, and N.D. Turner. 2011. Transcriptional regulation of toll-like receptor 2 mediated signaling through NF- κ B by novel bran diets. Texas Genetics Society 38th annual meeting, April 1, 2011, Dallas, TX.
 - 158) Piefer, L.A., B.R. Weeks, R.J. Carroll, D.H. Byrne, A. Ambrus, and N.D. Turner. 2012. Quercetin and chlorogenic acid affect butyrate excretion, NF- κ B activity, and cell proliferation in DSS treated rats. *FASEB J.* 26:263.6.
 - 159) Ritchie, L.E., R.J. Carroll, B.R. Weeks, L.W. Rooney, and N.D. Turner. 2012. Novel sorghum brans containing bioactive compounds alter the production of microbial secondary metabolites in response to a DSS-induced chronic inflammatory state. *FASEB J.* 26:823.36.
 - 160) Daniels, W.D., T.P. Garcia, R.J. Carroll, B.S. Patil, and N.D. Turner. 2012. Suppression of early colon cancer lesions by apigenin and naringenin is in part due to their downregulation of p21, TLR-4, and MCT-1 expression. *FASEB J.* 26:1023.2.
 - 161) Ritchie, L.E., R.J. Carroll, B.R. Weeks, L.W. Rooney, and N.D. Turner. 2012. Nutritional mitigation of colonic injury by increased antioxidant capacity: Implications for space flight. NASA HRP Investigator's Workshop, February 14, 2012, Houston, TX.

- 162) Turner, N.D., C.B. Smith, and J.R. Lupton. 2012. The graduate training program in Space Life Sciences at Texas A&M University. NASA HRP Investigator's Workshop, February 14, 2012, Houston, TX.
- 163) Turner, N.D. 2012. Suppression of colon inflammation and cancer by indigestible carbohydrates is mediated by colonic microbiota. 2012 Institute of Food Technology annual meeting, Las Vegas, NV, June 25-28, 2012. Abstract #213-04.
- 164) Ritchie, L.E., J.L.L. Morgan, S.R. Zwart, S.M. Smith, and N.D. Turner. 2013. Elevated dietary iron and radiation exposure promote colon inflammation but suppress microbial metabolites and gene expression in rat colonic mucosa. NASA HRP Investigator's Workshop, February 12-14, 2013, Houston, TX.
- 165) MacLeish, M.Y., McNeel, R.L., Young, L.R., Turner, N.D., Hackler, A.E., Thomson, W.A. 2013. Success in mentoring is no accident: Improving mentoring in STEM education. NASA HRP Investigator's Workshop, February 13, 2013, Houston, TX.
- 166) Daniels, W.D., K.F. Allred, C.D. Allred, B.S. Patil, and N.D. Turner. 2013. Apigenin and naringenin decrease cell number in a dose dependent manner in non-transformed young adult mouse colonocytes (YAMC) but not in those expressing a dominant negative p53-mutant (mp53 YAMC). *FASEB J.* 27:639.7.
- 167) Seidel, D.V., I Martínez, S.S. Taddeo, R. Zoh, M.D. Haub, J. Walter, and N.D. Turner. 2013. Sorghum-based dietary intervention enriches *Faecalibacterium prauxnitzi* in fecal samples of overweight individuals. *FASEB J.* 27:1056.12.
- 168) Ritchie, L.E., J.M. Sturino, M.A. Azcarate-Peril, and N.D. Turner. 2013. Novel sorghum brans containing bioactive compounds alter colon microbiota in response to a DSS-induced chronic inflammatory state. *FASEB J.* 27:247.2.
- 169) Ritchie, L.E., J.M. Sturino, M.A. Azcarate-Peril, and N.D. Turner. 2013. Novel sorghum brans containing bioactive compounds alter colon microbiota and differentially restore species diversity and richness in response to a DSS-induced chronic inflammatory state. Texas Genetics Society.
- 170) Turner, N.D., D.V. Seidel, L.E. Ritchie, I. Martinez, J. Walter, T. Carr, M.D. Haub, and L.W. Rooney. 2013. Multidimensional benefits of consuming polyphenol-enriched sorghum grains. *Cereal Foods World* 58:A29.
- 171) Chapkin, R.S., L.A. Davidson, J.W. Lampe, N.D. Turner, Y.-Y. Fan, J.R. Lupton. 2013. Fat-fiber combination: The missing ingredient? AACR Frontiers in Cancer Prevention Research, October 28, Washington DC.
- 172) Shirazi-Fard, Y., J.W. Alwood, A.S. Schreurs, M. Shahnazari, L.H. Tran, P. Ghosh, J.M. Stabley, N.D. Turner, M.D. Delp, C.L. Limoli, and R.K. Globus. 2014. Deleterious effects of simulated spaceflight on bone and microvasculature in adult mice. NASA HRP Investigator's Workshop. Abstract #3193.
- 173) Turner, N.D., C.B. Smith, and J.R. Lupton. 2014. Implementation of program components and activities to facilitate success of graduate researchers in the Mentored Research Program at Texas A&M University. NASA HRP Investigator's Workshop. Abstract #3216.
- 174) Seidel, D.V., I. Martinez, S.S. Taddeo, M.L. Joseph, R.J. Carroll, M.D. Haub, J. Walter, and N.D. Turner. 2014. A polyphenol-rich sumac sorghum cereal alters colon microbiota and plasma metabolites in human subjects. NASA HRP Investigator's Workshop. Abstract #3227.
- 175) Ritchie, L.E., S.R. Zwart, S.M. Smith, M.A. Azcarate-Peril, and N.D. Turner. 2014. Impact of the space environment on intestinal homeostasis: Characterizing alterations to the intestinal microbiota. NASA HRP Investigator's Workshop. Abstract #3028.
- 176) Seidel, D.V., I. Martinez, S.S. Taddeo, M.L. Joseph, R.J. Carroll, M.D. Haub, J. Walter, and N.D. Turner. 2014. A polyphenol-rich sorghum cereal alters microbiota and plasma metabolites in overweight subjects. *FASEB J.* 28:270.7.

- 177) Kim, E., L.A. Davidson, B.S. Patil, G.K. Jayaprakasha, E.S. Callaway, N.D. Turner, and R.S. Chapkin. 2014. Effects of chemoprotective diets on crypt adult stem cells-the cells of origin of colon cancer. *FASEB J.* 28:819.1
- 178) Banerjee, N., H. Kim, N.D. Turner, and S. Mertens-Talcott. 2014. Plum polyphenolics chlorogenic acid suppressed AOM-induced colorectal aberrant crypt foci: Potential role of miR-143/mTOR pathway. *FASEB J.* 28:644.4.
- 179) Turner, N.D., L.E. Ritchie, and D.V. Seidel. 2014. Colon cancer chemoprevention by polyphenol-enriched sorghum grains occurs through multiple mechanisms. Invited talk at BIT's 7th Annual World Cancer Congress, Nanjing China, May 18. p. 80.
- 180) Turner, N.D., L.E. Ritchie, D. Seidel, K. Hicks, A. Azcarate-Peril, J. Walter, and A. Jayaraman. 2014. Improving colon and systemic health through dietary bioactives that target colon microbiota. Presented at the Texas A&M Nutrition Obesity Research Mini-Symposium, October 31, 2014.
- 181) Turner, N.D., S.S. Taddeo, J.R. Lupton. 2015. The mentored research program at Texas A&M University: Overall graduate student development. Presented at the NASA HRP Investigator's Workshop. January 14, 2015.
- 182) Turner, N.D., J.R. Ford, R.J. Carroll, and R.S. Chapkin. 2015. Radiation-induced apoptosis avoidance and colon tumorigenesis: Epigenetic regulation in adult stem cells. Presented at the NASA HRP Investigator's Workshop. January 15, 2015.
- 183) Seidel, D.V., I. Martinez, K.K. Hicks, S.S. Taddeo, M.L. Joseph, R.J. Carroll, M.D. Haub, J. Walter, A. Jayaraman, and N.D. Turner. 2015. A polyphenol-rich sumac sorghum cereal alters colon microbiota and plasma metabolites in human subjects. Presented at the NASA HRP Investigator's Workshop. January 14, 2015.
- 184) Metzger, C.E., D. Seidel, M.R. Allen, H.A. Hogan, N.D. Turner, S.R. Zwart, and S.A. Bloomfield. 2015. Modulation of bone response to long-term disuse by iron overload. Presented at the NASA HRP Investigator's Workshop. January 14, 2015.
- 185) Hicks, K.K., R.L. Walzem, R.J. Carroll, and N.D. Turner. 2015. A polyphenol rich sumac sorghum cereal alters lipoprotein subfractions resulting in a more cardioprotective lipoprotein profile. *FASEB J* 29:923.1. Received 1st place poster award for this work at the Nutrition & Food Science Research Symposium at TAMU, 3/15.
- 186) Seidel, D.V., K.K. Hicks, S.S. Taddeo, M.A. Azcarate-Peril, R.J. Carroll, and N.D. Turner. 2015. Dried plums modify colon microbiota composition and spatial distribution, and protect against chemically-induced carcinogenesis. *FASEB J* 29:394.7.
- 187) Kim, E., L.A. Davidson, B.S. Patil, G.K. Jayaprakasha, E.S. Callaway, N.D. Turner, and R.S. Chapkin. 2015. Chemoprotective natural compounds targeting DNA damaged stem cells-the cells of origin of colon cancer. *FASEB J.* 29:670.9.
- 188) Lloyd, S.K., K.K. Hicks, R.L. Walzem, R.J. Carroll, M.K. Haub, and N.D. Turner. 2015. Sorghum alters lipoprotein subfractions supporting the cardioprotective role of sorghum in the diet. Submitted to SICNA.
- 189) Moraes, E.A., S.A. Lenquiste, R.S. Marineli, V.A.V. Queiroz, N.D. Turner, and M.R.M. Junior. 2015. In vivo antioxidant status in diet-induced obese rats consuming sorghum flour fractions. Submitted to SICNA.
- 190) Moraes, E.A., S.K. Lloyd, D.V. Seidel, and N.D. Turner. 2015. Sorghum bran down-regulates Cox-2 and Bcl-2 expression in rats induced to develop colon cancer. Submitted to SICNA.
- 191) Bokhari, R., C.E. Metzger, M.R. Allen, S. Lenfest, H.A. Hogan, N.D. Turner, S.R. Zwart, and S.A. Bloomfield. 2015. Moderate elevations in iron stores improves skeletal integrity in mice even during disuse. Submitted to ASBMR.
- 192) Bloomfield, S.A., R. Bokhari, C.E. Metzger, M.R. Allen, S. Lenfest, H.A. Hogan, N.D. Turner, and S.R. Zwart. 2015. Moderate elevations in iron stores improve skeletal integrity in

weightbearing and hindlimb-unloaded mice. Submitted to American Society for Gravitational and Space Research (ASGSR).

e. Book chapters/Books

- 1) Byers, F. M., N. D. Turner and H. R. Cross. 1993. Meat products in a low-fat diet. In: A. M. Altschul (Ed.). *Low-Calorie Foods Handbook*. pp. 343-375. Marcel Dekker, Inc., New York.
- 2) Lupton, J.R., and N.D. Turner. 2000. Carbohydrates - Dietary fiber. In: M. Stipanuk (Ed.). *Biochemical & Physiological Bases of Human Nutrition*, pp 143-154. Saunders Co., Philadelphia, PA.
- 3) Lupton, J.R., and N.D. Turner. 2006. Dietary fiber. In: M. Stipanuk (Ed.). *Biochemical, Physiological, & Molecular Aspects of Human Nutrition*, revised edition. Chapter 11, pp. 240-253. Saunders/Elsevier, St. Louis, MO.
- 4) Turner, N.D., J. Vanamala, T. Leonardi, B.S. Patil, M.E. Murphy, N. Wang, L.M. Pike, R.S. Chapkin, and J.R. Lupton. 2006. Grapefruit and its isolated bioactive compounds act as colon cancer chemoprotectants in rats. *Potential Health Benefits of Citrus*. Chapter 9, pp. 121-129. Oxford University Press, Cary, NC.
- 5) Patil, B., J.S. Brodbelt, E.D. Miller, and N.D. Turner. 2006. Potential health benefits of citrus: An overview. In: *Potential Health Benefits of Citrus*. Chapter 1, pp. 1-16. Oxford University Press, Cary, NC.
- 6) Patil, B., N.D. Turner, E.D. Miller, and J.S. Brodbelt (Eds.). 2006. *Potential Health Benefits of Citrus*. Oxford University Press, Cary, NC.
- 7) Turner, N.D. 2014. Cancer health concerns. In: *The Encyclopedia of Meat Sciences*, 2nd Ed. Chapter 176. Elsevier. Published October 22, 2014.
- 8) Allred, C.D., K.S. Geismar, and N.D. Turner. *Nutrition: Real People – Real Choices*. Kendall-Hunt Publishers. (In press).

f. Papers presented at meetings/Invited seminars

- 1) Turner, N.D. Expression of mutant bovine growth hormone genes in mice perturbs age-related nutrient utilization patterns. Invited seminar given to the Reproductive Physiology Seminar Series. Fall 1995.
- 2) Turner, N.D., N.H. Ing, and J.R. Lupton. Estrogen receptor expression in colonocytes exposed to different levels of dietary phytoestrogens. Invited presentation to the Center for Environmental and Rural Health Annual Meeting, May 25, 1999.
- 3) Turner, N.D., Ing, N.H., Carroll, R.J., Taddeo, S.S. and Lupton, J.R. 2000. Estrogen receptor alpha levels in rats consuming wheat or oat bran and injected with azoxymethane. Invited presentation for External Review of the Center for Environmental and Rural Health, May 22, 2000.
- 4) Turner, N.D. 2000. How to give a scientific presentation. Invited seminar to the ALPS Program, Texas A&M University, June 22, 2000.
- 5) Turner, N.D., R.S. Chapkin, and J.R. Lupton. 2000. Cancer chemoprevention: Potential for functional foods. Invited talk presented at the International Conference and Exhibition on Nutraceuticals and Functional Foods, Houston, Texas, September 16.
- 6) Turner, N.D., R.S. Chapkin, and J.R. Lupton. 2000. Phytochemicals and Colon Cancer Prevention. Invited seminar presented to the Interdisciplinary Faculty of Nutrition at Texas A&M University, December.
- 7) Turner, N.D. 2001. Nutraceuticals vs Functional Foods for Cancer Prevention. Invited seminar presented to the Interdisciplinary Faculty of Food Science at Texas A&M University, February 2.
- 8) Turner, N.D. 2001. Phytochemicals as Cancer Chemoprotectants: Opportunities and Concerns. Invited seminar presented to the Center for Nutrition, Health and Food Genomics of the Institute for Food Science and Engineering at Texas A&M University. June 28, 2001.

- 9) Turner, N.D. 2001. How to give a scientific presentation. Presented to the participants in the High School Research Program. July 18, 2001.
- 10) Turner, N.D. 2001. Role of diet in mediating the dangers associated with long term spaceflight. Presented to the participants in the NSBRI Teaching Institute. July 19, 2001.
- 11) Turner, N.D. 2002. Quercetin – A possible cancer chemopreventive agent. Presented at the annual meeting of the Vegetable and Fruit Improvement Center. February 21, 2002.
- 12) Turner, N.D. 2002. How to give an oral and poster scientific presentation. Presented to the University Undergraduate Honors Program. February 26, 2002.
- 13) Turner, N.D. 2002. Role of diet in mediating the dangers associated with long term spaceflight. Presented to the participants in the NSBRI Teaching Institute. June 25, 2002.
- 14) Turner, N.D. 2003. Nutrition and health in space. Presented in the University Honors Week Symposium on “Space Exploration & Research”. April 7, 2003.
- 15) Turner, N.D. 2003. So how does diet affect colon cancer development? Presented to Department of Animal Science. May 7, 2003.
- 16) Turner, N.D. 2003. Role of diet in mediating the dangers associated with long term spaceflight. Presented to the participants in the NSBRI Teaching Institute. July 22, 2003.
- 17) Patil, B., N.D. Turner, J.R. Lupton, E. Miller, H. Ahmad, and J. Brodbelt. 2003. Bioactive citrus limonoids and human health. Presented at the Functional Foods and Biotechnology: A Critical Interaction workshop, Washington, DC. October 31 – November 1, 2003.
- 18) Turner, N.D. and J.R. Lupton. 2004. Review of research findings from NSBRI project. Presented at the annual NSBRI Bioastronautics Conference, Del Lago Conference Center in Conroe TX, January 11-15, 2004.
- 19) Turner, N.D. 2004. Humans in space: Can nutrition help to overcome the hurdles? Invited presentation to the Interdisciplinary Faculty of Food Science, February 13, 2004.
- 20) Turner, N.D., C.A. Warren, K.J. Paulhill, T. Leonardi, J. Vanamala, R.S. Chapkin, and J.R. Lupton. 2004. Chemoprevention in the rat azoxymethane model of colon cancer by bioactive compounds in fruits and vegetables. *HortScience* 39:742.
- 21) Turner, N.D., J. Vanamala, T. Leonardi, B.S. Patil, M.E. Murphy, N. Wang, L.M. Pike, R.S. Chapkin, and J.R. Lupton. 2004. Grapefruit and its isolated bioactive compounds act as colon cancer chemoprotectants in rats. *Amer. Chem. Soc. Abstract* 228:U70-U71 129-AGFD, Part 1.
- 22) Turner, N.D. 2004. Citrus as one component in a diet for colon cancer prevention. Presented at the Global Citrus Health Benefits Initiative, held in conjunction with the ACS annual meeting, Philadelphia, PA, August 23, 2004.
- 23) Turner, N.D., C.A. Warren, K.J. Paulhill, L.M. Sanders, M.Y. Hong, K.L. Covert, L.A. Davidson, R.S. Chapkin, and J.R. Lupton. 2005. Fermentation products in colon health: Mediators of cell kinetics and gene expression. 2005 Conference on Gastrointestinal Function, Chicago, IL, April 2005.
- 24) Turner, N.D. 2006. Can citrus contribute towards colon cancer prevention? California Citrus Industry Association. July 12-14, California.
- 25) Turner, N.D. 2006. Contribution of citrus towards a diet that may protect against colon cancer. Session on: Promoting the Health Benefits of Fruits and Vegetables: A Citrus Case Study held at the Texas Produce Association Convention. August 11, San Antonio, TX.
- 26) Turner, N.D., K.J. Paulhill, C.A. Warren, R.J. Carroll, N. Wang, R.S. Chapkin, and J.R. Lupton. 2007. Quercetin suppresses early colon carcinogenesis partly through inhibition of inflammatory mediators. Presented at the 2nd International Symposium on the Human Health Effects of Fruits and Vegetables, October 9-13, 2007, Houston, TX.
- 27) Turner, N.D. 2008. Molecular mechanisms of dietary fibers in colon cancer and gut health. Presented at the Iowa State “Gut Health: Microbes, Immunity, Diet, Exercise, and Disease Prevention” symposium, May 7-9, Ames, IA.
- 28) Turner, N.D., L.M. Sanders, G. Wu, L.A. Davidson, J.R. Ford, L.A. Braby, R.J. Carroll, R.S. Chapkin, and J.R. Lupton. 2008. Relationship between oxidative damage and colon carcinogenesis

- in irradiated rats: influence of dietary countermeasures. Presented at the 37th COSPAR Scientific Assembly, July 13-20, Montreal, Canada. Abstract F24-0004-08.
- 29) Turner, N.D. 2009. Fiber and colon cancer prevention: Molecular mechanisms. Invited seminar given at the University of North Texas Health Science Center, Institute for Cancer Research, October 7, Fort Worth, TX.
 - 30) Turner, N.D. 2010. Polyphenol-rich sorghum brans suppress colon carcinogenesis. Invited seminar given at the Sorghum: A Whole Grain & Gluten Free-Solution meeting, June 2-3, 2010, Manhattan, Kansas.
 - 31) Turner, N.D. 2010. Implications of depressed food/nutrient intake in space. Invited lecture given at the NSBRI Summer Bioastronautics Institute, June 4, 2010, Houston, TX.
 - 32) Turner, N.D. 2010. Radiation effects on the colon and underlying mechanisms for dietary mitigation. Invited lecture given at the NSBRI Summer Bioastronautics Institute, June 4, 2010, Houston, TX.
 - 33) Turner, N.D. 2010. Sorghum grain: It's relevance to human health. Presented at a Sorghum Symposium at Manhattan, Kansas, October 19, 2010.
 - 34) Turner, N.D., J. Awika, L.W. Rooney, M. Haub, T. Carr, J. Walter, and C. Weller. 2010. Sorghum's multiple roles in human health. Presented at the USCP Board of Director's meeting in Lubbock, Texas, December 13, 2010.
 - 35) Turner, N.D. 2011. Molecular mechanisms underlying dietary chemoprevention of colon cancer. Invited seminar presented to the Department of Health & Kinesiology, TAMU, February 14, 2011.
 - 36) Turner, N.D. 2011. Sorghum grain – Its relevance to human health. Invited seminar presented to the Faculty of Food Science and Technology, TAMU, February 21, 2011.
 - 37) Turner, N.D. 2011. So how healthy is sorghum? Invited seminar presented to Meredith Publishing Editors and Test Kitchen Managers, Des Moines, IA, May 5, 2011.
 - 38) Turner, N.D. 2011. Sorghum's Multiple Benefits to Human Health. Presentation to the United Sorghum Checkoff Board Marketing group, Stillwater, OK, September 11, 2011.
 - 39) Turner, N.D., C.B. Smith, and J.R. Lupton. 2012. The graduate training program in Space Life Sciences at Texas A&M University. *Invited Talk* presented at the NASA HRP Investigator's Workshop, February 14, 2012, Houston, TX.
 - 40) Turner, N.D. 2012. Sorghum – It's a great new, gluten-free old grain. Invited presentation for the Texas Dietetic Association Food & Nutrition Conference & Exhibition, San Antonio, TX, April 12-14, 2012.
 - 41) Turner, N.D. 2012. Suppression of colon inflammation and cancer by indigestible carbohydrates is mediated by colonic microbiota. Invited presentation for the Institute of Food Technology annual meeting, Las Vegas, NV, June 25-28, 2012.
 - 42) Turner, N.D. 2012. Contribution of sorghum to suppressing human disease. Invited presentation at the 29th Sorghum Research and Utilization Conference, Manhattan, KS. August 28, 2012.
 - 43) Turner, N.D. 2012. Creating digital teaching resources and getting credit for them outside of the classroom. Presented as a Center for Teaching Excellence workshop. October 11, 2012.
 - 44) Turner, N.D. 2012. Suppression of Colon Inflammation and Cancer by Dietary Bioactives. Presentation given at the W3122 Western Regional Multistate Project meeting held at Estes Park, CO on October 25.
 - 45) Turner, N.D. 2012. Disease suppression with sorghum bioactives. United Sorghum Checkoff Board of Director's Meeting, December 11, 2012.
 - 46) Turner, N.D. 2013. Mentoring: A collaborative effort to achieve success. Invited presentation for the NSBRI Summer Bioastronautics Institute, Houston, TX. May 28, 2013.
 - 47) Turner, N.D. 2013. Health implications of bioactives in foods and extracts. Invited presentation given at the Texas A&M University Nutraceuticals & Functional Foods Short Course, July 29, 2013.
 - 48) Turner, N.D. 2013. Your current diet and your long-term health. Lecture given to two Health classes (KINE 198). TAMU, Doha, Qatar, November 25 and November 26, 2013.

- 49) Turner, N.D. 2013. Maintenance of intestinal health and prevention of colon disease through dietary interventions. Invited seminar given as part of the Liberal Arts Lecture Series, TAMU, Doha, Qatar. November 26, 2013.
- 50) Turner, N.D. 2013. Colon Health – Influence of dietary fiber and bioactives in foods. Invited seminar given to the Integrative Medicine and Nutrition Group, Texas A&M University Health Science Center. December 4, 2013.
- 51) Turner, N.D. 2014. Maintenance of intestinal health and prevention of colon disease through dietary interventions. VFIC 20th Anniversary Conference, February 26, 2014.
- 52) Turner, N.D. 2014. Dietary components that support intestinal and systemic health. Invited presentation given to the Alamo IFT Division, April 17.
- 53) Turner, N.D., L.E. Ritchie, and D.V. Seidel. 2014. Colon cancer chemoprevention by polyphenol-enriched sorghum grains occurs through multiple mechanisms. Invited presentation given during the BIT 7th Annual World Cancer Congress, Nanjing China, May 18.
- 54) Turner, N.D. 2014. Dietary components that support intestinal and systemic health. Invited presentation given at China Agricultural University, Beijing, May 23.
- 55) Turner, N.D. 2014. Nutrition attributes and health benefits research update. Invited presentation given at the Sorghum 360 Conference, in association with the annual IFT meeting, New Orleans, June 15.
- 56) Turner, N.D. 2014. Health promoting potential of bioactive compounds in our food supply. Invited presentation given at the Texas A&M University Functional Beverages Short Course, July, 26, 2014.
- 57) Turner, N.D. 2014. Dietary components that support intestinal and systemic health. Invited seminar given to the Toxicology Faculty, Texas A&M University, November 24, 2014.
- 58) Turner, N.D. 2015. The smallest astronauts: How does the space environment impact them? Invited seminar given during the Exercise Physiology Seminar Series, April 27, 2015.
- 59) Turner, N.D. 2015. Interplay of dietary bioactive compounds and microbiota in intestinal health. Invited seminar given to the Department of Veterinary Pathobiology, Texas A&M University, May 26, 2015.
- 60) Turner, N.D. 2015. Evaluation of the NASA Evidence Report: Risk Factor of Inadequate Nutrition. Invited review/presentation given to the Institute of Medicine review panel, June 22, 2015.

g. Invention disclosures/patents

- 1) Miller, E., B. Patil, N.D. Turner. 2005. Anticancer activity of naringin and naringenin. Disclosure of invention TAMUS-2234, April 14 and 27, 2005.
- 2) Lupton, J.R., N.D. Turner, Y. Cho, H. Kim. 2008. Gene expression signatures for colon carcinogenesis and radiation-induced cellular transformation. Disclosure of invention TAMUS-2862, November 10, 2008.
- 3) Lupton, J.R., N.D. Turner, Y. Cho, H. Kim. 2010. Compositions and methods for preventing and monitoring disease. Patent Application (12761234, Serial No. 61/170,026 filed on 4/16/2010.

C. Service Activities

1. Percent of budgeted time = 0%, 10% of effort

My service goal is to provide any and all assistance possible to the Department, University and to my professional societies, recognizing my time is an important commodity that must be partitioned wisely. The time spent serving as a reviewer for journal articles and or on proposal review panels is valuable to the furtherance of my career and to my publication and proposal success rates. Therefore, these activities are seen as a priority.

2. Type of activity

a. University (Faculty wide)

- 1) Member of the National Agricultural Biotechnology Council (NABC-4) planning committee, 1991-1992
- 2) Organized university-wide graduate student research poster competition. Spring 1994
- 3) Served on the Human Nutrition Conference Committee, 1994-1995.
- 4) Active member of the Faculty of Nutrition. Elected to Associate membership in 1997.
- 5) Started serving on Graduate Program Committee in Spring 1997.
- 6) Judge, Brazos Valley Science Fair, Spring, 1998 - present
- 7) Became a member of the FRDP committee with the mission of developing both federal and state funding initiatives to support Foods for Health research.
- 8) Dedicated 30% of my time towards the coordination of several groups with the goal of preparing NIH-sponsored Program Project Grant Proposals, in association with the FRDP committee. (1998-99)
- 9) Member of the search committee for the new Director of the Medical Sciences Library, 12/99 - 00
- 10) Judge for Student Research Week Poster session, Spring 2000.
- 11) Elected to serve on the Executive Committee of the Faculty of Nutrition, 2001-2003.
- 12) Chosen to serve on the NSBRI Teaching Institute Advisory Board, 2001 – 2004.
- 13) Appointed Vice-Chair of the Faculty of Nutrition, 2002-2003.
- 14) Participated in a panel discussion on Space Exploration & Research put on by the University Honors Program, April 7, 2003.
- 15) Judge for Student Research Week Poster session, Spring, 2003.
- 16) Appointed Co-leader of the Health Benefits group in the “Foods for Health” Program of the VFIC, starting January 2004.
- 17) Participated in the “Developing Collegiate Leaders” symposium of the SBSLC, January 23, 2004.
- 18) Re-elected to Executive Committee of the Faculty of Nutrition, 2004-2007.
- 19) Re-appointed as Vice-Chair of Faculty of Nutrition, 2004-2007.
- 20) Member of the search committee for the new director of the VFIC, 2004
- 21) Served as Chair of the Intercollegiate Faculty of Nutrition, 2005-2008.
- 22) Judge for the International Student Association International Buffet, 2/2008.
- 23) Served as Past-Chair on the Executive Committee of the Faculty of Nutrition, 2008-2009.
- 24) Reviewer for the 2009-2010 Graduate Diversity Fellowships.
- 25) Mentor, Graduate Teaching Academy, 2008-2009, Liyi Yang.
- 26) Elected to serve as the College of Agriculture representative to the Faculty Senate Subcommittee on Non-Tenure Track Faculty, 2009-2012, 2012-2015

- 27) Member of the IFN Curriculum Committee and Admissions Committee, 2010-2012 (Chair, Admissions Committee, 2010-2012).
- 28) Vice Chancellor's Awards in Excellence Committee, 2008-2010 (Chair, 2009-2010)
- 29) Elected to serve a Chair of the Nominations Committee, Sigma Xi, 6/2011-5/2013.
- 30) Delivered talk on Work Ethic and Culture of Graduate School to Mentoring for Success in Research Learning Community, 10/10/11
- 31) Judge, Pathways to the Doctorate Research Symposium, 11/11/11.
- 32) Elected to President-Elect position, TAMU chapter of Sigma Xi, 6/2013-5/2014.
- 33) Faculty Table Host, OGAPS Community of Scholars Event, 4/8/14.
- 34) Elected to Faculty Senate, 9/14-8/17, member of the Research Committee.
- 35) President, TAMU chapter of Sigma Xi, 6/2014-5/2015.
- 36) Judge, Merit Fellowship Applications, OGAPS, 2/13/15.
- 37) Faculty Table Host, OGAPS Community of Scholars Event, 4/7/15.
- 38) Membership Committee, Faculty of Genetics 2015-
- 39) Judge, Pathways to the Doctorate Research Symposium, 10/23/15.

b. Department

- 1) Developed Animal Science Department Animal Facility Brochures, 1991.
- 2) Member International Strategy Committee; conducted Departmental survey of international activity to develop a Departmental Capability Statement for the International Programs Office, 1991.
- 3) Animal Science Department Capital Campaign Committee, 1991-92.
- 4) Department of Animal Science Open House Committee; Coordinator of Graduate Student Poster Contest, 1993.
- 5) Member of the search committee for a new Extension Nutritionist position, 1999.
- 6) Member of Search Advisory Committee for the Head, Department of Animal Science, 2001-2002.
- 7) Member of Departmental Seminar Committee, 2003-2004.
- 8) Faculty Coordinator of Kleberg Animal Facility, 1/2005-2007.
- 9) Member of the search committee for the Molecular/Cellular Nutrition position, 2005
- 10) Member of the Departmental Awards Committee, 2005-2006.
- 11) Served as ex-officio member of the Graduate Program Committee, 2007-2008.
- 12) Member, Facilities Committee, Graduate Program Committee, and Seminar Committee, 2008-2009.
- 13) Member, Facilities Committee (Chair), Graduate Program Committee, Seminar Committee, Ad hoc Survey Committee, and Subcommittee for Vivarium Operations, 2009-2010.
- 14) Member, Facilities Committee (Chair), Graduate Program Committee, Seminar Committee, Ad hoc Survey Committee, and Subcommittee for Vivarium Operations, 2010-2011.
- 15) Member, Facilities Committee (Chair), Graduate Program Committee, Seminar Committee, Assessment Committee, 2011-2012.
- 16) Member, Bylaws Revision Committee, 2012.
- 17) Member, Awards Committee, Assessment Committee, 2012-2013; Chair, Nutrition Graduate Student Admissions Committee 2012-2013; Joint-Chair, Graduate Program Committee 2012-2013.
- 18) Member, Awards Committee, Undergraduate Program Committee, Undergraduate Assessment Sub-Committee, Faculty Tenure and Promotion Committee, 2013-2014; Chair, Nutrition Graduate Student Admissions Committee 2013-2014; Joint-Chair, Graduate Program Committee 2013-2014.
- 19) Member, Undergraduate Program Committee, Undergraduate Assessment Sub-Committee, Faculty Tenure and Promotion Committee, 2014-2015; Chair, Nutrition Graduate Student Admissions Committee 2014-2015; Joint-Chair, Graduate Program Committee 2013-2017, Awards Committee 2014/2015.

c. Community

- 1) Public relations committee of Brazos Valley Habitat for Humanity, 1998-2002.

d. State/National/International

- 1) Ad hoc reviewer for the Georgian – US Bilateral Grants Program.

- 2) Served as a member on the proposal review panel for USDA's NRI program on Improving Human Nutrition for Optimal Health, February 2003
- 3) Co-chair of the Diet and Reproductive Cancer session at the Experimental Biology meeting, April 2003
- 4) Elected Secretary/Treasurer of the Diet & Cancer RIS of ASNS, 2003-2005
- 5) Ad hoc reviewer for the National Medical Research Council (Singapore), 9/2003
- 6) Ad hoc reviewer for USDA's NRI program on Improving Human Nutrition for Optimal Health, February 2004
- 7) Co-chair of the Animal Models for Diet and Cancer session at the Experimental Biology meeting, April 2004
- 8) Moderator of a session on Potential Health Benefits of Citrus at the American Chemical Society meeting, August 2004
- 9) Ad hoc reviewer for USDA's NRI program on Bioactive Food Components for Optimal Health, February 2005
- 10) Chair of the Animal Models for Diet and Cancer session at the Experimental Biology meeting, April 2005
- 11) Jury member, ASN Excellence in Nutrition Education Award, October 2005
- 12) Chair of the Postdoctoral proposal review committee for ASN, February 2006
- 13) Ad hoc member of the Chemo/Dietary Prevention study section, NIH, February 2006
- 14) Jury member, ASN Conrad Elvehjem Award and the ASN Nutrition Science Journalism Award, ASN, October 2006
- 15) Elected to serve as the Secretary/Treasurer of the Nutrition Science Council for ASN, June 2007 – May 2010
- 16) Jury member, ASN Bio Serve Award, McCormick Institute Award and Weinsier Award, October 2007
- 17) Elected to serve as Chair-Elect of ASN Diet & Cancer Research Interest Section, April 2008-April 2009
- 18) Reviewer of Dr. Eva Schmelz's Tenure package for Virginia Tech, 7/08.
- 19) Reviewer of the Texas A&M-CONACYT: Collaborative Research Grant Program, 10/2008 – 2/2009
- 20) Co-chair of the Diet and Cancer session at the Experimental Biology meeting, April 2009
- 21) Member of the Food and Fibers Research Grant Proposal Review Panel, April 2009
- 22) Chair, Diet & Cancer RIS for ASN, June 1, 2009 – May 31, 2010
- 23) Elected a Councilor of the Society for Experimental Biology and Medicine, July 1, 2009 – June 30, 2013
- 24) Mentor, Sigma Xi representative to the Conrad Foundation, Spirit of Innovation Awards, September 2009-February 2010
- 25) Member Review panel for NSBRI postdoctoral proposals, September 2009
- 26) Member, SEBM Young Investigator Awards Committee, January 2010
- 27) Member, ASN Symposium Advisory Committee, March 2010
- 28) Co-Chair of symposium on Dietary Regulation of miRNA Expression and Cancer Prevention at EB10, April 2010
- 29) Chair of 2 minisymposia at EB10, April 2010
- 30) Served as Chair of the Diet & Cancer RIS annual business meeting
- 31) Served as Past-Chair of the Diet & Cancer RIS for ASN, June 1, 2010 – May 31, 2011
- 32) Member, AACC Academic Partner Committee, October, 2010 – 2014
- 33) Ad hoc Member, NSBRI Postdoctoral Fellowship proposal review panel, September 22, 2010.
- 34) Member, SEBM Young Investigator Awards Committee, January 2011
- 35) Chair, SEBM Membership Committee, July 1, 2011 – 2013
- 36) Ad hoc Member, Review panel for the National Medical Research Council, Singapore, February 2011 and July 2011

- 37) Ad hoc Member, Review panel for Cancer Research, UK, March 2011
- 38) Member of the NASA Oxidative Stress and Damage Working group, 2011-2012
- 39) Chair, Chemistry and Utilization symposium at the 29th Sorghum Research and Utilization Conference, Manhattan, KS, August 28-30, 2012.
- 40) Member, Pet Natural Nutrition Board, The Nutro Company (A Mars Company subsidiary), 2012-present.
- 41) Chair, Chemistry and Utilization symposium at the 30th Sorghum Research and Utilization Conference, Lubbock, TX, August 28-30, 2013.
- 42) Co-Chair of the Diet and Cancer session at the Experimental Biology meeting, April 2014
- 43) External proposal reviewer for College of Agriculture, Biotechnology and Natural Resources/NAES, University of Nevada, Reno, November 13, 2014.
- 44) External proposal reviewer for Oklahoma State University, Agricultural Experiment Station, January 21 – February 20, 2015.
- 45) Co-Chair of the Resistant Starch, Microbiota and Gut Health Symposium at the Experimental Biology meeting, April 1, 2015 (replacement for Cindy Davis).
- 46) Technical abstract reviewer for AACCI, April/May 2015.
- 47) Nominated for Treasurer of the Society for Experimental Biology and Medicine, October 2015.

D. Professional, Scientific and Honor Society Activities

1. Continued membership in:
 - American Society for Nutrition
 - American Society of Animal Science
 - American Society for the Advancement of Science
 - The New York Academy of Sciences
 - Society for Experimental Biology and Medicine
 - Gamma Sigma Delta
 - Women's Faculty Network
 - American Physiological Society
 - American Association for Cancer Research
 - American Association of Cereal Chemists
 - Sigma Xi
2. Editorial positions:
 - a. Assistant to Journal of Nutrition Associate Editor (Dr. Joanne Lupton)
 - b. Ad hoc reviewer for Bioresource Technology; Journal of Nutrition; Advances in Nutrition; Journal of Animal Science; Cancer Prevention Research; Nutrition and Cancer; BMC Cancer; American Journal of Clinical Nutrition; Molecular Carcinogenesis; FASEB Journal; Alcohol; Journal of Nutritional Biochemistry; Experimental Biology and Medicine; Integrative Cancer Therapies; Biochimica et Biophysica Acta; Acta Chimica Slovenica; Cancer Letters; PLoS One; European Journal of Clinical Nutrition; European Journal of Nutrition; Cereals Food World; Carcinogenesis; Journal of Nutrigenetics and Nutrigenomics; Clinical and Experimental Metastasis; British Journal of Nutrition; American Journal of Physiology – Regulatory, Integrative and Comparative Physiology; American Journal of Physiology – Gastrointestinal and Liver Physiology; BMC Gastroenterology; Nutrition Research; Medical Oncology; Cell Biochemistry and Function; Lipids; Gravitational and Space Biology; Acta Astronautica; Theoretical Biology & Medical Modelling; Journal of Medicinal Food; Molecular Nutrition and Food Research; Journal of Cereal Science; Food and Chemical Toxicology; Molecules; Trends in Food Science and Technology; Acta Odontologica Scandinavica; Aviation, Space and Environmental Medicine; Cereal Chemistry; Journal of Applied Physiology; Food and Chemical Toxicology; Food Reviews International; Amino Acids; Ethnicity and Disease; AJFAND; Journal of Zhejiang University – Science B; NIOSH of CDC; Journal of the American Society for Horticultural Science

- c. Appointed to Editorial Board of the Journal of Animal Science, 1999-2002
 - d. Appointed as Associate Editor of ASNS Nutrition Notes, 2000 – 2013
 - e. Served as co-Editor of special issue of Nutrition focusing on Nutrition in Space, October 2002.
 - f. Appointed to the Editorial Board of the Journal of Carcinogenesis and Mutagenesis, 2010 – present.
 - g. Appointed to the Editorial Board of the journal Advances in Nutrition, 2010 – present.
 - h. Appointed to the Editorial Board of Experimental Biology and Medicine, 2012 – present.
 - i. Appointed as Editor to a special issue of Molecules – Bioactive Compounds, 5/2010 – present.
 - j. Appointed as Editor to a special issue of Nutrients – Dietary Fiber, 6/2012 – 2/2013.
3. Professional recognition:
- a. Biography in the 22nd, 23rd, 24th, 25th, 26th, 27th and Millennium Edition of Who's Who in the South and Southwest
 - b. Vice Chancellor's Award in Excellence for Research Support, 1995
 - c. Biography in the 21st and 25th Edition of Who's Who of American Women
 - d. Awarded Associate Membership in the Center for Environmental and Rural Health
 - e. Biography in the 55th (2000), 56th (2002), 57th (2003), 58th (2004), 59th (2005) Edition of Who's Who in America
 - f. Elected to Membership in the Interdisciplinary Faculty of Toxicology
 - g. Elected to full membership in American Society for Nutritional Sciences, 9/2000
 - h. Biography in the 6th and 8th Edition of Who's Who in Science and Engineering
 - i. Biography selected for the 19th and 21st Edition of Who's Who in the World
 - j. Elected to Membership in the Interdisciplinary Faculty of Nutrition, 1/2005
 - k. Elected to Membership in the Interdisciplinary Faculty of Genetics, 2009
 - l. Elected to Membership in the Interdisciplinary Faculty of Food Science, 2009

E. Awards And Honors, Professional Certifications

1. Dan F. Jones Memorial Scholarship, 1990
2. Registered as a Certified Nutrition Specialist, 1995
3. 1998 Ethel Ashworth-Tsutsui Memorial Award for Mentoring, received 1/27/99
4. Received a SEBM Travel Fellowship Grant to attend EB 2000
5. Selected as a 2011 BEN Scholar
6. Recipient of Mentoring Award from Department of Nutrition & Food Science, 2012