

# Kembra Albracht-Schulte, M.S., Ph.D.

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## EDUCATION

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**Doctor of Philosophy**, Nutritional Sciences, Texas Tech University, Lubbock, TX, 2014- 2018  
Dissertation Title: *Hepatoprotective Mechanisms of Eicosapentaenoic Acid in High-Fat Fed Mice and Identification of Biomarkers for Non-Alcoholic Fatty Liver Disease in Humans.*  
Chairs: Dr. Naima Moustaid-Moussa and Dr. Latha Ramalingam, Funding: USDA NIFA AFRI ELI Predoctoral Fellowship, *MicroRNAs as mediators of omega-3 fatty acids effects on inflammation and lipid metabolism*, 2017-2019  
GPA: 4.0

**Master of Science**, Exercise Science, Texas Tech University, Lubbock, TX, 2012-2014  
Thesis Title: *Effects of emotional exposure on state anxiety and physiological measures of stress reactivity after an acute YogaFit session*, Chair: Dr. Jacalyn McComb  
GPA: 3.92

**Bachelor of Science**, Exercise Science, Lubbock Christian University, Lubbock, TX, 2006-2010  
GPA: 3.94, summa cum laude

## PROFESSIONAL POSITIONS

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2019- **Postdoctoral Research Associate**, Nutrigenomics, Inflammation & Obesity Research Lab, Texas Tech University (TTU), Lubbock, TX. **Focus:** (1) Role of uncoupling proteins and fish oil on liver metabolism in diet-induced obese mice; (2) Effects of beef proteins on obesity, diabetes and gut microbiome. Mentor: Dr. Naima Moustaid-Moussa

2017-19 **USDA NIFA Predoctoral Fellow** (*USDA AFRI ELI Predoctoral Fellowship*), Mentors, Dr. Naima Moustaid-Moussa, and Dr. Latha Ramalingam, Nutrigenomics, Inflammation & Obesity Research Lab, TTU, Lubbock, TX. **Focus:** obesity-independent effects of omega-3 polyunsaturated fatty acids in treatment of nonalcoholic fatty liver disease using C57BL/6 mice and human hepatoma HepG2 cells.

2016- **Undergraduate/Graduate Research Mentor**, Nutrigenomics, Inflammation & Obesity Research Lab, TTU, Lubbock, TX. Undergraduate students: Samantha Gonzalez's (SG), Abigail Jackson's (AJ), Savanna Wilson (SW) and Paige Johnson (PJ). Graduate students: Tariful Islam (TI). Recognition:

- Undergraduate Scholar Project Funding (SW), Center for Transformative Undergraduate Experiences (TrUE), \$1,000.00, TTU, Lubbock, TX, Fall 2019.
- Undergraduate Scholar Project Funding (AJ), Center for Active Learning and Undergraduate Engagement (CALUE), \$1,000.00, TTU, Lubbock, TX, Spring 2018.
- Travel Award (SG), ASN/Maximizing Access to Research Careers (MARC) Travel Award, Funded by the Federation of American Societies for Experimental Biology (FASEB)/MARC and American Society for Nutrition (ASN), \$1,800.00, Experimental Biology Meeting, Chicago, IL, April 2017.

- 1<sup>st</sup> place poster (SG), FASEB MARC American Society for Nutrition's Emerging Leaders Poster Competition, Dietary Bioactive Components Research Interest Section, Experimental Biology Meeting, Chicago, IL, April 2017.
  - Selected (SG) for Young Minority Investigator oral presentation competition, Experimental Biology Meeting, Chicago, IL, April 2017.
- 2015-18 **Research Assistant**, *Mentors*, Dr. Naima Moustaid-Moussa, Ph.D., and Dr. Latha Ramalingam, Ph.D., Nutrigenomics, Inflammation & Obesity Research Lab, TTU, Lubbock, TX. **Focus:** serum biomarkers of nonalcoholic fatty liver disease in South Asian females. Other: **Administrative Assistant**, USDA Project Directors' Meeting (*USDA AFRI Nutrition Program Conference Grant*, Moustaid-Moussa).
- 2014-18 **Graduate Part-time Instructor (GPTI)**, Department of Nutritional Sciences, TTU, Lubbock, TX.
- 2014-15 **Adjunct Faculty**, Department of Exercise and Sport Sciences, Lubbock Christian University (LCU), Lubbock, TX.
- 2012-14 **Teaching Assistant**, Department of Kinesiology and Sport Management, TTU, Lubbock, TX.
- 2010-11 **Research Assistant**, Department of Internal Medicine, Texas Tech University Health Sciences Center (TTUHSC), Lubbock, TX. *Mentor*, Dr. Kenneth Nugent, M.D. **Focus:** sleep habits in internal medicine patients referred to a dietician for weight loss and/or counseling.

## **FUNDING AND GRANTS AWARDED**

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- 2019 **National Cattlemen's Beef Association** (Co-PI; \$25,336), *Beef Proteins, Gut Microbiome, and Health: A Systematic Review*
- 2017-19 **USDA NIFA AFRI ELI Predoctoral Fellowship** (PI, \$95,000), *MicroRNAs as Mediators of Omega-3 Fatty Acids Effects on Inflammation and Lipid Metabolism*
- 2015 **TTU Graduate School Grant-in-Aid** (\$1,000), *Eicosapentaenoic Acid and Nonalcoholic Fatty Liver Disease*

## **AWARDS/DISTINCTIONS**

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- 2019 1st place, Postdoc Oral Competition, Obesity Research Institute annual meeting, TTU
- 2019 1st place, Outstanding Dissertation Award, Biological and Life Sciences, TTU Graduate School (pending national ProQuest nomination/competition)
- 2018 Graduate School Banner Bearer, TTU, Commencement
- 2018 United Supermarkets Graduate Fellowship, TTU
- 2018 Helen DeVitt Jones Excellence in Graduate Teaching Award, TTU
- 2017 Selected Attendee (member vote), Pi Beta Phi Faculty Appreciation Banquet, TTU
- 2014-18 J.T. and Margaret Talkington Graduate Fellowship, TTU
- 2016 Clara Tucker Graduate Fellowship, TTU
- 2016 Betty Smith Bell Scholarship, TTU
- 2016 P.E.O Scholar Award Nominee, Amarillo, TX Chapter
- 2015 Jane Williams Gamble and Joe Gamble Fellowship Endowment, TTU
- 2015 3<sup>rd</sup> place, Poster presented at the Annual Graduate Student Research Poster Competition, TTU Graduate School
- 2010 Bronze medal in Exercise Science, LCU

2009 Bronze medal in Exercise Science, LCU  
2009 Bronze medal in Biology, LCU

## **PUBLICATIONS/ PRESENTATIONS/ ABSTRACTS**

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### ***Peer-Reviewed Publications***

1. **Albracht-Schulte K**, Rosairo S, Ramalingam L, Wijetunge S, Ratnayake RMCJ, Kotakadeniya HMSRB, Dawson JA, Kalupahana NS, Moustaid-Moussa N. Obesity, Adipocyte Hypertrophy, Fasting Glucose and Resistin are Potential Contributors to Non-Alcoholic Fatty Liver Disease in South Asian Women. *Diabetes, Metabolic Syndrome and Obesity: Targets and Therapy*, 2019, 12:863-872.
2. **Albracht-Schulte K**, Gonzales S, Jackson A, Wilson S, Ramalingam L, Kalupahana NS, Moustaid-Moussa N. Eicosapentaenoic Acid Improves Hepatic Metabolism and Reduces Inflammation Independent of Obesity in High-Fat Fed Mice and in HepG2 Cells. *Nutrients*, 2019, 11(3).
3. Wijetunge S, Ratnayake RMCJ, Kotakadeniya HMSRB, Rosairo S, **Albracht-Schulte K**, Ramalingam L, Moustaid-Moussa N, Kalupahana NS. Association Between Serum and Adipose Tissue Resistin with Dysglycemia in South Asian Women. *Nutrition and Diabetes*, 2019, 9:5.
4. **Albracht-Schulte K**, Robert-McComb J. The Effects of Yoga and Quiet Rest on Subjective Levels of Anxiety and Physiological Correlates: A 2-Way Crossover Randomized Trial. *BMC Complementary and Alternative Medicine*, 2018, 18:280.
5. **Albracht-Schulte K**, Kalupahana NS, Ramalingam L, Wang S, Rahman S, Robert-McComb J, Moustaid-Moussa N. Omega-3 Fatty Acids in Obesity and Metabolic Syndrome: A Mechanistic Update. *Journal of Nutritional Biochemistry*, 2018, 58:1-16.

### ***In Preparation/Pending Publications***

1. **Albracht-Schulte K**, Ramalingam L, Moustaid-Moussa N. Non-alcoholic Fatty Liver Disease: Mechanistic Insights on Obesity, Insulin Resistance and Inflammation (in preparation).
2. **Albracht-Schulte K**, Islam T, Johnson P, Moustaid-Moussa N. Beef Proteins, Gut Microbiome, and Health: A Systematic Review (in preparation).
3. Jordan S, **Albracht-Schulte K**, Robert-McComb J. Can a Balanced Diet make the Use of Supplements Unnecessary in High-level Female Athletes? (in preparation, invited review for special issue, Supplements in Sport) *PharmaNutrition*, 2020.
4. **Albracht-Schulte K**, Wilson S, Pahlavani M, Ramalingam L, Moustaid-Moussa, N. Eicosapentaenoic Acid Reduces Hepatic Steatosis Independently of UCP1 (in preparation).
5. Pepper-Yowell A, **Albracht-Schulte K**, Wang S, Shen C-L, Moustaid-Moussa N, Byelashov O, Ballou M. Docosapentaenoic Acid Attenuates Dyslipidemia and Atherosclerotic Plaque in LDLr<sup>-/-</sup> Mice (in preparation).
6. Pepper-Yowell A, **Albracht-Schulte K**, Wang S, Shen C-L, Moustaid-Moussa N, Byelashov O, Ballou M. Omega-3 Polyunsaturated Fatty Acids Reduce Inflammation Associated with Neurodegenerative Disease in LDLr<sup>-/-</sup> Mice (in preparation).
7. Robert-McComb J, **Albracht-Schulte K**. Heart Rate Variability (HRV) Technology (in preparation, invited review) *Journal of Clinical Exercise Physiology*.

### ***Books***

1. **Albracht-Schulte K**, Gary A, Forsyth J, Robert-McComb J. (in preparation). Chapter 6: The Physiology of Anorexia Nervosa and Bulimia Nervosa. In J. Robert-McComb, R. Norman, & M. Zumwalt (Eds.). *The Active Female: Health Issues Throughout the Lifespan* (3rd ed.). New York, NY: Springer Science+Business Media.

2. **Albracht-Schulte K**, Robert-McComb J, Gonzalez A, Carraway L. (in preparation). Chapter 20: Nutritional Guidelines and Energy Needs During Pregnancy and Lactation. In J. Robert-McComb, R. Norman, & M. Zumwalt (Eds.). *The Active Female: Health Issues Throughout the Lifespan* (3rd ed.). New York, NY: Springer Science+Business Media.
3. Robert-McComb J, **Albracht K**, Gary A. (2014). Chapter 11: The Physiology of Anorexia Nervosa and Bulimia Nervosa. In J. Robert-McComb, R. Norman, & M. Zumwalt (Eds.). *The Active Female: Health Issues Throughout the Lifespan* (2<sup>nd</sup> ed., pp. 149-176). New York, NY: Springer Science+Business Media.

### **Conference Presentations**

1. **Albracht-Schulte K**, Pahlavani M, Ramalingam L, Moustaid-Moussa N. Eicosapentaenoic Acid Reduces Hepatic Steatosis Independently of UCP1. Poster presentation at the Interdisciplinary Nutrition Sciences Symposium, University of North Carolina, Chapel Hill, NC, July 2019.
2. **Albracht-Schulte K**, Gonzalez S, Jackson A, Wilson S, Ramalingam L, Kalupahana N, Moustaid-Moussa N. Eicosapentaenoic Acid Improves Hepatic Metabolism and Reduces Inflammation. Oral presentation at the Obesity Research Institute annual meeting, **1<sup>st</sup> place** Postdoc Oral Competition, TTU, Lubbock, TX, May 2019.
3. Wilson S, Jackson A, Gonzalez S, **Albracht-Schulte K**, Ramalingam L, Kalupahana N, Moustaid-Moussa N. Effects of Omega-3 Polyunsaturated Fatty Acids in Reducing Inflammation and Improving Metabolism in HepG2 Liver Cells. Poster presentation at the Undergraduate Research Conference, TTU, Lubbock, TX, April 2019.
4. **Albracht-Schulte K**. MicroRNAs as Mediators of Omega-3 Fatty Acids: Effects on Inflammation and Lipid Metabolism. Oral presentation at USDA Project Director's Meeting, Washington, D.C., August 2018.
5. **Albracht-Schulte K**, Gonzalez, S, Jackson A, Ramalingam L, Kalupahana N, Moustaid-Moussa N. Mechanisms Mediating Reversal of Live Steatosis by Eicosapentaenoic Acid: Studies in High Fat Diet-Induced Obese Mice and in HepG2 Hepatoma Cells. Poster presentation at American Society for Nutrition annual meeting, Boston, MA, June 2018.
6. **Albracht-Schulte K**, Rosairo S, Ramalingam L, Wijetunge S, Ratnayake RMCJ, Kotakadeniya HMSRB, Dawson JA, Kalupahana NS, Moustaid-Moussa N. Central Adiposity is a Strong Predictor of Non-alcoholic Fatty Liver Disease (NAFLD) in South Asian Women. Poster presentation at the Experimental Biology meeting, San Diego, CA, April 2018 and at the Obesity Research Cluster annual meeting, Lubbock, TX, May 2018.
7. Jackson A, Gonzalez S, **Albracht-Schulte K**, Ramalingam L, Kalupahana N, Moustaid-Moussa N. Mechanisms Mediating Effects of Eicosapentaenoic Acid in Nonalcoholic Fatty Liver Disease. Poster presentation at the Undergraduate Research Conference, TTU, Lubbock, TX, April 2018.
8. Gonzalez S, **Albracht-Schulte K**, Ramalingam L, Kalupahana N, Moustaid-Moussa N. Mechanisms Mediating the Effects of Eicosapentaenoic Acid in Hepatic Steatosis in High Fat Fed Mice and in HepG2 Hepatoma Cells. Poster presentation at The National Conferences on Undergraduate Research, Memphis, TN, March 2017 and at the Experimental Biology meeting, Chicago, IL, April 2017.
9. Kalupahana N, **Albracht-Schulte K**, Ramalingam L, Rosairo S, Wijetunge S, Kotakadeniya HMSRB, Ratnayake RMCJ, Dawson J, Moustaid-Moussa N. Serum Resistin is Associated with Adipocyte Hypertrophy, Inflammation and Metabolic Complications of Obesity in South Asian Women. Poster presentation at 13<sup>th</sup> International Congress on Obesity, Vancouver, Canada, May 2016.
10. **Albracht-Schulte K**, Kalupahana N, Ramalingam L, Rosairo S, Wijetunge S, Kotakadeniya HMSRB, Ratnayake RMCJ, Dawson J, Moustaid-Moussa N. Metabolic Changes Underlying

- Interactions Between Obesity and Non-Alcoholic Fatty Liver Disease in South Asian Adults. Poster presentation at the annual Experimental Biology meeting, San Diego, CA, April 2016.
11. **Albracht-Schulte K**, Ramalingam L, Kalupahana N, Moustaid-Moussa N, Gunaratne P. Eicosapentaenoic Acid (EPA) Supplementation Regulates Hepatic Carbohydrate and Lipid Metabolism. Poster presentation at the annual Obesity Society meeting, Los Angeles, CA, November 2015.
  12. **Albracht-Schulte K**, Ramalingam L, Kalupahana NS, Brocard C, Moustaid-Moussa N. Eicosapentaenoic Acid Supplementation Regulates Hepatic Lipid Metabolism in Diet Induced Obese Mice. Poster presentation at the Obesity Research Cluster annual meeting, Lubbock, TX, May 2015 and at the Annual Graduate Student Research Poster Competition, **3<sup>rd</sup> place**, TTU Graduate School, Lubbock, TX, April 2015. Oral presentation at the Experimental Biology meeting, Boston, MA, March 2015.
  13. **Albracht-Schulte K**, Robert-McComb J, Gonzales J, Fernandez Del Valle M, Hart M. Effects of Emotional Exposure on State Anxiety and Physiological Measures of Stress Reactivity After an Acute Yogafit Session. Poster presentation at the Gender-Specific Medicine & Women's Health Symposium, TTUHSC, Lubbock, TX, October 2014.
  14. Robert-McComb J, **Albracht K**. Yoga and Biofeedback for Women with Disordered Eating. Paper presentation at the School of Biomedical Sciences for the Master in Eating Disorder Program, European University of Madrid, Madrid, Spain, February 2014.
  15. Robert-McComb J, **Albracht K**, Fernandez Del-Valle M. The Difference between Eastern and Western Yoga. Workshop and educational media presentation on the difference between eastern (Ananda Yoga) and western yoga (Yoga-Fit) for the School of Sport Sciences, European University of Madrid, Madrid, Spain, February 2014.
  16. Robert-McComb J, Tai YL, Qian XP, Norman R, Hart M, **Albracht K**. Sex Difference in the Cortisol Response Between Two Different Stress Protocols. Poster presentation at American College of Sports Medicine annual meeting *Medicine and Science in Sports and Exercise*, 46(5) Supplement, S [Abstract] and at the Gender-Specific Medicine & Women's Health Symposium, TTUHSC, Lubbock, TX, November 2013 and at the Obesity Research Cluster annual meeting, Lubbock, TX, May 2014.
  17. **Albracht K**. The Anti-carcinogenic Effect of Food and Other Lifestyle Choices. Oral presentation at LCU's Scholar's Colloquium, Lubbock, TX, March 2010.

## **TEACHING EXPERIENCE**

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### ***Undergraduate***

#### **GPTI, Nutritional Sciences, Texas Tech University**

- NS 1325 Nutrition, Foods and Healthy Living, fall 2016-spring 2018 and fall 2018  
 NS 2330 Nutrition for Health, Fitness and Sport (online course), spring 2018  
 NS 1410 Science of Nutrition, fall 2016-spring 2018

#### **Adjunct Faculty, Exercise and Sport Science, Lubbock Christian University**

- ESS 1201 Introduction to Kinesiology, fall 2014-spring 2015  
 ESS 2314 Human Movement, fall 2014-spring 2015

#### **Teaching Assistant, Kinesiology and Sport Management, Texas Tech University**

- ESS 4368 Applied Exercise Physiology Labs, fall 2012-spring 2014

## **PROFESIONAL DEVELOPMENT**

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- 2019 Auditing student, BIOL 6370, Metagenomics, TTU  
 2019 Attendee, Research Leadership: Scholarly Start-ups, Office of Research & Innovation, TTU

- 2019 Attendee, IRB Training Sessions, Office of Human Research Protection, TTU
- 2019 Attendee, TTUHSC & TTU Collaborative Networking Meeting, TTU
- 2019 Attendee, Clinical Research Institute Workshop, TTUHSC
- 2019 Attendee, Media Relations Training, College of Human Sciences, TTU
- 2019 Attendee, 2019 Regional Engaged Scholarship Symposium, TTU
- Ethics Training**
- 2019 Attendee, Ethical Decision Making Series, Ethics Center, TTU
- 2014- Attendee, Ethics series, Office of Research & Innovation, TTU
- University Service**
- 2019 Invited speaker, TTUHSC Preventive Medicine Club
- 2019 Judge, Graduate Research Poster Competition, TTU
- 2019 Judge, Undergraduate Research Conference, TTU
- Community Outreach**
- 2019 Lubbock Mayor's Fitness Council, Lubbock, TX
- 2019 AgriLife Master Wellness Program, Texas A&M AgriLife Extension
- 2018 Presentation for Talkington School for Young Women visit to TTU, *Body Image, Health and Physiology*, Lubbock, TX
- 2016 Presentations for Boys and Girls Club, *Nutrition Basics, MyPlate, Health and Wellness*, Shallowater, TX
- 2015-16 Instructor for Science: It's a Girl Thing, TTU, *Cardiovascular Physiology*
- 2012-14 Volunteer, Covenant BodyMind Initiative, TTU
- Professional Memberships/ Organizations**
- 2019- Member, Society of Clinical Research Associates, TTUHSC Chapter
- 2019- Member, Clinical Research Institute, TTUHSC
- 2019- Member, Women's Interprofessional Network of the American Diabetes Association
- 2019- Member, Center for Excellence for Integrative Health, TTUHSC
- 2018- Institutional member, National Center for Faculty Development & Diversity, TTU
- 2018- Member, Graduate Student & Post-Doc Women Mentoring Program, TTU
- 2014-18 Member, Graduate Nutrition Organization, TTU
- 2014- Advisory Committee Member, Obesity Research (Cluster) Institute, TTU
- 2014- Member, American Society for Nutrition
- 2014- Member, American Society for Biochemistry and Molecular Biology
- 2014- Member, The Obesity Society
- 2013-18 Member, Phi Kappa Phi Honor Society
- 2012- Member, American College of Sports Medicine
- 2009-10 President, Alpha Chi Honor Society, LCU

## REFERENCES

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1. Dr. Naima Moustaid-Moussa, Professor, Department of Nutritional Sciences & Director, Obesity Research Institute, Texas Tech University, naima.moustaid-moussa@ttu.edu
2. Dr. Nishan Kalupahana, Professor in Human Nutrition and Faculty of Medicine, Department of Physiology, University of Peradeniya, nishan.kalupahana@gmail.com
3. Dr. Latha Ramalingam, Research Assistant Professor, Department of Nutritional Sciences, Texas Tech University, latha.ramalingam@ttu.edu
4. Dr. Jacalyn McComb, Professor, Kinesiology and Sport Management, Texas Tech University, jacalyn.mccomb@ttu.edu
5. Lydia Kloiber, Associate Professor of Practice & Associate Chair, Department of Nutritional Sciences, Texas Tech University, lydia.kloiber@ttu.edu