

Erin D. Giles, Ph.D.

Curriculum Vitae

Assistant Professor

Department of Nutrition, Texas A&M University
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<u>Content</u>	<u>Page</u>
Career Development.....	2
Memberships & Administrative Service	3
Invited Lectures & Presentations	5
Grants and Research Support.....	6
Complete List of Publications	8
Teaching & Mentoring.....	14

PERSONAL STATEMENT:

I am a tenure-track Assistant Professor at Texas A&M University with experience using integrative, translational approaches to study the impact of obesity on metabolic health in pre-clinical models, with an emphasis on postmenopausal breast cancer. My research is currently focused on determining how inflammation in the breast adipose and tumor microenvironment link menopausal weight gain and subsequent breast cancer risk, and using diet, exercise, and pharmacological interventions to decrease these obesity-associated comorbidities after menopause. I have a strong history of funding success, including grants from the National Institutes of Health (K99/R00), American Institute for Cancer Research, and a High-Impact High-Reward grant from the Cancer Prevention Research Institute of Texas.

EDUCATION & TRAINING

- 1996-2000 **B.Sc. (Hons) – Biomedical Sciences**
University of Guelph, Guelph, Ontario, Canada
Honours Thesis: Relationship between reproductive efficiency and relative levels of oxytocin and vasopressin in the pig hypothalamus.
Mentor: Gary Partlow, Ph.D.
- 2000-2007 **Ph.D. – Medical Science**
McMaster University, Hamilton, Ontario, Canada
Thesis: The role of insulin-like growth factor binding protein 3 and transforming growth factor beta in the metastasis of breast cancer to bone.
Mentor: Gurmit Singh, Ph.D.
- 2008-2016 **Postdoctoral Fellow**
Division of Endocrinology, Diabetes & Metabolism
Colorado Nutrition Obesity Research Center
University of Colorado School of Medicine & Anschutz Medical Campus, USA
Mentors: Paul MacLean, Ph.D. and Pepper Schedin, Ph.D.

PROFESSIONAL POSITIONS

- 2016 - present **Assistant Professor** (tenure track)
Texas A&M University, Department of Nutrition
Formerly Department of Nutrition and Food Science
- 2017 - present Graduate Faculty, Interdisciplinary Graduate Program in Genetics,
Texas A&M University

HONOURS AND AWARDS

- 1999 Undergraduate Research Fellowship, University of Guelph (\$4,000)
- 2000-2001 Graduate Scholarship, McMaster University (\$12,000 / year)
- 2001-2003 Ontario Graduate Scholarship (\$15,000 / year)
- 2003 Gordon Research Conference - Insulin-Like Growth Factors in Physiology & Disease,
Scholar Travel Award (Mar 9, 2003 – Ventura, CA)
- 2006 McMaster University Oncology Residents Research Day 1st place (oral)

- 2008 University of Colorado School of Medicine Research Day 1st place - Postdoctoral Fellows Category (\$200)
- 2009 FASEB Summer Research Conference - The Physiological Basis for Obesity Therapeutics Travel Award (Aug 16, 2009 – Snowmass, CO)
- 2009 Early Career Travel Award, Kern Aspen Lipid Conference (\$750; Aug 22, 2009 – Aspen, CO)
- 2012 University of Colorado Postdoctoral Research Day, Winning Poster (\$500 March 2, 2012 – Aurora, CO)
- 2012 American Physiological Society, Research Recognition Award, Integrative Biology of Exercise IV Meeting (\$500; Oct 10 2012 – Westminster, CO)
- 2013 Endocrine Society Annual Meeting, Early Career Travel Award (June 15, 2013 – San Francisco, CA)
- 2014 Integrating Resistant Starch, Microbiome, and Disease Risk Reduction Symposium – Travel Award (\$500; May 14, 2014 – Ames, IA)
- 2014 2nd Place Abstract, The Obesity Society – Obesity & Cancer Section. Obesity Week 2014 (Nov 6, 2014 – Boston, MA)
- 2015 Colorado Nutrition Obesity Research Center; Outstanding Post-Doctoral Fellow of 2015
- 2017 BioTechne Grant Foundation, Equipment Grant (\$25,000)
- 2017 Komen Obesity-Breast Cancer Grand Challenge, 2nd Place Award (\$2500)
- 2018 Fellow of the National Cancer Institute Transdisciplinary Research on Energetics and Cancer (TREC)

PROFESSIONAL & CAREER DEVELOPMENT

- 2007 Research Associate, McMaster University & Juravinski Cancer Centre
Took the primary role in writing a successfully funded federal grant (Canadian Institutes for Health Research - PI: Singh: "Reactive oxygen species: A link between hyperglycemia and cancer.")
Funded for \$621,600 direct over 5 years
- 2013 Endocrine Society Early Career Forum (June 14, 2013, San Francisco CA).
Participated in this day-long workshop focused on gaining knowledge of cutting-edge advances in translational endocrine research and advice to maneuver through career transitions.
- 2014 Colorado Co-Mentor Training Program
Attended this series of 5, 1-day sessions with my postdoctoral mentor (Paul MacLean). The goal of this course, offered by the Colorado Clinical Translational Sciences Institute, was to use evidence-based strategies to teach mentor/mentee pairs the skills they need to get the most out of their mentoring relationships.
- 2014 American Association for Cancer Research Translational Cancer Research for Basic Scientists Workshop (Oct 25-31, 2014, Boston MA)
The goal of this week-long course was to gain a better understanding of translational research, learn how to adapt my research for maximum clinical impact, and to build relationships with individuals who can provide support as I transition into a career in translational cancer medicine.
- 2018 NCI Transdisciplinary Research on Energetics and Cancer (TREC) (June 16-21, 2018; Westbrook, Connecticut).
Access to this workshop was through a competitive application. The in person 5-day training course provided an opportunity for 20 early career investigators to interact with 20 senior experts in the field of transdisciplinary research in energy balance and cancer.

ACADEMIC, RESEARCH, & RELEVANT WORK EXPERIENCE

- 1998-2000 Academic Leader, Office of First Year Studies, University of Guelph
- 1999-2000 Honours Thesis Student and Undergraduate Researcher, Department of Biomedical Sciences (Neuroanatomy), University of Guelph
- Summer 1999 Undergraduate Research Assistant, Department of Biomedical Sciences (Neuroanatomy), University of Guelph
Advisors: Drs. Gary Partlow and Ken Fisher
- Summer 2000 Research Assistant, Animal Biotechnology & Embryology Laboratory, Department of Biomedical Sciences, University of Guelph
Advisor: Dr. Keith Betteridge
- 2001-2003 Let's Talk Science Outreach Volunteer
Science teacher and science fair judge at local elementary schools
- 2008-2016 Postdoctoral Fellow, Division of Endocrinology, Metabolism & Diabetes, University of Colorado Anschutz Medical Campus, Aurora, CO.

PROFESSIONAL MEMBERSHIPS & ADMINISTRATIVE ACTIVITIES**Administrative and Leadership Contributions**

- 1996-2000 Biomedical Science Students Association, University of Guelph; President (99-00)
- 1998-2000 Biomedical Sciences Curriculum Committee University of Guelph; Student Representative
- 2000-2006 Medical Science Graduate Students' Association, McMaster University; Off-Campus Representative
- 2005-2007 McMaster University Graduate Council, Graduate Student Representative
- 2009-2015 Postdoctoral Association, University of Colorado Denver; President 2009-2011; Active Member 2011-2015
First elected president of this association.
- 2010 Postdoctoral Research Day Planning Committee, University of Colorado Denver.
Planned the inaugural research day for postdoctoral fellows; remains an annual event.
- 2009-2016 Postdoctoral Advisory Committee, University of Colorado Denver
Selected as a postdoctoral representative on this newly formed committee, which advises the Dean of the Graduate School and the Postdoctoral Office on postdoctoral affairs and issues; assists in creation and establishment of policy, protocols, and precedent affecting postdoctoral fellows on the UCD campuses.
- 2019-present Faculty Advisor – Nutrition Graduate Student Association, Texas A&M University

Professional Affiliations

- 2000- American Association for Cancer Research
- 2008- Endocrine Society
- 2008- The Obesity Society

Major Committee and Service Responsibilities

Departmental

- 2016 - Assessment Committee, Dept. of Nutrition, Texas A&M University
 2018- Graduate Admissions Committee, Dept. of Nutrition, Texas A&M University
 2020- Undergraduate Program Committee, Dept. of Nutrition, Texas A&M University
 2020- Undergraduate Curriculum Redesign Committee, Dept. of Nutrition, Texas A&M University
 2021- Hiring committee for cluster-hire (4) faculty positions, Dept. of Nutrition, Texas A&M University

University-Wide

- 2019- Duncan Performance Center Task Force.
Currently serving as the Nutrition Faculty Consultant to oversee changes to nutritional content of meals and nutrition education provided to students in the 'Corp of Cadets' (military program) at Texas A&M. Also working to develop a research-based program between the Texas A&M Corp of Cadets and College of Agriculture and Life Sciences
- 2021- Department Head Hiring Committee, Dept. of Nutrition, Texas A&M University. *This role was appointed by the Dean of the College of Agriculture & Live Sciences.*
- 2021- Borlaug Center Renovation Advisory Team, College of Agriculture & Life Sciences, Texas A&M University. *Appointed by the college to provide input on the \$35 million renovation to the future home of the Texas A&M Center for Precision Nutrition (combined center with Texas A&M, USDA, and State of Texas).*

International Audience

- 2017- Chair, Fanning the Flames of Cancer With Obesity, Annual Meeting of The Obesity Society, Washington DC

Review and Referee Work (2002 – present)

Manuscript Peer Reviews:

Ad hoc reviewer for international peer-reviewed journals including, but not limited to:

Aging	Journal of Mammary Gland Biology and
American Journal of Physiology	Neoplasia
Breast Cancer Research	Molecular Cancer
Carcinogenesis	Nature Cancer
Cancers	Nature Communications
Endocrine Related Cancers	Neoplasia
Frontiers	Nutrition and Metabolism
International Journal of Cancer Research	Nutrients
International Journal of Obesity Research	PLOS One

Editorial Work

Topic Editor – Frontiers in Endocrinology;
 Sex Hormones and Adipose Tissue Biology (Nov 2020 - present)

Grant Review Panels

Science Foundation Ireland (SFI) Frontiers for the Future Awards (2020-2021)
 University of Oklahoma Diabetes Center Pilot Projects (2021)
 Department of Defense, Breast Cancer Research Program (FY2021)

INVITED LECTURES & PRESENTATIONS

National and International Conferences

- E Giles (2017 Oct 31) Weight loss for primary and secondary breast cancer risk reduction: human and animal studies. American Society for Metabolic and Bariatric Surgery, Washington DC
- E Giles (2017 Nov 1) Preventing menopausal weight gain to improve breast cancer outcomes. Susan G. Komen Breast Cancer Challenge
- E Giles (2018 Jan 27) Metformin decreases obesity-associated macrophage infiltration & lymphangiogenesis in the tumor microenvironment in a rodent model of breast cancer. AACR Conference: Obesity & Cancer.
- E Giles (2018 Nov 12) Preventing menopausal weight gain to improve breast cancer outcomes: a mechanistic study. Annual meeting of The Obesity Society, Nashville, TS.
- E Giles (2019 June 9-14) Prevention of Obesity-Associated Breast Cancer After Menopause: Two Interventions with Different Mechanisms. Gordon Research Conference on Mammary Gland Biology, Newry ME.
- E Giles (2019 Aug 4-11) Impact of Obesity and Weight Gain on Postmenopausal Breast Cancer: Insights from preclinical models. Gordon Research Conference on Hormone-Dependent Cancers, Sunday River, Maine.
- E Giles (2019 Nov 20) Targeting Obesity and postmenopausal breast cancer – defining the impact of body composition and weight gain on tumor development and growth. Transdisciplinary Research on Energetics and Cancer (TREC) Webinar Seminar Series.
- E Giles (2021 June 21) Obesity Associated Inflammation and Postmenopausal Breast Cancer: Insights from Preclinical Models. Interdisciplinary Nutrition Sciences Symposium: Heterogeneity in Obesity: Implications for Cancer & Related Obesity-Associated Outcomes. Session: Inflammatory Circuits are Leads for Improving Outcomes in Obesity and Cancer. Hosted by University of North Carolina at Chapel Hill – Virtual Platform.
- E Giles (2021 July 8) MD Anderson Energy Balance Twitter Conference - Translating Energy Balance From Bench to Communities: Application of Parallel Animal-Human Studies in Cancer.
- E Giles (2021 Sept 12-19) Jax Laboratories Mouse Models of Cancer Course; Course Director for Mammary Gland Section (didactic and hands-on sessions), Bar Harbor, Maine.

University Invited Speaker

- E Giles (2016 Nov) Obesity and menopausal weight gain: implications for breast cancer. Toxicology Seminar Series, Texas A&M University.
- E Giles (2017 May) Obesity, Menopause, and the Breast Cancer Paradox. COALS Grand Challenge Symposium, Texas A&M University.
- E Giles (2018 Jan) Obesity at Menopause: Metabolic Consequences Affecting Breast Cancer Risk. Interdisciplinary Program in Genetics, G2 Seminar, Texas A&M University.
- E Giles (2018 Feb) Obesity at Menopause: Metabolic Consequences Affecting Breast Cancer Risk. MD Anderson Center for Energy Balance, Houston, TX.
- E Giles (2019 Oct 18) Targeting “menopausal” weight gain to decrease post-menopausal breast cancer risk: Insights from preclinical studies. Purdue University, Interdepartmental Nutrition Program Seminar, West Lafayette, IN.
- E Giles (2019 Nov 15) Targeting “menopausal” weight gain to decrease post-menopausal breast cancer risk: Insights from preclinical studies. Texas A&M Interdisciplinary Faculty of Reproductive Biology (IFRB) Seminar Series, College Station, TX.
- E Giles (2020 Sept 13) Weight gain as a driver of breast cancer risk & progression after menopause. Texas A&M Cancer Biology Seminar, College Station, TX.

GRANTS AND RESEARCH SUPPORT**Active & Recently Completed Research Support**

- 04/2022 – 03/2023 NIH / NIEHS P30ES029067 (PI: Threadgill; PI of Pilot Project: Giles)
\$50,000 (total direct costs)
“Interactions between obesity and environmental estrogens in the development of metabolic disease after treatment with SERMs.
This study will determine if exposure to environmental estrogens early in life impairs expansion of preadipocytes, thereby contributing to metabolic dysfunction and increased risk of breast cancer later in life.
- 07/2022- 06/2026 Craig H. Neilsen Foundation, SCIRTS Research Grant, PI – **Giles**
\$300,000 (total direct costs)
Effects of the Estrous Cycle on Secondary Injury after Spinal Cord Injury
- 08/2018 – 02/2022 Cancer Prevention Research Institute of Texas (CPRIT); High Impact High Risk Award, PI – **Giles**
\$200,000 (total direct costs)
“Targeting the menopause transition to decrease the risk for obesity-associated postmenopausal breast cancer.”
This study will determine if metformin treatment during the transient window of OVX-induced weight gain eliminate obesity-associated tumor promotion.
- 07/2013 – 07/2021 NIH/NCI K99/R00 CA169430-01, PI – **Giles**
\$939,975 (total direct costs)
Obesity associated inflammation and postmenopausal breast cancer.”
This transition to independence award includes both mentored training and independent research focused on identifying the mechanisms by which inflammation may contribute to obesity-associated breast cancer.

Pending Grants

- 04/2022 – 03/2027 NIH R01CA269726, PI – **Giles**
\$1,821,228 (total direct costs)
Obesity, body fat distribution, and breast cancer risk: is visceral fat the culprit after menopause?
****scored at the 16th percentile; awaiting council review Feb 2022.**
NCI – Cancer Prevention Study Section
- 07/2022 – 06/2027 NIH/NCI U01, PIs – Fabian, Hursting, Befort
\$4,250,000 (total direct costs)
Interaction of Obesity-Related Metabolic Dysregulation with Chemoprevention for Women at High Risk for Breast Cancer
Role: Co-Investigator
- 07/2022 – 06/2027 NIH/NCI R01, PI – Schembre
\$2,499,999 (total direct costs)
Glucose-guided eating a novel paradigm to modulate risk, incidence, and progression of postmenopausal breast cancer: a translational study.
Role: Co-Investigator;
**I will lead all animal studies; I chose to remain co-investigator (rather than multi-PI) to retain new investigator status for my own R01)*
- 2022 – 2026 Cancer Prevention Research Institute of Texas, PI - Ramos/Chapkin
Texas Regional Excellence in Cancer
\$5,698,321.00 (total direct costs)
“Precision prevention and therapeutics strategies to fight cancer health disparities in Texas”
Role: Co-Investigator and *PI of Research Project #1*

Past Research Support

- 2003 – 2005 Canadian Breast Cancer Foundation Research Fellowship, PI - **Giles**
\$35,000 / year
- 11/2008 – 12/2011 Komen Foundation KG081323
“Modulation of obesity-induced breast cancer by Metformin.”
This study examined the effects of metformin on mammary tumor progression in a preclinical model of postmenopausal obesity.
Role: Postdoctoral Fellow
- 03/2009 – 02/2010 Thorkildsen Research Fellowship, PI – **Giles**
“Obesity and postmenopausal breast cancer.”
This goal of this project was to study how utilization of ingested fuels alters tumor survival and growth in a model of postmenopausal breast cancer.
\$35,000/year
- 04/2007 – 03/2013 NIH R01 DK038088, PI - MacLean
“Utilization of ingested energy during underfeeding.”
This project used a rodent paradigm of weight regain to test the efficacy of a number of nutritional strategies to counter the metabolic drive to regain weight and facilitate long term weight reduction.
Role: Postdoctoral Fellow
- 01/2010 – 12/2012 American Institute for Cancer Research Fellowship, PI - **Giles**
“Metabolic Inflexibility: A potential link between obesity and post-menopausal breast cancer.”
The goal of this project was to study the impact of obesity, specifically weight gain during menopause, on the progression of breast tumours.
\$40,000/year
- 07/2010 – 06/2013 NIH/NIDDK P30 DK48520, PI – Hill;
PI of Pilot Grant - **Giles**
Colorado Nutrition and Obesity Research Center Pilot Grant (\$20,000/yr)
“Progesterone receptor expression and obesity-associated postmenopausal breast cancer.”
- 10/2012 – 09/2017 NIH P50 HD073063, PI – Kohrt
Office of Research on Women’s Health: Specialized Centers of Research:
Bioenergetic & Metabolic Consequences of the Loss of Gonadal Function
Three integrated projects with centralized core facilities to pursue a better understanding of the role of female sex steroids in regulating energy balance and how menopause affects weight gain and metabolic health.
Role: Postdoctoral Fellow, Project 2
- 12/2012 – 11/2017 NIH R01 CA164166-01, co-PIs MacLean / Schedin
A narrowed window for targeting metabolic flexibility in breast cancer prevention
This project merged models of breast cancer, obesity, and menopause to study mechanisms and interventions to prevent obesity-associated postmenopausal breast cancer.
Role: Postdoctoral Fellow
- 09/2014 – 04/2016 Colorado Center for Women’s Health Research - Junior Faculty Research Development Award, PI – **Giles**
“Exercise, Inflammation, and the Menopausal Transition.”
The goal of this study was to 1) determine the effect of exercise on the infiltration of both pro- and anti-inflammatory adipose tissue macrophages, and 2) determine if exercise can redirect excess nutrient deposition to subcutaneous, rather than visceral, adipose tissue through a process facilitated by depot-specific adipocyte hyperplasia
\$25,000/year
- 02/2015 – 09/2015 University of Colorado Health System Dean’s Fund; PI – **Giles**
“Obesity associated inflammation and postmenopausal breast cancer.”

*This funding was awarded to supplement the K99 funding described above.
\$25,000/year*

- 09/2015 – 08/2017 CancerCure Colorado Pilot Award, Co-PIs – **Giles/Lyons/MacLean**
“Addressing the role of lymphangiogenesis and obesity in breast cancer metastasis.”
This study determined that increased density of lymph vessels in obese rodents drives lymph node and distant metastasis, which could explain the clinical observation that obese women with breast cancer have increased lymph node positivity and metastasis.
- 2018 – 2021 Texas A&M Triads for Transformation, PI – **Giles**; Co-I Porter/Allred
\$30,000 (total direct costs)
“Impact of Obesity on Mammary Development and Breast Cancer”

COMPLETE LIST OF PUBLICATIONS

Book Chapters (1)

1. **Giles ED**, Singh G. Role of TGF- β and IGF in Tumor Progression and Bone Metastases In: Bone Metastasis: Experimental and Clinical Aspects. Humana Press; 1 edition (2005); [link](#)

Publications in Refereed Journals (27)

For an up-to-date list, please see [My NCBI Bibliography for ED Giles](#)

1. Rankin SL, Partlow GD, McCurdy RD, **Giles ED**, Fisher KR. Postnatal neurogenesis in the vasopressin and oxytocin-containing nucleus of the pig hypothalamus. Brain Res. 2003;971(2):189-96. PMID: [12706235](#).
2. Rankin SL, Partlow GD, McCurdy RD, **Giles ED**, Fisher KR. The use of proliferating cell nuclear antigen immunohistochemistry with a unique functional marker to detect postnatal neurogenesis in paraffin-embedded sections of the mature pig brain. Brain Res Brain Res Protoc. 2004;13(2):69-75. PMID: [15171988](#).
3. **Giles ED**, Singh G. Role of insulin-like growth factor binding proteins (IGFBPs) in breast cancer proliferation and metastasis. Clin Exp Metastasis. 2003;20(6):481-7. PMID: [14598881](#)
4. MacLean PS, Higgins JA, Wyatt HR, Melanson EL, Johnson GC, Jackman MR, **Giles ED**, Brown IE, Hill JO. Regular exercise attenuates the metabolic drive to regain weight after long-term weight loss. Am J Physiol Regul Integr Comp Physiol. 2009;297(3):R793-802. PMCID: [PMC4973619](#)
5. MacLean PS, **Giles ED**, Johnson GC, McDaniel SM, Fleming-Elder BK, Gilman KA, Andrianakos AG, Jackman MR, Shroyer KR, Schedin PJ. A surprising link between the energetics of ovariectomy-induced weight gain and mammary tumor progression in obese rats. Obesity (Silver Spring). 2010;18(4):696-703. PMCID: [PMC4973619](#)
6. **Giles ED**, Jackman MR, Johnson GC, Schedin PJ, Houser JL, MacLean PS. Effect of the estrous cycle and surgical ovariectomy on energy balance, fuel utilization, and physical activity in lean and obese female rats. Am J Physiol Regul Integr Comp Physiol. 2010;299(6):R1634-42. PMCID: [PMC4973619](#)
7. Steig AJ, Jackman MR, **Giles ED**, Higgins JA, Johnson GC, Mahan C, Melanson EL, Wyatt HR, Eckel RH, Hill JO, MacLean PS. Exercise reduces appetite and traffics excess nutrients away from energetically efficient pathways of lipid deposition during the early stages of weight regain. Am J Physiol Regul Integr Comp Physiol. 2011;301(3):R656-67. PMCID: [PMC3174759](#).
8. **Giles ED**, Wellberg EA, Astling DP, Anderson SM, Thor AD, Jindal S, Tan AC, Schedin PJ, and Maclean PS. Obesity and overfeeding affecting both tumor and systemic metabolism activates the progesterone receptor to contribute to postmenopausal breast cancer. Cancer Res. 2012; 72(24):

- 6490-501. PMID: [PMC4748045](#) **** Selected for cover image of journal, and for press release by the American Association for Cancer Research.**
9. Polsky S, Ogden LG, MacLean PS, **Giles ED**, Brill C, and Wyatt HR. Biomarker Profile Does Not Predict Weight Loss Success in Successful and Unsuccessful Diet-Reduced Obese Individuals: A Prospective Study. *ISRN Obesity* 2013; 5, 2013. PMID: [PMC3867982](#)
 10. Martinson HA, Lyons TR, **Giles ED**, Borges VF, and Schedin P. Developmental windows of breast cancer risk provide opportunities for targeted chemoprevention. *Experimental Cell Research*. 2013;319(11): 1671–1678. PMID: [PMC3980135](#)
 11. MacLean PS, Higgins JA, **Giles ED**, Sherk VD, Jackman MR: The role for adipose tissue in weight regain after weight loss. *Obes Rev* 2015, 16 Suppl 1:45-54. PMID: [PMC4371661](#)
 12. **Giles ED****, Steig AJ, Jackman MR, Higgins JA, Johnson GC, and MacLean PS. Exercise decreases the lipogenic capacity of adipose tissue during weight regain after weight loss. *Frontiers in Physiology* 7 (2016). PMID: [PMC4748045](#) ****corresponding author**
 13. Sherk VD, Carpenter RD, **Giles ED**, Higgins JA, Oljira RM, Johnson GC, Mills S, Maclean PS. Ibuprofen before Exercise Does Not Prevent Cortical Bone Adaptations to Training. *Medicine and science in sports and exercise*. 2017 May;49(5):888-95. PMID: [PMC5392148](#)
 14. **Giles ED****, Jackman MR, MacLean PS. Modeling Diet-Induced Obesity with Obesity-Prone Rats: Implications for Studies in Females. *Front Nutr*. 2016;3:50. PMID: [PMC5121240](#) ****corresponding author**
 15. **Giles ED**, Hagman J, Pan Z, MacLean, PS, and Higgins JA. Weight restoration on a high carbohydrate refeeding diet promotes rapid weight regain and hepatic lipid accumulation in female anorexic rats. *Nutrition & Metabolism* 13 (2016) 1-11. PMID: [PMC4773993](#)
 16. Checkley LA, Rudolph MC, Wellberg EA, **Giles ED**, Wahdan-Alaswad RS, Houck JA, Edgerton SM, Thor AD, Schedin P, Anderson SM, MacLean PS. Metformin Accumulation Correlates with Organic Cation Transporter 2 Protein Expression and Predicts Mammary Tumor Regression In Vivo. *Cancer Prevention Research*. 2017 Mar 1;10(3):198-207. PMID: [PMC5405741](#)
 17. Sherk VD, Jackman MR, **Giles ED**, Higgins JA, Foright RM, Presby DM, Johnson GC, Houck JA, Houser JL, Oljira R, MacLean PS. Prior weight loss exacerbates the biological drive to gain weight after the loss of ovarian function. *Physiological reports*. 2017 May 1;5(10):e13272. PMID: [PMC5449558](#)
 18. Wellberg EA, Checkley LA, **Giles ED**, Johnson SJ, Oljira R, Wahdan-Alaswad R, Foright RM, Dooley G, Edgerton SM, Jindal S, Johnson GC. The Androgen Receptor Supports Tumor Progression After the Loss of Ovarian Function in a Preclinical Model of Obesity and Breast Cancer. *Hormones and Cancer*. 2017 Jul 24:1-7. PMID: [PMC6022404](#)
 19. Foright RM, Presby DM, Sherk VD, Kahn D, Checkley LA, **Giles ED**, Bourguignan A, Higgins JA, Jackman MR, Hill JO, and MacLean PS. Is regular exercise an effective strategy for weight loss maintenance? *Physiology & Behavior*. 2018 Jan 31. PMID: [PMC5929468](#)
 20. **Giles ED****, Jindal S, Wellberg EA, Schedin T, Anderson SM, Thor AD, Edwards DP, MacLean PS, and Schedin P. Metformin inhibits stromal aromatase expression and tumor progression in a rodent model of postmenopausal breast cancer. *Breast Cancer Res*. 2018;20 (1):50. PMID: [PMC6000949](#) ****corresponding author**
 21. Sherk VD, Jackman MR, Higgins JA, **Giles ED**, Foright RM, Presby DM, Carpenter RD, Johnson GC, Oljira R, Houck JA, MacLean PS. Impact of Exercise and Activity on Weight Regain and Musculoskeletal Health PostOVX. *Med Sci Sports Exerc*. 2019 Dec;51(12):2465-73. PMID: [PMC7194137](#)
 22. Presby DM, Checkley LA, Jackman MR, Higgins JA, Jones KL, **Giles ED**, Houck JA, Webb P, Steig AJ, Johnson GC, Rudolph MC. Regular exercise potentiates energetically expensive hepatic de novo lipogenesis during early weight regain. *American Journal of Physiology-Regulatory, Integrative and Comparative Physiology*. 2019 Sep 25;317(5):R684-95.
 23. **Giles ED****, Brown IL, Maclean PS, Pan Z, Melanson, EL, Heard KJ, Cornier MA, Marden T, and Higgins JA**. The In Vivo Net Energy Content of Resistant Starch and Its Effect on Macronutrient

- Oxidation in Healthy Adults. *Nutrients*. 2019 Oct;11(10):2484. PMID: [PMC6835355](#)
****corresponding author**
24. **Giles ED**** and Wellberg EA. Preclinical models to study obesity and breast cancer in females: Considerations, Caveats, and Tools. *Journal of Mammary Gland Biology & Neoplasia*. 2020 Nov 4:1-7. PMID: [PMC8197449](#)
****corresponding author**
 25. Fabian CJ, Befort CA, Phillips TA, Nydegger JL, Kreutzjans AL, Powers KR, Metheny T, Klemp JR, Carlson SE, Sullivan DK, Zalles CM, **Giles ED**, Hursting SD, Hu J, and Kimler BF. Change in Blood and Benign Breast Biomarkers in Women Undergoing a Weight-Loss Intervention Randomized to High-Dose ω -3 Fatty Acids versus Placebo. *Cancer Prevention Research*. 2021 Sept;14(9):893-904. PMID: [PMC8416797](#) ****Exercise oncology clinical collaboration**
 26. Fabian CJ, Klemp JR, Marchello NJ, Vidoni ED, Sullivan DK, Nydegger JL, Phillips TA, Kreutzjans AL, Hendry B, Befort CA, Nye L, Powers KR, Hursting SD, **Giles ED**, Hamilton-Reeves JM, Li B, Kimler BF. Rapid Escalation of High-Volume Exercise during Caloric Restriction; Change in Visceral Adipose Tissue and Adipocytokines in Obese Sedentary Breast Cancer Survivors. *Cancers*. 2021 Sep 28;13(19):4871. PMID: [34638355](#). ****Exercise oncology clinical collaboration**
 27. Glenn EM, Coleman MF, **Giles ED**, Wellberg EA, Hursting SD. Designing Relevant Preclinical Rodent Models for Studying Links Between Nutrition, Obesity, Metabolism, and Cancer. *Annual Review of Nutrition*. 2021 Oct 11; 41:253-282. PMID: [34357792](#)
 28. Schembre SM, Jospe MR, **Giles ED**, Sears DD, Liao Y, Basen-Engquist KM, Thomson CA. A Low-Glucose Eating Pattern Improves Biomarkers of Postmenopausal Breast Cancer Risk: An Exploratory Secondary Analysis of a Randomized Feasibility Trial. *Nutrients*. 2021 Dec;13(12):4508.
 29. Baine RE, Johnston D, Strain M, Henwood M, Davis J, Reynolds J, **Giles ED**, Grau JW. “Estrous cycle in rats modulates the harmful effects of pain after spinal cord injury (SCI) modulates the harmful effects of pain after spinal cord injury (SCI). *Neurotrauma Reports*. 2022 Jan 1;3(1):70-86.
 30. Kotta AS, Kelling AS, Corleto KA, Sun Y, **Giles ED**. Ghrelin and Cancer: Examining the Roles of the Ghrelin Axis in Tumor Growth and Progression. *Biomolecules*. 2022 Mar 22;12(4):483.

Publications Under Review

1. Epps JL, Sanchez L, Wall SW, McQueen CM, Pearson SJ, Scribner KC, Wellberg EA, **Giles ED**, Rijnkels M, and Porter WW. “SIM2s enhances the function and survival of mammary epithelial cells and interacts with the mitophagy machinery.” *Submitted to – Developmental Cell*, Mar 24, 2021. Status: *Undergoing revisions*
2. Wellberg EA, Corleto KA, Obeid SM, Mahmood TA, Schedin P, Maclean PS, and **Giles ED**. Preventing ovariectomy-induced weight gain decreases tumor burden in rodent models of obesity and postmenopausal breast cancer. Status: *Posted on bioRxiv <https://doi.org/10.1101/2021.10.18.464856> (preprint server); Under Review Breast Cancer Research*

Upcoming Manuscript Submissions:

1. Jenschke R, Gavin KA, Sherk VD, Foright R, Jackman MR, MacLean PS, Kohrt WM, **Giles ED**. Exercise decreases adipose tissue inflammation and promotes fat deposition in “healthy” depots during menopause: findings from both clinical (GNRHag) and preclinical (OVX) models of menopause. *Plan to submit to Frontiers in Endocrinology, Special Edition on Sex Hormones and Adipose Biology*.

Presented Abstracts (53)

 indicates trainee that I have mentored or co-mentored

σ Oral presentation

β Underrepresented minority or first-generation college student trainee as first author

γ Outstanding abstract, travel award, or other honor (to 1st author)

δ International venue

1. **Giles ED**, Crews L, Betteridge K. Mechanism of Expansion in the Early Equine Conceptus. Equine Practitioner's Annual Meeting 2000.
2. **Giles ED**, Partlow GD, Fisher KRS. A method for studying the presence of oxytocin and vasopressin in the pig hypothalamus. Program & Proceedings of 43rd Annual Meeting of the CFBS; 2000.
3. **Giles ED**, Hirte H, Singh G. Effect of the bone microenvironment on gene expression in breast carcinoma (MDA-MB-231) cells. 93rd Annual Meeting of the American Association for Cancer Research; 2002 April; San Francisco, CA.
4. **Giles ED**, Singh G. The role of IGFBP-3 in the metastasis of breast cancer to bone. Gordon Research Conference on Insulin-like Growth Factors in Physiology & Disease 2003 March 9-14; Ventura, CA.
5. **Giles ED**, Singh G. Role of IGFBP-3 in the proliferation of MDA-MB-231 breast carcinoma cells in bone metastasis. 97th Annual Meeting of the American Association for Cancer Research; 2006 April; Washington, DC.
6. **Giles ED**, Johnson GC, McDaniel SM, Fleming-Elder BK, Gilman KA, Andrianakos AG, Jackman MR, Shroyer KR, Schedin PJ, MacLean PS. Cytokine profiling of Lean and Obese rats in a model of postmenopausal breast cancer. Annual Scientific Meeting of The Obesity Society; 2008 October; Phoenix, AZ.
7. Jackman MR, Steig AJ, **Giles ED**, Stob N, Johnson GC, Fleming-Elder BK, Lindstrom R, Higgins J, Erickson C, Eckel RH, MacLean PS. Dietary fat is trafficked to small adipocytes during weight regain. Annual Scientific Meeting of The Obesity Society; 2008 October; Phoenix, AZ.
8. MacLean PS, **Giles ED**, Johnson GC, McDaniel SM, Fleming-Elder BK, Gilman KA, Andrianakos AG, Jackman MR, Shroyer KR, Schedin PJ. A surprising link between the energetics of weight gain and mammary tumor progression in a model of postmenopausal obesity. 2008 Annual Scientific Meeting of The Obesity Society; 2008 October; Phoenix, AZ.
9. δ Higgins JA, **Giles ED**, Jackman MR, Steig AJ, Johnson GC, Fleming-Elder BK, Brown IE, MacLean PS. Resistant starch promotes preferential fat oxidation in rats following weight loss. 3rd International Congress on Prediabetes and the Metabolic Syndrome; 2009 April; Nice, France.
10. **Giles ED**, Steig AJ, Jackman MR, Johnson GC, Higgins JA, Hill JO, Eckel RH, MacLean PS. Effects of exercise on LPL expression after weight loss and during weight regain. International Biochemistry of Exercise Conference; 2009 June; Guelph, Canada.
11. **Giles ED**, Steig AJ, Jackman MR, Higgins JA, Johnson GC, Wyatt HR, Eckel RH, Hill JO, MacLean PS. Exercise reduces trafficking of dietary fat to adipose during the relapse to obesity. FASEB Summer Research Conference, "The Physiological Basis for Obesity Therapeutics." 2009 August; Snowmass, CO.
12. β Houser JL, **Giles ED**, Johnson GC, Jackman MR, Higgins JA, Schedin PJ, MacLean PS. Energy balance, fuel utilization, and activity levels in lean and obese female rats before and after surgical ovariectomy. FASEB Summer Research Conference, "The Physiological Basis for Obesity Therapeutics." 2009 August; Snowmass, CO.
13. Jackman MR, Steig AJ, **Giles ED**, Johnson GC, Higgins JA, Erickson C, Mahan MC, Eckel RH, MacLean PS. Adipose tissue hyperplasia may facilitate the relapse to obesity after long term weight loss. FASEB Summer Research Conference, "The Physiological Basis for Obesity Therapeutics." 2009 August; Snowmass, CO.
14. **Giles ED**, Steig AJ, Jackman MR, Johnson GC, Higgins JA, Stob NR, Lindstrom RC, Hill JO, Eckel RH, MacLean PS. Regular exercise induces tissue-specific expression of metabolic-related transcription factors during the relapse to obesity. Kern Aspen Lipid Conference; 2009 August; Aspen, CO.

15. **Giles ED**, Schedin PJ, Johnson GC, Jackman MR, Hedman KJ, Mahan MC, Houser JL, MacLean PS. Metformin enhances tumor regression and reduces tumor burden in a preclinical paradigm modeling obesity's impact on postmenopausal breast cancer. 101st Annual Meeting of the American Association for Cancer Research; 2010 April; Washington, DC.
16. **Giles ED**, Schedin PJ, Johnson GC, Jackman MR, Houser JL, MacLean PS. The impact of obesity on energy balance, fuel utilization and physical activity during the estrous cycle and following surgical ovariectomy in rats. International Congress on Obesity; 2010 June; Stockholm, Sweden
17. **Giles ED**, Wellberg EA, Anderson SM, Schedin PJ, Thor AD, MacLean PS. Progesterone receptor and excess energy links obesity to enhanced mammary tumor glucose uptake in a model of menopause. AICR Research Conference on Food, Nutrition, Physical Activity and Cancer; 2010 October; Washington, DC.
18. Higgins JA, Hagman J, Moore R, Kasten M, Johnson G, Jackman M, **Giles E**, Garling T, and MacLean P. Nutritional Strategies For Weight Regain In Anorexia Nervosa: A Translational Approach. Society for Clinical and Translational Science Annual Meeting; 2011 May; Washington, DC.
19. **Giles ED**, Wellberg EA, Schedin PJ, Anderson SM, Thor AD, Edgerton SM, MacLean PS. Effect of obesity on whole body and tumor specific metabolism: A role for the progesterone receptor in promoting the glycolytic/lipogenic tumor profile. Gordon Research Conference on Mammary Gland Biology; 2011 June; Newport, RI.
20. Wellberg EA, **Giles ED**, Rudolph MC, Schedin PJ, Anderson SM, Thor AD, Edgerton SM, MacLean PS. The progesterone receptor is targeted by metformin in a rat model of postmenopausal obesity and is associated with tumor glucose metabolism. Gordon Research Conference on Mammary Gland Biology; 2011 June; Newport, RI.
21. Higgins JA, Hagman J, Moore R, Kasten M, Johnson G, Jackman M, **Giles E**, Garling T, and MacLean P. Nutritional Strategies For Weight Regain In Anorexia Nervosa: A Translational Approach. Society for Clinical and Translational Science Annual Meeting, Washington, DC, 2011.
22. **β Houser JL**, **Giles ED**, Jackman MR, Steig AJ, Higgins JA, Johnson GC, Eckle GC, Hill JO, MacLean PS. Regular exercise traffics nutrients away from energetically efficient pathways of lipid deposition during weight regain after long term weight loss. UC Denver Research and Creative Arts Symposium, Aurora, 2011.
23. **γ Giles ED**, Steig AJ, Jackman MR, Higgins JA, Johnson GC, Wyatt HR, Melanson EL, Hill JO, MacLean PS. Exercise reduces trafficking of dietary fat to adipose during the relapse to obesity. Integrative Biology of Exercise VI Conference; 2012 October; Westminster, CO.
24. Higgins JA, MacLean PS, Pan Z, **Giles ED**, Moore R, Kasten M, Hagman J. Novel Anorexia Nervosa Refeeding Strategies: From Human to Rat and Back Again. American Society for Nutrition Annual Meeting; 2012 April 21-25; San Diego, CA.
25. Polsky S, Ogden LG, Brill C, **Giles ED**, MacLean PS, Hill JO, Wyatt HR. Biomarker Profile Does Not Predict Weight Loss Success. Obesity Society Annual Scientific Meeting; 2012 Sept 20-24; San Antonio, TX.
26. **$\sigma\delta$ MacLean PS**, **Giles ED**, Wellberg EA, Astling DP, Anderson, SM, Thor AD, Jindal S, Tan AC, and Schedin PJ. Obesity and overfeeding converge to promote mammary tumor survival and growth after the loss of ovarian function. 12th Annual Benjamin Franklyn/Lafayette Seminar, Frejus, France, 2013.
27. **δ Giles ED**, Heard K, Brown I, and Higgins JA. Resistant Starch Promotes Increased Fat Oxidation in Healthy Adults. 20th International Congress of Nutrition; 2013 Sept; Granada, Spain.
28. Jackman MR, Astling D, Lopez JL, Johnson G, Webb P, **Giles ED**, Higgins J, Tan AC, and MacLean PS. Elevated preadipocyte proliferation and differentiation during the early stages of relapse in an experimental paradigm modeling weight regain after weight loss. Obesity Society Annual Scientific Meeting; 2013 Nov 12-16; Atlanta, GA
29. Gavin KM, Patterson SD, Hanson K, **Giles ED**, Gibbons E, Stavros A, Erickson C, Shea KL, and Kohrt WM. Loss of circulating ovarian hormones may be related to subcutaneous abdominal adipogenesis in premenopausal women. Obesity Society Annual Scientific Meeting; 2014 Nov 1-7; Boston, MA.

30. **Giles ED**, Checkley LA, Wellberg EA, Schedin PJ, Anderson SM, Thor AD, and MacLean PS. Preventing menopause-induced weight gain decreases tumor burden in a rodent model of obesity and postmenopausal breast cancer. Obesity Society Annual Scientific Meeting; 2014 Nov 1-7; Boston, MA.
31. Checkley LA, **Giles ED**, Wellberg EA, Schedin PJ, Anderson SM, Thor AD, and MacLean PS. Metformin Induces Mammary Tumor Regression in Rats on a High-Fat Diet. Obesity Society Annual Scientific Meeting; 2014 Nov 1-7; Boston, MA.
32. MacLean PS, Foright, R, **Giles ED**, Johnson GC, Lopez JL, Houck JA, Sherk VD, and Jackman, MR. Pre-Existing Obesity and Weight Loss Do Not Affect the Decline in Physical Activity that Results from the Loss of Ovarian Function. Eleventh Annual Interdisciplinary Women's Health Research Symposium; 2014 Nov 7; Bethesda, MD.
33. Wellberg EA, **Giles ED**, Jindal S, Checkley LA, Thor AD, Edgerton SM, Schedin P, Anderson SM, and MacLean PS. A link between androgen receptor activation and tumor progression in obesity-associated postmenopausal breast cancer. Endocrine Society Annual Meeting; 2015 Mar 5-8; San Diego, CA.
34. Sherk VD, Foright R, **Giles ED**, Johnson GC, Lopez JL, Houck JA, Higgins JA, Jackman MR, MacLean PS. Initial Disruptions In Energy Balance After The Loss Of Ovarian Function Do Not Depend On Exercise Training Or Obesity Status In Rats. Accepted for oral presentation at the 2015 ACSM Annual Meeting
35. Checkley LA, Presby D, Houck J, **Giles ED**, Steig AJ, Jackman MR, Johnson GC, Higgins JA and Maclean PS. "Regular Exercise during Weight Regain Stimulates Hepatic de novo Lipogenesis" Obesity Society Annual Scientific Meeting; 2015 Nov; Los Angeles, CA.
36. **B** Foright RM, Johnson G, Houck J, Checkley A, **Giles E**, Presby D, Sherk V, Jackman M, MacLean PS. Exercise attenuates weight regain in male and ovariectomized female rats but not intact female rats. Association for Clinical and Translational Science, Washington D.C., 2016.
37. **Giles ED**, Sherk VD, Webb P, Foright R, Johnson, GC, Jackman MR, and MacLean PS. "Exercise decreases adipose tissue inflammation and promotes fat deposition in "healthy" depots during OVX-induced weight gain." 2015 Keystone Meeting – Obesity and Adipocyte Biology, Banff, AB, Feb 2016.
38. Song Z, Houck J, Sherk V, Foright R, Presby D, **Giles ED**, Jackman MR, and MacLean PS. "Exercise Induced Plasticity in Glucose Sensing Neurons may Counter Ovariectomy Resulted Weight Gain and Weight Regain after Weight Loss in Obese-prone Rats." Experimental Biology 2016
39. Presby D., Houck J., **Giles E**, Steig A, Jackman M, Foright R, Johnson G, Higgins J, and MacLean P. "Effect of Exercise on Skeletal Muscle Lipogenic Gene Expression During Weight Regain." Experimental Biology 2016
40. Sherk VD, Carpenter RD, **Giles ED**, Olijira R, Mills S, Johnson GC, Higgins JA, MacLean PS. "Ibuprofen before exercise does not alter cortical bone adaptations to treadmill running in female rats" ACSM Annual Meeting, 2016.
41. **δ Giles ED**, Sherk VD, Webb P, Foright R, Johnson, GC, Jackman MR, and MacLean PS. "Preventing weight gain after menopause decreases tumor burden in a rodent model of obesity and postmenopausal breast cancer." Gordon Research Conference on Mammary Gland Biology, Lucca (Barga) Italy, May/June 2016.
42. **σ Giles ED**, Crump LS, Maclean PS, Schedin P, Wellberg EA, and Lyons TA. Metformin decreases obesity-associated peri-tumor lymphangiogenesis in a model of breast cancer. Obesity Society Annual Scientific Meeting; 2017 Nov; Washington DC.
43. **σ Crump LS**, Lyons TA, MacLean PS, Schedin P, Wellberg EA, and **Giles ED**. Metformin decreases obesity-associated macrophage infiltration and lymphangiogenesis in the tumor microenvironment in a rodent model of breast cancer. AACR Obesity & Cancer: Mechanisms Underlying Etiology and Outcomes; 2018 Jan, Austin TX.
44. **Giles ED**, Corleto K, Wellberg EA, Jindal S, Maclean PS, Schedin P. "Prevention of obesity-associated breast cancer after menopause – two interventions with different mechanisms" American Institute for Cancer Research Annual Meeting, May 2019.
45. **β Corleto KA**, Obeid SM, Wellberg EA, Maclean PS, Schedin P, **Giles ED** "Preventing weight gain decreases mammary tumor growth through both direct and indirect mechanisms in a preclinical model

- of obesity and postmenopausal breast cancer." Baylor Breast Center Annual Meeting, Sept 2019, Galveston, TX.
46. **β Vazquez LG, Uyyalada R, Moreno A, Corleto KA, Landrock D, Giles ED.** Preclinical model to study the impact of exercise on tumor growth. Texas A&M Undergraduate Research Scholars Symposium, 2020.
 47. **σ Kotta A, Kelling AS, Moreno A, Uyyalada R, Vazquez LG, Corleto KA, Landrock D, Giles ED.** Texas A&M Undergraduate Research Scholars Symposium, 2020. Texas A&M Undergraduate Research Scholars Symposium, 2020.
 48. **σ Fabian CJ, Befort CA, Sullivan DK, Carlson SE, Nydegger JL, Kreutzjans AL, Powers KR, Phillips TA, Metheny T, Zalles CM, Giles ED, Hursting SD, and Kimler, BF.** Abstract PD11-02: Randomized trial of 12 months of omega-3 fatty acids vs placebo during a weight loss intervention in postmenopausal women at increased risk for breast cancer. Dec 8-11 2020, San Antonio Breast Conference; Published Feb 2021
 49. **β Corleto KA, Mahmood TN, Landrock D, Hursting SD, Fabian C, Kimler B, and Giles ED.** "Duavee® Improves Metabolic Health without Increasing Cancer Risk: Findings from a Preclinical Model of Obesity and Postmenopausal Breast Cancer." Annual Meeting of the American Association for Cancer Research. Virtual Presentation; April 2021
 50. **β Corleto KA, Mahmood TN, Landrock D, Jenschke R, Hursting SD, Fabian C, Kimler B, and Giles ED.** "Bazedoxifene plus conjugated estrogen improves body composition and metabolic health without increasing cancer risk: Findings from a rat model of obesity and postmenopausal breast cancer with application to clinical studies. 2021 MD Anderson Conference - Translating Energy Balance From Bench to Communities. Virtual Format, June 2021.
 51. **β Corleto KA, Mahmood TN, Landrock D, Hursting SD, Fabian C, Kimler B, and Giles ED.** "Duavee® Improves Metabolic Health without Increasing Cancer Risk: Findings from a Preclinical Model of Obesity and Postmenopausal Breast Cancer." 2021 MD Anderson Conference Translating Energy Balance From Bench to Communities: Application of Parallel Animal-Human Studies; Virtual Presentation July 2021.
 52. **Giles ED, Liao Y, Thomson CA, Sears DD, and Schembre SM.** "Pilot study to model inter-meal fasting (IMF) in preclinical animal models for translation to human postmenopausal, obesity-related cancer". 2021 MD Anderson Conference Translating Energy Balance From Bench to Communities: Application of Parallel Animal-Human Studies; Virtual Presentation July 2021.
 53. **Baine RE, Giles ED, Grau JW.** "Estrous cycle modulates the harmful effects of pain after spinal cord injury (SCI). 2021 Society for Neuroscience Annual Conference; Chicago, IL, Nov 2021.

TEACHING & MENTORING

Formal Courses Taught

2000-2004	Human Anatomy – McMaster University, Canada <i>Lab demonstration for the dissection of human cadavers and Problem-based anatomy demonstrations / small group lectures for Rehabilitation Sciences (Physiotherapy and Occupational therapy) using prosected human specimens, plastinated specimens, x-rays, and models.</i>
2001, 2003	Molecular Biology – McMaster University, Canada <i>Biology 3H03 / Mol Biol 3H03: Molecular Biology of the Nucleus Lab demonstration (TA) involving current molecular biology techniques.</i>
2001-2003	Human Physiology – McMaster University, Canada <i>Tutorial leader and laboratory instructor for first year nursing students.</i>
2013	Endocrinology of Obesity –Endocrine Society Summer Student Lecture Series; <i>Lecturer for minority summer student program sponsored by the Endocrine Society</i>
2014	Plagiarism, Falsification, and Fabrication – Introductory Graduate School Seminar – University of Colorado Anschutz Medical Campus

- 2015 Biological Adaptations to Weight Loss that Promote Weight Regain. Obesity and Cardiovascular Disease T32 Graduate Course University of Colorado Anschutz Medical Campus
- 2016-2018 and 2020-2021 Nutrition Seminar (NUTR/NFSC 481) Texas A&M University (1 credit) *Designated communication (C-credit) undergraduate course; Capstone course for Nutrition majors; Literature review and critical analysis, culminating in a research paper and oral presentation.*
- 2018 - 2020 Nutritional Physiology of Vitamins & Minerals (NUTR/NFSC 365) Texas A&M University (3 credit undergraduate course) *I redeveloped this course that had not been offered for > 5 years; enrollment has increased from 18 students in my first semester teaching to > 75 / semester.*
- 2020 - present Perspectives in Nutrition (NFSC 204), Texas A&M University (1 credit) *Designated writing intensive (W-credit) undergraduate course; introduces undergraduates to critical analysis of scientific literature.*
- 2021- Molecular Techniques in Nutrition (NUTR 469), Texas A&M University (3 credit) Laboratory-based course. *This is a new course that I designed and am offering for the first time Fall 2021. It provides students with hands-on experience conducting research studies in the nutritional sciences, including: study design, molecular techniques, data analysis and interpretation, and applying these skills to critically evaluate published studies in the literature.*

Research Mentoring

**denotes trainees that identify as first-generation, underrepresented minority, and/or under-resourced background*

Undergraduate Students

McMaster University & Juravinski Cancer Center

- 2002 – 2005 Andrea Hiltz, Summer Research Student & MSc Student
*Provided mentorship under the supervision of Dr. Gurmit Singh
Current position: Research Project Advisor - Life & Health Sciences, Queens University*

University of Colorado Anschutz Medical Campus & School of Medicine

- 2009 – 2011 Chad Mahan, Student Researcher, Co-Mentor *Current position: Orthopedic Surgeon*
- 2009 – 2013 *Jordan Houser, GEMS Program/LABCOATS Student Researcher, Co-Mentor
- 2014 – 2016 *Robera Oljira, Undergraduate Student Researcher
*Emerging Leader in Nutrition Research, American Society for Nutrition
Full Scholarship to the Geffen UCLA School of Medicine*
- 2015 *Aneshiwa Senior, Endocrine Society Minority Fellowship, Co-Mentor (summer)
- 2015 Abigail Leigh Joy, Cancer Biology Summer Fellowship

Texas A&M University

- 2016 – 2017 Abby Holloway, Nutrition; *Current position: Medical School*
- 2016 – 2018 Kristen Sedillo, Nutrition; *Current position: Physician's Assistant Program*
- 2016 – 2019 Sabrina Obeid, Biomedical Science; *Current position: Clinical Research Lab Technician*
- 2018 – 2019 Cherie Rosenauer, Genetics; *Current position: Pharmaceutical Research Technician*
- 2018 – 2020 *Nicholas Singleton, Nutrition; *Current position: Applying to Graduate School*
- 2018 – 2020 *Leonel G. Vazquez, Nutrition; *Current position: Applying to Graduate School*
- 2018 – 2020 *Rupak Uyyalada, Nutrition; *Current position: Military Service*
- 2018 – 2021 Braden Kester, Kinesiology
- 2020 – 2021 Alexander Bodgan, Engineering; *Current position: Graduate School*
- 2020 – 2021 Kylen Kuslack, Kinesiology

2019 – 2022	Anuhya Kotta, Nutrition <i>Senior Merit Award, College of Agriculture & Life Sciences, TAMU</i> <i>Co-First author publication while from work in my lab</i>
2019 – 2022	Abigail Kelling, Nutrition <i>Co-First author publication while from work in my lab</i>
2020 – 2022	Abigail Drago, Forensics
2020 –	Eliza Nelson, Biomedical Science
2020 –	Jenna Strandmo, Biomedical Science
2021 –	*Sam Foster, Biology
2021 – 2022	Jaden Satterlee, Nutrition; <i>Current position: Graduate School (PhD), Baylor University</i> <i>College of Agriculture & Life Sciences Summer Research Experience Awardee</i>
2021 – 2022	Nicole Aliezer, Genetics
2022 –	Nanci Lammoglia, Nutrition
2022 –	Grace Lacoume, Nutrition
2022 –	Megan Horlavadi, Nutrition
2022 (summer)	Nicole

Doctoral Students*Major Advisor*

2018 –	*Karen Corleto, Texas A&M University, Nutrition <i>Major Advisor</i>
2019 –	Tara Mahmood, Texas A&M University, Nutrition <i>Major Advisor</i>
2021 –	Ramsey Jenschke, Texas A&M University, Genetics <i>Major Advisor</i>

Committee Member or Other Role

2008 – 2009	Amy Steig, Physiology, University of Colorado School of Medicine <i>Provided mentorship under the supervision of Dr. Paul MacLean</i> <i>Current position: Director of Clinical Affairs, Sympara Medical, Inc.</i>
2016 –	*Michael Salinas, Texas A&M University, Nutrition <i>Committee Member</i>
2016 –	Steven Wall, Texas A&M University, Biomedical Science <i>Committee Member</i>
2019	Garhett Wyatt, Texas A&M University, Biomedical Science <i>Committee Member</i>
2019 –	Lily Sanchez, Texas A&M University, Genetics <i>Committee Member</i>
2019 –	Payal Shah, Texas A&M University, Veterinary Integrative Sciences <i>Committee Member</i>
2019 (fall)	Livia Schuller, Texas A&M University, Genetics <i>1st Year Rotation Research Mentor</i>

Masters Students

2017	Meghan Kinder; Texas A&M University, Genetics <i>MS Thesis Exam committee</i>
2017 – 2019	Garhett Wyatt, Texas A&M University, Biomedical Science <i>Committee member</i> <i>Current position: PhD Candidate (I remained on committee)</i>
2018 – 2019	Hyoseon Kim, Texas A&M University, Exercise Physiology/Kinesiology <i>Committee member</i>
2020	Shelby Smith, Texas A&M University, Kinesiology <i>Committee Member</i> <i>Non-thesis Master's Degree</i>