CURRICULUM VITAE
Sarah J. Borengasser, PhD, MS

CURRENT POSITION

Associate Professor
TSET Health Promotions Research Center
Stephenson Cancer Center, Member
Harold Hamm Diabetes Center, Member and Vice Chair for Research & Training
Department of Pediatrics – Section of Endocrinology and Diabetes
Adjunct Appointments: Departments of Nutritional Sciences and Biochemistry & Physiology
University of Oklahoma Health Sciences
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Research in obesity, nutrition, physical activity, and -omics with projects in:

- Maternal nutrition and epigenetic programming (DNA methylation)
- Identification of early –omics biomarkers for obesity and obesity-comorbidities
- Lifestyle interventions to prevent and treat obesity, insulin resistance, & CVD
- Emerging: 1) epigenetic age acceleration, 2) climate change, and 3) mHealth

Unique research and teaching approaches to train the next generation of obesity, nutrition, and exercise scientists via:

- Training in gold standard epigenetic study designs, methodologies, statistical analyses, and multi-omic integration in the context of obesity, nutrition, diabetes, and exercise research
- Developing communication skills to effectively present research findings to scientific and lay audiences using TED-talk style approaches
- Innovative career development curriculum focused on providing learners training opportunities not offered in other internal and external venues such as how to give a rapid-fire talks

Applied & selected for intensive leadership training that included multiple assessments (125+ total hours):

- *CU Anschutz Women's Leadership Training* provided specialized training in conflict resolution, resilience, leading meetings, sex differences in leadership styles, and multiple assessments such as the Myer-Briggs Type Indicator and Conflict Management Style.
- *CU Anschutz Leadership for Innovative Team Science (LITeS) Program* included multiple assessments such as the 360° Leadership Practices Inventory and Thomas-Kilmann Conflict Mode Inventory to enhance communication, team building and managing, creativity, and inclusiveness.
- *CU Anschutz Colorado Mentoring Program* provided formal training in evidence-based strategies to maximize the mentor-mentee relationship and included sessions on understanding your personality and communication style, writing effective mentor letters, goal setting, and networking.

EDUCATION

1996 – 2000	Wartburg College, Waverly, IA Bachelor of Arts in Spanish Studies
2000 – 2003	Iowa State University, Ames, IA Master of Science in Exercise Science Mentor: Marian Kohut, PhD
2006 – 2010	University of Missouri, Columbia, MO Doctor of Philosophy in Nutritional Sciences Mentor: John Thyfault, PhD

ACADEMIC APPOINTMENTS & MEMBERSHIPS

2010 – 2014	**Instructor**: Department of Pediatrics, Section of Developmental Nutrition University of Arkansas for Medical Sciences, Little Rock, AR Arkansas Children's Nutrition Center Mentor: Kartik Shankar, PhD
2014 – 2015	**Instructor**: Department of Pediatrics, Section of Nutrition University of Colorado Anschutz Medical Campus, Aurora, CO Mentor: Jacob (Jed) Friedman, PhD
2015 – 2022	**Assistant Professor**: Department of Pediatrics, Section of Nutrition University of Colorado Anschutz Medical Campus, Aurora, CO
2018 – 2022	**Secondary Appointment**: Department of Biomedical Informatics, University of Colorado Anschutz Medical Campus, Aurora, CO
2022 – 2023	**Associate Professor:** Department of Pediatrics, Section of Nutrition University of Colorado Anschutz Medical Campus, Aurora, CO
2023 – present	**Associate Professor:** Department of Pediatrics, Section of Endocrinology, University of Oklahoma Health Sciences, Oklahoma City, OK
2023 – present	**Member & Vice Chair for Research and Training:** Harold Hamm Diabetes Center, University of Oklahoma Health Sciences, Oklahoma City, OK
2023 – present	**Full Member:** Stephenson Cancer Center, Cancer Prevention and Control Research Program, University of Oklahoma Health Sciences, Oklahoma City, OK
2024 – present	**Adjunct Appointment:** Department of Nutritional Sciences, University of Oklahoma Health Sciences, Oklahoma City, OK
2024 – present	**Adjunct Appointment:** Department of Biochemistry and Physiology, University of Oklahoma Health Sciences, Oklahoma City, OK
2024 – present	**Full Member,** Graduate Faculty, University of Oklahoma Health Sciences, Oklahoma City, OK

HONORS, SPECIAL RECOGNITIONS AND AWARDS

1996 – 2000	Reagent's Scholar, Wartburg College
2000 – 2001	Co-Founder and President, ISU Running Club, Iowa State University
2002 – 2003	Fundraising Chair, Health and Human Performance Graduate Student Association, Iowa State University
2006	Gamma Sigma Delta Honor Society of Agriculture, University of Missouri
2007 – 2009	President, Health Sciences Graduate Student Association, University of Missouri

2008 Chair, Graduate Student Invited Seminar Speaker: Dr. George Brooks, University of Missouri
2009 Chair, Graduate Student Invited Seminar Speaker: Dr. Steven Blair, University of Missouri
2009 Chair, Student Panel, Central States Chapter of the American College of Sports Medicine
2009 – 2010 Maxine Seabaugh Schade Fellowship in Nutrition and Exercise Physiology, University of Missouri (*1 graduate student selected by faculty each year*)
2010 Charlene Scanland-Evert Graduate Research Scholarship in Nutritional Science, University of Missouri (*1 graduate student selected by faculty each year*)
2015 – 2016 Burroughs Wellcome Fund Collaborative Research Travel *($7500 award to travel to the University of Bristol for 2 x week-long training sessions to learn 2-step Mendelian Randomization to infer causation in epigenetic research with K01 consultant, Dr. Caroline Relton*)

PROFESSIONAL MEMBERSHIPS

2007 – 2009 American Physiological Society
2009 – 2010 American College of Sports Medicine
2011 – present American Society for Nutrition
2012 – 2015 Endocrine Society
2017 – 2019 American Diabetes Association
2018 – present American Heart Association
2020 – present The Obesity Society

MAJOR COMMITTEES AND SERVICE RESPONSIBILITIES

Department of Pediatrics: CU Anschutz

2016 Co-Primary Mentor, Child Health Summer Research Intern
2016 – 2022 Organizer, Nutrition Faculty/Fellow Social
2017 Co-Coordinator, Nutrition Faculty Retreat
2017 Panelist, 3rd Annual Research Symposium, Research Institute, CHCO *"New Research Technologies and Innovations"*
2017 – 2023 Reviewer, NIH NIDDK T32 Nutrition Training Fellowships
2018 Host, Grands Rounds Speaker: Dr. Robert Waterland
2023 Member, Pediatric Nutrition Diversity, Equity, and Inclusion Committee

Departments of Pediatrics, Nutritional Sciences, and Biochemistry & Physiology: OUHS

2024 Reviewer, Pediatric Research Day Abstract
2024 Member, Nutritional Sciences Faculty Search Committee (3 open rank positions)
2025 Member, Graduate Program in Biomedical Sciences

Graduate Program in Biomedical Sciences (GPiBS): OUHS

2025 Member, GPiBS Summer Undergraduate Research Experience (SURE) Selection Committee
2025 Interviewer, GPiBS Program

Health Promotion Research Center (HPRC)/Stephenson Cancer Center (SCC): OUHS

2024 Member, Tulsa HPRC Faculty Search Committee (5 open rank positions)
2024 – present Captain, HPRC Outpace Cancer Race Team
2024 Poster Judge, SCC Cancer Research Symposium
2024 Guest Lecturer, HPRC New Scholars Seminar Series: *"Conducting a Literature Review"*
2024 Panelist, HPRC New Scholar Seminar Series: "*Applying to Faculty Positions"*

Harold Hamm Diabetes Center: OUHS

2023 – present	Vice Chair for Research and Training
2023 – present	Member, Internal Advisory Board
2023 – present	Director, Early Career Scholar Program
2024	Instructor, "*Talk Like TED"* Program (8 x 1 hr sessions)
2024	Member & Reviewer, Pilot Grant Program
2024	Member, Deputy Director Search Committee (1 leadership position)
2024	Coordinator, Speed Networking Event *"Accelerating Diabetes-Related Research Collaborations Between Clinical Researchers and Basic Scientists"*

School of Medicine: CU Anschutz

2017	Host, Dean's Distinguished Seminar Speaker: Dr. John Greally
2018 – 2023	Primary Mentor, Mentored Scholarly Activity Project for a medical student: Pratibha Anand

College of Medicine: OUHS

2024	Guest Speaker, OSCTR GROklahoma Podcast

Anschutz Medical Campus

2016 – 2023	Reviewer, CCTSI PreK Mock Review (*completed reviews for 9 funding cycles*)
2017	Moderator, Keynote Speaker Session, Building Better Babies Symposium
2017	Member, Thesis Committee, Graduate School: Ethan Yang, MS graduate student
2017 – 2020	Member, Dissertation Committee, School of Nursing: Kristiana Avery, PhD candidate
2018	K Coach, Office of Research Development and Education "*K Award Grant Planning Seminar*"
2018	NIH K Awardees Panelist, Office of Research Development and Education
2018 – 2020	Member, Thesis Committee, Graduate School: Nicholas Weaver, MA graduate student
2019 – 2021	Co-Mentor, Work Study Project, Graduate School: Jessica Murphy, MA graduate student
2019 – 2023	Faculty Mentor, Women in STEM (WiSTEM)
2019	Early Career Panelist, 3rd Annual Women in STEM Symposium
2019 – 2023	Reviewer, CCTSI Child and Maternal Health Pilot Proposal Program
2021	Reviewer, F32 NRSA Mock Study Section
2022	Moderator, CCTSI Winter Pediatric Research Poster Session

National

2017 – present	Abstract Reviewer, The Obesity Society's Annual Meeting (*annually*)
2021	Temporary Member, NIH Nutrition and Metabolism in Health and Disease (NMHD) Study Section, June 10 – 11
2022 – 2023	Chair Elect, Maternal, Perinatal and Pediatric Nutrition Research Interest Group, American Society for Nutrition
2023	Co-Chair of Symposium, American Society for Nutrition's Annual Meeting
2023	Lead Poster Judge, Emerging Leader Poster Competition, American Society for Nutrition's Annual Meeting
2023 – 2024	Chair, Maternal, Perinatal and Pediatric Nutrition Research Interest Group, American Society for Nutrition
2023	Temporary Member/Partial Reviewer, NIH Lifestyle and Health Behaviors (LHB) Study Section, March 6 – 7
2023 – present	Abstract Reviewer, American Society for Nutrition's Annual Meeting

2023 – present	Member, Education Working Group for Women Inspiring and Elevating Leadership in Diabetes
2024	Temporary Member, NIH Kidney, Endocrine, and Digestive Disorders (KEDD) Study Section: February 8
2024 – present	Reviewer, Robert Suskind Pediatric Nutrition Student Award, American Society for Nutrition
2024	Temporary Member, NIH Kidney, Endocrine, and Digestive Disorders (KEDD) Study Section: June 17 – 18
2024	Co-Chair of *Pregnancy, Birth and Beyond: The Impact of In Utero Exposures on Lifelong Health Symposium*, American Society for Nutrition's Annual Meeting, Chicago, IL. June 29 – July 2, 2024
2024	Co-Chair of *Food as Medicine: Insights from Clinical and Community Interventions Joint GEM Forum*, American Society for Nutrition's Annual Meeting, Chicago, IL. June 29 – July 2, 2024
2024	Poster Judge, Emerging Leader Poster Competition, American Society for Nutrition's Annual Meeting, Chicago, IL. June 29 – July 2, 2024
2024	Invited Mentor, Speed Mentoring Event for the Student Interest Group and Early Career Interest Group, American Society for Nutrition's Annual Meeting, Chicago, IL. June 30, 2024
2024 – present	Past Chair, Maternal, Perinatal and Pediatric Nutrition Research Interest Group, American Society for Nutrition, Chicago, IL. June 29 – July 2, 2024
2024 – present	Member, NUTRITION 2025 Scientific Program Committee, American Society of Nutrition
2025	Temporary Member, NIH ZRG1 EMS-G(02) Study Section: March

International

2017	Croatian Science Foundation (HRZZ) Early Career Proposals (*similar to a K award*)
2018 – 2020	Medical Research Council UK Research and Innovation Fellowship Proposals (*similar to a F32*)

ACADEMIC CERTIFICATES & CAREER DEVELOPMENT

2009	"*Inflammation and Metabolism PhD Short Course*", Centre for Inflammation and Metabolism, Copenhagen, Denmark (5 x 8 hr sessions)
2011	"*Isotope Tracers in Metabolic Research: Principles and Practice of Kinetic Analysis*", NIH NIDDK and Mouse Metabolic Phenotyping Centers, Little Rock, AR (5 x 8 hr sessions)
2012	"*Early Investigator's Workshop for Trainees*", The Endocrine Society, San Francisco, CA (2 x 8 hr sessions)
2015	"*Examining a Developmental Approach to Childhood Obesity: The Fetal and Early Childhood Years Workshop*", Institute of Medicine and National Research Council of the National Academies, Washington DC (2 x 8 hr sessions)
2016	"*Scientific Writing Workshop*", CU Anschutz (6 hr)
2016	"*Nutrigenetics, Nutrigenomics, and Precision Medicine Short Course*", University of North Carolina Nutrition and Obesity Research Center, Kannapolis, NC (4 x 8 hr sessions)
2016	"*Biostatistical Computing of R: BIOS 6605*", Colorado School of Public Health, 1 credit course, Grade = A
2016 – 2017	"*Application of 2-step Mendelian Randomization and DNA Methylation*", University of Bristol, Bristol, UK (10 x 8 hr sessions)
2017	"*NIDDK K Awardees Workshop*", National Institutes of Health, Bethesda, MD (14 hr)

2017	"*Statistical Genetics Short Course*", CU Anschutz (3 x 8 hr sessions, selected based on research experiences)
2017 – 2018	"*Career Cornerstones*", School of Medicine, CU Anschutz (4 x 3.5 hr sessions)
2017 – 2018	"*Women's Leadership Training*", School of Medicine, CU Anschutz (4 x 5-8 hr session, 50 women selected each year)
2018	"*Independent Study: Bioinformatics for DNA Methylation Sequencing*", CU Anschutz with Dr. Kenneth Jones (40 hr completed)
2018	"*American Heart Association Research Leaders Academy*", Salt Lake City, UT (27 hr; 300 grant awardees, faculty, and AHA leadership were invited to participate)
2018	CCTSI "*iCorps Training*" (3 x 8 hr sessions, 24 hr)
2019 – 2020	CCTSI "*Leadership for Innovative Team Science (LITeS) Program*" (8 x 8 hr sessions, selected from campus wide applications)
2020 – 2021	CCTSI "*CO-Mentor Program*" with Saint-Cyr (4 x 6 hr sessions, *24 hr*)
2021	Coursera Course: *Research Management and Leadership Training (20 hr)*
2021	*"NIH Early Career Reviewer Program"*, Nutrition and Metabolism in Health and Disease (NMHD) Study Section
2021 – 2022	CCTSI "*CO-Mentor Program*" with Hill and Waldrop (4 x 6 hr sessions, *24 hr*)
2022	"*Got Talent? Fostering Great Strengths: CliftonStrengths Workshop*", Virtual, (1 x 2 hr session)
2022	*"Multicultural Mentoring"*, Virtual Series (3 x 1.5 hr sessions)
2024	*"NIH Raising a Resilient Scientist Series"*, Virtual, (5 x 75 min sessions)
2024	"*Writing Winning Grant Proposals*", Virtual, (2 x 3.5 hr sessions)
2024	"*2nd Annual Insight mHealth Workshop*", University of Oklahoma Health Sciences, (3 x 8 hr sessions in person, 20 participants selected)

GRANT & PEER REVIEW

Grant Review

Local: CU Anschutz

2016 – 2023	CCTSI PreK Mock Review (*completed reviews for 9 funding cycles*)
2017 – 2023	NIH NIDDK T32 Nutrition Training Grant Fellowships (*annually*)
2019 – 2023	CCTSI Child and Maternal Health Pilot Proposals (*annually*)

Local: OUHS

2024 – current	Harold Hamm Diabetes Center Pilot Program (*annually*)

National

2017	University of Alabama's Nutrition and Obesity Research Center Pilot and Feasibility Proposals
2017 – 2019	University of Florida's Southeast Center for Integrated Metabolomics Pilot and Feasibility Proposals (*annually*)
2021	Temporary Reviewer, NIH Nutrition and Metabolism in Health and Disease (NMHD) Study Section
2023	Temporary Reviewer/Partial Reviewer, NIH Lifestyle and Health Behaviors (LHB) Study Section
2024	Temporary Member, NIH Kidney, Endocrine, and Digestive Disorders (KEDD), February
2024	Temporary Member, NIH Kidney, Endocrine, and Digestive Disorders (KEDD), June
2025	Temporary Member, NIH ZRG1 EMS-K (10) SBIR/STTR, February

International

2017	Croatian Science Foundation (HRZZ) Early Career Proposals (*similar to a K award*)
2018 – 2020	Medical Research Council UK Research and Innovation Fellowship Proposals (*similar to a F32*)

Manuscript Peer Review

2015 – present	*Journal of Endocrinology*, Ad Hoc Reviewer
2016 – present	*Journal of Developmental Origins of Health and Disease*, Ad Hoc Reviewer
2016 – present	*Applied Physiology, Nutrition, and Metabolism*, Ad Hoc Reviewer
2017 – present	*Nutrients*, Ad Hoc Reviewer
2018 – present	*Metabolism*, Ad Hoc Reviewer
2018 – present	*Journal of Applied Physiology*, Ad Hoc Reviewer
2018 – present	*American Journal of Clinical Nutrition*, Ad Hoc Reviewer
2021 – present	*Clinical Epigenetics*, Ad Hoc Reviewer
2021 – present	*Pediatric Obesity*, Ad Hoc Reviewer
2022 – present	*Journal of Clinical Endocrinology & Metabolism*, Reviewer

INVITED PRESENTATIONS, MENTORING EVENTS, & PANELIST

Local

1. *Run Fat Rat Run! The Effects of Exercise and Omega-3 Fatty Acids as Treatments for Nonalcoholic Fatty Liver Disease*. Department of Nutrition and Exercise Physiology Seminar Series. University of Missouri. Columbia, MO. January 28, 2010.
2. *In Utero Exposure to Maternal Obesity Promotes Metabolic Programming and Epigenetic Influences in Rat Offspring*. University of Colorado Anschutz Medical Campus. Perinatal-Neonatal Research Conference, Department of Pediatrics – Section of Neonatology. Aurora, CO. October 24, 2014.
3. *Effects of Preconceptional Lipid-Based Micronutrient Supplementation on Circulating Branched Chain Amino Acids in Obese Guatemalan Women at 12 Weeks Gestation: Preliminary Findings.* University of Colorado Anschutz Medical Campus. Perinatal Research Conference, Department of Pediatrics – Section of Neonatology. Aurora, CO. December 1, 2016.
4. *Potential DNA Methylation Biomarkers for Infant Growth and Adiposity in Umbilical Cord Blood from the Healthy Start Study*. University of Colorado Anschutz Medical Campus. Lifecourse Epidemiology of Adiposity and Diabetes (LEAD) Center Research in Progress Seminar Series. Aurora, CO. May 8, 2017.
5. *DNA Methylation of Obesity-Associated Human Metastable Epialleles*. University of Colorado Anschutz Medical Campus. Endocrine Research Conference. Aurora, CO. December, 6, 2017.
6. *DNA Methylation of Obesity-Associated Human Metastable Epialleles*. University of Colorado Anschutz Medical Campus. Division of Bioinformatics and Personalized Medicine Seminar Series. Aurora, CO. January 10, 2018.
7. *DNA Methylation of Obesity-Associated Human Metastable Epialleles*. University of Colorado Anschutz Medical Campus. Developmental Psychobiology Research Group. Aurora, CO. February 27, 2018.
8. *The Role of Maternal Nutrition on Infant DNA Methylation at Birth*. University of Colorado Anschutz Medical Campus. The Basic and Translational Pediatric Research Seminar Series. Aurora, CO. May 2, 2019.

9. *Multi-omic Approaches for Obesity and Lifestyle Interventions: The Search for Answers and Biomarkers*. University of Colorado Anschutz Medical Campus. Exercise and Metabolism Research Group. Aurora, CO. July 15, 2019
10. *Maternal Nutrition and Infant DNA Methylation: Findings from the Women First Preconception Nutrition Trial*. University of Colorado Anschutz Medical Campus. Perinatal-Neonatal Research Center Seminar Series. Aurora, CO. March 5, 2020.
11. *A Tale of Two Obesities, Chapter 1: Epigenetics*. University of Colorado Anschutz Medical Campus. Nutrition Seminar Series. Aurora, CO. September 8, 2022.
12. *Epigenetic & Multi-omic Approaches for Obesity and Lifestyle Interventions: The Search for Answers and Biomarkers 2.0.* University of Colorado Anschutz Medical Campus. Pediatric Endocrinology Research Group. Aurora, CO. January 17, 2023
13. *Exploring Epigenetic Tools for Cancer Prevention and Control: A Newbie Perspective*. University of Oklahoma Health Sciences Campus. Cancer Prevention and Control Grand Rounds, Stephenson Cancer Center. Oklahoma City, OK. October 3, 2023.
14. *Leveraging Multi-omic Tools for Advancing Precision Lifestyle Recommendations to Improve Metabolic Health*. University of Oklahoma Health Sciences Center. 20th Annual Diabetes Research Symposium. Oklahoma City, OK. November 10, 2023.
15. *Invited Mentor: Speed Mentoring for Women in Science, Dentistry, Medicine, & Health (WiSDMH)*. University of Oklahoma Health Sciences Center. Virtual. February 15, 2024.
16. *A Tale of Two Maternal Obesities Chapter 1: Epigenetics*. University of Oklahoma Health Sciences Center. Harold Hamm Diabetes Center Metabolic Research Conference. Oklahoma City, OK. May 20, 2024.

National

1. *The Women First Study: DNA Methylation of Obesity-Associated Human Metastable Epialleles in Guatemalan Offspring at Birth*. 2nd Annual Center for Women's Health Research National Conference: Sex Differences and Metabolism Across the Lifespan. Oral Presentation. Denver, CO. September 27, 2018.
2. *Invited Mentor, Speed Mentoring Event for the Student Interest Group and Early Career Interest Group*, American Society for Nutrition's Annual Meeting, Chicago, IL. June 30, 2024
3. *Women Inspiring and Elevating Leadership in Diabetes (WIELD): Barriers and Solutions to Career Advancement for Women*. The Obesity Society. Panel Session. San Antonio, TX. November 4, 2024.

International

1. *The Women First Study: Update on Epigenetics*. Bill and Melinda Gates Foundation: Epigenetics Convening. Oral Presentation. London, UK. December 1, 2014

<u>Abstracts Selected for Oral Presentations at Scientific Conferences: Primary Presenter</u>

Regional

1. *Hepatic steatosis and metabolic responses to high fat feeding in female rats bred for high and low aerobic capacity*. Central States Chapter of American College of Sports Medicine Conference. Kansas City, MO. October 16, 2008.

National

1. *Gestational exposure to maternal obesity decreases mitochondrial SIRT3 and components of oxidative phosphorylation in offspring liver*. Experimental Biology. Washington D.C. April 12, 2011.

2. *Alterations in hepatic gene expression and genome-wide DNA methylation in rat offspring exposed to maternal obesity in utero*. Experimental Biology. San Diego, CA. April 22, 2012.
3. *DNA Methylation at Birth is Associated with Adiposity and Infant Growth During the First Six Months of Life in the Healthy Start Study*. The American Diabetes Association 78th Scientific Sessions. Orlando, FL. June 25, 2018.
4. *Role of a Preconception Maternal Nutrition Supplement and Pre-pregnancy BMI on Amnion DNA Methylation at Birth in Guatemalan Mother-Infant Dyads: The Women First Trial*. American Society for Nutrition. Virtual Conference. June 14-16, 2022.
5. *Baseline DNA Methylation Predicts Changes in Cardiometabolic Health Post Behavioral Weight Loss*. The Obesity Society's Annual Meeting. San Diego, CA. November 4, 2022.

TEACHING & LEADERSHIP RECORD

Administrative Leadership Positions

2015 – 2016	Co-Director, Epigenetics Journal Club, CU Anschutz
2016 – 2018	Co-Director, Nutrition Seminar Series, CU Anschutz
2017 – 2020	Co-Director, Nutrition Journal Club, CU Anschutz
2018 – 2020	Co-Director, Biomedical and Personalized Medicine Multi-omics Journal Club, CU Anschutz
2019 – 2020	Co-Associate Director, NIH NIDDK T32 Nutrition Training Program, CU Anschutz
2021 – 2023	Director, Nutrition Journal Club, CU Anschutz
2021 – 2023	Associate Director, NIH NIDDK T32 Nutrition Training Program, CU Anschutz
2022 – 2023	Chair Elect, Maternal, Perinatal and Pediatric Nutrition Research Interest Group, American Society for Nutrition
2023 – 2024	Chair, Maternal, Perinatal and Pediatric Nutrition Research Interest Group, American Society for Nutrition
2023 – present	Vice Chair of Research and Training, Harold Hamm Diabetes Center, OUHS
2024 – present	Past Chair, Maternal, Perinatal and Pediatric Nutrition Research Interest Group, American Society for Nutrition
2024 – 2025	Member, Scientific Organizing Committee, American Society for Nutrition

Course Development

University of Colorado – Anschutz Medical Campus: 2017 – 2023

I led the development of a longitudinal career development curriculum for Nutrition T32 postdoctoral trainees and other Peds-Nutrition postdoctoral fellows. This curriculum is comprised of 4 distinct workshops that are rotated over the course of 2-3 years so that fellows are not exposed to the same workshop during his/her fellowship. The content of this curriculum was specifically designed to fill career development training gaps in areas that were not offered elsewhere on campus. A total of 24 fellows have completed all or most of this curriculum to date. Moreover, new workshops are being developed that may be included in future rotations such as *"How to Give a Chalk Talk"* or "*Writing a Specific Aims Page*".

1. **"*Talk Like TED Teaching Module*"**
   - Purpose: To provide skills and strategies to deliver compelling and memorable scientific and lay presentations
   - Dates Taught: September 2017 – May 2018 (monthly); November 2019 – January 2020 (weekly); April – May 2022 (weekly)
   - Format: 5-8 x 1 hr sessions
2. **"*How the NIH Can Help Get You Funded*"**
   - Purpose: To gain knowledge of the NIH such as institutes, funding mechanisms, personnel, review process, and grant writing tips

- Dates Taught: September 2018 – May 2019 (monthly); abbreviated version May 2021 (weekly)
- Format: 3-6 x 1 hr sessions

3. ***"Creating an Infographic CV and Personal Branding"***
   - Purpose: To receive hands on training for creating custom graphics, selecting color palettes, and using free and commercially available tools
   - Dates Taught: December 2020; Anticipated Fall 2022
   - Format: 4 x 1 hr sessions
4. ***"How to Give a Rapid Fire Talk"***
   - Purpose: To instruct on the format, development, delivery, and key elements of a successful rapid fire talk or 3 min thesis
   - Dates Taught: March 2021; Anticipated Spring 2023
   - Format: 4 x 1 hr sessions

University of Oklahoma Health Sciences: 2023 – current

As Vice Chair for Research and Training at the Harold Hamm Diabetes Center (HHDC), I have continued offering the Talk Like TED teaching module. Our first offering (Spring 2024) was also in partnership with the College of Allied Health (CAH) as part of the PhD Seminar AHS 6970 course. Two presentations will be selected to be professionally recorded and posted on the HHDC and CAH websites. In addition, I have led the development of Early Career Scholar Exchanges with the Diabetes Research Center at Indiana University and the Diabetes Institute at KU Medical Center. The purpose of these exchanges is to promote research collaborations between diabetes-focused centers, provide junior faculty an opportunity for an invited talk, and showcase each center's respective research strengths and research teams.

1. **"*Talk Like TED Teaching Module*" HHDC and AHS 6970**
   - Purpose: To provide skills and strategies to deliver compelling and memorable scientific and lay presentations.
   - Dates Taught: Jan – March 2024 (weekly)
   - Format: 8 x 1 hr sessions
   - Audience: Graduate students and faculty across all ranks; 15 participants
2. **HHDC Early Career Scholar Exchange: Indiana University**
   - Kok Lim Kua, MD, Assistant Professor of Pediatrics, Indiana University
     i. OUHS visit: November 2023
   - Aswathy Vaikom House, MD, Associate Professor of Pediatrics, OUHS
     i. IU Visit: Fall 2025
3. **HHDC Early Career Scholar Exchange: KU Medical Center**
   - Cassie Mitchell, PhD, Assistant Professor of Pediatrics, OUHS
   - Daniel Tilden, MD, Assistant Professor, KU Medical Center
     i. February 2025
4. **Speed Networking Event: Accelerating Diabetes-Related Collaborations**
   - Purpose: To connect researchers to develop new collaborations
   - Date: October 9, 2024
   - Format: Rapid fire presentations by clinical researchers, followed by speed networking
   - Audience: faculty, trainees, and staff

Semester-Long Courses

Iowa State University: **2002 – 2003 (undergraduates)**

These courses were semester-long physical education requirements for undergraduates comprised of 10-30 students. EXSP 258 was a required semester-long course for all Kinesiology majors with 25

students per semester. All courses required the development of syllabi, lesson plans, quizzes/tests, and grading.

1. **EXSP 258**: Physical Fitness and Conditioning Lab (3 credits, taught 2 semesters)
2. **EXSP 162**: Triathlon (2 credits, taught 1 semester)
3. **EXSP 129**: Bowling (2 credits, taught 1 semester)
4. **EXSP 126**: Billiards (2 credits, taught 1 semester)
5. **EXSP 117**: Lifeguard Training Instructor (2 credits, co-instructed, taught 1 semester)
6. **EXSP 108**: Aquatic Fitness (2 credits, taught 2 semesters)
7. **EXSP 101:** Swimming 101 (2 credits, taught 2 semesters)

Invited Lectures, Presentations, & Webinars: Internal and External

- **University of Missouri (undergraduates and graduate students): 2006 – 2010 (undergraduates & graduate students)**
  1. **American College of Sports Medicine:** "*Health Fitness Instructor*" (1 lecture, 15 students, June 2008)
  2. **NS 4970:** "*Sports Nutrition*" (3 lectures, 60 students, Fall 2008)
  3. **NS 4200/7200:** "*Sports Performance and Conditioning*" (3 lectures, 20 students, Fall 2008)
- **Invited Lectures at CU Anschutz: 2015 – present (graduate students and T32 Fellows)**
  1. **IDPT 6006**: *"Obesity and Cardiovascular Disease"* (1 lecture, 5 fellows, September 2015)
  2. **IDPT 7809**: *"Biomedical Core Course Module IV: Metabolism"* (2 hr lecture, 50 students in-person & online, December 2015)
  3. **IDPT 7809**: *"Biomedical Core Course"* (1 Mock Study Section Review, 8 students, December 2015)
  4. **IDPT 6006**: *"Obesity and Cardiovascular Disease"* (1 lecture, 4 fellows, September 2016)
  5. **Core Director**: Department of Pediatrics – Section of Nutrition Journal Club: Facilitated "Multi-omics & Nutrition" Module (4 weeks, 10-15 student, fellows, and faculty, September 2016)
- **External Invited Lectures and Seminars:**
  1. **Maternal and Child Nutrition 5020.** *"Maternal and Child Nutrition: Epigenetics"*, Metropolitan State University. Virtual. 1 hr lecture, 30 graduate students, March 29, 2021.
  2. **Maternal and Child Nutrition 5020.** *"Role of Maternal Nutrition on Infant DNA Methylation at Birth"*, Metropolitan State University. Virtual. 1 hr lecture, March 15, 2023.
  3. **KU Center for Children's Healthy Lifestyle and Nutrition Seminar Series.** *"A Tale of Two Obesities: Chapter 1 Epigenetics*", University of Kansas Medical Center. Virtual. April 21, 2023.
- **National & International Webinars: 2021 - 2022**
  1. **"*Who's Who in the NIH?: POs & SROs"***
     Co-sponsored by the Colorado Nutrition and Obesity Research Center and the University of Kansas Center for Children's Healthy Lifestyles & Nutrition
     December 2, 2021: 1 hr, 70 attendees, national audience
     Role: Lead Organizer & Moderator
  2. **Invited Webinar: "*How to Create a Graphical Abstract"***
     Sponsored by the *Journal of Nutrition Education and Behavior*
     January 11, 2022: 1 hr, 84 attendees, international audience
     Role: Presenter
  3. ***"Tips and Tricks for Writing NIH Proposals"***

Co-sponsored by the Colorado Nutrition and Obesity Research Center and the University of Kansas for Children's Healthy Lifestyles & Nutrition
February 18, 2022: 1 hr, ~100 attendees, national audience
Role: Lead Organizer & Moderator

Trainees And Mentees

I have mentored 21 trainees and mentees since becoming an Assistant Professor, serving as Primary Mentor/Co-Primary Mentor for 13 of these 21. Their respective research presentations, publications, awards, funding and other accomplishments that are relevant to my mentorship role in their training are listed in the tables below. In my roles as Co-Associate Director and Associate Director of the Nutrition T32 Training Program I have mentored 25 additional postdoctoral fellows for a total of 45 mentees since becoming faculty at CU Anschutz. I strive to impart rigorous scientific training in study design, laboratory experiments, statistical analyses, scientific presentations, and scientific writing. Importantly, I greatly enjoy mentoring, and I value future successes of any trainee/mentee that I have the privilege to work with during my career. Mentoring, particularly postdoctoral fellows, has been one of the most rewarding aspects of my career. I strive to gain knowledge and skills on how to become a more effective mentor and leader as demonstrated by selection and participation in several intensive courses on leadership and mentoring, see *Academic Certificates & Career Development*. Moreover, I find it gratifying to develop new workshops, webinars, and curriculum to provide innovative learning experiences for mentees and other learners. I have a record of excellent letters from several mentees and peers, see *Letters of Support* and *Thank You Notes (upon request)*.

Undergraduate Students

Name Position Dates	**Project** (Role as mentor)	**Mentee's Accomplishments** (relevant to my mentorship role)
Ann Privorotskiy, BS Macaulay Honors College at Baruch College 2016	CHCO Summer Research Project (Co-Primary Mentor)	• Graduated with Honors • Current Position: Medical Student at Eastern Virginia Medical School
Mattie Kerns, BS CU-Denver 2015 – 2018	BA/BS to MD Program Student Project (Primary Mentor)	• 3 first-author abstracts • 3 co-author abstracts • USDA/NIH Aspen/Snowmass Perinatal Biology Student Travel Award • 2 co-author publications • Current Position: Medical Student at CU – Anschutz • Selected as an Achievement Rewards for College Scientists Scholar (September 2019)

Graduate Students

Name Position Dates	**Project** (Role as mentor)	**Mentee's Accomplishments** (relevant to my mentorship role)
Alexandra Palacios, MS Regis University Biomedical Sciences 2016	Externship Project (Primary Mentor)	• Externship Poster Presentation • Graduated with Master of Science

		• Current Position: Medical Student at Burrell College of Osteopathic Medicine
Kristiana Avery CU - Anschutz College of Nursing 2017– present	PhD Dissertation (Committee Member)	• Independent Study in my laboratory to learn DNA isolation and quantification; journal article discussion on genetic/epigenetic association with mental health disorders • Passed dissertation defense • 1 first-author manuscript in progress
Ethan Yang, MS CU Denver/CU Anschutz Biomedical Sciences and Biotechnology 2018	MS Thesis Capstone (Primary Mentor)	• Final Thesis Presentation • Graduated with Master of Science
Nicholas Weaver CU Denver/CU Anschutz Biostatistics 2018 – 2020	MA Thesis (Committee Member)	• Final Thesis Presentation • Graduated with Master of Arts in 2020 • Current Position: PhD student at CU - Denver
Jessica Murphy CU Denver/CU Anschutz Biostatistics 2019 – 2021	Work Study Project (Co-Mentor)	• Final Course Presentation • Provided mentoring on epigenetic, nutrition, & maternal-infant health • College of Liberal Arts and Sciences Outstanding Master's Student Award (December 2020) • Graduated with Master of Arts in 2021 • 2 co-author manuscripts in progress • Current Position: PhD student at CU-Denver
Jennifer Lee Regis University Biomedical Sciences 2021 – present	Externship Project (Co-Primary Mentor)	• Provided bench training on genomic DNA isolations and quantification • Didactic training in maternal and infant health and epigenetics • Professional development in presenting scientific findings & creating a poster presentation • Final Externship Poster Presentation

Medical Students

Name Position Dates	**Project** (Role as mentor)	**Mentee's Accomplishments** (relevant to my mentorship role)
Seth Morrison, MD Ben Gurion University of the Negev	American Society for Nutrition Internship (Co-Primary Mentor)	• ASN Internship Report • 3 co-author abstracts • 1 co-author publication

2015		• Current Position: Resident at the University of Oklahoma - Tulsa
Pratibha Anand, MPH CU - Anschutz Jan 2018 – present	Mentored Scholarly Activity Project (Primary Mentor)	• Currently working on MSA project examining one carbon metabolites prior to and during pregnancy in normal weight and overweight/obese Guatemalan women • 1 co-author publication

Postdoctoral Fellows

Name Position Dates	**Project** (Role as mentor)	**Mentee's Accomplishments** (relevant to my mentorship role)
Stephanie Gilley, MD, PhD CU - Anschutz July 2018 – July 2019	Postdoctoral Fellow (Co-Primary Mentor)	• 2 first-author abstracts: Center for Women's Health Research National Conference: Sex Differences and Metabolism Across the Lifespan (September 2018); American Society for Nutrition (June 2019) • 1 first-author paper • 2 co-author manuscripts in progress • Current Position: Assistant Professor at CU Anschutz (July 2022 – current) • NORC Outstanding MD Fellow Award (Dec 2022) • Current Position: Assistant Professor at CU Anschutz (July 2022 – current)
Allison Swain, PhD CU - Anschutz May 2019 – June 2020	WiSTEM Mentoring Program (Career Mentor)	• Monthly meetings to discuss career development topics: Documenting teaching and mentoring, Work/Life Balance, Work Place Etiquette, Networking, & Grant Writing • Quarterly large group Mentor/Mentee meetings to discuss mentoring and to foster networking
Martine Saint-Cyr, MD CU - Anschutz July 2019 – Sept 2021	T32 Fellow (Co-Primary Mentor)	• 1 funded NORC pilot July 2020 • 1 first-author publication • 1 co-author publication • 1 first-author abstract, NASPGHAN (December 2021) • Completed CCTSI CO-Mentor Program as a mentee/mentor pair • Current Position: Assistant Professor at Washington University (Sept 2021 – current)

Aimee Sutliff, PhD CU - Anschutz Aug 2019 – Aug 2020	Postdoctoral Fellow (Co-Mentor)	• 2 first-author abstracts American Society for Nutrition Meeting (June 2020) • 1 first-author publication • Current Position: industry
Emily Hill, PhD, RDN CU – Anschutz Aug 2021 – July 2023	T32 Fellow (Primary Mentor)	• 2 funded pilot awards: Oncology Nutrition Dietetics Practice Group (2022) & CCTSI Microgrant (2022) • 1 Travel Award: Nutrigenetics, Nutrigenomics, & Precision Nutrition Short Course (May 2022) • 4 first-author publications • 2 first-author abstracts: ASN (2022) • ASN Nutrition Translation Award Competition Finalist (June 2022) • ASN Postdoctoral Research Award Competition Finalist & Winner (June 2022) • CU-Anschutz Postdoc Research Day 1st place winner for Poster Presentation (July 2022) • NORC poster award winner (Oct 2022) • 1 of 5 finalists selected for TOS *Obesity* Journal Symposium (Nov 2022) • 1 first-author abstract: TOS (Nov 2022) • NORC Outstanding PhD Fellow Award (Dec 2022) • AHA Postdoctoral Fellowship (2023) • FNCE Conference Excellence in Oncology Nutrition Research Award from the Oncology Nutrition Dietetic Practice Group of the Academy of Nutrition and Dietetics (Oct 2023) • NIH NCI K99/R00 (April 2024 – present)
Stephanie Waldrop, MD, MPH CU - Anschutz Sept 2021 – present	T32 Fellow (Co-Primary Mentor)	• 1 funded NORC pilot & feasibility award (July 2022) • 2 first-author TOS abstracts (Nov 2022) • 2 first-author ASN abstract selected for oral presentation (2023, 2024) • 1 first-author publication at *Obesity* • 2 first-author publications at *Epigenomics* • 2 first-author and 2 co-author manuscripts in progress

		• Assistant Professor: Pennington Biomedical Medical Center (Sept 2024 – present)
Mika Hamer, PhD, MPH CU – Anschutz Sept 2022 – June 2023	WiSTEM Mentoring Program (Career Mentor)	• Monthly meetings to discuss career development topics: Work/Life Balance, Transitioning from postdoc to faculty, networking • Quarterly large group Mentor/Mentee meetings to discuss mentoring and to foster networking
Anthony Wang, MD, PhD CU – Anschutz July 2023 – December 2023 (I moved institutions)	T32 Fellow (Primary Mentor)	• Weekly 1v1 meetings • Provide epigenetic training: review key publications, go over gold standard recommendations for epigenetic studies, and discuss strengths and weaknesses of methodologies and analytical approaches • Mentor/assist with pilot proposals and publications • 1 poster presentation, ASN Chicago July 2024
Evaniya Shakya, PhD OUHS 2024 – current	Primary Mentor	• Weekly 1v1 meetings • Provide epigenetic training: review key publications, go over gold standard recommendations for epigenetic studies, and discuss strengths and weaknesses of methodologies and analytical approaches • Mentor/assist with abstract submissions, pilot proposals, and publications
Michelle Nguyen, PhD OUHS 2025 - current	Co-Primary Mentor	• Weekly 1v1 meetings • Provide epigenetic training: review key publications, go over gold standard recommendations for epigenetic studies, and discuss strengths and weaknesses of methodologies and analytical approaches • Mentor/assist with abstract submissions, pilot proposals, and publications

Junior Faculty

Name Position Dates	**Project** (Role as mentor)	**Mentee's Accomplishments** (relevant to my mentorship role)
Joanne Cole, PhD CU - Anschutz 2022 – current	Junior Faculty Mentoring Committee (Member)	• Meet quarterly (& as needed) to provide feedback on milestones: grants, publications, mentoring, and collaborations
Cassie Mitchell, PhD OUHS 2023 – current	Co-Mentor	• Meet quarterly to discuss grant writing, research project, career development, and related topics
Stephanie Waldrop, MD Pennington Biomedical Medical Center 2024 – current	Co- Mentor	• Meet monthly discuss projects, publications, grant proposals, career development and related topics • Co-Mentor on a pending K12

Professional Research Associates and Research Biostatisticians

Name Position Dates	**Project** (Role as mentor)	**Mentee's Accomplishments** (relevant to my mentorship role)
Alexandra Palacios, MS CU - Anschutz 2016 – 2017	Worked on my K01 project (Primary Mentor)	• 6 co-author abstracts • 2 co-author publications • Current Position: Residency
Puujee Jambal, MA, MPH CU - Anschutz 2017 – 2020	Worked on K01 and AHA projects (Primary Mentor)	• Conducted pyrosequencing experiments • Performed statistical analyses: SAS • Organized large –omics datasets • Isolated and quantified DNA • Assisted with training mentees • 6 co-author abstracts • 4 co-author publications
Anqi Li, MS CU - Anschutz 2020 – 2021	Women in STEM Mentor/Mentee Program (Career Mentor)	• Monthly meetings to discuss career development topics: Applying to Graduate School, Networking, Academia vs Industry Careers • Quarterly large group Mentor/Mentee meetings to discuss mentoring and to foster networking
Taylor Clarkson, BS CU – Anschutz 2021 – 2022	Women in STEM Mentor/Mentee Program (Career Mentor)	• Monthly meetings to discuss career development topics: Work Life Balance, Networking, Time Management, Setting Professional &

		Personal Boundaries, Tips for Presenting at a National Conference • Quarterly large group Mentor/Mentee meetings to discuss mentoring and to foster networking
Dustin Allen, MS OUHS 2024	Co-Primary Supervisor	• Weekly meetings to discuss management updates of my research laboratory • Training in all SOPs for my laboratory: genomic DNA extractions, bisulfite conversions, RNA extractions, qPCR, and other molecular assays
Finterly Hu, MS OUHS 2024 – current	Primary Supervisor	• Weekly meetings to discuss analytical plans and provide epigenetic training specific to statistical analyses • Provide advanced epigenetic analytical training with collaborators • Assist with abstract submissions, manuscripts, and grant proposals
Gina Pham OUHS 2024 – current	Primary Supervisor	• Weekly meetings to discuss management updates of my research laboratory • Training in all SOPs for my laboratory: genomic DNA extractions, bisulfite conversions, RNA extractions, qPCR, and other molecular assays

GRANT SUPPORT

Active Research Support

1. **Harold Hamm Diabetes Center Pilot PI: Borengasser 07/01/2024 – 06/30/2027**
   "The Role of Maternal Diabetes During Pregnancy on Novel Epigenetic Biomarkers at Birth"
   This project will test if maternal diabetes during pregnancy alters molecular/epigenetic biomarkers (DNA methylation and microRNAs) at birth (placenta; mesenchymal stem cells). The proposed research will be the first to collectively study the role of maternal diabetes on epigenetic aging and microRNA abundance in Oklahoman mother infant pairs, including under- represented populations.
   Role: MPI
2. **Harold Hamm Diabetes Center Pilot Co-I: Borengasser 07/01/2024 – 06/30/2027**
   "Impact of semaglutide administration on tobacco use behavior and related mechanisms among smokers with obesity"
   This study is a randomized trial will assess the impact of 12 weeks of semaglutide administration (vs placebo) on changes in: (i) tobacco use and related factors (nicotine craving, withdrawal, motivation to quit) and (ii) biological biomarkers of health (e.g., epigenetics, glucose variability via continuous glucose monitoring [CGM]) in adult smokers with obesity.
   Role: Co-I

3. **NIH R01 HD110585-01S1 PI: Borengasser 09/07/2023 – 01/31/2028**
"Preconception Maternal Nutrition, Offspring DNA Methylation, and Infant Growth in Low Resource Settings"
The purpose of this R01 supplement is test if maternal heat stress impacts infant growth and if maternal nutritional status can mitigate such effects. We will also assess if maternal heat stress alters offspring epigenome at birth and beyond as an extension to the parent R01.
Role: PI

4. **NIH R56 DK136601 PI: Creasy 09/01/23 – 08/31/2024**
"Examining Time and Nutrient Dependent Effects of Aerobic Exercise on Energy Metabolism in Adults with Overweight and Obesity"
The goal of this R56 is to examine differences in energy metabolism, targeted and untargeted metabolomics, and metabolic outcomes due to exercising in the morning or evening in the same individuals using a crossover study design.
Role: Co-I NCE

5. **NIH R01 HD110585 PI: Borengasser 02/01/2023 – 01/31/2028**
"Preconception Maternal Nutrition, Offspring DNA Methylation, and Infant Growth in Low Resource Settings"
The aims of this proposal are to determine if a preconception maternal nutrition supplement can alter targeted and epigenome-wide DNA methylation (DNAme) in infants born in regions prone to high rates of growth stunting (Guatemala, India, and Pakistan). We will also test if DNAme profiles at birth are associated with growth parameters at birth and in the first two years of life.
Role: PI

Mentee Research Support

1. **ON DPG Pilot PI: Hill (mentee) 1/01/2022 – 06/30/2023**
"*Changes in dietary intake, DNA methylation, and risk for obesity-related cancers within a behavioral weight loss intervention*"
The goal to this Oncology Nutrition Dietetic Practice Group (ON DPG) pilot is to test if daily caloric restriction and intermittent fasting alters dietary intake quality (higher diet quality, greater intake of fruits and vegetables, and flavonoids) and DNA methylation and improves cardiometabolic health.
Role: Primary Mentor

2. **CCTSI Microgrant PI: Hill (mentee) 07/01/2022 – 06/30/2023**
"*Changes in dietary intake, DNA methylation, and risk for obesity-related cancers within a behavioral weight loss intervention*"
The goal of this Microgrant is to supplement the ON DPG pilot listed above. This pilot will fund several inflammatory markers that have previously shown to be reduced by higher diet quality, greater intake of fruits and vegetables, and increased flavonoid intake.
Role: Primary Mentor

3. **NIH NORC Pilot and Feasibility Award PI: Waldrop 09/01/2022 – 08/31/2024**
"The association between maternal serum concentrations of 1-carbon nutrients, folate and choline, with adiposity in infancy and early childhood mediated through epigenome-wide DNA methylation in newborn cord blood: A pilot investigation"
This pilot seeks to examine the role maternal dietary intake of specific micronutrients known to 1) influence the upstream pathway to DNA methylation and 2) associated with offspring adiposity. By using mediation analyses, causation may be inferred and provide insights into a modifiable factor to prevent childhood obesity.
Role: Co-Primary Mentor

4. **American Heart Association Fellowship PI: Hill 07/01/2023 – 06/30/2025**
   "Role of diet quality, ultra-processed food intake, and PFAS exposure in cardiometabolic health during weight loss"
   The goal of this fellowship is to examine the role of ultra-processed food (UPF) intake and "forever" chemicals (PFAS) on obesity and cardiometabolic outcomes. However, few studies have investigated the relationship between existing measures of diet quality and UPF intake nor the association between diet and forever chemical exposure or how these factors may influence changes in lipidomic profiles during weight loss.
   Role: Co-Mentor

Pending Research Support

1. **NIH Award ID TBD (GRANT14367749) MPI: Borengasser, Catenacci 12/01/2025 – 11/30/2030**
   "Lifestyle and Health Span: The impact of caloric restriction, intermittent fasting, and physical activity on multi-omic and aging profiles"
   The primary objective of this proposal is to test if changes in body weight and composition, dietary patterns, and physical activity lead to differences in biological age measured by three independent assessments: DNA methylation, cellular senescence (SASP), and metabolomics. We will use the longest and largest weight loss trial to date comparing daily caloric restriction versus intermittent fasting, longitudinally.
   Role: MPI
2. **NIH R01 AG094858 MPI: Borengasser, Alexander, Stephens, Spicer 07/01/2025 – 06/30/2030**
   "BRIDGES: Building Research Initiatives with Diverse Groups for Epigenetic Studies"
   The primary goal of this proposal is to engage with Black, Hispanic, Native American, and rural White communities to discuss values, barriers, and facilitators to participating in epigenetic research. We will use this information to develop epigenetic research protocols tailored to each community and then assess epigenetic age acceleration, which measures one's biological or "body" age as compared to chronological age and determine health and social factors that may advance or slow accelerated aging.
   Role: MPI
3. **NIH R01 DK142953 PI: Creasy 04/01/2025 – 03/31/2030**
   "Determining Time- and Prandial-Dependent Effects of Aerobic Exercise on Energy Metabolism"
   The objective of this proposal is to examine the timing of short- and long-term exercise and metabolite profiles. Participants will be randomly assigned to exercise in the morning or evening for acute studies and undergo a crossover study design where each participant will exercise in the morning and evening. Extensive metabolic and physiologic assessments will be performed.
   Role: Co-I

Completed Research Support

1. **NIH T32 Predoctoral Fellowship PI: Terjung 09/01/2007 – 08/31/2008**
   "Exercise and Health: Integration from Molecule to Patient"
   This T32 fellowship included: attending a weekly seminar focused on translational exercise physiology and metabolism with basic scientist and physician scientists; completing a 1 credit Research Ethics course; and research-in-progress presentations.
   Role: Trainee
2. **NIH T90 Predoctoral Fellowship PI: Milanick 07/01/2009 – 06/30/2010**
   "Clinical Biodetection"
   This fellowship included: completing a 1 credit course called Clinical Biodetection that discussed journal articles focused on thinking outside the box to answer clinical questions such as "What

can the physiology of a bear preparing and undergoing hibernation teach us about human metabolism and the thrifty phenotype?" and research-in-progress presentations.
Role: Trainee

3. **Student Research Grant** **PI: Borengasser** **06/01/2009 – 05/31/2010**
American College of Sports Medicine Foundation Research Grant Initiative
"*Exercise, Omega-3 Fatty Acids, and Hepatic Steatosis*".
This grant provided funds for my dissertation research using an obese rat model to examine the role of voluntary wheel running and omega-3 fatty acid supplementation to treat nonalcoholic fatty liver disease.
Role: PI
10 graduate students are selected each year for this award from a national pool of applicants

4. **NIH T32 Institutional National Service Research Award (NRSA)**
"Minnesota Obesity Prevention Training", University of Minnesota (2010, Declined to accept position with Dr. Kartik Shankar)
Role: Trainee

5. **NIH T32 DK114272** **PI: Bessesen** **08/01/2014 – 06/30/2015**
NIH (NIDDK)
"Research Training Program in Metabolism, Obesity and Type 2 Diabetes"
This fellowship focused the early origins of obesity using a mouse model and nonhuman primate model. Specifically, I examined liver metabolism, immune cells, and metabolic gene targets in offspring born to diet-induced obesity in both models.
Role: Postdoctoral Fellow Trainee

6. **NIH K01 DK109077** **PI: Borengasser** **04/01/2016 – 3/31/2019**
NIH (NIDDK)
"Maternal obesity, micronutrient supplementation, and epigenetic programming"
This study will examine whether timing of maternal nutritional intervention can prevent growth stunting by examining the effects of a lipid-based micronutrient supplement consumed prior to conception, during gestation, or not at all in Guatemala, where women and infants exhibit both growth stunting *and* obesity.
Role: PI

7. **NIH Pilot and Feasibility Grant** **PI: Borengasser** **06/01/2016 – 05/31/2017**
NIH/NCATS Colorado CTSA Grant Number UL1 TR00108
"*Role of maternal obesity and preconception micronutrient supplementation on DNA Methylation*"
This pilot grant provides support for technician help and supplements my K01 award assessing offspring DNA methylation at birth using a new sequence capture method called CpGiant (Roche – NimbleGen). These studies are using the Women First Study, an international preconception birth cohort.
Role: PI

8. **NIH Pilot and Feasibility Award** **PI: Borengasser** **07/01/2016 – 06/30/2017**
NIH Common Fund Metabolomics Program U24DK097209
"*Targeted Metabolomics for 1C Metabolites from Maternal Dried Blood Spot Samples Prior to and During Pregnancy*"
This pilot grant investigates the role of maternal lipid-based micronutrient supplementation consumed > 3 months prior to conception, commencing at 12 wk gestation, or not all on circulating one carbon metabolites in women prior to and throughout pregnancy.
Role: PI

9. **AHA Innovative Project Award** **PI: Borengasser** **07/01/2018 – 09/30/2020**
American Heart Association 18IPA34170317

"*Epigenetic and microbiome responses to a weight loss intervention*"
This project is aimed at understanding how weight loss interventions impact DNA methylation and gut microbiota in healthy obese men and women. Changes in DNA methylation and gut microbiota will be compared in response to the most commonly prescribed weight loss strategy (eat less every day) or to a new approach called intermittent fasting where one consumes 25% of their daily calories 3 days per week and eats normally on non-fasting days.
Role: PI

10. **Pilot and Feasibility Grant** **PI: Borengasser** **6/07/2019 – 12/31/2019**
O-Link Proteomics
"Linking -OMICs, Obesity, and Weight Loss"
The objective of this pilot is to detect differences in the proteome prior to and after 3 months of intermittent fasting. A targeted cardiovascular panel of metabolites will be assessed in plasma before and after subjects consume 25% of their daily calories 3 days per week and eat normally on non-fasting days.
Role: PI

11. **SOM Dean's Bridge Funding** **PI: Borengasser** **04/27/2020 – 04/26/2021**
School of Medicine's Dean's Academic Enrichment Fund for Research
This funding is aimed to complete epigenetic analyses of a behavioral-based weight loss trial comparing daily caloric restriction and intermittent fasting. The goal is also to complete several publications and submit R-level funding.
Role: PI

12. **NIH NORC Pilot** **PI: Saint-Cyr** **07/01/2021 – 06/30/2022**
"*Targeted metabolomics to decipher dietary contributions to pediatric inflammatory bowel disease (IBD)*"
The goal of this Nutrition and Obesity Research Center pilot was to assess animal origin food metabolites in biospecimens of active and well-controlled pediatric IBD and test associations with dietary intake, disease activity, gut microbiota, and IBD inflammatory markers.
Role: Co-Primary Mentor

13. **NIH R01 DK11397** **MPI: Krebs, Reisdorph, Campbell** **06/01/18 – 03/31/23**
"Predicting health outcomes of Mediterranean diet via metabolomics of foods and biospecimens"
This project is aimed to investigate unique metabolite signatures of individual foods, whole diet composites, and circulating levels in participants who consumed a Mediterranean diet. Associations between unique circulating food metabolite levels and metabolic and cardiovascular parameters will assessed in a retrospective study and a new prospective RCT.
Role: Co-I

BIBLIOGRAPHY

Summary (updated on 2/21/2025)

SUMMARY

- ***h*-index = 22** excludes self-citations (Scopus, Author ID: 23990046400); ***h*-index = 21** (ResearchGate) excludes self-citations; ***h*-index = 25** (Google Scholar)
- Cited **2,392** times in PubMed indexed journals (Scopus)
- **3,377** total citations (Google Scholar)
- **18** publications cited 50+ times, including 4 first-authors publications (Google Scholar)
- **38** peer-reviewed primary publications
- **3** review or commentary articles
- **1** pending
- **5** in progress

My Bibliography link:

https://www.ncbi.nlm.nih.gov/myncbi/sarah.borengasser.1/bibliography/public/

1. Rector RS, Thyfault JP, Morris RT, Laye MJ, **Borengasser SJ**, Booth FW, and Ibdah JA. Daily exercise increases hepatic fatty acid oxidation and prevents hepatic steatosis in Otsuka Long-Evans Tokushima Fatty rats. *Am J Physiol Gastrointest Liver Physiol*. 2008 Mar;294(3):G19-26.
   Cited by 386 according to Google Scholar
2. Rector RS, Thyfault JP, Laye MJ, Morris RT, **Borengasser SJ**, Uptergrove GM, Chakravarthy MV, Booth FW, and Ibdah JA. Cessation of daily exercise dramatically alters precursors of hepatic steatosis in Otsuka Long-Evans Tokushima Fatty (OLETF) rats. *J Physiol*. 2008 Sep 1;586(Pt 17):4241-9.
   Cited by 123 according to Google Scholar
3. Laye MJ, Rector RS, **Borengasser SJ**, Naples SP, Uptergrove GM, Ibdah JA, Booth FW, and Thyfault JP. Cessation of daily wheel running differentially alters fat oxidation capacity in liver, muscle, and adipose tissue. *J Appl Physiol*. 2009 Jan;106(1): 161-8.
   Cited by 81 according to Google Scholar
4. Thyfault JP, Rector RS, Uptergrove GM, **Borengasser SJ**, Morris EM, Wei Y, Laye MJ, Burant CF, Qi NR, Ridenhour SE, Koch LG, Britton SL, and Ibdah JA. Rats selectively bred for low and high aerobic capacity have reduced hepatic mitochondrial oxidative capacity and susceptibility to hepatic steatosis and injury. *J Physiol*. 2009 Apr;587(Pt8): 1805-16.
   Cited by 209 according to Google Scholar
5. Rector RS, Uptergrove GM, **Borengasser SJ**, Mikus CR, Morris EM, Naples SP, Laye MJ, Laughlin MH, Booth FW, Ibdah JA, and Thyfault JP. Changes in skeletal muscle mitochondria in response to the development in type 2 diabetes or prevention by daily wheel running in hyperphagic OLETF rats. *Am J Physiol Endocrinol Metab*. 2010 Jun;298(6):E1179-87.
   Cited by 50 according to Google Scholar
6. Rector RS, Thyfault JP, Uptergrove GM, Laye MJ, **Borengasser SJ**, Naples SN, Morris EM, Booth FW, Laughlin MH, and Ibdah JA. Mitochondrial dysfunction precedes insulin resistance and hepatic steatosis and contributes to the natural history of nonalcoholic fatty liver disease in an obese rodent model. *J Hepatol*. 2010 May;52(5):727-36.
   Cited by 542 according to Google Scholar
7. Naples SP, **Borengasser SJ**, Rector RS, Uptergrove GM, Morris EM, Mikus CR, Koch LG, Britton SL, Ibdah JA, and Thyfault JP. Skeletal muscle mitochondrial and metabolic responses to a high fat diet in rats bred for high and low aerobic capacity. *Appl Physiol Nutr Metab*. 2010 Apr;35(2):151-62.
   Cited by 57 according to Google Scholar
8. Rector RS, Uptergrove GM, Morris EM, **Borengasser SJ**, Laughlin MH, Booth FW, Thyfault JP, Ibdah JA. Daily exercise vs. caloric restriction for prevention of nonalcoholic fatty liver disease in the OLETF rat model. *Am J Physiol Gastrointest Liver Physiol*. 2011 May;300(5): G874-83.
   Cited by 178 according to Google Scholar
9. Shankar K, Zhong Y, Kang P, Lau F, Blackburn ML, Chen JR, **Borengasser SJ**, Ronis MJ, and Badger TM. Maternal obesity promotes a proinflammatory signature in rat uterus and blastocyst. *Endocrinology*. 2011 Nov;152(11):4158-70.
   Cited by 127 according to Google Scholar
10. **Borengasser SJ**, Lau F, Kang P, Blackburn ML, Ronis MJ, Badger TM, and Shankar K. Maternal obesity during gestation impairs fatty acid oxidation and mitochondrial SIRT3 expression in rat offspring at weaning. *PLoS One*. 2011;6(8):e24068.

Cited by 118 according to Google Scholar

11. **Borengasser SJ**, Rector RS, Uptergrove GM, Morris EM, Perfield JW 2nd, Booth FW, Fritsche KL, Ibdah JA, and Thyfault JP. Exercise and omega-3 polyunsaturated fatty acid supplementation for the treatment of hepatic steatosis in hyperphagic OLETF rats. *J Nutr Metab*. 2012;2012:268680.
12. Jackson KC, Wohlers LM, Valencia AP, Cilenti M, **Borengasser SJ**, Thyfault JP, and Spangenburg EE. Wheel running prevents the accumulation of monounsaturated fatty acids in the liver of ovariectomized mice by attenuating changes in SCD-1 content. *Appl Physiol Nutr Metab*. 2011 Dec;36(6):798-810.
13. Mikus CR, Roseguini BT, Meers GM, Morris EM, Rector RS, Libla JL, Oberlin DJ, **Borengasser SJ**, Taylor AM, Ibdah JA, Laughlin MH, and Thyfault JP. Voluntary wheel running selectively augments insulin-stimulated vasodilation in arterioles from white skeletal muscle of insulin resistant rats. *Microcirculation*. 2012 Nov;19(8):72-38.
14. Ronis MJJ, Sharma N, Vantrease J, **Borengasser SJ**, Ferguson M, Mercer KE, Cleves MA, Gomez-Acevedo H, and Badger TM. Female mice lacking p47phox have altered adipose tissue gene expression and are protected against high fat-induce obesity. *Physiol Genomics*. 2013 May 1;45(9):351-66.
15. Mikus CR, Boyle LJ, **Borengasser SJ**, Oberlin DJ, Naple SP, Fletcher J, Meers GM, Ruebel ML, Laughlin MH, Dellsperger KC, Thomas TR, Fadel PJ, and Thyfault JP. Simvastatin impairs exercise training adaptations. *J Am Coll Cardiol*. 2013 Aug 20;62(8):709-14.
Cited by 300 according to Google Scholar
16. Saben J, Zhong Y, Gomez-Acevedo H, Thakali KM, **Borengasser SJ**, Andres A, and Shankar K. Early growth response protein-1 coordinates lipotoxicity-associated placental inflammation – role of maternal obesity. *Am J Physiol Endocrinol Metab*. 2013 Jul 1;305(1):E1-14.
Cited by 104 according to Google Scholar
17. **Borengasser SJ**, Zhong Y, Kang P, Ronis MJJ, Badger TM, Gomez-Acevedo H, and Shankar K. Maternal obesity alters white adipose tissue differentiation and DNA methylation in rat offspring. *Endocrinology*. 2013 Nov;154(11):4113-25.
Cited by 196 according to Google Scholar
18. **Borengasser SJ**, Kang P, Faske J, Gomez-Acevedo H, Blackburn ML, Badger TM, and Shankar K. High fat diet and in utero exposure to maternal obesity disrupts circadian rhythm and leads to metabolic programming of liver in rat offspring. *PLoS One*. 2014 Jan 9;9(1):e84209.
Cited by 124 according to Google Scholar
19. **Borengasser SJ**, Faske J, Kang P, Blackburn, ML, Lindsey F, Wilkes S, Thakali KM, Saben JL, Andres A, Badger TM, and Shankar K. In Utero Exposure to Pre-Pregnancy Maternal Obesity and Post-weaning High Fat Diet Impairs Regulators of Mitochondrial Dynamics in Rat Placenta and Offspring. *Physiol Genomics*. 2014 Dec 1;46(23):841-50.
Cited by 86 according to Google Scholar
20. Saben JL, Kang P, Zhong Y, Thakali KM, Gomez-Acevedo H, **Borengasser SJ**, Andres A, Badger TM, and Shankar K. RNA-seq Analysis of the Rat Placentation Site Reveals Maternal Obesity-Associated Changes in Placental and Offspring Thyroid Hormone Signaling. *Placenta*. 2014 Dec;35(12):1013-20.
21. Shankar K, Kang P, Zhong Y, **Borengasser SJ**, Wingfield C, Saben JL, Gomez-Acevedo H, and Thakali KM. Transcriptomic and Epigenomic Landscapes During Cell Fusion in BeWo Trophoblast Cells. *Placenta*. 2015 Dec;36(12): 1342-51.

22. **Borengasser SJ*^**, Baker^, P, Kerns ME, Palacios AP, Baker PR, Kemp JF, Morrison SD, Westcott JE, Friedman JE, Garces A, Figueroa L, Hambidge KM, and Krebs NF. Preconception micronutrient supplementation reduced circulating branched chain amino acids at 12 weeks gestation in an open trial of Guatemalan women who are overweight or obese. *Nutrients* 2018, 10(9), 1282, http//:doi.org/10.3390/nu/10091282. **Corresponding author, ^Authors contributed equally*

23. Gilley SP, Weaver NE, Sticca EL, Jambal P, Palacios A, Kerns ME, Anand P, Kemp JF, Westcott JE, Figueroa L, Garces AL, Ali SA, Pasha O, Saleem S, Hambidge KM, Hendricks AE, *Krebs NF, and ***Borengasser SJ**. The longitudinal effects of a lipid-based nutrient supplement and pre-pregnancy BMI on concentrations of one carbon metabolites and amino acids during pregnancy in the Women First Trial. *Curr Dev Nutr*. 2019;4(1): nzz132. Published 2019 Nov 18. doi:10.1093/cdn/nzz132. eCollection 2020 Jan. **Authors contributed equally*

24. Reisdorph NA, Hendricks AE, Tang M, Doenges KA, Reisdorph RM, Tooker BC, Quinn K, **Borengasser SJ**, Nkrumah-Elie Y, Frank DN, Campbell WW*, and Krebs NF*. Nutrimetabolomics reveals food-specific compounds in urine of adults consuming a DASH-style diet. *Sci Rep*. 2020;10(1):1157. Published 2020 Jan 24. doi:10.1038/s41598-020-57979-8. **Authors contributed equally*

25. Starling AP, Liu C, Shen G, Yang IV, Kechris K, **Borengasser SJ**, Boyle KE, Zhang W, Smith HA, Calafat AM, Hamman RF, Adgate JL, and Dabelea D. Prenatal exposure to perfluoroalkyl substances, DNA methylation and biomarkers of cardio-metabolic health in umbilical cord blood. *Environ Health Perspect.* 2020 Dec;128(12):127014. doi: 10.1289/EHP6888. Epub 2020 Dec 24.

26. Castillo-Castrejon M, Yang IV, Davidson EJ, **Borengasser SJ**, Jambal P, Westcott J, Kemp JF, Garces A, Ali SA, Saleem S, Goldenberg RL, Figueroa L, Hambidge KM, Krebs NF, and Powell TL. Preconceptional lipid-based nutrient supplementation in 2 low-resource countries results in distinctly different IGF-1/mTOR placental responses. *J Nutr*. 2021 Mar 11;151(3):556-569. doi: 10.1093/jn/nxaa354.

27. Siebert JC, Saint-Cyr M, **Borengasser SJ**, Wagner BD, Lozupone CA, and Görg C. CANTARE: finding and visualizing network-based multi-omic predictive models. *BMC Bioinformatics*. 2021 Feb 19;22(1):80. doi.org/10.1186/s12859-021-04016-8.

28. Siebert JC, Stanislawski MA, Zaman A, Ostendorf DM, Konigsberg IR, Jambal P, Ir D, Bing K, Wayland L, Scorsone JJ, Lozupone CA, Görg C, Frank DN, Bessesen DH, MacLean PS, Melanson EL, Catenacci VA*, and **Borengasser SJ***. Multiomic predictors of short-term weight loss and clinical outcomes during a behavioral-based weight loss intervention. *Obesity* (Silver Spring). 2021 May;29(5):859-869. doi: 10.1002/oby.23127. Epub 2021 Apr 3. PMID: 33811477. **Authors contributed equally*

29. *Sutliff AK, *Saint-Cyr M, Hendricks AE, Chen SS, Doenges KA, Quinn K, Westcott J, Tang M, **Borengasser SJ**, Reisdorph RM, Campbell WW, Krebs NF, and Reisdorph NA. Lipidomics-based comparison of molecular compositions of green, yellow, and red bell peppers. *Metabolites*. 2021 Apr 14;11(4):241. doi: 10.3390/metabo11040241. **Authors contributed equally*

30. Stanislawski MA, Frank DN, **Borengasser SJ**, Ostendorf DM, Ir D, Jambal P, Bing K, Wayland L, Siebert JC, Bessesen DH, MacLean PS, Melanson EL, and Catenacci VA. The gut microbiota during a behavioral weight loss intervention. *Nutrients.* 2021 Sep 18;13(9):3248. doi: 10.3390/nu13093248. PMID: 34579125.

31. Hill EB, Siebert JC, Yazza DN, Ostendorf DM, Bing K, Wayland L, Scorsone JJ, Bessesen DH, MacLean PS, Melanson EL, Catenacci VA, and **Borengasser SJ**. Baseline proteomics and dietary intakes predict short and long term changes in cardiovascular health within a behavioral-

based weight loss intervention. *Obesity*. 2022 Nov;30(11): 2134-2145. doi: 10.1002/oby.23574. PMID: 36321274.
Selected as 1 of 5 finalists for the 10th Annual Obesity Journal Symposium at The Obesity Society's Annual Meeting. Nov 2022

32. Shankar K, Ali SA, Ruebel ML, Jessani S, **Borengasser SJ**, Gilley SP, Jambal P, Yazza D, Weaver N, Kemp JF, Westcott JL, Hendricks AE, Saleem S, Goldenberg RL, Hambidge KM, and Krebs NF. Maternal nutritional status modifies heat-associated growth restriction in women with chronic malnutrition. *PNAS Nexus*. 2023 Jan;2(1):1-15.

33. Hill EB*, Konigsberg IR*, Ir D, Frank DN, Jambal P, Litowski E, Lange E, Lange L, Ostendorf DM, Scorsone JJ, Wayland L, Bing K, MacLean PS, Melanson EL, Bessesen DH, Catenacci VA, Stanislawski MA*, and **Borengasser SJ***. The Microbiome, Epigenome, and Diet in Adults with Obesity During Behavioral Weight Loss. *Nutrients* 2023 Aug 16;15(16): 3588. https://doi.org/10.3390/nu15163588. *Authors contributed equally.

34. Waldrop SW, Niemiec SS, Wood C, Gyllenhammer LE, Jansson T, Friedman JE, Tryggestad JB, **Borengasser SJ**, Davidson EJ, Yang IV, Kechris K, Dabelea D, and Boyle KE. Cord Blood DNA Methylation of Immune and Lipid Metabolism Genes is Associated with Maternal Triglycerides and Child Adiposity. *Obesity* (Silver Spring). 2023 Oct 23. doi: 10.1002/oby.23915. Online ahead of print. PMID: 37869908.

35. Hill EB, Reisdorph RM, Rasolofomanana S, Michel C, Khajeh-Sharafabadi M, Doenges KA, Weaver N, Quinn K, Sutliff AK, Tang M, **Borengasser SJ**, Frank DN, O'Connor LE, Campbell WW, Krebs NF, Hendrick AE, and Reisdorph NA. Salmon Food-Specific Compounds and Their Metabolites Increase in Human Plasma and Are Associated with Cardiometabolic Health Indicators Following a Mediterranean-style Diet Intervention. *J Nutr*. 2023 Oct 31:S0022-3166(23)72678-3. doi: 10.1016/j.tjnut.2023.10.024. Online head of print. PMID: 37918675.

36. Ruebel ML*, **Borengasser SJ***, Zhong Y, Kang P, Faske J, and Shankar K. Maternal Exercise Prior to and During Gestation Induces Sex-Specific Alterations in Mouse Placenta. **Authors contributed equally*. *Int J of Mol Sci.* 2023 Nov 17;24(22):16441. doi: 10.3390/ijms242216441. PMID: 38003633.

37. Hill EB, Tang M, Long JM, Kemp JF, Westcott JL, Hendricks AE, Reisdorph NA, Campbell WW, Krebs NF; mini-MED Trial Team. Mini-MED: Study Protocol for a Randomized, Multi-Intervention, Semi-controlled Feeding Trial of a Mediterranean-amplified vs. Habitual Western Dietary Pattern for the Evaluation of Food-specific Compounds and Cardiometabolic Health. *Trials*. 2024 Feb 2; 25(1):101. doi: 10.1186/s13063-024-07939-8.

38. Waldrop SW, Sauder KA, Niemiec SS, Kechris K, Yang IV, Starling AP, Perng W, Dabelea D, and **Borengasser SJ**. Differentially Methylated Regions Interrogated for Metastable Epialleles Associates with Offspring Adiposity. *Epigenomics*. 2024;16(18): 1215-1230. doi: 10.1080/17501911.2024.2359365. Epub 2024 Sep 12.

Reviews & Commentaries

39. Soderborg TK, **Borengasser SJ**, Barbour LA, and Friedman JE. Microbial Transmission from Mothers with Obesity and Diabetes to Infants: An Innovative Opportunity to Interrupt a Vicious Cycle. *Diabetologia*. 2016 May;59(5):895-906.
Cited by 121 according to Google Scholar

40. Dutton HP, **Borengasser SJ**, Gaudet L, Barbour LA, and Keely EJ. Obesity in Pregnancy – Optimizing Outcomes for Mom and Baby. *Medical Clinics of North America*. 2018 Jan;102(1):87-106.
Cited by 121 according to Google Scholar

41. Waldrop SW, Perng W, Konigsberg IR, and **Borengasser SJ**. The Potential Utility of Cord Blood DNA Methylation in Pediatric Clinical Practice. *Epigenomics*. 2024 Nov 12:1-8. doi: 10.1080/17501911.2024.2408217. Online ahead of print.

Pending

42. Waldrop SW, **Borengasser SJ**, Starling AP, Zhang W, Kechris K, Yang IV, Friedman JE, Shapiro AL, Sauder KA, Adgate JL, Hamman RF, and Dabelea D. Cord Blood DNA Methylation Associates with Changes in Adiposity and Infant Growth During the First 5 Months of Life in the Healthy Start Study. Pending at *Pediatric Obesity*, June 4, 2024.

In Preparation

43. **Borengasser SJ**, Liu C, Kechris K, Osterndorf DM, Bing K, Wayland L, Bessesen D, MacLean PS, Melanson EL, and Catenacci VA. Changes in DNA methylation in healthy men and women with overweight and obesity in response to daily caloric restriction and intermittent fasting. (In preparation)
44. **Borengasser SJ**, Murphy J, Null M, Jambal P, Palacios A, Davidson E, Kemp J, Westcott J, Garces A, Figueroa L, Saint-Cyr M, Gilley SE, Yang IV, Friedman JE, Greally JM, Hambidge KM, Jones K, Hendricks AE, and Krebs NF. Role of maternal preconception nutrition and BMI on epigenome-wide infant DNA methylation at birth in the Women First Preconception Maternal Nutrition Trial. (In preparation)
45. *Saint-Cyr M, *Shayka E, Siebert JC, Hill EB, Krebs NF, deZoeten E, and **Borengasser SJ**. Finding and visualizing network based multi-omic diet associated predictive models for inflammatory bowel disease. *Authors contributed equally. (In preparation)

Selected Published Abstracts Presented at Scientific Meetings (SJ Borengasser presented, unless indicated)

1. Laye MJ, Borengasser SJ, Rector RS, Thyfault JP, and Booth FW. Adipose tissue compensates to maintain whole body insulin sensitivity 173 hours following cessation of voluntary running in rats. *FASEB Journal*. 2007;21(6):A936-A936. (MJ Laye presented)
2. **Borengasser SJ**, Laye MJ, Morris RT, Booth FW, and Thyfault JP. Effect of moderate fat/high sucrose diet on glycogen synthesis rates in rat skeletal muscle upon the cessation of voluntary wheel running. *FASEB Journal*. 2007;21(5):A691-A691.
3. Rector RS, Thyfault JP, Morris RT, Laye MJ, **Borengasser SJ**, Booth FW, and Ibdah JA. Daily exercise increases hepatic fatty acid oxidation and prevents steatosis in Otsuka Long-Evans Tokushima fatty (OLEFT) rats. *Hepatology*. 2007;46(4):758A-758A. (RS Rector presented)
4. Rector RS, Thyfault JP, Laye MJ, Morris RT, **Borengasser SJ**, Booth FW, and Ibdah JA. S1894 Physical activity and short-term inactivity modulate hepatic fatty acid oxidation and lipogenesis proteins in Otsuka Long-Evans Tokushima fatty (OLEFT) rats. *Gastroenterology*. 2008;134(4):A778-A779. (RS Rector presented)
5. **Borengasser SJ**, Naples SP, Rector RS, Mikus CA, Uptergrove GM, Koch LG, Briton SL, and Thyfault JP. Skeletal muscle mitochondrial oxidative capacity and metabolic responses to a high fat diet or aging in rats bread for high and low aerobic capacity. *Diabetes*. 2008;57:A432-A432.
6. Rector RS, Thyfault JP, Uptergrove GM, Naples SP, **Borengasser SJ**, Mikus CA, and Ibdah JA. Effects of daily physical activity on the natural history of nonalcoholic fatty liver disease and insulin resistance in Otsuka Long-Evans Tokushima fatty (OLEFT) rats. *Hepatology*. 2008;48(4):844A-844A. (RS Rector presented)
7. Thyfault JP, Rector RS, Naples SP, Uptergrove GM, **Borengasser SJ**, Mikus CA, Koch LG, Briton SL, and Ibdah JA. Hepatic steatosis and metabolic responses to high fat feeding in female

rats bred for high and low aerobic capacity. *Hepatology*. 2008;48(4):834A-834A. (JP Thyfault presented)

8. Rector RS, Thyfault JP, Uptergrove GM, Morris EM, Naples SP**, Borengasser SJ**, Mikus CA, and Ibdah JA. T1620 Loss of mitochondrial content and function contribute to the natural history of nonalcoholic fatty liver disease in hypephagic obese rodent model. *Gastroenterology*. 2009;136(5):A850-A850. (RS Rector presented)
9. Boyle LJ, Libla JL, Mikus CA, **Borengasser SJ**, Naples SP, Ruebel ML, Uptergrove GM, Laughlin MH, Dellsperger KC, Thomas TR, Fadel PJ, and Thyfault JP. Effects of statins on metabolic adaptations to aerobic exercise training: preliminary findings. *Medicine & Science in Sports & Exercise*. 2010;42(5):719. (LJ Boyle presented)
10. **Borengasser SJ**, Rector RS, Uptergrove GM, Morris EM, Booth FW, Fritsche K, Ibdah JA, and Thyfault JP. Execise and omega-3 fatty acids as treatments for nonalcoholic fatty liver disease. *Diabetes*. 2010;59:A412-A412.
11. Spangenburg EE, Jackson KC, Wohlers LM, Cilenti M, **Borengasser SJ**, and Thyfault JP. Exercise prevents alterations in fatty acid composition of triacylglycerol in the liver of ovariectomized mice. *Medicine & Science in Sports & Exercise*. 2010;42(10):50-51. (EE Spangenburg presented)
12. Rector RS, Uptergrove GM, Morris EM, **Borengasser SJ**, Laughlin MH, Thyfault JP, and Ibdah JA. Attenuation of weight gain through daily exercise versus caloric restriction and prevention of nonalcoholic fatty liver disease in hyperphagic OLEFT rats. *Hepatology*. 2010;52:1042A. (RS Rector presented)
13. **Borengasser SJ**, Ronis JM, Badger TM, and Shankar K. Gestational exposure to maternal obesity decreases mitochondrial SIRT3 and components of oxidative phosphorylation in offspring liver. *FASEB Journal*. 2011;25(1 Supplement):990.11-990.11.
14. Shankar K, **Borengasser SJ**, Zhong Y, Gomez-Acevedo H, Ronis MR, and Badger TM. Maternal obesity influences hepatic gene expression and genome-wide DNA methylation in offspring liver at weaning. *Journal of Developmental Origins of Health and Disease*. 2011;2:S20-S20. (K Shankar presented)
15. **Borengasser SJ**. Zhong Y, Gomez-Acevedo H, Ronis MR, and Shankar K. Alternations in hepatic gene expression and genome-wide DNA methylation in rat offspring exposed to maternal obesity in utero. *FASEB Journal*. 2012;26(1 Supplement):128.6-128.6.
16. Shankar K, **Borengasser SJ**, Faske J, Kang P, and Gomez-Acevedo H. Maternal obesity and post-natal high fat diet disrupt hepatic circadian rhythm in rat offspring. *FASEB Journal*. 2013;27(1 Supplement):1081.2-1081.2. (K Shankar presented)
17. **Borengasser SJ**, Faske J, Kang P, Zhong Y, and Shankar K. Maternal exercise is associated with transcriptomic adaptations in late gestation mouse placenta. *Diabetes*. 2014;63:A183-A184.
18. Shankar K, **Borengasser SJ**, Faske J, Kang P, Zhong Y, and Thakali K. Placental transcriptomic changes due to maternal exercise are dependent on maternal diet and offspring sex. *FASEB Journal*. 2015;29(1Supplement):916.2. (K Shankar presented)
19. Kern ME*, Baker PR, Kemp JF, Morrison S, Westcott JE, Friedman JE, Garces A, Figueroa L, Hambidge KM, Krebs NF, and **Borengasser SJ**. Preconceptional lipid-based micronutrient supplementation reduced circulating branched chain amino acids in Guatemalan women who are overweight or obese at 12 weeks gestation. *Pediatric Research*. 2016;80(4):621-621. (*ME Kerns presented, mentee)

20. Nkrumah-Elie Y, Reisdorph R, Tooker B, Tang M, O'Connor L, **Borengasser SJ**, Campbell W, and Krebs NF. Foodomics application: analysis of dietary components of the DASH diet pre and post consumption. *FASEB Journal*. 2017;21(1 Supplement):437.6-437.6. (Y Nkrumah-Elie presented)

21. **Borengasser SJ**, Kerns ME, Palacios ME, Baker PR, Kemp JF, Morrison S, Westcott JE, Friedman JE, Garces A, Figueroa L, Hambidge KM, and Krebs NF. Preconceptional lipid-based micronutrient supplementation reduced circulating branched chain amino acids in Guatemalan women who are overweight or obese at 12 weeks gestation: A pilot study. *FASEB Journal*. 2017;31(1 Supplement):639.50-639.50.

22. **Borengasser SJ**, Starling AP, Zhang W, Friedman JE, Hamman RF, Yang IV, Kechris K, and Dabelea D. DNA methylation at birth is associated with adiposity and infant growth during the first 6 months of life in the Healthy Start Study. *Diabetes*. May 2018;67(Supplement 1):342-OR.

23. Gilley SP*, Kerns ME, Jambal P, Kemp JF, Westcott JE, Garces AL, Figueroa L, Sangappa D, Somannavar M, Ali S, Saleem S, Tshefu A, Lokangaka A, Hambidge KM, Krebs NF, and **Borengasser SJ**. Maternal one carbon metabolite concentrations demonstrate temporal and BMI-based differences prior to and during pregnancy in the Women First Study. 2nd Annual Center for Women's Health Research National Conference: Sex Differences and Metabolism Across the Lifespan. Denver, CO. September 27, 2018. (*SP Gilley presented, mentee)

24. **Borengasser SJ**, Hendricks AE, Jamal P, Gilley SP, Palacios AP, Kemp J, Westcott J, Garces A, Figueroa L, Friedman JE, Jones K, Hambidge KM, and Krebs NK. Differential DNA methylation of human metastable epialleles in Guatemalan infants at birth due to timing of a maternal lipid-based nutrition supplement and pre-pregnancy BMI. American Society for Nutrition Conference. Baltimore, MD. June 10, 2019.

25. Gilley SP*, Sticca E, Kerns M, Palacios A, Jambal P, Kemp J, Westcott J, Garces A, Figueroa L, Hendricks AE, Hambidge KM, Krebs NK, and **Borengasser SJ**. The effect of a preconception nutrition supplement on one carbon metabolites. American Society for Nutrition Conference. Baltimore, MD. June 10, 2019. (*SP Gilley presented, mentee)

26. Stanislawski M, Jambal P, Ir D, Ostendorf D, Bing K, Wayland L, Bessesen D, MacLean PS, Melanson E, Frank D, **Borengasser SJ**, and Catenacci VA. Changes in the gut microbiota during a weight loss intervention of daily caloric restriction versus intermittent fasting: the DRIFT2 randomized clinical trial. *Current Developments in Nutrition*. May 2020; Vol 4 (Supplement 2):1588. (M Stanislawski presented)

27. Sutliff A, O'Connor L, Hendricks AE, Tang M, Quinn K, Doenges K, Westcott J, **Borengasser SJ**, Reisdorph R, Frank D, Lin D, Campbell W, Krebs NF, and Reisdroph N. Astaxanthin levels are higher in fresh salmon compared to canned and pouch varieties. *Current Developments in Nutrition*. May 2020; Vol 4 (Supplement 2):128. (A Sutliff presented)

28. Sutliff A, Hendricks AE, Doenges K, Quinn K, Westcott J, Tang M, **Borengasser SJ**, Reisdorph R, Frank D, Campbell W, Krebs NF, and Reisdorph N. Bell peppers provide consistent ß-cryptoxanthin content independent of organic status, fresh, or cooked, North American country of origin and season. *Current Developments in Nutrition*. May 2020; Vol 4 (Supplement 2):129. (A Sutliff presented)

29. Saint-Cyr M*, Siebert JC, Krebs NF, de Zoeten E, and **Borengasser SJ**. Finding and visualizing network based multi omic diet associated predictive models for IBD. North American Society for Pediatric, Gastroenterology, Hepatology and Nutrition. Virtual Conference. December 17, 2021. (*M Saint-Cyr presented, mentee)

30. Shankar K, **Borengasser SJ**, Gilley SP, Kemp J, Westcott J, Jambal P, Ali SA, Saleem S, Goldenberg RL, Hambidge KM, and Krebs NF. Associations Between Ambient Temperature

and Circulating Maternal One-carbon and Amino acid Metabolites in Pregnancy. American Society for Nutrition. Virtual Conference. June 14-16, 2022.

31. Hill EB*, Reisdorph RM, Quinn K, Doenges KA, Sutliff AK, **Borengasser SJ**, Tang M, Hendricks AE, O'Connor LE, Campbell WW, Krebs NF, and Reisdorph NA. Foodomics Analysis of a Mediterranean Diet Reveals Food-specific Compounds that are Detected in Human Plasma. American Society for Nutrition. Virtual Conference. Poster Presentation. June 14-16, 2022. *Selected as 1 of 4 finalists for the Nutrition Translation Award Competition.* (*EB Hill presented, mentee)

32. Hill EB*, Khajeh-Sharafabadi M, Rasolofomanana-Rajery S, Weaver N, Reisdorph RM, Quinn K, Doenges KA, Sutliff AK, **Borengasser SJ**, Tang M, O'Connor LE, Hendricks AE, Reisdorph NA, Krebs NF, and Campbell WW. Unique-to-salmon Compounds Increase in Plasma and are Associated with Cardiovascular Health Following a Mediterranean Diet Intervention. American Society for Nutrition. Virtual Conference. Oral Presentation. June 14-16, 2022. Selected for Oral Presentation. **Selected as 1 of 6 finalists and subsequent winner of the Postdoctoral Research Award Competition.** (*EB HIll presented, mentee)

33. Shogan L, **Borengasser SJ**, Cooper E, Lui Cuining, Kechris K, Schulte E, Heinsbroek J, Stanislawski M, Creasy S, Catenacci VA, and Ostendorf DM*. DNA Methylation is Associated with Exercise-Related Factors among Adults with Overweight/Obesity. The Obesity Society Annual Meeting. San Diego, CA. November 1-4, 2022. (*DM Ostendorf, presented)

34. Waldrop SW*, Sauder KA, Niemiec S, Kechris K, Yang IV, Starling AP, Perng W, Dabelea D, and **Borengasser SJ**. The Association Between DNA Methylation of Differentially Methylated Regions Near Metastable Epialleles in Newborn Cord Blood with Adiposity in Infancy. The Obesity Society Annual Meeting. San Diego, CA. November 1-4, 2022. (*SW Waldrop presented, mentee)

35. Waldrop SW*, Wood C, Niemiec S, Yang IV, Kechris K, **Borengasser SJ**, Dabelea D, and Boyle KE. Maternal Triglyceride and Insulin Levels in Late Gestation of Pregnancy Associates with Newborn Cord Blood DNA Methylation of Genes Involved in Adipogenesis, Nutrient Metabolism, and Immune System Regulation and with Later Offspring Adiposity at 5 Months of Age. The Obesity Society Annual Meeting. San Diego, CA. November 1-4, 2022. (*SW Waldrop, presented, mentee)

36. Hill EB*, Konigsberg IR, Ostendorf DM, Scorsone JJ, Wayland L, Bing K, MacLean PS, Melanson EL, Bessesen DH, Catenacci VA, Stanislawski MA, and **Borengasser SJ**. The Microbiome, Epigenome, and Diet in Adults with Obesity During Behavioral Weight Loss. The Obesity Society Annual Meeting. San Diego, CA. November 1-4, 2022. (*EB Hill presented, mentee)

37. Shogan L, **Borengasser SJ**, Cooper E, Liu C, Kechris K, Schulte EM, Heinsbrook JA, Stanislawski MA, Creasy SA, Melanson E, Catenacci VA, and Ostendorf DM*. DNA Methylation is Associated with Eating Behavior-Related Factors Among Adults with Obesity. The Obesity Society Annual Meeting. San Diego, CA. November 1-4, 2022. (*DM Ostendorf, presented).

38. **Borengasser SJ**, Murphy J, Null M, Jamal P, Arriaga-MacKenzie I, Yang IV, Jones KL, Friedman JE, Greally JM, Gilley SP, Saint-Cyr M, Waldrop SW, Kemp J, Westcott J, Garces A, Figueroa L, Hambidge KM, Hendricks AE, and Krebs NK. Amnion DNA Methylation is Strongly Associated with Birth Anthropometry in Guatemalan Mother-Infant Dyads: The Women First Preconception Trial. American Society for Nutrition Annual Meeting. Boston, MA. July 22-25, 2023.

39. Waldrop SW*, **Borengasser SJ**, Niemiec S, Kechris K, Yang IV, Starling AP, Perng W, Dabelea D, and Sauder KS. Offspring DNA Methylation of Metabolic Gene at Birth Associates with Maternal Folate and Choline Intake and Offspring Adiposity in Infancy and Childhood. American

Society for Nutrition Annual Meeting. Boston, MA. July 22-25, 2023. (*SW Waldrop presenter, mentee)

40. Hill EB*, Fasolofomanana-Rajery S, Khajeh-Sharafabadi M, Weaver N, Reisdorph RM, Quinn K, Michel C, Doenges KA, Sutliff AK, **Borengasser SJ**, Tang M, O'Connor LE, Westcott J, Hendricks AE, Campbell WW, Reisdorph NA, and Krebs NF. Food-specific Compounds Act as Putative Biomarkers for Exposure to and Effect of Plant Foods Consumed within a Mediterranean Diet Intervention. American Society for Nutrition Annual Meeting. Boston, MA. July 22-25, 2023. (*EB Hill presenter, mentee)
41. Hendricks AE*, Fasolofomanana-Rajery S, Hill EB, Khajeh-Sharafabadi M, Weaver N, Reisdorph RM, Quinn K, Doenges KA, Sutliff AK, Westcott J, **Borengasser SJ**, Tang M, O'Connor LE, Reisdorph NA, Kreb NF, and Campbell WW. Untargeted metabolomics of human plasma and foods enable identification of putative health-driven biomarkers. American Society for Nutrition Annual Meeting. Boston, MA. July 22-25, 2023. (*AE Hendricks presenter)
42. Hill EB*, Siebert JC, Konigsberg IR, Jambal P, Stanislawski MA, Osterndorf DM, Bing K, Wayland L, Scorsone JJ, Bessesen DH, MacLean PS, Melanson EL, Catenacci VA, and **Borengasser SJ**. Network analysis reveals changes in dietary intakes and DNA methylation in obesity-related cancer pathways are associated with improvements in clinical health indicators within a behavioral weight loss intervention. Food and Nutrition Conference and Expo. Poster Presentation. Denver, CO. October 7-10, 2023.
Selected for the Excellence in Oncology Nutrition Research Award from the Oncology Nutrition Dietetic Practice Group of the Academy of Nutrition and Dietetics. (*EB Hill presenter, mentee)
43. Waldrop SW*, **Borengasser SJ**, Niemiec S, Kechris K, Yang IV, Perng W, Dabelea D, and Sauder KS. The association of maternal serum folate and choline concentrations with offspring adiposity: The Healthy Start Study. Selected for Oral Presentation. American Society for Nutrition Annual Meeting. Chicago, IL. June 29 – July 2, 2024. (*SW Waldrop presenter, mentee).
44. Wang AA, Lo JS, Bothwell S, Siebert J, Pyle L, **Borengasser SJ**, and Cree M. Network analysis reveals multi-omic associations with hyperandrogenism and hepatic fat in individuals with PCOS. American Society for Nutrition Annual Meeting. Poster Presentation. Chicago, IL. June 29 – July 2, 2024. (*AA Wang presenter, mentee).
45. Hill EB*, Khandpur N, Siebert J, Braun AC, Halliday TM, MacLean PS, **Borengasser SJ**, and Catenacci VA. Identification and categorization of ultra-processed food intake in clinical trials using dietary records and nutrition data system for research. American Society for Nutrition Annual Meeting. Poster Presentation. Chicago, IL. June 29 – July 2, 2024. (*EB Hill presenter, mentee).
46. Yeo E*, Scadden AW, Cole JB, Litkowski DM, James KL, Pan Z, Lozupone C, Ostendorf DM, MacLean PS, Melanson EL, Bessesen DH, Catenacci VA, **Borengasser SJ**, Stanislaski MA. Obesity Genetic Risk Scores and Weight Loss in Participants from the Daily Caloric Restriction versus Intermittent Fasting Trial (DRIFT). American Society for Nutrition Annual Meeting. Selected for Oral Presentation. Chicago, IL. June 29 – July 2, 2024. (*E Yeo presenter).
47. Hill EB*, Khandpur N, Siebert J, Ostendorf DM, Zhaoxing P, Scorsone JJ, Wayland L, Bing K, Breit MJ, MacLean PS, Melanson EL, Bessesen DH, **Borengasser SJ**, and Catenacci VA. Ultra-Processed Food Intake Correlates with BMI and is Reduced over 1-Year Weight Loss Intervention. The Obesity Society Annual Meeting. Selected for Oral Presentation. San Antonio, TX. November 3-6, 2024. (*EB Hill, presenter).
48. Hill EB*, Khandpur N, Siebert J, Ostendorf DM, Zhaoxing P, Scorsone JJ, Wayland L, Bing K, Breit MJ, MacLean PS, Melanson EL, Bessesen DH, **Borengasser SJ**, and Catenacci VA. Ultra-Processed Food Intake is Associated with Eating Behaviors Prior to and During Weight

Loss. The Obesity Society Annual Meeting. Selected for Oral Presentation. San Antonio, TX. November 3-6, 2024. (*EB Hill, presenter).

49. Shakya E*, Siebert J, Murphy J, Null M, Hendricks AE, Frank D, Jambal P, Kemp JE, Westcott JL, Gilley SP, Weaver N, Garces A, Figueroa L, Hambidge KM, Krebs NF, and **Borengasser SJ**. Network Analysis Reveals Associations Between Maternal-Infant Multi-omics and Infant Anthropometry at Birth in the Women First Maternal Preconception Nutrition Trial. American Society for Nutrition Annual Meeting. Accepted, Presentation Type: pending. Orlando, FL. May 30 – June 3, 2025. (*E Shakya, presenter).
50. Waldrop SW*, **Borengasser SJ**, Wang Y, Kechris K, Yang IV, Perng W, Dabelea D, and Sauder K. DNA methylation of B4GALNT4 potentially mediates the association of Maternal Serum Folate and Choline Concentrations with Offspring Adiposity: The Healthy Start Study. American Society for Nutrition Annual Meeting. Accepted, Presentation Type: pending. Orlando, FL. May 30 – June 3, 2025. (*SW Waldrop, presenter).
51. Shankar K, Kemp JL, Westcott J, Patel PJ, Everson T, Xu Y, **Borengasser SJ**, Wylie BJ, Krebs NF, Women First Preconception Nutrition Trial Investigators. Heat Exposure in Early Pregnancy is Associated with Lower Linear Growth from Birth to 2 Years. American Society for Nutrition Annual Meeting. Accepted, Presentation Type: pending. Orlando, FL. May 30 – June 3, 2025. (K Shankar, presenter).

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