

Kristen J. Sutton, PhD

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Previous Name: Kristen L. James

I. Education

PhD Nutritional Biology, Emphasis in Genetics Graduate Group in Nutritional Biology University of California Davis	2017 – 2023
BS Biochemistry Seattle University	2012 – 2016

II. Professional Experience

Postdoctoral Fellowship Department of Biomedical Informatics and Colorado Center for Personalized Medicine University of Colorado Anschutz Medical Campus Primary Mentor: Joanne Cole, PhD Secondary Mentors: Debashis Ghosh, PhD; Kartik Shankar, PhD	Aurora, CO	2023 – Present
Graduate Student Researcher Department of Nutrition, University of California Davis Thesis Title: <i>Characterizing the Roles of Diet, the Gut Microbiome, and Genetics on the Regulation of Plasma Trimethylamine N-Oxide Concentration in Healthy Adults and Diversity Outbred Mice</i> Mentor: Brian J. Bennett, PhD	Davis, CA	2018 – 2023
Community Education Specialist CalFresh Healthy Living University of California, Davis, CA	Davis, CA	2019 – 2020

III. Fellowships and Awards

NIH T32 Postdoctoral Fellowship; <u>Lead T32 Fellow (2024-2025)</u> Section of Nutrition, Department of Pediatrics, University of Colorado Anschutz Medical Campus	Aurora, CO	2024 – Present
NIH T15 Postdoctoral Fellowship Department of Biostatistics and Informatics, University of Colorado Anschutz Medical Campus	Aurora, CO	2021 – 2022
Leaders for the Future Fellowship University of California Davis	Davis, CA	2021 – 2022
Mar Family Dissertation Award University of California Davis	Davis, CA	2021 – 2022
Kirvin Knox Nutritional Biology Fellowship University of California Davis	Davis, CA	2020 – 2021
Henry A. Jastro Scholarship University of California Davis	Davis, CA	2018 – 2020
Graduate Group in Nutritional Biology First Year Fellowship University of California Davis	Davis, CA	2017 – 2018
Bannan Scholar Seattle University	Seattle, WA	2014 – 2016

Cum Laude Seattle University	Seattle, WA	2012 – 2016
Division 1 Tennis Player, 2-year Team Captain Seattle University	Seattle, WA	2012 – 2016

IV. Memberships in Professional Associations

American Society of Human Genetics	2022 – Present
American Society for Nutrition	2019 – Present

V. Publications

Peer Reviewed

Summary (Updated on 8/22/2024; Source: Google Scholar)

- H-index = 3
 - Cited 36 times
 - 3 first author publications
1. Que E*, **James KL***, Coffey AR, Smallwood TL, Albright J, Huda MN, Pomp D, Sethupathy P, Bennett BJ. Genetic architecture modulates diet-induced hepatic mRNA and miRNA expression profiles in Diversity Outbred mice. *Genetics*. 2021 Jul 14;218(3):iyab068. doi: [10.1093/genetics/iyab068](https://doi.org/10.1093/genetics/iyab068). PMID: 34849860; PMCID: PMC8757298.
 2. **James KL**, Gertz ER, Cervantes E, Bonnel EL, Stephensen CB, Kable ME, Bennett BJ. Diet, fecal microbiome, and trimethylamine n-oxide in a cohort of metabolically healthy United States adults. *Nutrients*. 2022 Mar 25;14(7):1376. doi: [10.3390/nu14071376](https://doi.org/10.3390/nu14071376). PMID: 35405993; PMCID: PMC9003533.
 3. **James KL**, Gertz ER, Kirschke CP, Allayee H, Huang L, Kable ME, Newman JW, Stephensen CB, Bennett BJ. Trimethylamine n-oxide response to a mixed macronutrient tolerance test in a cohort of healthy United States adults. *Int J Mol Sci*. 2023 Jan 20;24(3):2074. doi: [10.3390/ijms24032074](https://doi.org/10.3390/ijms24032074). PMID: 36768394; PMCID: PMC9917175.
 4. Evans LW, Durbin-Johnson B, **James KL**, Yam P, Bouzid Y, Cervantes E, Bonnel EL, Stephensen CB, Bennett BJ. Specific circulating miRNA are associated with plasma lipids in a healthy American cohort. *Physiol Genomics*. 2024 Apr 1. doi: [10.1152/physiolgenomics.00087.2023](https://doi.org/10.1152/physiolgenomics.00087.2023). PMID: 38557280.
 5. **Sutton KJ**, Evans LW, Gertz ER, Huda N, Yam P, Abad Santos JC, Wang Y, O'Connor A, Shih D, Hartiala J, Pomp D, Lusi AJ, Allayee H, Bennett BJ. Meta-analysis of Diversity Outbred mice identifies loci regulating fasting plasma trimethylamine n-oxide and is affected by sex and diet. (In preparation).

* These authors contributed equally to this work.

Limited Distribution

1. **James KL**, Jones AM, Scherr RE. Protein requirements nutrition and health info sheet (Professional) 2020. Available at: <https://nutrition.ucdavis.edu/outreach/nutr-health-info-sheets/pro-protein-requirements>
2. Colorafi R, **James KL**, Jones AM, Scherr RE. Ketogenic diet nutrition and health info sheet (Professional) 2020. Available at: <https://nutrition.ucdavis.edu/outreach/nutr-health-info-sheets/pro-ketogenic-diet>

VI. Invited Lectures

Invited Seminar, USDA Western Human Nutrition Research Center, Davis CA	2023
Invited Seminar, Nutrition Seminar Series, Department of Pediatrics, Section of Nutrition, Colorado Nutrition Obesity Research Center, University of Colorado Anschutz Medical Campus	2024
Invited Seminar, Computational Bioscience PhD Program Seminar, University of Colorado Anschutz Medical Campus	2024

VII. Presentations

Competitive Abstracts (limited to first author only)

1. Trimethylamine-N-Oxide (TMAO) is not associated with average daily intake of red meat or TMAO-precursor foods in a generally healthy population (Poster). American Society of Nutrition (2020).
2. Determining the genetic regulation of trimethylamine N-oxide (TMAO) in female Diversity Outbred mice (Poster). FASEB, The Folic Acid, Vitamin B12, and One-Carbon Metabolism Conference (2020).
3. Assessment of FMO3 SNPs in relation to TMAO in generally healthy United States adults (Oral presentation). American Society of Nutrition (2021).
4. TMAO response to a high-fat high-sugar meal challenge in generally healthy United States adults (Poster). American Society of Nutrition (2022).
5. The cecal microbiome of Diversity Outbred mice is regulated by genetics, diet, and sex (Oral presentation and Emerging Leaders in Nutrition Science Poster Competition - First Place Winner). American Society of Nutrition (2023).
6. Precise genetic instruments in Mendelian randomization improve causal estimates of complex traits: Exemplified by fresh fruit intake and diastolic blood pressure reduction (Poster). American Society for Human Genetics (2023).
7. Developing an objective method to improve the causal estimates of dietary traits on metabolic health outcomes in Mendelian randomization (Poster). American Society of Nutrition (June 2024).
8. Leveraging the genetics of dietary intake via Mendelian randomization towards the goal of precision nutrition (Poster). Cohorts for Heart and Aging Research in Genomic Epidemiology (CHARGE) Consortium Working Group Meeting (May 2024).
9. Removing confounding and refining Mendelian randomization genetic instruments of dietary intake traits] (Poster). American Society for Human Genetics (2024).

Non-Competitive Abstracts (limited to first author only)

1. Utilization of a high-choline diet elicits genetic loci associated with TMAO (Oral Presentation). GGNB Research Symposium (2019).
2. Habitual beef consumption, plasma TMAO, and risk factors for cardiovascular disease (Poster). Aligning the Food System for Improved Nutrition in Animal Sourced Foods Conference (2019).
3. Systems genetic studies of TMAO regulation and atherosclerosis (Oral presentation). Graduate Group in Nutritional Biology New Student Recruitment (2020).
4. Diet, fecal microbiome, and trimethylamine n-oxide in a cohort of metabolically healthy United States adults (Oral Presentation). Graduate Group in Nutritional Biology New Student Recruitment (2022).
5. Precise genetic instruments in Mendelian randomization improve causal estimates of lifestyle traits (Poster). Department of Biomedical Informatics Fall Retreat (2023).

VIII. Teaching Experience

Teaching Assistant; Discoveries and Concepts in Nutrition University of California Davis	Davis, CA	2019 – 2020
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IX. Mentoring

Joshua Cropanzano. Masters student intern: Provided GWAS training and oversaw trans-ancestry GWAS meta-analysis of dietary traits	Aurora, CO	Fall 2024
Korrie Tugal Undergraduate student intern: Trained and mentored Korrie who assisted in mouse work and experimental protocols	Davis, CA	2021 – 2022
Nola Carter. Nutritional Biology Graduate Admissions Pathways Program participant: Mentored Nola with weekly meetings, feedback on her research project, and exposure to graduate school	Davis, CA	Summer 2020

X. Academic Service and Outreach

Graduate Student Association Representative, University of California Davis	Davis, CA	2017 – 2020
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Student Advisory Committee Outreach Coordinator, Graduate Group in Nutritional Biology, University of California Davis	Davis, CA	2018 – 2019
Student Advisory Committee Vice President, Graduate Group in Nutritional Biology, University of California Davis	Davis, CA	2019 – 2020
Student Advisory Committee President, Graduate Group in Nutritional Biology, University of California Davis	Davis, CA	2020 – 2021
Undergraduate Research and Creative Activities Symposium Reviewer, University of Colorado Denver	Aurora, CO	Spring 2023
Seminar Committee Member, Department of Biomedical Informatics, University of Colorado Anschutz Medical Campus	Aurora, CO	2023 – 2024
Diversity Equity and Inclusion Committee Member, Department of Biomedical Informatics, University of Colorado Anschutz Medical Campus	Aurora, CO	2023 – 2024
Guest Editor, Special Topic in Causal Associations Between Nutrition, Health, and Genes: An Evidence-based Approach, Frontiers in Nutrition	Aurora, CO	2023 – 2024