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## **Marcia de Oliveira Otto, PhD, MS**

The University of Texas School of Public Health

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### **EDUCATION**

- 2010            PhD, Environmental Health, Minors in Epidemiology and Biostatistics,  
UTHealth School of Public Health  
Dissertation: Micronutrient intakes and their associations with markers of  
inflammation, subclinical atherosclerosis, cardiovascular disease, type II diabetes  
and metabolic syndrome
- 2005            MS, Environmental Sciences, University of Sao Paulo, Brazil  
Thesis: Assessing lead exposure in children using teeth as bioindicator
- 2002            BS, Physics, University of Rio de Janeiro, Brazil

### **HONORS AND AWARDS**

- 2021            **6th American Health Association Annual Foodscape Innovation Summit  
and Workshop.** Selected to collaborate with approximately 50 leaders in food,  
nutrition, and health equity to discuss strategies to promote health equity through  
bridging food systems.
- 2020            **Expert Workshop on Saturated Fat and Health: A Nutrient or Food  
Approach.** Washington, D.C. Selected to join world-leading scientists to provide  
a summary recommendation on health effects of saturated fats to the Dietary  
Guidelines of Americans expert panel. Received a stipend.
- 2020            **2020-25 Dietary Guidelines for Americans Advisory Committee Meeting.**  
Invited to represent the American Heart Association.
- 2019            **Top Science Presented at AHA Epi/Lifestyle Scientific Sessions.** Abstract  
ranked among the top 10 percent of accepted abstracts presented at the AHA  
Epi/Lifestyle Scientific Sessions.
- 2018            **American Heart Association Research Leaders Academy**
- 2017            **Fellow of the American Heart Association**
- 2012            **Harvard-Bunge Fellowship Program in Nutrition & Health,** Harvard School  
of Public Health
- 2012            **Finalist, Outstanding Postdoctoral Research on Cardiovascular  
Epidemiology,** Harvard School of Public Health
- 2011            **Fellowship Award,** Cancer Prevention Research Institute of Texas, UT Health  
Innovation Training Program

- 2010      **G. Roger Florky Scholarship**, The University of Texas School of Public Health, Houston, TX
- 2006      **Texas Water Pollution Control Association Scholarship**, The University of Texas School of Public Health, Houston, TX
- 2005      **Graduated with Honors and Distinction**, University of Sao Paulo, Brazil
- 2003      **PROCAM Scholarship**, University of Sao Paulo Brazil

## **PROFESSIONAL EXPERIENCE**

### **Faculty Appointments**

- 2022–present    **Associate Professor** with tenure, Department of Epidemiology, Human Genetics and Environmental Sciences, UTHealth School of Public Health, Houston, TX
- 2018–2022      **Assistant Professor**, tenure-track, Department of Epidemiology, Human Genetics and Environmental Sciences, UTHealth School of Public Health, Houston, TX
- 2014–2018      **Assistant Professor**, non-tenure track, Department of Epidemiology, Human Genetics and Environmental Sciences, UTHealth School of Public Health

### **Postdoctoral Training and Research Positions**

- 2012–2014      **Harvard School of Public Health**, Boston, MA  
Postdoctoral Fellowship in Nutritional and Cardiovascular Epidemiology  
Mentor: Dariush Mozaffarian, MD, PhD
- 2011              **UTHealth School of Public Health**, Houston, TX  
Postdoctoral Fellow, UTHealth Innovation Training Program  
Mentor: David Loose, PhD
- 2009–2010      **University of Texas Health School of Public Health**, Houston, TX  
Graduate Research Assistant, Department of Epidemiology, Human Genetics and Environmental Sciences
- 2006–2009      **University of Texas Health School of Public Health**  
Graduate Research Assistant, Center for Nursing Research
- 2008              The University of Texas MD Anderson Cancer Center  
Trainee, Cancer Prevention Research Training Summer Program
- 2006–2007      **University of Texas Health School of Public Health**  
Graduate Research Assistant, Houston Exposure to Air Toxics Study (H.E.A.T.S.), Division of Occupational and Environmental Health Sciences
- 2005–2006      **University of Texas Health School of Public Health**  
Graduate Research Assistant, Environmental Health and Safety Program

## PEER-REVIEWED PUBLICATIONS

1. Moseholm KF, Cronjé HT, Koch M, Fitzpatrick AL, Lopez OL, de Oliveira Otto MCO, Longstreth WT Jr, Hoofnagle AN, Mukamal KJ, Lemaitre RN, Jensen MK. Circulating sphingolipids in relation to cognitive decline and incident dementia: The Cardiovascular Health Study. *Alzheimers Dement (Amst)*. 2024 Jul-Sep;16(3):e12623. doi: 10.1002/dad2.12623. eCollection 2024 Jul-Sep. PubMed PMID: 39130802; PubMed Central PMCID: PMC11310412.
2. **de Oliveira Otto MC**, Wu JHY, Thacker EL, Lai HTML, Lemaitre RN, Padhye N, Song X, King IB, Lopez O, Siscovick D, Mozaffarian D. Circulating Omega-3 and Omega-6 Fatty Acids, Cognitive Decline and Dementia in Older Adults. *J Alzheimers Dis*. 2023;95(3):965-979. doi: 10.3233/JAD-230083. PubMed PMID: 37638432.
3. Budoff MJ, **de Oliveira Otto MC**, Li XS, Lee Y, Wang M, Lai HTM, Lemaitre RN, McKnight B, Pratt A, Tang WHW, Psaty BM, Siscovick DS, Hazen SL, Mozaffarian D. Trimethylamine-N-oxide (TMAO) and Risk of Incident Cardiovascular Events in the Multi Ethnic Study of Atherosclerosis. *Am Heart J*. 2023; In press
4. Lemaitre RN, Jensen PN, Wang Z, Fretts AM, Sitlani CM, Nemet I, PhD, Sotoodehnia N, **de Oliveira Otto MC** et al. Plasma trimethylamine-N-oxide and incident ischemic stroke: The Cardiovascular Health Study and The Multi-Ethnic Study of Atherosclerosis. *J Am Heart Assoc*. 2023 Aug 15;12(16):e8711. doi: 10.1161/JAHA.122.029230.
5. **de Oliveira Otto MC**, Li XS, Wang Z, Siscovick D, Newman AB, Lai HTM, Nemet I, Lee Y, Wang M, Fretts A, Lemaitre RN, Tang WHW, Lopez O, Hazen SL, Mozaffarian D. Longitudinal Associations of Plasma TMAO and Related Metabolites with Cognitive Impairment and Dementia in Older Adults: The Cardiovascular Health Study. *J Alzheimers Dis*. 2022 Sep 2.
6. **de Oliveira Otto MC**, Brito F, Tark JY, Bakota E, Yamal JM, Marko D, Sharma SV, Brown MR, Appana SN; Rector AM, Linder SH, Kiger J, Tseng KC; Morrison AC, Boerwinkle E. Case Growth Analysis to Inform Local Response to COVID-19 Epidemic in a Diverse U.S Community. *Scientific Reports* **12**, 16217 (2022).
7. Wang M, Wang Z, Lee Y, Lai HTM, **de Oliveira Otto MC**, Lemaitre RN, Fretts A, Sotoodehnia N, Budoff M, DiDonato JA, McKnight B, Tang WHW, Psaty BM, Siscovick DS, Hazen SL, Mozaffarian D. Dietary Meat, Trimethylamine N-Oxide-Related Metabolites, and Incident Cardiovascular Disease Among Older Adults: The Cardiovascular Health Study. *Arterioscler Thromb Vasc Biol*. 2022 Sep;42(9):e273-e288. doi: 10.1161/ATVBAHA.121.316533. Epub 2022 Aug 1.
8. Yamal JM, Appana S, Wang M, Leon-Novelo L, Bakota E, Ye Y, Sharma S, Morrison AC, Marko D, Linder SH, Rector A, Jetelina KK, Boerwinkle E, **de Oliveira Otto M**. Trends and Correlates of Breakthrough Infections With SARS-CoV-2. *Front Public Health*. 2022;10:856532.

9. Fretts AM, Hazen SL, Jensen P, Budoff M, Sitlani CM, Wang M, **de Oliveira Otto MC**, DiDonato JA, Lee Y, Psaty BM, Siscovick DS, Sotoodehnia N, Tang WHW, Lai H, Lemaitre RN, Mozaffarian D. Association of Trimethylamine N-Oxide and Metabolites With Mortality in Older Adults. *JAMA Netw Open*. 2022 May 2;5(5):e2213242.
10. Lemaitre, RN, Jensen, PN, Wang, ZE, Fretts, AM, McKnight, B, Nemet, I, Biggs, ML, Sotoodehnia, N, **de Oliveira Otto, MC**, Psaty, BM, et al. Association of Trimethylamine N-Oxide and Related Metabolites in Plasma and Incident Type 2 Diabetes The Cardiovascular Health Study. *Jama Network Open* 2021 4(8) 2574-3805.1001/jamanetworkopen.2021.22844
11. Lee, Y, Nemet, I, Wang, ZN, Lai, HTM, **de Oliveira Otto, MC**, Lemaitre, RN al. Longitudinal Plasma Measures of Trimethylamine N-Oxide and Risk of Atherosclerotic Cardiovascular Disease Events in Community-Based Older Adults. *Journal of the American Heart Association*, 2021, 10 (17) DOI10.1161/JAHA.120.020646
12. Bockus LB, Biggs ML, Lai HTM, D, PhD; Mary L, PhD; Heidi TM Lai, PhD; **de Oliveira Otto MC**, et al. Assessment of Plasma Phospholipid Very-long-chain Saturated Fatty Acid Levels and Healthy Aging: The Cardiovascular Health Study. *Jama Network Open* 2021 4(8) e2120616.
13. Tortolero GA\*, Brown MR, Sharma SV, **de Oliveira Otto MC**, et al. Leveraging a health information exchange for analyses of COVID-19 outcomes including an example application using smoking history and mortality. *PLoS One*. 2021. <https://doi.org/10.1371/journal.pone.0247235>
14. Lemaitre RN, Jensen PN, Fretts AM, McKnight B, Biggs ML, Sotoodehnia N, **de Oliveira Otto MC**, et al. Plasma trimethylamine-N-oxide, related metabolites and incident diabetes: The Cardiovascular Health Study. *Jama Network Open* (in press)
15. Astrup A, Magkos F, Bier DM, Brenna JT, **de Oliveira Otto MC**, Hill JO, King JC, Mentz A, Ordovas JM, Volek JS, Yusuf S, Krauss RM. Saturated Fats and Health: A Reassessment and Proposal for Food-Based Recommendations: JACC State-of-the-Art Review. *J Am Coll Cardiol*. 2020 Aug 18;76(7):844-857.
16. Rodriguez LA, Jin Y, Talegawkar SA, **de Oliveira Otto MC**, Kandula NR, Herrington DM, Kanaya AM. Differences in Diet Quality among Multiple US Racial/Ethnic Groups from the Mediators of Atherosclerosis in South Asians Living in America (MASALA) Study and the Multi-Ethnic Study of Atherosclerosis (MESA). *J Nutr*. 2020 Jun 1;150(6):1509-1515. doi: 10.1093/jn/nxaa050. PubMed PMID: 32133497; PubMed Central PMCID: PMC7269747.
17. Richey SA, Capezuti E, Cron SG, Reed D, Torres-Vigil I, **de Oliveira Otto MC**. Development and Testing of the Pain Assessment Tool in Cognitively Impaired Elders (PATCIE): Nonverbal Pain Behaviors in African American and Caucasian Nursing Home Residents with Dementia. *Pain Manag Nurs*. 2020 Apr;21(2):187-193. doi: 10.1016/j.pmn.2019.08.004. Epub 2019 Oct 8. PubMed PMID: 31604681.
18. Lai HT, **de Oliveira Otto MC**, Lemaitre RN, McKnight B, Song X, King IB, et al. Serial Plasma Phospholipid Fatty Acids in the De Novo Lipogenesis Pathway and Total Mortality, Cause-Specific Mortality, and Cardiovascular Diseases in the Cardiovascular Health Study. *J Am Heart Assoc*. 2019 Nov 19;8(22).

19. Astrup A, Bertram H, Bonjour JP, de Groot L, **de Oliveira Otto** MC et. al The WHO Draft Guidelines on Dietary Saturated and Trans-fatty Acids: Time for a New Approach? *BMJ* 2019;366:l4137.
20. Marklund M, Wu JHY, Imamura F, Del Gobbo LC, Fretts A, de Goede J, **de Oliveira Otto** MC et al. Biomarkers of Dietary Omega-6 Fatty Acids and Incident Cardiovascular Disease and Mortality: An Individual-Level Pooled Analysis of 30 Cohort Studies. *Circulation*. 2019. PMID: 30971107.
21. Smith HS\*, Swint JM, Lalani SR, Yamal JM, **de Oliveira Otto** MC, Castellanos S, et al. Clinical Application of Genome and Exome Sequencing as a Diagnostic Tool for Pediatric Patients: a Scoping Review of the Literature. *Genetics in Medicine: Official Journal of the American College of Medical Genetics*. 2019;21(1):3-16. PMID: 29760485.
22. **de Oliveira Otto** MC, Anderson CAM, Dearborn JL, Ferranti EP, Mozaffarian D, Rao G, et al. Dietary Diversity: Implications for Obesity Prevention in Adult Populations: A Science Advisory From the American Heart Association. *Circulation*. 2018;138(11):e160-e8. PMID: 30354383
23. **de Oliveira Otto** MC, Lemaitre RN, Song X, King IB, Siscovick DS, Mozaffarian D. Serial Measures of Circulating Biomarkers of Dairy Fat and Total and Cause-specific Mortality in Older Adults: The Cardiovascular Health Study. *Am J Clin Nutr*. 2018;108(3):476-84. PMID: 30333104.
24. **de Oliveira Otto** MC, Lemaitre RN, Sun Q, King IB, Wu JHY, Manichaikul A, et al. Genome-wide Association Meta-Analysis of Circulating Odd-numbered Chain Saturated Fatty Acids: Results from the CHARGE Consortium. *PLoS One*. 2018;13(5):e0196951. PMID: 29738550
25. Lai HT, **de Oliveira Otto** MC, Lemaitre RN, McKnight B, Song X, King IB, et al. Serial Circulating Omega 3 Polyunsaturated Fatty Acids and Healthy Ageing Among Older Adults in the Cardiovascular Health Study: Prospective Cohort Study. *BMJ*. 2018;363:k4067. PMID: 30333104
26. Hastert TA, **de Oliveira Otto** MC, Le-Scherban F, Steffen BT, Steffen LM, Tsai MY, et al. Association of Plasma Phospholipid Polyunsaturated and Trans Fatty Acids with Body Mass Index: Results from the Multi-Ethnic Study of Atherosclerosis. *International Journal of Obesity*. 2018;42(3):433-40. PMID: 29151597
27. Lopez DS, Liu L, Rimm EB, Tsilidis KK, **de Oliveira Otto** MC, Wang R, et al. Coffee Intake and Incidence of Erectile Dysfunction. *Am J Epidemiol*. 2018;187(5):951-9. PMID: 29020139
28. Mozaffarian D, Dashti HS, Wojczynski MK, Chu AY, Nettleton JA, Mannisto S, **de Oliveira Otto** MC, et al. Genome-wide Association Meta-Analysis of Fish and EPA+DHA Consumption in 17 US and European Cohorts. *PLoS One*. 2017;12(12):e0186456. PMID: 29236708
29. Wu JHY, Marklund M, Imamura F, Tintle N, Ardisson Korat AV, de Goede J, **de Oliveira Otto** MC, et al. Omega-6 Fatty Acid Biomarkers and Incident Type 2 Diabetes: Pooled Analysis of Individual-level Data for 39 740 Adults from 20 Prospective Cohort Studies. *Lancet Diabetes Endocrinol*. 2017;5(12):965-74. PMID: 29032079

30. Imamura F, Micha R, Wu JH, **de Oliveira Otto** MC, Otite FO. Effects of Saturated Fat, Polyunsaturated Fat, Monounsaturated Fat, and Carbohydrate on Glucose-Insulin Homeostasis: A Systematic Review and Meta-analysis of Randomised Controlled Feeding Trials. *PLoS Medicine* 2016;13(7):e1002087. PMID: 27434027
31. **de Oliveira Otto** MC, Afshin A, Micha R, Khatibzadeh S, Fahimi S, Singh G, et al. The Impact of Dietary and Metabolic Risk Factors on Cardiovascular Diseases and Type 2 Diabetes Mortality in Brazil. *PLoS one*. 2016;11(3):e0151503. PMID: 26990765
32. **de Oliveira Otto** MC, Padhye NS, Bertoni AG, Jacobs DR, Jr., Mozaffarian D. Everything in Moderation-Dietary Diversity and Quality, Central Obesity and Risk of Diabetes. *PLoS one*. 2015;10(10):e0141341. PMID: 26517708
33. **de Oliveira Otto** MC, Wu JH, Baylin A, Vaidya D, Rich SS, Tsai MY, et al. Circulating and Dietary Omega-3 and Omega-6 Polyunsaturated Fatty Acids and Incidence of CVD in the Multi-Ethnic Study of Atherosclerosis. *Journal of the American Heart Association*. 2013;2(6):e000506.PMID: 24351702
34. **de Oliveira Otto** MC, Nettleton JA, Lemaitre RN, L MS, Kromhout D, Rich SS, et al. Biomarkers of Dairy Fatty Acids and Risk of Cardiovascular Disease in the Multi-Ethnic Study Of Atherosclerosis. *Journal of the American Heart Association*. 2013;2(4):e000092. PMID: 23868191
35. Mozaffarian D, **de Oliveira Otto** MC, Lemaitre RN, Fretts AM, Hotamisligil G, Tsai MY, et al. Trans-Palmitoleic Acid, Other Dairy Fat Biomarkers, and Incident Diabetes: The Multi-Ethnic Study of Atherosclerosis (MESA). *Am J Clin Nutr*. 2013;97(4):854-61. PMID: 23407305
36. Mozaffarian D, Wu JH, **de Oliveira Otto** MC, Sandesara CM, Metcalf RG, Latini R, et al. Fish Oil and Post-operative Atrial Fibrillation: A Meta-analysis of Randomized Controlled Trials. *J Am Coll Cardiol*. 2013;61(21):2194-6. PMID: 23541970
37. Tanaka T, Ngwa JS, van Rooij FJ, Zillikens MC, Wojczynski MK, Frazier-Wood AC, **de Oliveira Otto**, MC, et al. Genome-wide Meta-analysis of Observational Studies Shows Common Genetic Variants Associated with Macronutrient Intake. *Am J Clin Nutr*. 2013;97(6):1395-402. PMID: 23636237
38. Del Gobbo LC, Imamura F, Wu JH, **de Oliveira Otto** MC, Chiuve SE, Mozaffarian D. Circulating and Dietary Magnesium and Risk of Cardiovascular Disease: A Systematic Review and Meta-analysis of Prospective Studies. *Am J Clin Nutr*. 2013;98(1):160-73. PMID: 23719551
39. Yamamoto KT, Robinson-Cohen C, de Oliveira MC, Kostina A, Nettleton JA, Ix JH, **de Oliveira** MC, et al. Dietary Phosphorus Is Associated with Greater Left Ventricular Mass. *Kidney Int*. 2013;83(4):707-14. PMID: 23283134
40. **de Oliveira Otto** MC, Alonso A, Lee DH, Delclos GLI, Bertoni AG, Jiang R, et al. Dietary Intakes of Zinc and Heme Iron from Red Meat, but Not from Other Sources, Are Associated with Greater Risk of Metabolic Syndrome and Cardiovascular Disease. *J Nutr*. 2012;142 526-533:526-33. PMID: 22259193
41. **de Oliveira Otto** MC, Mozaffarian D, Kromhout D, Bertoni AG, Sibley CT, Jacobs DR, Jr., et al. Dietary Intake of Saturated Fat by Food Source and Incident Cardiovascular Disease:

The Multi-Ethnic Study of Atherosclerosis. *Am J Clin Nutr.* 2012;96(2):397-404. PMID: 22760560

42. **de Oliveira Otto** MC, Alonso A, Lee DH, Delclos GL, Jenny NS, Jiang R, et al. Dietary Micronutrient Intakes Are Associated with Markers of Inflammation, but Not with Markers of Subclinical Atherosclerosis. *Journal of Nutrition.* 2011;141:1508-15. PMID: 21653577
43. Arruda-Neto JD, **de Oliveira** MC, Sarkis JE, Bordini P, Manso-Guevara MV, Garcia F, et al. Study of Environmental Burden of Lead in Children Using Teeth as Bioindicator. *Environment International.* 2009;35(3):614-8. PMID: 19167075

## LETTERS TO EDITOR

44. **de Oliveira Otto** MC, Mozaffarian D. Reply to H Kahleova and ND Barnard. *Am J Clin Nutr.* 2018;109(1):220-221.
45. **de Oliveira Otto** MC, Alonso A, Lee, DH, Delclos, G L, Bertoni AG, Jiang R, et. al Reply to Brownstein. *Journal of Nutrition.* 2012; 142(10): 1918.

## INVITED PUBLICATIONS

46. Perkison WB, Adekanye JA, **de Oliveira Otto** MC. Dietary Interventions and Type 2 Diabetes in Youth: A Fresh Look at the Evidence. *Current Nutrition Reports.* 2018;7(4):227-34. PMID: 30155750
47. Baer DJ, Rice Bradley BH, Kris-Etherton P, Mente A, **de Oliveira Otto** M. Insights and Perspectives on Dietary Modifications to Reduce the Risk of Cardiovascular Disease. *Advances in Nutrition (Bethesda, MD).* 2014;5(5):553-5. PMID: 25469391
48. **de Oliveira Otto** MC. Risk Factors for Cardiovascular Disease in Brazil: Time Trends and Current Status. *Dialogue Series Swiss Re Centre for Global Dialogue* 2014; 23-28.

## MANUSCRIPTS UNDER REVIEW

49. Budoff M, **de Oliveira Otto** MC, Li XS, Lee Y, Wang M, Lai HTM, Lemaitre RN et al. Trimethylamine-*N*-oxide (TMAO) and Risk of Incident Cardiovascular Events in the Multi Ethnic Study of Atherosclerosis.
50. **de Oliveira Otto** MC, Sandulache VC, Appana SN, Tark JY, Bach M, Tripuraneni L, Stach CB, Zhang FF, Sharma SV, Hutcheson KA. Suboptimal Diet Quality Among Individuals Diagnosed with Oropharyngeal Cancer at two Stages of Care: the U-DINE Study.
51. Tark, JY; Li, R, Yu, B, Wood A, Padhye NS, **de Oliveira Otto** MC. Dietary intake of protein by food source and incident hypertension among diverse U.S. adults: the Multi-Ethnic Study of Atherosclerosis (MESA).
52. Tark, JY; Li, R, Yu, B, Wood A, Padhye NS, **de Oliveira Otto** MC. Protein Consumption and Risk of CVD among U.S. Adults: the Multi-Ethnic Study of Atherosclerosis (MESA).

## CURRENT RESEARCH SUPPORT

BHSA CA200908 (2021–2025) Agency: DoD \$984,470

Project: **Uncovering the long-term impact of oropharyngeal cancer and dysphagia on dietary quality and nutrition among veteran cancer survivors: The U-DINE Study**

Goal: To assess diet quality in cancer survivors, developing and implement evidence-based, cancer-specific programs and strategies to improve quality of life.

Role: Principal Investigator (PI)

Total Indirect Costs: \$316,173

**Harris Cares – Embrace Hope COVID-19 Analytics Harris County (2020-2022)**

Agency: HCPHES \$201,385

Project: Strengthen disease surveillance by quantifying dynamics, patterns, disparities and trends in SARS-CoV-2 testing, infection and vaccination among individuals living in the Greater Houston

Role: Co-I

Total Indirect Costs: \$20,138

**Aromatic Amino Acids Microbiome-Generated Metabolites and Incident Subclinical and Clinical CVD and Mortality (2023-2026)**

Agency: NIH/NHLBI \$1,387,637

Goal: The major goals of the project are to investigate the relationships of AAA-derived microbial metabolites with the onset and progression of subclinical cardiovascular disease (CVD), incident CVD, and total mortality among middle-aged and older U.S. adults.

Role: co-I, site PI

## COMPLETED RESEARCH SUPPORT

**Evaluating disparities and trends in COVID-19 to inform public health action in Fort Bend County (2020-2022)** Agency: FBC \$122,757

Goal: Describe patterns, disparities and trends in SARS-CoV-2 testing, infection and vaccination in Fort Bend County, TX

Role: co-I

Total Indirect Costs: \$11,200

**Rapid Acceleration of Diagnostics Underserved Populations (RADx-UP), Center for Clinical and Translational Sciences (CCTS) (2017–2022)** Agency: NIH

\$3,245,280



Goal: Understand COVID-19 testing patterns among underserved and vulnerable populations; strengthen the data on disparities in infection rates, disease progression, and outcomes; and develop strategies to reduce the disparities in COVID-19 testing.

Role: Co-PI

Total Indirect Costs: \$1,317,000

6 U3SHS45319-01-01

11/01/2021–10/31/2022

HRSA

\$10,345,056

**Community-Based Workforce to Increase COVID-19 Vaccinations in Underserved Communities**

This project builds on existing infrastructure in three Texas regions (Houston/Harris County, South Texas, and Northeast Texas) and works State-wide to mobilize and train community outreach workers, patient navigators, and other workers to: 1) educate, motivate, and facilitate access to COVID-19 vaccinations, 2) expand available resources for vaccination in communities with greatest needs, and 3) build a long-term sustainable model for addressing COVID-19 related disparities that can be leveraged for the prevention and control of other diseases.

Scientist Development Award (2017–2021) Agency: AHA \$209,700

Project: Everything in moderation? Dietary diversity, diet quality and cardiovascular health

Goal: examine role of diet diversity for diet quality and risk of cardiovascular disease in middle-aged adults.

Role: PI

Total Indirect Costs: \$20,970

R01HL135920 (2018–2021)

Agency: NIH

\$130,000

Project: TMAO and initiation, extent, and clinical onset of atherosclerotic cardiovascular disease

Goal: To investigate associations of serial measures of TMAO with initiation, extent, and onset of atherosclerosis and clinical cardiovascular disease in two prospective community-based US cohort studies.

Role: Subcontract PI

Total Indirect Costs: \$68,224.00

FOTE (2020–2021)

Agency: SPH

\$25,000

Project: Addressing Long-Term Adverse Effects of Treatment-Related Dysphagia among Head and Neck Cancer Survivors through Nutrition

Goal: to obtain funding to support a study aiming to characterize diet quality and malnutrition in oropharyngeal cancer patients, from diagnosis through long-term survivorship, and to investigate how specific complications resulting from tumor and/or treatment affect diet quality in OPC patients and survivors.

Role: PI

Total Indirect Costs: \$0

3R01HL085710-07S1 (2014–2017)

Agency: NIH

\$270,000

Project: Circulating dietary & metabolic fatty acids, major CVD outcomes, & healthy aging

Goal: Investigate the association between dietary and metabolic fatty acids with cognitive decline, dementia, and total mortality in older US adults. The research supplement award

expands the scope of the parent R01 research grant (PI: Mozaffarian) investigating associations of key circulating fatty acids with incident cardiovascular disease and healthy aging.

Role: Recipient and PI of research supplement award

Total Indirect Costs: \$44,705

Global Health Research Fund (2013) Agency: Harvard-Swiss Re Program \$20,000

Goal: Determine the impact of suboptimal diet and metabolic risk factors on mortality due to cardiovascular and metabolic disease in Brazil.

Role: PI

Total Indirect Costs: \$0

## **PENDING RESEARCH GRANT APPLICATIONS**

Understanding the Impact of Food and Nutrition Insecurity on Oropharyngeal Cancer Outcomes Across the Continuum of Cancer Care (2024-2029)

Agency: NIH 3,850,683.00

Role: PI

Total Indirect Costs: \$488,868.00

Uncovering the long-term impact of oropharyngeal cancer and dysphagia on dietary quality and nutrition among veteran cancer survivors: the U-DINE Study (2021-2025)

Agency: DoD 984,470.00

Role: PI

Total Indirect Costs: \$316,173.00

## **INVITED TALKS AND PRESENTATIONS**

### **National and International**

Quantifying Suboptimal Diet Quality among Oropharyngeal Cancer Survivors in Two Cohorts: interim findings from the U-DINE Study. American Head and Neck Society 11<sup>th</sup> International Conference on Head and Neck Cancer, July 2023, Montreal, Canada.

Healthy Davis Together, Working to prevent the spread of COVID-19. Invited to present on the collaborative work in response to the COVID-19 pandemic in Harris County with Dana Wiltz-Beckham, Director, Office of Epidemiology, Surveillance & Evaluation Harris County Public Health. California, February 2022

Grasas Lácteas y Salud Cardiovascular: Lecciones de Estudios Epidemiológicos. VII Simposio Internacional de Avances en Nutricion, November 2019 Lima, Peru.

Longitudinal Associations of Omega-3 and Omega-6 Plasma Phospholipid Polyunsaturated Fatty Acids with Dementia in Older Adults: the Cardiovascular Health Study. *American Heart Association Epi/Lifestyle Scientific Sessions*, March 2019, Houston, TX.

Circulating Dairy Fatty Acids and Total and Cause-specific Mortality: The Cardiovascular Health Study. American Heart Association - Epidemiology and Prevention | Lifestyle and Cardiometabolic Health 2017 Scientific Sessions, March 2017, Portland, OR.

Preventing Cardio-metabolic Disease through Diet: Novel Approaches from Epidemiologic Studies. The Michael & Susan Dell Center for Healthy Living, Austin, TX, August 2015.

Risk Factors for Cardiovascular Disease in Brazil: Time Trends and Current Status. Expert Forum on Health Risk Factors in Brazil, Sao Paulo, Brazil, March 2015.

Circulating and Dietary Seafood- and Plant-derived Polyunsaturated Fatty Acids and Incidence of CVD in the Multi-Ethnic Study of Atherosclerosis. Oral Presentation at *American Heart Association - Nutrition, Physical Activity and Metabolism and Cardiovascular Disease Epidemiology and Prevention Scientific Sessions*, March 2013, New Orleans, LA,

The Heart Healthy Switch: Benefits and Consequences of Macro-nutrient Replacement in the Diet. American Society for Nutrition 2014 Scientific Sessions and Annual meeting at EB, San Diego, CA, April 2014.

Novel Metrics of Dietary Diversity and Their Associations with Change in Waist Circumference and Incident Diabetes in Multi-Ethnic US adults. Harvard School of Public Health, February 2014.

Diet and Cardio-metabolic Disease Prevention: Using the Epidemiologic Approach to Examine Complex Relationships. Baylor College of Medicine, December 2013.

Dairy Fats, Cardiovascular and Metabolic Diseases: Lessons from Epidemiologic Studies. The Nutrition Society of New Zealand and Nutrition Society of Australia 2013 Joint Annual Scientific Meeting, Brisbane, Australia, December 2013.

Dietary Intake of Saturated Fat by Food Source and Incident Cardiovascular Disease: The Multi-Ethnic Study of Atherosclerosis. Fellow and Trainee Forum in Cardiovascular Epidemiology, Harvard School of Public Health, Boston, MA, April 2012.

## **SCIENTIFIC CONFERENCES**

### **Posters Presentations and Published Abstracts**

Oliveira Otto MC, Tark JY, Tripuraneni L, Bach MA, Li R, Sharma SV, Sandulache V, Hutcheson KA. Dietary quality and insufficiencies among HPV-positive oropharyngeal cancer patients at cancer diagnosis. American Head and Neck Society 11<sup>th</sup> International Conference on Head and Neck Cancer, July 2023, Montreal, Canada.

Tark JY, Heckler B, Kim H, Padhye NS, Judd SE, Safford MM, Mozaffarian D, **de Oliveira Otto MC**; Dietary Diversity and Quality and CVD Risk Factors in the REasons for Geographic And Racial Differences in Stroke (REGARDS). American Heart Association EPI|Lifestyle 2022 Scientific Sessions (senior author)

Budoff MJ, de Oliveira Otto MC, Li XS, Lee Y, Wang M, Lai HTM., Lemaitre RN, McKnight B, Tang W, Psaty BM, Siscovick DS, Hazen SL, Pratt A, Mozaffarian D. **Trimethylamine-N-oxide (TMAO) as a predictor of Cardiovascular Events in the Multi Ethnic Study of Atherosclerosis**. 2022 American College of Cardiology Annual Scientific Section (co-author; accepted).

**de Oliveira Otto** MC, Wu JHY, Thacker EL, Lai H, Lemaitre RN, McKnight B, et al. Longitudinal Associations of Omega-3 and Omega-6 Plasma Phospholipid Polyunsaturated Fatty Acids with Dementia in Older Adults: The Cardiovascular Health Study. Oral Presentation at American Heart Association Epi/Lifestyle Scientific Sessions, March 2019, Houston, TX, (presenter).

**de Oliveira Otto** MC, Lemaitre RN, Song X, King I, Siscovick D, Mozaffarian, D. Circulating Dairy Fatty Acids and Total and Cause-specific Mortality: The Cardiovascular Health Study. Moderated poster presentation at American Heart Association - Epidemiology and Prevention | Lifestyle and Cardiometabolic Health 2017 Scientific Sessions, March 2017, Portland, OR. (presenter).

**de Oliveira Otto** MC, Wu JH, Baylin A, Vaidya D, Rich SS, Tsai MY, et al. Circulating and Dietary Seafood- and Plant-derived Polyunsaturated Fatty Acids and Incidence of CVD in the Multi-Ethnic Study of Atherosclerosis. Oral Presentation at American Heart Association - Nutrition, Physical Activity and Metabolism and Cardiovascular Disease Epidemiology and Prevention Scientific Sessions, March 2013, New Orleans, LA, (presenter).

Lai HT, **de Oliveira Otto** MC, Lemaitre RN, McKnight B, Song X, King IB, et al. Serial Circulating Omega 3 Polyunsaturated Fatty Acids and Healthy Ageing Among Older Adults in the Cardiovascular Health Study. American Heart Association Epi/Lifestyle Scientific Sessions, March 2018, New Orleans, LA (co-author).

**de Oliveira Otto** MC, Padhye N, Bertoni A, Jacobs DR, Mozaffarian D. Dietary Diversity and Quality and Change in Waist Circumference in the Multi-Ethnic Study of Atherosclerosis. American Heart Association - Nutrition, Physical Activity and Metabolism and Cardiovascular Disease Epidemiology and Prevention 2014 Scientific Sessions, March 2014, San Francisco, CA (presenter).

Singh GM, **de Oliveira Otto** MC, Mozaffarian D. Effects of Individual Dietary Factors on Metabolic Risks Within the Context of Overall Dietary Patterns: A Systematic Review and Meta-analysis. American Heart Association - Nutrition, Physical Activity and Metabolism and Cardiovascular Disease Epidemiology and Prevention 2014 Scientific Sessions, March 2014, San Francisco, CA (co-author).

**de Oliveira Otto** MC, Nettleton JA, Lemaitre RL, et al. Biomarkers of Dairy Fatty Acids and Incidence of Cardiovascular Disease in the Multi-Ethnic Study of Atherosclerosis. American Heart Association - Nutrition, Physical Activity and Metabolism and Cardiovascular Disease Epidemiology and Prevention 2013 Scientific Sessions, March 2013, New Orleans, LA (presenter).

Imamura F, Micha R, Wu JH, **de Oliveira Otto** MC, et al. Effects of Saturated, Polyunsaturated and Monounsaturated Fat on Blood Glucose, Insulin Sensitivity, and  $\beta$  Cell Function: A Systematic Review and Meta-analysis of 84 Randomized Controlled Feeding Trials. American Heart Association - Nutrition, Physical Activity and Metabolism and Cardiovascular Disease

Epidemiology and Prevention 2013 Scientific Sessions, March 2013, New Orleans, LA (co-author).

Del Gobbo LC, Imamura F, Wu JHY, **de Oliveira Otto** MC, Chiuve SE, Mozaffarian D. Circulating and Dietary Magnesium and Risk of Cardiovascular Disease: A Systematic Review and Meta-analysis of Prospective Studies. American Heart Association - Nutrition, Physical Activity and Metabolism and Cardiovascular Disease Epidemiology and Prevention 2013 Scientific Sessions, March 2013, New Orleans, LA (co-author).

**de Oliveira Otto**, MC, Jacobs DR, Mozaffarian D, et al. Dietary Intakes of Saturated Fat and CVD: Results from the Multi-Ethnic Study of Atherosclerosis. American Heart Association - Nutrition, Physical Activity and Metabolism and Cardiovascular Disease Epidemiology and Prevention 2012 Scientific Sessions, March 2012, San Diego, CA (presenter).

Yamamoto K, Robinson-Cohen C, **de Oliveira Otto** MC, et al. Dietary Phosphorus Is Associated with Left Ventricular Mass: The Multi-Ethnic Study of Atherosclerosis, American Society of Nephrology, Kidney Week November 2011, Philadelphia, PA (co-author).

**de Oliveira** MC, Alonso A, Lee DH, et al. Dietary Micronutrients and Incident Metabolic Syndrome, Type II Diabetes and Cardiovascular Disease in the Multi-Ethnic Study of Atherosclerosis. American Heart Association - Nutrition, Physical Activity and Metabolism and Cardiovascular Disease Epidemiology and Prevention 2011 Scientific Sessions, March 2011, Atlanta, GA (presenter).

**de Oliveira** MC, Alonso A, Lee DH, et al. Associations of Dietary Intakes of Magnesium, Zinc and Antioxidants with Markers of Inflammation in the Multi-Ethnic Study of Atherosclerosis (MESA). A.C. Camargo Global Meeting in Translational Sciences, April 2010, Sao Paulo, Brazil (presenter).

**de Oliveira** et al. Uranium Accumulation in Bone and Marrow of Beagle Dogs: A Metabolic Interpretation. V Latinamerican Symposium on Nuclear Physics e XXVI Reunião de Trabalho sobre Física Nuclear no Brasil, October 2004, Santos, Brazil (presenter).

**de Oliveira** et al. Monitoring of Environmental Contamination and Addressing Health Risks Through the Analysis of Teeth by means of Nuclear Techniques. Fourth International Symposium on Nuclear and Related Techniques, August 2003, Havana, Cuba (presenter).

## TEACHING

2022–present PH2710. Epidemiology III, Lead Course Instructor. Spring Semester.  
Responsibility: 100%. University of Texas School of Public Health. 3 credit units.

2021–present PH2845. Nutritional Epidemiology I, Lead Course Instructor. Fall Semester.  
Responsibility: 100%. University of Texas School of Public Health. 3 credit units.

2019–2021 PH2615. Epidemiology II, Lead Course Instructor. Spring Semester.  
Responsibility: 100%. University of Texas School of Public Health. 3 credit units.

2014–2018 PH2615. Epidemiology II, Co-Instructor. Fall Semester. Responsibility: 50%.  
University of Texas School of Public Health. 3 credit units

## INVITED LECTURES AT UTHEALTH SCHOOL OF PUBLIC HEALTH

March 2019	Does consuming dietary cholesterol or eggs increase risk of cardiovascular disease and all-cause mortality? Public Health Nutrition.
November 2015	The impact of measurement error in nutritional epidemiology. Epidemiology I.
November 2014	The impact of measurement error in nutritional epidemiology. Epidemiology I.

## ADVISING

### Current MPH Advisees

Riya Ghosal	MPH in Epidemiology, Academic Advisor
Kassidy Hunt	MPH in Epidemiology, Academic Advisor
Annika Nambiar	MPH in Epidemiology, Academic Advisor
Hadiza Theyra-Enias	MPH in Epidemiology, Academic Advisor

### Current PhD student Advisees

Najha Marshall	Academic Advisor
Barbara Ebersole	PhD Academic Advisor, Mentor
Reginald Wills	Dissertation Committee Member
Mackenzie Senn	Dissertation Supervisor
Noveen Ausat	Academic Advisor

### Past MPH Advisees

Zoabe Hafeez	MPH in Epidemiology, Academic Advisor
Aqsa Imtiaz	MPH in Epidemiology, Academic Advisor
Sisan Tennyson	MPH in Epidemiology, Academic Advisor
Majda Zaied	MPH in Epidemiology, Academic Advisor
Maryam Ajose	MPH in Epidemiology, Academic Advisor
Aylin Diaz-Valladares	MPH in Epidemiology, Academic Advisor
William Lightle	MPH in Epidemiology, Academic Advisor
Connor Rollings	MPH in Epidemiology, Academic Advisor
Serena Foster	MPH in Epidemiology, Academic Advisor
Zoabe Hafeez	MPH in Epidemiology, Academic Advisor
Aqsa Imtiaz	MPH in Epidemiology, Academic Advisor
Talhatou Diallo	MPH in Epidemiology, Academic Advisor
Guillermo Tortolero	MPH Committee Member. Thesis title: Examining Social Vulnerability and Social Distancing and their Association to COVID-19 Incidence in Harris County, Texas
Hannah Burrows	MPH in Epidemiology, Academic Advisor

Roger Williams	MPH in Epidemiology, Academic Advisor
Jacklyn Asamoah	MPH in Epidemiology, Academic Advisor
Tanaya Deshpande	MPH in Epidemiology, Academic Advisor
Jeffrey Brennan	MS in Epidemiology, Academic Advisor. Thesis title: Utility of Plasma Biomarkers in the Validation of Reported LOC & PTA for GCS 13-15 Patients: A TRACK-TBI Pilot Study
Kaci French	MPH in Epidemiology, Academic Advisor
Zackary Becker	MPH in Epidemiology, Academic Advisor
Julie Miranda	MPH in Epidemiology, Academic Advisor

**Past Doctoral Advisees**

Esther Ngan	PhD Committee Member
Hadley Smith	PhD Committee. Dissertation title: Clinical Application of Genome and Exome Sequencing as a Diagnostic Tool for Pediatric Patients: A Scoping Review of the Literature
Holly McMillan	PhD Advisor
Jo Ann Monroy	Dissertation Supervisor
Ji Yun Tark	PhD Advisor, Dissertation Supervisor

**SERVICE**

**University of Texas School of Public Health**

2017–present	Member, UTHealth SPH Faculty Council
2020	Member, Stallones Lecture Organizing Committee
2020	Outside Reviewer, Preliminary Exam Committee, EGHES
2019	Reviewer, Sharma Scholarship Applications
2018	Reviewer CEPH Competencies for Epidemiology II
2018	Member Ad Hoc Committee, Faculty Compensation Plan
2018	Poster Evaluator, Research Day UTHealth School of Nursing
2018	Poster Evaluator, Research Day 2018 UTHealth School of Public Health
2016	Reviewer, EHGES Collaborative Mentoring Program
2017	Panel Moderator, Epidemiology I
2015	Reviewer, Preliminary Exam Committee Epidemiology

## **Professional Organizations**

- 2019–present      Member, Nutrition Committee of the Council on Lifestyle and  
Cardiometabolic Health of the American Heart Association
- 2019–present      Member, Lifestyle Scientific & Clinical Education Lifelong Learning  
Committee of the American Heart Association
- 2015–2019          Member, American Heart Association Early Career Committee
- 2016–2018          Chair, Writing Committee for the American Heart Association Advisory  
on Diet Diversity and Obesity

## **Grant & Abstract Review**

- 2018                  Reviewer, Strategic Plan for NIH Nutrition Research
- 2017–present      Abstract Reviewer, AHA Epidemiology and Prevention/Lifestyle and  
Cardiometabolic Health Scientific Sessions
- 2018                  Abstract Reviewer, Society of Epidemiologic Research Conference
- 2015–2016          Grant Reviewer, AHA Heart Failure Strategically Focused Research  
Network

## **Journal Editor**

- 2023–present      Member of the Editorial Board, Journal of the American Heart  
Association
- 2016–2018          Editor, Current Nutrition Reports

## **Manuscript Review**

*American Journal of Clinical Nutrition*

*British Medical Journal*

*Journal of Nutrition*

*European Journal of Nutrition*

*Public Health Nutrition*

*PLoS One*

*British Journal of Nutrition*

*Eating and Weight Disorders - Studies on Anorexia, Bulimia and Obesity*

## **Community Service**



### Local

Director, Crossroads Cultural Center Houston, a nonprofit organization offering opportunities for education in the greater Houston (2010–present).

Volunteer, The Lighthouse of Houston, a nonprofit organization providing service to blind and visually impaired individuals in the greater Houston (2015– 2021).

### National

Member, Advisory Committee for the New York Encounter, an annual cultural event in New York City offering opportunities for education, dialogue, and friendship.

## **PROFESSIONAL MEMBERSHIPS**

American Heart Association

Last updated 10/09/2023