
Marcia de Oliveira Otto, PhD., M.S.

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EDUCATION

June, 2014	Postdoctoral Fellowship, Department of Epidemiology, Harvard University, Boston, MA
February, 2012	Postdoctoral Fellowship, Division of Epidemiology, Human Genetics and Environmental Sciences, UTHealth School of Public Health, Houston, TX
December, 2010	PhD, Environmental Health, University of Texas School of Public Health Houston TX
April, 2005	M.S., Environmental Sciences, University of Sao Paulo, Brazil
July, 2002	B. S., Physics, University of Rio de Janeiro, Brazil

PROFESSIONAL EXPERIENCE

Research

Aug 2014 – present	Assistant Professor, Division of Epidemiology, Human Genetics and Environmental Sciences, UTHealth School of Public Health, Houston, TX
Feb 2012 – June 2014	Postdoctoral Fellow, Department of Epidemiology, Harvard University, Boston, MA
Jan 2011 – Feb 2012	Postdoctoral Fellow, Division of Epidemiology, Human Genetics and Environmental Sciences, UTHealth School of Public Health, Houston, TX
Jan 2009 - Dec 2010	Graduate Research Assistant, Division of Epidemiology, Human Genetics and Environmental Sciences, UTHealth School of Public Health, Houston, TX
May 2006 - Jan 2009	Graduate Research Assistant, Center for Nursing Research, UTHealth School of Nursing, Houston, TX
May - Aug 2008	Trainee Cancer Prevention Research Training Summer Program, The University of Texas MD Anderson Cancer Center, Houston, TX
Sept 2006 - April 2007	Graduate Research Assistant, Houston Exposure to Air Toxics Study (H.E.A.T.S.), Division of Occupational and Environmental Health Sciences. UTHealth School of Public Health, Houston, TX
Oct 2005 - April 2006	Graduate Research Assistant Environmental Health and Safety Program, UTHealth, Houston, TX

Teaching

- Aug 2014 - Present Field Research Methods in Epidemiology
Division of Epidemiology, Human Genetics and Environmental Sciences,
UTHealth School of Public Health, Houston TX
- Jan - Aug 2010 Graduate Teaching Assistant
Advanced Epidemiology, Spring semester, 2010
Fundamentals of Epidemiology, Summer 2010
Division of Epidemiology, Human Genetics and Environmental Sciences,
UTHealth School of Public Health, Houston TX
- May 2006 - Jan 2009 Graduate Teaching Assistant
Statistics in Nursing
Center for Nursing Research, UTHealth School of Nursing, Houston, TX

Peer-Reviewed Publications

de Oliveira Otto MC, Anderson CAM, Dearborn JL, Ferranti EP, Mozaffarian D, Rao G, Wylie-Rosett J, Lichtenstein AH. Dietary Diversity: Implications for Obesity Prevention in Adult Populations Dietary, a Science Advisory from the American Heart Association. *Circulation* 2018 138:e160-e168

de Oliveira Otto MC, Lemaitre RN, Sun Q, King IB, Wu JHY 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.

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 108:1-9

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
<https://doi.org/10.1007/s13668-018-0241-2>

Lai HTM, **de Oliveira Otto** MC, Lemaitre RN, McKnight B, Song X, King IB, Chaves PHM, Odden MC, Newman AB, Siscovick DS, Mozaffarian D. Serial circulating omega-3 polyunsaturated-fatty acids and healthy ageing in older adults: Cardiovascular Health Study. *British Medical Journal* 2018 <https://doi.org/10.1136/bmj.k4067>

Smith HS, Swint JM, Lalani SR, Yamal JM, **de Oliveira Otto** MC, Castellanos S, Taylor A, Lee BH, Russell HV. Clinical Application of Genome and Exome Sequencing as a Diagnostic Tool for Pediatric Patients: a Scoping Review of the Literature. *Genetics in Medicine*. 2018
<https://doi.org/10.1038/s41436-018-0024-6>

Mozaffarian, D.; Dashti, H.; Tanaka, T.; **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.

Hastert TA, **de Oliveira Otto MC**, Lê-Scherban F, Steffen BT, Steffen LM, Tsai MY, Jacobs DR Jr, Baylin A. 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* 2017 Nov 20. doi: 10.1038/ijo.2017.282;

Lopez, D.S. Liu, L, Rimm, E.B.; Tsilidis, K.K. **de Oliveira Otto, MC** et al. Coffee intake and incidence of erectile dysfunction. *American Journal of Epidemiology* 2017 Aug 23 doi: 10.1093/aje/kwx304

Wu, J. H.Y., Marklund, M.; Imamura, F. ; Tintle, N.; Ardisson, A.V.K.; Goede, J.; Zhou, X.; Yang, W.; **de Oliveira Otto M. C.** et al. Omega-6 Fatty Acid Biomarkers and Incident Type 2 Diabetes: A Pooled Analysis of 20 Cohort Studies. *The Lancet. Diabetes & Endocrinology*. 2017

Imamura, F., Micha, R., Wu, J.H., **de Oliveira Otto, M.C.** et al. 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.

de Oliveira Otto MC, Afshin A, Micha R, Khatibzadeh S, et al. The Impact of Dietary and Metabolic Risk Factors on Cardiovascular Diseases and Type 2 Diabetes Mortality in Brazil. *PLoS One*. 2016 Mar 18;11(3):e0151503.

de Oliveira Otto, MC; Padhye N., Bertoni, A., Jacobs, D.R., Mozaffarian, D. Everything in Moderation - Dietary Diversity and Quality, Central Obesity and Risk of Diabetes. *PLoS One* 2015 10(10): e0141341

Baer, D.J., Bradley, B.H.R., Kris-Etherton, P., Mente, A., **de Oliveira Otto, M.C.**; Insights and Perspectives on Dietary Modifications to Reduce the Risk of Cardiovascular Disease. *Adv Nutr* 2014 5: 553-55.

de Oliveira Otto, M.C.; Wu, J.H.Y., Baylin, A., Vaidya, D., Rich, S.S., Tsai, M.Y., Jacobs, Jr., D.R., Mozaffarian, D. Circulating and dietary omega-3 and omega-6 polyunsaturated fatty acids and incidence of CVD in the Multi-Ethnic Study of Atherosclerosis. *J Am Heart Assoc*. 2013 Dec 18;2(6):e000506. doi: 10.1161/JAHA.113.000506.

de Oliveira Otto, M.C., Nettleton, J.A., Lemaitre R., Steffen, L., Kromhout, D., Rich, S., Tsai, M., Jacobs, D.R., Mozaffarian, D. Biomarkers of dairy fatty acids and risk of cardiovascular disease in the Multi-Ethnic Study of Atherosclerosis. *J Am Heart Assoc*. 2013;2:e000092 doi: 10.1161/JAHA.113.000092.

Mozaffarian, D., **de Oliveira Otto, M.C.**, Lemaitre, R.N. 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

Mozaffarian, D.; Marchioli, R.; Wu, J.H.Y., **de Oliveira Otto, M.C.**, et al. Fish Oil and Post-Operative Atrial Fibrillation – A Meta-Analysis of Randomized Controlled Trials. *Journal of the American College of Cardiology* 2013 S0735-1097

Tanaka, T, Ngwa, J.S., Zillikens, M. C., van Rooij, F.J.A., Wojczynski, M.K., Dedoussis, G., Frazier-Wood, A.C., Houston, D.K., Kanoni, S., Lemaitre, R.N., Luan J., Mikkil, V., Renstrom, F., Sonestedt E., Zhao J.H., Chu, A., Qi, L.; Chasman, D., **de Oliveira Otto, MC** et al. Common genetic variants association with macronutrient intake: a meta-analysis of 12 cohorts. *Am J Clin Nutr* 2013 97(6):1395-402.

Del Gobbo, L.C., Imamura, F., Wu, J.H.Y., **de Oliveira Otto**, M.C., Chiuve, S. E., 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 Jul;98(1):160-73.

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, *Kidney International* 2013; 83(4):707-14.

de Oliveira Otto, MC, Jacobs, D.R.; Mozaffarian, D. et al. Dietary intake of saturated fat by food source and incident cardiovascular disease: the Multi-Ethnic Study of Atherosclerosis. *Am J Clin Nutr* 96:397-404 (2012).

de Oliveira Otto, MC, Alonso, A. Lee, D.H. 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, *Journal of Nutrition* 142: 526–533 (2012).

de Oliveira Otto, MC, Alonso, A. Lee, D.H. et al. Dietary Micronutrient Intakes Are Associated with Markers of Inflammation but Not with Markers of Subclinical Atherosclerosis. *Journal of Nutrition* 141: 1508–1515 (2011).

Arruda-Neto JD, **de Oliveira MC**, Sarkis JE et al. Study of environmental burden of lead in children using teeth as bioindicator. *Environment International* 2009 Apr;35(3):614-8.

Presented Abstracts

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. American Heart Association - Epidemiology and Prevention | Lifestyle and Cardiometabolic Health 2017 Scientific Sessions, March 2017, Portland, USA

de Oliveira Otto, MC; Padhye N., Bertoni, A., Jacobs, D.R., 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, USA

Singh G.M., **de Oliveira Otto**, M.C., 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, USA

de Oliveira Otto, MC; Nettleton, J.A., Lemaitre, R.L., 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, USA

Imamura, F., Micha, R., Wu, J.H., **de Oliveira Otto**, M.C. et al. Effects of saturated, polyunsaturated and monounsaturated fat on blood glucose, insulin sensitivity, and β 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, USA

Del Gobbo, L.C., Imamura, F., Wu, J.H.Y., **de Oliveira Otto**, M.C., Chiuve, S. E., 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, USA

de Oliveira Otto, MC, Jacobs, D.R.; 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, USA.

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, USA.

de Oliveira, MC, Alonso, A. Lee, D.H. 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, USA.

de Oliveira, MC, Alonso, A. Lee, D.H. 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.

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.

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.

Invited Lectures/ Scientific Presentations

“Preventing cardio-metabolic disease through diet: novel approaches from epidemiologic studies”. The Michael & Susan Dell Center for Healthy Living, August 2015, Austin, TX.

“Risk factors for cardiovascular disease in Brazil: Time trends and current status”. Expert Forum on health risk factors in Brazil, March 2015, Sao Paulo, Brazil.

“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, April 2014 San Diego, CA.

“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, December 2013, Brisbane, Australia

“Circulating and dietary seafood- and plant-derived polyunsaturated fatty acids and incidence of CVD in the Multi-Ethnic Study of Atherosclerosis”. American Heart Association - Nutrition, Physical Activity and Metabolism and Cardiovascular Disease Epidemiology and Prevention Scientific Sessions, March 2013, New Orleans, LA

“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, April 2012, Harvard School of Public Health, Boston, MA

“Use of Analogy in Innovative Thinking”. Innovative Thinking, Spring 2012, The University of Texas School of Nursing, Houston, TX

“Collinearity in multivariate models”. Advanced Epidemiologic Methods II, Fall 2006, The University of Texas School of Nursing, Houston, TX

“An introduction to SPSS”. Statistics in Nursing, Spring and Fall 2008, The University of Texas School of Nursing, Houston, TX

Grants and Fellowships

July 2017 – June 2020	Scientist Development Award, American Heart Association (\$210,000). Everything in moderation? Dietary diversity, diet quality and cardiovascular health. Role: PI
Feb 2018 – April 2021	NIH/NHLBI R01 grant entitled TMAO and Initiation, Extent, and Clinical Onset of Atherosclerotic CVD (\$130,000). Role: Co-investigator
Dec 2014 – June 2017	Research Supplement Grant, National Heart, Lung, and Blood Institute (\$270,000). Research grant to investigate the relationships between circulating fatty acids, cognitive health outcomes and mortality in older U.S. adults. Role: PI
2013	Harvard-Swiss Re Program in Global Health Research Fellowship (\$20,000). Research grant to investigate the impact of suboptimal diet and metabolic risk factors on mortality due to cardiovascular and metabolic disease in Brazil
2012	Harvard-Bunge Fellowship Program in Nutrition & Health, Harvard School of Public Health, Boston, MA
2011	UTHealth Innovation for Cancer Prevention Research Post-doctoral Fellowship

Honors

2016	Fellow of the American Heart Association
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2012 Harvard-Bunge Fellowship Program in Nutrition & Health, Harvard School of Public Health, Boston, MA

2012 Finalist, Outstanding Postdoctoral Research, Harvard University, Boston, MA

2011 UTHealth Innovation for Cancer Prevention Research Post-doctoral Fellowship

2010 G. Roger Florky Scholarship, The University of Texas School of Public Health, Houston, TX

SERVICE

2016 – present Editor, Diabetes and Obesity Section, Current Nutrition Reports

2017-2018 Chair, American Heart Association, Writing Committee for the Advisory on Diet Diversity and Obesity -

2017-present Abstract Reviewer, AHA Epidemiology and Prevention/Lifestyle and Cardiometabolic Health Scientific Sessions –

2018 Abstract Reviewer, Society of Epidemiologic Research Conference 2018

2015-2016 Reviewer, American Heart Association American Heart Association Heart Failure Strategically Focused Research Network

2015-present Member, American Heart Association. Liaison from the Lifestyle Early Career Committee to the AHA Nutrition Committee

2013 – present Reviewer, Peer-Reviewed Journals: Public Health Nutrition; PLoS One Journal of Nutrition; American Journal of Clinical Nutrition; European Journal of Nutrition; British Journal of Nutrition, Eating and Weight Disorders - Studies on Anorexia, Bulimia and Obesity

PROFESSIONAL ORGANIZATIONS

American Society for Nutrition

American Heart Association

Society for Epidemiologic Research