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University of Colorado at Boulder
Department of Integrative Physiology
Ramaley Biology Building, N379
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EDUCATION

- 2014 – 2018 **Postdoctoral Research Scholar, Environmental Health Sciences Center**
University of Southern California, Los Angeles, CA
- 2014 – 2015 **Postdoctoral Research Scholar, Childhood Obesity Research Center**
University of Southern California, Los Angeles, CA
- 2014 – 2015 **Ph.D., Integrative Biology of Disease**
University of Southern California, Los Angeles, CA
- 2001 – 2005 **B.A., Biology, Chemistry Minor, Concentration in Neuroscience**
University of Pennsylvania, Philadelphia, PA

PROFESSIONAL POSITIONS

- 2018 – present **Assistant Professor**
Department of Integrative Physiology
University of Colorado, Boulder, CO
- 2018 – present **Adjunct Assistant Professor**
Environmental Health Sciences Center
University of Southern California, Los Angeles, CA
- 2020 – present **Adjunct Assistant Professor**
Colorado School of Public Health
University of Colorado Anschutz, Denver, CO
- 2020 – present **Human Subject Research Advocate**
Clinical Translational Research Center (CTRC)
University of Colorado Boulder, Boulder, CO

AWARDS AND HONORS

- 2020 Outstanding Mentor Award (Honorable Mention)
University of Colorado Boulder, Undergraduate Research Opportunities Program (UROP)
- 2019 – 2021 NIH Loan Repayment Program
Clinical Research (NIEHS)
- 2019 Rosenblith New Investigator Award
Health Effects Institute (HEI)
- 2019 Innovation Lab on Data Science Challenges in Rural Health and Environmental Exposures, NIH Big Data to Knowledge (BD2K) Training Coordinating Center (TCC), Accepted Participant and Travel Award
- 2018 Outstanding Oral Presentation Award, Diabetes and Obesity Research (DORI) Symposium, Los Angeles, California

2016	Research Merit Travel Award Academic Pediatric Association
2016	Research Merit Travel Award University of Southern California
2016	Research Merit Travel Award International Society of Environmental Epidemiology
2016 – 2017	National Institutes of Health Postdoctoral Training Grant Fellowship (T32)
2015 – 2017	NIH Loan Repayment Program Minority Health and Health Disparities (NIMHD)
2015	Research Merit Travel Award World Obesity Federation
2015	Poster Award of Excellence The Obesity Society Annual Conference
2014	Myronis Endowed PhD Dissertation Completion Fellowship University of Southern California
2012	Ethan Sims Young Investigator Award Finalist The Obesity Society Annual Conference
2012	Travel Award to The National Institute of General Medical Sciences (NIGMS) Postdoctoral Workshop from the Federation of American Societies for Experimental Biology (FASEB)
2010 – 2011	Clinical Translational Science Institute (CTSI) TL1 Research Training Award University of Southern California

GRANTS: ACTIVE, PENDING, & COMPLETED

<u>Title and Source</u>	<u>Period</u>
ACTIVE	
“Air Pollutants and the Gut Microbiota and Metabolome During Early Life: Implications for Childhood Obesity”, HEI Rosenblith Award	2020 – 2023
“Near-Roadway and Ambient Air Pollution Exposure and the Gut Microbiome: Implications for Obesity and Insulin Resistance in Adolescence”, NIH NIEHS R00, Principal Investigator	2018 – 2021
“Exposure to Air Pollutants and Green Space: Implications for the Gut Microbiome and Metabolome in Adolescents Living in Denver, Colorado”, CU Boulder Seed Grant, Principal Investigator	2019 – 2022
“Environmental Chemical Exposures and Longitudinal Alterations in Glucose Metabolism, Insulin Sensitivity, and Beta-cell Function in Hispanic Children”, NIH NIEHS, Subcontract Co-Investigator	2019 – 2024
“Near-Roadway and Ambient Air Pollution Exposure and the Gut Microbiome: Implications for Obesity and Insulin Resistance in Adolescence”, NIH NIEHS Loan Repayment Program, Principal Investigator	2019 – 2021

PENDING

“Perfluoroalkyl Substances and the Gut Microbiome and Fecal Metabolome in Early Life: Implications for Obesity Risk in Hispanic Children”, **NIH NIEHS R01, Principal Investigator** 2021 - 2026

COMPLETED

“Near-Roadway Air Pollution Exposure and the Gut Microbiome During Pregnancy and Early Life: Implications for Childhood Obesity”, **USC Environmental Health Pilot Grant, Co-Principal Investigator** 2018 – 2019

“Indoor Particulate Matter and the Nasal and Gut Microbiota: Implications for Acute Lower Respiratory Tract Infection in Infants from Rural Bangladesh”, **USC Environmental Health Pilot Grant, Co-Principal Investigator** 2018 – 2019

National Institute of Environmental Health Sciences through a Ruth L. Kirschstein National Research Service Award (NRSA) Institutional Research Training Grant (T32), **NIH Postdoctoral Trainee** 2016 – 2017

“Effects of Air Pollution on the Development of Obesity in Children”, **NIH, Postdoctoral Trainee, *Contribution completed** 2015 – 2020*

“Pilot Project Traffic-Related Air Pollution & the Gut Microbiome: Implications for Childhood Obesity”, **USC Environmental Health Pilot Grant, Co-Principal Investigator** 2015 – 2016

“Probiotics for Improving Liver Fat and Gut Function in Obese Hispanic Youth”, **LK Whittier Foundation, Postdoctoral Research Scholar** 2014 – 2015

“The Study of Latino Adolescents at Risk (SOLAR)”, **NIH, Postdoctoral Research Scholar** 2014 – 2015

Ectopic Fat and Adipose Tissue Inflammation in Overweight and Obese African Americans and Hispanics”, **Myronis Endowed Fellowship, Graduate Student** 2013 – 2014

“The Study of Latino Adolescents at Risk (SOLAR)”, **NIH, Graduate Student** 2011 – 2013

Los Angeles Basin Clinical and Translational Science Institute (CTSI), **USC TL1 Predoctoral Trainee, Graduate Student** 2010 – 2011

“The Study of Latino Adolescents at Risk (SOLAR)”, **NIH, Graduate Student** 2008 – 2010

PEER-REVIEWED PUBLICATIONS

**Indicates undergraduate students or **graduate students that are/were under the direct supervision of Dr. Alderete.*

1. Bottjer SW, **Alderete TL**, Chang D. (2010) Conjunction of Vocal Production and Perception Regulates Expression of the Immediate Early Gene ZENK in a Novel Cortical Region of Songbirds. *J Neurophysiol.* 103(4):1833-42. PMID:20107119.

Assisted with experimental design, performed experiments, analyzed data, and contributed to manuscript preparation.

2. **Alderete TL**, Byrd-Williams CE, Toledo-Corral CM, Conti D, Weigensberg MJ, Goran MI. (2011) Relationships between IGF-1 and IGFBP-I and adiposity in obese African-American and Latino adolescents. *Obesity (Silver Spring)*. 19(5):933-8. PMID:20885383.
Developed the research question, collected data, performed analysis, created figures and tables, and wrote the manuscript.
3. Toledo-Corral CM, Davis JN, **Alderete TL**, Weigensberg MJ, Ayala CT, Li Y, Hodis HN, Goran MI. (2011) Subclinical atherosclerosis in Latino youth: Progression of carotid intima media thickness (CIMT) and its relationship to cardiometabolic risk factors. *J Pediatr*. 158(6):935-40. PMID21238987.
Collected data and assisted with analysis and manuscript preparation.
4. Lê KS, Mahurkar S, **Alderete TL**, Hasson R, Adam T, Kim JS, Beale E, Greenberg A, Allayee H, Goran MI. (2011) Subcutaneous adipose tissue macrophage infiltration is associated with ectopic fat deposition, hyperinsulinemia and stimulation of NF-kappa-B stress pathway. *Diabetes*. 60(11): 2802-9. PMID:22025778.
Helped to develop the research question, collected data, and assisted with the analysis and manuscript preparation.
5. **Alderete TL**, Gyllenhammer LE, Byrd-Williams CE, Spruijt-Metz D, Goran MI, Davis JN. (2012) Increasing Physical Activity Decreases Hepatic Fat and Metabolic Risk Factors. *J Exerc Physiol Online*. 2(15):40-54. PMID:23814454.
Conceived the research question, collected data, performed analysis, created figures and tables, and wrote the manuscript.
6. Toledo-Corral CM, **Alderete TL**, Hu HH, Nayak K, Esplana S, Liu T, Goran MI, Weigensberg MJ. (2013) Ectopic Fat deposition in prediabetic overweight and obese minority adolescents. *J Clin Endo Metab*. 98(3):1115-21. PMID:23386647.
Helped to develop the research question, collected data, and assisted with the analysis and manuscript preparation.
7. Walker RW, Lê KS, Davis J, **Alderete TL**, Cherry R, Lebel S, Goran MI. (2012) High rates of fructose malabsorption are associated with reduced liver fat in obese African Americans. *J Am Coll Nutr*. 31(5):369-74. PMID:23529994.
Collected data, assisted with analysis, helped to create figures, and contributed to manuscript preparation.
8. Walker RW, Sinatra F, Hartiala J, Weigensberg M, Spruijt-Metz D, **Alderete TL**, Goran MI, Allayee H. (2013) Genetic and clinical marker of elevated liver fat content in overweight and obese Hispanic children. *Obesity (Silver Spring)*. 21(12):E790-7. PMID:23804528.
Collected data, assisted with analysis, helped to create figures, and contributed to manuscript preparation.
9. Gyllenhammer LE, **Alderete TL**, Mahurka S, Allayee H, Goran MI. (2013) Adipose tissue 11BSD1 gene expression, B-cell function and ectopic fat in Obese African Americans versus Hispanics. *Obesity (Silver Spring)*. 22(1): 14-8. PMID:23836520.
Collected data, assisted with analysis, helped to create figures, and contributed to manuscript preparation.
10. **Alderete TL**, Toledo-Corral CM, Desai P, Weigensberg MJ, Goran MI. (2013) Liver Fat has a Stronger Association with Risk Factors for Type 2 Diabetes in African-American Compared to Hispanic Adolescents. *J Clin Endocrinol Metab*. 98(9):3748-54. PMID:23873990.
Conceived the research question, collected data, performed analysis, created figures and tables, and wrote the manuscript.
11. **Alderete TL**, Sattler FR, Sheng X, Tucci J, Mittelman SD, EG Grant, Goran MI. (2015) A Novel Biopsy Method to Increase Yield of Subcutaneous Abdominal Adipose Tissue. *Int J Obes (Lond)*. 39(1):183-6. PMID:24849392.

Was principal investigator, conceived the research question, designed the study, collected data, performed analysis, created figures and tables, and wrote the manuscript.

12. Toledo-Corral CM, **Alderete TL**, Richey J, Sequeira P, Goran MI, Weigensberg MJ. (2015) Fasting, post-OGTT challenge, and nocturnal free fatty acids in prediabetic vs. normal glucose tolerant overweight and obese Latino adolescents. *Acta Diabetologica*. 52(2):277-84. PMID:25109287.
Collected data, assisted with analysis, helped to create figures, and contributed to manuscript preparation.
13. **Alderete TL**, Sattler FR, Richey JM, Allayee H, Mittelman, SD, Sheng X, Tucci J, Gyllenhammer LE, Grant EG, Goran MI. (2015) Salsalate treatment improves glycemia without altering adipose tissue in non-diabetic obese Hispanics. *Obesity (Silver Spring)*. 23(3):543-51. PMID:25644856.
Was principal investigator, conceived the research question, designed the study, collected data, performed analysis, created figures and tables, and wrote the manuscript.
14. Kayser BD, Toledo-Corral CM, **Alderete TL**, Weigensberg MJ, Goran MI. (2015) Temporal relationships between adipocytokines and diabetes risk in obese Hispanic adolescents during puberty. *Obesity (Silver Spring)*. 23(7):1479-85. PMID:26046253.
Helped to develop the research question and assisted with manuscript preparation.
15. Gyllenhammer LE, **Alderete TL**, Toledo-Corral CM, Weigensberg MJ, Goran MI. (2016) Saturation of subcutaneous adipose tissue expansion and accumulation of ectopic fat associated with metabolic dysfunction during late and post-pubertal growth. *Int J Obes (Lond)*. 40(4):601-6. PMID:26443340.
Collected data, assisted with analysis, helped to create figures, and contributed to manuscript preparation.
16. **Alderete TL**, Autran C, Brekke BE, Knight R, Bode L, Goran MI, Fields A. (2016) Associations between human milk oligosaccharides and infant body composition in the first six months of life. *Am J Clin Nutr*. 102(6):1381-82. PMID:26511224.
Helped to conceive the research question, performed analysis, created figures and tables, and wrote the manuscript.
17. Gyllenhammer LE, Lam J, **Alderete TL**, Allayee H, Akbari O, Katkhouda N, Goran MI. (2016) Lower Omental T-reg Cell Count is Associated with Higher Fasting Glucose and Lower Beta-cell Function in Adults with Obesity. *Obesity (Silver Spring)*. 24(6):1274-82. PMID:27133873.
Collected data, assisted with analysis, helped to create figures, and contributed to manuscript preparation.
18. **Alderete TL**, Habre R, Toledo-Corral CM, Berhane K, Zhanghua C, Lurmann FW, Weigensberg MJ, Goran MI, and Gilliland FD. (2017) Longitudinal Associations Between Ambient Air Pollution with Insulin Sensitivity, B-Cell Function, and Adiposity in Los Angeles Latino Children. *Diabetes*. 66(7):1789-1796. PMID:28137791.
Conceived the research question, performed analysis, created tables, and wrote the manuscript.
19. Chen Z, Salam MT, **Alderete TL**, Habre R, Bastain T, Berhane K, and Gilliland FD. (2017) Effects of Childhood Asthma on the Development of Obesity among School-aged Children. *Am J Respir Crit Care Med*. 195(9):1181-1188. PMID: 28103443.
Assisted with analysis, figures, and manuscript preparation.
20. Goran MI, Martin A, Alderete TL, Fujiwara H, Fields D. (2017) Fructose in breast milk is positively associated with infant body composition at 6 months of age. *Nutrients*. 16(9). PMID: 28212335.
Helped to conceive the research question, assisted with analysis, figures, tables, and manuscript preparation.
21. Toledo-Corral CM^a, **Alderete TL**^a, Habre R, Berhane K, Lurmann FW, Weigensberg MJ, Goran MI, and Gilliland FD. (2018) Effects of air pollution exposure on glucose metabolism in Los Angeles minority youth. *Pediatric Obesity*. 13(1):54-62. PMID:27923100.
^a*Co-first author. Helped to conceive the research question, performed analysis, created figures and tables, and co-wrote the manuscript.*

22. **Alderete TL**, Song A, Bastin T, Habre R, Toledo-Corral CM, Salam MT, Lurmann F, Gilliland FD, Breton CV. (2018) Prenatal Traffic-Related Air Pollution Exposures, cord blood adipokines and infant weight. *Ped. Obesity*. 13(6):348-356. PMID: 29098799.
Conceived research question, conducted analysis, assisted with tables, and wrote the manuscript.
23. Goran MD, Riemer SL, **Alderete TL**. (2018) Simplified and age-appropriate recommendation for added sugars in children. *Ped. Obesity*. 13(4):269-272. PMID: 28921869.
Helped to conceive the research question, assisted with analysis, and manuscript preparation.
24. **Alderete TL**, Jones RB, Chen Z, Kim JS, Habre R, Lurmann F, Gilliland FD, Goran MI. (2018) Exposure to traffic-related air pollution and the composition of the gut microbiota in overweight and obese adolescents. *Environ Res*. 161:472-478. PMID: 29220800.
Was principal investigator, conceived the research question, designed the study, collected data, performed analysis, created figures and tables, and wrote the manuscript.
25. Jones RB, **Alderete TL**, Martin AA, Geary BA, Hwang DH, Palmer SL, Goran MI. (2018) Probiotic supplementation increases obesity with no detectable effects on liver fat or gut microbiota in obese Hispanic adolescents: a 16-week, randomized, placebo-controlled trial. *Ped. Obesity*. 13(11):705-714. PMID: 29493105.
Was co-investigator, helped to conceive the research question, design the study, collect data and analyze data, and write the manuscript.
26. Kim JS, **Alderete TL**, Chen Z, Lurmann F, Rappaport E, Habre R, Berhane K, Gilliland FD. (2018) Longitudinal associations of in utero and early life near-roadway air pollution with trajectories of childhood body mass index. *Environ Health*. 17(1):64. PMID: 30213262.
Helped to conceive the research question, assisted with analysis, and manuscript preparation.
27. Chen Z, Herting MM, Chatzi L, Belcher BR, **Alderete TL**, McConnell RS, Gilliland FD (2018). Regional and traffic-related air pollutants are associated with higher consumption of fast food and trans-fat among adolescents. *Am J Clin Nutr*. 109(1):99-108. PMID: 30596809.
Assisted with analysis, figures, tables, and manuscript preparation.
28. **Alderete TL**^a, Jin R^a, Walker D^a, Valvi D, Chen Z, Jones D, Peng C, Gilliland FD, Berhane K, Conti D, Goran MI, Chatzi L, McConnell RS, Gilliland FD. (2019) Exposure to Perfluoroalkyl Substance and Longitudinal Alteration in Glucose Metabolism among Overweight and Obese Hispanic Children: A Metabolomics Approach. *Environ Int*. 126:445-53. PMID: 30844580.
^a*Co-first author. Helped to conceive the research question, performed analysis, created figures and tables, and co-wrote the manuscript.*
29. Jones RB, **Alderete TL**, Kim JS, Millstein J, Gilliland FD, Goran MI. (2019) High intake of dietary fructose in teenagers associated with depletion of Eubacterium and Streptococcus in gut microbiome. *Gut Microbes*. [Epub ahead of print]. PMID: 20991877.
Assisted with analysis, figures, tables, and manuscript preparation.
30. Chen Z, Newgard CB, Kim JS, Ilkayeva O, **Alderete TL**, Thomas DC, Berhane K, Breton C, Chatzi L, Bastain TM, McConnell R, Avol E, Lurmann F, Muehlbauer M, Hauser ER, Gilliland FD. (2019) Near-roadway Air Pollution Exposure and Altered Fatty Acid Oxidation Among Adolescents and Young Adults – the Interplay with Obesity. *Environ Int*. 130:104935. PMID: 31238265.
Assisted with figures, tables, and manuscript preparation.
31. Berger PK, Plows JF, Jones RB, Pollock NK, **Alderete TL**, Goran MI. (2019) Maternal Blood Pressure Mediates the Associations Between Maternal Obesity and Infant Weight Gain in Early Postpartum. *Pediatric Obesity*. 14(11):e12560. PMID: 31297972.
Assisted with analysis, tables, and manuscript preparation.
32. Kim JS, Chen Z, **Alderete TL**, Toledo-Corral CM, Berhane K, Gilliland FD. (2019) Associations of Air Pollution, Obesity and Cardiometabolic Health in Young Adults: The Meta-AIR Study. *Environment International*. 14;133(Pt A):105180. PMID: 31622905.
Assisted with data collection, analysis, tables, and manuscript preparation.

33. Berger P, Plows JF, Jones RB, **Alderete TL**, Yonemitsu C, Poulsen M, Ryoo JH, Peterson BS, Bode L, Goran MI. (2020) Human milk oligosaccharide 2'-fucosyllactose links feedings at 1 month to cognitive development at 24 months in infants of normal and overweight mothers. *PLoS One*. 15(2):e0228323. PMID: 32049968
Assisted with manuscript preparation.
34. **Alderete TL**, Wild LE*, Mierau SM*, Bailey MJ*, Patterson WB**, Berger PK, Jones RB, Plows JF, Goran MI. (2020) Added sugar and sugar-sweetened beverages are associated with increased postpartum weight gain and soluble fiber intake is associated with postpartum weight loss in Hispanic women from Southern California. *AJCN* 112(3):519-526. PMID: 32597935.
Conceived the research question, assisted with protocol development, data collection and interpretation, conducted the analysis, and wrote the manuscript.
35. Fouladi F, Bailey MJ*, Patterson WB**, Sioda M, Blakley IV, Fodor AA, Jones RB, Chen Z, Kim JS, Lurmann F, Martino C, Knight R, Gilliland FD, **Alderete TL**. (2020) Air Pollution Exposure is Associated with the Gut Microbiome as Revealed by Shotgun Metagenomic Sequencing. *Environ Int.*138. PMID: 32135388.
Was principal investigator, conceived the research question, designed the study, collected data, assisted with analysis, and co-wrote the manuscript.
36. Berger PK, Plows JF, Jones RB, **Alderete TL**, Rios C, Pickering TA, Fields DA, Bode L, Peterson BS, Goran MI. (2020) Associations of maternal fructose and sugar-sweetened beverage and juice intake during lactation with infant neurodevelopment outcomes at 24 months. *AJCN*. Online ahead of print. PMID: 33020800.
Assisted with protocol development, data collection and interpretation, and manuscript preparation.
37. Jones RB, Berger PK, Plows FJ, **Alderete TL**, Milstein J, Fogel J, Iablokov SN, Rodionov DA, Osterman AL, Bode L, Goran MI. (2020) Lactose-reduced infant formula with added corn syrup solids is associated with distinct gut microbiota in Hispanic infants. *Gut Microbes*.12(1). PMID: 32887539.
Assisted with protocol development, data collection and interpretation, and manuscript preparation.
38. Plows JF, Berger PK, Jones RB, Yonemitsu C, Ryoo JH, **Alderete TL**, Bode L, Goran MI. (2020) Associations between human milk oligosaccharides (HMOs) and eating behavior in Hispanic infants at 1 and 6 months of age. *Pediatr Obes*. e12686. PMID: 32321402.
Assisted with protocol development, data collection, and manuscript preparation.
39. Berger PK, Plows JF, Jones RB, **Alderete TL**, Yonemitsu C, Ryoo JH, Bode L, Goran MI. Human Milk Oligosaccharides and Hispanic Infant Weight Gain the First 6 Months. (2020). *Obesity*. 28(8):1519-1525. PMID: 32935530.
Assisted with protocol development, data collection and interpretation, and manuscript preparation.
40. Chen Z, Yang T, Walker DI, Thomas DC, Qiu C, Chatzi L, **Alderete TL**, Kim JS, Conti DV, Breton CV, Liang D, Hauser ER, Jones DP, Gilliland FD. (2020) Dysregulated lipid fatty acid metabolism link perfluoroalkyl substances exposure and impaired glucose metabolism in young adults. *Environ Int.*145:106091. PMID: 32892005.
Assisted with protocol development, data collection and interpretation, and manuscript preparation.
41. Wild LE*, **Alderete TL**, Naik NC, Patterson WB**, Berger PK, Jones RJ, Plows JF, Goran MI. (2020) Specific amino acids but not total protein attenuate postpartum weight gain among Hispanic women from Southern California. *Food Sci & Nutri*. In press, accepted Dec 2020.
Conceived the research question, assisted with protocol development, data collection and interpretation, assistant with the analysis, and co-wrote the manuscript.

REVIEWS AND BOOK CHAPTERS

**Indicates undergraduate students or **graduate students that are/were under the direct supervision of Dr. Alderete.*

42. Goran MI, **Alderete TL**. (2010) Targeting Adipose Tissue Inflammation to Treat the Underlying Basis of the Metabolic Complication of Obesity. *Obesity Treatment: Challenges and Opportunities*. Nestlé Nutr Inst Workshop Ser. 73:49-60. PMID: 23128765.
43. **Alderete TL**, Toledo-Corral CM, Goran MI. (2014) Metabolic Basis of Ethnic Differences in Diabetes Risk in Overweight and Obese Youth. *Curr Diab Rep*. 14(2):455. PMID: 24445905.
44. Toledo-Corral CM, **Alderete TL**, Goran MI. (2015) Obesity-associated dyslipidemia and its association to insulin resistance, ectopic fat, and atherosclerosis. *Lipid Management (Springer publishing)* XIV.
45. **Alderete TL**^a, Chen Z^a, Toledo-Corral CM^a, Contreras ZA, Kim JS, Habre R, Chatzi L, Bastain T, Breton CV, Gilliland FD. (2018) Ambient and Traffic-Related Air Pollution Exposures as Novel Risk Factors for Metabolic Dysfunction and Type 2 Diabetes. *Current Epidemiology Reports*. 5(2): 79-91. ^a*Co-first author*. PMID: 30319933.
46. Bailey MJ*, Naik NN*, Wild LE*, Patterson WB**, **Alderete TL**. (2020) Exposure to Air Pollutants and the Gut Microbiota: A Potential Link Between Exposure, Obesity, and Type 2 Diabetes. *Gut Microbes*. 2;11(5): 1188-1202. PMID: 32347153.

PUBLISHED ABSTRACTS AND POSTERS

**Indicates undergraduate students or **graduate students that are/were under the direct supervision of Dr. Alderete.*

1. **Alderete TL**, Toledo-Corral CM, Ventura EE, Byrd-Williams CE, Davis JN, Lane CJ, Weigensberg MJ, Goran MI, Higher risk factors for type 2 diabetes in severely obese Hispanics youth independent of body composition and fat distribution. *Obesity*. 17(suppl2):S191, 2009.
2. Toledo-Corral CM, Davis JN, **Alderete TL**, Weigensberg MJ, Ayala CT, Li Y, Hodis HN, Goran MI, Subclinical atherosclerosis in Latino youth: Progression of carotid intima media thickness (CIMT) and its relationship to cardiometabolic risk factors. *Obesity*. 8 (suppl2):S215, 2010.
3. **Alderete TL**, Byrd-Williams CE, Toledo-Corral CM, Conti D, Weigensberg MJ, Goran MI, Subcutaneous abdominal adipose tissue (SAAT) and hepatic fat fraction (HFF) explain higher insulin-like growth factor (IGF)-1 and IGF binding protein-1 levels in obese African-Americans compared to obese Latino teenagers. *Obesity*. 18 (suppl2):S220, 2010.
4. **Alderete TL**, Toledo-Corral CM, Chang C-C, Weigensberg MJ, and Goran MI, Longitudinal changes in adiposity predict Insulin-like Growth Factor (IGF)-I and IGF Binding Proteins (BP)-3 in overweight Latino adolescents. *Obesity*. 19 (suppl1):S221, 2011.
5. **Alderete TL**, Toledo-Corral CM, Weigensberg MJ, Goran MI, Liver Fat Not Visceral Fat Drives Insulin Resistance and Dyslipidemia Among Obese Hispanic Youth. *Diabetes*. 61(S1):A510, 2012.
6. Kayser BD, Toledo-Corral CM, **Alderete TL**, Weigensberg MJ, Goran MI, The Associations Between Blood Neutrophils, Lymphocytes, and Monocytes with Changes in Percent Body Fat (BF%) are Distinctly Modified by Pubertal Stage in Overweight Latino Adolescents. *Endocr Rev*. 34:SUN-693, 2013.
7. Jimenez M, **Alderete TL**, Goran MI, Weigensberg MJ, Toledo-Corral CM, Decreased beta-cell Function in overweight Latino youth within normal fasting glucose parameters. *Endo. Prac*. 20(1):37A, 2014.

8. **Alderete TL**, Toledo-Corral CM, Weigensberg MJ, Goran MI, Pancreatic Fat, Independent of Subcutaneous, Visceral and Liver Fat, Explains Elevated Risk for Metabolic Disease in African Americans but Not Hispanics. *Endo. Prac.* 20(1):34A, 2014
9. **Alderete TL**, Toledo-Corral CM, Gyllenhammer LE, Goran MI, Gut Bacterial Translocation Interacts with PNPLA3 Genotype to Predict Elevated Liver Fat Among Hispanic Children. *Diabetes and the Microbiome Research Symposium.* 33, 2014.
10. **Alderete TL**, Toledo-Corral CM, Gyllenhammer LE, Goran MI, Gut Bacterial Translocation is Associated with Increased Adiposity and Further Related to Elevated Liver Fat in Overweight and Obese Hispanic Children with GG PNPLA3 Variants. *The Obesity Society Annual Meeting at Obesity Week.* TLB-2040-P, 2014.
11. **Alderete TL**, Knight R, Aufran C, Brekke BE, Bode L, Goran MI, Associations Between Human Milk Oligosaccharides and Infant Body Composition in the First Six Months of Life. *The Obesity Society Annual Meeting at Obesity Week. Special Pediatric Obesity Section Blitz Presentation and Poster.* T-P-356, 2015.
12. Goran MI, Noble E, Fodor A, Jones R, **Alderete TL**, Martin A, Kanoski S. Effects of Dietary Sugars on Gut Microbiome and Cognitive Function in a Rat Model. *Food-Microbiome Interaction: Implications for Health & Disease.* Blitz Presentation and Poster, 2016.
13. **Alderete TL**, Jones R, Chen Z, Kim J, Lurmann F, Habre R, Gilliland FD, Goran MI. Traffic-Related Air Pollutants are Associated with the Gut Microbiota in Adolescents. *Keystone Symposia: Gastrointestinal Control of Metabolism.* Poster. 1001, 2017.
14. **Alderete T**, Habre R, Toledo-Corral C, Chen Z, Berhane K, Lurmann F, Weigensberg M, Goran M, Gilliland F. The longitudinal effects of ambient air pollution exposure on obesity and risk factors for type 2 diabetes in Los Angeles Latino children. *ISEE Conference Abstracts Volume 2016, Issue 117.*
15. **Alderete T**, Jen R, Walker D, Valvi D, Berhane K, Gilliland F, Goran M, Chatzi L. Exposure to Perfluoroalkyl Substances and Longitudinal Alteration in Glucose Metabolism among Overweight and Obese Hispanic Children: A Metabolomics Approach. *ISEE Conference Abstracts Volume 2018, Issue 124.*
16. Chen Z, Walker D, Kim J, **Alderete T**, Chatzi L, Jones D, Pereira M, Conti D, Thomas D, Hauser E, Gilliland F. Exposures to Traffic-Related Air Pollutants are Associated with Changes in Amino Acid Metabolism. *ISEE Conference Abstracts Volume 2018, Issue 124.*
17. **Alderete TL**, Jin Ran, Walker DI, Valvi D, Chen Z, Jones DP, Peng C, Gilliland FD, Berhane K, Conti DV, Goran MI, Chatzi L. Exposure to Perfluoroalkyl Substances and Longitudinal Alterations in Glucose Metabolism among Overweight and Obese Hispanic children: A Metabolomics Approach. *Gordon Research Conference on Metabolomic and Human Health, 2019, poster.*
18. **Alderete TL**, Fouladi F, Sioda M, Fodor A, Blakley I, Knight R, Chen Z, Kim J, Gilliland F. Exposure to Ambient Air Pollutants is Associated with the Composition of the Gut Microbiome in Adolescents from Southern California. *ISEE Conference Abstracts Volume 2019, Digital Print.*
19. Patterson WB**, Glasson J*, Naik NC*, Kazemian E, Jones RB, Berger PK, Plows JF, Minor HA, Lurmann F, Goran MI, **Alderete TL**. Prenatal Exposure to Ambient Air Pollutants and Early Infant Growth and Adiposity in the Southern California Mother's Milk Study. *ISEE Conference Abstracts Volume 2020, Digital Print.*
20. Fouladi F, Patterson WB**, Kazemian E, Fodor A, Knight R, Gilliland FD, Kim J, Lurmmann F, Chatzi L, Chen Z, **Alderete TL**. The Gut Microbiome Contributes to the Association Between Ozone Exposure and Fatty Acid Oxidation. *ISEE Conference Abstracts Volume 2020, Digital Print.*
21. Goodrich JA, Margetaki K, Hu X, **Alderete TL**, Walker DL, Valvi D, Gilliland FD, Chen Z, Berhane K, Jones DP, Goran MI, Conti DV, Chatzi L. Exposure to perfluoroalkyl substances is associated with impaired glucose homeostasis in Hispanic youth. *ISEE Conference Abstracts Volume 2020, Digital Print.*

22. Riseberg E, James K, Wooding M, Melamed R, **Alderete TL**, Corlin L. Multipollutant, longitudinal analysis of the associations between urinary tungsten and incident diabetes in a rural population. ISEE Conference Abstracts Volume 2020, Digital Print.
23. Chen Z, Yang T, Walker DI, Thomas DC, Qiu C, Chatzi L, **Alderete TL**, Kim JS, Conti DV, Breton CV, Liang D, Hauser ER, Jones DP, Gilliland FD. Dysregulated lipid fatty acid metabolism link perfluoroalkyl substances exposure and impaired glucose metabolism in young adults. ISEE Conference Abstracts Volume 2020, Digital Print.
24. Riseberg E, Woodin M, Melamed R, Alderete TL, James KA, Corlin L. Sex as an Effect Modifier of the Association Between Co-Exposure to Multiple Toxic Metals and the Risk of Type 2 Diabetes. BIRCWH Meeting: Building Interdisciplinary Research Careers in Women's Health 2020, Journal of Women's Health. 29(12):A11 (1 page).

INVITED PRESENTATIONS

International

- 2015 "Impact of Dietary Sugars on the Gut-Liver Axis in Obese Latino Children". The Rank Prize Funds. Mini-Symposium on Nutrition and Obesity, Grasmere, United Kingdom.
- 2015 "Increased Sugary Beverage Consumption is Related to Alterations in the Systemic Microbiome of Overweight and Obese Hispanic Children". *World Obesity Federation; Dietary Sugars, Obesity and Metabolic Disease Risk*, Berlin, Germany.
- 2016 "Longitudinal Effects of Ambient Air Pollution Exposure on Obesity and Risk Factors for Type 2 Diabetes in Los Angeles Latino Children". International Society of Environmental Epidemiology Annual Meeting, Rome, Italy.
- 2018 "Exposure to Perfluoroalkyl Substances and Longitudinal Alterations in Glucose Metabolism Among Overweight and Obese Hispanic Children: A Metabolomics Approach". *International Society of Environmental Epidemiology Annual Meeting*, Ottawa, Canada

National

- 2011 "From Undergrad to Graduate School". USC McNair Scholar's Program, Los Angeles, CA.
- 2012 "Liver Fat Not Visceral Fat Drives Insulin Resistance Among Obese African American and Hispanic Youth with a Greater Impact of Liver Fat in African Americans". Ethan Sims Young Investigator Award Finalist, *The Obesity Society Annual Meeting*, San Antonio, Texas.
- 2014 "Life After the Career Development Training Program". *SC CTSI Career Development Seminar*, Los Angeles, California.
- 2016 "Adverse Effects of Ambient Air Pollution Exposure on Obesity and Risk Factors for Type 2 Diabetes". *National Institute of Environmental Health Sciences FEST*, Durham, North Carolina.
- 2017 "Adverse Effects of Longitudinal Ambient Air Pollution Exposure on Obesity and Risk Factors for Type 2 Diabetes in Los Angeles Latino children". *Academic Pediatric Association 14th Annual Environmental Health Scholars Retreat*, Arlington, Virginia.
- 2018 "Novel Risk Factors for Type 2 Diabetes in Overweight and Obese Youth", *Bioinformatics Research Meeting*, University of North Carolina at Charlotte, Charlotte, North Carolina
- 2018 "Air Pollution Exposure, Type 2 Diabetes, and the Gut Microbiome". *Microbiome & Metabolomics Research Meeting*, University of California San Diego, San Diego, California

- 2018 “Exposure to Air Pollutants and the Composition of the Gut Microbiota in Adolescents”. *Diabetes and Obesity Research (DORI) 5th Annual Research Symposium*, Los Angeles, California.
- 2019 “Exposure to Air Pollutants and Risk Factors for Type 2 Diabetes in Overweight and Obese Youth”. *Lifecourse Epidemiology of Adiposity and Diabetes (LEAD) Center Seminar Series*, Colorado School of Public Health, University of Colorado Denver, Denver, Colorado.
- 2019 “Obesity and Type 2 Diabetes in Children”. *Health Effects Institute (HEI)*, Seattle, Washington.
- 2019 “Exposure to Air Pollutants and Green Space: Implications for the Gut Microbiome and Fecal Metabolome”. *Reaching Diverse and Understudied Groups in Multimodal Studies*. Aurora, Colorado. Presented by William Patterson (Graduate Student).
- 2020 “Near-Roadway and Ambient Air Pollution Exposure and the Gut Microbiome: Implications for Obesity and Type 2 Diabetes” Nation Jewish Medical Center, Denver, Colorado.
- 2021 “The Gut Microbiome as a Link Between Environmental Exposures and Human Health”, USC Center for Translational Research on Environmental Health, University of Southern California and Children’s Hospital of Los Angeles, Los Angeles, CA
- 2021 “Environmental Exposures and the Human Gut Microbiome: Implications for Obesity and Type 2 Diabetes,” NIEHS Xenobiotics and Microbiome Workshop (*scheduled for February 2021 – over 1,000 currently registered*)

SELECTED MEDIA RELATIONS/PUBLIC EDUCATION

- 2015 Endocrine Today
“Salsalate improves glycemia in obese Hispanics without adipose tissue changes”
- 2015 Keck School of Medicine New Release
“Factors in breast milk may play a role in transmission of obesity”
- 2015 The Daily Telegraph
“Breastfeeding mums could be setting kids up for obesity”
- 2015 The Scientist
“Breast Milk and Obesity: A study links components of a mother’s milk to her infant’s growth”
- 2018 The Atlantic
“A Frightening New Reason to worry about Air Pollution”
- 2018 The Guardian
“Childhood Obesity Linked to Air Pollution from Vehicles”
- 2018 Environmental Health Perspectives Science Selection
“Prelude to Diseases? PM_{2.5} and Markers of Diabetes Risk in Nondiabetic Adults”
- 2017 Keck School of Medicine New Release
“Air pollution linked to heightened risk of Type 2 diabetes in obese Latino children, study finds”
- 2017 NBC News
“Study: Air Pollution Is Linked to Diabetes in Overweight Latino Children”
- 2017 Science Daily
“Air Pollution Is Linked to Heightened Risk of Type 2 Diabetes in Obese Latino Children”
- 2019 “Diabetes in Latino kids linked to air pollution – research”
Welston Journal
- 2020 CU Boulder Today

	“Can the brown cloud make you gain weight?”
2020	Yahoo News “Air pollution could cause obesity and chronic disease by changing the gut microbiome: study”
2020	Science Daily “Can poor air quality make you gain weight? Study shows pollution harms gut bacteria, contributes to diabetes, obesity”
2020	CBS Denver Channel 4 “CU Study: Denver Area Air Pollution Might Increase Obesity”

TEACHING CONTRIBUTIONS

University Courses:

University of Colorado, Boulder, CO

2018	IPHY2800 Introduction to Statistics (Fall) Professor, one week of guest lectures for two sections
2019	IPHY2800 Introduction to Statistics (Spring) Professor, 51 undergraduate students
2019	IPHY6830 Professional Skills (Fall) Guest Speaker
2020	IPHY2800 Introduction to Statistics (Spring) Professor, 68 undergraduate students
2020	IPHY5900 Graduate Seminar: Data Literacy in Biomedical Research (Fall) Guest Speaker students
2021	IPHY3280 Introduction to Data Science (Spring) Professor, <i>estimated</i> 75-100 undergraduate students

University of Southern California, Los Angeles, CA

2011	McNair Scholars Program. Teaching Assistant, Research Methods, 12 undergraduate students.
2017	Speaker Keck Medical School. Toxicology Graduate Course. “Environmental Exposures and Risk Factors for Type 2 Diabetes in Overweight and Obese Youth”.

California State University, Los Angeles, CA

2016	Speaker. Epidemiology Undergraduate Course. “Metabolic Diseases and Health Disparities”.
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Advisory and Supervisory Responsibilities (Primary Mentor):

University of Colorado, Boulder, CO

Current and Past Undergraduate Trainees:

*(HT) indicates result of undergraduate student honors thesis under supervision of Dr. Alderete

*(UR) indicates result of undergraduate research opportunities program (UROP) under Dr. Alderete

*(BSI) indicates results of Biological Sciences Initiative under Dr. Alderete

2018 – 2020	Maximillian Bailey, Undergraduate Research Assistant *(UR) and McNair Scholar
2018 – 2020	Laura Wild, Undergraduate Research Assistant
2019 – 2020	Savannah Mierau, Undergraduate Research Assistant *(UR)
2019 – present	Noopur Naik, Undergraduate Research Assistant *(HT) *(UR)
2019 – present	Zach Morgan, Undergraduate Research Assistant *(UR)

2020 – present Didi Trifonova, Undergraduate Research Assistant ***(BSI)**
2020 – present Bailey Cox, Undergraduate Research Assistant

Current and Past Post-Baccalaureate Trainees:

2019 – 2020 Jessica Glasson, Postbaccalaureate Program
2020 – present Kevin Clark, Postbaccalaureate Program

Current Supervised Trainees:

2019 – present William Patterson, Ph.D. Dissertation Primary Mentor
2020 – present Maximillian Bail, Master’s Program Thesis Primary Mentor

Committee Membership (Not Primary Mentor):

2020 – present Dana Withrow, Ph.D. Dissertation (Primary Mentor: Kenneth Wright)
2020 Samuel Bennion, M.S. (Primary Mentor: Matt McQueen)
2020 Marko Melnick, M.S. (Primary Mentor: Chris Link)

University of Southern California, Los Angeles, CA

Past Trainees:

*(MP) indicates result of master’s practicum under supervision of Dr. Alderete

2014 Kimberly Chen, ***(MP)** Master’s Public Health Practicum. “Targeting Adipose Tissue Inflammation in Obese Hispanic Young Adults”.
2015 Benjamin Brekke, ***(MP)** Master’s Public Health Practicum. “Breast Milk and Infant Growth and Body Composition”.
2015 Karren Wong, ***(MP)**, Master’s Public Health. “Metabolic Effects of Air Pollution Exposure”.
2015 – 2016 Jeffery Cruz, ***(MP)** University of Southern California, Master’s Public Health, “Air Pollution Exposure and the Gut Microbiome”.
2016 Kelly Liu, ***(MP)** Master’s Public Health in Biostatistics, “Systemic marks of inflammation and ambient air pollution exposure in Latinos”.

Past Post-Baccalaureate Trainees:

2012 – 2013 Preeya Desai, “Liver Fat and Risk for Type 2 Diabetes in Minority Youth

Supervised Trainees (Not Primary Mentor):

2015 – 2019 Jeniffer Kim (USC Environmental Health), Ph.D. Thesis Mentor

SERVICE CONTRIBUTIONS

University of Colorado, Boulder, CO

2018 Undergraduate Research Opportunities Program (UROP) Symposium, Host of Integrative Physiology Interest Table
2018 – 2019 Health Professional Residential Academic Program (seminar series/lab tours)
2018 – present Ad-hoc Primary Unit Evaluation Committee
2018 – present Center for Microbial Exploration Core Faculty Member
2018 – present BioFrontiers Council Member

2019	McNair Scholar 3MT Competition Judge
2019 – 2020	IPHY Search Committee (Tenure-Track Assistant Professor)
2019 – present	University of Colorado Boulder, Student Government, Diversity and Inclusion Faculty Advisor
2019 – present	Founder and Co-Director of Promoting Integrative Collaboration and Science (PiCS) Meetings
2019 – present	Public Health Certificate Committee Member
2019 – present	Member of Colorado Consortium for Air Pollution, Climate Change, and Health
2019 – present	Integrative Physiology Undergraduate Research Symposium Committee
2019 – present	McNair Scholar Application Review Committee
2019 – present	Integrative Physiology Statistics Course Committee
2019 – present	Colorado Nutrition Obesity Research Center (NORC) Member
2019 – present	Faculty Advisory Committee for Boulder-Anschutz Research Collaboration
2020 – present	University of Colorado, Cardiovascular Institute (CU-CVI) Associate Investigator
2020 – present	Department of Integrative Physiology Executive Committee (EC) Member
2020 – present	University of Colorado Boulder Intuitional Review Board (IRB) Member

National:

Mount Sinai School of Medicine, New York City, NY

2018	Grant Reviewer, NIEHS P30, Mount Sinai Transdisciplinary Center on Early Environmental Exposures
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Puerto Rico Science, Technology, & Research Trust

2019	Grant Reviewer, Advanced Research Grant (ARG) Proposals
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University of Colorado Boulder

2020	Grant Reviewer, Research and Innovation Seed Grant
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NIH Environmental Influences on Child Health Outcomes (ECHO) Program

2018 – 2019	ECHO Microbiome Task Force Member
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International Society for Environmental Epidemiology (ISEE)

2019 – present	ISEE Communications Committee Member
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National Institutes of Health (NIH)

2020 – present	Accepted, NIH Early Career Reviewer (ECR) Program
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MEMBERSHIPS IN PROFESSION SOCIETIES

2012 – 2013	Member, American Diabetes Association (ADA)
2008 – 2014	Member, The Obesity Society (TOS)
2014 – present	Member, International Society for Environmental Epidemiology (ISEE)

PROFESSIONAL DEVELOPMENT

2018 – present	Faculty Teaching Excellence Program (FTEP)
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2018 – present	Principal Investigator (PI) Academy
2019	Active Learning Academy, Learning by Design Program (Fall Semester)
2019	Scientific Communication Advances Research Excellence (SCOARE) 1-day Mentor Workshop
2019	Leadership Education for Advancement and Promotion (LEAP) 2-day Workshop
2020	Accepted into the Online Teaching Academy for Summer 2021

EDITORIAL AND PEER-REVIEW SERVICE

Editorial Activities

2019 – present	Editorial Board Member, <i>Scientific Reports</i>
2019 – present	Review Editor, <i>Frontiers in Global Reproductive Health – Reproductive Epidemiology</i>
2020 – present	Guest Editor, <i>International Journal of Environmental Research and Public Health</i> , Special Issue “Childhood Obesity: Physiology and Behavior”

Ad Hoc Journal Reviewer

2014 – present	<i>Pediatric Obesity</i>
2016 – present	<i>American Journal of Clinical Nutrition</i>
2016 – 2017	<i>Academic Radiology</i>
2017 – 2018	<i>Diabetes Research and Clinical Practice</i>
2018 – 2019	<i>Air Quality, Atmosphere and Health</i>
2017 – present	<i>International Journal of Obesity</i>
2018 – present	<i>Environmental Research</i>
2018 – present	<i>Environmental Pollution</i>
2018 – present	<i>Environmental International</i>
2018 – present	<i>Scientific Reports</i>
2018 – present	<i>Environmental Health Perspectives</i>