CURRICULUM VITAE Wei Perng, PhD MPH

1. CURRENT POSITION

Associate Professor (with tenure), Department of Epidemiology, Colorado School of Public Health Associate Director of Research Training and Education, Lifecourse Epidemiology of Adiposity and Diabetes (LEAD) Center

University of Colorado Anschutz Medical Campus

1890 N. Revere Court, Campus Box F426, Room 1014 Aurora CO, 80045

E-mail: Wei.Perng@CUAnschutz.edu

Adjunct Associate Professor, Visiting Instructional Lecturer, Department of Nutritional Sciences University of Michigan School of Public Health

2. EDUCATION

2008	University of Michigan, Brain Behavior and Cognitive Science, BS	
2010	University of Michigan School of Public Health, Epidemiology, MPH	
2013	University of Michigan School of Public Health, Epidemiology, PhD	
2013-2014	Harvard Medical School, Postdoctoral fellowship, Perinatal Epidemiology	
2014-2015	Michigan State University, T-32 Postdoctoral fellowship, Perinatal Epidemiology	

3. ACADEMIC APPOINTMENTS AND POSITIONS

University of Michigan School of Public Health, Ann Arbor, MI

2015 - 2017	Research Assistant Professor, Department of Nutritional Sciences and Epidemiology
2018 -	Adjunct Associate Professor, Department of Nutritional Sciences
2022 -	Adjunct Instructional Lecturer, Department of Nutritional Sciences

University of Colorado Anschutz Medical Campus, Aurora, CO

2018 - 2023	Assistant Professor, Department of Epidemiology, Colorado School of Public Health
2018 - 2022	Assistant Director of 'Omics Science, Lifecourse Epidemiology of Adiposity and Diabetes
	(LEAD) Center
2022 -	Associate Director of Research Training and Education, Lifecourse Epidemiology of Adiposity
	and Diabetes (LEAD) Center
2023 -	Associate Professor (with tenure), Department of Epidemiology

4. HONORS AND AWARDS

2013	DeVries Award for Excellence in International Health Award, University of Michigan School of Public Health
2014	Early Nutrition New Investigator Award at the Early Nutrition Conference
2014	Obesity Research Interest Section Research Competition 1 st place winner
2019	Society for Pediatric and Perinatal Epidemiologic Research (SPER) Rising Star Award
2020	University of Colorado Denver Chancellor's Teaching Recognition Award
2022	Colorado School of Public Health Faculty Excellence in Diversity, Equity, and Inclusion (DEI) Award

5. PROFESSIONAL AFFILIATIONS

2010 - Present Society for Pediatric and Perinatal Epidemiologic Research (SPER)

2010 - 2015	Society for Epidemiologic Research (SER)
2012 - 2018	American Public Health Association (APHA)
2016 - 2019	Developmental Origins of Health and Disease U.S. Affiliate Chapter
2018 - 2019	American Heart Association (AHA)
2018 - Present	American Diabetes Association (ADA)
2021 - Present	American College of Epidemiology (ACE; elected membership)

6. PROFESSIONAL LEADERSHIP AND SERVICE

Department of Epidemiology and the LEAD Center:

2018 - 2022	Assistant Director of Omics Research, LEAD Center	
2018 - 2019	Member, MPH Admissions Committee	
2020 - Present	Chair, Health Equity Council	
2021 - 2022	Chair, Epidemiology Department Tenure Track Faculty Search Committee	
2021	Member, Epidemiology Department Research Track Faculty Search Committee	
2022 - Present	Associate Director of Research Training and Education, LEAD Center	

Colorado School of Public Health:

2018	Member, Tobacco Prevention & Control Faculty Search Committee
2020	Member, Scholarship Committee
2020	Member, Public Health Practice Committee
2022	Member, Dean's Search Committee
2023 - Present	Member, Departmental Appointments, Promotion & Tenure Committee (DAPTCO)

University of Colorado Denver Anschutz Medical Campus:

National:	
2020 - 2022	Member, Environmental Influences on Child Health Outcomes (ECHO) Program Publications Committee
2020 - Present	Co-Chair, American Diabetes Association (ADA) Precision Medicine In Diabetes Consensus Report, Precision Prognostics Working Group for Gestational Diabetes Mellitus
2021 - 2023	Member, Society for Pediatric and Perinatal Epidemiologic Research (SPER) Planning Committee
2022 - Present	Associate Chair, Environmental Influences on Child Health Outcomes (ECHO) Program Publications Committee
2022 - Present	Writing panel, American Heart Association (AHA) Statement on Environmental Exposures and Pediatric Cardiovascular conditions

2021 - Present Member, External Advisory Board, Department of Emergency Medicine Diversity Committee

International:

2017 - Present	Member, Canadian Healthy Infant Longitudinal Development (CHILD) Study, Nutrition
	and Dietary Data Collection Working Group
2018 - Present	Steering Committee Member, Consortium of Metabolomics Studies (COMETs)

7. REVIEW, REFEREE AND EDITORIAL ACTIVITIES

Service on editorial boards:

2018 - Present Associate Editor, *Pediatric Obesity*

2021 - Associate Editor, Annals of Epidemiology

Guest editor for special issues:

- Guest Editor of Special Issue, "Exposure to Endocrine-Disrupting Chemicals and Cardiometabolic disease: A Developmental Origins Approach" in Frontiers of Public Health:

 https://www.frontiersin.org/research-topics/6888/exposure-to-endocrine-disrupting-chemicals-and-cardiometabolic-disease-a-developmental-origins-appro
- 2022 Guest Editor of Special Issue, "Determinants, mechanisms, and consequences of childhood obesity" in *Metabolites*:

 https://www.mdpi.com/journal/metabolites/special_issues/Obesity_Childhood

Grant review committees and study sections:

- 2016 Ad hoc reviewer, Michigan Regional Comprehensive Metabolomics Core Pilot & Feasibility Grant
- 2017 Ad hoc reviewer, University of Michigan Momentum Center Pilot & Feasibility Grant
- 2019 Ad hoc reviewer, Southern California Environmental Health Sciences Center Pilot Project Program
- 2021 Ad hoc reviewer, Medical Research Council (MRC), U.K. Research and Innovation (UKRI), Future Leaders Fellowship
- 2022 Ad hoc member, National Institutes of Health (NIH) Child Health and Development (CHHD)-M1 Health, Behavior, and Context Study Section
- 2022 Ad hoc reviewer, Medical Research Council (MRC), U.K. Research and Innovation (UKRI), MRC Research Grant Program
- 2022 External reviewer, National Institute of Environmental Health Sciences (NIEHS), Intramural Research Application
- 2023 Ad hoc member, National Institutes of Health (NIH) Analytics and Statistics for Population Research Panel B (ASPB) Study Section.
- 2023 Ad hoc member, Child Health and Human Development Panel M (CHHDM) Study Section.

Ad hoc reviewer for journals:

Academic Pediatrics; American Journal of Epidemiology; American Journal of Clinical Nutrition; Annals of Epidemiology; BMC Research Notes; BMC Medicine; BMC Public Health; Diabetes and Metabolism; Diabetes Care; Diabetologia; Diabetic Medicine; Epigenetics; Environmental Health Perspectives; Environment International; Environmental Research; Epidemiology; Hypertension; International Journal of Obesity; International Journal of Epidemiology, Pediatric Obesity; JAMA; JAMA Pediatrics; Journal of Adolescent Health; Journal of the American College of Nutrition; Journal of Developmental Origins of Health and Disease; Journal of Endocrinology; Journal of Epidemiology and Community Health; Journal of Nutrition; Journal of Pediatrics; Metabolites; Metabolomics; Obesity (Silver Spring); Pediatric & Perinatal Epidemiology; Public Health Nutrition

Service for professional societies and scientific meetings:

Scientific program director:

2017, 2018 Asian and Pacific Islander Caucus (APIC) for the American Public Health Association (APHA)

Session chair:

2017 Session chair, "AAPI Epidemiology, Climate Changes, and Environmental Health."
American Public Health Association (APHA) November 2nd – 9th Atlanta, Georgia.

- 2017 Session chair, "Obesity and diabetes in pregnancy." U.S. Developmental Origins of Health and Disease (DOHaD) meeting September 25th 27th. Detroit, Michigan.
- 2018 Session chair, "Health education, health communications, and community-based interventions among AA&PIs." American Public Health Association (APHA) November 10th 14th. San Diego, California.
- 2018 Session chair, "Innovative research to examine AA&PI health." American Public Health Association (APHA) November 10th 14th. San Diego, California
- 2018 Session chair, "The intersection of mental and physical health among AA&PIs and AA&PI communities." American Public Health Association (APHA) November 10th 14th. San Diego, California.
- 2020 Session chair, "Obstetric Health." Society for Pediatric and Perinatal Epidemiology (SPER) Annual Meeting. December 15th. Virtual meeting.
- 2021 Session chair, "Social determinants of Birth outcomes." Society for Pediatric and Perinatal Epidemiology (SPER) Annual Meeting. June 21st. Virtual meeting.

Abstract reviewer for scientific meetings:

Experimental Biology 2019; The Obesity Society 2019; Society for Epidemiologic Research (SER) Annual Meeting, 2019; Society for Pediatric & Perinatal Epidemiologic Research (SPER) Annual Meeting, 2019, 2020, 2021; American Public Health Association (APHA) Annual Meeting, 2016, 2017, 2018, 2019

8. INVITED LECTURES, PRESENTATIONS, AND WORKSHOPS

Local/regional:

Seminars:

- 2019 University of Colorado Boulder Department of Physiology Colloquium. *Lifecourse Epidemiology: It's more than skin-deep*. September 16th. Boulder, CO, USA.
- 2020 Perinatal-Neonatal Research Group Weekly Conference, Department of Pediatrics, School of Medicine, University of Colorado Anschutz Medical Campus. *Use of directed acyclic graphs (DAGs) to streamline the research process*. November 12th. Aurora, CO, USA.
- Department of Endocrinology Research Seminar. *Testing conceptual models from lifecourse epidemiology: sensitive period or accumulation of risk?* April 28th. Aurora, CO, USA.
- Division of Biomedical Informatics & Personalized Medicine Research Seminar. *Origins of metabolic disease in youth: Moving metabolomics research towards clinical application*. May 4th, Aurora, CO, USA.
- 2022 Lifecourse Epidemiology of Adiposity and Diabetes (LEAD) Seminar Series. 'Omics + lifecourse epidemiology: merging two paradigms to advance precision prevention of metabolic risk in youth. September 19th, Aurora, CO, USA.
- 2022 Center for Health, Work, and the Environment (CHWE) Visiting Scholar Series. 'Omics for exposure assessment and disease prevention: Insights from studies of metabolic risk in youth. October 26th. Aurora, CO.
- Panelist and session moderator for the Colorado School of Public Health Research exchange. Assessing structural racism in public health research. October 6th, Aurora, CO.

Guest lectures for classes:

2020 Colorado School of Public Health, Department of Epidemiology, EPID 6612 (Analytical Epidemiology; course instructor: Angela Lee-Winn), *Causal inference: lessons from lifecourse epidemiology*. April 1st.

- 2020 Colorado School of Public Health Department of Epidemiology, EPID 7605 (Research Methods; course instructor: Kathy James), *Introduction to DAGs*. February 6^{th.}
- 2020 Colorado School of Public Health, Department of Epidemiology, EPID 7631 (Advanced Epidemiology 1; course instructor: Anne Starling), *Directed acyclic graphs (DAGs)*. September 28^{th.}
- 2021 University of Michigan School of Public Health, Department of Nutritional Sciences, NUTR 677 (Physical Growth and Maturation; course instructor: Karen Peterson), *Making causal inference from observational studies*. November 23rd.
- 2021 University of Colorado Denver School of Public Affairs, PUAD 8070 (Quantitative Methods II; course instructor: Geoffrey Propheter), *Causal diagrams and development of research hypotheses*. March 2^{nd.}
- 2021 University of Cincinnati, Department of Epidemiology, BE-7085 & PH-7085 (Pediatric and Perinatal Epidemiology; course instructor: Kelly Brunst), *Early development of metabolic disorders*.

 November 17^{th.}
- 2022 University of Colorado Denver School of Public Affairs, PUAD 8070 (Quantitative Methods II; course instructor: Geoffrey Propheter), *Causal inference in policy research: an epidemiological spin*. March 30^{th.}
- 2022 University of Colorado Anschutz School of Medicine, PMED 6210 (MultiOmic Approaches to Personalized Medicine; course instructors: Colleen Julia and Ivana Yang), *Omics science in the study of developmental origins of health and disease (DOHaD)*. Pre-recorded guest lecture for Fall Semester 2022.

National:

Invited talks, seminars, and workshops:

- SEARCH For Diabetes in Youth Steering Committee Meeting 2018. *Metabolomics, obesity, and nutrition*. November 14th. Denver, CO, USA.
- 2019 Environmental influences on Child Health Outcomes (ECHO) Face-to-Face Meeting 2019. *The utility of metabolomics in ECHO*. April 9th. Washington D.C.
- Nutritional Epidemiology Research Interest Section (RIS), American Society for Nutrition 2019.

 Metabolomic biomarkers of the relationship between sugar-sweetened beverage (SSB) intake and metabolic risk in the ELEMENT Cohort. June 10th. Baltimore, MD, USA.
- ELEMENT Research Seminar, University of Michigan School of Public Health and the Instituto Nacional de Salud Pública. *Causal diagrams in the study of DOHaD*. February 23rd. Virtual seminar.
- 2021 University of Washington Epidemiology Winter Seminar Series. *Let the question derive the methods: testing conceptual models from lifecourse epidemiology.* March 9th. Virtual seminar.
- National Academy of Science, Engineering and Medicine, Methods Workshop on Assessing Food and Dietary Supplement Intakes in Pregnant Women and Children 2-11 years. *Best practices for dietary assessment in children age 6-11 years.* May 19th. Virtual workshop.
- Wayne State University, Department of Pharmacology Seminar Series. *Data are profoundly dumb: let the question drive the approach to obtain the answer.* October 29th. Virtual seminar.
- American Diabetes Association Annual Meeting, Invited symposium presentation. *Use of metabolomics to assess metabolic risk in offspring exposed to diabetes in utero: Steps toward clinical application.* June 5th New Orleans, LA, USA.
- National Institute of Environmental Health Sciences (NIEHS) Workshop on the modifying impact of nutrition on environmental risk factors for autism spectrum disorder. *You are what you eat... and metabolize: biomarkers of dietary intake and how metabolomics can help.* June 22nd. Webinar.

Environmental Influences on Child Health Outcomes (ECHO) Consortium Face-to-Face Meeting. Moving towards Multi-Omics of Developmental Origins of Health and Disease (MO DOHaD). October 19th. Bethesda, MD.

International:

- 2021 Precision Diabetes Medicine (PDM). *Long-term consequences of exposure to gestational diabetes in utero: use of 'omics.* April 9th. Virtual conference.
- 2022 COMETs Consortium Scientific Talk. *Metabolomics predictors of dysglycemia in two youth cohorts: leveraging the COMETs consortium.* July 21st. Virtual seminar.
- 2022 Universidad Iberoamericana, Masters of Applied Nutrition Program, *Metabolomics for the advancement of nutrition research*. November 28th. Mexico City, MX.
- 2022 Universidad Iberoamericana, Masters of Applied Nutrition Program. *Directed acyclic graphs and causal inference concepts*. November 29th. Mexico City, MX.

9. TEACHING RECORD

Courses Developed and Taught:

University of Colorado

Colorado School of Public Health:

2019 - Present EPID 7632 - Advanced Epidemiology II (3-credits)

Role: Developed and taught as primary instructor (5 semesters; ongoing)

Colorado Center for Clinical and Translational Sciences Institute Biostatistics Epidemiology, and Research Design (BERD):

2023 – Present Causal Inference in Epidemiology (6-week certificate program)

Role: Developed and taught as primary instructor

University of Michigan School of Public Health

2015 - 2017 NUTR 689 - Advanced Topics in Nutrition Research (2-credits)

Role: Primary instructor (5 semesters total)

2022- NUTR 596 - Precision Nutrition and 'Omics (3-credits)

Role: Developed and taught as primary instructor (1 semester; ongoing)

MPH Academic Advising:

2018 - 2020	Kathleen Angell, Phuong Banh
2019 - 2021	Sierra Svend, Ryan Patrick, Rachel Haley, Jesse Carlson
2020 - 2022	Nikita Tovey, Janeese Porterfield, Jyothi Lokandham (international), Kelsey Coogan, Cody Berkobien
2021 - 2023	Allison Haynes, Samuel Messenger, Ndiebnso Agbormbai, Jesse Carlson, Brianna Hoffman
2022 - 2024	Sarah Conway, Madeline Wrolson-Gaunt, Amelia Staniszewski
2023 – 2025	Madeline Karr,

MPH Capstone Advising:

University of Michigan School of Public Health:

2015 - 2017 Aarohee Fulay, MPH

Colorado School of Public Health:

2018 - 2019	Kathleen Angell, MPH
2021 - 2022	Valerie Swanson, MPH
2021 - 2022	Kaitlin E. Buck, MPH
2022 - 2023	Aisha Alkandari, MPH candidate

MS Thesis mentorship:

Colorado School of Public Health

2022-2024	Jonathan Hawkins, MS(c)
University of N	Aichigan School of Public Health:

2015 - 2017 Maymona Al-Hinai, MS2016 - 2018 Molly Mulcahy, MS

PhD and MD mentorship:

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2013 - 2014	Jessica R. Walter, MD, Medical student at Harvard Medical School, 2013-2014
	<i>Role</i> : Research mentor on project "Timing of gestational weight gain and long-term metabolic risk in Project Viva."
2020 - Present	Teresa Buckner, PhD candidate at the Colorado School of Public Health, Department of Epidemiology
	Role: Dissertation committee member
2020 - Present	William Patterson, PhD candidate at University of Colorado Boulder, Department of Integrated Physiology
	Role: Dissertation committee member and F31 mentorship team member
2019 - 2022	Satvinder Dhaliwal, PhD, at the Colorado School of Public Health, Department of Epidemiology
	Role: Primary mentor, TL1 fellowship mentor

2022 – Present Leslie Barnard, DrPH candidate at the Colorado School of Public Health, Department of

Epidemiology

Role: Dissertation committee member

2022 – Present Alyssa Beck, PhD candidate at the Colorado School of Public Health, Department of

Epidemiology

Role: Dissertation committee chair

2022 – Present Kylie Harrall, PhD candidate at the Colorado School of Public Health, Department of

Epidemiology

Role: Dissertation committee chair

Postdoctoral mentorship:

University of Michigan:

2016 - 2018 Lindsay Ellsworth, MD, Pediatric endocrinology fellow at University of Michigan Medical School Role: Scholarship Oversight Committee member and research mentor on project, "Infant metabolism and gestational endocrinopathies study"

Colorado School of Public Health:

2019 - Present Ellen C. Francis, PhD, Postdoctoral fellow, LEAD Center and Epidemiology

Role: K99/R00 Primary Mentor "Characterizing metabolic variability during pregnancy to understand pathways of in-utero overnutrition: an integrative analysis of metabolomics and lifestyle data" (funded February 2022); formerly primary mentor on the T32 Perinatal Biology

fellowship 2019 – 2022

2020 - Present Catherine C. Cohen, PhD, Postdoctoral fellow, LEAD Center and Epidemiology

Role: Ad hoc mentor on specific research projects

Harvard Medical School:

2019 - 2022 Diana C. Soria, PhD, Department of Population Medicine, Harvard Medical School

Role: Primary mentor

Independent thesis examiner:

Western Sydney University:

2022 Jane Estrella.

Jane Estrella, PhD candidate, School of Medicine, Macarthur Clinical School, Western Sydney University, Sydney, New South Wales, Australia

Role: Independent thesis examiner for doctoral dissertation on use of neonatal dried blood spots for newborn metabolic screening.

10. RESEARCH RECORD

Active:

UG30D035507 (PI: Bekelman, Perng, and Dabelea)

\$11,316,276

NIH/OD

09/01/2023 - 08/31/2030

Environmental Influences on Child Health Outcomes – the Colorado ECHO Pediatric Cohort

This project will identify early-life patterns of structural, physical, and chemical exposures during pregnancy and early childhood that predict a clustering of health outcomes through adolescence.

Role: MPI

R01HL1281570 (PI: Belfort and Perng)

\$4,240,756

NIH/NICHD

07/01/2023 - 06/30/2028

Infant diet and cardiometabolic risk among children born preterm.

This project seeks to assess the metabolic consequences of a targeted protein and energy fortification of human milk vs. standard diet during the neonatal hospitalization period among infants born before 32 gestational weeks.

Role: MPI, subcontract PI

U01 DK134981 (PI: Dabelea and Perng)

\$3,887,146

NIH/NIDDK

12/01/2022 - 11/31/2027

Understanding the Pathophysiology of Type 2 Diabetes in Navajo youth.

This project will recruit 400 high-risk American Indian youth into a nation-wide consortium to study the pathophysiology of youth-onset type 2 diabetes.

Role: MPI

ADA-7-22-ICTSPM-08 (PI: Perng)

\$598,419

American Diabetes Association

07/01/2022 - 06/30/2025

A multi-'omics approach to identifying youth and young adults at high risk of early-onset type 2 diabetes This project seeks to characterize glucose and insulin trajectories from childhood through young adulthood, and develop novel multi-'omics prediction algorithms for early-onset type 2 diabetes.

Role: PI

AB Nexus (PI: Perng and Alderete)

\$50,000

AB Nexus Program

12/1/2022-11/30-2023

Role of the gut microbiota in the pathogenesis of early-onset type 2 diabetes

This proposal will characterize the gut microbiota in 300 young-adults to study its involvement in the pathogenesis of type 2 diabetes.

Role: MPI/contact PI

R01HD096032 PI: Oken and Chavarro)

\$2,434,201

NIH/NICHD

Duke University

07/10/2019 - 04/30/2024

A lifecourse approach to women's cardiometabolic and bone health: from fertility to perimenopause

This proposal investigates associations of subfertility with body composition, cardiometabolic, and bone health during the perimenopausal transition across 15 years of follow-up.

Role: Co-I, Subcontract PI

U2COD023375 (PI: Smith)

\$82,620

09/01/21 - 08/31/23

ECHO OIF Cycle 5: Neighborhood opportunities and disparities in child health outcomes: a nationwide U.S. multi-cohort study

The main objective is to examine the extent to which neighborhood environments could contribute to health inequalities in children.

Role: Co-I

Pending:

2R01HD096032 (MPIs: Oken and Chavarro)

\$4,968,484

NIH/NICHD

5/1/2024-4/30/2029

Fertility and women's health trajectories through the menopausal transition: a life course approach.

In this renewal application, we propose to test our overall hypotheses that impaired fertility and ovarian hormone levels during the reproductive years predict adverse health trajectories that are exacerbated or made evident during and after the menopausal transition, and that these diverging health trajectories are modifiable by healthful lifestyle behaviors.

Role: Co-I; subcontract PI

R21HL160629 (MPIs: Perng and Aris]

\$269,532

NIH/NHLBI

07/01/2024 - 06/30/2026

Neighborhood environments and ideal cardiovascular health (ICVH) from infancy through adolescence in three U.S. pediatric cohorts.

The objective of this project is to characterize cardiovascular trajectories from infancy through the adolescent transition and characterize the interplay between social and biological risk factors in maintenance of cardiovascular health among diverse youth.

Role: MPI (contact)

R01DK132042 (PI: Hu ,Perng, Staiano)

\$3,734,202

NIH/NIDDK

08/01/2023 - 07/31/2028

GETHealthy Obesity Prevention: Exploring the effect of essential and non-essential metal mixtures and the epigenome on metabolic health across early life.

This project seeks to investigate associations of exposure to toxic and nutritious minerals during the prenatal period and early childhood on epigenome-wide DNA methylation patterns and development of

obesity among youth in four pediatric cohorts.

Role: MPI, subcontract PI

Completed:

K99 HD108272-01 (PI: Francis)

\$185,115

NIH/NICHD

02/01/2022 - 01/31/2024

Characterizing metabolic variability during pregnancy to understand pathways of in-utero overnutrition: an integrative analysis of metabolomics and lifestyle data

This pathway to independence award seeks to identify distinct maternal metabolic phenotypes during pregnancy and identify molecular pathways underlying developmental overnutrition in offspring. Role: Primary mentor

R01HD034568 (PI: Oken)

\$3,624,198

NIH/NICHD

02/01/2017 - 01/31/2023

Pre- and peri-natal predictors of childhood obesity

The objective of this award is to continue collecting anthropometric, metabolic, psychosocial, neurocognitive, and dietary characteristics among offspring in Project Viva through late adolescence.

Role: Subcontract PI

KL2-TR002534 (PI: Perng)

\$442,417

Colorado Clinical and Translational Sciences Institute

02/01/20 - 01/30/23

Biomarkers and mechanisms of NAFLD and T2D pathogenesis in two adolescent cohorts

The project aims to gain insight into shared mechanistic pathways of NAFLD and type 2 diabetes using endotoxin biomarkers and metabolomics.

Role: PI

Child Health Exposure Analysis Resource (CHEAR) Grant (PI: Perng)

N/A (award covers assay costs)

Project 2016-1431

Metabolic consequences of in utero and peripubertal toxicant-diet exposures

This project examined associations of toxicant mixtures during gestation, early adolescence, and late adolescence with metabolic risk factors across adolescence.

Role: PI

R24ES028502 (MPIs: Peterson, Song)

\$1,684,369

NIH/NIEHS

09/30/2017 - 12/30/2018

E3Gen: Multigenerational effects of toxicant exposures on life course health and neurocognitive outcomes in the ELEMENT birth cohorts.

This award supports cohort infrastructure and continued data collection of mothers and their children, and to enroll the third generation of the ELEMENT cohorts.

Role: Co-I (*Due to an institution change, I became a consultant for 7/1/2018 – 8/31/2022)

1UG3OD023251-01 (PI: Alshawabkeh A)

\$1,240,428

NIH

09/21/2016 - 08/31/2018

Environmental Influences on Child Health Outcomes in Puerto Rico (ECHO-PRO)

ECHO-PRO will study the impact of environmental pollutants and modifying factors on birth outcomes, obesity, neurodevelopment, and respiratory development in an underserved population.

Role: Co-I

Michigan Center for Diabetes Translational Research Pilot & Feasibility Grant

\$20,000

NIH 2P30-DK020572

02/01/2016 - 06/31/2017

Title: A prospective study of metabolomic profiles and glycemia in U.S. and Mexican children

The objective of this proposal is to identify and characterize metabolite clusters associated with development of insulin resistance during the pubertal transition.

Role: PI

Michigan Nutrition Obesity Research Center Pilot & Feasibility Grant NIH P30 DK089503 MNORC

\$25,000

09/02/2015 - 08/31/2016

Title: Metabolomic profiles and development of metabolic risk in U.S. and Mexican children

The objective of this proposal is to identify and characterize metabolite clusters associated with development of metabolic syndrome components during the pubertal transition.

Role: PI

Michigan Institute for Clinical & Health Research Pilot & Feasibility Grant

\$25,000

UL1TR000433

9/02/2015 - 08/31/2016

Title: Metabolomic profiles and development of metabolic risk in U.S. and Mexican children

The objective of this proposal is to identify and characterize metabolite clusters associated with development of metabolic syndrome components during the pubertal transition.

Role: PI

The Michigan Life Stage Environmental Exposures and Disease Pilot Program

\$5,000

P30 M-LEEaD (PI: Peterson)

01/01/16 - 03/31/16

Title: Are Sex Differences in Effects of Early Obesogen Exposures on Metabolic Outcomes in Adolescence Mediated by Genome-wide DNA Methylation?

The objectives are identify differentially methylated regions of the genome and metabolite profiles during peripuberty following prenatal exposure to metals.

Role: Co-I

11. BIBLIOGRAPHY

Papers published in peer-reviewed journal articles

- * Denotes student or mentee whom I either directly mentored or provided substantial feedback in the planning and implementation of the paper
- ± Denotes co-first authorship or co-senior authorship

Original research papers:

- 1. Dombkowski KJ, Lamarand K, Dong S, **Perng W**, Clark SJ. Using Medicaid claims to identify children with asthma. *Journal of Public Health Management and Practice* 2012; 18(3):196-203. PMID: 22473110.
- 2. **Perng W**, Cnattingius S, Iliadou A, Villamor E. Perinatal characteristics and risk of polio among Swedish twins. *Perinatal and Paediatric Epidemiology* 2012; 26(3): 218-225. PMID: 22471681.
- 3. **Perng W**, Rozek L, Mora-Plazas M, Duchin O, Marin C, Forero Y, Baylin A, Villamor E. Micronutrient status and global DNA methylation in school-age children. *Epigenetics* 2012; 7(10):1133-1141. PMID: 22918385.
- 4. **Perng W**, Mora-Plazas M, Marin C, Villamor E. Higher iron status is related to slower linear growth in iron-replete school-age children. *European Journal of Clinical Nutrition* 2013; 67(6):646-651. PMID: 23462945.
- 5. Shroff M, **Perng W**, Baylin A, Mora-Plazas M, Marin, C, Villamor E. Adherence to a snacking dietary pattern and soda intake are related to the development of adiposity in school-age children. *Public Health Nutrition* 2013; 24:1-7. PMID: 23701749.
- 6. **Perng W**, Mora-Plazas M, Marin C, Rozek LS, Baylin A, Villamor E. A prospective study of LINE-1 DNA methylation and development of adiposity in school-age children. *PLoS One* 2013; 8(4):e62587. PMID: 23638120.

- 7. Perng P*, **Perng W**, Ngoma T, Kahesa C, Mwaislage J, Merajver SD, Soliman AS. Promoters and barriers to cervical cancer screening in a rural setting in Tanzania. *International Journal of Gynaecology and Obstetrics* 2013; 123(3):221-225. PMID: 24095307.
- 8. Tsai E*, **Perng W**, Baylin A, Harlow SD, Mora-Plazas M, Marin C, Villamor E. Accuracy of self-reported weight and height among women in Bogota, Colombia. *Annals of Human Biolology* 2014; 41(5):473-641(5): 473-476. PMID: 24274686.
- Perng W, Villamor E, Shroff M, Pilsner JR, Liu Y, Diez-Roux, AV. Methyl-donor nutrient intake, total plasma homocysteine and global DNA methylation: the Multi-Ethnic Study of Atherosclerosis. *Nutrition*, *Metabolism*, and Cardiovascular Disease 2014; 24(6):614-622. PMID: 24477006.
- 10. Walter JR*, **Perng W**, Kleinman KP, Rich-Edwards JW, Oken E. Early gestational weight gain is associated with weight change, waist circumference, and systolic blood pressure in a large cohort. *American Journal of Obstetrics & Gynecology* 2014; 212(4):499.e1-12. PMID: 25446696.
- 11. **Perng W**, Rifas-Shiman SL, Rich-Edwards JW, Stuebe A, Oken E. Inflammation and weight gain in reproductive-aged women. *Annals of Human Biology* 2014; 43(1):91-95. PMID: 25510294.
- 12. **Perng W**, Gillman MW, Mantzoros CS, Oken E. A prospective study of maternal prenatal weight and offspring cardiometabolic health in mid-childhood. *Annals of Epidemiology* 2014; 24(11):793-800. PMID: 25263237.
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