

Hai-Wei Liang

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EDUCATION

University of Pittsburgh

Ph.D., Epidemiology, School of Public Health

Pittsburgh, PA
Aug 2019-Present

National Yang-Ming University (YMU)

MS., Institute Of Environmental And Occupational Health Science (IEOHS)

Taipei, Taiwan
Sep 2015-Aug 2017

- Dissertation: Association between birth outcomes and prenatal exposure to paraben (Advisor: Prof. Mei-Lien Chen)
- Award: Best Master Thesis Award in Taiwan Public Health Association, Excellent Master Award in Occupational Hygiene Association of Taiwan

Taipei Medical University (TMU)

BS., School of Nutrition and Health Sciences (NHS)

Taipei, Taiwan
Sep 2011-Jun 2015

RESEARCH EXPERIENCE

Graduate Student Researcher/ Data Analyst

University of Pittsburgh Epidemiology Department, School of Public Health

Pittsburgh, PA
Sep 2019-Present

- Perform statistical analyses on various types of datasets, such as cross-sectional dataset-National Health and Nutrition Examination Survey (NHANES), cohort dataset-Conditions Affecting Neurocognitive Development and Learning in Early childhood (CANDLE), and clinical trial dataset- Raices: A Promotores Network to Improve Latino Immigrant Health
- Cooperate with interdisciplinary faculties, organization representatives, and clinics internationally to work on the following projects:
 1. Examine the relationship of phthalate concentration between different biospecimens in pregnant women
 2. Explore the relationship between Per- and Polyfluoroalkyl Substances (PFAS) concentration and human chorionic gonadotropin (hCG) level in pregnant women
 3. Examine the effectiveness of a community health worker network in improving access to care, social support, physical activity and nutrition in Latino immigrants (The RAICES project: ClinicalTrials.gov Identifier: NCT03129633)
 4. Data Collection for COVID-19 project in Models of Infectious Disease Agent Study (MIDAS)
 5. Develop an in vitro 3D placental organoid model to examine chemical exposures on placental function
- Conduct systematic reviews and narrative reviews with collaborators
- Conduct quantitative measurements for biomarkers in a lab and lab management

Graduate Student Researcher/Lab Manager

National Yang-Ming University Institute of Environmental and Occupational Health Science

Taipei, Taiwan
Sep 2015-Aug 2017

- Executed a three-year research project of Ministry of Science and Technology, Taiwan “Exposure, health risk assessment and management of endocrine disruptors (EDs) in personal care products antimicrobials” (105-2621-M-010-001-MY3)
- Assisted to build up Taiwan’s EDs exposure cohort database
- Applied to Institutional Review Boards (IRB) of Taipei City Hospital and YMU
- Enrolled participants and collected data from hospital pregnant women
- Conduct quantitative measurements for EDs in human specimens (Phthalates, Bisphenol A, Paraben etc.)
- Managed lab instruments and lab environment
- Trained students on research enrollment and experimental skills

Undergraduate Student Researcher

Taipei Medical University School of Public Health

Taipei, Taiwan
Feb 2014-Jun 2015

- Determined heavy metals (Mercury and Copper) in food and human specimens

TECHNICAL SKILLS and LICENSES

Computer applications

- Statistic Software: R, STATA, SAS, SPSS, QGIS
- Data Analysis:
 1. Inference: GLM, Mixed Model, Causal Inference, Survival analysis
 2. Prediction: Random Forest, PCA, KNN, cross validation
- Others: Endnote, MS Office (Word, Excel, PowerPoint), DistillerSR

Instrumental techniques

- Chemical analysis: UPLC-QTOF-MS / HPLC-FLD / Atomic absorption spectrometry / Mercury analyzer
- Biomarker analysis: ELISA, western blot, qPCR
- Others: Cell culture, RNA isolation, tissue pulverization

Licenses: Registered food technician and Registered dietitian in Taiwan

Language: Mandarin Chinese (Native), Taiwanese (Native), English (Fluent), Japanese (Beginner)

Certificate: Public Health Core Competency Exam, Taiwan Public Health Association (2014)

CONFERENCE PRESENTATIONS and PUBLICATIONS

Journal Papers

- Jessica Cheng; **Hai-Wei Liang**; Mary Lou Klem; Tina Costacou; Lora E Burke. (Intend submission Spring 2022) Healthy Eating Index Diet Quality in Randomized Weight Loss Trials: A Systematic Review. (Under reviewed))
- Taverno Ross, Sharon; **Liang, Hai-Wei**; Cheng, Jessica; Fox, Andrea; Documet, Patricia.(2022) Effectiveness of a promotores network to improve health in an emerging Latino community. *Health Education & Behavior* (Under reviewed)
- Birru, Rahel; **Liang, Hai-Wei**; Farooq, Fouzia; Bedi, Megha; Feghali, Maisa; Haggerty, Catherine; Mendez, Dara; Catov, Janet; Ng, Carla; Adibi, Jennifer. (2021). A pathway level analysis of PFAS exposure and risk of gestational diabetes mellitus. *Environmental Health*. 20. 10.1186/s12940-021-00740-z.
- Chia-Huang Chang; Pei-Wei Wang; **Hai-Wei Liang**; Yu-Fang Huang; Li-Wei Huang; Hsin-Chang Chen; Meng-Han Lin; Winnie Yang; I-Fang Mao, The sex-specific effects of maternal paraben exposure on size at birth, *Int J Hyg Environ Health*, 2019 Jul;222(6):955-964.
- **Hai-Wei Liang**; Chia-Huang Chang; Yu-Fang Huang; Pei-Wei Wang; Li-Wei Huang; Winnie Yang; Mei-Lien Chen, Biological monitoring of parabens in pregnant women and the health effects on newborns. *Taiwan J Public Health*, 2017 Vol.36, No. 6.

Oral Presentation

- **Hai-Wei Liang**; Yu-Fang Huang; Pei-Wei Wang; Chun-Hao Lai; Meng-Han Lin; Li-Wei Huang; Winnie Yang; Mei-Lien Chen, “Association of birth outcomes with prenatal exposure to parabens”. Presented at Children’s Environmental Health Network-2017 Translational Research Conference: New Challenges (CEHN 2017), Arlington, VA, USA, 04, 2017

Poster Presentation

- **Hai-Wei Liang** and David Greenald, Rahel Birru, Yaqi Zhao, Hannu Koistinen, Rod Mitchell, Jiebiao Wang, Jennifer J. Adibi, “Reuniting the placenta and the fetus ex vivo to evaluate phthalate toxicity to the male gonad”. Accepted at Gordon Research Conference: Environmental Endocrine Disruptors (June 2022)
- **Hai-Wei Liang**, Qing Yin, Carla Ng, Hannu Koistinen, Emily Barrett, Tom O’Connor, Richard Miller, Xiaoshuang Xun, Nora Moog, Claudia Buss, Kurunthachalam Kannan, Jennifer J. Adibi, “The association of maternal serum levels of per- and polyfluoroalkyl substances and four forms of human chorionic gonadotropin in early pregnancy”. International Conference on Fetal Programming and Developmental Toxicity (Jan 2022)
- Cheng, J, **Liang, HW**, Klem, ML, & Burke, LE. (April 2021). Changes in Healthy Eating Index Defined Diet Quality in Weight Loss Trials: A Systematic Review. Poster Presentation at Dean’s Day Poster Session. University of Pittsburgh Graduate School of Public Health. Pittsburgh, PA.
- **H. Liang**, N. Snyder, X. Xun, M. Smith, R. Birru, K. Carroll, K. LeWinn, N. R. Bush, F. Tylavsky, J. J. Adibi, “Reversal of association between prenatal phthalate levels and birth size when measuring phthalates in placental tissue versus in maternal urine”. Accepted at the International Society for Environmental Epidemiological (ISEE) 2020 Virtual Conference (Aug 2020)

LEADERSHIPS and TEACHING / WORKING EXPERIENCES

University of Pittsburgh

Teaching Assistant

Pittsburgh, PA

Oct 2021-Dec 2021

- Assisted in a graduate course (Chronic Disease Epidemiology)

Taiwanese Scholar Society in Pittsburgh

Business Manager

Pittsburgh, PA

Aug 2021-Present

- Conduct orientation events for newcomers, including students and scholars

Medgaea Life Science Ltd

Regulatory Affairs & Research and Development specialist

Taipei, Taiwan

Sep 2017-May 2019

- Provided Food Regulation, Taiwan Healthy food permission, and Functional cosmetic registration for consultation and organized the documents for the customers
- Coordinated and communicated between the government and our customers so that both populations understood needs and policies
- Constructed Standard Operating Procedures for the newest healthy food development department
- Built systematic management for a food lab to increase efficiency
- Executed sensory evaluation test for healthy food product development

YMU

Teaching Assistant

Taipei, Taiwan

Feb 2016-Jan 2017

- Instructed 40 students in an undergraduate course and 30 students in a cross-graduates & schools course
Courses: Food Safety and Life & News Writing for Science -Public Health

Kaohsiung Chang Kung Memorial Hospital

Dietetic Internship

Kaohsiung, Taiwan

Jul 2014-Sep 2014

- Conducted nutritional health education in a local community
- Provided nutritional consultation to diabetic patients and general population
- Conducted Hazard analysis and critical control points management in the hospital central kitchen

Taiwan Millennium Health Foundation

Undergraduate Student Internship

Taipei, Taiwan

Jul 2013-Oct 2013

- Organized and promoted an Annual National Health Promotion event
- Coordinated with local business (seven eleven) and clinical physicians to implement behavioral intervention on reducing the occurrence of metabolic syndrome