

Julianna C. Hsing, MS

*PhD Student in Epidemiology and Population Health
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Education

- 2023- **Stanford University** | Stanford CA
PhD Epidemiology & Clinical Research
Co-advisors: Mathew Kiang, ScD, Michelle Odden, PhD
- 2019-2021 **Stanford University** | Stanford CA
MS Epidemiology & Clinical Research
Co-advisors: Michelle Odden, PhD, C. Jason Wang, MD, PhD
- 2016-2017 **University of Pennsylvania** | Philadelphia PA
Post-baccalaureate
Pre-specialized Health Studies
- 2012-2016 **Princeton University** | Princeton NJ
AB Ecology and Evolutionary Biology
Advisor: Robert Pringle, PhD

Fellowship Appointments

- 2024- **Stanford University School of Medicine** | National Cancer Institute
T32 Predoctoral Fellow, Department of Epidemiology and Population Health
“Genetic and Environmental basis of Cancer Risk and Disparities (GECaRD)”

Professional Memberships

- 2025- *Member*, Society for Epidemiologic Research

Research Experience

- 2024- **Kiang Lab** | **Stanford University** | Department of Epidemiology & Population Health
PhD Student Researcher
- Leveraging digital phenotyping to assess sleep health among young adults**
Building a digital phenotyping pipeline to process and analyze big data from smartphone sensors (e.g., accelerometer, GPS, and screen state) into meaningful and useable digital features for analyses
 - Early signs of aging among chronically stressed young adults**
Using clinical biomarkers of aging and digital phenotyping to assess the social, lifestyle, and daily movement behaviors of chronically stressed young adults

- 2018-2023 **Wang Lab | Stanford University | Department of General Pediatrics**
Data Analyst & Graduate Researcher
Childhood resilience in the Taiwan Birth Cohort Study (TBCS)
 Studied the longitudinal relationship between poverty and resilience using the life course perspective in TBCS (N>20,000) [MS Thesis]
 Developed and validated a resilience survey instrument using psychometric property analysis in a population of over 20,000 children [[paper](#)]
A mobile health intervention to reduce the risk of recurrent preterm births
 Co-developed a mobile health app, *PretermConnect*, to educate, engage and empower women at high risk for preterm births with personalized health resources on how to promote both their own and their baby's health and wellbeing [[paper](#)]
 Led the development and design of a healthcare provider-facing dashboard
 Managed 2-4 research assistants on a weekly basis
Understanding cardiometabolic risk factors for non-alcoholic fatty liver disease (NAFLD)
 Led and conducted the analysis of the associations between body fat and muscle mass and nonalcoholic fatty liver disease [[paper](#)]
 Used deep learning validation to detect NAFLD through ultrasound diagnostic imaging [[paper](#)]
- 2017-2018 **Relman Lab | Stanford University | Department of Microbiology and Immunology**
Research Assistant
Salivary flow rate and the overall health of the human oral microbiome
 Conducted over 1000 DNA extractions on human oral plaque and saliva samples
 Designed experiments to troubleshoot lab contamination issues
 Conducted preliminary analyses for microbiome data
- 2016-2017 **MacGregor Infectious Diseases Clinic | Hospital at University of Pennsylvania**
Research Assistant
Eradicating Hepatitis C in HIV/HCV co-infected patients
 Conducted quality improvement study to assess the effectiveness of the clinic's Hep C eradication initiative
 Conducted chart review, database extraction and query, and data entry
- 2014-2016 **Pringle Lab | Princeton University | Department of Ecology and Evolutionary Biology**
Undergraduate Researcher
The covariation of diet and the gut microbiome in large African mammals
 Conducted DNA-based molecular lab work on large mammalian fecal samples from our field sites in Kenya, Africa
 Conducted microbiome analyses of fecal samples to characterize the gut microbial diversity and determine the role of diet and gut physiology on the gut microbiota composition [[paper](#)]
Social tolerance and social tradition in capuchin monkeys: insights into human culture [Junior Independent Research Project]
- Summer 2014 **Boston Children's Hospital | Department of Otolaryngology and Communication Enhancement**
Summer Intern
 Co-authored a textbook chapter, "Sinusitis," that focused on the anatomy, pathophysiology, clinical and surgical treatments, and post-operative care of sinusitis
 Assessed the feasibility and efficacy of radiofrequency ablation surgical instrumentation for endoscopic resection of juvenile nasopharyngeal angiofibroma (JNA) compared to traditional endoscopic technique
 Conducted SEER data analysis in pediatric patients with tonsillar cancer

Publications

- 2025 Duan Y, Li Y, Xu C, ... **Hsing J.C.**, ..., Zhu S. (2025). Fried food consumption-related gut microbiota is associated with obesity, fat distribution, and cardiometabolic diseases: results from 2 large longitudinal cohorts with sibling comparison analyses. *Am J Clin Nutr* <https://doi.org/10.1016/j.ajcnut.2025.06.025>
- Wang W, Wang F, Li Y, ... **Hsing, J.C.**,et al. (2025). Distinct Gut Microbiota Profiles in Normal Weight Obesity and Their Association With Cardiometabolic Diseases: Results From Two Independent Cohort Studies. *J Cachexia Sarcopenia Muscle*. 16(1):e13644. <https://www.doi.org/10.1002/jcsm.13644>
- 2023 Yang, Y., Liu, J., Sun, C., Shi, Y., **Hsing, J.C.**, Kanya, A., ... & Zhu, S. (2023). Nonalcoholic fatty liver disease (NAFLD) detection and deep learning in a Chinese community-based population. *European Radiology*, 33(8), 5894-5906. <https://www.doi.org/10.1007/s00330-023-09515-1>
- 2022 **Hsing J.C.**, Lin, B.J., Pulendran U., Jani S.G., Chiang W.L., Chiang T.L., Wang C.J., (2022). Measuring early childhood resilience using age-specific instruments: a population-based study of Taiwan Birth Cohort Study. *Academic Pediatrics*. <http://doi.org/10.1016/j.acap.2022.06.002>
- Altamirano J., Grace T., Lopez M., Robison I., Chun L., Shaikh N., Leary S., Carrington Y., Jani S., Pulendran U., **Hsing J.C.**, Ma J., Toomarian E., Wang C.J., Govindarajan P., Blomkalns A., Robinson M., Maldonado Y.A., (2022). Feasibility of Specimen Self-Collection in Young Children undergoing SARS-CoV-2 Surveillance for In-Person Learning. *JAMA Network Open*. <http://doi.org/10.1001/jamanetworkopen.2021.48988>
- 2021 Jani S.G., Pulendran U., Ma J., **Hsing J.C.**, Altamirano J., Shah S., Toomarian E., Maldonado Y., Wang C.J., (2021). Prospective Pilot Study Evaluating SARS-CoV-2 Transmission-Limiting Measures in an On-Site School. *Academic Pediatrics*. <http://doi.org/10.1016/j.acap.2021.11.019>
- Hsing J.C.**, Ma J., Barrero-Castillero A., Jani S.G., Pulendran U., Lin B.J., Thomas-Urbe M., Wang C.J., (2021). Influence of health beliefs on adherence to COVID-19 preventative practices: an online international study via social media. *Journal of Medical Internet Research*. 23(2), e23720. <https://doi.org/10.2196/23720>
- Jani S.G., Nguyen A., Abraham Z., Scala M., Blumenfeld Y., Morton J., Nguyen M., Ma J., **Hsing J.C.**, Moirwa-Grant M., Profit J., Wang C.J., (2021). PretermConnect: Leveraging mobile technology to mitigate social disadvantage in the NICU and beyond. *Seminars of Perinatology*. <https://doi.org/10.1016/j.semperi.2021.151413>
- 2020 Yarney J., Ohene Oti N., Calys-Tagoe B., Gyasi R., Dua I., Akoto-Aidoo C., McGuire V., **Hsing J.C.**, Parkin M., Tetty Y., Hsing A.W., (2020). Establishing a Cancer Registry in a Resource-Constrained Region: Process Experience From Ghana. *JCO Global Oncology*, 6, 610-616. <https://doi.org/10.1200/JGO.19.00387>
- Hsing J.C.**, Wang C.J., & Wise P.H., (2020). Child health and telehealth in global, under-resourced settings. [Special issue]. *Pediatrics Clinics of North America*, 67(4), 773-781. <https://doi.org/10.1016/j.pcl.2020.04.014>
- 2019 Kartzinel T.R., **Hsing J.C.**, Musili P.M., Brown B.R.P., Pringle R.M. (2019). Covariation of diet and gut microbiome in African megafauna. *Proceedings of the National Academy of Sciences*, 116(47): 23588-23593 <https://doi.org/10.1073/pnas.1905666116>

Hsing J.C., Nguyen M. H., Yang B., Min Y., Han, S., Pung E., Winter S., Zhao X., Gan D., Hsing A.W., Zhu S., Wang C.J. (2019). Associations between body fat, muscle mass, and nonalcoholic fatty liver disease: A population-based study. *Hepatology Communications*, 3(8), 1061-1072. <https://doi.org/10.1002/hep4.1392>

2016 McLaughlin E. J., Cunningham M. J., Kazahaya K., **Hsing J.C.**, Kawai K., Adil E. A. 2016. Endoscopic Radiofrequency Ablation–Assisted Resection of Juvenile Nasopharyngeal Angiofibroma: Comparison with Traditional Endoscopic Technique. *Otolaryngology–Head and Neck Surgery*, 154(6), 1145-1148. <https://doi.org/10.1177/0194599816630942>

Teaching Assistant Experience

<u>Year</u>	<u>Course Title / Program</u>	<u>Institution</u>
Fall 2024	EPI 225: Introduction to Epidemiologic and Clinical Research Methods	Stanford University
Winter 2025	EPI 261: Intermediate Biostatistics: Analysis of Discrete Data	Stanford University
Spring 2025	EPI 262: Intermediate Biostatistics: Regression, Prediction, Survival Analysis	Stanford University
Summer 2025	EPI 259: Introduction to Probability and Statistics for Epidemiology	Stanford University
Summer 2025	Stanford Population Health Summer Research Program (previously AHEaD)	Stanford University

Poster Presentations, Honors & Awards

July 2025	Stanford Office of Graduate Education Travel Award \$1,000
June 2025	“Feasibility of smartphone-based digital phenotyping in the 3E cohort of emerging adults” Society for Epidemiologic Research Annual Meeting Boston, MA Poster
Nov 2016	The 2016 Clinical Practices at the University of Pennsylvania (CPUP) Quality & Patient Safety Award
Jun 2016	“The effect of gut physiology and diet on the gut microbiota of large mammalian herbivores” Senior Thesis Best Poster Award in Physiology Princeton University
May 2016	Princeton Research Day Princeton, NJ Undergraduate Senior Thesis Poster
Sept 2015	AAO-HNSF Annual Meeting & OTO Expo Dallas, TX Abstract

Research Grant Contributions

2022	Using mHealth to improve healthcare system performance for preterm infants and mothers NIH R01 Principal Investigator: C. Jason Wang, MD, PhD Role: drafted and edited specific aims and research strategy; conducted power calculations
2022	Modern, Integrative, Populomics Cohort for Asian American (MIPCAA) for Personalized Health NIH UG3 Principal Investigator: Ann Hsing, PhD Role: designed tables and figures; edited specific aims, research strategy, and significance
2019	Follow-up and Prevention of Preterm Birth with a Mobile Digital Strategy NIH R01 Principal Investigator: C. Jason Wang, MD, PhD Role: drafted and edited the specific aims, research strategy, and significance sections
2015-2016	The Effect of Gut Physiology and Diet on the Gut Microbiota of Large Mammalian Herbivores EEB Bonner Fund and the Office of the Dean of the College Awarded \$6,425 Role: drafted and edited entire grant; obtained funding for my undergraduate thesis research to study the gut microbiota composition of large mammalian herbivores in sub-Saharan Africa

Mentoring

<u>Year(s)</u>	<u>Mentee</u>	<u>Program</u>	<u>Institution</u>
2025	Jane Fan	Epidemiology & Population Health	Stanford University
2025	Joyce Wu	Epidemiology & Population Health	Stanford University
2019-2022	Jasmin Ma	Center for Policy, Outcomes, and Prevention	Stanford University
2020-2021	Stephanie Cheng	Center for Policy, Outcomes, and Prevention	Stanford University
2020-2021	Aviva Mattingly	Epi Peer Mentorship Program	Stanford University
2019-2021	Manafah Moiwa-Grant	Center for Policy, Outcomes, and Prevention	Stanford University
2019-2020	Nwamaka Ofudu	Center for Policy, Outcomes, and Prevention	Stanford University
2018	Emily Pung	Summer Research Internship	University of Maryland

Recent Community Service & Outreach

2025-	Epidemiology & Population Health (EPH) Stanford University <i>EPH Ambassador</i> Guided prospective and incoming students in navigating the transition to Stanford. Held monthly office hours to answer questions about the EPH program, department, and life at Stanford.
2021-	WELL for Life Stanford University <i>Resident Artist & Information Designer</i> Designed and illustrated a well-being guide (60 pages), infographics, and monthly newsletters
2021-2023	Journal Reviewer <i>BMC Public Health, Journal of Medical Internet Research</i>
2019-	Menlo Church Sanctuary Young Adults Ministry and Weekend Worship Service <i>Worship Violinist</i> Lead weekly services for the congregation in a band of 6 other members
2019-2021	Arbor Cardinal Free Clinic Stanford University <i>Mandarin Interpreter & Patient Health Navigator</i> Interpret and translate for Mandarin-speaking patients and their families; serve as their patient health navigator; provide health education
2019	Stanford Health Care Outpatient Surgery Center <i>Patient Navigator</i> Guided patients and families to the pre-operating area, assisted charge nurse and staff as needed Created informational packets for discharge