Julianna C. Hsing, MS

PhD Student in Epidemiology and Population Health
Stanford University School of Medicine
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Education

2023- **Stanford University** | Stanford CA
PhD Epidemiology & Clinical Research
Co-advisors: Mathew Kiang, ScD, Michelle Odden, PhD
Written Qualification Exam: Completed Spring 2024
Oral Qualification Exam: Planned for Fall 2026
Expected Graduation: June 2029

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

Professional Appointments & Memberships

2025- **Society for Epidemiologic Research (SER)**
Member

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)"

Research Experience

2024- **Kiang Lab** | **Stanford University** | Department of Epidemiology & Population Health
PhD Student

Leveraging digital phenotyping to assess cardiometabolic 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 Wang W, Wang F, Li Y, …**Hsing, J.C.,** ….et al. Distinct Gut Microbiota Profiles in Normal Weight Obesity and Their Association With Cardiometabolic Diseases: Results From Two Independent Cohort Studies. *J Cachexia Sarcopenia Muscle*. 2025;16(1):e13644. https://www.doi.org/10.1002/jcsm.13644

2023 Yang, Y., Liu, J., Sun, C., Shi, Y., **Hsing, J.C.,** Kamya, 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-Uribe 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.,** Moiwa-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 Experience

Year	Course Title	Institution
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

Poster Presentations, Honors & Awards

June 2025	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	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 |In preparation | 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 | In preparation | 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 | Submitted | 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

Year(s)	Mentee	Program	Institution
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	Manafoh 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

2021- **WELL for Life** | Stanford University
Volunteer Information Designer

Designed and illustrated a well-being guide (60 pages), infographics, and monthly newsletters

2021-2023 **Journal Reviewer**
BMC Public Health, Journal of Medical Internet Research

2019- **Menlo Church** | Sanctuary Young Adults Ministry and Weekend Worship Service
Worship Violinist
Lead weekly services for the congregation in a band of 6 other members

2019-2021 **Arbor Cardinal Free Clinic** | Stanford University
Mandarin Interpreter & Patient Health Navigator
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
Patient Navigator
Guided patients and families to the pre-operating area, assisted charge nurse and staff as needed
Created informational packets for discharge

Recent Leadership & Extracurricular Activities

2024- **InterVarsity Graduate** | Christian Fellowship
Worship Leader
Coordinate and lead the worship team of 5-10 individuals to provide musical worship music for the larger fellowship (20-30 individuals)

2022- **Stanford Medicine Orchestra**
Violin I
Inaugural Stanford Medicine Orchestra under the guidance of Dr. Bryant Lin (Primary Care and Population Health), Christopher Constanza (Cellist in the St. Lawrence String Quartet and Artist-in-Residence at Stanford, St.) and the conductorship of Terrance Yan (Apple)

2012-2016 **Princeton Taekwondo Club**
President (2015-2016); Vice President (2014-2015); Equipment Chair (2013-2014)
1st place at the 2014 NCATA Collegiate Nationals in Berkeley, CA
3rd place at the 2013 NCATA Collegiate Nationals in Colorado Springs, CO

2012-2016 **Princeton University Orchestra**
Violin, Section Leader