Jayati Sharma, PhD, ScM

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EDUCATION AND TRAINING

National Cancer Institute Department of Cancer Epidemiology & Genetics (DCEG)	iCURE Postdoctoral Fellow *Advisors: Dr. Phillip Kraft & Dr. Rena Jones*	Sept 2025 - Present
Johns Hopkins University Bloomberg School of Public Health (BSPH)	PhD in Genetic Epidemiology *Advisors: Dr. Genevieve Wojcik & Dr. Miranda Jones* *GPA: 4.0*	Aug 2025
Johns Hopkins University Bloomberg School of Public Health	ScM in Genetic Epidemiology *GPA: 4.0*	May 2022
University of Arizona	B.S. Public Health, Quantitative Methods, Honors; B.S. Molecular & Cellular Biology Magna Cum Laude *GPA: 3.7*	May 2020

GRANT FUNDING

NIH NHGRI F31: **"Evaluation of Polygenic Risk Scores as a Valid Instrument to Conduct Mendelian Randomization in Diverse Ancestry Populations"**
F31HG013440; October 2024 - August 2025

RESEARCH EXPERIENCE

National Cancer Institute:
Postdoctoral Fellow & iCURE Scholar, DCEG   **Sep 2025-Present**
PIs: Phillip Kraft, PhD & Rena Jones, PhD
- Interrogating the utility of polygenic risk scores and environmental exposures (e.g. social determinants of health, geospatial measures, and behavioral characteristics) for various cancer phenotypes through integrated statistical models

Johns Hopkins University:
Graduate Researcher, **Research on Ancestry in Genetic Epidemiology (RAGE) Lab   Feb 2021-Aug 2025**
PI: Genevieve Wojcik, PhD, MHS
- Examining causal inference and risk prediction methods in the All of Us Research Program and Population Architecture Using Genomics and Epidemiology (PAGE) Study, specifically incorporating gene-environment interactions of smoking and air pollution on LDL cholesterol -- Dissertation Work
- Exploring the presence, extent, and mechanisms of gene-environment interactions in the Environmental influences on Child Health Outcomes (ECHO) Study, especially via modeling of polygenic risk scores
- Conducted an analysis of the gene-environment relationship and interaction between diverse genetic ancestry, polygenic obesity risk, and acculturation using data from the PAGE Study and from the Hispanic Community Health Study/Study of Latinos (HCHS/SOL)

Graduate Research Assistant, Cigarette Restitution Fund Study on Social Determinants of Health and Smoking Behavior in the All of Us Research Program   **Sept 2024-Jul 2025**
PI: Miranda Jones, PhD, MHS
- Investigating differences in tobacco use behaviors among participants in the All of Us Research Program and associations with both social determinants of health in patients stratified by cancer history

BSPH Course: Baltimore Community Data Science
Data Science Consultant   **Feb 2021-June 2022**
- Partnered with local Baltimore nonprofit, HeartSmiles, to provide data science support via data organization in R, data wrangling, exploratory data analysis, dashboard development, and social media analysis to improve marketing and outreach strategy
- Regularly served as liaison between team of 5 data scientists and nonprofit partner to establish goals, timelines, review deliverables, and improve organizational workflows, resulting in training young data scientists to take on future data science project management

Research Assistant - Data Analyst, International Vaccine Access Center (IVAC)   **July 2021-June 2022**
PI: Ruth Karron, MD & Co-PI: Maria Knoll, PhD
- Analyzed longitudinal prospective cohort data from the SARS-CoV-2 Epidemiology and Response in Children (SEARCh) study of >150 Maryland families to understand factors related to SARS-CoV-2 infection risk and presentation in children, particularly those aged 0-5 years
- Collaborated with other senior data analysts in data management and cleaning, exploratory and descriptive analyses, and generation of figures, data visualizations, and tables for manuscripts, and regular reports to CDC collaborators, all conducted in R

University of Arizona:
Undergraduate Student Researcher, **Klimentidis Lab**   **May 2019-Aug 2020**
PI: Yann Klimentidis, PhD
- Conducted an independent research study for Honors thesis in genetic epidemiology using R to statistically understand correlations between diet, genetics, and risk of cardiometabolic diseases from data of ~500,000 participants in the UK Biobank
- Gained experience in conducting multiple genome-wide association studies (GWAS), Mendelian Randomization, and genetic risk score analysis using genetic software (e.g. PLINK, MR Base)
- Developed a proposal in collaboration with 23andMe to study gene-environment interactions related to meat consumption and resulting causal links to cardio-metabolic diseases and cancers

Undergraduate Student Researcher, **EPIC El Rio Study**   **July 2019-Mar 2020**
Co-PI: Melanie Hingle, PhD, MPH, RDN
- Collected data (in English & Spanish) for a study designed to ascertain health outcomes among mothers and children at high Type 2 Diabetes risk who received a short-term educational intervention
- Trained in the assessment of several biometric measures, including height, weight, waist circumference, and HbA1c protocol; trained in administering and verifying responses for a variety of questionnaires (e.g. PRAPARE, Tanner, FFQ)

Community Food Bank of Southern Arizona (CFB):
Research Consultant Intern, **FRESH2 Study**   **June 2018-July 2020**
PI: Melanie Hingle, PhD, MPH, RDN
- Analyzed & described diet quality among food bank clients, to inform a nutrition intervention helping food-insecure food bank clients prevent and manage diet-related diseases (e.g. diabetes)
- Trained in qualitative research methodology, including conducting surveys and in-depth interviews, using qualitative data analysis software, and analyzing qualitative data using thematic analysis

Health & Nutrition Policy & Assessment Specialist Intern   **May 2019-Aug 2019**
- Led an in-depth review of several Feeding America food banks' nutrition policies and implementation strategies to structure recommendations for CFB, in collaboration with a graduate research assistant
- Researched and developed a proposal for a nutritional assessment system & to promote client health; presented to CEO, CPO, COO and Health Initiatives Team

PUBLICATIONS & ABSTRACTS

Pre-Prints:
Sharma J, McArdle CE, Graff M, Cordero C, Daviglus MA, Gallo LC, Isasi CR, Kelly TN, Perreira KM, Talavera GA, Cai J, North KE, Fernandez-Rhodes L, Wojcik GL. Influence of Genetic Ancestry on Gene-Environment Interactions of Polygenic Risk and Sociocultural Factors: Results from the Hispanic Community Health

Study/Study of Latinos. Preprint. medRxiv. 2024;2024.11.26.24318009. Published 2024 Nov 29. doi:10.1101/2024.11.26.24318009

Peer-Reviewed Publications:
Smith JL, Adebamowo CA, Adebamowo SN, … **Sharma J**, Wang Y, Wojcik GL, PRIMED Consortium, Quan Sun. (2025). Recommendations for responsible use of population descriptors in polygenic risk score development. *Nature genetics*. https://doi.org/10.1038/s41588-025-02395-9

Khan, A. T., Adebamowo, C., Fullerton, S. M., Hirbo, J., … **Sharma J**, Smith JL, Sun Q, Zhang Y, PRIMED Consortium, Gogarten, S. M. (2025). A data model for population descriptors in genomic research. *American journal of human genetics*, 112(7), 1504–1514. https://doi.org/10.1016/j.ajhg.2025.05.011

Sharma J, McArdle CE, Graff M, Cordero C, Daviglus M, Gallo LC, Isasi CR, Kelly TN, Perreira KM, Talavera GA, Cai J, North KE, Fernández-Rhodes L, Wojcik GL. Genetic ancestry influences gene-environment interactions with sociocultural factors: Results from the Hispanic Community Health Study/Study of Latinos (2025). *Human genetics and genomics advances.* https://doi.org/10.1016/j.xhgg.2025.100451

Garcia Quesada M, Hetrich MK, Zeger S, **Sharma J**, et al. Predictors of SARS-CoV-2 seropositivity prior to COVID-19 vaccination among children 0-4 years and their household members in the SEARCh Study. *Open Forum Infectious Diseases.* 2022;9(10). https://doi.org/10.1093/ofid/ofac507

Short E, **Sharma J**, Thompson DI, Taren D, Gonzalez R, Hingle M. Food Assistance Use Among Food Bank Clients Affected by Type 2 Diabetes. *J Nutr Educ Behav*. 2022;54(4):288-298. doi:10.1016/j.jneb.2021.11.001

Sharma J, Menon G. Successful Community Involvement During the COVID-19 Pandemic: A Student Perspective. *Am J Public Health*. 2022;112(4):598-600. doi:10.2105/AJPH.2021.306671

Pogreba Brown K, Austhof E, Rosa Hernández AM, McFadden C, Boyd K, **Sharma J**, Battaglia S, Shilen A, & Heslin K. Training and Incorporating Students in SARS-CoV-2 Case Investigations and Contact Tracing. *Public Health Rep*. 2021;136(2):154-160. doi:10.1177/0033354920974664

Abstracts:
Sharma J, Cai Y, Wang Z, Lin M, Gignoux C, Graff M, Haiman C, Kooperberg C, Matise T, North K, Peters U, Kenny EE, Jones MR, Wojcik GL. Assessing the Performance of a Multi-Ancestry Polygenic Risk Score for LDL when Incorporating Gene-Environment Interactions of Smoking and Air Pollution in Racially and Ethnically Diverse Groups: Results from the PAGE Study. *American Society of Human Genetics*. November 2024.

Sharma J, Cai Y, Wang Z, Lin M, Haiman C, North K, Peters U, Kenny EE, Jones MR, Wojcik GL. Predictive Performance of a Multi-Ancestry Polygenic Risk Score for LDL with Gene-Environment Interactions of Smoking and Air Pollution in Diverse Groups: Results from the PAGE Study. *International Genetic Epidemiology Society*. November 2024.

Sharma J, Cai Y, Wang Z, Lin M, Haiman C, North K, Peters U, Kenny EE, Jones MR, Wojcik GL. Smoking Status Modifies the Effect of Multi-Ancestry PRS on LDL levels in Diverse Racial and Ethnic Groups. *Johns Hopkins University Genetics Research Day*. September 2024.

Sharma J, Sartori A, Lin M, Kenny E, Gignoux C, Haiman C, Kooperberg C, Matise T, North K, Wojcik GL. Multi-Ancestry LDL Polygenic Risk Score Performance Incorporating Gene-Environment Interactions in Diverse Racial/Ethnic Groups: Results from the PAGE Study. *Program in Quantitative Genetics Conference, Harvard T.H. Chan School of Public Health*. October 2023.

Sharma J, McArdle C, Graff M, Isasi C, Daviglus M, Talavera GA, North KE, Fernandez-Rhodes L, Wojcik GL. Investigating the Influence of Genetic Ancestry on Gene-Environment Interactions of Polygenic Risk Score and Acculturation: Results from the Hispanic Community Health Study/Study of Latinos. *American Society of Human Genetics.* October 2022. *Selected as Reviewer's Choice Abstract*

Hingle M, Short E, **Sharma J**, Taren D, Gonzalez R, Sheava J, Thompson D. Client-driven modifications to food assistance and related resources for households affected by Type 2 diabetes. *International Society for Behavioral Nutrition and Physical Activity Symposium.* April 2020. *Canceled due to COVID-19

Short E, **Sharma J**, Thompson D, Gonzalez R, Sheava J, Taren D, Hingle M. Client Preferences and Diabetes Management Guidelines Inform the Design and Elements of a Therapeutic Food Box Intervention. *Society for Behavioral Nutrition 2020 Rapid Communications Poster Abstracts.* April 2020. *Canceled due to COVID-19

Sharma J, Klimentidis Y. Genetics of Meat Consumption & Cardiometabolic Disease. *The University of Arizona Public Health Poster Forum.* March 2020. *Canceled due to COVID-19

PRESENTATIONS & TALKS

INVITED TALKS
Alleles, Acculturation, and Area Codes: Unpacking Genetic and Environmental Influences on Disease. **George Washington University Milken Institute School of Public Health Department of Epidemiology Seminar.** February 2026.

Genetic ancestry influences gene-environment interactions with sociocultural factors. **ASHG – Human Genetics & Genomics Advances Journal Club Seminar.** August 2025. (Virtual.)

The Impact of Social Determinants of Health on Smoking Behaviors in US adults: Evidence from the All of Us Research Program. **Delta Research and Educational Foundation (partner organization of the All of Us Research Program)**. November 2024. (Virtual.)

"Genomic Data in the All of Us Research Program": Role of Ancestry, Race, and Ethnicity in Genetic and Biomedical Research. **JHU Sidney Kimmel Comprehensive Cancer Center Journal Club.** October 2024. (Baltimore, MD, USA.)

Evaluation of Polygenic Risk Scores as a Valid Instrument to Conduct Mendelian Randomization in Diverse Ancestry Populations. **PAGE Study Virtual Meeting**. September 2024. (Virtual.)

GxE Interactions of BMI PRS and Acculturation. **HCHS/SoL Obesity Special Interest Group**. January 2023. (Virtual.)

Investigating the Influence of Genetic Ancestry on Gene-Environment Interactions of Polygenic Risk Score and Acculturation: Results from the Hispanic Community Health Study/Study of Latinos. **Lightning Talk, American Society of Human Genetics**. October 2022. (Los Angeles, CA, USA)

Nutrition Assessment System (NAS) Development Proposal. Presentation with Health Initiatives Team to **Community Food Bank of Southern Arizona** CEO, CPO, & COO. June 2019. (Tucson, AZ, USA)

PRESENTATIONS
Storytelling for Better Science (And Scientists!) **JHU Doctoral Seminars in Epidemiology.** December 2024. (Baltimore, MD, USA.)

Investigating the Influence of Genetic Ancestry on Gene-Environment Interactions of Polygenic Risk Score and Acculturation: Results from the Hispanic Community Health Study/Study of Latinos. **Johns Hopkins Bloomberg School of Public Health (BSPH) Masters' Thesis Symposium**. May 2022. (Baltimore, MD, USA)

TEACHING EXPERIENCE

Johns Hopkins Bloomberg School of Public Health, Baltimore, MD

TA, Doctoral Seminars in Epidemiology	2024
TA, Principles of Epidemiology (MPH Program)	2024
TA, Epidemiologic Methods III	2024
TA, Epidemiologic Methods II	2023
TA, Epidemiologic Methods I	2021, 2023
TA, Principles of Genetic Epidemiology (Undergraduates)	2022
TA, Fundamentals of Epidemiology (Section Instructor)	2021

University of Arizona, Tucson, AZ

Organic Chemistry I & II Supplemental Instruction Leader	2018-19
General Chemistry I & II Supplemental Instruction Leader	2017-18

OTHER SELECTED INVOLVEMENT

Member, Science Communication Subcommittee   December 2024-August 2025
Epi-IDEAS, BSPH Department of Epidemiology

Editor-in-Chief, *GeneBites.org*   January 2024-Present

Freelance Science Communicator   January 2023-Present

Contributor, JHU Lead, *Genomics Preprint Club*   December 2024-September 2025

Student Spaces & Newsletter Chair   August 2021-May 2023
BSPH Epidemiology Student Organization

Science Reporting Fellow, AAAS Mass Media Fellowship   June 2022-Aug 2022
The Wichita Eagle, Kansas

Membership Committee Co-Chair   Oct 2020-Oct 2021
American Public Health Association, Student Assembly

Graduate Student Writer for COVID-19 Research Database   Oct 2020-May 2021
Johns Hopkins Center for Humanitarian Health

Department Assistant, COVID-19 Task Force   Mar 2020-Sept 2020
University of Arizona Department of Epidemiology & Biostatistics

SERVCE

Representative, Trans-divisional Research Program   October 2025-Present
NCI DCEG Fellows' Committee
Reviewer, *Public Health Genomics*   December 2025-Present
Reviewer, *Cancer Epidemiology, Biomarkers, and Prevention*   September 2025-Present
Reviewer, *British Journal of Cancer*   February 2026-Present

MENTORSHIP

Panelist, *All of Us Evenings with Genetics* Undergraduate Townhall, Baylor College of Medicine   2024
Peer Mentor, Cientifico Latino   2024-Present
Student Mentor, Epidemiology Student Organization @ BSPH   2021-2024
PATH Mentor, UArizona Honors College   2018-2019

AFFILIATIONS & PROFESSIONAL MEMBERSHIPS

Affiliate Member, **PRIMED Consortium**	2024-Present
Trainee Member, **PAGE Consortium**	2022-Present
American Society for Human Genetics	2022-Present
International Genetic Epidemiology Society	2020-Present
American Academy for the Advancement of Science	2022-2023
American Public Health Association (APHA)	2020-2021

AWARDS & HONORS

Intramural Continuing Umbrella of Research Experiences (iCURE) Scholar	2025
UCLA Emerging Genomic Scientist Fellow, Dept of Human Genetics	2025
BSPH Epidemiology, Mary B. Meyer Scholarship Fund Recipient	2025
The Maryland Genetics, Epidemiology, and Medicine (MD-GEM) Fellow (Funded)	2023-24
The Abraham Lilienfield Teaching Assistantship for Epidemiologic Methods (Funded)	2023-24
AAAS Mass Media Fellowship (Funded; Science Journalism Fellowship)	2022
ASHG Reviewer's Choice Abstract	2022
Epidemiology Chairs Fellowship (Funded)	2022
APHA Epidemiology Section Student Scholarship Recipient	2021
Photon Fellow, Massive Science (Funded Science Communication Award)	2021
BSPH Master's Tuition Scholarship	2020-22
UA Honors Legacy Conference Award	2020
UA Honors Professional Development Award	2020