Tongqiu Iris Jia

Contact

Department of Genome Sciences
University of Washington
Seattle, WA 98195

E-mail: t1jia@uw.edu
Website: https://tongqiu-jia.github.io

Education

2022-	PhD, Genome Sciences, University of Washington, Seattle, WA
2020-2022	MPH, Epidemiology, University of Washington, Seattle, WA
2014-2018	BS, Bioinformatics, University of California, San Diego, La Jolla, CA

Research Fellowships

2022-2024	NHGRI Genome Training Grant

Awards & Honors

2024	Parker Travel Award for best poster finalist, Department of Genome Sciences, UW

Publications

8. Bakis, A. G., Vora, A. A., Araki, T., **Jia, T.**, Galloway, J. G., Jennings-Shaffer, C., Victora, G. D., Song, Y. S., DeWitt, W. S., Matsen IV, F. A., and others. Bayesian inference of antibody evolutionary dynamics using multitype branching processes. *arXiv preprint arXiv:2508.09519*, 2025. [Link]

7. DeWitt, W. S., Vora, A. A., Araki, T., Galloway, J. G., Alkutkar, T., Bortolatto, J., Castro, T. B. R., Dumm, W., Jennings-Shaffer, C., **Jia, T.**, and others. Replaying germinal center evolution on a quantified affinity landscape. *bioRxiv*, 2025. [Link]

6. Haas, C. B., Jordahl, K. M., Nance, R. M., Whitney, B. M., Wang, L., Delaney, J. A. C., Ruderman, S., **Jia, T.**, Mathews, W. C., Saag, M. S., and others. Assessing the associations between known genetic variants and substance use in people with HIV in the United States. *PloS one*, 18(10):e0292068, 2023. [Link]

5. Wright, S. N., Leger, B. S., Rosenthal, S. B., Liu, S. N., **Jia, T.**, Chitre, A. S., Polesskaya, O., Holl, K., Gao, J., Cheng, R., and others. Genome-wide association studies of human and rat BMI converge on synapse, epigenome, and hormone signaling networks. *Cell reports*, 42(8), 2023. [Link]

4. **Jia, T.**, Munson, B., Lango Allen, H., Ideker, T., and Majithia, A. R. Thousands of missing variants in the UK Biobank are recoverable by genome realignment. *Annals of human genetics*, 84(3):214–220, 2020. [Link]

3. Aimon, S., Katsuki, T., **Jia, T.**, Grosenick, L., Broxton, M., Deisseroth, K., Sejnowski, T. J., and Greenspan, R. J. Fast near-whole-brain imaging in adult Drosophila during responses to stimuli and behavior. *PLoS biology*, 17(2):e2006732, 2019. [Link]

2. Carlin, D. E., Fong, S. H., Qin, Y., **Jia, T.**, Huang, J. K., Bao, B., Zhang, C., and Ideker, T. A fast and flexible framework for network-assisted genomic association. *iScience*, 16:155–161, 2019. [Link]

1. Huang, J. K., **Jia, T.**, Carlin, D. E., and Ideker, T. pyNBS: a Python implementation for network-based stratification of tumor mutations. *Bioinformatics*, 34(16):2859–2861, 2018. [Link]

Presentations   *talk   † poster

2025	[†] North America Cystic Fibrosis Conference, Seattle, USA
2025	[†] Gordon Research Conference: Microbial Population Biology, Andover, USA
2025	[*] UW Science Now, Seattle Town Hall, Seattle USA [*Public talk for general audience*]
2024	[†] Society for Molecular Biology & Evolution Annual Meeting, Puerto Vallarta, Mexico
2022	[†] American Society of Human Genetics Annual Meeting, Los Angeles, USA

Professional Experiences

2022	Bioinformatics Intern, PetDx, San Diego, CA
	Focused on research in early cancer detection for canines with liquid biopsies
2021-2022	Graduate Research Assistant with Sara Lindstroem, UW, Seattle, WA
	Studied the role of host genetics on weight gain following ART initiation in people living with HIV
2020-2021	Graduate Research Assistant, Department of Epidemiology, UW, Seattle, WA
	Evaluated the public health impact of exposure notification app, WA Notify
2018-2020	Applications Programmer with Trey Ideker, UC San Diego Health, La Jolla, CA
	Developed network-based GWAS methods for cross-species translation and shared disease mechanism discovery
	Developed Python software of Network Based Stratification algorithm (pyNBS)
2017-2018	Lab Technician with Terrence Sejnowski & Sophie Aimon, Salk Institute for Biological Studies, La Jolla, CA
	Processed and analyzed large fruit fly whole brain image and behavioral datasets

Teaching

2024	TA, GENOME 361: Fundamentals of Genetics and Genomics, UW	Fall 2024
2023-	Co-instructor, Girls Who Code, Fred Hutch Chapter	Fall 2023, 2024, 2025
2020-2022	TA, Pathway and Network Analysis for Omics Data, Summer Institute in Statistical Genetics, UW	Summer 2020, 2021, 2022
2020-2021	TA, DATA 512: Human-centered Data Science, UW	Fall 2020, 2021

Academic, Community & University Service

2025-	Vice President, Community Organizers of Genome Sciences, UW
2024-	Planning committee, Research After Dark Networking, Fred Hutch
2023-	Co-organizer, Girls Who Code, Fred Hutch Chapter
2023-	International and ESL scholar spoke, Community Organizers of Genome Sciences, UW
2022	Volunteer, Anti-Racism & EDI Sub-committee, Curriculum Committee, Department of Epidemiology, UW

Mentorship

2024-2025	Yirui Chen, Undergraduate, University of Washington
	Mary Gates Research Scholarship awardee	Next position: PhD student, University of Utah
2020	Dalia Sebat, High School student, Canyon Crest Academy
	dkNET Summer of Data Internship awardee	Next position: Undergrad, UC Santa Barbra