

ELAINE HUANG

Bioinformatics PhD Candidate
National Science Foundation (NSF) Fellow

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PRIMARY PROJECTS

In review	Unveiling the role of genetic variants on RNA stability Developed a computational workflow (RNAtracker) to distinguish genetic variants that alter mRNA stability from those that regulate transcription. Identified and validated genetic variants that modulate mRNA stability, many of which were found to be involved in immune-related pathways.
In progress	Investigation of endogenous RNA editing as a timestamp for gene transcription Developed a method to utilize A-to-I editing levels as an indicator for the age of an RNA molecule (i.e. time since transcription).
In progress	Double-stranded RNAs and Alzheimer's Disease Performed genome-wide identification and analysis of double-stranded RNAs expressed in Alzheimer's disease (AD) patients. Identified hypoediting trend in AD patients and characterized putatively disease-related immunogenic dsRNAs.

EDUCATION

2020 - Present	University of California, Los Angeles Bioinformatics Interdepartmental PhD Program	Los Angeles, CA
2015 - 2019	Lafayette College B.S./Neuroscience/B.A. Philosophy (GPA: 3.91/4.00)	Easton, PA

AWARDS AND HONORS

2022-2027	National Science Foundation (NSF) Graduate Research Fellowship
2022	NIH Genomic Analysis Training Program (GATP) Grant Awardee *offer declined
2020-21; 2025-26	Eugene V. Cota-Robles Fellowship (UCLA)
2020-21	Graduate Dean's Scholar Award (UCLA)
2015-2019	Marquis Scholarship (Lafayette College)
2019	William Rappolt '67 and Walter Oechsle '57 Neuroscience Prize (Lafayette College)

PUBLICATIONS

Huang E, Fu T, Zhang L, Yan G, Yamamoto R, Terrazas S, Nguyen T, Gonzalez-Figueroa C, Khanbabaei A, Bahn J, Varada R, Amoah K, Hervoso J, Paulsen MT, Magnuson B, Ljungman M, Li J, Xiao X. "Unveiling the hidden role of RNA stability as a link between genetic variation and disease." (Under review)

Huang E, Frydman C, Xiao X. "Navigating the landscape of epitranscriptomics and host immunity." *Genome Research*. (2024): 34(4).

Liu Z, Quinones-Valdez G, Fu T, **Huang E**, Choudhury M, Reese F, Mortazavi A, Xiao X. "L-GIREMI uncovers RNA editing sites in long-read RNA-seq." *Genome Biology*. (2023): 24(171).

Guo L, Bloom JS, Sykes S, **Huang E**, Kashif Z, Pham E, Ho Katarina, Alcaraz A, Xiao X, Duarte-Vogel S, and Kruglyak L. "Genetics of white color and iridophoroma in Lemon Frost leopard geckos." *PLOS Genetics*. (2021) 17(6): e1009580.

Katsanis SK, **Huang E**, Grant V, Warner E, Young A, Larson S, and Wagner JK. "Caring for trafficked and unidentified patients in the EHR shadows: Shining a light by sharing the data." *PLOS One*. (2019) 14(3): e0213766.

Seacrist T, Douglas EC, **Huang E**, Megariotis J, Prabahar A, Kashem A, Elzarka A, Haber L, MacKinney T, and Loeb H. "Analysis of Near Crashes Among Novice Teen, Young Adult, and Experienced Adult Drivers Using the SHRP2 Naturalistic Driving Study." *Traffic Injury Prevention*. (2018) 18(sup 1): S89-S96.

Huang E and Wagner JK. "The Indefinite 'Stay' on Regulatory Reforms for Research with Prisoners." *The American Journal of Bioethics*. (2017) 17(7): 1-3.

Huang E, Cauley J, and Wagner JK. "Barred from better medicine? Reexamining the regulatory barriers to the inclusion of prisoners in research." *Journal of Law and Biosciences*. (2017) 4(1): 159-174.

PRESENTATIONS

03/17/2025	RNA Editing Gordon Research Conference "Investigation of endogenous RNA editing as a timestamp for transcript age" (poster)	Lucca, Italy
11/09/2024	American Society of Human Genetics Annual Meeting "Unveiling the hidden role of RNA stability as a link between genetic variation and disease"	Denver, CO
10/23/2024	UCLA Riboforum "Unveiling the hidden role of RNA stability as a link between genetic variation and disease"	Los Angeles, CA
09/24/2024	UCLA QCBio Retreat "Unveiling the hidden role of RNA stability as a link between genetic variation and disease"	Los Angeles, CA

TEACHING/MENTORING

Teaching Assistant for PHYS125 (Molecular Systems Biology) (Spring Quarter 2024)

Graduate student mentor for first-year rotation student in Genetics & Genomics (Winter Quarter 2024)

Graduate student mentor for first-year rotation student in Genetics & Genomics (Spring Quarter 2023)

Graduate student mentor for first-year rotation student in Molecular Biology (Winter Quarter 2022)

Graduate student mentor for first-year rotation student in Bioinformatics (Fall Quarter 2022)

SERVICE

American Society of Human Genetics (ASHG) DNA Day Essay Content Judge (2025)

UCLA Bioinformatics Annual Retreat Planning Committee (2023-2024)

Graduate student mentor for first-year rotation students (2022-2023)

UCLA Bioinformatics Student Representative (2021-2023)