Adam Youlin He

Curriculum Vitae

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Skills

Biology Genomics and transcriptomics
- Data preprocessing (trimming, QC, alignment), peak calling, visualization, differential analysis
- Experience with transcriptomics (mRNA-seq, CAGE-seq, PRO-seq), ATAC/DNase-seq, ChIP-seq, variant calling and imputation.

Statistical genetics (GWAS, polygenic scores, QTL mapping, fine-mapping).

ML classical machine learning methods (random forests, gradient boosting, support vector machines), deep neural networks (CNNs, transformers)

Programming Python, R, Bash scripting, Git/Github

Work Experience

2026– **Postdoctoral Scholar**, *Department of Genetics, Stanford University School of Medicine*.
Advisor: Anshul Kundaje

2022 **Medical Affairs Intern**, *Regeneron Pharmaceuticals, Inc.*.
Developed and interpreted survival models to identify predictors of immune checkpoint inhibitor therapy outcomes.

Education

2019–2025 **Ph.D.**, *Computational Biology, Cornell University*.
Dissertation: Single nucleotide resolution modeling of transcription initiation. *Advisor: Charles Danko*

2013–2017 **B.A.** *Biology and Mathematics (double major), Pomona College*

Publications

2026 **A. Y. He** and C. G. Danko. Dissection of core promoter syntax through single nucleotide resolution modeling of transcription initiation. *Nat. Genet.* (In press). Preprint: doi:10.1101/2024.03.13.583868

2025 K. Jiang, E. K. Haley, G. Barshad, **A. Y. He**, A. Rogic, E. Rice, M. Sudman, S. D. Thompson, C. G. Danko, J. Jarvis. Functional and computational interrogation of the juvenile idiopathic arthritis risk loci identifies candidate causal SNPs and target genes in CD4+ T cells. *medRxiv* doi:10.64898/2025.12.15.25342296

2025 R. J. Acosta, D. A. G. McIntyre, J. C. Murray, V. Anagnostou, J. R. Brahmer, T. Sims, G. A. Daniels, A. Meisel, A. Sezer, M. Gogishvili, T. Melkadze, A. Baramidze, T. Makharadze, **A. Y. He**, V. Jankovic, G. Geba, A. Pillai, F. Seebach, P. Rietschel, G. Gullo, J. Pouliot, and Y. Kim. Peripheral myeloid and lymphocytic cells as prognostic markers in patients with non-small cell lung cancer treated with cemiplimab: a pooled analysis of the EMPOWER-Lung 1 and EMPOWER-Lung 3 trials, *Cancer Treat. Res. Commun.* doi:10.1016/j.ctarc.2025.100959.

2024 **A. Y. He**, N. P. Palamuttam and C. G. Danko. Training deep learning models on personalized genomic sequences improves variant effect prediction. *BioRxiv*. doi:10.1101/2024.10.15.618510

2024 E. K. Haley, G. Barshad, **A. Y. He**, E. J. Rice, M. Sudman, S. D. Thompson, E. A. Crinzi, K. Jiang, C. G. Danko, and J. N. Jarvis. Using functional genomic data in monocytes/macrophages and genotyping to nominate disease-driving single nucleotide polymorphisms in juvenile idiopathic arthritis. *BioRxiv*. doi:10.1101/2024.08.19.608312

2019 E. Flapan, **A. Y. He**, and H. Wong. Topological descriptions of protein folding. *Proc. Natl. Acad. Sci. U.S.A.* doi:10.1073/pnas.1808312116.

2018 R. Mooney, A. A. Majid, D. Mota, S. Aramburo, **A. Y. He**, J. Covello-Batalla, D. Machado, J. Gonzaga, L. Flores, and K. S. Aboody. *Bcl-2* overexpression improves survival and efficacy of neural stem cell-mediated enzyme prodrug therapy. *Stem Cells Int.* doi:10.1155/2018/7047496.

Talks

2023 Mechanisms of Eukaryotic Transcription, Cold Spring Harbor, NY.

2018 American Mathematical Society Spring Eastern Sectional Meeting, Boston, MA.

2017 Southeastern Undergraduate Mathematics Workshop, Atlanta, GA.

Posters

2025 American Society of Human Genetics, Boston, MA. Reviewer's Choice Award (top 10% of posters).

2024 Machine Learning in Computational Biology, Seattle, WA. Selected for spotlight (top 20% of posters).

2022 Systems Biology: Global Regulation of Gene Expression, Cold Spring Harbor, NY.

2020 American Society of Human Genetics, Virtual. Reviewer's Choice Award (top 10% of posters).

2019 8th Human Genetics in NYC Conference, New York City, NY.

2017 Joint Mathematics Meetings, Atlanta, GA.

Awards & Grants

2025 **Andrew Kligerman Fund Travel Award**, *College of Veterinary Medicine, Cornell University*.

2021–2022 **NICHD T32 Training Grant**, *Center for Vertebrate Genomics, Cornell University*.

2016 **Undergraduate Student Travel Grant**, *Mathematical Association of America*.

2015 **HHMI Summer Research Fellowship**.

2014 **Jaeger Mathematics Prize**, *Pomona College*.