Mihir G. Sukhatme

CURRICULUM VITAE

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Computational and Systems Biology @ MIT
Cambridge, MA 02139, USA

EDUCATION

Massachusetts Institute of Technology (MIT) August 2025 – Present
PhD in Computational and Systems Biology

University of California, Los Angeles (UCLA) September 2021 – June 2025
B. S. in Computational and Systems Biology, GPA 3.96

RESEARCH EXPERIENCE

Department of Human Genetics, David Geffen School of Medicine at UCLA,
Undergraduate Researcher October 2022 – May 2025

- Conducted independent research to explore differences in subcutaneous and visceral adipose tissue from individuals with obesity
- Identified cell-type and variant level *trans* signals for an important transcription factor in single nucleus RNA sequencing data
- Built polygenic risk scores using biobank-level data to identify abdominal obesity risk associations for *trans* genes
- Processed and analyzed single-nucleus RNA and ATAC sequencing data from human adipose tissue

VantAI
Summer Undergraduate Research Intern June 2022 - August 2022

- Developed preliminary machine learning models to evaluate E3 ligase patch functionality through binary classification of binding prediction
- Presented findings and progress in weekly standups and a final group-wide seminar

TEACHING EXPERIENCE

Department of Physics and Astronomy at UCLA
Undergraduate Learning Assistant Winter 2024, Spring 2024

- Facilitated learning by assisting graduate Teaching Assistants in Thermodynamics, Fluids, Waves, Light, & Optics Laboratory for multiple lab sections per quarter
- Learned teaching and communication techniques in weekly seminars and discussed improvements to physics labs during a weekly content review meeting

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MIHIR G. SUKHATME

PUBLICATIONS

1. **(Under review) Sukhatme MG**, Kar A**,** Lee SHT, Gelev KZ, Arasu UT, Alvarez M, Garske KM, Vaittinen M, Rajkumar S, Das SS, Kaminska D, Männistö V, Peltoniemi H, Heinonen S, Säiläkivi U, Saarinen T, Juuti A, Pietiläinen KH, Pihlajamäki J, Kaikkonen MU, Pajukanta P. Integration of single cell omics with biobank data discovers allele-specific trans effects of SREBF1 on adipocyte expression of nearly 100 genes. Under review. *Genome Medicine.* PMID: 39606332
2. Chen ZJ, Das SS, Kar A, Lee SHT, Abuhanna D, Alvarez M, **Sukhatme MG**, Gelev KZ, Heffel MG, Zhang Yi, Avram O, Rahmani E, Sankararaman S, Heionen S, Peltoniemi H, Halperin E, Pietiläinen KH, Luo C, Pajukanta P. Single-cell DNA methylome and 3D genome atlas of the human subcutaneous adipose tissue. *Nature Genetics.* PMID: 39554055. 2025
3. Lammi V et al., Long COVID Host Genetics Initiative. Genome-wide Association Study of Long COVID. *Nature Genetics.* 2025
4. The COVID-19 Host Genetics Initiative. A second update on mapping the human genetic architecture of COVID- 19. *Nature* 621, E7–E26 (2023). PMID: 37674002. 2023

ABSTRACTS, PRESENTATIONS, and POSTERS

1. *** Sukhatme, MG** et al. (2024, November). Variants at adipocyte open chromatin act in *cis* and interact in *trans* on abdominal obesity risk [Poster presentation]. Annual meeting of the American Society of Human Genetics (ASHG), Denver, Colorado, USA.
2. Kar et al. (2024, November) Epistatic SNPs land in regulatory regions and possess a similar risk as GWAS SNPs in a common liver disease, MASLD [Poster presentation]. Annual meeting of the American Society of Human Genetics (ASHG), Denver, Colorado, USA.
3. **Sukhatme, MG** et al. (2023, November). Single-cell level analysis of obese individuals' two main fat depots discovers differences in cell-type marker genes and their genetic risks for obesity. [Poster presentation]. Annual meeting of ASHG, Washington D.C., District of Columbia, USA.
4. Arasu et al. (2023, November). Single Cell Multiomics Profiling of Visceral Adipose Tissue Reveals New Insights into the Genetic Regulation of Cardiometabolic Disease. [Poster presentation]. Annual meeting of ASHG, Washington D.C., District of Columbia, USA.

PROFESSIONAL AND VOLUNTEER ACTIVITIES

- Station DJ at WMBR in Cambridge, 2025 - Present
- American Society of Human Genetics, 2023 - Present
- Computational Biologists Society at UCLA, 2021 – 2025
- Staff Member, Bruin Shelter at UCLA, 2022-2025
    - Participated in mutual aid activities involving the Los Angeles unhoused communities; worked overnight shifts at Santa Monica Shelter

AWARDS

- Recipient of MIT HEALS Fellowship (2025)
- Winner of Reviewers' Choice Abstract Award at ASHG 2024 [abstract denoted with *]
- Irma and Norman Switzer Award, David Geffen School of Medicine at UCLA (2023, 2024)
- Dean's Honors List, College of Letters and Science, UCLA (Fall 2021, Winter 2022, Spring 2022, Fall 2022, Winter 2023, Spring 2023, Winter 2024, Spring 2024)