Mihir G. Sukhatme CURRICULUM VITAE

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EDUCATION

University of California, Los Angeles (UCLA)

September 2021 – Present

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 - Present

- Conducted independent research to explore differences in subcutaneous and visceral adipose tissue from individuals with obesity
- Built polygenic risk scores using biobank-level data to identify abdominal obesity risk associations for *trans* genes
- Processed and analyzed single-nucleus sequencing data from human adipose tissue

VantAI

Summer Undergraduate Research Intern

June 2022 - August 2022

- Developed preliminary machine learning models to predict E3 ligase patch functionality
- Presented findings and progress in weekly standups and a final group-wide seminar

TEACHING EXPERIENCE

Department of Physics and Astronomy

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

PUBLICATIONS

- 1. **(Accepted, In Press)** Lammi V et al., Long COVID Host Genetics Initiative. <u>Genome-wide Association Study of Long COVID</u>. *Nature Genetics*.
- 2. **(Under review) Sukhatme MG**, Kar A, Arasu UT, Lee SHT, Alvarez M, Garske KM, Gelev KZ, 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. <u>Integration of single-cell omics with biobank data discovers trans effects of SREBF1 abdominal obesity risk variants on adipocyte expression of more than 100 genes. Nature Communications. PMID: 39606332</u>
- 3. **(Under review)** 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. <u>Single-cell DNA methylome and 3D genome atlas of the human subcutaneous adipose tissue</u>. Under review, *Nature Genetics*. PMID: 39554055
- 4. The COVID-19 Host Genetics Initiative. <u>A second update on mapping the human genetic architecture of COVID-19</u>. *Nature* 621, E7–E26 (2023). PMID: 37674002

ABSTRACTS AND PRESENTATIONS

- 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

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

AWARDS

- 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)