Stanford

Siavash Moghadami

Ph.D. Student in Chemical and Systems Biology, admitted Summer 2022

Bio

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Siavash Moghadami is a Ph.D. student in Chemical and Systems Biology at Stanford University School of Medicine, co-mentored by Professors Carolyn Bertozzi and Longzhi Tan. His work sits at the intersection of chemical biology, neuroscience, artificial intelligence (AI), and aging, with a long-term vision of building programmable brain–body physiology for healthy longevity so that fewer families have to watch their loved ones age in frailty.

Before Stanford, Siavash earned his B.Sc./M.Sc. in Biochemistry and Chemical Biology from the University of California, San Diego, graduating summa cum laude with highest departmental distinction and honors.

A proud immigrant pursuing the American dream, Siavash feels a profound sense of love and gratitude for the United States, which gave him a new home and a path into higher education and scientific discovery. His research on brain–body physiology and healthy longevity is, in many ways, his way of giving back—honoring the opportunities he found in America and working to protect the health and independence of his own and others' loved ones.

HONORS AND AWARDS

- Pilot Award, Knight Initiative for Brain Resilience (2024-2026)
- NeuroTech Training Program (NSF), Stanford University (2023-2025)
- The Molecular Pharmacology Training Program (NIH T32), Stanford University (2023-2025)
- Provost's Honors, University of California at San Diego (2019-2022)
- Highest Departmental Distinction and Honors, University of California at San Diego (2021)
- Harold C. Urey Award, University of California at San Diego (2021)

EDUCATION AND CERTIFICATIONS

- M.Sc., University of California, San Diego , Chemistry: Chemical Biology (2022)
- B.Sc., University of California, San Diego , Biochemistry (Summa cum laude, Highest Distinction, and Departmental Honors) (2021)

LINKS

- Linkedin: https://www.linkedin.com/in/siavash-moghadami-b69910242/
- Google Scholar: https://scholar.google.com/citations?user=hHtXqYcAAAAJ&hl=en
- Twitter: https://twitter.com/SMoghadami

Publications

PUBLICATIONS

- **Whole-genome 3D architectural screen reveals modulators of brain DNA structure.** *bioRxiv : the preprint server for biology*
  Parasar, B., Venkatesh, A. R., Perera, J., Sosnick, L., Moghadami, S., Seo, Y., Shi, J., Chan, L., Takenawa, S., Akiyama, T., Sianto, O., Uenaka, T., Hadjipanayis, et al
  2026

- **Single-Cell Atlas of Transcription and Chromatin States Reveals Regulatory Programs in the Human Brain.** *bioRxiv : the preprint server for biology*
  Xie, Y., Chang, L., Zhong, G., Rink, J. A., Báez-Becerra, T., Armand, E., Ding, W., Li, K., Bonne, E., Lie, A., Indralingam, H. S., Dong, K., Loe, et al
  2026

- **MERFISH+, a large-scale, multi-omics spatial technology resolves the molecular holograms of the 3D human developing heart.** *bioRxiv : the preprint server for biology*
  Kern, C., Zhang, Q., Lu, Y., Eschbach, J., Zeng, Z., Farah, E. N., Tai, C. Y., Yang, K., Jenie, I., Yao, F., Zhao, Z., Ma, Q., Padilla, et al
  2025

- **Mst1-mediated phosphorylation of FoxO1 and C/EBP-β stimulates cell-protective mechanisms in cardiomyocytes.** *Nature communications*
  Maejima, Y., Nah, J., Aryan, Z., Zhai, P., Sung, E. A., Liu, T., Takayama, K., Moghadami, S., Sasano, T., Li, H., Sadoshima, J.
  2024; 15 (1): 6279

- **Lifelong restructuring of 3D genome architecture in cerebellar granule cells.** *Science (New York, N.Y.)*
  Tan, L., Shi, J., Moghadami, S., Parasar, B., Wright, C. P., Seo, Y., Vallejo, K., Cobos, I., Duncan, L., Chen, R., Deisseroth, K.
  2023; 381 (6662): 1112-1119

- **SINGLE NUCLEI PROFILING OF CILIA-RELATED GENES IN MYOCARDIAL SENESCENCE, DILATED AND HYPERTROPHIC CARDIOMYOPATHIES**
  Aryan, Z., Moghadami, S., Sadoshima, J.
  ELSEVIER SCIENCE INC.2023: 377

- **Cerebellar Granule Cells Develop Non-neuronal 3D Genome Architecture over the Lifespan.** *bioRxiv : the preprint server for biology*
  Tan, L., Shi, J., Moghadami, S., Wright, C. P., Parasar, B., Seo, Y., Vallejo, K., Cobos, I., Duncan, L., Chen, R., Deisseroth, K.
  2023

- **Mannose-Binding Lectin is Dysregulated in Cardiac Endothelial Cells of Women With Peripartum Cardiomyopathy**
  Aryan, Z., Moghadami, S., Wang, W., Sadoshima, J.
  LIPPINCOTT WILLIAMS & WILKINS.2022