

Stanford



Alfredo M. Valencia

Postdoctoral Scholar, Psychiatry

Curriculum Vitae available Online

Bio

BIO

Freddy Valencia is currently a Stanford Science Fellow and Ford Foundation Postdoctoral Scholar at Stanford University. Informed by human genetics and by combining biochemical, structural biology, and functional genomics investigative techniques, his work aims to uncover the molecular basis of human disorders and disease. His current research at Stanford University aims to investigate and characterize chromatin regulatory processes in human brain development and neurodevelopmental disorders.

HONORS AND AWARDS

- Ford Foundation Postdoctoral Fellowship, National Academies of Sciences, Engineering, and Medicine (2021)
- Stanford Science Fellow, Stanford University (2020)
- Diversity and Inclusion Fellow, Harvard Graduate School of Arts and Sciences (2018-2019)
- Ford Foundation Predoctoral Fellowship, National Academies of Sciences, Engineering, and Medicine (2017-2020)
- HHMI Gilliam Fellowship, Howard Hughes Medical Institute (HHMI) (2017-2020)
- Graduate Prize Fellowship, Harvard University (2014-2017)
- HHMI Summer Undergraduate Research Fellow, HHMI, The Claremont Colleges (2013)
- McNair Scholar, Ronald E. McNair Postbaccalaureate Achievement Program, Claremont Graduate University (2012)
- A Better Chance Scholar, A Better Chance (2006-2010)

STANFORD ADVISORS

- Sergiu Pasca, Postdoctoral Faculty Sponsor

LINKS

- Website: <https://scholar.harvard.edu/avalencia>
- Google Scholar: <https://scholar.google.com/citations?user=Tfv5aFUAAAAJ&hl=en>
- Pasca Lab website: <https://www.pascalab.org/>

Publications

PUBLICATIONS

- **Genome-wide CRISPR screens of T cell exhaustion identify chromatin remodeling factors that limit T cell persistence.** *Cancer cell*
Belk, J. A., Yao, W., Ly, N., Freitas, K. A., Chen, Y. T., Shi, Q., Valencia, A. M., Shifrut, E., Kale, N., Yost, K. E., Duffy, C. V., Daniel, B., Hwee, et al
2022

- **Chromatin dynamics in human brain development and disease.** *Trends in cell biology*
Valencia, A. M., Pa#ca, S. P.
2021
- **Long-term maturation of human cortical organoids matches key early postnatal transitions.** *Nature neuroscience*
Gordon, A. n., Yoon, S. J., Tran, S. S., Makinson, C. D., Park, J. Y., Andersen, J. n., Valencia, A. M., Horvath, S. n., Xiao, X. n., Huguenard, J. R., Pa#ca, S. P., Geschwind, D. H.
2021
- **Dissecting the molecular basis of human interneuron migration in forebrain assembloids from Timothy syndrome.** *Cell stem cell*
Birey, F., Li, M. Y., Gordon, A., Thete, M. V., Valencia, A. M., Revah, O., Pa#ca, A. M., Geschwind, D. H., Pa#ca, S. P.
2021
- **BICRA, a SWI/SNF Complex Member, Is Associated with BAF-Disorder Related Phenotypes in Humans and Model Organisms** *AMERICAN JOURNAL OF HUMAN GENETICS*
Barish, S., Barakat, T., Michel, B. C., Mashtalir, N., Phillips, J. B., Valencia, A. M., Ugur, B., Wegner, J., Scott, T. M., Bostwick, B., Murdock, D. R., Dai, H., Perenthaler, et al
2020; 107 (6): 1096–1112
- **A Structural Model of the Endogenous Human BAF Complex Informs Disease Mechanisms** *CELL*
Mashtalir, N., Suzuki, H., Farrell, D. P., Sankar, A., Luo, J., Filipovski, M., D'Avino, A. R., St Pierre, R., Valencia, A. M., Onikubo, T., Roeder, R. G., Han, Y., He, et al
2020; 183 (3): 802-+
- **The nucleosome acidic patch and H2A ubiquitination underlie mSWI/SNF recruitment in synovial sarcoma.** *Nature structural & molecular biology*
McBride, M. J., Mashtalir, N., Winter, E. B., Dao, H. T., Filipovski, M., D'Avino, A. R., Seo, H. S., Umbreit, N. T., St Pierre, R., Valencia, A. M., Qian, K., Zullow, H. J., Jaffe, et al
2020; 27 (9): 836-845
- **Recurrent SMARCB1 Mutations Reveal a Nucleosome Acidic Patch Interaction Site That Potentiates mSWI/SNF Complex Chromatin Remodeling.** *Cell*
Valencia, A. M., Collings, C. K., Dao, H. T., St Pierre, R., Cheng, Y. C., Huang, J., Sun, Z. Y., Seo, H. S., Mashtalir, N., Comstock, D. E., Bolonduro, O., Vangos, N. E., Yeoh, et al
2019; 179 (6): 1342-1356.e23
- **Chromatin regulatory mechanisms and therapeutic opportunities in cancer.** *Nature cell biology*
Valencia, A. M., Kadoc, C.
2019; 21 (2): 152-161
- **A non-canonical SWI/SNF complex is a synthetic lethal target in cancers driven by BAF complex perturbation** *NATURE CELL BIOLOGY*
Michel, B. C., D'Avino, A. R., Cassel, S. H., Mashtalir, N., McKenzie, Z. M., McBride, M. J., Valencia, A. M., Zhou, Q., Bocker, M., Soares, L. M., Pan, J., Remillard, D. I., Lareau, et al
2018; 20 (12): 1410-+
- **Modular Organization and Assembly of SWI/SNF Family Chromatin Remodeling Complexes.** *Cell*
Mashtalir, N., D'Avino, A. R., Michel, B. C., Luo, J., Pan, J., Otto, J. E., Zullow, H. J., McKenzie, Z. M., Kubiak, R. L., St Pierre, R., Valencia, A. M., Poynter, S. J., Cassel, et al
2018; 175 (5): 1272-1288.e20
- **SMARCB1 is required for widespread BAF complex-mediated activation of enhancers and bivalent promoters.** *Nature genetics*
Nakayama, R. T., Pulice, J. L., Valencia, A. M., McBride, M. J., McKenzie, Z. M., Gillespie, M. A., Ku, W. L., Teng, M., Cui, K., Williams, R. T., Cassel, S. H., Qing, H., Widmer, et al
2017; 49 (11): 1613-1623