

## Sam Vesuna

- Postdoctoral Medical Fellow, Psychiatry
- Resident in Psychiatry and Behavioral Sciences

### Publications

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#### PUBLICATIONS

- **Conserved brain-wide emergence of emotional response from sensory experience in humans and mice.** *Science (New York, N.Y.)*  
Kauvar, I., Richman, E. B., Liu, T. X., Li, C., Vesuna, S., Chibukhchyan, A., Yamada, L., Fogarty, A., Solomon, E., Choi, E. Y., Mortazavi, L., Chau Loo Kung, G., Mukunda, et al  
2025; 388 (6750): eadt3971
- **Deep posteromedial cortical rhythm in dissociation.** *Nature*  
Vesuna, S., Kauvar, I. V., Richman, E., Gore, F., Oskotsky, T., Sava-Segal, C., Luo, L., Malenka, R. C., Henderson, J. M., Nuyujukian, P., Parvizi, J., Deisseroth, K.  
2020
- **Ketamine Increases Theta Oscillations and Cortical Connectivity of the Human Hippocampus**  
Solomon, E., Liu, T., Kauvar, I., Vesuna, S., Chibukhchyan, A., Yamada, L., Fogarty, A., Mukunda, P., Patron, K., Nuyujukian, P., Rodriguez, C., Buch, V., Deisseroth, et al  
ELSEVIER SCIENCE INC.2025
- **Mapping the cellular etiology of schizophrenia and complex brain phenotypes.** *Nature neuroscience*  
Duncan, L. E., Li, T., Salem, M., Li, W., Mortazavi, L., Senturk, H., Shahverdizadeh, N., Vesuna, S., Shen, H., Yoon, J., Wang, G., Ballon, J., Tan, et al  
2025
- **Cell-type-specific population dynamics of diverse reward computations.** *Cell*  
Sylwestrak, E. L., Jo, Y., Vesuna, S., Wang, X., Holcomb, B., Tien, R. H., Kim, D. K., Fenno, L., Ramakrishnan, C., Allen, W. E., Chen, R., Shenoy, K. V., Sussillo, et al  
2022; 185 (19): 3568
- **Dendritic calcium signals in rhesus macaque motor cortex drive an optical brain-computer interface.** *Nature communications*  
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2021; 12 (1): 3689
- **Comprehensive Dual- and Triple-Feature Intersectional Single-Vector Delivery of Diverse Functional Payloads to Cells of Behaving Mammals.** *Neuron*  
Fenno, L. E., Ramakrishnan, C. n., Kim, Y. S., Evans, K. E., Lo, M. n., Vesuna, S. n., Inoue, M. n., Cheung, K. Y., Yuen, E. n., Pichamoorthy, N. n., Hong, A. S., Deisseroth, K. n.  
2020
- **Three-dimensional intact-tissue sequencing of single-cell transcriptional states** *SCIENCE*  
Wang, X., Allen, W. E., Wright, M. A., Sylwestrak, E. L., Samusik, N., Vesuna, S., Evans, K., Liu, C., Ramakrishnan, C., Liu, J., Nolan, G. P., Bava, F., Deisseroth, et al  
2018; 361 (6400): 380+
- **Ancestral Circuits for the Coordinated Modulation of Brain State.** *Cell*  
Lovett-Barron, M. n., Andalman, A. S., Allen, W. E., Vesuna, S. n., Kauvar, I. n., Burns, V. M., Deisseroth, K. n.  
2017; 171 (6): 1411–23.e17

- **An improved ATAC-seq protocol reduces background and enables interrogation of frozen tissues.** *Nature methods*  
Corces, M. R., Trevino, A. E., Hamilton, E. G., Greenside, P. G., Sinnott-Armstrong, N. A., Vesuna, S. n., Satpathy, A. T., Rubin, A. J., Montine, K. S., Wu, B. n., Kathiria, A. n., Cho, S. W., Mumbach, et al  
2017
- **In Vivo Interrogation of Spinal Mechanosensory Circuits.** *Cell reports*  
Christensen, A. J., Iyer, S. M., François, A., Vyas, S., Ramakrishnan, C., Vesuna, S., Deisseroth, K., Scherrer, G., Delp, S. L.  
2016; 17 (6): 1699-1710
- **Optogenetic and chemogenetic strategies for sustained inhibition of pain.** *Scientific reports*  
Iyer, S. M., Vesuna, S., Ramakrishnan, C., Huynh, K., Young, S., Berndt, A., Lee, S. Y., Gorini, C. J., Deisseroth, K., Delp, S. L.  
2016; 6: 30570-?
- **The use of optical clearing and multiphoton microscopy for investigation of three-dimensional tissue-engineered constructs.** *Tissue engineering. Part C, Methods*  
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2014; 20 (7): 570-7
- **Multiphoton fluorescence, second harmonic generation, and fluorescence lifetime imaging of whole cleared mouse organs** *JOURNAL OF BIOMEDICAL OPTICS*  
Vesuna, S., Torres, R., Levene, M. J.  
2011; 16 (10)