Stanford



Saira Montermoso

Postdoctoral Scholar, Molecular and Cellular Physiology

Bio

PROFESSIONAL EDUCATION

- PhD, University of Pennsylvania , Biochemistry and Molecular Biophysics (2025)
- BS, San José State University , Chemistry (conc. in Biochemistry) and Computer Science (2017)

STANFORD ADVISORS

- Merritt Maduke, Postdoctoral Faculty Sponsor

Publications

PUBLICATIONS

- **Uncovering viral protein acquisition events and human-specific folds with pairwise comparisons of predicted protein structures** *MOLECULAR BIOLOGY AND EVOLUTION*
  Malnak, J. C., Montermoso, S., Bushman, F. D., Auslander, N.
  2026; 43 (5)
- **Structures of nucleotide-bound Redondovirus Rep protein link conformation and function** *PLOS PATHOGENS*
  Montermoso, S., Gupta, K., Pumroy, R., Moiseenkova-Bell, V., Bushman, F. D., Van Duyne, G. D.
  2026; 22 (3): e1013997
- **Structural Impact of Ex Vivo Resistance Mutations on HIV-1 Integrase Polymers Induced by Allosteric Inhibitors** *JOURNAL OF MOLECULAR BIOLOGY*
  Montermoso, S., Eilers, G., Allen, A., Sharp, R., Hwang, Y., Bushman, F. D., Gupta, K., Van Duyne, G.
  2025; 437 (17): 169224
- **Comprehensive proteolytic profiling of Aedes aegypti mosquito midgut extracts: Unraveling the blood meal protein digestion system** *PLOS NEGLECTED TROPICAL DISEASES*
  O'Donoghue, A. J., Lui, C., Simington, C. J., Montermoso, S., Moreno-Galvez, E., Serafim, M. M., Burata, O. E., Lucero, R. M., Nguyen, J. T., Fong, D., Tran, K., Millan, N., Gallimore, et al
  2025; 19 (2): e0012555
- **Direct enzymatic sequencing of 5-methylcytosine at single-base resolution.** *Nature chemical biology*
  Wang, T., Fowler, J. M., Liu, L., Loo, C. E., Luo, M., Schutsky, E. K., Berríos, K. N., DeNizio, J. E., Dvorak, A., Downey, N., Montermoso, S., Pingul, B. Y., Nasrallah, et al
  2023
- **Structure of a HIV-1 IN-Allosteric inhibitor complex at 2.93 Å resolution: Routes to inhibitor optimization** *PLOS PATHOGENS*
  Eilers, G., Gupta, K. D., Allen, A., Montermoso, S. E., Murali, H. J., Sharp, R. E., Hwang, Y. J., Bushman, F. D. E., Van Duyne, G. J.
  2023; 19 (3): e1011097