Stanford

Michael Palo

Ph.D. Student in Structural Biology, admitted Autumn 2019

Publications

PUBLICATIONS

- **Blind Prediction of Complex Water and Ion Ensembles Around RNA in CASP16.** *Proteins*
  Kretsch, R. C., Posani, E., Baulin, E. F., Bujnicki, J. M., Bussi, G., Cheatham, T. E., Chen, S. J., Elofsson, A., Farsani, M. A., Fisher, O. N., Gromiha, M. M., Gupta, A., Hamada, et al
  2025

- **Conserved long-range interactions are required for stable folding of orthoflaviviral genomic RNA.** *Nucleic acids research*
  Palo, M. Z., Ha, B., Lapointe, C. P., Alvarado, C., Janetzko, J., Carette, J. E., Puglisi, J. D., Puglisi, E. V.
  2025; 53 (11)

- **Complex water networks visualized by cryogenic electron microscopy of RNA.** *Nature*
  Kretsch, R. C., Li, S., Pintilie, G., Palo, M. Z., Case, D. A., Das, R., Zhang, K., Chiu, W.
  2025

- **N6-methyladenosine in 5' UTR does not promote translation initiation.** *Molecular cell*
  Guca, E., Alarcon, R., Palo, M. Z., Santos, L., Alonso-Gil, S., Davyt, M., de Lima, L. H., Boissier, F., Das, S., Zagrovic, B., Puglisi, J. D., Hashem, Y., Ignatova, et al
  2024

- **Minimization of the E. coli ribosome, aided and optimized by community science.** *Nucleic acids research*
  Tangpradabkul, T., Palo, M., Townley, J., Hsu, K. B., Participants, E., Smaga, S., Das, R., Schepartz, A.
  2024

- **Snapshots of the second-step self-splicing of Tetrahymena ribozyme revealed by cryo-EM.** *Nature communications*
  Li, S., Palo, M. Z., Zhang, X., Pintilie, G., Zhang, K.
  2023; 14 (1): 1294

- **Snapshots of the first-step self-splicing of Tetrahymena ribozyme revealed by cryo-EM.** *Nucleic acids research*
  Zhang, X., Li, S., Pintilie, G., Palo, M. Z., Zhang, K.
  2023

- **Topological crossing in the misfolded Tetrahymena ribozyme resolved by cryo-EM.** *Proceedings of the National Academy of Sciences of the United States of America*
  Li, S., Palo, M. Z., Pintilie, G., Zhang, X., Su, Z., Kappel, K., Chiu, W., Zhang, K., Das, R.
  2022; 119 (37): e2209146119

- **Cryo-EM structures of full-length Tetrahymena ribozyme at 3.1 Å resolution.** *Nature*
  Su, Z., Zhang, K., Kappel, K., Li, S., Palo, M. Z., Pintilie, G. D., Rangan, R., Luo, B., Wei, Y., Das, R., Chiu, W.
  2021

- **Conserved Trigger Loop Histidine of RNA Polymerase II Functions as a Positional Catalyst Primarily through Steric Effects.** *Biochemistry*
  Palo, M. Z., Zhu, J., Mishanina, T. V., Landick, R.
  2021

- **Cross-Regulation between TDP-43 and Paraspeckles Promotes Pluripotency-Differentiation Transition.** *Molecular cell*
  Modic, M., Grosch, M., Rot, G., Schirge, S., Lepko, T., Yamazaki, T., Lee, F. C., Rusha, E., Shaposhnikov, D., Palo, M., Merl-Pham, J., Cacchiarelli, D., Rogelj, et al

2019; 74 (5): 951-965.e13

- **Trigger loop of RNA polymerase is a positional, not acid-base, catalyst for both transcription and proofreading.** *Proceedings of the National Academy of Sciences of the United States of America*
  Mishanina, T. V., Palo, M. Z., Nayak, D., Mooney, R. A., Landick, R.
  2017; 114 (26): E5103-E5112