



Ramya Rangan

Ph.D. Student in Biophysics, admitted Autumn 2017

Bio

BIO

I am interested studying complex RNA processes like pre-mRNA splicing using 2D and 3D computational structural modeling along with experimental structural probing techniques.

Publications

PUBLICATIONS

- **Cryo-EM and antisense targeting of the 28-kDa frameshift stimulation element from the SARS-CoV-2 RNA genome.** *Nature structural & molecular biology*
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2021
- **Structure of human telomerase holoenzyme with bound telomeric DNA.** *Nature*
Ghanim, G. E., Fountain, A. J., van Roon, A. M., Rangan, R., Das, R., Collins, K., Nguyen, T. H.
2021
- **De novo 3D models of SARS-CoV-2 RNA elements from consensus experimental secondary structures.** *Nucleic acids research*
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2021
- **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.
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- **Anomalous Reverse Transcription through Chemical Modifications in Polyadenosine Stretches.** *Biochemistry*
Kladwang, W., Topkar, V. V., Liu, B., Rangan, R., Hodges, T. L., Keane, S. C., Al-Hashimi, H., Das, R.
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- **RNA genome conservation and secondary structure in SARS-CoV-2 and SARS-related viruses: a first look.** *RNA (New York, N.Y.)*
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- **Accelerated cryo-EM-guided determination of three-dimensional RNA-only structures.** *Nature methods*
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2020; 17 (7): 699–707
- **FARFAR2: Improved De Novo Rosetta Prediction of Complex Global RNA Folds.** *Structure (London, England : 1993)*
Watkins, A. M., Rangan, R. n., Das, R. n.
2020

- **Using Rosetta for RNA homology modeling.** *Methods in enzymology*
Watkins, A. M., Rangan, R., Das, R.
2019; 623: 177–207
- **Determination of Structural Ensembles of Proteins: Restraining vs Reweighting** *JOURNAL OF CHEMICAL THEORY AND COMPUTATION*
Rangan, R., Bonomi, M., Heller, G. T., Cesari, A., Bussi, G., Vendruscolo, M.
2018; 14 (12): 6632–41