

## Rachael Kretsch

Postdoctoral Scholar, Bioengineering

### Bio

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#### STANFORD ADVISORS

- Wah Chiu, Postdoctoral Faculty Sponsor

### Publications

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#### PUBLICATIONS

- **Structures of nucleotide-bound human telomerase at several steps of its telomeric DNA repeat addition cycle.** *Nature communications*  
Balch, S., Franco-Echevarria, E., Ghanim, G. E., Kretsch, R. C., Das, R., Nguyen, T. H.  
2026
- **Template-based RNA structure prediction advanced through a blind code competition.** *bioRxiv : the preprint server for biology*  
Lee, Y., He, S., Oda, T., Rao, G. J., Kim, Y., Kim, R., Kim, H., Heng, C. K., Kowanko, D., Li, H., Nguyen, H., Sampathkumar, A., Gómez, et al  
2025
- **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
- **Blind prediction of complex water and ion ensembles around RNA in CASP16.** *bioRxiv : the preprint server for biology*  
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  
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- **Assessment of Protein Complex Predictions in CASP16: Are We Making Progress?** *Proteins*  
Zhang, J., Yuan, R., Kryshtafovych, A., Pei, J., Kretsch, R. C., Schaeffer, R. D., Zhou, J., Das, R., Grishin, N. V., Cong, Q.  
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- **Assessment of Nucleic Acid Structure Prediction in CASP16.** *Proteins*  
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- **Functional Relevance of CASP16 Nucleic Acid Predictions as Evaluated by Structure Providers.** *Proteins*  
Kretsch, R. C., Albrecht, R., Andersen, E. S., Chen, H. A., Chiu, W., Das, R., Gezelle, J. G., Hartmann, M. D., Höbartner, C., Hu, Y., Jadhav, S., Johnson, P. E., Jones, et al  
2025
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Balch, S., Sekne, Z., Franco-Echevarria, E., Ludzia, P., Kretsch, R. C., Sun, W., Yu, H., Ghanim, G. E., Thorkelsson, S., Ding, Y., Das, R., Nguyen, T. H.  
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- **Assessment of Protein Complex Predictions in CASP16: Are we making progress?** *bioRxiv : the preprint server for biology*  
Zhang, J., Yuan, R., Kryshtafovych, A., Kretsch, R. C., Schaeffer, R. D., Zhou, J., Das, R., Grishin, N. V., Cong, Q.  
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- **Assessment of nucleic acid structure prediction in CASP16.** *bioRxiv : the preprint server for biology*  
Kretsch, R. C., Hummer, A. M., He, S., Yuan, R., Zhang, J., Karagianes, T., Cong, Q., Kryshtafovych, A., Das, R.  
2025
- **Naturally ornate RNA-only complexes revealed by cryo-EM.** *Nature*  
Kretsch, R. C., Wu, Y., Shabalina, S. A., Lee, H., Nye, G., Koonin, E. V., Gao, A., Chiu, W., Das, R.  
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- **Engaging the Community: CASP Special Interest Groups.** *Proteins*  
Elofsson, A., Kretsch, R. C., Magnus, M., Montelione, G. T.  
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- **Tertiary folds of the SL5 RNA from the 5' proximal region of SARS-CoV-2 and related coronaviruses.** *bioRxiv : the preprint server for biology*  
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- **Ensemble-function relationships to connect structure to mechanism: application of EnsemblePDB to the serine protease reaction coordinate and its catalytic features**  
Du, S., Kretsch, R. C., Parres-Gold, J., Penaherrera, D. A., Yabukarski, F., Pinney, M. M., Herschlag, D.  
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