

Xinyu Xiang

Ph.D. Student in Biophysics, admitted Autumn 2021

Publications

PUBLICATIONS

- **Deep peptide recognition profiling decodes TCR specificity and enables disease-associated antigen discovery.** *Nature biotechnology*
Wang, N., Yeh, H., Lai, B., Perera, J., Jude, K. M., Risch, I., Um, J., Chen, X., Xiang, X., Wang, C., Liu, L. D., Yang, X., Paley, et al
2026
- **Overcoming T cell tolerance to tumor self-antigens through catch-bond engineering.** *Science (New York, N.Y.)*
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2026; 391 (6791): eadx3162
- **Design of high-specificity binders for peptide-MHC-I complexes.** *Science (New York, N.Y.)*
Liu, B., Greenwood, N. F., Bonzanini, J. E., Motmaen, A., Meyerberg, J., Dao, T., Xiang, X., Ault, R., Sharp, J., Wang, C., Visani, G. M., Vafeados, D. K., Roullier, et al
2025; 389 (6758): 386-391
- **De novo design and structure of a peptide-centric TCR mimic binding module.** *Science (New York, N.Y.)*
Householder, K. D., Xiang, X., Jude, K. M., Deng, A., Obenaus, M., Zhao, Y., Wilson, S. C., Chen, X., Wang, N., Garcia, K. C.
2025; 389 (6758): 375-379
- **De novo design and structure of a peptide-centric TCR mimic binding module.** *bioRxiv : the preprint server for biology*
Householder, K. D., Xiang, X., Jude, K. M., Deng, A., Obenaus, M., Wilson, S. C., Chen, X., Wang, N., Garcia, K. C.
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- **Structure of the interleukin-5 receptor complex exemplifies the organizing principle of common beta cytokine signaling.** *Molecular cell*
Caveney, N. A., Rodriguez, G. E., Pollmann, C., Meyer, T., Borowska, M. T., Wilson, S. C., Wang, N., Xiang, X., Householder, K. D., Tao, P., Su, L. L., Saxton, R. A., Piehler, et al
2024
- **Organizing Structural Principles of the Interleukin-17 Ligand-Receptor Axis.** *Nature*
Wilson, S. C., Caveney, N. A., Yen, M., Pollmann, C., Xiang, X., Jude, K. M., Hafer, M., Tsutsumi, N., Piehler, J., Garcia, K. C.
2022
- **Homotypic fibrillization of TMEM106B across diverse neurodegenerative diseases.** *Cell*
Chang, A., Xiang, X., Wang, J., Lee, C., Arakhamia, T., Simjanoska, M., Wang, C., Carlomagno, Y., Zhang, G., Dhingra, S., Thierry, M., Perneel, J., Heeman, et al
2022
- **Crystal structure and functional analysis of mycobacterial erythromycin resistance methyltransferase Erm38 reveals its RNA-binding site** *JOURNAL OF BIOLOGICAL CHEMISTRY*
Goh, B., Xiang, X., Lescar, J., Dedon, P. C.
2022; 298 (2): 101571
- **Long-range structural defects by pathogenic mutations in most severe glucose-6-phosphate dehydrogenase deficiency.** *Proceedings of the National Academy of Sciences of the United States of America*
Horikoshi, N. n., Hwang, S. n., Gati, C. n., Matsui, T. n., Castillo-Orellana, C. n., Raub, A. G., Garcia, A. A., Jabbarpour, F. n., Batyuk, A. n., Broweleit, J. n., Xiang, X. n., Chiang, A. n., Broweleit, et al
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