

# Stanford

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## Xinyu Liu

Postdoctoral Scholar, Chemistry

### Bio

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#### PROFESSIONAL EDUCATION

- Doctor of Philosophy, University of Wisconsin Madison (2022)
- Bachelor of Arts, Macalester College , Applied Mathematics, Chemistry (2017)

#### STANFORD ADVISORS

- Lynette Cegelski, Postdoctoral Faculty Sponsor

#### LINKS

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### Research & Scholarship

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#### LAB AFFILIATIONS

- Lynette Cegelski (10/3/2022)

### Teaching

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#### COURSES

##### 2024-25

- Organic Chemistry Laboratory: CHEM 124 (Aut)

### Publications

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#### PUBLICATIONS

- **Polyacrylamide-Based Antimicrobial Copolymers to Replace or Rescue Antibiotics.** *ACS central science*  
Williams, S. C., Chosy, M. B., Jons, C. K., Dong, C., Prossnitz, A. N., Liu, X., Hernandez, H. L., Cegelski, L., Appel, E. A.  
2025; 11 (3): 486-496
- **Polyacrylamide-Based Antimicrobial Copolymers to Replace or Rescue Antibiotics** *ACS CENTRAL SCIENCE*  
Williams, S. C., Chosy, M. B., Jons, C. K., Dong, C., Prossnitz, A. N., Liu, X., Hernandez, H., Cegelski, L., Appel, E. A.  
2025
- **Vibrio cholerae RbmB is an  $\alpha$ -1,4-polysaccharide lyase with biofilm-disrupting activity against Vibrio polysaccharide (VPS).** *PLoS pathogens*

Weerasekera, R., Moreau, A., Huang, X., Nam, K. M., Hinbest, A., Huynh, Y., Liu, X., Ashwood, C., Pepi, L. E., Paulson, E., Cegelski, L., Yan, J., Olson, et al

2024; 20 (12): e1012750

- **Biguanide-Vancomycin Conjugates are Effective Broad-Spectrum Antibiotics against Actively Growing and Biofilm-Associated Gram-Positive and Gram-Negative ESKAPE Pathogens and Mycobacteria.** *Journal of the American Chemical Society*  
Rahn, H. P., Liu, X., Chosy, M. B., Sun, J., Cegelski, L., Wender, P. A.  
2024
- **Vancomycin-Polyguanidino Dendrimer Conjugates Inhibit Growth of Antibiotic-Resistant Gram-Positive and Gram-Negative Bacteria and Eradicate Biofilm-Associated S. aureus.** *ACS infectious diseases*  
Chosy, M. B., Sun, J., Rahn, H. P., Liu, X., Brcic, J., Wender, P. A., Cegelski, L.  
2024
- **CPMAS NMR platform for direct compositional analysis of mycobacterial cell-wall complexes and whole cells.** *Journal of magnetic resonance open*  
Liu, X., Brčić, J., Cassell, G. H., Cegelski, L.  
2023; 16-17
- **Tailoring Reaction Selectivity by Modulating a Catalytic Diad on a Foldamer Scaffold (vol 144, pg 2225, 2022)** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Andrews, M., Liu, X., Gellman, S. H.  
2022; 144 (34): 15908
- **Structural and functional diversity among agonist-bound states of the GLP-1 receptor** *NATURE CHEMICAL BIOLOGY*  
Cary, B. P., Deganutti, G., Zhao, P., Truong, T. T., Piper, S. J., Liu, X., Belousoff, M. J., Danev, R., Sexton, P. M., Wootten, D., Gellman, S. H.  
2022; 18 (3): 256-+
- **Comparisons of beta-Hairpin Propensity Among Peptides with Homochiral or Heterochiral Strands** *CHEMBIOCHEM*  
Liu, X., Gellman, S. H.  
2021; 22 (18): 2772-2776
- **The role of beta-hairpin conformation in ester hydrolysis peptide catalysts based on a TrpZip scaffold** *RSC ADVANCES*  
Liu, X., Waters, R., Gilbert, H. E., Barroso, G. T., Boyle, K. M., Witus, L. S.  
2021; 11 (38): 23714-23718
- **Catalytic Intramolecular Conjugate Additions of Aldehyde-Derived Enamines to alpha,beta-Unsaturated Esters** *ORGANIC LETTERS*  
Girvin, Z. C., Lampkin, P. P., Liu, X., Gellman, S. H.  
2020; 22 (11): 4568-4573
- **Foldamer-templated catalysis of macrocycle formation** *SCIENCE*  
Girvin, Z. C., Andrews, M., Liu, X., Gellman, S. H.  
2019; 366 (6472): 1528-+
- **A colorimetric competitive displacement assay for the evaluation of catalytic peptides** *ORGANIC & BIOMOLECULAR CHEMISTRY*  
Gest, A. M., Aguiluz, E. M., Mays, M. T., Liu, X., Neidhart, E. K., Witus, L. S.  
2017; 15 (48): 10160-10163
- **Pre-monomer peptidomimetic synthesis using thiol-ene click chemistry**  
Liu, X., Witus, L.  
AMER CHEMICAL SOC.2017