

# Stanford

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## Jennifer Lin

Research Engineer

Bioengineering

### Bio

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#### ACADEMIC APPOINTMENTS

- Research Engineer, Bioengineering

#### PROFESSIONAL EDUCATION

- BS, Cornell University , Chemical Engineering
- PhD, Northwestern University , Chemical Engineering

### Publications

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#### PUBLICATIONS

- **Antiviral Effect of Antimicrobial Peptoid TM9 and Murine Model of Respiratory Coronavirus Infection.** *Pharmaceutics*  
Lebedev, M., Benjamin, A. B., Kumar, S., Molchanova, N., Lin, J. S., Koster, K. J., Leibowitz, J. L., Barron, A. E., Cirillo, J. D.  
2024; 16 (4)
- **The activity of antimicrobial peptoids against multidrug-resistant ocular pathogens.** *Contact lens & anterior eye : the journal of the British Contact Lens Association*  
Sara, M., Yasir, M., Kalaiselvan, P., Hui, A., Kuppusamy, R., Kumar, N., Chakraborty, S., Yu, T. T., Wong, E. H., Molchanova, N., Jenssen, H., Lin, J. S., Barron, et al  
2024: 102124
- **Antiviral effect of peptoids on hepatitis B virus infection in cell culture.** *Antiviral research*  
Murayama, A., Hitomi, I., Yamada, N., Aly, H. H., Molchanova, N., Lin, J. S., Nishitsuji, H., Shimotohno, K., Muramatsu, M., Barron, A. E., Kato, T.  
2024: 105821
- **Supramolecular Peptoid Structure Strengthens Complexation with Polyacrylic Acid Microgels.** *Biomacromolecules*  
Zhao, W., Lin, J. S., Nielsen, J. E., Sørensen, K., Wadurkar, A. S., Ji, J., Barron, A. E., Nangia, S., Libera, M. R.  
2024
- **Between Good and Evil: Complexation of the Human Cathelicidin LL-37 and Nucleic Acids.** *Biophysical journal*  
Zielke, C., Nielsen, J. E., Lin, J. S., Barron, A. E.  
2023
- **The anti-inflammatory effects of photobiomodulation are mediated by cytokines: Evidence from a mouse model of inflammation.** *Frontiers in neuroscience*  
Shamloo, S., Defensor, E., Ciari, P., Ogawa, G., Vidano, L., Lin, J. S., Fortkort, J. A., Shamloo, M., Barron, A. E.  
2023; 17: 1150156
- **Membrane-acting biomimetic peptoids against visceral leishmaniasis.** *FEBS open bio*  
Kumar, V., Lin, J. S., Molchanova, N., Fortkort, J. A., Reckmann, C., Bräse, S., Jenssen, H., Barron, A. E., Chugh, A.  
2023
- **Peptoid-Loaded Microgels Self-Defensively Inhibit Staphylococcal Colonization of Titanium in a Model of Operating-Room Contamination** *ADVANCED MATERIALS INTERFACES*  
Zhao, W., Wang, H., Xiao, X., De Stefano, L., Katz, J., Lin, J. S., Barron, A. E., Schaer, T. P., Wang, H., Libera, M.

2022

- **Anti-persister and Anti-biofilm Activity of Self-Assembled Antimicrobial Peptoid Ellipsoidal Micelles.** *ACS infectious diseases*  
Lin, J. S., Bekale, L. A., Molchanova, N., Nielsen, J. E., Wright, M., Bacacao, B., Diamond, G., Jenssen, H., Santa Maria, P. L., Barron, A. E.  
2022
- **Efficacy of Cathelicidin-Mimetic Antimicrobial Peptides against *Staphylococcus aureus*.** *Microbiology spectrum*  
Benjamin, A. B., Moule, M. G., Didwania, M. K., Hardy, J., Saenkhamb-Huntsinger, P., Sule, P., Nielsen, J. E., Lin, J. S., Contag, C. H., Barron, A. E., Cirillo, J. D.  
2022: e0053422
- **Self-Assembly of Antimicrobial Peptides Impacts Their Biological Effects on ESKAPE Bacterial Pathogens.** *ACS infectious diseases*  
Nielsen, J. E., Alford, M. A., Yung, D. B., Molchanova, N., Fortkort, J. A., Lin, J. S., Diamond, G., Hancock, R. E., Jenssen, H., Pletzer, D., Lund, R., Barron, A. E.  
2022
- **Upregulating Human Cathelicidin Antimicrobial Peptide LL-37 Expression May Prevent Severe COVID-19 Inflammatory Responses and Reduce Microthrombosis** *Frontiers in Immunology*  
Aloul, K. M., Nielsen, J. E., Defensor, E. B., Lin, J. S., Fortkort, J. A., Shamloo, M., Cirillo, J. D., Gombart, A. F., Barron, A. E.  
2022; 13: 1-16
- **Potent Antiviral Activity against HSV-1 and SARS-CoV-2 by Antimicrobial Peptides** *Pharmaceuticals*  
Diamond, G., Molchanova, N., Herlan, C., Fortkort, J. A., Lin, J. S., Figgins, E., Bopp, N., Ryan, L. K., Chung, D., Adcock, R. S., Sherman, M., Barron, A. E.  
2021; 14 (4): 304
- **The human cathelicidin LL-37 is a nanomolar inhibitor of amyloid self-assembly of islet amyloid polypeptide (IAPP).** *Angewandte Chemie (International ed. in English)*  
Armiento, V., Hille, K., Naltsas, D., Lin, J. S., Barron, A. E., Kapurniotu, A.  
2020
- **The human cathelicidin LL-37 is a nanomolar inhibitor of amyloid self-assembly of islet amyloid polypeptide (IAPP)** *Angewandte Chemie International Edition*, <https://onlinelibrary.wiley.com/doi/abs/10.1002/anie.202000148>  
Armiento, V., Hille, K., Naltsas, D., Lin, J. S., Barron, A. E., Kapurniotu, A.  
2020; In Press: 6
- **Optimizing Exogenous Surfactant as a Pulmonary Delivery Vehicle for Chicken Cathelicidin-2.** *Scientific reports*  
Baer, B. n., Veldhuizen, E. J., Molchanova, N. n., Jekhmane, S. n., Weingarth, M. n., Jenssen, H. n., Lin, J. S., Barron, A. E., Yamashita, C. n., Veldhuizen, R. n.  
2020; 10 (1): 9392
- **Helical side chain chemistry of a peptoid-based SP-C analogue: Balancing structural rigidity and biomimicry** *BIOPOLYMERS*  
Brown, N. J., Lin, J. S., Barron, A. E.  
2019; 110 (6)
- **Helical side chain chemistry of a peptoid-based SP-C analogue: Balancing structural rigidity and biomimicry.** *Biopolymers*  
Brown, N. J., Lin, J. S., Barron, A. E.  
2019: e23277
- **Effective in vivo treatment of acute lung injury with helical, amphipathic peptoid mimics of pulmonary surfactant proteins** *SCIENTIFIC REPORTS*  
Czyzewski, A. M., McCaig, L. M., Dohm, M. T., Broering, L. A., Yao, L., Brown, N. J., Didwania, M. K., Lin, J. S., Lewis, J. F., Veldhuizen, R., Barron, A. E.  
2018; 8: 6795
- **Evidence that the Human Innate Immune Peptide LL-37 May Be a Binding Partner of Abeta and Inhibitor of Fibril Assembly**  
De Lorenzi, E., Chiari, M., Colombo, R., Cretich, M., Sola, L., Vanna, R., Gagni, P., Bisceglia, F., Morasso, C., Lin, J. S., Lee, M., McGeer, P. L., Barron, et al  
CELL PRESS.2018: 393A
- **Evidence that the Human Innate Immune Peptide LL-37 may be a Binding Partner of Amyloid-# and Inhibitor of Fibril Assembly.** *Journal of Alzheimer's disease : JAD*  
De Lorenzi, E., Chiari, M., Colombo, R., Cretich, M., Sola, L., Vanna, R., Gagni, P., Bisceglia, F., Morasso, C., Lin, J. S., Lee, M., McGeer, P. L., Barron, et al  
2017; 59 (4): 1213-1226
- **Intracellular biomass flocculation as a key mechanism of rapid bacterial killing by cationic, amphipathic antimicrobial peptides and peptoids.** *Scientific reports*  
Chongsiriwatana, N. P., Lin, J. S., Kapoor, R. n., Wetzler, M. n., Rea, J. A., Didwania, M. K., Contag, C. H., Barron, A. E.

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- **Evidence that the Human Innate Immune Peptide LL-37 may be a Binding Partner of Amyloid-# and Inhibitor of Fibril Assembly *Journal of Alzheimer's Disease***  
De Lorenzi, E., Chiari, M., Colombo, R., Cretich, M., Sola, L., Vanna, R., Gagni, P., Bisceglia, F., Morasso, C., Lin, J. S., Lee, M., McGeer, P. L., Barron, et al  
2017; 59 (4): 1213-1226
- **Simultaneous detection of 19 K-ras mutations by free-solution conjugate electrophoresis of ligase detection reaction products on glass microchips *ELECTROPHORESIS***  
Albrecht, J. C., Kotani, A., Lin, J. S., Soper, S. A., Barron, A. E.  
2013; 34 (4): 590-597
- **Divergent dispersion behavior of ssDNA fragments during microchip electrophoresis in pDMA and LPA entangled polymer networks *ELECTROPHORESIS***  
Fredlake, C. P., Hert, D. G., Niedringhaus, T. P., Lin, J. S., Barron, A. E.  
2012; 33 (9-10): 1411-1420
- **Peptoid transporters: effects of cationic, amphipathic structure on their cellular uptake *MOLECULAR BIOSYSTEMS***  
Huang, W., Seo, J., Lin, J. S., Barron, A. E.  
2012; 8 (10): 2626-2628
- **Monodisperse, "Highly" Positively Charged Protein Polymer Drag-Tags Generated in an Intein-Mediated Purification System Used in Free-Solution Electrophoretic Separations of DNA *BIOMACROMOLECULES***  
Wang, X., Albrecht, J. C., Lin, J. S., Barron, A. E.  
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- **Ultrafast, efficient separations of large-sized dsDNA in a blended polymer matrix by microfluidic chip electrophoresis: A design of experiments approach *ELECTROPHORESIS***  
Sun, M., Lin, J. S., Barron, A. E.  
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- **Blinded study determination of high sensitivity and specificity microchip electrophoresis-SSCP/HA to detect mutations in the p53 gene *ELECTROPHORESIS***  
Hestekin, C. N., Lin, J. S., Senderowicz, L., Jakupciak, J. P., O'Connell, C., Rademaker, A., Barron, A. E.  
2011; 32 (21): 2921-2929
- **Completely Monodisperse, Highly Repetitive Proteins for Bioconjugate Capillary Electrophoresis: Development and Characterization *BIOMACROMOLECULES***  
Lin, J. S., Albrecht, J. C., Meagher, R. J., Wang, X., Barron, A. E.  
2011; 12 (6): 2275-2284
- **Free-solution electrophoretic separations of DNA-drag-tag conjugates on glass microchips with no polymer network and no loss of resolution at increased electric field strength *ELECTROPHORESIS***  
Albrecht, J. C., Kerby, M. B., Niedringhaus, T. P., Lin, J. S., Wang, X., Barron, A. E.  
2011; 32 (10): 1201-1208
- **A 265-Base DNA Sequencing Read by Capillary Electrophoresis with No Separation Matrix *ANALYTICAL CHEMISTRY***  
Albrecht, J. C., Lin, J. S., Barron, A. E.  
2011; 83 (2): 509-515
- **Sequencing of DNA by free-solution capillary electrophoresis using a genetically engineered protein polymer drag-tag *ANALYTICAL CHEMISTRY***  
Meagher, R. J., Won, J., Coyne, J. A., Lin, J., Barron, A. E.  
2008; 80 (8): 2842-2848