

Jennifer Lin

Research Engineer

Bioengineering

Bio

ACADEMIC APPOINTMENTS

- Research Engineer, Bioengineering

PROFESSIONAL EDUCATION

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

Publications

PUBLICATIONS

- **Evaluation of the Synergistic Activity of Antimicrobial Peptidomimetics or Colistin Sulphate with Conventional Antifungals Against Yeasts of Medical Importance.** *Journal of fungi (Basel, Switzerland)*
Mishra, S. K., Kuppusamy, R., Nguyen, C., Doeur, J., Atwal, H., Attard, S., Sørensen, K., Lin, J. S., Wong, E. H., Hui, A., Barron, A. E., Kumar, N., Willcox, et al
2025; 11 (5)
- **Antimicrobial activity of peptoids against Metallo- β -lactamase-producing *Klebsiella pneumoniae*, *Acinetobacter baumannii*, *Pseudomonas aeruginosa*, and other WHO priority pathogens, including *Candida auris*.** *Journal of applied microbiology*
Mishra, S. K., Yasir, M., Kuppusamy, R., Wong, E. H., Hui, A., Sørensen, K., Lin, J. S., Jenssen, H., Barron, A. E., Willcox, M.
2025
- **Mapping of catecholaminergic denervation, neurodegeneration, and inflammation in 6-OHDA-treated Parkinson's disease mice.** *NPJ Parkinson's disease*
Santoro, M., Lam, R. K., Blumenfeld, S. E., Tan, W., Ciari, P., Chu, E. K., Saw, N. L., Rijsketic, D. R., Lin, J. S., Heifets, B. D., Shamloo, M.
2025; 11 (1): 28
- **A biofilm-targeting lipo-peptoid to treat *Pseudomonas aeruginosa* and *Staphylococcus aureus* co-infections** *Biofilm*
Wardell, S. J., Yung, D. B., Nielsen, J. E., Lamichhane, R., Sørensen, K., Molchanova, N., Herlan, C., Lin, J. S., Bräse, S., Wise, L. M., Barron, A. E., Pletzer, D.
2025; 9: 13
- **The Effect of Immobilisation Strategies on the Ability of Peptoids to Reduce the Adhesion of *P. aeruginosa* strains to Contact Lenses.** *Experimental eye research*
Sara, M., Chakraborty, S., Chen, R., Palms, D., Katsifis, G., Li, Z., Farajikhah, S., Massedupally, V., Hui, A., Wong, E. H., Kumar, N., Vasilev, K., Mackenzie, et al
2024: 110149
- **Mapping of catecholaminergic denervation, neurodegeneration, and inflammation in 6-OHDA-treated Parkinson's disease mice.** *Research square*
Santoro, M., Lam, R. K., Blumenfeld, S. E., Tan, W., Ciari, P., Chu, E. K., Saw, N. L., Rijsketic, D. R., Lin, J. S., Heifets, B. D., Shamloo, M.
2024
- **Author Correction: Peptide-mimetic treatment of *Pseudomonas aeruginosa* in a mouse model of respiratory infection.** *Communications biology*

- Moule, M. G., Benjamin, A. B., Burger, M. L., Herlan, C., Lebedev, M., Lin, J. S., Koster, K. J., Wavare, N., Adams, L. G., Brase, S., Munoz-Medina, R., Cannon, C. L., Barron, et al
2024; 7 (1): 1137
- **Peptide-mimetic treatment of *Pseudomonas aeruginosa* in a mouse model of respiratory infection.** *Communications biology*
Moule, M. G., Benjamin, A. B., Bugar, M. L., Herlan, C., Lebedev, M., Lin, J. S., Koster, K. J., Wavare, N., Adams, L. G., Brase, S., Munoz-Medina, R., Cannon, C. L., Barron, et al
2024; 7 (1): 1033
 - **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., Brase, S., Jenssen, H., Barron, A. E., Chugh, A.
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 - **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 Peptoids against *Staphylococcus aureus*.** *Microbiology spectrum*
Benjamin, A. B., Moule, M. G., Didwania, M. K., Hardy, J., Saenkham-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 Peptoids 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 Peptoids** *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)*
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 - **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., Weingarh, 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.
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 - **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.
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 - **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- β 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.
2017; 7 (1): 16718
 - **Evidence that the Human Innate Immune Peptide LL-37 may be a Binding Partner of Amyloid- β 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*
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- **Peptoid transporters: effects of cationic, amphipathic structure on their cellular uptake** *MOLECULAR BIOSYSTEMS*
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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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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.
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