

ERIC YUAN
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EDUCATION

TRI-I MD/PHD PROGRAM

New York, NY

- 2024-Present

THE UNIVERSITY OF CHICAGO

Chicago, IL

- 2019-2023
- Cumulative GPA: 3.97/4.0 ; Majors: Biochemistry, Biology, Chemistry; Minor: Computer Science
- Awards: Dean's List 2019-2023, Frances E. Knock Prize for Outstanding Academic Achievement in Biological Chemistry, Phi Beta Kappa, Robert Maynard Hutchins Scholar, Enrico Fermi Scholar Physical Sciences Collegiate Divisional Honors, Quad Undergraduate Research Scholar

EXPERIENCE

Graduate Student, Heller Lab

Chicago, IL

July 2026- Present

- Working on developing an novel LNP for targeted delivery of mRNA to the kidneys for the treatment of AKI

Abbvie Biologist

Chicago, IL

July 2023- May 2024

- Purified proteins to aid in the development of small molecule therapeutics for a wide variety of diseases
- Characterized purified proteins with LC-MS, analytical SEC, and TSA assays to determine stability and binding activity with the different small molecules
- Screened different protein constructs and buffer conditions to optimize both yield and protein stability.

Research Assistant in Lin Group

Chicago, IL

October 2021 - May 2023

- Studied the applicability of Metal-Organic Frameworks as photosensitizer-carrying platforms for photodynamic therapy and radiotherapy
- Established and maintained murine cancer cell lines and mice colonies
- Conducted various experiments testing the efficacy and mechanism of different MOF treatments on *in vivo* and *in vitro* tumor models using techniques such as ELISA, MTS assays, and flow cytometry
- Synthesized and characterized the physical characteristics of MOFs with techniques such as DLS, UV-Vis, and LC-MS

Pfizer EBPD Intern

Pearl River, NY

June 2021 - September 2021

- Conducted research on early vaccine development; focused on purifying mRNA-interacting proteins through cell lysis with a microfluidizer and affinity chromatography on the AKTA Avant
- Characterized said proteins through HTRF Assays, HPLC, RP-MS, SEC, and SDS-Page

Research Assistant in Ho Group

Chicago, IL

November 2020 - December 2021

- Used statistical tests to measure the correlation between different factors affecting early fish development
- Conducted cell tracking experiments in ImageJ to measure hand2 migration during the early stages of zebrafish development
- Wrote various functions in R to correct for embryo growth and curvature

PUBLICATIONS

· Luo, T.; Jiang, X.; Fan, Y.; **Yuan, E.**; Li, J.; Tillman, L.; Lin, W. Sting Agonist-Conjugated Metal-Organic Framework Induces Artificial Leukocytoid Structures and Immune Hotspots for Systemic Antitumor Responses. *National Science Review* **2024**. DOI:10.1093/nsr/nwae167.

· Luo, T.; Jiang, X.; Li, J.; Nash, G. T.; **Yuan, E.**; Albano, L.; Tillman, L.; Lin, W. Phosphate Coordination to Metal-organic Layer Secondary Building Units Prolongs Drug Retention for Synergistic Chemoradiotherapy. *Angewandte Chemie* **2024**, 136 (16). DOI:10.1002/ange.202319981.

- Zhen, W.; Luo, T.; Wang, Z.; Jiang, X.; **Yuan, E.**; Weichselbaum, R. R.; Lin, W. Mechanoregulatory Cholesterol Oxidase-Functionalized Nanoscale Metal–Organic Framework Stimulates Pyroptosis and Reinigorates T Cells. *Small* **2023**, 19 (52). <https://doi.org/10.1002/sml.202305440>.
- Luo, T.; Fan, Y.; Mao, J.; Jiang, X.; Albano, L.; **Yuan, E.**; Germanas, T.; Lin, W. Metal–Organic Layer Delivers 5-Aminolevulinic Acid and Porphyrin for Dual–Organelle-Targeted Photodynamic Therapy. *Angewandte Chemie* **2023**, 62 (22). <https://doi.org/10.1002/ange.202301910>.
- Xu, Z.; Luo, T.; Mao, J.; McCleary, C.; **Yuan, E.**; Lin, W. Monte Carlo Simulation-guided Design of a Thorium-based Metal–Organic Framework for Efficient Radiotherapy-radiodynamic Therapy. *Angewandte Chemie* **2022**, 134 (46). DOI:10.1002/ange.202208685.
- Luo, T.; Fan, Y.; Mao, J.; **Yuan, E.**; You, E.; Xu, Z.; Lin, W. Dimensional Reduction Enhances Photodynamic Therapy of Metal–Organic Nanophotosensitizers. *Journal of the American Chemical Society* **2022**, 144 (12), 5241-5246. <https://doi.org/10.1021/jacs.2c00384>.

LEADERSHIP/ VOLUNTEER ACTIVITIES

Fundamentals of Genetics/ Introduction to Biochemistry TA

Chicago, IL

October 2021 - May 2023

- Held weekly office hours and review sessions discussing relevant class content
- In charge of managing the distribution of class materials, such as notes and tests
- Edited over exams, problem sets, and quizzes

SENSASIA

Chicago, IL

President

Oct. 2019 - May 2023

- In charge of organizing the annual Spring Sensasia Show and setting up logistics such as recruiting performers, allocating funds, and organizing the performance hall

Comprehensive Care Program Research Assistant

Chicago, IL

Mar. 2022- May 2023

- Conducted interviews with patients to determine their relationships with their physicians and their current health history.