

YANRU (CINDY) LIU

Yanruli20@gmail.com | www.linkedin.com/in/yanru-cindy-liu | Ithaca, NY

EDUCATION

- Ph.D., Biochemistry, Molecular and Cell Biology — Cornell University** **Aug. 2021 – Expected Dec. 2026**
Mann Outstanding Graduate Student Award (\$20k / year) — sole annual recipient; for science communication to non-experts
- B.S., Biochemistry; Minor in Philosophy — University of California, Los Angeles** **Sept. 2016 – Aug. 2020**
Dunn Award for Outstanding Achievement in Biochemistry
Lorraine and Masuo Toji Undergraduate Research Fellowship — competitive, merit-based (\$4k)

PROFESSIONAL & ENTREPRENEURSHIP EXPERIENCE

- Founding Team Member, TapIn | Ithaca, NY** **Jan. 2023 – June 2025**
- Co-founded a platform connecting college students with domain experts; led user discovery and pricing strategy from 0 to MVP with 26 beta users
 - Recruited and onboarded 8 domain experts through partnership campaigns and competency-based evaluations
 - Validated product-market fit through 42 campus user interviews and competitive landscape analysis of existing mentorship platforms
- Financial Director, Asia Development Forum | UCLA, Los Angeles, CA** **Jan. 2017 – June 2018**
- Led budget planning and fundraising strategy for a student-run organization, securing \$14,000 in funding — owning the full financial workflow from forecasting to execution
 - Organized annual forum with 17 guest speakers and 294 attendees; designed and ran mentor program connecting 30 mentors with 100 mentees across 6 professional disciplines

LEADERSHIP EXPERIENCE

- Team Lead — Cornell EMC Corning Case Competition | Cornell University, Ithaca, NY** **Sept. – Nov. 2025**
- Led a 5-person team designing a scale-up strategy for a vaccine manufacturer to help Africa reach 60% local vaccine production
 - Conducted 9 weeks of independent market research and delivered a full strategic recommendation deck covering competitive positioning, partnership strategy, and implementation roadmap
- Lead Project Manager — Expanding Your Horizons | Cornell University, Ithaca, NY** **Apr. 2022 – Present**
- Led a women-in-STEM initiative for 1,000+ female students over 3 years by leading a cross-functional team of 10, ensuring seamless execution of 6 back-to-back sessions in a day
 - Drove a 30% increase in student interest in STEM careers by conceptualizing an interactive "Biology-to-Sensory" experimental model and translating complex scientific concepts into actionable insights for diverse audiences
- Senior Program Associate — Peer China (NGO) | Beijing, China** **June 2017 – Aug. 2023**
- Standardized volunteer recruitment for a rural education initiative by conducting competency-based interviews for 500+ candidates and calibrating selection criteria to ensure high-quality program delivery over a 6-year tenure
 - Delivered 100+ hours of Liberal Arts curricula to 2,000+ students in underserved regions by designing interactive workshops focused on critical thinking, fostering educational equity in rural China

RESEARCH EXPERIENCE

- Doctoral Researcher — Neurodegeneration | Cornell University, Hu Laboratory** **Aug. 2021 – Present**
- First-author publication in a high-impact journal (Nature Communications) — first to establish TDP-43-deficient microglia as a driver of brain-wide dysregulation in ALS and frontotemporal dementia, opening a novel therapeutic axis in a multi-billion-dollar drug market
 - Coordinated analytical integration across 4 institutions (Cornell, UCSF, Weill Cornell, CSHL); presented at Gordon Research Conference on FTD (2026) and CSHL (2024), engaging biopharma, clinical, and academic audiences
 - Built end-to-end single-nuclei RNA-seq pipeline (112,000+ cells) — structured a large, ambiguous dataset into a clear mechanistic narrative anchoring a multi-author publication
 - Quantified an approximately 50% reduction in cell-cell communication networks and disease-associated microglial state transitions via CellChat and trajectory analysis — translating data into insights presented to cross-functional teams
- Research Assistant | UCLA, Chanfreau Laboratory** **Jan. 2019 – June 2021**
- Discovered a novel class of aberrant RNA transcripts through systematic experimental interrogation — first-author publication in a leading journal (PNAS, 2022) defining a new mechanism for RNA quality surveillance

SKILLS & EXPERTISE

Languages: English (native), Cantonese (native), Mandarin (native)

Quantitative: Large-scale data analysis (112,000+ data points), R programming, ML-based annotation (Azimuth)

Domain Expertise: Neurodegeneration (ALS/FTD/TDP-43), neuroimmunology, drug target biology, translational research

Interests: Badminton, Formula One, hiking and film