

# LIANNE BIANCA CAGALINGAN

[liannebc@seas.upenn.edu](mailto:liannebc@seas.upenn.edu) • [liacagalingan@keio.jp](mailto:liacagalingan@keio.jp) • [linkedin.com/in/liannebc](https://www.linkedin.com/in/liannebc)

## EDUCATION

- 
- University of Pennsylvania, School of Engineering and Applied Science**, Philadelphia, PA 08.2025 – Present  
**MSE - Major in Bioengineering (Drug Delivery, Therapeutics, and Nanomedicine)**
- *Activities & societies:* Penn Science Policy & Diplomacy Group (Asia-Pacific Team Lead), Penn Biotech Group (Member)
  - One of 12 Penn Engineering students selected for the 2026 Widjaja Entrepreneurship Fellowship, a 12-month work-study program to develop entrepreneurship skills in creating, scaling, and leading principled high-growth technology ventures
- Keio University, Department of Environment and Information Studies**, Tokyo, Japan 09.2020 – 09.2024  
**BA - Major in Biological and Biomedical Sciences (Molecular and Cellular Biology, Bioinformatics)**
- *Honors & awards:* Department Magna Cum Laude, Keio SAS Academic Grant for Research Activities, Yamagishi Student Project Support Grant (2x Awardee), Biocamp-Bioscience Exchange Scholarship
  - *Activities & societies:* RIKEN-CBS Brain Science Training Program (Student Trainee), Japan Science and Technology Agency (Student Representative), Association for International Students at Keio SFC (VP for International Affairs)

## RESEARCH EXPERIENCE

- 
- Center for Cellular Immunotherapies @ UPenn, Researcher (CAR-T Immunotherapy)** | Philadelphia, PA 09.2025 – Present
- Collaborated with a 7-member team at Ruella Lab to elucidate epigenetic mechanisms governing CAR-T cell fitness and resistance, translating experimental data into improved treatments for lymphoid malignancies and enhanced patient care.
  - Managed 3 cancer cell lines and assisted with immune functional assays, examining the potential of epigenetic compounds in enhancing CAR-T immunotherapy efficacy across hematologic and solid cancers.
- Keio University WPI-Bio2Q, Post-baccalaureate Research Intern (Neurophysiology)** | Tokyo, Japan 09.2024 – 06.2025
- Applied molecular biology techniques (molecular cloning, in utero electroporation, microscopy) to examine early synaptic changes in brain tissue from depression mouse models to accelerate identification of pharmacological targets.
  - Directed a 5-step analytical workflow to quantify and classify dendritic spine phenotypes for ongoing research projects, leveraging laser-scanning confocal microscopy to analyze spine morphology data of 150+ apical and basal dendrites.
- Keio Institute for Advanced Biosciences, Researcher (Microbial Genomics & Bioinformatics)** | Tokyo, Japan 09.2022 – 08.2025
- Analyzed 1200+ protein sequences using R and bioinformatics tools (HMMER, DoMosaics, PhyKIT) to generate evolutionary models and functional development patterns in 350+ scaffolding proteins to inform disease progression.
  - Reviewed and synthesized 100+ research papers on protein evolution, presenting findings to 150+ Institute members and culminating in 4 institution-wide keynote presentations and 5 accepted conference poster presentations.
  - *Graduation thesis:* Molecular evolution and functional histories of the membrane-associated guanylate kinase proteins

## WORK EXPERIENCE

- 
- Philippine Global Coconut Oil Mill Inc., Operations & Product Coordinator** | Agusan del Norte, Philippines 03.2025 - 08.2025
- Coordinated a 6-member R&D team and Japanese research collaborators to develop and diversify 2 food products, integrating scientific, market, and product research with experimental design to optimize formulations and prototypes.
  - Managed a portfolio of operational duties, including payroll administration, audit report evaluation, SOP drafting, and on-site factory surveys to identify areas for improvement in food engineering and manufacturing processes.
- Keio University, Teaching Assistant** | Tokyo, Japan 04.2022 - 04.2024
- Delivered academic support to 30-40 students per class across 4 undergraduate bioinformatics and data science courses, facilitating in-class discussions and leading weekly office hours to address individual and small-group inquiries.
  - Authored a 6-week bioinformatics research program syllabus and crafted lecture materials, leading research consults and tutorial sessions on specialized biology topics, and managing course logistics to ensure seamless program execution.

## LEADERSHIP & VOLUNTEERING

- 
- Penn Graduate Women in Science and Engineering (PGWISE), Academic Chair** | Philadelphia, PA 10.2024 – Present
- Spearheaded academic and professional development efforts by organizing career workshops and networking sessions, coordinating event logistics and outreach, and maintaining a centralized database to support program growth.
- Penn Graduate Consulting Club (PGCC), Business Analyst** | Philadelphia, PA 10.2024 – Present
- Delivered data-backed commercialization and actionable go-to-market recommendations by evaluating market trends, consumer insights, and competitive positioning for an early-stage biotech startup in regenerative medicine.
- Science Mentorship Institute, Research Mentor** | San Jose, CA 05.2024 – 08.2025
- Led 6-week online mentorship programs for 5 underrepresented students in research strategies and ethics across 3 subfields of basic biology, providing over 90 hours of personalized instruction and guidance in the research lifecycle.

## SKILLS & INTERESTS

---

**Laboratory:** Cell culture, Immune functional assays, Western blotting, Immunofluorescence and confocal microscopy  
**Computational:** R, RStudio, UNIX, Imapis, ImageJ/FIJI, Cytoscape, Jalview, ApE, Microsoft Office (Excel and Powerpoint)  
**Languages:** English (Native), Filipino (Native), Cebuano (Native), Japanese (Intermediate), Hokkien Chinese (Elementary)  
**Interests:** Jazz music, Gothic fiction and historical nonfiction, Badminton, Pilates, Horror-themed media