



Jessica CHANG Jing Yi

Contact

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English, Chinese

About Me

A part-time undergraduate student and full-time Laboratory Technologist at the National University of Singapore (NUS), with hands-on experience in biomedical research and laboratory operations. Skilled in balancing academic and professional responsibilities while contributing to impactful scientific projects. Passionate about advancing research and applying knowledge to address real-world challenges.

Skills

- Stem Cell Differentiation
- Mammalian Cell & 3D Cultures
- Immunostaining
- ELISA & Western Blot
- Confocal Microscopy
- Flow Cytometry
- OCT, Fundus, ERG
- Stereo-axis Surgery
- Analytical & Problem Solving Skill
- Competent in laboratory management

Education

- **Bachelor of Biomedical Science**
La Trobe University 2024 - 2026
- **Diploma in Biomedical Science**
Republic Polytechnic 2020 - 2023
Final Year Project: Development of Sustainable Cell-Based Products from Fish Cells
Explored cultured fish cells as a sustainable protein source, focusing on producing Omega-3 oils, fatty acids, and flavoring agents. Conducted experiments using spinner flasks and microcarriers to optimize 3D dynamic culture conditions, achieving a 5-day cell yield exceeding initial seeding at 30 rpm. Identified Rock Inhibitor as a potential microcarrier substitute, contributing to innovative, ethical, and environmentally sustainable food solutions.

Experience

- **Laboratory Technologist**
National University of Singapore 2023 - Present
I conducted both in vitro and in vivo research projects, contributing to scientific advancements in the field. I managed laboratory operations, ensuring smooth workflows, maintaining equipment, and adhering to safety protocols. Additionally, I presented research findings at conferences, fostering knowledge sharing and professional networking. This role allowed me to develop strong organizational, technical, and research skills in a dynamic and impactful environment.
- **Research Intern**
*Institute of Molecular & Cell Biology, A*STAR* 2022 - 2023
As a Research Intern, I assisted in a project targeting retinal diseases, studying synthetic polymers for drug delivery. Gained hands-on experience in stem cell differentiation to Retinal Precursor Cells and performed experiments like cell fixing and immunostaining, enhancing my technical and research skills.

Co-curriculum

- **Volunteer**
TOUCH Young Arrows 2021 - Present
Volunteered as a youth coach, guiding them academically and through value-driven activities while providing mentorship and tailored plans to help them overcome challenges.
- **Vice President**
Republic Polytechnic Muay Thai 2020 - 2023
As Vice-President (2021-2022), coordinated training sessions, developed policies, and collaborated with other groups to enhance exposure and skill-sharing.
- **Outreach Project Lead**
Republic Polytechnic 2021
Led event planning and proposal drafting as project-in-charge, coordinating with stakeholders to ensure smooth execution.

Conference

- **Poster Presenter**
- *NUHS Scientific and Innovation Summit 2024* 2024
- *Neurofrontiers: Bridging Molecules, minds & AI systems symposium* 2025
- *ARVO 2025* 2025