

LUCY MA

Biomedical Engineering, PHD
UNIVERSITY OF TORONTO



Lucy Ma is a 3rd year Biomedical Engineering PhD student at the University of Toronto, whose research integrates synthetic biology and regenerative medicine. Co-supervised by Dr. Michael Garton and Dr. Penney Gilbert, she engineers human-induced pluripotent stem cells (iPSCs) and derived skeletal muscle tissues to deliver therapeutics for chronic genetic disorders. With an interest in merging the outer space and medicine, she is also working on engineering gene therapies designed to protect astronauts from ionizing radiation induced DNA damage in collaboration with the Canadian Nuclear Lab.

Beyond her research, Lucy is deeply committed to community building and being a connector in STEM. She founded the first graduate mentorship program within the Faculty of Biomedical Engineering at the University of Toronto, and she serves as the Space Biomedical Sciences Chair at SEDS Canada.

Through leading the Canadian Space Health Research Network and subsequently establishing the Canadian Space Radiation Research Group, she is dedicated to funding trainees, disseminating opportunities, and organizing bi-annual national symposia. Her long-term vision is to leverage business as a vehicle to build a sustainable ecosystem for space health research and innovations worldwide. As a part-time content creator @lucyinthesky.astro, she enjoys capturing moments of her grad life journey, sharing advice, and inspiring others to dream ambitiously.



MENTOR