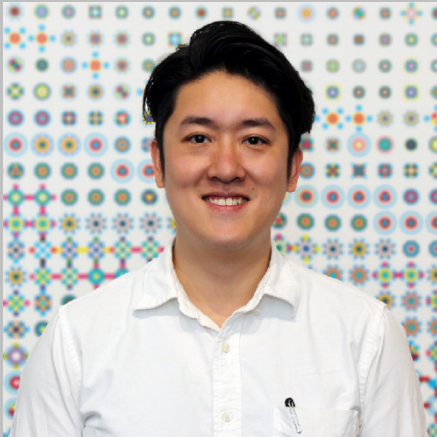


## BIOBANKING – THE NEXT LEVEL



DR JOSHUA CHOU, UTS

### “BIOBANKING IN SPACE”

DR JOSHUA CHOU, UTS

Dr. Joshua Chou is currently a Senior Lecturer in the School of Biomedical Engineering at the University of Technology Sydney (UTS). Prior to joining UTS, he was a JSPS Fellow and a Dean’s Scholar Fellow at Harvard School of Dental Medicine working on bone mechanobiology. Dr. Chou’s research focuses on developing different biological tools to understand cellular and disease mechanotransduction. He developed Australia’s first cellular simulated microgravity instrument and has applied this technology together with organ-on-chip to leverage this unique condition to develop disease models, cellular regeneration and develop countermeasures against the effects of microgravity. His current focus is in understanding the dynamic mechanosensing signaling pathways to elucidate their roles in regulating homeostasis.

### ABSTRACT

The impact of space medicine and life sciences is playing a critical role in human space exploration and understanding human physiology and diseases. With an impending mission to the International Space Station to study the impacts of zero gravity on cancers and bone biology, sample management plays a vital role. The future of mankind will depend on these types of experiment to unlock our understanding of humans and the development of next generation medicines. In this talk I will discuss the importance of biobanking in space and how as a multinational team involving ANSTO, Mayo Clinic, MIT and many more are coming together to pioneer this challenging and exciting area of space research.

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