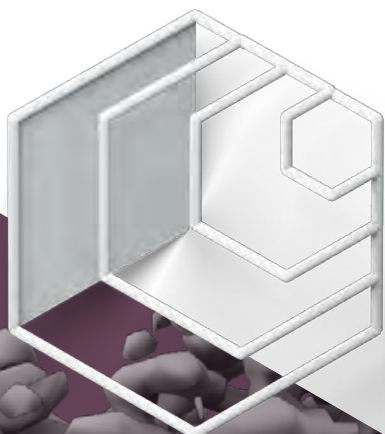
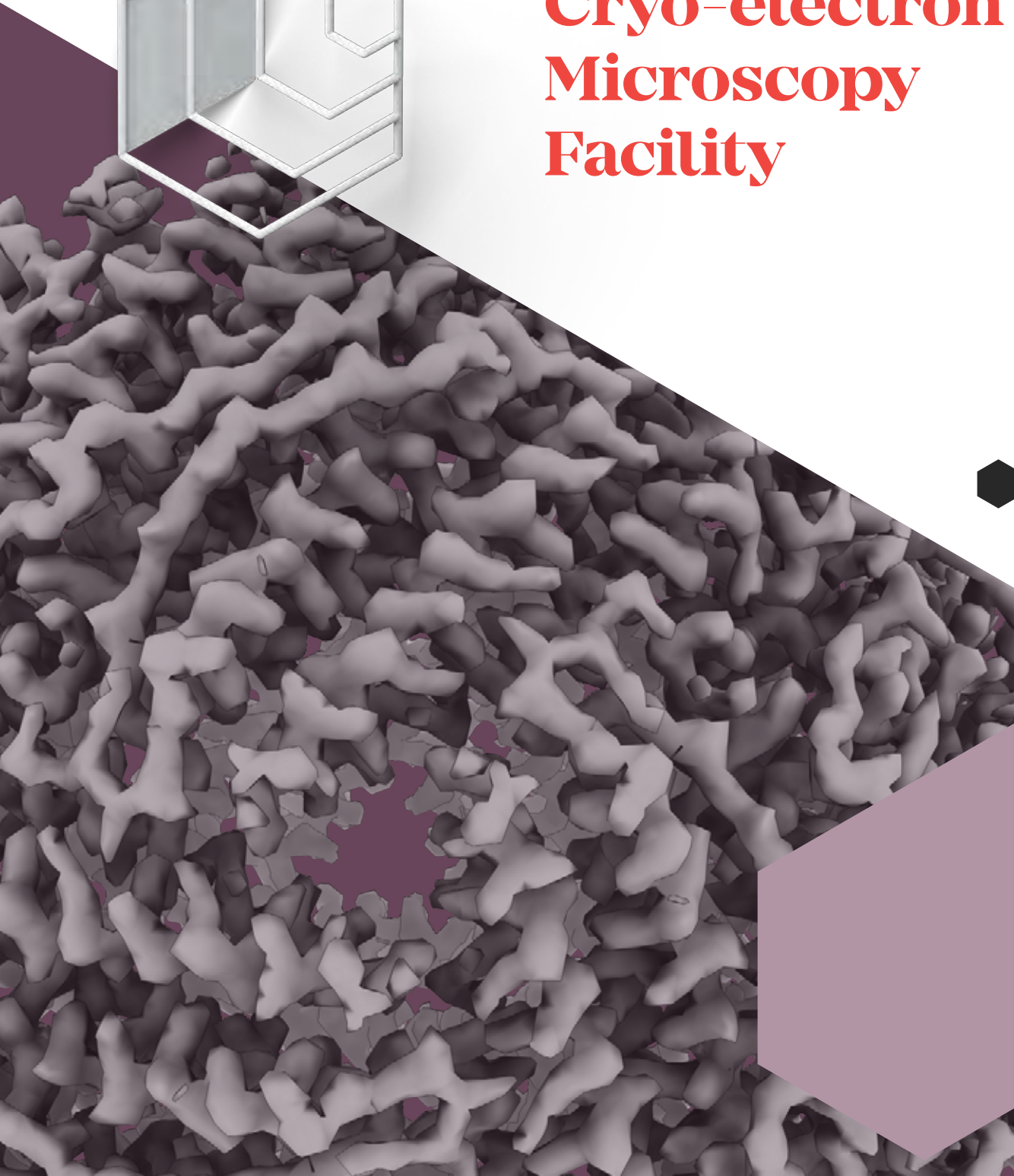


VICTOR CHANG  
CARDIAC  
RESEARCH  
INSTITUTE  
**INNOVATION  
CENTRE**



# **Cryo-electron Microscopy Facility**

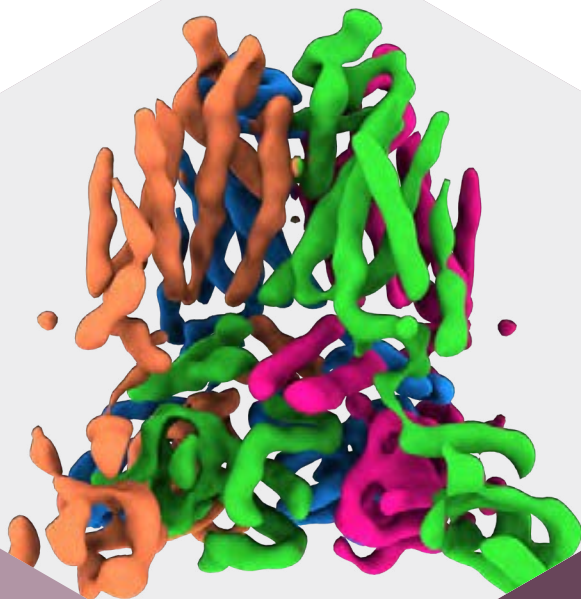


# Cryo-electron Microscopy Facility

The Victor Chang Cardiac Research Institute Innovation Centre's Cryo-electron Microscopy Facility is a leading research platform for biological electron microscopy.

Located within the Electron Microscope Unit at UNSW Sydney, the 240,000-times magnification instrument is Sydney's first, fitted with next generation highly sensitive cameras which give insight into frozen macromolecular structures, cellular components, cells and tissues with never-before-seen clarity.

Providing unprecedented insights into cardiovascular disease, HIV and Alzheimer's, this microscope gives researchers an atomic-level understanding of how cells divide and survive, which is critical to the future development of antibiotics to fight superbugs.



## Talos Arctica (Thermo Fisher)

Technological advances have revolutionised the field of cryo-electron microscopy and structural biology more generally. The Thermo Fisher Talos Arctica has rapidly increased the screening and data acquisition speed, being up to three times faster for tomography and 1.5 times faster for single-particle analysis than previous models.

- 200kV FEG transmission electron microscope
- Robotic sample handling and automated loading for up to 12 samples enhances up to 40% in data throughput
- Falcon 3EC direct electron detector
- Auto-filling of liquid nitrogen and powerful applications SW for continuous unattended platform operation and automated data acquisition
- Autoloader allowing up to 12 grids to be loaded under liquid nitrogen and kept under vacuum ready for imaging
- Stable stage for imaging at cryogenic conditions capable of high tilt for tomography
- Automated data collection for single particle EM and tomography



## The power of discovery

The Victor Chang Cardiac Research Institute Innovation Centre is heralding a medical research revolution.

Proudly supported by the NSW Government, the Innovation Centre gives researchers access to state-of-the-art equipment and cutting-edge technologies, including two MRI scanners, a series of mass spectrometers, micro-CT, iPSC automated robotics and a cryo-electron microscope.

The Victor Chang Cardiac Research Institute Innovation Centre is pushing the boundaries of knowledge by facilitating a new era of collaboration between researchers across the state and the Asia Pacific, transforming the landscape of cardiovascular research.



### Enquire about the Cryo-electron Microscopy Facility

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Cryo-electron Microscopy Facility

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