



MEDIA RELEASE

Astraea Technologies Debuts HIRO-LAB concept at IAC 2025: From Earth Labs to Space Resilience

Sydney, NSW – 2 September 2025 – Astraea Technologies, a NSW-born venture developing technology for space related healthcare, with a focus on radiation analysis, will launch its business and unveil their HIRO-LAB (Heavy Ionising Radiation Observation Laboratory) concept supported by Investment NSW at the 76th International Astronautical Congress (IAC 2025) in Sydney this September.

HIRO-LAB is Astraea's patented platform for testing radiation induced degradation, designed with both on-world and off-world applications in mind. The platform will begin by generating simulated space radiation testing conducted on Earth and optimising products for resilience – with the ultimate goal of validating those products in real space environments.

The flagship project addresses one of deep space's most overlooked challenges: how radiation affects pharmaceuticals critical to human health. HIRO-LAB's applications extend to aerospace, defence, advanced materials, and remote medicine.

"HIRO-LAB will help bridge gaps between Earth and space," said Graeme Kuchmar, Marketing and Communications Lead. ***"We offer tailored testing solutions to make products resilient for the future."***

"Our vision is to become a key player in the Australian NewSpace industry, collaborating with other start-ups and SMEs to solve real problems of long-duration space missions," said Gordon Carroll, Co-Founder.

"Our technology will help customers understand the effects of the harsh space environment beyond Earth's magnetosphere – making long-duration missions safe for essential products," said Brooke Mills, Co-Founder.



Astraea Tech at IAC 2025

Astraea Tech will exhibit at the NSW Government Pavilion (Stand 198) during the International Astronautical Congress (IAC) 2025, showcasing its technology and concept imagery.

The company will present its abstract, Positive Spin: Analysis of Pharmaceutical Degradation due to Heavy Ionising Radiation Exposure, examining pharmaceutical stability in space for future exploration and habitation.

Astraea Tech will also join the UK Space Agency's panel on Unlocking the Commercial Potential for Space-Enabled Healthcare, exploring how space-based innovation can create both public benefits and commercial opportunities in healthcare.

Event Details:

76th International Astronautical Congress (IAC 2025)
Sydney International Convention Centre, NSW
29 September – 3 October 2025

About Astraea Technologies

Founded by a passionate team of scientists, engineers, and dreamers, Astraea Technologies is a NSW-born venture pioneering unique radiation diagnostics for Earth and space applications. Its flagship platform, HIRO-LAB, will provide customised materials and radiation testing solutions, beginning with pharmaceutical resilience in space and expanding to support industries preparing for the next era of exploration.

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