

31<sup>st</sup> March 2025

## Dr Caswell, Spaceport Australia, is a nominated finalist for five Australian Space Awards, 2025

Congratulations to Dr Caswell, Spaceport Australia <a href="www.spaceportaustralia.com.au">www.spaceportaustralia.com.au</a>. Dr Caswell has been nominated finalist for five Australian Space Awards <a href="Australian Space Awards 2025">Australian Space Awards 2025</a>, announced Monday March 31<sup>st</sup> 2025. Spaceport Australia Pty Ltd focuses on challenges humans will face surviving and thriving in space, looking for medical, biological and technological solutions. Dr Caswell said she was pleased to be nominated, it was an acknowledgement the development of space technologies and research is occurring in the commercial sector (outside government, universities and military).

Space will ultimately be a commercial enterprise, it is important that others with ideas and solutions to the harshness of the space environment find a way to take their ideas and research into the space marketplace. "Space", she continued, "Is a global enterprise. Australians, with all our inventiveness and problem solving skills, should take part, and encourage the next couple of generations to 'think' space. As we transition from the Military Industrial Complex (MIC) to the Space Industrial Complex (SIC), what we have 'down here' we will want up there, and it has to be robust, repeatable and fixable. The Moon is still (space speaking) in our backyard, Mars, not so much".

Spaceport Australia's active research, investigation and recruitment of partners has been global, with established 'practitioner scholar' projects looking to create medical and mental health diagnostic tools that can be used in space or any remote environment. Whether on the Moon, Mars or mining asteroids, there will be requirements for human habitation and health management. Three factors: Shelter, food and water security will be cardinal for any space venture. Technologies that maintain human health and protect humans from the space environment are matters of safety, practicality, and importantly, will allow viable, longer term independent missions past Low Earth Orbit (LEO). Spaceport Australia recently released three projects for investment: *Miento*, *Lunar Laptop Project* and the *Bioregenerative Space Habitat*. The much anticipated Hamilton Project will be released in the coming months. In June 2025 Dr Caswell will be hosting an Australian led panel at the American Society of Aerospace Medicine <a href="www.asma.org">www.asma.org</a>, this panel is focussed on the human mircobiome in space, and regenerative life support systems.

Dr Gabrielle Caswell is finalist in the following Australian Space Award, 2025 categories:

- Executive of the Year;
- Female Space Leader of the Year SME;
- Innovator of the Year;
- Mentor of the Year;
- Rising Star of the Year SME.

With predictions of space tourism and workforce, Dr Caswell is interested in the horizontal launch concepts, which she believes have the potential to be a more accessible for people to experience 'space holidays'. Horizontal launch entities are focusing on reusable space-planes, which will double time: human transportation and freight into space.

Space medicine, in all its forms from medicines and treatments to nutrition, is cardinal for human survival and success in the space environment. "It's an exciting time be involved in all areas of STEM (including E for empathy and M for medicine). To think, you could be training to be a space pilot in the near future", she said, "I would really encourage young people and young professionals to think how their studies can contribute to the space economy. Things we don't tend to think about, like space law, will be needed. All Australians should take advantage of upcoming opportunities in the space sector".