**Dr Gabrielle Caswell accepts nomination for eight *AusSpace 25*, Australian Space Awards.**

**Moree NSW 5th March 2025**: Dr Caswell, director of Space Port Australia ([www.spaceportaustrlia.com.au](http://www.spaceportaustrlia.com.au)) an independent research hub, has been nominated for eight *AusSpace 25 Awards*.[[1]](#footnote-1) Space Port Australia has created independent pathways for individuals interested in space health and human factors, forming research partnerships with practitioner-scholars from around the world. “Australian clinicians, especially general practitioners,” she says, “with their wealth of rural and remote medical knowledge, have the experience to problem solve and excel in the space environment.”

Several of Dr Caswell’s projects have received international attention, leading to cooperative research initiatives in a number of jurisdictions, including Canada and the United States. “Space”, she advises, “Is an international profession, and depending on the development of a country’s industry, and the direction their government is taking, can shape professions,” continuing, she said, “I feel very lucky that there has been an international appetite for space medicine, space health and human factors; it has become a priority for those countries seriously considering launching for Mars. My diverse academic and clinical training is put to good use.”

Dr Caswell is a registered medical practitioner, and has training in several biological sciences, her current focus is the human microbiome, space habitats, agriculture and nutrition. Space medicine is a broad church focussing on keeping people healthy, and alive, in the space environment, despite many diverse physiological challenges. Habitats, ecology, agriculture and nutrition, don’t seem to be related, until you research the human microbiome, which resides in two main habitats: the skin (including hair and appendages) and the gastrointestinal tract, both, she points out, are external to the human body. “The human microbiome has been with us for an estimated 103,000 years, developing in synergy with the rise of modern humans. It’s a dynamic adaptive system, integrated with the human body on many levels, from nutrition, to micronutrients, to lung immunity to Vitamin D production.” The organisms, cells, viruses and other organics that make up the human microbiome, like human cells, are influenced by microgravity.

In her view, space medicine encompasses all of which influence the human microbiome, and therefore human health. In June 2025, at the Aerospace Medicine Society of America annual scientific meeting ([www.asma.org](http://www.asma.org)) their teams collaborative panel, “*Life Support Challenges for Exploration Class Space Missions: Human Health and Survivability*” has been accepted. Dr Caswell points out, “With the current projections for travelling to Mars just a couple of years away, there is much work to be done.”

The *AusSpace Awards ’25* are administered by the Australian Space Agency <https://www.spaceconnectonline.com.au/ausspaceawards/>. Dr Caswell says, “There is a high calibre of individuals and companies in Australia whose science is contributing to the world space effort. To be included in the same categories as these individuals is a fabulous win for independent researchers, and smaller self-funded operators.”

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1. Space Port Australia Pty Ltd [www.spaceportaustralia.com.au](http://www.spaceportaustralia.com.au) was formalised in 2018 with the aim to develop technological and biological solutions to aid human exploration of space. Areas of focus include: **Biological (**Human factors and Medical tools and diagnostics suitable to remote and isolated space situations). **Technological/electronic (**Diagnostic and other tools suitable for the use in the space environment) . **Psychological/community (**Additive research into the psychological aspects of space exploration). [↑](#footnote-ref-1)