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-- FOR IMMEDIATE RELEASE --

Saber announces first products to fly in Australian Astronaut

Program

24th January 2023 --

Sydney, Australia -- Saber Astronautics is proud to announce the first set of projects selected for development at the International Space Station (ISS). Saber's Australian Astronaut Program, announced last July, aims to bring Australian industry and researchers into the spaceflight community and benefit from the trillion dollar station.

Saber accepted this first round of projects based on their manufacturing potential and longer term capabilities in various fields such as health, food production, and future sustainable space access:

- 1. The ARC Centre of Excellence for **Plants for Space** (P4S) and University of Adelaide is developing sustainable, productive space crops.
- 2. "A project to study the **impacts of the space environment on frozen mice embryos**, **eggs and sperm** by IVF Australia, Vitrus Health, 23strands, the University of Melbourne, and the University of Technology Sydney.



3. NSW engineering company **TITOMIC Pty Ltd** is developing a method to repair solid

state metals, crucial for long term, sustainable repair of large space objects.

4. **Vostok Space Beer**, a joint venture between Saber Astronautics and the 4-Pines

Brewery, will fly the world's first beer you can drink in space, with a 0-g beer bottle.

Project teams will participate in a series of workshops starting in February at Wolfpack

Space Hub, in order to get "flight ready" for Axiom's flights to the ISS in 2024 and 2025.

Saber's Australian Astronaut Program is part of the most recent push for commercially

funded astronauts. This program is opening the door for projects to access the

laboratory aboard the ISS, with an undiscovered potential for return.

Successful projects are aiming to build new products in a diverse range of industries

and research using the unique environment of space. The ISS offers unparalleled

advanced manufacturing and research opportunities. Project teams will also create

advancements in areas such as human reproduction, plant growth and materials

science.

"We are impressed by the innovation and creativity in the proposals and are excited to see

the potential they can have on the future of space exploration and on Earth. There are more

projects signing up and we want to give the best opportunity for industry to make the most of

this exciting opportunity. "said Saber CEO Dr. Jason Held.

Saber plans additional project proposal rounds and workshops on a bi-annual basis.

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Supplementary Notes

More details about the projects and their researchers are as follows:

1. "Investigating the possible impacts of space radiation and microgravity on frozen mice embryos, eggs and sperm"

Gavin Sacks (IVFAustralia, UNSW), David Gardner (Virtus Health, University of Melbourne), Luk Rombauts (Monash IVF), Majid Warkiani (University of Technology Sydney), Dale Goss (IVFAustralia, University of Technology Sydney), Steven Vasilescu (University of Technology Sydney), Mark Grosser (23strands).

This project will research the possible effects of space radiation and microgravity on frozen mice embryos, eggs and sperm concerns, for the future of human exploration of distant planets, aiming the development of new systems for stable longterm storage of embryos, eggs and sperm, with application on undergoing fertility treatment now on Earth.

2. "On demand food and pharmaceutical production for Space Applications"

Professor Matthew Gilliham and Associate Professor Jenny Mortimer (University of Adelaide) in collaboration with the Centre of Excellence Plants For Space (P4S) team (Australian Research Council)

Aiming to test the growth of new Space crop forms in the challenging conditions of the ISS with applications also on Earth.

3. "Development and Testing of a Self-Contained, Miniaturised Device for On-Orbit Solid Metal Repair using Supersonic Particle Deposition (Cold Spray)"

Peter Lockett, Max Osborne, Dominic Parsonson - TITOMIC Ltd)

Aiming to develop and show the feasibility of a self-contained, miniaturised cold spray device to produce on-orbit solid state metal repairs

4. "Vostok Space Beer for Astronauts"

Dr Jason Held, Jaron Mitchell

A joint venture between the 4-Pines Brewing company and Saber Astronautics to bring the first Beer in the world that can be used in space.

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About Saber Astronautics

Saber Astronautics' mission is the democratization of space, reducing barriers to space flight, and making space as easy as driving a car. Incorporated in 2008, Saber Astronautics provides space operations, mission design services, and related software. Saber has R&D laboratories and mission control centres in the USA and Australia, being a trusted supplier to traditional space and government customers as well as NewSpace entrants worldwide.

Please stay up to date with Saber by visiting <u>our website</u>, subscribing to our newsletter, or following us on social media: <u>LinkedIn</u>, <u>Twitter</u> and <u>Facebook</u>.

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