

NASA's Human Research Program: Evolving Collaborations to Enable the Future of Human Spaceflight

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Since its formation in 2007, the NASA Human Research Program's (HRP) mission has been to reduce human health and performance risks for spaceflight exploration missions. The program has achieved this mission primarily through work in ground analogs and on the International Space Station. Over the last three years, NASA overall has seen transformative changes with the flight of Artemis I, formation of the Commercial LEO Destinations Program, commercial flights to the ISS, and new International Partners participating in human spaceflight. NASA's HRP has embraced these new opportunities and is collaborating on all these fronts to collect biomedical research data.

Artemis I marked the arrival of NASA's new human spaceflight exploration missions. NASA has developed a Moon-to-Mars Architecture to map out how it will use the moon to de-risk and enable Mars missions. NASA's HRP is a critical component to develop and deliver research and technologies for future Artemis Crew Health and Performance (CHP) Systems. The program is working closely with NASA's Moon-to-Mars Office to ensure CHP deliverables are ready to demonstrate on the moon, as we also look toward Mars, and is developing the partnership strategies required to support these deliverables.

Commercial space flights, both free flyer and suborbital missions and private astronaut missions to the ISS, are providing broader opportunities and subjects to characterize the space-induced changes to the human system and to test countermeasures. To better use these opportunities to achieve its mission, HRP has been working to understand the commercial spaceflight companies' needs and then partner with them on aspects of mutual interest.

In addition, NASA HRP continues to engage in long-standing relationships with its international partners through the International Space Life Sciences Working Group (ISLSWG) and other joint international groups. The Program is now also interested in sharing its knowledge and ability to collaborate on projects of mutual interest with new countries developing capabilities for human spaceflight.

The next 10 years will shape how humanity partners on exploration missions to Mars. NASA's HRP is committed to enabling and developing collaborative strategies with commercial and international partners to keep humans safe and productive as we explore longer and further into space.