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Highlighted in this issue: Astronauts are exposed to many stressors during spaceflight that impact their physical, physiological, and emotional wellbeing. What is now becoming more recognized, though, is the role that the astronaut microbiome could play in balancing or disrupting various aspects of astronaut health, such as bone strength, immunity, cognitive function, viral reactivation, and drug disposition. Understanding how host and microbiome interact in space will be essential to ensure successful long-duration space missions to the Moon, Mars, and beyond.

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