



# The Sound of Space

## EP. 7 - LIFE IN SPACE - THE EFFECTS OF MICROGRAVITY (WITH ERIN RICHARDSON AND AVINASH MUKKALA)

Brought to you by the University of Toronto Aerospace Team (UTAT)

### 00:00 Gravity

- [1] L. Heppler, "Free falling: The science of weightlessness," *Science in the News*, 18-Oct-2018. [Online]. Available: <https://sitn.hms.harvard.edu/flash/2018/free-falling-the-science-of-weightlessness/>.
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### 04:00 Plants & Animals in Microgravity

- [3] H. Takahashi, "How Do Plants Grow in Microgravity?," *JAXA*, 2003. [Online]. Available: [https://global.jaxa.jp/article/special/kibo/takahashi\\_e.html](https://global.jaxa.jp/article/special/kibo/takahashi_e.html).
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### 09:50 Humans in Microgravity

- [6] K. Mars, Ed., "Twins Study," *Human Research Program*, 23-Mar-2017. [Online]. Available: <https://www.nasa.gov/twins-study/about>.

### 11:38 Erin Richardson - The Impact of the Twin Study & Parabolic Flights at NASA

### 16:36 Humans in Microgravity cont'd

- [7] S. Iwase, N. Nishimura, K. Tanaka, and T. Mano, "Effects of Microgravity on Human Physiology," *IntechOpen*, 05-Feb-2020. [Online]. Available: <https://www.intechopen.com/chapters/70679>.
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- [10] "The Expanse," *IMDb*, 2015. [Online]. Available: <https://www.imdb.com/title/tt3230854/>.

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**25:03** **Avinash Mukkala - The Human Microbiome in Microgravity**

**36:40** **Humans in Microgravity cont'd**

- [12] HM. Heer, J. Titze, S. M. Smith, and N. Baecker, *Nutrition Physiology and Metabolism in Spaceflight and Analog Studies*, 1st ed. 2015. Cham: Springer International Publishing, 2015. doi: 10.1007/978-3-319-18521-7.
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