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Al Neyadi fights space microbial hitchhikers

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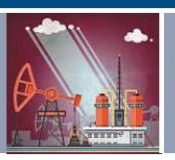

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@Astro_Alneyadi/Twitter

Al Neyadi, who serves as Expedition 69 flight engineer, says millions of microbes reach the ISS every year.

Al Neyadi is fighting 'hitchhikers' in space

Sultan of Space monitors ISS cabin to detect contamination

DUBAI

BY SAJILA SASEENDRAN
Senior Reporter

UAE astronaut Sultan Al Neyadi is engaged in a fight aboard the International Space Station (ISS) — he's battling microbial hitchhikers in space!

In a social media post on Tuesday, Al Neyadi — who is on the longest Arab space mission — explained that millions of microbes reach the ISS every year.

"This is why it's important for us to monitor the ISS cabin for airborne bacteria and fungi in order to protect our health and study their behaviour," said Al Neyadi, who serves as an Expedition 69 flight engineer.

Al Neyadi also shared two images with the post and described them stating: "Here I am watching this Petri dish to detect any contamination."

Testing ground

Scientists use the ISS as a testing ground to study how to keep astronauts safe and healthy on long-duration missions. The ability to identify microbes in space could aid in the diagnosis and treatment of astronaut ailments in real-time.

These studies also benefit humans on Earth by providing a better understanding of how microbes behave in a sanitised, isolated, and confined environment.

Microbes in space

Microbiologists have found that microbes can live just about everywhere, on human beings and even in space. Microbial hitchhikers can catch a ride to space, with either the cargo or the crew. Therefore, cleanliness and proper disposal of garbage is an important part of living on the ISS.

Earlier, a series of Nasa microbial tracking experiments and the 3D Microbial Monitoring study had to rely on astronauts collecting hundreds of samples by wiping down selected surfaces with swabs, packing the samples in plastic bags, and sending them back to Earth for identification with DNA sequencing facilities.

The Nasa research team has gone on to collaborate with the Centers for Disease Control, looking into how streamlined procedures developed for the space station can be implemented to determine the cleanliness of hospital rooms.

Using these microbial tracking methods in hospitals could provide a much faster turnaround time, even when implemented by untrained individuals. This capability might give hospitals the tools to detect microbes that may be resistant to antibiotics.

MICROBES LIVED FOR 31 MONTHS

On April 20, 1967, the unmanned lunar lander Surveyor 3 landed on the Moon. The on-board items included a television camera. Two-and-a-half years later, when Apollo 12 astronauts recovered the camera, Nasa scientists were surprised to find some bacteria called Streptococcus mitis were still alive. These bacteria had survived for 31 months in the vacuum of the Moon's atmosphere.

—S.S.