

# Single Bacteria type grows 60% better on Space than on Earth

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## Abstract

Researchers from University of California had the idea to collect simple bacteria from different environments on Earth and compare their behaviour on normal environment with their behaviour on space. The starting problem was that until now the attention has been focused on the microbes that have potential pathogenic risk and nobody studied the ordinary bacteria on space . The result was surprising. Of the 48 types of bacteria sent on ISS all of them had similar behaviour, with one exception. *Bacillus safensis* grew 60% better on ISS than on Earth.

## Summary

To accomplish this task, it was made a nationwide campaign to popularise science, named Project MERCCURI (Microbial Ecology Research Combining Citizen and University Researchers on the ISS). The people had to collect microbes from public places like museums, sports events, schools, pools and send them to researchers and the most interesting microbes were selected. The bacteria winners were sent to ISS.

After the selection, the researchers send samples with the winners on Dragon spacecraft, which was launched on April 18th 2014. The result was that *Bacillus safensis* bacteria grew 60% better on the board of ISS than on Earth. The reason for this is still a mystery. Clues may be found on the genome sequencing of the bacteria, that was recently determined .

## **Conclusion**

The lead author of the article Dr. David Coll said that: "Understanding how microbes behave in microgravity is critically important for planning long-term manned space flight but also has the possibility of providing new insights into how these microbes behave in human constructed environments on Earth." Also this study engaged the public in the world of science and research. The authors hope that this article will be a start of inspiration for young and adults to get involved more in science world.