

DNA in space: First CRISPR gene-editing study by astronauts opens door to future experimentation

The [first CRISPR experiment](#) to take place in space shows that DNA can repair itself in microgravity.

As part of the “Genes In Space-6” experiment, astronauts on board the [International Space Station](#) (ISS) created breaks in the DNA of a common yeast, and then analyzed how it repaired itself.

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Having this technology available on the ISS means that scientists can analyze DNA that sustained damage while in space, rather than relying on samples being sent up to the station that have been cut on Earth. While the principles of CRISPR in space are the same, they need to be tailored toward the conditions in space, researchers said.

“We cannot take exactly what we have on Earth and simply put it in space, because we have to keep the crew and all the environmental life systems on board safe,” study lead author Sarah Rommel, also a microbiologist at JSC, said in the same statement.

“For example, we made our own custom kits for the whole process, looking at how to use the least amount of the safest materials and still get the best science.”

[This is an excerpt. Read the original post here.](#)