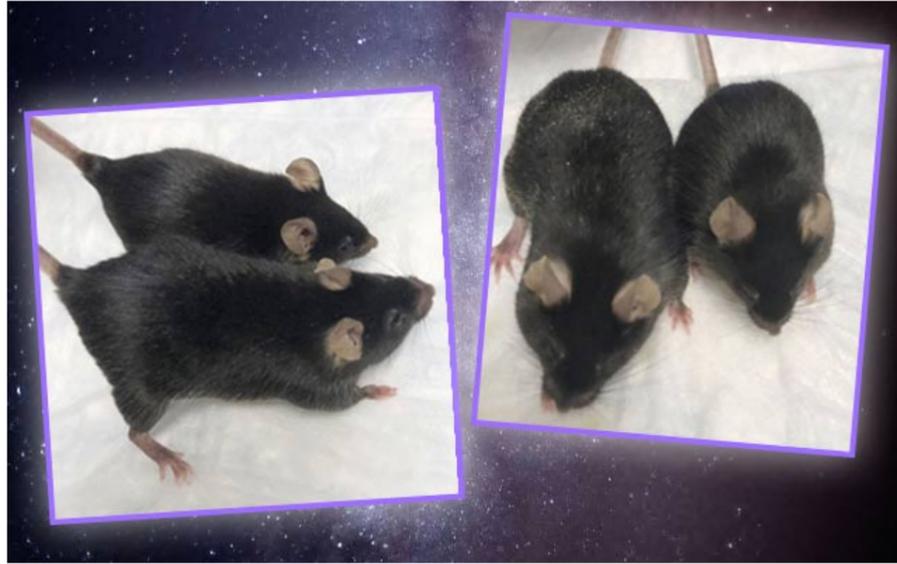


Mighty Mice Back from Space!

Rodents in space help scientists study muscle and bone loss.



A regular mouse next to a mighty mouse

Space is a *tough* place for humans to be. It's really, really cold up there, and there isn't any air for us to breathe. Being in space can even change people's bodies! Astronauts lose muscle mass while they are floating around in low gravity. Their muscles and bones get weaker the longer they stay in space. No worries though — *mighty mice* are here to save the day!

Mighty mice aren't actual superheroes though. They are mutant mice raised by scientists. Experts found a way to give the mighty mice double the muscle mass of regular mice. Then, they sent these creatures to the International Space Station (ISS).

There were 40 mice in this group — including both mighty mice and normal critters. They launched in a SpaceX rocket in December 2019. After 33 days in space, all of the animals returned safely back to Earth in January. Scientists got to work studying the mice for changes in their bodies. They shared the results of their experiment this month.

The researchers discovered that 24 normal mice lost muscle mass just like human astronauts do. But a group of eight enhanced mice kept their muscles! There were also eight mice that got a medicine to help them become mighty mice *while in space*. Those animals actually returned to Earth with *larger* muscles than when they left! Their bone density and weight went up too.

Scientists can learn a lot from this squeaky study. The experiment may help keep astronauts healthy in future space missions to the Moon, Mars, and beyond. It may also be important right here on Earth. Many people struggle with bone and muscle problems from diseases such as cancer and muscular dystrophy. The study could one day lead to better treatments for these kinds of conditions.

So, maybe these mice actually *are* heroes. They don't know it, but they could save lives one day. If nothing else, the space mice prove that little critters can have a mighty impact on our world!

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