



## University of Central Florida is First to Conduct Microgravity Research via NanoRacks on ISS, and in suborbital space, via Blue Origin

**April 13, 2016-Webster, TX**—Researchers at the University of Central Florida (UCF) have become the first-ever team to experiment on both NanoRacks' commercial research lab onboard the International Space Station (ISS) and in suborbital space on Blue Origin's *New Shepard* space vehicle. The UCF team, lead by physics professor and Assistant Director of the Florida Space Institute, Dr. Josh Colwell, is conducting this in-space research as part of a broad research program to understand the early stages of planet formation, the surfaces of asteroids, and the evolution of planetary rings.

[NanoRocks](#), an experiment launched via NanoRacks on SpaceX-4 in 2014, has been studying particle collisions to better understand how developing planets get from just centimeters across to much larger objects, known as planetesimals, which are able to gravitationally attract to each other and form full size planets. NanoRocks was a winner of the [Space Florida ISS Research Competition](#), and is now scheduled to return to Earth on SpaceX-8 Dragon.

[COLLIDE](#), launched on Blue Origin's [fourth mission](#), explores phenomena that are masked or suppressed by Earth's gravity. In free-fall, UCF is able to explore collisions such as those in the early stages of planet formation, and the behavior of space dust on small asteroids and moons that have a much weaker gravitational pull than Earth.

NanoRacks is thrilled to be involved with Dr. Colwell's team as a flagship program exploring long term-microgravity exposure on ISS, and hopes to be involved with the team as they continue to explore in suborbital and orbital space.

[NanoRacks announced in July 2015](#) that the Company was selected to provide payload integration services for Blue Origin's *New Shepard* Space Vehicle. NanoRacks will soon begin flight integration training at Blue Origin's West Texas launch site.

"Suborbital flights on Blue Origin's *New Shepard* Space Vehicle provide a rapid turnaround on science and technology experiments to shake out any problems before sending something up to the International Space Station," says Dr. Colwell. "We got our experiment back the same day it launched and were immediately able to see how things performed. We got data that suggests some new types of experiments we'd like to perform both in the lab as well as on future flights. Flights with Blue Origin go through a simpler approval process than something going up to the space station, so it's a great platform to try out new concepts that can be refined for orbital flight later."

Dr. Colwell and his expert team are the first to prove in a hands-on manner that suborbital flight is a fantastic test bed for further refined experiments in orbital space on the International Space Station.

"We're looking forward to flying COLLIDE again on suborbital rockets, and we're preparing new experiments for suborbital and orbital flight as well as parabolic airplane flights," says Dr. Colwell.

NanoRacks offers a suite of commercial suborbital and orbital platforms, available to industry, private sector, educational programs and government organizations worldwide. [Contact NanoRacks](#) today to see what microgravity can do for you.

For further updates, follow NanoRacks on twitter: @NanoRacks

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### **About NanoRacks LLC:**

NanoRacks LLC was formed in 2009 to provide commercial hardware and services for the U.S. National Laboratory onboard the International Space Station via a Space Act Agreement with NASA. NanoRacks' main office is in Houston, Texas, right alongside the NASA Johnson Space Center. The Business Development office is in Washington, DC. Additional offices are located in Silicon Valley, California and Leiden, Netherlands.

In July 2015, NanoRacks signed a teaming agreement with Blue Origin to offer integration services on their New Shepard space vehicle. The Company has grown into the Operating System for Space Utilization by having the tools, the hardware and the services to allow other companies, organizations and governments to realize their own space plans.

As of March 2016, over 350 payloads have been launched to the International Space Station via NanoRacks services, our customer base includes the European Space Agency (ESA) the German Space Agency (DLR,) the American space agency (NASA,) US Government Agencies, Planet Labs, Urthecast, Space Florida, NCESSSE, Virgin Galactic, pharmaceutical drug companies, and organizations in Vietnam, UK, Romania and Israel. The NanoRacks customer base has propelled the company into a leadership position in understanding the emerging commercial market for low-earth orbit utilization.