



## **Protein Crystal Growth, Fruit Flies & Biology: NanoRacks to Launch Six Payloads on SpaceX-4**

**Cape Canaveral, FL- September 16, 2014**—NanoRacks is hosting six payloads on the upcoming SpaceX Commercial Resupply-4 mission (CRS-4) that is set to launch September 20 at 2:16 a.m. (EDT) from Kennedy Space Center. These payloads, to be delivered to the International Space Station (ISS), come from customers such as NASA Ames Research Center, Space Florida, the Limerick Institute of Technology, and other international teams.

“We are hosting almost twice the payloads on SpaceX CRS-4 than we did on SpaceX CRS-3,” said NanoRacks CEO Jeffrey Manber. “Our growth is helping to democratize the future of commercial space access and we thank our customers for being a crucial part of this exciting journey with us.”

NanoRacks is pleased to be continuing its partnership with [Space Florida](#) on this mission, launching four of the six winners of the Space Florida International Space Station Research Competition. The first two winners were launched on [CRS-3](#), with the last scheduled for CRS-5.

The following payloads are the Space Florida winners to be launched this Saturday morning that will utilize the NanoRacks platforms onboard the ISS:

**SyNRGE<sup>3</sup>**: Coming from Ireland’s Limerick Institute of Technology and partnered with Florida’s CSS-Dynamac, this plant growth chamber seeks to study plant-microbe interactions on the ISS through symbiotic nodulation in a reduced gravity environment.

**EGAHEP**: The “Egypt Against Hepatitis C Virus” team is working to address the need for research on a Hepatitis C, a disease considered a major problem in Egyptian society. The researchers, working via the German Aerospace Center (DLR) and Technischen Universität München, have a goal to build space-developed Hepatitis C protein crystals using the NanoRacks Protein Crystal Growth platform.

**Micro-gRx**: This team from the Sanford-Burnham Medical Research Institute in Lake Nona, Florida aims to measure fluorescence to gauge changes in the speed of molecular rotation of an antibody bonding to a vitamin in microgravity using a microtiter plate.

**ISS NanoRocks**: The University of Central Florida is looking to analyze collisional evolution of particles in space without Earth’s gravity swamping data. On the ISS, these researchers can observe particle collisions and aggregates over time, providing data that cannot be obtained on any other platform.

NanoRacks is pleased to also continue its partnership with NASA Ames through the Ames Fruit Fly Experiment (AFEx), which has the goal to understand the relationship between oxidative stress and behavioral adaptation to microgravity in the fruit fly.

The final payload, Cobra Puma Golf, will investigate the effects of microgravity on electroplating aluminum with silver nitrate and is sponsored by the Center for the Advancement of Science in Space ([CASIS](#)). This experiment is proprietary and will require post-flight Atomic Force Microscope analysis.

For NanoRacks press inquiries, please feel free to contact Abby Dickes at 202.750.0914.

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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. The Company is unique in owning and marketing its own family of research equipment, both inside and external to the Space Station and providing low-cost, high quality services to the Station customer. To date over 200 payloads have been deployed by the Company on Space Station and the current signed customer pipeline of over 150 payloads, including those from DLR, NASA, US Government Agencies, Planet Labs, Space Florida, NCESS, pharmaceutical drug companies, and organizations in Vietnam, UK, Romania and Israel, has propelled NanoRacks into a leadership position in understanding the emerging commercial market for low-earth orbit utilization.