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Redwire to Test 3D Bioprinted Liver Tissue in Space, Reinforcing the Company's Focus on Transforming the Future of Organ Transplantation on Earth

JACKSONVILLE, Fla.--(BUSINESS WIRE)-- Redwire Corporation (NYSE: RDW), a leader in space infrastructure for the next generation space economy, announced today that it is launching an experiment to the International Space Station (ISS) that will analyze the effects of microgravity on tissue bioprinting and culturing. In partnership with Wake Forest Institute of Regenerative Medicine (WFIRM), Redwire will culture 36 bioprinted vascularized liver tissue constructs inside the company's Multi-Use Variable-Gravity Platform on the ISS to determine if liver cells bioprinted on Earth can properly form functioning blood vessels in microgravity.

The investigation reinforces Redwire's focus on improving space bioprinting techniques with human tissue samples with the goal of eventually bioprinting full-scale organs, which could offer a promising solution for addressing the world's organ shortage. Redwire has made significant progress on its space biotech initiatives in the last 12 months, successfully bioprinting a human knee meniscus and heart tissue samples in space.

Additionally, Redwire is launching four drug manufacturing experiments in the company's Pharmaceutical In-space Laboratory Bio-crystal Optimization eXperiment (PIL-BOX) system, marking the third spaceflight mission for PIL-BOX in the last 10 months. Redwire aims to use these frequent flight missions to optimize the system's performance and demonstrate repeatability.

"Redwire is building tremendous momentum with our space biotech capabilities as we engage with new customers and partners to identify critical targets for breakthrough research and increase throughput of bioprinting and drug manufacturing experiments using our space-based suite of hardware," said John Vellinger, President of In-Space Industries at Redwire. "We are grateful for our strong partnership with Wake Forest Institute of Regenerative Medicine along with crucial support from the ISS National Lab and NASA. We're eager to build on our recent trailblazing results and further validate our microgravity research and manufacturing capabilities that could one day translate to life-saving medical products and drugs."

WFIRM's liver tissue experiment is being conducted with support from the ISS National Laboratory as part of NASA's Vascular Tissue Challenge.

Redwire aims to continue launching PIL-BOX investigations on upcoming commercial resupply missions. Prior PIL-BOX experiments have produced high-quality uniform crystals that could be used in antiviral and antifungal applications.

These newest experiments will launch to the ISS aboard the Northrop Grumman NG-21 cargo resupply mission scheduled for early August 2024.

About Redwire

Redwire Corporation (NYSE:RDW) is a global space infrastructure and innovation company enabling civil, commercial, and national security programs. Redwire's proven and reliable capabilities include avionics, sensors, power solutions, critical structures, mechanisms, radio frequency systems, platforms, missions, and microgravity payloads. Redwire combines decades of flight heritage and proven experience with an agile and innovative culture. Redwire's approximately 700 employees working from 14 facilities located throughout the United States and Europe are committed to building a bold future in space for humanity, pushing the envelope of discovery and science while creating a better world on Earth. For more information, please visit redwirespace.com.

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Emily Devine
Emily.Devine@redwirespace.com
305-632-9137

OR

Investors:
investorrelations@redwirespace.com
904-425-1431

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