September 23, 2006

NASA Goddard Space Flight Center Wins FLC MAR Award

The Mid-Atlantic Region of the Federal Laboratory Consortium this year presented the Regional Excellence in Technology Transfer Award to the team of Darryl Mitchell and Dr. James Kerley of the NASA Goddard Space Flight Center, Wayne Eklund of Sigma Space Corporation, and Allen Crane of Swales Corporation for work on a "Cable-Compliant Joint (CCJ) and Compliant Walker."

The CCJ technology provides customizable structural connections and selective, subtle cushioning, twisting, and alignment in six directions, allowing contact surfaces to be joined together. Originally developed to facilitate mechanical isolation of sounding rocket assemblies as well as provide compliance for robots to grip or join objects, the technology is easily extended to other applications. Recognizing this, Goddard innovators integrated the CCJ technology into a patented walker that supports the pelvis and provides compliance that imitates hip-joint movement. Pain management and rehabilitation can be achieved by using the walker to alleviate weight on the legs to facilitate greater mobility.

In 2003, Enduro Medical Technology of East Hartford, CT, licensed the patented compliant joint and compliant walker and modified the cable-compliant system into an advanced walker with a flexible harness that embraces the lower torso. The company began marketing the walker as the Secure Ambulation Module (SAM). The device is showing great promise in benefiting patients with spinal cord injuries, arthritis, degenerative disorders, or who have difficulty walking due to amputations or obesity. Using SAM, patients are able to undergo longer physical therapy sessions as well as walk without a fear of falling. Therapy sessions using SAM can also be conducted using only one therapist and patients can often try harder and gain strength faster in their physical therapy exercises.

In 2005, Enduro donated a SAM unit to Walter Reed Army Medical Center, where the device is currently being used to help rehabilitate soldiers and veterans with a variety of injuries. SAM also is in use at Kindred Hospital in Greensboro, NC, where severely overweight patients are using it to stand and walk and in exercise programs. Meanwhile Enduro is continuing development of its CCJ-based rehabilitation devices. A new youth version of SAM (SAM-Y) was recently announced. The company also is exploring the option to develop an equine unit to help rehabilitate horses (SAM-Equine).

One of the most coveted awards in the field of technology transfer, FLC awards for Excellence in Technology Transfer recognize laboratory employees who have accomplished outstanding work in the process of transferring Federally-developed technology to the marketplace. The award was made on September 21 at the region's annual meeting.

The Federal Laboratory Consortium is comprised of the technology transfer offices of all of the Federal laboratories throughout the country while its Mid-Atlantic Region focuses on the 70 Federal laboratories in DC, DE, MD, PA, VA and WV.

For more information contact: Federal Laboratory Consortium, Mid-Atlantic Region Support Office, Phone: 407-947-6443, Fax: 812-256-4492, e-mail: jeichelberger@pendulumsite.com, www.federallabs.org