# Biomedical Structures Introduces Breakthrough Medical Textile Weaving Capabilities

Biomedical Structures LLC, a developer of biomedical textiles for medical devices and other advanced clinical applications, today announced its advanced new tapered medical textile solution for tendons, ligaments and other orthopedic applications. BMS' advanced weaving capabilities provide a high-precision medical textile solution able to match human anatomical construction of tendons and replicate performance.

Complementing BMS' current tapering and bifurcation capabilities for very fine fabrics, the new weaving techniques allow for the creation of more lifelike structures that imitate natural tendon and ligament performance better than ever before. BMS shapes bio-absorbable and permanent fibers to resemble the human anatomy of tendons by developing precise dimensions and load-bearing performance characteristics within a functional shape that mirrors natural geometries. For tendon/ligament repair applications that require sutured tissue and subsequent re-growth of natural cells to replace the damage, this textile engineering approach has the power to enable a new class of implant solutions.

BMS' high-precision medical textile R&D and advanced new weaving equipment for synthetic polymers, including fibers such as polyester, UHMWPE, PLLA and more, are behind this capability, which enables enhanced strength and flexibility of even the finest fibers for a new level of combined durability and natural movement. For artificial tendons and other orthopedic repair applications, this protection against stretch and control of tempered movement is extremely important to successful recovery and sustained performance over time.

Recent figures cite nearly 32 million repetitive and traumatic tendon/ligament injuries reported annually, a figure expected to increase as the population ages, and current synthetic replacements available are limited.

"BMS' continual investment in cutting-edge equipment designed to enhance our biomedical textile production capabilities has delivered in a transformative way for device engineers looking to the next-generation solution for orthopedic repair," said BMS CEO Dean Tulumaris. "Medical device OEMs will now be able to create synthetic tendon and ligament repair structures that match human anatomy more closely than ever before. As we marry our expertise in tapering very fine fibers for cardiovascular applications with deep experience in orthopedic reconstruction and repair device support, we are excited to bring this breakthrough capability to the market."

The company's full expertise includes knitting, braiding, weaving, and non-woven technology utilizing a broad array of biocompatible absorbable and non-absorbable

materials for devices, drug delivery and surgical systems in orthopedics, cardiology, bariatrics, cosmetic surgery and veterinary medicine.

For more information, visit www.bmsri.com [1].

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