

Charting Orthopedic Trends at Biotech Meetings

Maria Shepherd • Data Decision Group

There are plenty of reasons to attend a biotech meeting to learn about advances in the orthopedic medical device market— especially if it is the 2015 Biotech Showcase Investor Conference, held in San Francisco, Calif., on Jan. 12-14.

Biotech Showcase featured multiple presentations of interest to the orthopedic medtech space, such as the Alliance for Regenerative Medicine’s annual state of the industry briefing; presentations from multiple early-stage companies such as RepliCel, a company creating cell therapies for the orthopedic space; and a well-structured partnering program (yes, one that actually works) for strategic investors to arrange meetings with the founders of early-stage companies.

Why It’s Important

Convergence of medtech, biotech and pharma is close at hand. There were amazing new products in development presented at this year’s gathering. The event featured corporate presentations by more than 200 public and private biotech-

nology and life-science companies, and drew approximately 2,000 delegates.

Edward Lanphier, the chairman of Alliance for Regenerative Medicine (ARM), provided an overview of the industry.¹ Based in Washington, D.C., ARM is an advocacy organization that promotes legislative, regulatory, reimbursement, investment, technical and other initiatives to accelerate the development of safe and effective regenerative medicine technologies.

“Advanced therapies are on everyone’s radar screen. They represent a new paradigm in human health that has the potential to transform the future of healthcare and the treatment of diseases of unmet medical needs,” said Lanphier. “This is an area ripe with opportunities for both healthcare investors and potential pharmaceutical partners.”

Top Three Orthopedic Presentations

RepliCel: The orthopedic market addressed by Vancouver, British Columbia-based RepliCel is for chronic tendinosis, an accumulation of small-scale injuries

that occur gradually over time, and that don’t heal properly. It is a chronic injury of failed healing in tendons.² Clinicians diagnose tendinosis on a cellular scale by viewing slides of tendons under a microscope from areas of the body such as the wrist, forearm, elbow, shoulder, knee and heel. Continued healing and injury results in chronic degeneration of the tendon, caused by a deficit of active fibroblasts. RepliCel’s solution is to inject fibroblasts into the injured area.

Arch Therapeutics Inc.: Wellesley, Mass.-based Arch Therapeutics is a medical device company developing a new approach to rapid hemostasis during surgery and trauma care. Arch intends to transform the landscape of interventional healthcare with products to seal and protect leaking and bleeding tissue using the AC5 Surgical Hemostatic Device, designed for hemostasis in surgical procedures. Arch claims that time to hemostasis for AC5 is measured in seconds, rather than minutes, as delivered by competitive hemostasis devices.

Chart 1

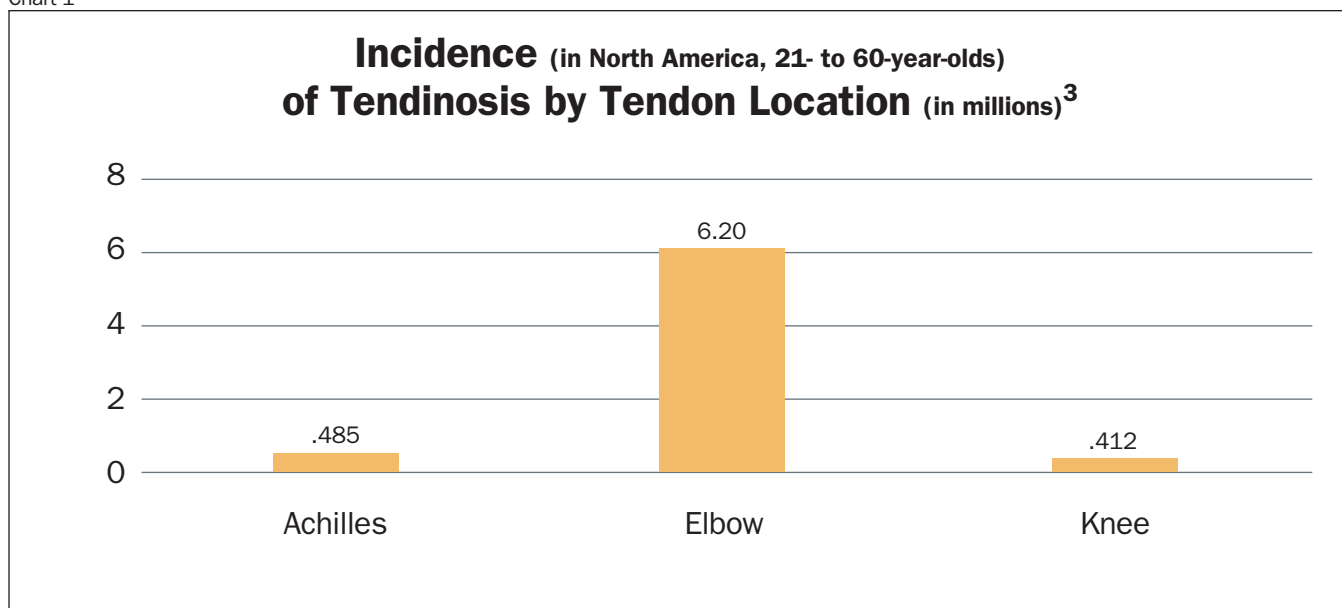
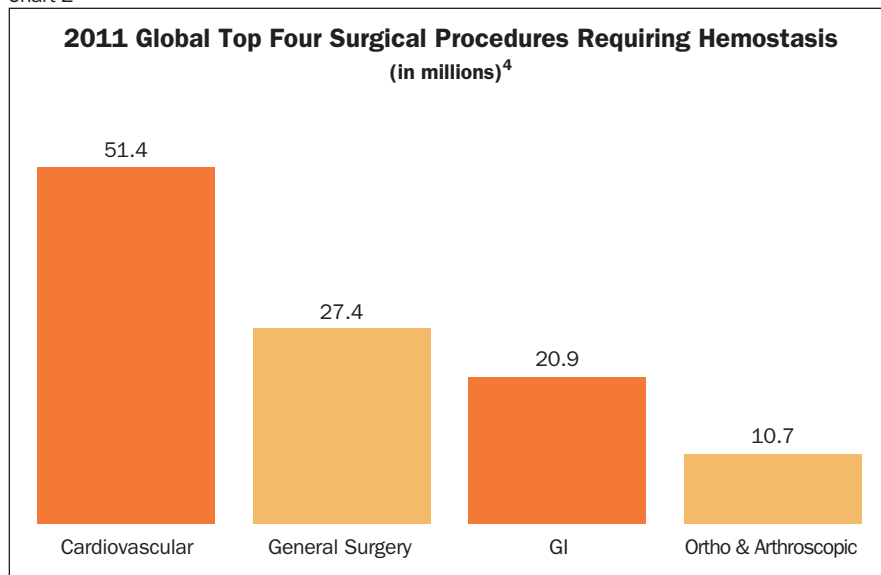


Table 1

Types and Costs of Bone Graft Substitutes ⁵		
TYPE OF BONE GRAFT SUBSTITUTES	COST	DISADVANTAGES
Autograft	Surgery Procedure Time, Cost of Complications	Donor site morbidity, increased operating room time, increased blood loss.
Allograft	\$376-\$1,681 per unit measured (mL or cm ²)	Potential infection transmission, no osteogenic potential, potential host rejection.
Synthetic Ceramics	\$655-\$1,520/10 mL	Rapid resorption (faster than bone growth), osteoconductive properties only.
rhBMPs	\$3,599-\$5,000	Expense, limited indications, possible increase in neurovascular complications in spine surgery.

Chart 2



Kuros BioSurgery AG: The goal of Zurich, Switzerland-based Kuros is to improve patient treatment and reduce the cost of healthcare delivery by developing localized therapies using innovative biologics and biomaterials in sealants, orthobiologics and wound care. Bone grafts, bone substitutes and orthobiologics continue to grow in importance in orthopedic procedures. Because of this, Kuros is developing a group of orthobiologics to address trauma and spine indications. In trauma, Kuros is focused on bone repair, specifically for fractures and spinal fusion. Three general categories exist: osteoinductive,

osteoconductive and osteogenic. Each has a different cost to the healthcare system. It is Kuros' goal to improve the orthobiologic use economics as compared to competitor technologies in Table 1.

Look Beyond Medtech for New Ortho Technology

The biotech industry may be underused for orthopedic strategic partnering. JP Morgan, Biotech Showcase and OneMedForum, all held in San Francisco every January, are great resources for innovative technologies that meet the needs of the orthopedic space. ❖

References

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Editor's note: Readers are invited to submit market data and trend questions to Maria Shepherd. Periodically, selected questions will be presented in this column, with answers from Maria.

Maria Shepherd has 20 years of leadership experience in medical device/life-science marketing in small startups and top-tier companies. Following a career including roles as vice president of marketing for Oridion Medical (a company acquired by Covidien, which is now Medtronic), director of marketing for Philips Medical and senior management roles at Boston Scientific Inc., she founded Data Decision Group. Shepherd recently was appointed to the board of the ALIGO Healthcare Investment Committee. She can be reached at (617) 548-9892, mshepherd@dddecisiongroup.com, www.dddecisiongroup.com, or followed on Twitter @MedTechResearch.