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OUTLOOK



Vesteck, Inc.

**TOP
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DEVICES**

Companies - 2021

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*The annual listing of 10 companies that are at the forefront of providing
Cardio Vascular Devices solutions and impacting the industry*

Vesteck, Inc.

An Effective Approach to Aortic Aneurysm Repair

Although a remarkable degree of success has been achieved in reducing the mortality and morbidity of aortic aneurysm repair with the introduction of endovascular grafting, peer reviewed literature suggests there is still significant room for improvement. According to the literature review, the primary issue with EVAR/TEVAR is a lack of long-time durability. Clinicians say a reintervention rate of 21 percent at five years and 30 percent at 10 years is unacceptable.

“Once our catheter is positioned at the proximal cuff of the graft, the physician can very quickly, safely, and precisely deliver the Nitinol sutures, binding the graft to the aorta, and most importantly, attaching all the way to the aortic adventitia

The lack of an effective alternative in the marketplace prompted surgeon duo—Dr. John Edoga and Dr. Thierry Richard to take matters into their own hands. They had a notion: “what if we could repair these aortic aneurysms, percutaneously or endovascularly, and then almost in a hybrid fashion, suture the graft to the aorta so that it would not move or leak?” Consequently, the duo developed the VESTECK endovascular suture delivery system, which sutures endovascular aortic repair grafts to the aorta at the time of implant or repair, eliminating aortic graft migration and endoleaks. Realizing their discovery could be a life-changing improvement for people’s health and longevity, they established Vesteck, Inc., in 2019.

An Innovation that Speaks for Itself

Joseph W. Rafferty, who serves as Vesteck’s CEO, says, “The VESTECK endovascular suture delivery catheter comes sterile and preloaded with four Nitinol sutures.” During an endovascular aortic aneurysm repair, once the interventionalist implants the EVAR graft, they can use the VESTECK catheter to suture the graft to the aorta in a manner that it doesn’t move, slip or migrate. “Once our catheter is positioned at the proximal cuff of the graft, the physician can very quickly, safely, and precisely deliver the Nitinol sutures, binding the graft to the aorta, and

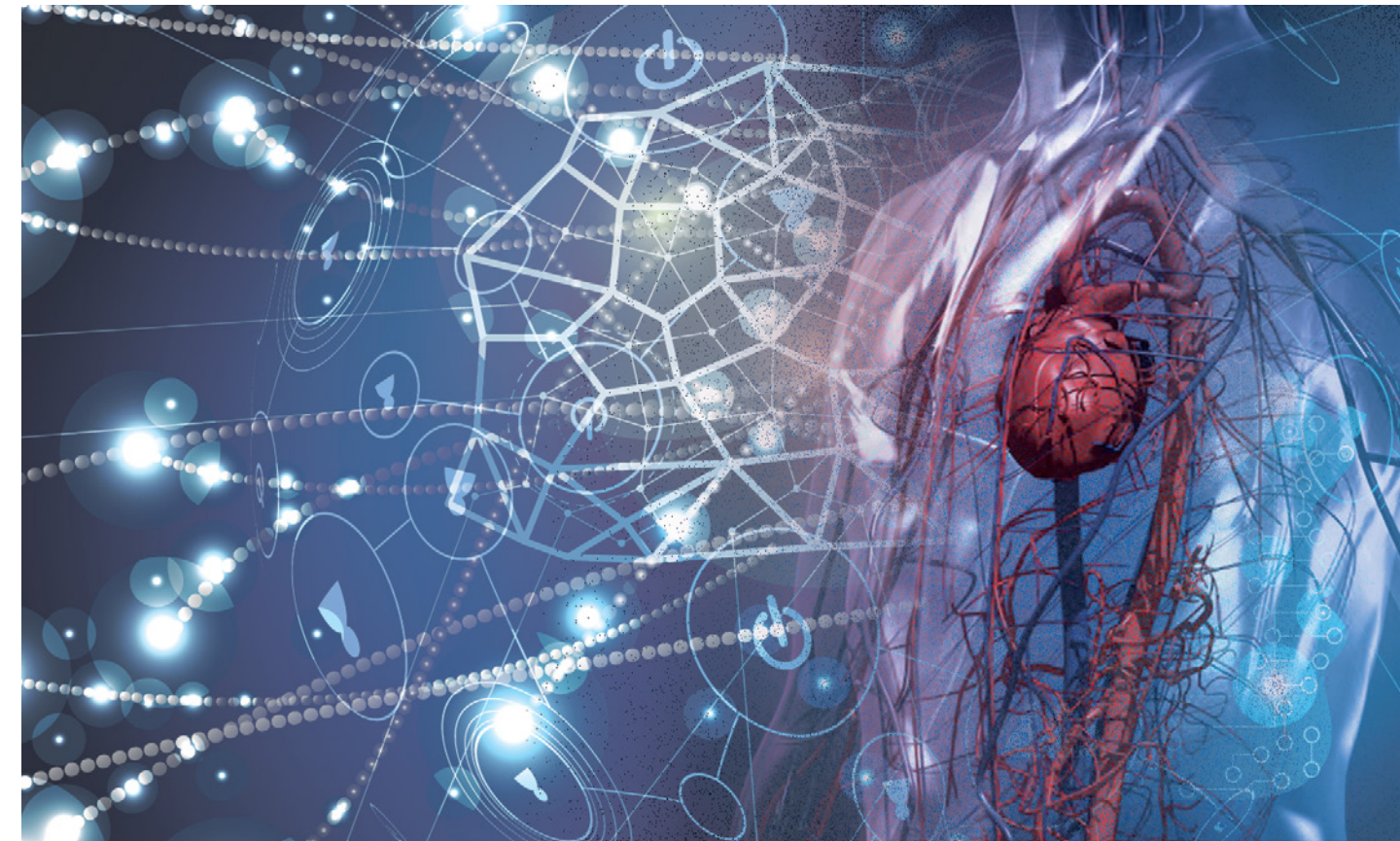


Joseph W. Rafferty

most importantly, attaching all the way to the aortic adventitia (the part of the aorta that provides the strength to secure the graft in place),” explains Rafferty.

In contrast to other catheter-based technologies, the VESTECK catheter is much faster, safer, and simpler for physicians and patients alike. Key opinion leaders in the endovascular space acknowledge it as a leapfrog technology.

Rafferty recalls an analogy from Dr. David H. Deaton, a pioneer in endovascular grafting. “The VESTECK catheter is so easy for physicians to use. The only available alternative device to VESTECK is like the old Kentucky long rifle used in the 1700s. Reloading it was a very long and tedious process every time the gun needed to be fired; whereas, the newer rifles come preloaded. The VESTECK device is like the latter, it



comes ready to go, preloaded with sutures.” Another differentiating aspect of the VESTECK catheter is that it fits right into the existing workflow that the endovascular physician moves through. It doesn’t disrupt their procedure; once the EVAR graft is implanted the VESTECK catheter goes in through the same sheath, over the same guide wire and sutures the graft to the aorta.

The Dream Team and Vesteck Difference

Rafferty accredits Vesteck’s continued success to his team. “We’ve a team that has ‘been there and done that.’ We have three exceptional engineers involved with our technology—Dr. Deaton,

our chief medical consultant; Ted Wulfman, our chief technology officer; and Kent Stalker, our vice president, research and development and chief operations,” he says. Dr. Deaton is an expert in endo sutures, endo anchors and is tremendously helpful in identifying the areas for growth of Vesteck. Wulfman and Stalker, between the two, have over 85 issued patents and are serial entrepreneurs that have executed and exited multiple organizations like BrightWater Medical and Pathway Medical. “We feel very fortunate to have such bright and experienced technology leaders on our team,” adds Rafferty.

Vesteck has developed several working prototypes of its catheter and carried out preclinical testing,

benchtop durability testing, and validated the proof of concept. “We are getting ready to manufacture the device, conduct further preclinical and durability testing, all required for our FDA 510 k submission. Once completed, we will perform our first-in-man study,” reveals Rafferty. Alongside, the firm is also raising funds to continue making progress on its project.

“Physicians, tell me that they are constantly working to improve patient outcomes within an already proven procedure rather than disrupt it. And, the VESTECK catheter delivers a tool that enables significant incremental improvements to an already successful procedure,” wraps up Rafferty. 📍