Taurus Vascular

Taurus Vascular is a Houston-based medtech startup focused on improving long-term outcomes for patients with aortic aneurysms. We are developing a minimally invasive catheter solution to prevent the most pressing complication of endovascular aortic aneurysm repair - endoleaks.

Company Overview

Taurus Vascular was founded in 2023 by Matthew Kuhn and Melanie Lowther. Our founding team came together under the Texas Medical Center Innovation Biodesign program in 2022. TMCi invested $300,000 in pre-seed funding to support the launch of Taurus Vascular.

Matthew is an experienced innovator and entrepreneur and spent over five years at J&J in various roles covering nearly every stage of the medical device commercialization lifecycle. He is a named inventor on 40+ US patents. He has helped raise over $5M in non-dilutive and equity-based capital for early-stage medtech startups.

Melanie has over 20 years experience in healthcare. As the Director of Entrepreneurship and Innovation at Texas Children's Hospital, she was responsible for innovation, intelligent process automation, and eHealth telemedicine which enhanced her expertise in digital healthcare and healthcare systems.

Our team of founders and advisors has a history of success in medical device commercialization, ranging from founding early-stage medtech startups to launching new medical device products from the world's largest healthcare companies. We have built a network of advisors including entrepreneurs, distinguished academic leaders, renowned clinicians, and experienced startup advisors. We will pursue both equity-based financing and non-dilutive funding as part of our commercialization strategy.

We are currently engaging with partners in venture capital and angel investors to raise $1.5M in equity-based financing for our Seed Round, which will provide us with the funding needed to expand our team, hire additional consultants, contractors, and service providers, and accomplish our near term milestones.

Problem

There are an estimated 13MM people worldwide living with an aortic aneurysm. The current standard of care for treating this disease is Endovascular Aortic Aneurysm Repair (EVAR), a procedure in which a stent-graft is deployed endovascularly to preserve blood flow through the aorta and prevent blood from further pressurizing the damaged vascular tissue of the aortic aneurysm. Unfortunately, EVAR is associated with a high rate of postoperative complications. Endoleak remains the most severe complication of EVAR, impacting up to 50% of patients. The impact to health systems is significant: of the roughly 250,000 EVARs performed each year, up to 20% of patients require reintervention within 5 years due to endoleaks. This results in over $1.5B in added healthcare spending each year in the U.S. alone. There is an expressed need for a solution to mitigate endoleaks.

Highlights

Financial Info

Raising
$1.5M

Location
Houston, TX, USA

Business Stage
Seed

Business Type
Healthcare

Meet the Team

Matthew Kuhn
CEO

Taurus Vascular is a spinout of the Texas Medical Center Innovation (TMCi) Biodesign Program. TMCi invested $300k in pre-seed funding to support initial concept development, prototype development proof-of-concept testing, IP protection, and acute large animal testing. Some milestones to date:

- Assessed patient anatomical compatibility with our device via 20+ CTs from patients with AAAs

- Completed first large animal preclinical studies at the Texas Heart Institute to assess feasibility of endovascular navigation to the aorta

- Filed provisional patent [Q1-2023]

- Conducted dozens of interviews with our network of clinical advisors to gain key clinical insights and perspectives on our solution and value proposition

- Evaluated anticipated regulatory pathway with consultant experts

- Validated reimbursement strategy with consultant experts

- Selected for the first round of the Medtech Innovator Accelerator

Go-To-Market Strategy

In the first year following FDA approval, we will initially market our technology as an effective, easy-to-use, and affordable device for repairing endoleaks. Within five years, we will leverage safety and efficacy data to expand our indication for use as an adjunct to EVAR for preventing endoleaks. We believe our technology with finally give patients and the providers who care for them an effective, long-lasting treatment for abdominal aortic aneurysms. Our technology will eliminate the burden of endoleaks for patients in dire need of a better solution.

At an estimated ASP of $7,500, our technology represents a $1.9B annual worldwide market opportunity as an EVAR adjunct device for endoleak prevention. Roughly 50,000 patients require reintervention due to endoleaks, resulting in over $1.6B in added healthcare spending each year in the US. Use of our product as an endoleak treatment tool represents an additional $350M worldwide market opportunity.

In our first five years following commercialization, Taurus Vascular is projected to generate over $400M in revenue from the sale of 55,000 units of our product. Our product will improve patient outcomes after EVAR, reduce complication rates and the need for intervention, lower the economic burden of aortic aneurysm treatment, and save patient lives.

What Makes Us Special

Our minimally-invasive, catheter based device allows for the continuous drainage of endoleaks and depressurization of the aneurysmal sac following EVAR. There are no dedicated solutions indicated for endoleak treatment. Current treatments attempt to plug endoleaks using off-label embolic agents. These procedures are challenging, associated with an endoleak recurrence rate of 40%, and tend to cost ~$38,000. We are taking a different approach to solving this problem; rather than try to plug leaks, why not drain them?

Our dedicated solution requires just a quick, simple procedure and will significantly reduce costs at an ASP of $7,500. We anticipate our technology will be covered under existing

EVAR reimbursement codes, with expedited Medicare coverage and New Technology Add-on Payment (NTAP) following breakthrough designation. Using our team's experience in large-scale medical device manufacturing, we estimate costs of $250 or less to manufacture, package, and sterilize our product, leaving a 97% profit margin at a sales price of $7,500.