

# Treating Traumatic Injury with Bioengineered Human Tissues



**MTEC Award:** \$6.84M

**Sponsor:** U.S. Army Medical Research and Development Command

## PROBLEM:

Extremity wounds can be devastating with complex trauma to the vasculature, bone, connective tissues, muscle, and nerves resulting in severely impaired limb function or amputation.

## SOLUTION:

Humacyte® is pioneering the development of off-the-shelf, universally implantable bioengineered human tissues for patients experiencing blood vessel damage caused by blunt trauma, penetrating injuries, or other catastrophic events.

## OUTCOME:

MTEC funding has helped Humacyte® to:

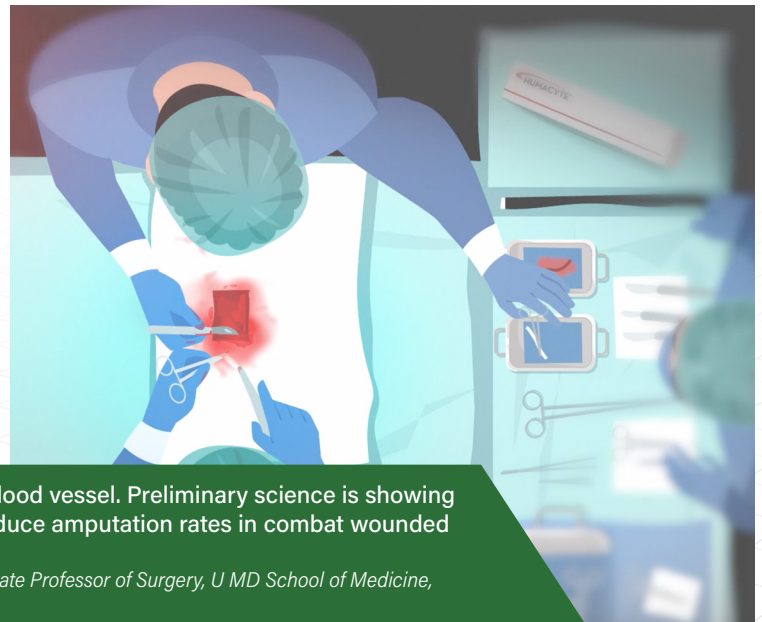
- Develop a commercial-scale manufacturing process to generate clinical grade products
- Demonstrate efficacy in a Phase 2/3 clinical trial in patients with vascular trauma
- Test stability of the product in different environments
- Continue work toward approval for the HAV™ by the U.S. Food and Drug Administration in 2024

*\*HAV: Human Acellular Vessel™*

## IMPACT:

As of April 2023, the bioengineered vessel has been used to:

- Treat 60+ patients in U.S. with vascular trauma
- Treat 18 patients in Ukraine under humanitarian program
- Gather 1K+ patient-years of data around use of the vessel in-human across multiple product opportunities



"The HAV™ is a very promising off-the-shelf bioengineered regenerative blood vessel. Preliminary science is showing that this product offers renewed hope to perform faster operations and reduce amputation rates in combat wounded with severe limb injuries."

*LTC (ret) Charles J. Fox, MD, Chief Vascular Surgery, University of MD, Capital Region, Associate Professor of Surgery, U MD School of Medicine, Attending Surgeon Shock Trauma Center and the University of Maryland Medical Centers*

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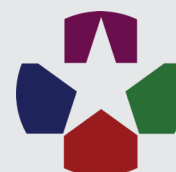


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