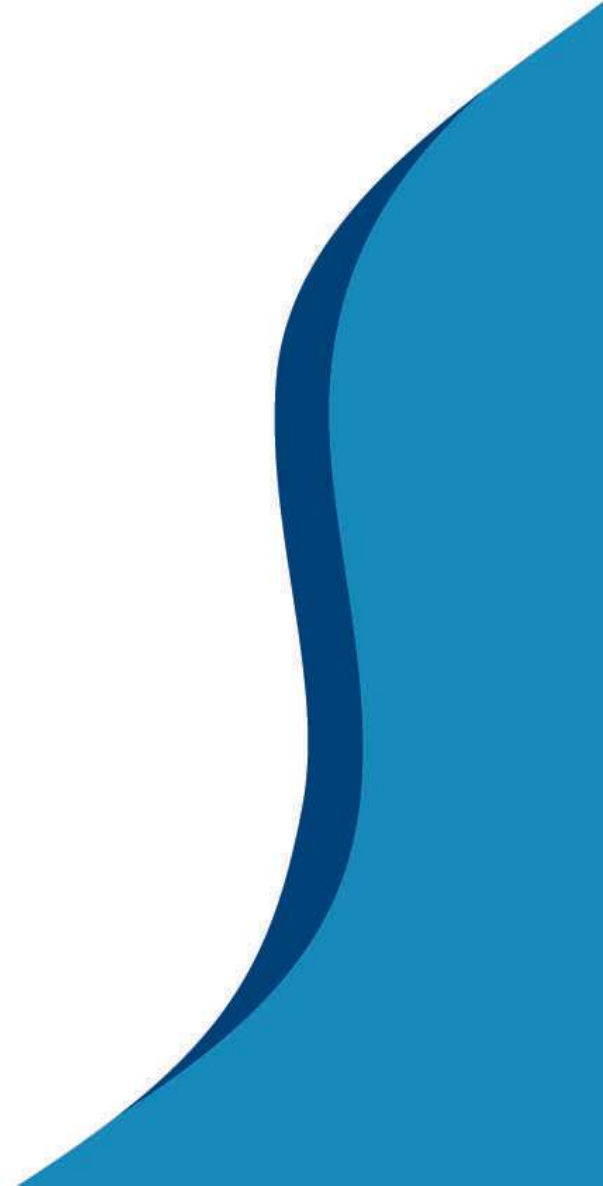




Columbia-Yale Pitch Day

10/26/2021





Sarx

Greek: Σαρξ

noun: muscle, tissue

Meet our Launch Team



Mark Platt

Chief Executive Officer
Recombinetics, Inc.



Themis Kyriakides

Professor of Pathology and
Biomedical Engineering
Yale University



David Lewin

Director of Business Development
Yale University



Dmytro Ustianenko

Blavatnik Fellow
Yale University

Sarxion Biologics is a unique partnership

- 6-year collaboration
- Tested and productive partnership
- Joint NIH-SBIR award (\$400,000 in funding)
- Allowed and Pending Patent Applications
- Complimentary scientific expertise
- Proprietary animal genetic editing platform
- Industry leading animal husbandry capability

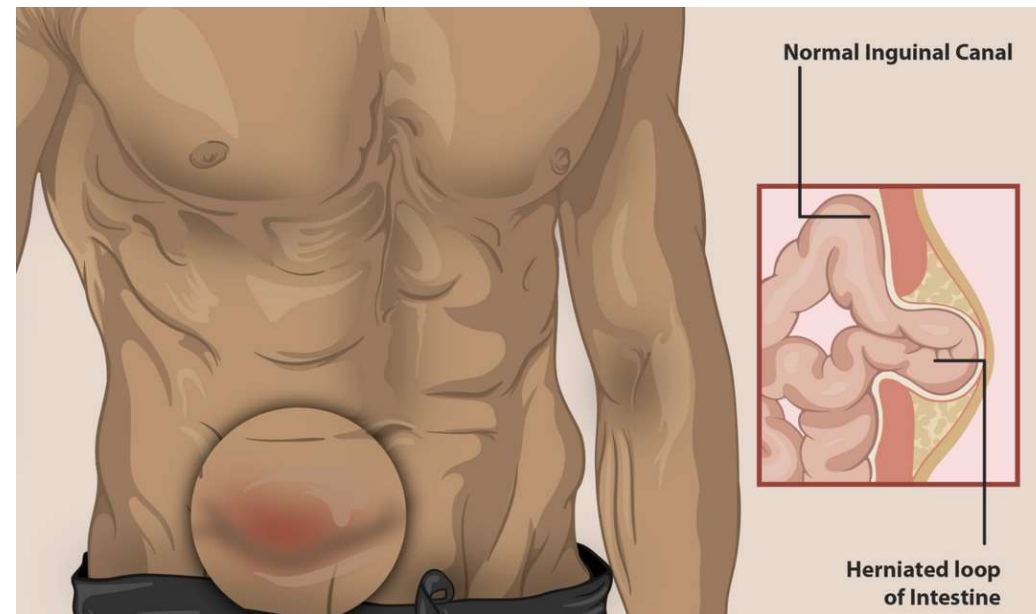


Hernia repair – the most common abdominal surgical procedure

1M hernia repairs in the US annually

**Over 12% of population
will experience inguinal hernia in the lifetime**

\$10B/annually



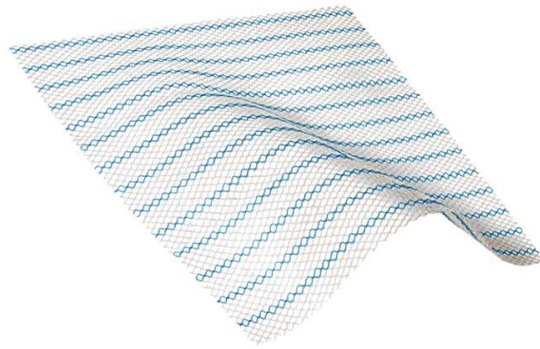
Commonly used materials in standard of care

Synthetics

Medtronic



Johnson & Johnson



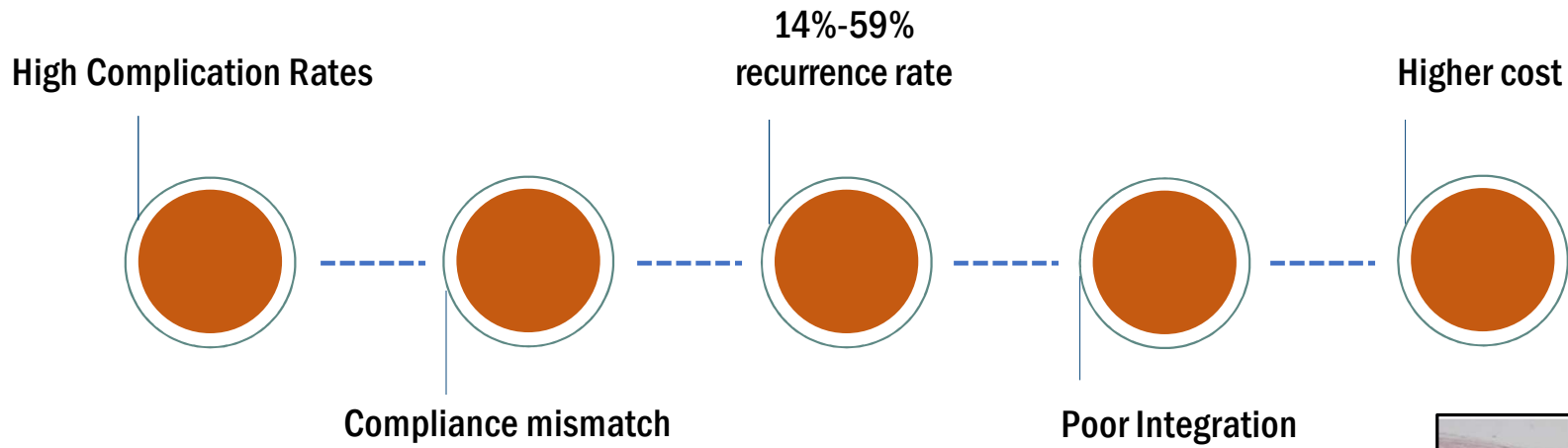
ULTRAPRO® Macroporous

Biologics

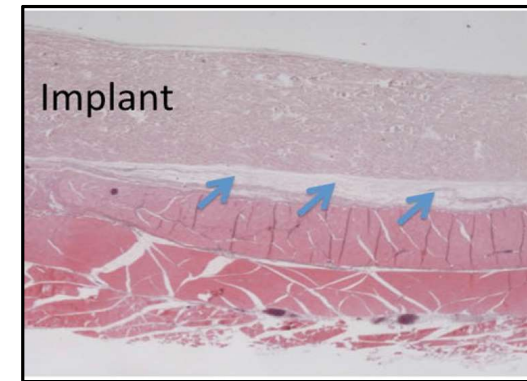


Strattice RTM

Biologic hernia patch limitations



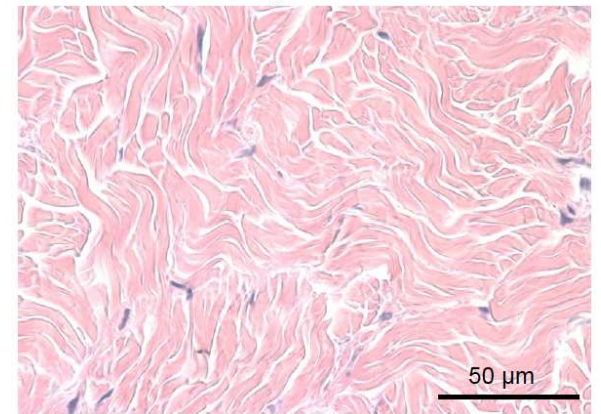
Core Weakness: Poor Tissue Integration



Extracellular matrix – an essential component of biologic hernia patch

Extracellular matrix (ECM):

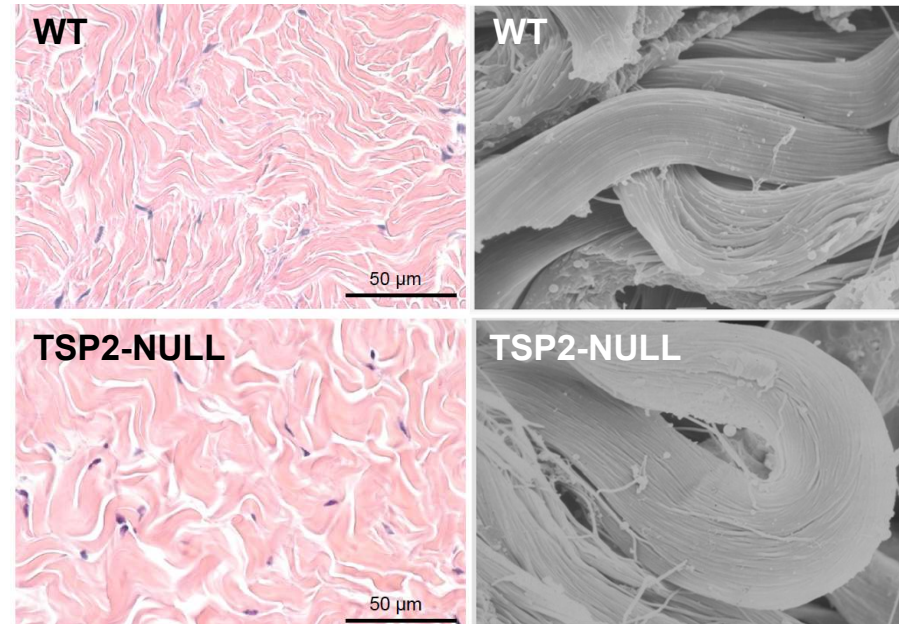
- **Main component of the Biological Hernia Patch**
- **Consists of interconnecting protein fibers**
- **Guides tissue remodeling and rate of wound healing**



porcine skin

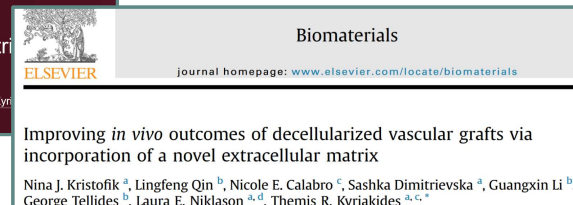
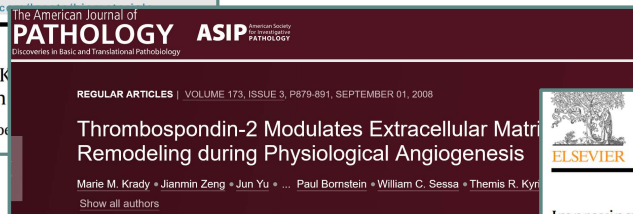
Sarxion Biologics ECM material has improved integration and healing

- Knock out of TSP2 – confounding matrix protein
- Increased compatibility with host tissue
- Extensively characterized using mouse and porcine model

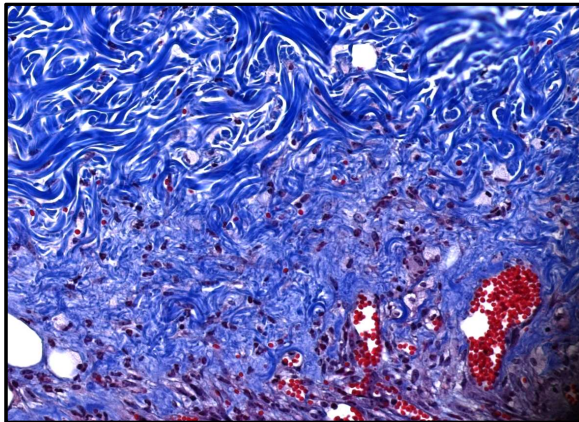
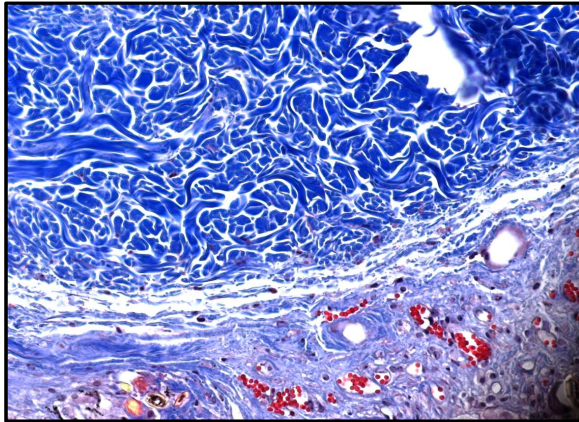


Decellularized materials derived from TSP2-K enhanced neovascularization and integration

Aaron H. Morris ^{a,c}, Danielle K. Stamer ^a, Britta Kunkemodt ^a, Hao Xing ^{a,c}, Themis R. Kyriakides ^{a,c,*}

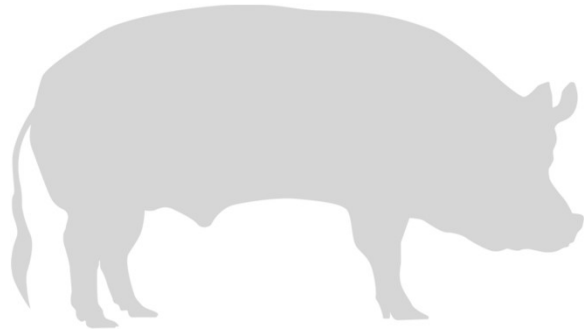


Sarxion Biologics has the superior solution for hernia repair



- **Faster and increased cell migration**
- **Increased blood vessel formation**
- **Reduced clotting**
- **Excellent biomechanical compliance**
- **Seamless integration with the host tissue**

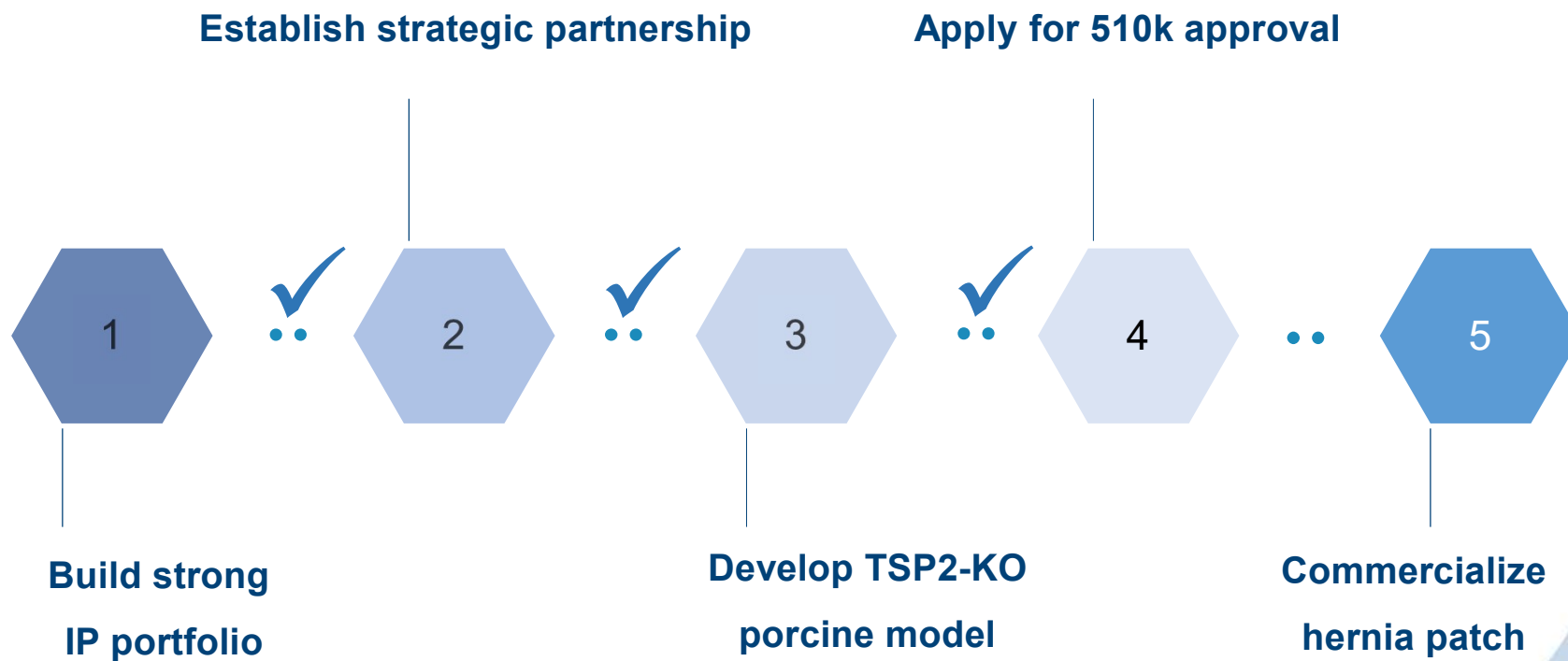
Sarxion Biologics is a platform company



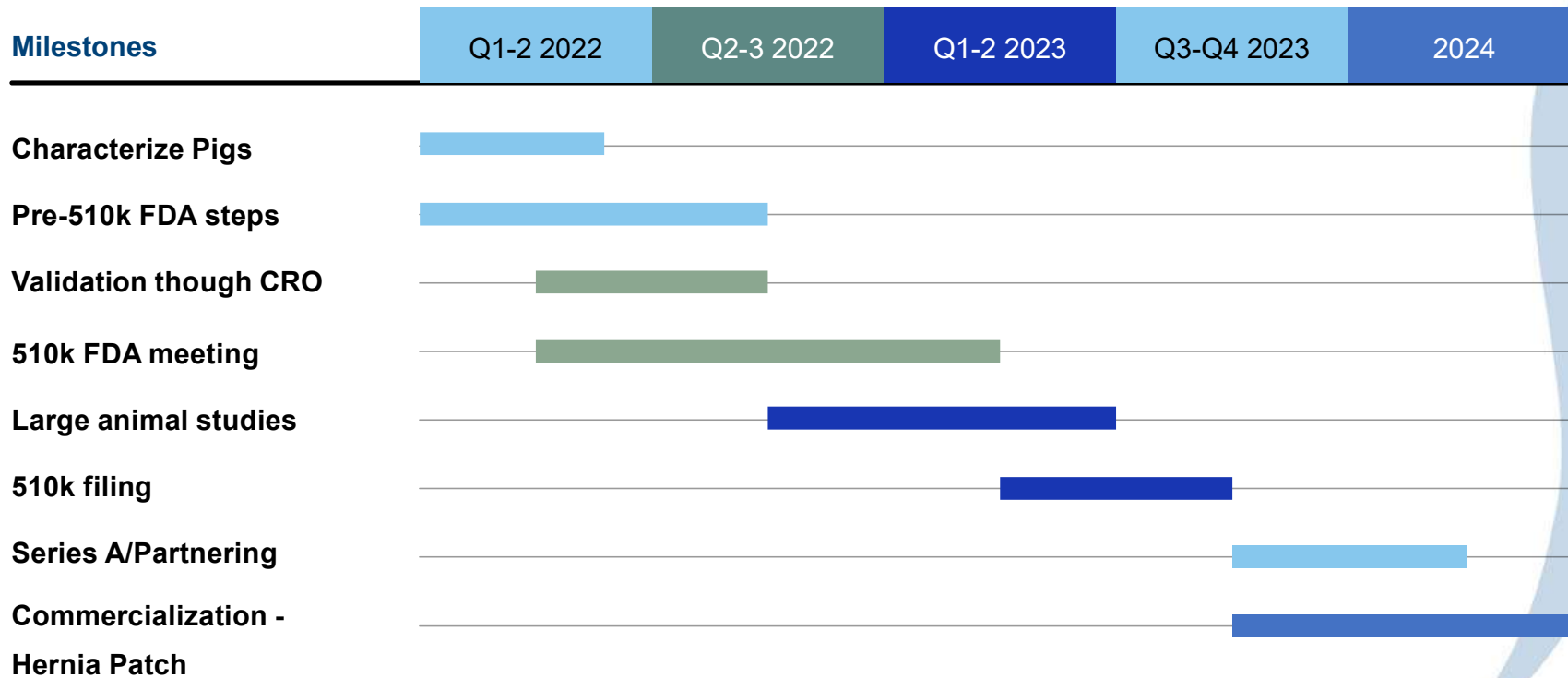
- Hernia patches **\$300K**
- Hydrogel **\$250K**
- Vascular grafts **\$200K**
- Plastic surgery **\$200K**
- Heart valves **\$50K**

Total potential value/animal: \$1M

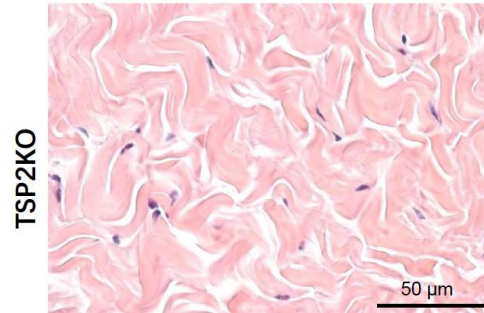
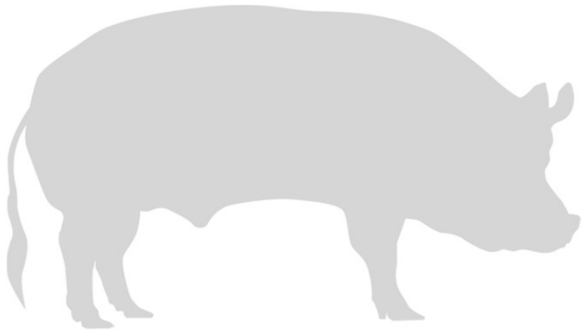
Our roadmap, accomplishments, and goals - Value to patients as soon as possible



Sarxion Biologics timeline to the market



Raising \$5M → 510k Filing

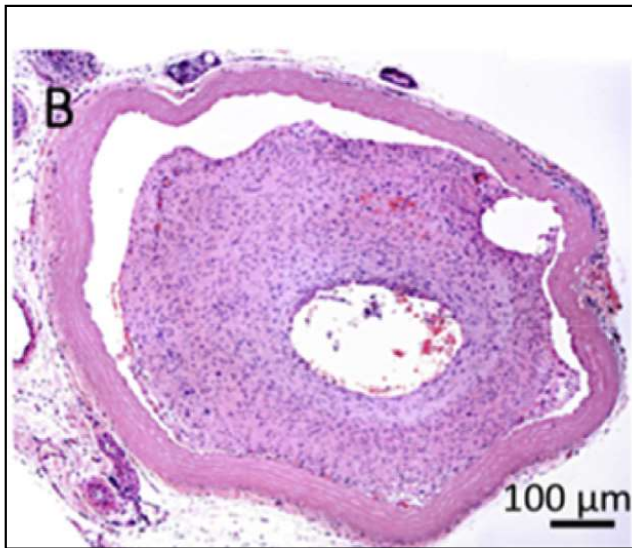


Contact information:

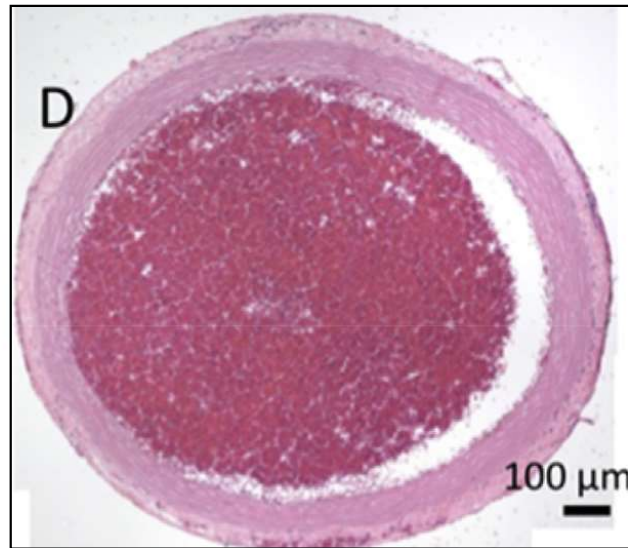
Mark Platt
mark.platt@recombinetics.com

ECM-modified decellularized rat small diameter vascular grafts

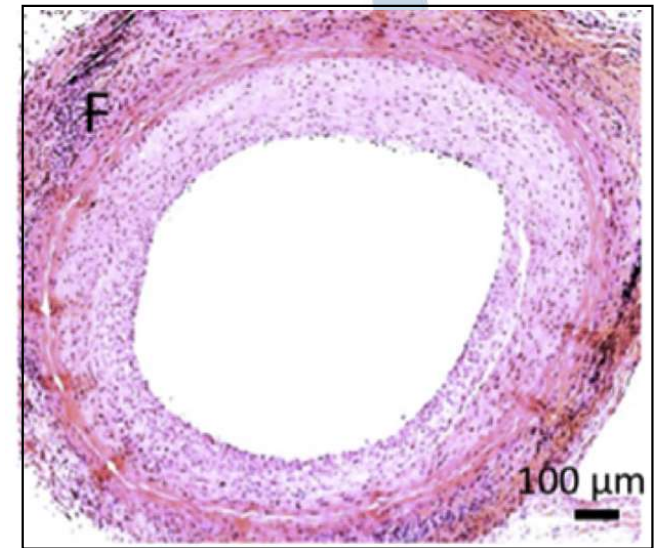
Unmodified



WT ECM



TSP2 KO ECM



Sarxion Biologics ECM-modified hydrogel

WT skin hydrogel

KO skin hydrogel

