SioxMed Advanced Material, Non-Compressible Torso Hemorrhage, Wounds, Burns

Contact Information:

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Company Overview

SiOxMed is a small business located in Winston-Salem, North Carolina.

TECHNOLOGY: The Universal Combat Matrix (UCM) is an advanced multifunctional nanotextile, combining stealth, shielding, and First Aid for Severe Trauma (FAST).

PROBLEM: Warfighters in austere environments require advanced materials that integrate stealth, shielding, and first aid. These textiles enhance tactical advantage and Soldier protection, offering life-saving first aid.

Current Efforts/Accomplishments

CRRP – W81XWH-22-2-0065 (PI: David Burmeister)

- 30 day survival following grade IV liver laceration in swine
- Improved treatment in coagulopathic femoral artery injury in swine
- Burn conversion (study results pending)

MTEC-MPAI-032 (Selected for Funding; PI: Adam Jorgensen)

• FDA clearance of topical hemostasis indication for use









В.



Non-Compressible Torso Hemorrhage





Hinterhage

Jorgensen AM, et al. Military Medicine (accepted, in press)

Check out our website www.sioxmed.com





UCM Treated

Publications and Presentations

Thank

CD4/CD8 CD68 CD4/CD8

1. Jorgensen AM, et al. A Novel Approach to Non-Compressible Torso Hemorrhage Using a Silicone-Based Polymer Universal Combat Matrix. Military Medicine (https://doi.org/10.1093/milmed/usae085 ; accepted, in press)

CD4/CD8

- 2. Jorgensen AM, et al. Evaluating a Silica-Based Polymer Universal Combat Matrix in a Simulated Austere Prolonged Care Abdominal Aortic Hemorrhage Swine Model. Trauma Care (Under Review).
- Jorgensen AM, et al. Innovative Full-Thickness Burn Care Solutions: Pre-Clinical Assessment of a novel Silicone-Based Polymer (SBP) Wound Matrix for Comat Casualty Burn Care. <u>MHSRS 2024</u> (Oral presentation)
- 4. Angus AA, et al. Testing and Evaluation of a Novel Hemostatic Matrix in a Swine Junctional Hemorrhage Model. Journal of Surgical Research. 2023 Nov;291:452.
- Heyda L, et al. Treatment of a Penetrating Arterial Injury with a Novel Silicon-based Polymer-Universal Combat Matrix in a Coagulopathic Porcine Model. <u>MHSRS 2024.</u>
- 6. Heyda L, et al. A Novel Silicon-based Polymer- Universal Combat Matrix Supports Liver Viability out to 72 hours in Porcine Model of Hepatic Laceration. AAST 2024.

Disclosures

- Dr. Jorgensen serves as the Chief Scientific Officer for SiOxMed, LLC and has an equity interest in the company. SiOxMed develops medical devices and may potentially benefit financially from the research findings presented here.
- All data presented represents SiOxMed R&D efforts on products that are currently under development. The associated performance statements, claims or data have not been evaluated by the FDA.
- All the information included in this presentation and related discussions involves trade secrets and is the proprietary and confidential information of SiOxMed, LLC.