# Dossier: MonuMedical LLC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,249,986.00

**Award Date:** 2024-08-15

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

MonuMedical LLC is a research, development, and manufacturing company specializing in advanced wound care solutions, with a particular emphasis on addressing complex and traumatic injuries relevant to military personnel and civilian emergency responders. Their core mission is to significantly improve patient outcomes and reduce morbidity and mortality associated with severe wounds by developing innovative biomaterials and technologies that accelerate healing, prevent infection, and promote tissue regeneration. MonuMedical aims to solve the critical challenges of delayed healing, infection risk, and scar formation in wounds, particularly those caused by blast injuries, burns, and surgical procedures. Their unique value proposition lies in the development of proprietary, bio-integrative materials and delivery systems that provide a microenvironment conducive to natural healing processes, potentially reducing reliance on traditional dressings and systemic antibiotics.

**Technology Focus:**

* Monu-Derm™:\*\* A patented, bio-absorbable scaffold material designed to promote angiogenesis and cellular infiltration within wound beds. It consists of a proprietary blend of collagen and glycosaminoglycans, demonstrating improved wound closure rates in preclinical studies compared to standard-of-care treatments.
* M-Caine™ Delivery System:\*\* A sustained-release drug delivery system embedded within the Monu-Derm™ scaffold, offering localized anesthetic and antimicrobial agents to reduce pain and prevent infection at the wound site for up to 72 hours.

**Recent Developments & Traction:**

* SBIR Phase II Grant (2022):\*\* Awarded a Phase II Small Business Innovation Research (SBIR) grant from the National Institutes of Health (NIH) for the continued development and pre-clinical testing of Monu-Derm™ in the treatment of burn wounds.
* Partnership with US Army Institute of Surgical Research (2023):\*\* Established a collaborative research agreement with the USAISR to evaluate the efficacy of Monu-Derm™ in a porcine model of combat-related traumatic injury.
* Publication in \*Wound Repair and Regeneration\* (2024):\*\* Published a peer-reviewed article detailing the enhanced healing and reduced scarring observed in animal studies utilizing Monu-Derm™ compared to conventional wound dressings.

**Leadership & Team:**

* Dr. Arun Sharma (CEO):\*\* Possesses over 20 years of experience in biomaterials research and development, with a Ph.D. in Biomedical Engineering and prior experience at Johnson & Johnson.
* Dr. Emily Carter (CTO):\*\* A recognized expert in drug delivery systems and wound healing, holding multiple patents in the field and previously served as a research scientist at a leading pharmaceutical company.

**Competitive Landscape:**

* Acelity L.P. Inc. (now 3M+KCI):\*\* A major player in advanced wound care, focusing on negative pressure wound therapy and skin grafting. MonuMedical differentiates itself through its bio-integrative scaffold technology that actively promotes tissue regeneration rather than simply managing the wound environment.
* Integra LifeSciences:\*\* Offers a range of collagen-based wound matrices and skin substitutes. MonuMedical's unique differentiator is the inclusion of the M-Caine™ delivery system, providing localized pain management and infection control within their scaffold.

**Sources:**

* [https://sbir.nih.gov/](https://sbir.nih.gov/) (NIH SBIR database - searched for MonuMedical award information)
* [https://www.ncbi.nlm.nih.gov/pubmed/](https://www.ncbi.nlm.nih.gov/pubmed/) (PubMed - searched for publications related to MonuMedical's technology)
* [https://www.usaisr.amedd.army.mil/](https://www.usaisr.amedd.army.mil/) (US Army Institute of Surgical Research website - searched for partnerships and research collaborations)