# Dossier: PERFUSION MEDICAL LLC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $74,975.00

**Award Date:** 2023-12-11

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

PERFUSION MEDICAL LLC is a medical device company focused on developing and commercializing innovative extracorporeal blood purification technologies for applications in critical care, trauma, and biodefense. Their core mission appears to be improving patient outcomes in severe inflammatory conditions, such as sepsis and acute respiratory distress syndrome (ARDS), by selectively removing harmful mediators from the bloodstream. They aim to address the significant limitations of existing therapies like broad-spectrum antibiotics and mechanical ventilation by offering a more targeted approach to modulate the immune response and prevent organ damage. Their unique value proposition lies in their patented hemoperfusion technology, specifically designed to remove a broad spectrum of inflammatory cytokines, toxins, and pathogens from circulating blood using specialized adsorbents.

**Technology Focus:**

* Affinity Hemoperfusion Cartridges:\*\* These cartridges utilize proprietary, biocompatible adsorbent materials to selectively remove a wide range of pro-inflammatory mediators, including cytokines, chemokines, and toxins, from the blood during extracorporeal circulation. The cartridges are designed for compatibility with standard hemodialysis machines.
* Point-of-Care Perfusion Systems:\*\* Development is likely underway for a compact, portable perfusion system specifically designed for rapid deployment in critical care settings and potentially in pre-hospital environments or battlefield scenarios.

**Recent Developments & Traction:**

* PERFUSION MEDICAL LLC was awarded a contract with the Department of Defense (DOD) in 2021 to conduct research on the company’s therapeutic for treating diseases caused by biological warfare agents and highly pathogenic viruses.
* PERFUSION MEDICAL LLC received US FDA Breakthrough Device designation for a blood purification therapy that addresses inflammation.

**Leadership & Team:**

* The key leadership is not readily and publicly available. More in-depth searches through paid databases would likely be required to identify the individuals involved.

**Competitive Landscape:**

* CytoSorbents Corporation:\*\* CytoSorbents is a major competitor in the hemoperfusion market, offering a broad-spectrum cytokine adsorption device. PERFUSION MEDICAL's differentiator appears to be its focus on developing a more selective and customizable adsorbent technology capable of targeting a wider range of inflammatory mediators.
* Baxter International:\*\* Baxter has entered the space through acquisitions such as Hillrom, offering blood purification products. The key differentiator for PERFUSION MEDICAL would lie in their adsorbent specificity and focus on the removal of a wide array of inflammatory mediators, making it potentially more effective for complex inflammatory conditions.

**Sources:**

* [https://www.defense.gov/News/Contracts/Contract/2021-08-27/](https://www.defense.gov/News/Contracts/Contract/2021-08-27/)
* [https://www.fda.gov/medical-devices/breakthrough-devices-program/breakthrough-devices-program-index](https://www.fda.gov/medical-devices/breakthrough-devices-program/breakthrough-devices-program-index)