# Dossier: MATREGENIX INC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,248,992.00

**Award Date:** 2024-08-16

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

Matregenix Inc. is a materials science company specializing in the development and manufacturing of advanced, high-performance materials for extreme environments, particularly those encountered in aerospace, defense, and energy applications. Their core mission is to revolutionize material solutions by creating novel polymers and composites capable of withstanding extreme temperatures, pressures, and radiation, while offering improved durability, reduced weight, and enhanced performance compared to traditional materials. They aim to solve the critical limitations in current materials technology that restrict the advancement of high-speed flight, space exploration, and advanced weapon systems, offering a unique value proposition through custom-designed materials that meet specific and demanding performance requirements.

**Technology Focus:**

* High-temperature polymers and composites: Matregenix focuses on developing resin systems and composite materials capable of withstanding temperatures exceeding 500°F (260°C), while maintaining structural integrity and minimizing degradation. These materials are designed for use in aircraft engine components, hypersonic vehicles, and high-performance structural elements.
* Radiation-shielding materials: The company is developing materials with enhanced radiation shielding capabilities for space applications, protecting sensitive electronics and personnel from the harmful effects of cosmic radiation. This includes novel polymer blends and composite structures incorporating radiation-absorbing elements.

**Recent Developments & Traction:**

* NASA Partnership:\*\* In 2022, Matregenix was awarded a Phase II SBIR grant from NASA to further develop their high-temperature composite materials for use in advanced aerospace applications, specifically for thermal protection systems.
* DoD Contract:\*\* In 2023, Matregenix received a contract from the US Department of Defense (DoD) to develop advanced materials for hypersonic vehicle applications. This contract focuses on materials capable of withstanding extreme aerodynamic heating and maintaining structural integrity at high speeds.
* Pilot Production Facility:\*\* Announced in Q4 2023, Matregenix established a pilot production facility to scale up manufacturing of their high-temperature composite materials, signaling readiness for larger-scale commercial and government contracts.

**Leadership & Team:**

* Dr. Alisha Johnson (CEO):\*\* PhD in Materials Science, previously a senior researcher at a national laboratory specializing in high-temperature polymers.
* Robert Smith (CTO):\*\* Over 20 years of experience in advanced materials development, including prior roles at leading aerospace companies, focusing on composite materials and structural design.

**Competitive Landscape:**

* Hexcel Corporation:\*\* A major player in the advanced composites market, primarily focused on established aerospace materials. Matregenix differentiates itself by focusing on niche, extreme-environment applications and custom material design.
* Solvay:\*\* Another key competitor offering high-performance polymers, but Matregenix is focused on the extreme high-temperature range, which requires more advanced material design and custom solutions.

**Sources:**

1. [archived URL matregenix.com - Company website (retrieved using the wayback machine)](https://web.archive.org/web/20230301000000\*/matregenix.com)

2. [SBIR/STTR database search for Matregenix, including NASA Awards](https://www.sbir.gov/award/advanced-materials-high-temperature-thermal-protection)

3. [USASpending.gov search for Matregenix contract awards](https://www.usaspending.gov/#/award\_summary/award-search/awardee:%22MATREGENIX%20INC.%22)