# Dossier: FORTIUS METALS, INC.

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,246,958.00

**Award Date:** 2024-02-15

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

FORTIUS METALS, INC. is a US-based materials science company specializing in the development and manufacturing of novel, high-strength, lightweight metals and alloys. Their primary business is focused on producing ultra-high strength steel for demanding applications in the defense, aerospace, and energy sectors. Fortius aims to solve the critical need for materials that can withstand extreme environments and offer superior performance compared to existing materials, enabling advancements in vehicle armor, structural components, and tooling. Their unique value proposition lies in their proprietary metallurgy process, which allows them to create steel alloys with significantly higher strength-to-weight ratios than traditional steels, leading to lighter, more durable, and more efficient products. They also emphasize rapid prototyping and custom alloy development tailored to specific customer needs.

**Technology Focus:**

* Fortius Steel:\*\* A family of patented ultra-high strength steels exhibiting yield strengths significantly exceeding conventional steels. Specific alloys have reported yield strengths exceeding 300 ksi (kilopounds per square inch).
* Additive Manufacturing Compatibility:\*\* Alloys are designed for manufacturability via conventional methods and also increasingly focus on compatibility with additive manufacturing (3D printing) techniques like Laser Powder Bed Fusion (LPBF), enabling complex geometries and rapid prototyping.

**Recent Developments & Traction:**

* Department of Defense Contracts:\*\* Awarded multiple Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) contracts from the DoD, including work related to advanced armor and weapon systems. Recent SBIR awards (as of late 2022/early 2023) focused on developing specific alloy compositions tailored for high-temperature performance and corrosion resistance in marine environments.
* Manufacturing Scale-up:\*\* The company has visibly invested in expanding its manufacturing capabilities, including acquiring new equipment and forging partnerships to increase production capacity of its high-strength alloys.
* Strategic Partnerships:\*\* Formed partnerships with organizations like the American Foundry Society to further research and promote the use of their materials in various casting applications.

**Leadership & Team:**

* Jeff Lord (CEO):\*\* Possesses a strong background in materials science and engineering, and has experience in transitioning research from lab to market.

**Competitive Landscape:**

* ATI Specialty Materials (Allegheny Technologies Incorporated):\*\* A major player in the specialty metals industry, offering a wide range of high-performance alloys. Fortius differentiates itself through a more focused niche in ultra-high strength steel, specializing in specific alloy chemistries and manufacturing processes to achieve superior strength-to-weight ratios compared to some ATI offerings.

**Sources:**

1. [https://www.fortiusmetals.com/](https://www.fortiusmetals.com/)

2. [https://www.sbir.gov/](https://www.sbir.gov/) (Search for 'Fortius Metals' for SBIR/STTR awards)

3. [https://www.afsinc.org/news/fortius-metals-joins-afs-corporate-member](https://www.afsinc.org/news/fortius-metals-joins-afs-corporate-member)