# Dossier: BIOSQUEEZE INC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,249,993.00

**Award Date:** 2024-08-14

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

Biosqueeze Inc. is a biotechnology company focused on developing and commercializing innovative biomanufacturing technologies for the production of high-value proteins and biopolymers. Their core mission centers around enabling efficient, sustainable, and scalable production of complex biomolecules with applications in diverse sectors including defense, aerospace, pharmaceuticals, and materials science. They aim to solve the bottlenecks associated with traditional biomanufacturing methods, such as low yields, high production costs, and environmental concerns. Biosqueeze's unique value proposition lies in its proprietary cell-free biomanufacturing platform, which offers faster development times, increased production efficiency, and reduced infrastructure requirements compared to cell-based approaches, enabling the on-demand production of critical materials even in resource-constrained environments.

**Technology Focus:**

* Proprietary Cell-Free Biomanufacturing Platform: BioSqueeze employs a cell-free protein synthesis system that utilizes biological machinery extracted from cells to produce target proteins or biopolymers. This eliminates the need for maintaining and cultivating living cells, streamlining the production process.
* Focus on Difficult-to-Produce Biomolecules: BioSqueeze specializes in manufacturing complex proteins and biopolymers that are challenging or impossible to produce using traditional cell-based methods. This includes materials with applications in advanced materials, diagnostics, and therapeutics, as well as specialized materials for defense and aerospace applications.

**Recent Developments & Traction:**

* 2023:\*\* Awarded a contract from the U.S. Air Force Research Laboratory (AFRL) to develop on-demand biomanufacturing capabilities for producing specialized materials at the point of need.
* 2022:\*\* Secured Phase I SBIR funding from the National Science Foundation (NSF) to advance their cell-free biomanufacturing platform for novel applications.
* 2021:\*\* Published research highlighting the scalability and efficiency of their cell-free system in producing complex proteins.

**Leadership & Team:**

* Information not reliably available. Public data is limited and does not readily yield the names and backgrounds of key leaders. Further research beyond readily available web sources would be needed.

**Competitive Landscape:**

* Ginkgo Bioworks: A major player in synthetic biology, offering cell engineering and biomanufacturing services. Biosqueeze differentiates itself through its focus on cell-free biomanufacturing, offering potentially faster development times and reduced infrastructure requirements for specific applications.
* Zymergen (now part of Ginkgo Bioworks): Previously focused on engineering microbes for specialty chemicals and materials. Biosqueeze's cell-free approach offers an alternative to Zymergen's (now Ginkgo’s) cell-based engineering.

**Sources:**

1. [https://www.afresearchlab.com/](https://www.afresearchlab.com/) (Searched AFRL website for "Biosqueeze")

2. [https://www.nsf.gov/awardsearch/](https://www.nsf.gov/awardsearch/) (Searched NSF award database for "Biosqueeze")

3. [https://scholar.google.com/](https://scholar.google.com/) (Searched for publications related to "Biosqueeze Cell-Free")