# Dossier: OPENBCI INC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,799,890.00

**Award Date:** 2023-09-29

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

OPENBCI INC. is a neurotechnology company focused on creating accessible and affordable brain-computer interface (BCI) hardware and software for research, education, and consumer applications. Their primary business is the design, manufacturing, and distribution of open-source BCI platforms that allow users to record and analyze brain activity (EEG) and other physiological signals. The company's core mission is to democratize BCI technology by providing cost-effective tools that empower researchers, developers, and hobbyists to explore and innovate in this rapidly evolving field. They aim to solve the problems of high cost, complexity, and limited accessibility that have historically hindered the widespread adoption of BCI technology. Their unique value proposition lies in the open-source nature of their products, which fosters collaboration, customization, and community-driven development, setting them apart from proprietary and more expensive BCI systems.

**Technology Focus:**

* OpenBCI Cyton and Ganglion Boards:\*\* Wireless EEG acquisition boards that can record up to 8 channels (Cyton) or 4 channels (Ganglion) of EEG data. Features include adjustable gain, sampling rates up to 250Hz (Ganglion) or 16kHz (Cyton), and Bluetooth connectivity.
* OpenBCI Ultracortex Mark IV:\*\* A 3D-printable EEG headset designed to accommodate various electrode configurations and head sizes, enabling users to customize their BCI setup.
* OpenBCI GUI and Software Tools:\*\* Open-source software applications for data visualization, signal processing, and machine learning, designed to facilitate BCI research and development.

**Recent Developments & Traction:**

* Partnership with g.tec medical engineering (2022/2023):\*\* Collaboration to integrate OpenBCI hardware with g.tec's neurotechnology solutions, expanding market reach and providing users with enhanced BCI capabilities.
* Focus on developing and enhancing their software platforms (ongoing):\*\* Continuously improving the user experience and functionalities of their open-source software, including data processing and visualization tools.
* Active community engagement and educational resources (ongoing):\*\* OpenBCI invests in community building and provides extensive documentation and tutorials to support users of all skill levels.

**Leadership & Team:**

* Conor Russomanno (CEO):\*\* Co-founder of OpenBCI with extensive background in engineering and neurotechnology.
* Joel Murphy (CTO):\*\* Co-founder of OpenBCI with expertise in signal processing, embedded systems, and open-source development.

**Competitive Landscape:**

* Emotiv:\*\* While Emotiv offers BCI headsets, OpenBCI differentiates itself through its open-source platform, fostering greater customizability and community-driven innovation compared to Emotiv's primarily proprietary solutions.
* Neurosky:\*\* Neurosky focuses primarily on consumer-grade EEG headsets for entertainment and wellness applications, while OpenBCI targets a broader range of users including researchers, educators, and developers, emphasizing the flexibility and scalability of their open-source platform.

**Sources:**

1. [https://openbci.com/](https://openbci.com/)

2. [https://shop.openbci.com/](https://shop.openbci.com/)

3. [https://github.com/OpenBCI](https://github.com/OpenBCI)

4. [https://docs.openbci.com/](https://docs.openbci.com/)