

COMPANY OVERVIEW

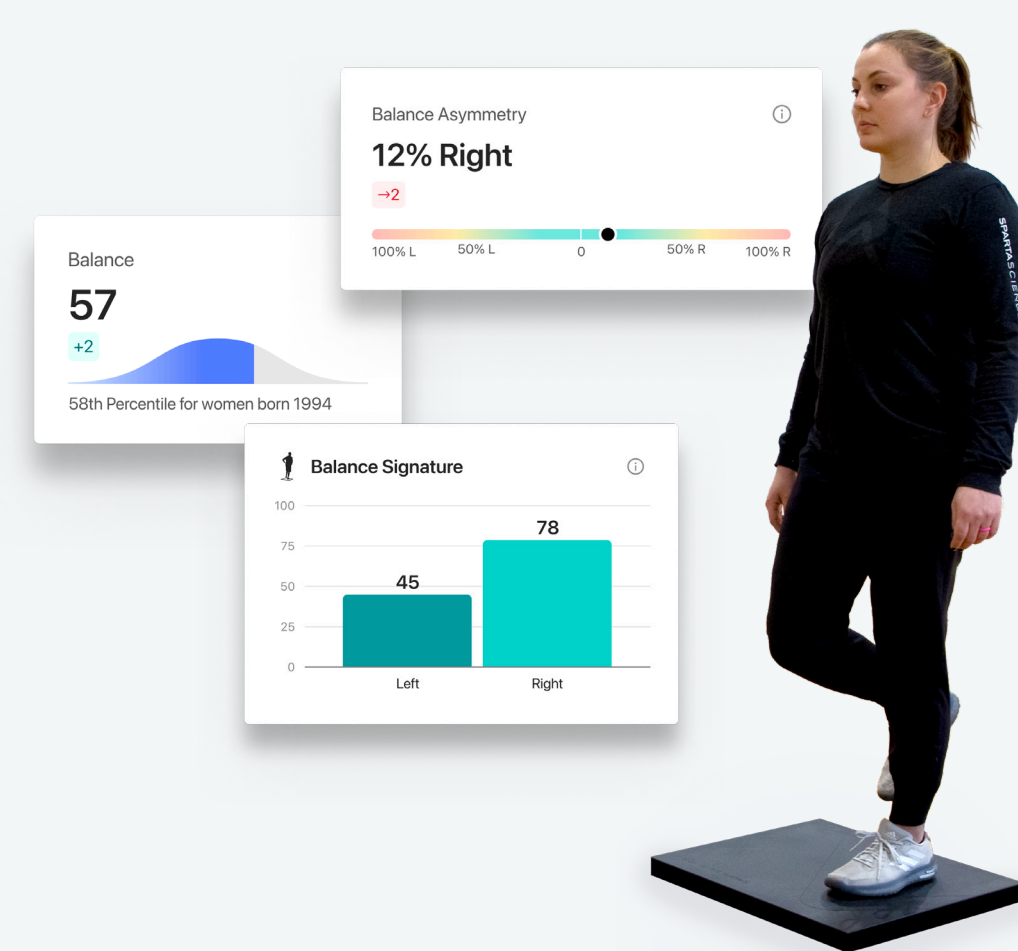
Sparta Science is a **non-traditional defense contractor** with operational contracts across the DoD, active R&D projects through AFWERX, and hundreds of commercial customers across athletics and healthcare organizations.

Our team consists of Medical Clinicians, Epidemiologists, Data Scientists, Machine Learning Engineers, and former DoD Leaders and Human Performance Practitioners.

Our mission is to provide the technology to **support Movement Health innovation.**



Sparta Science enables organizations to make better decisions about how to care for the movement health of their people. Built for **enterprise scale**, our modern data platform transforms clinical and commercial health and performance data into real-time human performance intelligence **powered by machine learning.**



SPARTA SCIENCE'S MOVEMENT HEALTH PLATFORM (MHP)

Our human-centric Movement Health Platform (MHP) provides secure data collection, management, analysis, and decision support capabilities enabling organizations to establish the foundation for scalable, data-driven, Human Performance optimization research.

As a comprehensive data platform the MHP enables the aggregation of commercial wearable devices, measurement technology, and data management systems. MHP technical infrastructure supports the advanced data science and machine learning model development capabilities researchers require with a user-friendly software experience.

- Secure Commercial **Data Source Integration**
- **Data Lakes** and Real-Time Data Analysis
- Automated **Data Quality Analysis** and **Populations Statistics**
- **ML Pipelines** supporting bespoke model development
- **Edge Compute Capabilities** for model deployment
- Robust **Application Ecosystem** (Cloud, Desktop, Mobile, API)



2022 PHASE II SBIR AWARDS



Rapid TBI Assessment Tool (RTAT)

Goal: Build AI/ML models that will generate objective classification metrics after suspected mTBI without having a baseline on the individual to support clinician diagnosis decisions.

Sponsors: Air Force Special Operations Command, 24th Special Operations Wing

Fitness Test Score Improvement WITH AI (aiFIT)

Goal: Build ML models that adapt SMHP exercise prescriptions to enable Airmen to achieve specific fitness test goals and improve their score on specific PFT events.

Sponsors: 7th Bomb Wing, PEO Agile Combat Support, Combat Ready Airman

Integration for Performance Readiness Monitoring (IPRM)

Goal: Integrate neuromuscular (Sparta) and physiological (Oura) data in ML models to identify efficiencies in combined metrics for enhanced, normalized readiness reporting at the individual level and monitoring at the unit level and attempt to improve understanding of Operator Syndrome.

Sponsors: Air Force Special Operations Command, 24th Special Operations Wing

Injury Risk Identification with AI in Basic Military Training (IRISai-BMT)

Goal: Build AI/ML models that will generate objective diagnostic metrics that assist BMT HP SMEs and clinicians in identifying Overuse MSKI (O-MSKI) early enough and at a relevant scale to mitigate follow-on acute injury and reduce lost training days and attrition.

Sponsors: 37th Training Wing, 59th Training Health Squadron; PEO Agile Combat Support, Combat Ready Airman

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COMPLIANCE



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