

INVESTED IN

# MiRus<sup>TM</sup>

How Mammoth plans to add value and impact the world of orthopaedic, spine and cardiovascular diseases through this portfolio company.

# Why Mammoth Chose MiRus™

## Phenomenal Team

The MiRus team is led by Jay S. Yadav, MD, an internationally recognized interventional cardiologist and founder of a number of successful companies. He has pioneered new treatments for stroke and heart failure patients. The team behind MiRus has a history of creating cutting edge technology and leverages its expertise in creating innovative technology for spine surgery and orthopedics.



**Jay Yadav, MD**



**Noah Roth**



**Mahesh Krishnan**



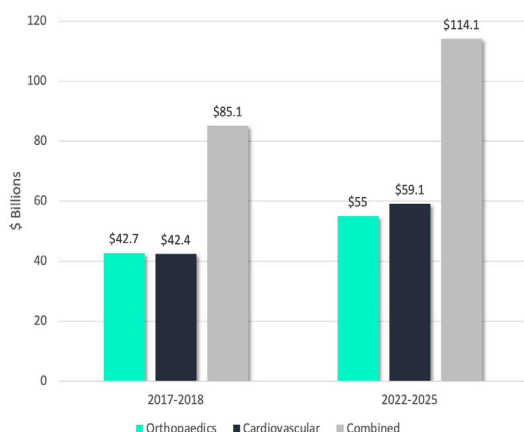
**Jordan Bauman**



**Pam Cowart,  
APRN, MSN**



**Wayne Gray**



## Ideal Product Market Fit

Orthopaedic Devices Market size was valued at \$37.2 billion in 2018 and should reach >\$47.7 billion by 2026 at a compound annual growth rate (CAGR) of 3.1% for the period of 2019 to 2026.<sup>1</sup>

Cardiovascular Devices Market reached nearly \$45.1 million in 2020 and should reach a compound annual growth rate (CAGR) of 6.4% for the period of 2021-2026.<sup>2</sup>

1 - <https://www.alliedmarketresearch.com/orthopaedic-devices-market#:~:text=Orthopedic%20Devices%20Market%20Overview%3A,3.1%25%20from%202019%20to%202026.>

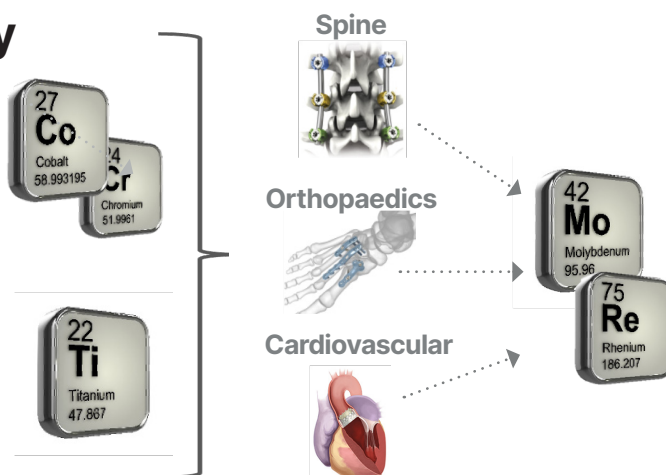
2 - <https://www.mordorintelligence.com/industry-reports/global-cardiovascular-devices-market-industry#:~:text=The%20cardiovascular%20devices%20market%20was,forecast%20period%2C%202021%2D2026.>

## Remarkable Intellectual Property

MoRe is the first new alloy approved for use in medical device implants in the last 40 years.

Worldwide Patent Strategy For Current And Emerging Markets include:

- Provisional: PCT - US, EU, Brazil, China, India
- Continuations, Divisional, New Priority Dates To Extend Timeline



# Portfolio Company



## Company Overview

MiRus™ is a health science company focused on the design of innovative solutions for treatment of orthopaedic, spine and cardiovascular diseases. MiRus™ offers pre-operative, intra-operative, and post-operative solutions utilizing proprietary superalloy MoRe®, innovative implant designs, novel procedural solutions and advanced analytics to improve outcomes over the continuum of care.

## Mammoth Impact

Mammoth led the \$70 million Series D, committing \$10 million of fund capital, which brought the post-money valuation to \$355 million. Beginning with discussions in 2018, Mammoth CEO, Tommy Martin, also led the Series B (\$120 million pre-money valuation) and Series C (\$240 million pre-money valuation) rounds for MiRus.

## Noteworthy

MiRus™ Receives FDA Clearance for Lowest Profile Anterior Cervical Plate System. MiRus™ is pleased to announce recent FDA 510(k) clearance of the CYGNUS™ Anterior Cervical Plate System, the narrowest and thinnest cervical plate on the market.



Atlanta, GA | Charleston, SC | Charlotte, NC | Fort Wayne, IN | Metro Detroit, MI  
(800) 618-2299

## Facts & Figures

### Founded

2015 - Atlanta, GA

### Founder

Jay S. Yadav, MD<sup>1</sup>

### Key Features

First new alloy, Molybdenum-Rhenium (MoRe®), that received FDA 510(k) clearance for use in medical device implants in the last 40 years.

Why is MoRe® revolutionary when compared to Titanium or Cobalt Chromium alloys?

- 2-3x Strength
- >4x Durability
- Superior Biocompatibility
- Dramatically Reduced Ion Release
- Reduced Recoil
- Biofilm Resistant
- Reduced MRI Artifact

<sup>1</sup> - Dr. Jay Yadav is a Member of MiRus, LLC and serves as its Chief Executive Officer. Dr. Yadav is also a Member of Mammoth Investors, LLC ("Mammoth"). He serves on the board of Mammoth as a voting director and serves as the Chief Investment Officer. Mammoth has put in place and follows conflict of interest policies for all Board Members.

## Noteworthy (Continued)

**July 22, 2019**

First System for Dynamic Intra-operative Measurement of Segmental and Global Spine Alignment Receives FDA Clearance. MiRus™ is pleased to announce FDA 510(k) clearance of the GALILEO™ Spine Alignment Monitoring System, a non-optical, wireless, real-time measurement system for segmental and global sagittal spine alignment.

**March 27, 2019**

MiRus™ Receives FDA 510(k) Approval for First Medical Implant with New Superalloy. MiRus™ has received FDA 510(k) approval for the MoRe® based Europa™ Pedicle Screw System making it the first FDA approved medical device with this new class of implant material.

**September 17, 2018**

MiRus™ Wins Two 2018 Spine Technology Awards. Winning Multiple Awards in One Year, MiRus™ Takes Honors for EUROPA™ Pedicle Screw System and GALILEO™ Spine Alignment Monitoring System.

## Product Highlight GALILEO™ Spine Alignment Monitoring System

Intended to provide intra-operative measurements to a surgeon to aid in the selection and positioning of orthopedic implant system components relative to anatomical structures and reference axes. The GALILEO™ Spine Alignment Monitoring System is indicated for patients undergoing orthopedic spine surgery where the use of stereotactic surgery is considered safe and effective, and where a reference to rigid spinal anatomical structures, such as a vertebral body, can be identified relative to the anatomy. The system aids the surgeon in controlling spinal alignment.

### System Features

Intra-operative Real-time Measurement of Thoracolumbar Sagittal Plane Spine Alignment

- Non-optical
- Dynamic
- Non-fluoroscopic
- Wireless Orientation Sensing Modules (OSM)
- Segmental and Global Alignment



Mammoth Scientific, LLC is an investment adviser to venture capital funds that files as an exempt reporting adviser. Status as an exempt reporting adviser does not imply a certain level of skill or training. Private companies and private investments involve unique risks. You should be aware that you could lose your entire investment.

Atlanta, GA | Charleston, SC | Charlotte, NC | Fort Wayne, IN | Metro Detroit, MI  
(800) 618-2299

## Product Highlight Transcatheter Aortic Valve (TAVR)

### Overview

It is difficult to overstate the enthusiasm of the TAVR cardiac surgeons around using MoRe® to overcome the limitations of the current devices in space. Cobalt Chromium (CoCr) is the primary material used in cardiovascular implants and there are great concerns about its safety along with its mechanical limitations. TAVR, the minimally invasive approach to replacing the aortic valve, is rapidly growing and has now become the dominant approach to aortic valve disease. There remain a number of serious limitations to the leading TAVR products on the market. MiRus™ has targeted TAVR as the most beneficial immediate application of MoRe in the cardiac space.

### Why TAVR?

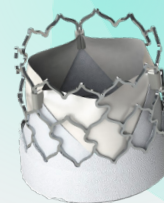
- Greater Strength, Thinner Stent and Delivery System
- Less Recoil and Increased Conformability
- Superior Material Biologic Properties

### Market Size

8.241 Billion by 2025<sup>1</sup>

### Growth (CAGR)

22.6% (2017 to 2025)<sup>1</sup>



<sup>1</sup> - <https://www.grandviewresearch.com/industry-analysis/transcatheter-aortic-valve-replacement-tavr-market>



## Important Legal Disclosure

This document is provided to potential investors to assist in evaluating the investor's participation in the opportunity described in it. This is not an Offering document. Any offer of securities in the Fund may only be made by delivery by Mammoth Scientific to the potential investor of a definitive subscription agreement, PPM and other legal Offering documents. Mammoth Scientific, LLC is an investment adviser to venture capital funds that files as an exempt reporting adviser. Status as an exempt reporting adviser does not imply a certain level of skill or training. The Securities offered by Mammoth Scientific have not been registered under the Securities Act of 1933, as amended, the Securities Laws of the State of Delaware, Indiana, or any other state, or jurisdiction, in reliance upon the exemptions from registration provided by the Securities Act and Regulation D Rule 506 (c) and comparable exemptions from registration provided by other applicable securities laws.

Dr. Jay Yadav is a Member of MiRus, LLC and serves as its Chief Executive Officer. Dr. Yadav is also a Member of Mammoth Investors, LLC ("Mammoth"). He serves on the board of Mammoth as a voting director and serves as the Chief Investment Officer. Mammoth has put in place and follows conflict of interest policies for all Board Members.

This document contains forward-looking statements or projections. These forward-looking statements can be identified by use of forward-looking terminology such as "may", "will", "should", "expect", "anticipate", "project", "estimate", "intend", "continue", or "believe," or the negatives thereof or comparable terminology. Due to various risks and uncertainties, actual events, results or the actual performance of the Fund's portfolio companies may differ materially from those reflected or contemplated in such forward-looking statements. Nothing contained in this document may be relied upon as a guarantee, promise, assurance or a representation as to the projected results, future events or performance. Mammoth Scientific disclaims any obligation to update these forward-looking statements or projections or this document in general.

To the knowledge of Mammoth Scientific, the document and its contents are: (1) current as of the date of publication (2) subject to change without notice and (3) directed solely to those investors meeting all requirements to purchase Interests in the Funds. *Investments in the Funds will be suitable only for certain financially sophisticated investors who meet certain eligibility requirements, have no need for immediate liquidity in their investment, and can bear the risk of an investment in the Funds for an extended period.*

*There is no guarantee that the investment objectives will be achieved. Moreover, the past performance of the investment team should not be construed as an indicator of future success. All prospective investors are encouraged to consult with their own legal counsel, tax advisors, financial and investment advisors and accountants. All investors should make their own determination of whether to make an investment based on their own independent evaluation. Additionally, this document does not include all material terms of the offering. This document is qualified entirely by the Fund's Operating Agreement, Series Designation, Series Supplement, PPM and other legal and governance documents.*

**PRIVATE COMPANIES AND PRIVATE INVESTMENTS INVOLVE UNIQUE RISKS. YOU SHOULD BE AWARE THAT YOU COULD LOSE YOUR ENTIRE INVESTMENT.**