

# Vista Robotics Quarterly Update

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Q3 2023

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Vista Robotics is creating the world's first active surgical robotic solution, specifically designed for spinal fusion surgeries. Our groundbreaking technology offers unprecedented robotic assistance for the intricacies and complexities involved in spinal fusion procedures, while also laying the groundwork for a robust robotic platform that can facilitate active surgical assistance in a myriad of future medical procedures.

As we continue to make rapid progress toward our product, market, and financing goals, we are pleased to offer this quarterly update to you. Please reach out to the Vista Robotics Executive Team for any questions or comments about the path and achievements that Vista is making.

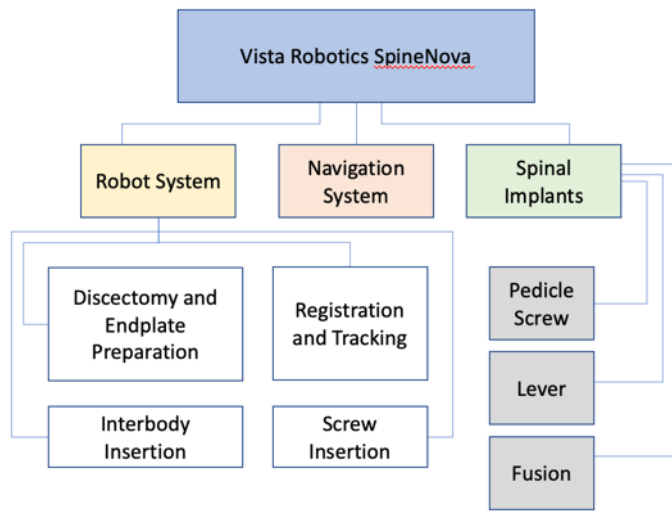
## R&D Progress



*Peter Himes stands in front of the SpineNova system in our San Jose R&D Labs*

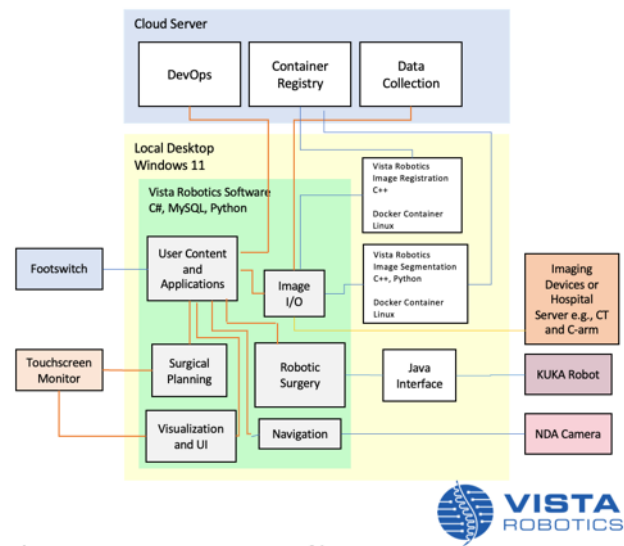
The SpineNova system is over 90% complete, with the focus right now on software development for key parts of the system, in particular the surgical planning and discectomy trajectory control. Over the past quarter we have made tremendous strides in defining and executing on the entire software architecture. In specific, we have architected and coded the 3D reconstruction and segmentation software, the overall patient file and UI architecture, and machine – patient registration in 3D space. Controls for the discectomy and endplate preparation end effector are in place and surgical path algorithms are in development. Below shows the overall software and system architecture:

## Whole system



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## Software architecture



The overall system UI and integration work is also progressing, and the surgical planning piece is being developed as an element of this work. All key software elements are expected to be functionally ready for testing this quarter, with in house testing commencing in September. A video overview of SpineNova explaining all of its major features and benefits can be seen at this location <https://drive.google.com/file/d/1gyB95v1hoCSTXLdDdUz11C3YeAH4dLis/view?usp=sharing> and a more detailed view of the user interface and 3D reconstruction can be seen here <https://drive.google.com/file/d/1v3FT2vK8qMT4Dc4KXInTT0eF3xbHLzTb/view?usp=sharing>

Actual discectomy testing on cow discs are to begin in August, with ongoing testing for algorithm optimization. Testing on human cadavers is to take place from September through December, at Tier 1 labs led by UCSF and under the supervision of their leading spine and neurosurgeons. This is a necessary stage to verify and improve on our robot control algorithms, and to test and measure the efficacy of the Vista Robotics discectomy and endplate preparation end effector. Our goal is to have this R&D work progress to the point where we attain endorsement by the surgeons and Tier 1 institutions as to the efficacy and safety of the Vista solution, sometime in Q1 of next year.

## Financing and Partnerships Progress

Vista Robotics completed its Seed Round of funding in December of 2022 with \$500k of investment by key individuals and institutions. We are in discussions with additional investors who want to join with Vista in our journey with an extension of the Seed Round of \$300k. As we get into the Tier 1 Labs for system testing and optimization, we will begin the promotion of our pre-A round, which is planned to carry us through FDA submittal, clearance, and market entry. Contact the Executive Team for more information on this exciting next stage.



An important part of our financing discussions at this point have been the deep and ongoing discussions with several institutions and funds in China, which will allow us to establish and open our Vista China office. This office will not only engage with the Chinese government regulatory bodies for education and approval, but also engage across China's spine and neurosurgery network to raise awareness for the Vista Robotics SpineNova solution and help to prepare the market for entry.

## Market Engagement Progress

The US market remains our prime market and principal focus for R&D, FDA clearance, and eventual market entry. Our Board of Advisors and Clinical Staff represent Tier 1 institutions from across the US, including UCSF, Dignity Health, and UVA. This quarter we have expanded our clinical staff to include Dr. Kingsley Abode from the Mayo Clinic and Dr. Alphonse Lubansu from Erasme Hospital at the Université Libre de Bruxelles. These early advocates for the SpineNova system will also be our initial customers, and they will be training centers for future Vista Robotics users as well as important spokespersons for the company.

## Clinical Team



**Dr Brad Jones**  
**Dignity Health**  
Orthopedic spine surgery specialist, Mercy Medical Center Redding. A Medtronic Mazor user and trainer for more than ten years. Dr. Jones has also been using the first generation of the Vista solution on more than 300 surgeries.



**Dr Lee Tan**  
**UCSF**  
Neurosurgeon with expertise in both minimally invasive and traditional open surgical techniques. Dr. Tan has been using Medtronic Mazor and Globus surgical robots for years and will lead Vista's upcoming cadaver lab at UCSF.



**Dr Avery Buchholz**  
**UVA**  
Neurosurgeon with 15 years' clinical experience in complex spine surgery, and with a specific focus on minimally invasive spine surgeries. Dr. Buchholz is one of the lead trainers in the US on the Medtronic Mazor system.  
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**Dr Kingsley Abode**  
**Mayo Clinic**  
Neurosurgeon who is passionate about specializing in complex spinal deformity and advocate for "Awake" MIS TLIF procedures. Dr. Abode is currently diirector of Spine and Spinal Deformity and Medical Director of Instrument Processing



**Dr. Alphonse Lubansu**  
**Erasme Hospital Belgium**  
Director of the Department of Neursurgery Erasme Hospital Université Libre de Bruxelles (ULB), Belgium, and is the Clinical Director and Chief Surgeon of the Spine Clinic. Dr Lubansu has 18 years' experience collaborating with medical device companies, including past work with Vista's founders.

**Nationally Recognized Spine Surgery and Neurosurgery Experts, and Experienced Medtronic Mazor Trainers**

The China market is, by numbers, a larger addressable market than the US, though smaller by revenue numbers due to differences in payment structures and reimbursement rates. However, the large demand compels us to explore it as our secondary served market, and it is to this end that we have the ongoing engagement discussions with key provincial, government and private entities within China. Attaining clearance in the China market, unlike the US market, will require pre-trial clinical data to be



submitted, so the timing for clearance for the China market is expected to be 1 year later than the US market.

Other global markets of interest include certain European, Middle East and East Asian countries. While we have ongoing discussions of deep interest in the SpineNova solution, and we expect to see attractive market pull in many of these regions, our initial focus at this time is on the US market first, and China second. [Note that Dr Alphonse Lubansu, of the Erasme Hospital in Brussels, is an ardent supporter of Vista. He will be an important advocate for Vista as we decide how to enter the Greater European market.]

## Organizational and Administrative Progress

Vista Robotics has established its HQ and R&D Center at 1701 Fortune Drive, San Jose California, in the heart of Silicon Valley.

### Vista Robotics HQ in San Jose



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Our total direct headcount is 9 persons, with additional software development team engaged by contract. Our administrative focus has been on preparing website and marketing collateral, and refining our pitch and financial planning.



## Management Team

**Roy (Sing-Fat) Chin**
**Co-Founder, Chairman**

33 years as inventor for medical devices, three exits; Stryker, CTS (acquired by Boston Scientific), AFx (acquired by Guidant), AdcuraSpine


**Christie Wang J.D.**
**Co-Founder, CEO**

10 years of medical device commercialization/operation, regulatory and clinical, team management, Hewlett Packard/Agilent, AdcuraSpine


**Peter Himes**
**VP of Business Development**

33 years of international business development and strategic alliances 6 startups, National Semiconductor, Winbond, Haier


**Brian Hauck**
**Product Dev - Hardware**

20 years medtech R&D, Mechanical and Aeronautical Engineering, UC Davis. Arterica, Trivasular, Agilent


**Nima Masoumi (Canada)**
**Software Lead**

10 years in C-arm image-assisted surgical navigation system, 2D-3D image registration


**Dehua Tan (Canada)**
**Software Architect**

Provilla, acquired by TrendMicro Computer vision and control



### 200 Years' of Medical Device and High Technology Startup Experience

**Robin Bek**
**Product Dev – Electronics**

20+ years in Medical Device R&D, over 30 patents, five exits. Covidien, J&J


**Kai Ying (China)**
**COO**

20+ years operation and management in semiconductor and medtech. Cypress, Vanguard, Cisco


**James Bao**
**Advanced Software Development**

35 years commercialization in spine US and Intl markets. Asculap, Tedan


**Dawn Lissy (Consultant)**
**US Regulatory, quality system**

Regulatory, testing, clinical for spine implants, instruments, surgical robotic system for 15 years, Founder of Empirical



### India Software Development Team



**Javed Badshah**  
Project Lead



**Aftab Pangarkar**  
Co-ordinator UI / UX



**Parag Mane**  
Quality Testing Engineer



**Komal Konde**  
Software Engineer



**Dhrutika Patil**  
Software Engineer





## Focus for the Upcoming Quarters

As described above, the focus for the upcoming quarters is really in 2 camps: first, an unwavering focus on R&D and SpineNova system testing and optimization, both on the software modules (including surgical planning, active registration, UI and system integration) and on the hardware performance (through cow disc and human cadaver testing and optimization.) And second, the financing of the company including the offered extension of the Seed Round which is now open and initializing the engagement and promotion of Vista Robotics to potential pre-A investors.

This is an exciting time for the entire Vista Robotics team, and we are so proud to offer these updates to you. Thanks for your interest and we look forward to discussing our progress in more detail.

With warm regards,

Christie (Lan) Wang  
CEO  
Vista Robotics, Inc.