LEAD INVESTOR

Paul Collins MD

As an orthopedic surgeon I am seeing patients on a regular basis who have physical signs of a torn tendon or muscle. Documentation beyond the physical findings is often needed to move ahead with surgical repair, physical therapy, or other forms of treatment. This Echo Mind Ai technology provides scanning and interpretation without resorting to complex imaging such as an MRI or CT scanning. Echo Mind Ai scanning not only avoids x-radiation, it is non-invasive, easy to apply in the office setting, and provides essentially instant assessment of tissue status that extends far below the skin surface. It essentially gives the physician or therapist a view of soft tissue status that greatly improves ongoing case management. This allows us to manage a case of a torn tendon from positive anatomic identification of the location and degree of the tear all the way to "seeing" through the skin to evaluate degree of healing. This is critical for advancing rehabilitation and treatment. As this technology expands I foresee a time when a patient with a torn shoulder rotator cuff will be seen in a physicians office, examined physically and with the Echo Mind Ai device. They would leave the office not only with a demonstrated diagnosis, but also a scheduled surgical repair! The savings in time and expense, especially for work-related injuries, will be significant. Post-operative rehabilitation can be then monitored and allow therapy to be adjusted for each patient individually. In summary, this technology provides an easy, safe, and non-invasive way to assess subcutaneous tissue condition - all in the providers office at the time of assessment. The savings in time, cost, risk and expense will be extremely rewarding - especially for the patients.

Invested $1,000 this round

Learn about Lead Investors

Highlights

① Achieved 95% prediction accuracy for tendon tears 😎

(2) All soft tissue injuries will be diagnosed at the point of care by any Dr. 💪

(3) Licensing available on ultrasound vendor's large platform👌

(4) 77% of ALL health care visits are for musculoskeletal injuries, most going undiagnosed in 1st visit 😮

(5) MRI too expensive for poor and less available to underserved populations 👨‍👩‍👧

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(6) Working with Economists at CU in Denver on study to improve racial equality in diagnosis 🎓

(7) Experienced team with combined 12 graduate degrees and 40+ yrs exp 📜

Our Team

Max Harker Co-Founder & CEO

Adjunct Professor Economics, M.A. Economics and M.S. Finance University of Colorado in Denver. Certificate Machine Learning Cornell, Re-built statistical forecasting system from ground up at world-wide dairy company, Executive Experience

I had a freak knee injury in 2019 which caused me to question the whole MRI diagnostic process for soft tissue injuries. I've also had several poignant experiences concerning how biased our healthcare system can be to the poor and underserved.

Casey Charlebois Chief Medical Officer

DPT Physical Therapy, Osteopractic Physical Therapist AAMT, M.S. Physical Therapy & M.S. Exercise Science Arkansas State University, PhDc Physical Therapy Nova Southeastern University, MSKUS, Fellow AAOMPT, Teaches MSK Sonography classes across U.S.

Darren Lund Chief Information Officer

B.S. Applied Computational Math BYU, M.S. Mathematics class of 2021 BYU, Coding and Machine Learning extraordinaire

Manuel Rodrigo Parra Chief Technology Officer

B.S. Math PUCC, M.S. Math PUCC, Mathematics License KTH Royal Institute of Technology, PhD Mathematics University of Michigan, Sr. Developer Mathworks, Sr. Data Scientist Multiple Startups, Ai Consultant, Multiple Startups, Certified AWS Architect

Sarah McGaffin   Director of Operations

CMA and CFM Institute of Management Accountants, B.S. International Politics BYU, MIM Portland State University, M.S. Accounting and Finance Devry University, Controller Canopy Ventures, Resource Manager Robert Half, Consultant Microsoft

Jordan Monroe   Advisor and Investor

Co-founder Owlet Baby Care public company on NYSE

Brian Eliason   Advisor

SVP and founding team member Health Catalyst

Paul Collins MD   Advisor

Orthopedic Surgeon, Consultant

Andrew Carr   Advisor

Google, Open Ai Alumn. Sr. Research Scientist, Author - Every Day Data Science

Jeff Grandia   Advisor

Founder Redi Health

Dusty Harker   Advisor

Health Informatics and Payments Consultant

The Biggest Innovation in Medical Imaging since the Digital X-Ray

Ever had one of the following musculoskeletal (MSK) injuries? Ankle. Knee.

Lower Back, Shoulder, Elbow, Foot, Wrist...You get the picture:)

If you are like most people, you never had your injury definitively diagnosed. Those that do get a diagnosis have to spend a bunch of time going to a 3rd party MRI Imaging Center where they charge WAY too much money. Most people don't have that kind of money or time. The below video tells the story of my knee accident!

Echo Mind AI Story.mp4
from Echo Mind Ai

Casey - Cofounder
DPT, 02:27 MPT, Cert. MSKUS, Ph

vimeo

We Are Democratizing Ultrasound so All Doctors Everywhere Can Help Vastly More Patients at the Point of Care.

Doctors should be able to see under the skin and provide a definitive diagnosis at a super low cost. Right now, most people go to a Primary Care Physician and are prescribed pain medication in a wait and see approach. The only way to tell if the pain medication will relieve symptoms or not is if the pain doesn't go away. This is why Duke University Medical School said we don't have enough resources devoted to this. This is why MSK pathologies are now costing our economy 5.7% of GDP every year!

PROBLEM

PATIENTS WAIT TOO LONG
➤ 85% of MSK injuries not diagnosed in primary visit
➤ Takes patient 3-5 weeks to receive diagnosis on avg.

MRIs and CT Scans Are
An Incomplete

PATIENTS SUFFER
➤ Most people go undiagnosed and suffer irreversible effects in later years

An Incomplete Solution

i. PATIENTS are losing,
ii. DOCTORS are losing, and
iii. PAYERS are losing...

MSK injuries, old and new, cost 5.7% of GDP, $980B in 2014...

PATIENTS PAY TOO MUCH
- Avg. Cost to Patient is $350...
- MRI used too much instead of 94% cheaper ultrasound...

ECHO MIND AI

Ever heard of getting an ultrasound diagnostic? Most people haven't. More and more Doctors are learning the art of ultrasound, but it is a very steep learning curve. It's like asking a Primary Care Dr. to all of a sudden become an Anesthesiologist.

Musculoskeletal Ultrasound (MSKUS)

- Used by thousands of Doctors all over the world
- Physician CPT codes
- NIH has been encouraging use for years...
- 3000+ research papers...

PROBLEM

MSKUS is Limited in Scalability

It's difficult for ALL Dr.s to adopt since it is very difficult to learn

16% pass rate for 1st year radiology residents with 200+ completed US exams...

ECHO MIND AI

In 20 years, Ultrasound will be the <u>most common</u> diagnostic tool among health practitioners. It is likely a local Dr. in your area already knows how to use Ultrasound to diagnose musculoskeletal injuries. Already, Ultrasound AI technology is actively being used for cardiology, pulmonary DVT, cancer detection, and bladder analysis.

SOLUTION

Ultrasound Completes Solution

i. PATIENTS win,
ii. DOCTORS win, and
iii. PAYERS win

IMMEDIATE DIAGNOSIS
- At the Point of Care
- No sending to 3rd party imaging

EXTREMELY EFFECTIVE
- Ultrasound just as effective as MRI...
- Supported by 3,000+ research papers...

SUPER LOW COST
- 15% of MRI cost for patient...

Technology

Our technology uses ultrasound and Artificial Intelligence to allow any health professional, with very little experience, to capture and provide a musculoskeletal pathology prediction. We are collecting and labeling data for 13 common MSK pathologies found in the shoulder. We have achieved the ability to predict tendon tears in the shoulder with 95% accuracy. However, we have more to finish on our product roadmap! Our next development milestone is an ultrasound guidance system that will guide novice users in the collection of diagnosable images. The end goal is that patients and Doctors will be able to review a color coded picture of their pathology together on a mobile or tablet device and decide on a treatment plan at the point of care.

Why Us

AI pathology prediction for tendon tears currently 95% with new test data
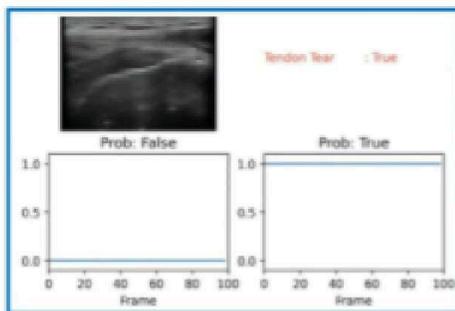
Patent Pending

➢ For Musculoskeletal System
➢ Intense image pre-processing to color code base anatomical structures
➢ Guidance system for angular and positional placement
➢ Auto image capture
➢ Pathology color coding and indexing level of severity
➢ Pathology prediction

ECHO MIND Ai

See what Doctors are saying about our Technology.

Echo Mind Ai End User Perspective
from Echo Mind Ai
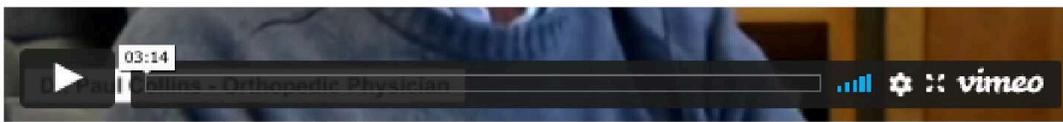
Business Model

This will be a 'software as a service model'. Our goal is to make our technology as affordable and accessible as possible. We care more about all Clinics being able to use this technology than maximizing profits.

Orthopedic surgeons and MD's, who have access to reimbursable CPT codes for Ultrasound diagnostics, might pay a monthly fee. while Physical Therapists and Chiropractors would pay a low fee per diagnostic; charging the patient on a cash basis as they go.

On top of the monthly or per diagnostic fees, each Dr. would need to purchase a $5,000 handheld ultrasound probe. Depending on how often the Dr. utilizes the technology, the ROI on this investment pays off within a month or two. For Doctors, Medicare reimbursement rates for an MSK Ultrasound Diagnostic are $112 (can vary by state). Private Insurance typically pays 141%-259% more than Medicare. A Dr. performing 10 Medicare patient scans per week could bill ~$4,480 in a month.

Below is an estimate of revenue per Dr.
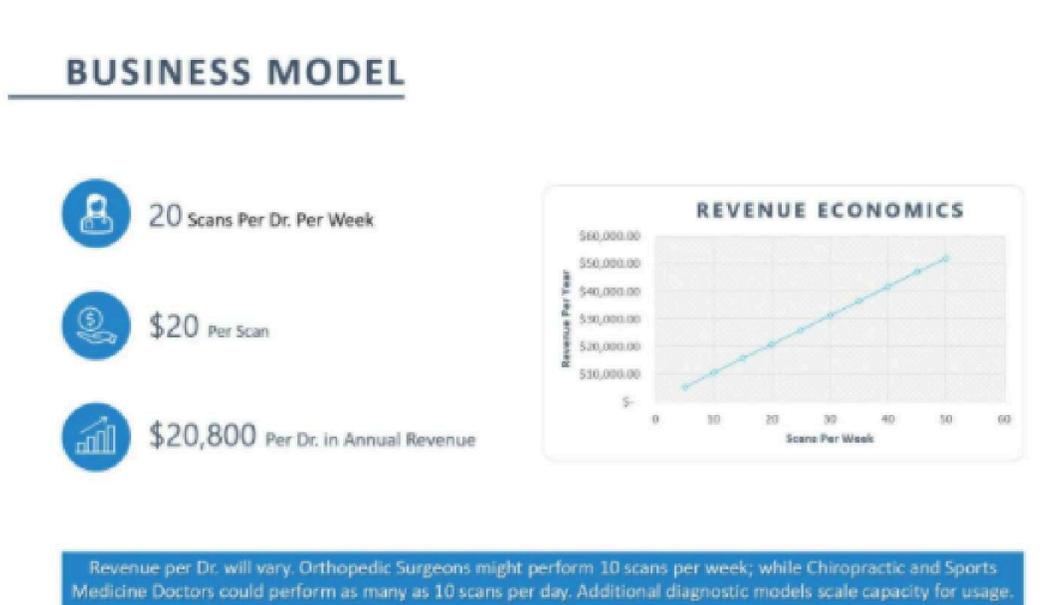
Market Size

We are targeting tendon tears in shoulders first. Commercialization for shoulder is targeted at 14 months post funding. As we approach FDA approval for shoulder tendon tears, we will lean in on data collection and clinical trial support for knee

and lower lumbar areas of the body. We expect these three areas to give us 70%-80% coverage of common MSK injuries Doctors typically treat. We will scale algorithm development and FDA approval across the rest of the musculoskeletal system as customers demand thereafter.

Patient Perspective

The below Patient's experience really tells the story of how directly this technology can affect lives for the better! Sometimes it is really difficult to justify an MRI to insurance companies.

Racial Equality

There is a huge opportunity to improve racial equality with this technology as well. People of Color have to travel farther, wait longer in line, and when they

well. **People of Color have to travel farther, wait longer in line, and when they do have access to an MRI it typically produces lower quality imaging.** Underserved populations, including People of Color, also typically feel higher levels of pain on average. One **study** done by Harvard says underserved populations experience higher levels of pain on average, and that a lot of their pain doesn't come across in standard radiological measures of severity. Basically, this has caused People of Color to receive knee surgery less often while at the same time experiencing more pain on average! Using basic vanilla data, Harvard was able to reduce this disparity by 43% using AI! We are going to be working with health economists University of Colorado in Denver to build completely un-biased pathology prediction into our AI.

Our Team

PEOPLE are what make companies successful. We have an INCREDIBLE team. Each member is super engaged and excited at what we are building. We have additional future team members waiting in the wings for when our seed round closes. We plan to hire two more developers and a project manager. We are hiring smart, humble people. We are implementing **Scrum** in our developer and operational group workflows to help ensure we stay on target. People are our most important asset and time is our most expensive cost.

THE TEAM

MAX HARKER
Co-Founder & CEO
Finance Executive National Law Firm, Treasury and Demand Planning Multi-Billion Dairy Company, Adjunct Professor Economics BYU-I, Founding Board Member Honey Gold Processing, M.A. Economics CU Denver, M.S. Finance CU Denver, B.A. Business CSU, Certificate Machine Learning Cornell University

CASEY CHARLEBOIS
Co-Founder & Chief Medical Officer
Doctor of Physical Therapy Arcadia University, Osteopractic Physical Therapist AAMT, M.S. Physical Therapy and M.S. Physical Science Arkansas State University, PhD Physical Therapy Nova Southeastern University, Pediatric and outpatient experience, Certified Diagnostic Musculoskeletal Ultrasound Clinician (MSKUS), Fellow American Academy Orthopedic Manual Physical Therapist

Downloads