Filed by HealthCor Catalio Acquisition Corp. pursuant to
Rule 425 under the Securities Act of 1933
and deemed filed pursuant to Rule 14a-12
under the Securities Exchange Act of 1934
Subject Company: HealthCor Catalio Acquisition Corp.
Commission File No. 001-39949

On September 27, 2021, Hyperfine, Inc. ("Hyperfine") presented a live webcast through Hyperfine's website. The webcast included information about Hyperfine's business and its previously announced business combination with HealthCor Catalio Acquisition Corp. The webcast may be accessed on Hyperfine's website at https://hyperfine.io/investors/. A copy of the transcript of the webcast is set forth below.

Introduction

Marissa Bych

Vice President, Gilmartin Group

Introduction

Good morning and welcome to the Hyperfine Analyst Investor Day. The intent of today's meeting is to provide information to investors and the sell-side community providing Hyperfine's FDA-cleared portable MRI technology, market opportunity and clinical value proposition. Following prepared remarks from Hyperfine's management team including from Dave Scott, President and Chief Executive Officer, Alok Gupta, Chief Financial Officer, and Dr. Khan Siddiqui, Chief Medical Officer and Chief Strategy Officer, two key opinion leaders will provide commentary regarding their experiences with Hyperfine's technology. Following speaker commentary, we will host a Q&A session.

We would like to note to those listening that today's meeting is not intended to provide commentary regarding Hypefine's revenue model or financial outlook. We look forward to providing more financial detail during another event in the future. During today's Q&A session, we ask that participants please focus their questions on the topics of technology, market opportunity, and business evolution and commercial strategy.

Lastly, please see the important disclaimers on today's slides for information regarding the proposed business combination between HealthCor Catalio Acquisition Corp., Hyperfine, and Liminal Sciences. And also, please note that during this presentation, we make certain forward-looking statements that are subject to risks and uncertainties.

Thank you. And with that, I will turn the webcast over to Dave Scott.

Hyperfine

Dave Scott

President and Chief Executive Officer, Hyperfine

Welcome

I am super excited to share with you our vision and mission for Hyperfine, but, more importantly, the clinical value proposition that we are bringing to the world, and we have some physicians on the call today, who are going to share with you their experiences with the Hyperfine platform.

Background

Seasoned management team with history driving platform and application usage

First of all, a little bit about the background and history of Hyperfine. Hyperfine is a 4Catalyzer company coming from Jonathan Rothberg's incubator 4Catalyzer. It is one of eight companies that Jonathan has founded through 4Catalyzer with a mission to democratize healthcare. And specifically with Hyperfine and Liminal Sciences, we are bringing affordable and accessible imaging, sensing, and guided robotic intervention that is going to revolutionize healthcare for people around the world.

Through Hyperfine and Liminal Sciences, we are going public with HealthCor, and that will happen later this year through a SPAC merger, and we will talk in more detail about both companies here today.

Hyperfine Opportunity

The Hyperfine ecosystem

A little about the ecosystem that we are creating. Hyperfine is a portable MRI imaging platform that was cleared last year, and this is our first year of commercialization. The next element of our ecosystem is brain sensing. Liminal Sciences, also a 4Catalyzer company, is being combined with Hyperfine due to the synergies of the technology to people, the mission, and the call points for the brain. Liminal Sciences is developing a non-invasive brain monitor for intracranial pressure and flow, and will speak to that in a little more detail.

And finally, guided intervention. Because we really reinvented MRI, and we are using a low-field MRI platform, we are able to introduce interventional technologies and techniques, and even robotics, into an MRI environment that has never been available to be accomplished before, and that allows us to do guided intervention. We are on a path and a mission now to develop guided intervention solutions using MRI guidance and ultimately robotics to aid in that guidance.

All of these platforms are built upon a foundation of artificial intelligence and machine learning that allow us to drive image quality and outcomes for patients.

History

A little bit of the history of MRI. MRI has been around since the 1980s. And it really entered into a world of an arm's race with very large magnets between GE, Philips, and Siemens developing these very advanced systems, high-field systems that require a concrete room shielding, and that was all through the 1990s, and really up until today.

About eight years ago, Hyperfine started developing a portable MRI with the vision of an MRI platform that could roll on wheels, roll through a doorway and plug into a standard 15-amp wall outlet. And the team has accomplished that vision and that mission, and it was FDA cleared last year, and this is our first year of commercialization.

Hyperfine has created the next-generation of MRI

Here are some key points of the Hyperfine MRI portable platform. We have extensive patent protection for all of our systems that enable the ability to produce high-quality diagnostic capable images, including noise cancellation, among many others. It is reimbursed under traditional MRI imaging code, so it is reimbursed the same way a traditional MRI is reimbursed. And we are targeting these key applications that you see on the right-hand side, which are positions we will speak to in a bit – stroke, hydrocephalus, post-op imaging, and acute mental status change.

Estimated $70-plus billion opportunity across the ecosystem

The market opportunity for this is huge. On the left side, we have the imaging market, which is a $23 billion market in the call points of hospitals, outpatient centers, and many other possible installations, where we see over 100,000 installation targets in this segment.

In the sensing segment, there are over 4 million potential unit sales, and this is similar to a non-invasive monitor, such as for your heart for EKG or a pulse oximeter. This sensing system would be applicable in numerous locations even beyond the hospital, ambulances or outpatient centers, or even in the home.

In the guided intervention market there is over 50 million potential guided intervention procedures in a $28 billion market.

And Alok is our CFO, he is on the call, so he is going to speak a little bit more in detail about the market opportunity. Alok.

Market Opportunity

Alok Gupta

Chief Financial Officer, Hyperfine

Market Opportunity in Detail

Thank you, Dave. In terms of the way we think about the TAM today, is what is the total addressable market for the five-year cycle. For example, in the case of imaging, we are looking at both the US and international markets. In the US, the total hospital count is around 6,000. There are 11,000 urgent care centers. Then the rest of the medical facilities which include universities, military installations, sports teams, all of that make up to around 75,000 medical facilities.

If you combine all of those for the US market, the way we think about it – for ICU, for ED, for ER, and pediatrics requirements – hospitals could take up to three units. Everybody else, when we calculate the addressable market, we are expecting only one unit uptake. Thus, a total of three units for the hospital, one unit for the rest of the medical facilities.

And similarly, for the rest of the world, what we did, was we took the 15 biggest countries – from the UK, from China, from India, Saudi Arabia – as our rest of the world market, and got the count for the number of hospitals. Again, for the rest of the world, those 15 countries, the hospitals and other medical facilities comes to be around 145,000 different medical facilities with an addressable market using a potential target of one unit.

If you combine all of that, it gives you a total unit volume at a subscription rate on a five-year total period, which if you analyze comes out to be $23 billion for the imaging part of it.

Similarly, as Dave was talking about for sensing, it is not just for the commercial market where the hospitals are taking our sensing equipment and using consumables on a regular basis, but also, for the home-use case, which adds up to be around 4 million units for potential sale.

And lastly, for guided intervention using hospitals and ambulatory surgical centers as a baseline only in the US, with the assumption that all of those facilities – 6,000 hospitals and ambulatory surgical centers around 10,000 – can have an addressable market for us at a single unit.

The rest of the world is challenging for guided intervention. We assume that only 25% of the rest of the world has the technical capabilities to be able to use a guided intervention unit for us.

Hyperfine Benefits

Dave Scott

President and Chief Executive Officer, Hyperfine

Expected Stakeholder Benefits

Great. Thanks, Alok. Thank you. Let us unpack the value proposition a little bit. As we look across the various stakeholders, this is a really unique opportunity. Many medical devices and new technologies do not address all stakeholders in the way our portable MRI platform does, so let us look at each of these in more detail.

Our expected benefits for each of these different categories are shown below.

For the patient, we are expecting it to be safer than transport, greater comfort and convenience, and faster diagnosis for improved quality of care. For the physician, it is also an expedited time to diagnosis and treatment, and we expect to be able to discharge patients sooner. For the staff, it is better incorporation into their workflow by reducing transport time and risk, and has better ergonomics with our use interface compared to a traditional MRI. And for the care center there are reducing complication rates, improving utilization of resources, and we have seen increased revenue from incremental high-field MRI scans and earlier patient discharge, which I will speak to in a following slide.

Let us understand traditional MRI today.

Numerous challenges with traditional MRI today

Traditional MRIs are very costly, typically $2 million for an MRI machine, requires complex site upgrades, a concrete room shielding, facility changes and modifications, and there are scheduling delays typically associated with traditional MRI. Transporting complex patients to an MRI suite is unsafe for the patient. As you can see, there is data that suggests 22% to almost 50% of cases result in adverse events during transport. It consumes lots of valuable resources as the staff is required to transport these patients. And many of these patients end up not getting scanned at all, because they are simply too unstable to transport to the MRI suite.

Now, it is important to point out here, that we are not trying to replace traditional MRI. However, rather, our platform is filling an unmet need today, and I actually augmenting or supplementing the existing MRI suite in hospitals. And we are finding that because of our platform, we are actually increasing utilization. At some sites, we are finding a 20% increase in utilization.

Workflow Benefits

Here is the breakdown of the workflow. At one site they documented their workflow from end-to-end, from the time they ordered the MRI, to the time they got the actual post-op MRI exam was 26 hours. And using portable MRI with Hyperfine was 90 minutes. This is resulted in an actual increase in throughput in their traditional MRI suite because they were freeing up time slots in the MRI suite that were traditionally being used by these complex patients. And so by increasing their throughput, it actually increased their revenue, and I will speak to that in an upcoming slide.

Hyperfine addresses challenges of traditional MRI by bringing MRI to the patient

There are a few different key call points or key locations where Hyperfine is creating its value propositions. It is in the emergency department where you have unstable patients that need an emergent diagnosis, in intensive care units, in operating rooms, and then, ultimately, in locations where an MRI system is simply not available, where with our platform is simply rolls in, rolls through a doorway and plugs into a wall, we can finally address the global health population and bring MRI imaging to the billions of people that currently do not have access to it today.

Hyperfine business model allows for potential widespread adoption

On our financials, we have also adopted a unique financial model. We structured it as a subscription model in the US, and so, this translates to about $94,000 a year contract value, so over three years, that is $286,000, and this creates a robust recurring revenue stream and it is a software-as-a-service model that drives significant gross margin. This is an all-inclusive pricing, so it includes all the customer service, the installation, the training, as well as software updates, and access to cloud storage and a PAX connection.

Estimated Hyperfine economic benefits

Breaking down the economics for a hospital, this is an analysis that was done by a large academic medical center, and in this analysis they assumed they had one scanner in the emergency department and one scanner in the ICU.

The first set of savings there, are associated with the emergency department throughput improvements, the reduced length of stay costs in the ICU, and the reduced transport risks and costs, totaling $560,000 of savings. And the net annual cost after subtracting out the cost of the Hyperfine, then is $370,000. If you add in the incremental revenue that I mentioned earlier of $195,000, the total net annual savings in revenue is $568,000. In this case, for two Hyperfine systems the site is able to save or generate $568,000 in additional revenue.

R&D Pipeline

Quickly, on our R&D pipeline, our current system, our v1 platform is in the market today. We just launched it this year, and we are driving commercial adoption. We are already at work on our v2 platform, where we plan to expand our use cases and which will expand the addressable market.

Our current platform is targeting stroke and hydrocephalis, acute mental status change. However, our next platform will be able to expand into C-spine, extremities, as well as intra- and post-op imaging beyond what we are able to do with the v1 platform today.

Now, I am going to speak a little bit about Liminal Sciences, as I mentioned earlier.

Liminal will democratize brain sensing

Liminal Sciences is a 4Catalyzer company that is developing a non-invasive sensor for measuring intracranial pressure and flow. Much like a heart rate monitor that is easy, accurate, universal and non-invasive like an EKG lead or a pulse oximeter, Liminal is developing a non-invasive brain sensor. However, today this type of brain monitor does not exist. If you have an accident and you need to measure key vital signs in your brain the only way to do it today is to drill a hole in the skull and insert a pressure monitor. Liminal Sciences is solving and addressing this problem.

The platform is much like an EKG lead. There is a system that collects the data. There are a couple of leads that attach to the head. And using an ultrasound technology, we are able to measure intracranial pressure and flow non-invasively. Those measurements are displayed on a screen – there is a waveform provided for both of those, as well as a number that is correlated to the intracranial pressure and flow for the patient.

Brain-sensing clinical opportunities

There are numerous clinical applications and clinical opportunities for this, and there is much overlap with the Hyperfine portable MRI, so the same call points for portable MRI intersect here with brain sensing, so the intensive care unit, the operating room, the emergency department, and, of course, at more satellite locations, outpatient, and home, ambulance settings, etc. Thus, there is a huge market opportunity, as Alok mentioned earlier, for non-invasive brain sensing.

Hyperfine's goal is to build an ecosystem across the care continuum

And finally, on intervention. As I mentioned, we are building out the sensing platform, the imaging platform, and ultimately, this will lead us into guided intervention. We are hard at work partnering with our physician partners to explore the clinical use cases where MRI guidance can provide value for interventional procedures. And so, we are building out a set of procedures, tool and capabilities in addition to robotics capabilities to provide interventional guidance. And that fills out our ecosystem of technologies and solutions across the care continuum, so that we can touch the patient very, very early in the treatment paradigm through sensing. They come into the hospital and they have an MRI image and then, ultimately, go into a surgical procedure for intervention, and then back into sensing for post-operative follow-up and care.

Now, I am going to pass it over to Khan Siddiqui, to discuss the Hyperfine value propositions in more detail. Khan.

Value Propositions

Khan Siddiqui

Chief Medical Officer and Chief Strategy Officer, Hyperfine

Clinical Value Propositions

Thank you, Dave. It is great to be on the call. I am the Chief Medical Officer and Chief Strategy Officer at Hyperfine. I am a diagnostic radiologist, so let us walk through some of the clinical value propositions.

As Dave mentioned, we got our clearance last year, and this is the first commercialization year. Our clearance was for all ages, for all brain imaging, all the use cases you see here on the screen – in the intensive care units, in the ER, rehab clinics, outpatient and pediatric uses. However, we focused ourselves to clinical value propositions that I will walk you through.

Image quality progression over time

Before we get to it, I just wanted to walk through how we are able to generate diagnostic quality imaging. There has been a tremendous amount of innovation in microelectronics, in advanced image processing, as well as deep learning and AI-based image reconstruction that has helped us take imaging to a diagnostic level. So much so, that it is now approaching 1.5T quality. The image on the left is from [inaudible 00.20.09] Tesla using deep learning reconstruction under FDA review right now. And the latest image on the right, is the latest 1.5T imaging on a T2 rated scan. And as you can tell, it is approaching the same image quality, and it has been tremendous watching the team work there.

The next slide, I want to let our Senior Medical Director, Eddie Knopp, who is neuroradiologist, talk about one of the use cases, and then we will walk through some more.

Case Review

Edmond Knopp

Senior Medical Director, Hyperfine

Swoop

Portable MR Imaging system

Hi, I am Eddie Knopp. I am the Senior Medical Director at Hyperfine. I am a clinical neuroradiologist, going on about 30 years or so. I spent the first 20-plus years of my career in academics at New York University, followed by private practice, before joining the Hyperfine team.

First case I would like to show you is a patient that presented to a large academic institution here in the Northeast, presented with severe headache and basically comatose. The patient was imaged with CT in the emergency room which demonstrated the presence of an intraparenchymal hemorrhage with intraventricular extension, mass effect and ventricular enlargement. The patient was somewhat pre-moribund and what transferred to the ICU where a Swoop scan was obtained and the MRI demonstrated the presence, as you can imagine, of blood fluid levels in a large ventricular system. In addition, there was an intraparenchymal hemorrhage within the thalamus. As we go higher up within the ventricular system, the presence of ventricular blood. We see that on the T2, you can get a sense of the ventricular blood. On the T1-weighted image realized that on T1-weighted imaging blood looks different than it does at high-field on the Swoop scanner.

The patient also underwent diffusion-weighted imaging, an advantage of the Swoop scanner over portable CT, which demonstrated, as I think everyone will readily see, enlarged focal territorial infarct in the right parietal lobe, as evidenced by right signal on the DWI and concomitant decreased signal intensity on the ADC, therefore, changing the diagnosis. The patient now has infarct in addition to intraparenchymal hemorrhage and was treated accordingly.

Value Propositions

Khan Siddiqui

Chief Medical Officer and Chief Strategy Officer, Hyerfine

Value Proposition

Acute mental status change

Our main core point has been in the ICU, as well as the ED, for acute mental status change. Acute mental status changes occur due to many reasons and the patient undergoes many changes in the mental status due to various acute clinical conditions. And the big thing here, is to quickly rule out any life-threatening conditions and a review of treatments accordingly. This work has been identified as a use case in the workflows, has been in partnership with Dr. Fady Charbel at the University of Chicago, as well as Dr. Dan Chow at UC Irvine. And what this has led to, all the efficiencies that Dave talked about – reduction in length of stay in the ICU, increased revenue and higher fee by doing more less-complicated patients in the high-field scanners, as well as maintaining staff levels of care in the ICU. Especially in the COVID scenario, this has been really seen as a valuable use case because of the nursing shortage and overworked nurses in the ICUs. Thus, the workflow has become the first line of diagnostic evaluation in these cases. When they have altered mental status change a Swoop scan is done and appropriate treatment is identified accordingly. If the scan is negative further imaging and further workup is done in those use cases.

Acute change in mental status in critical situations

Here is an example of a case, an elderly gentleman, who was following cardiac surgery in the ICU, but did not wake up. And the Swoop scan was done, which showed a right parietal intraparenchymal hemorrhage and immediate neurosurgical intervention was done and with good outcomes.

The case on the left is a very interesting case. The patient was admitted to the neuro ICU with a large left-sided infarct. However, the patient was very unstable and the clinical symptoms were progressing, and so, was trying to figure out what is going on or if there is any salvagable brain that can be saved with a thrombectomy. And as you can see in the bottom image, there was viable brain seen on the diffusion-weighted imaging and the treatment was accordingly done.

The other use case, Dr. Nimjee is going to talk in more detail about this, so I am not going to spend too much time on it, but it is the use of our Swoop in the ED as well as ICU for cerebral infraction or stroke. And again, a lot of the benefits we have talked about, and I will let Dr. Nimjee talk about it.

I do have one case to show you.

Case Review

Acute presentation with vague symptoms

Here is a 49-year-old patient who presented to the ER complaining of dizziness. A scan was done and showed an abnormal mass lesion in the right cerebellum, which diffusion-weighted imaging showed high intensity diffusion and hypodensity in ADC maps, confirming a diagnosis of acute stroke and the patient was immediately admitted for appropriate treatment.

Value proposition – pediatric hydrocephalus

One of the very interesting use cases has been in pediatric hydrocephalus. This is a lifelong disease for the kids, who get obstruction of the cerebral spinal fluid clearance or increased accumulation of the CSF for other reasons, and today's standard of care is to do a CT. And some of these kids get 20-60 CT scans during their lifetime, I have seen as high as 90 scans, and there is now associated risk of glioblastoma in these patients because of CT-induced radiation for evaluation of hydrocephalus. This work has been happening with Dr. Jeff Leonard at Nationwide, Dr. Mark Mittler at Cohen's Children's, and Dr. David Limbrick at St. Louis Children's, where we identified the workflow around this.

If you think about just the hydrocephalus itself, there are about 1 million patients in the United States, and a prevalence of about 6 million worldwide. As I mentioned earlier, probably get around 0.65 per patient scans per year for these patients, so these patients get a lot of lifetime radiation.

Child with prior ventricular shunt

Here is a case of a five-year-old who presented at the neurosurgery clinic with headaches. This is very common in a typical children's hospital or children's ER. We would see around 4-5 patients every night that show up for checks and require imaging to be done, so a scan was performed. One of the advantages of our scanner being low-field is that we do not get the artifact from the ventricular valve that implanted right outside the skull under the skin – and you can clearly see the location of that. And then you can trace the catheter and make sure the tip is in the right position in these patients and the appropriate treatment is done. For example, in this case, also.

Bill and Melinda Gates Foundation Expands Partnership

I want to quickly mention some of the work we are doing with the Bill and Melinda Gates Foundation. In March 2020, we received a $1.61 million grant for 20 Hyperfine scanners. And the Gates Foundation's interest is to use our device as a screening modality for global health focused on two clinical conditions. One, is brain development due to malnutrition – so, children of malnutrition can also have stunted brain growth, and to identify kids who are getting low brain development or stunted brain development, and do appropriate nutritional as well as cognitive therapy to improve that. And the other one, is screening for infant hypoxic ischemic injury, that is the ischemic injury that occurs during childbirth. And this, as you can tell, as these use cases are validated, it has an extremely large potential in the global health market.

Because of the amazing work we have done and the validation that initially happened, they recently extended the grant to $3.3 million with five additional sites and a lot more expansion into six additional countries outside the United States.

BMGF site list

In the locations that we are in right now, there are about ten sites in high-income countries, another 12 sites in low-income countries, where scanners are getting deployed. All the green-labeled areas are where scanners are already deployed; the blue ones are where scanners are on their way; and the gray ones, are the ones where we are working on with sites to identify time-to-deployment.

I want to introduce our next guest now, and then have them talk about some of the things. Our first speaker was supposed to be Dr. Fady Charbel. Unfortunately, he got called in clinical duties urgently and he is unable to join us today. Dr. Murat Gunel will cover the ICU use case as well as the operating room use case. Dr. Gunel is a Professor of Neurosurgery and Genetics and Neuroscience at Yale. He is also Chief of Neurosurgery at Yale New Haven Health System and co-Director for the Yale Program on Neurogenetics. And the other speaker is going to be Dr. Shahid Nimjee, who is Associate Professor of Neurological Surgery and Co-Director of Stroke Program at OSU. And Dr. Gunel has three scanners at Yale, and Dr. Nimjee has two scanners.

And I will now pass the speaking to Dr. Gunel to take it from here.

Guest Speaker

Murat Gunel

Nixdorff-German Professor of Neurosurgery and Professor of Genetics and of Neuroscience, Yale New Haven System

Use in the ICU

Thank you, Khan. Let me just start by saying that I am excited to be with this technology, and I have been an adviser to Hyperfine and Liminal for over three years. And we have been using the Hyperfine technology at Yale, and probably have some of the most experience in the country, and I have to start by saying that it has been transformative.

The use of this portable MR, especially with the now improved imaging quality, has really changed our paradigms. And any neuroscience physician, that will be either a neurologist or neurosurgeon, ED doctors, and now, as I will speak in a minute, in the operating room – it really has changed the way we think about patient care and how we react to to changes in patients, especially in the ones that are typically the sick patients that we deal with in the intensive care unit.

This is Dr. Kevin Sheth, he is Vice-Chair for Clinical and Translationsl Research both in the Department of Neurology and Neurosurgery at Yale, and he has really been a leading force in using the Hypefine scanner in the ICU. And the data here, is specifically looking at the bleeding in the brain and how Hyperfine has been powerful in not only correctly diagnosing these, but also in following up these patients in the ICU, diagnosing, for example, in expansion in the hematoma such that we can interfere and take patients to surgery and take out the blood clots prior to them causing significant harm to the patient, and how this scan correlated with the high-field MRI scans that were obtained later on.

I want to emphasize a couple of things. First, as Dave mentioned, this is done all with virgin lung scans. And as we look at the divergent too, and the transformation of the images, this data will only get better. The second point I want to make is that even though we said that there is 90% sensitivity, we are looking at the data, and I can confirm, that for any clinically relevant bleed Hyperfine picked up. The 9.7% that were not picked up, are the small ones that we would not do anything clinically.

The third thing, is that I think one of the best advocates for patients are nurses and APPs in the ICUs. And anytime, for example, what Khan mentioned, which is a change in the mental status or change in neurological exam of the patient, we do have to obtain some kind of imaging study to make sure that nothing catastrophic has happened. That requires, as Dave was mentioning, significant labor force ranging from, of course, the nurses taking care of the patient's transport. If the patient is intubated, the pulmonary support. And all those teams, which is, in one way, okay. But, more importantly, anytime, especially with the sick patients that you transfer, especially for high-field MRI, you are moving the patient from a very controlled and very safe environment in the intensive care unit to the 'black box' of the MRI unit, which is typically in the basement of the hospital. And that leads to significant risk to the patient, especially, as I mentioned, the critically ill ones.

The use of this Hyperfine in the ICU has prevented that. Because really when a change in the neurological exam of a patient happens in the ICU, for example, in these sick ones with the brain bleed, what we want to know is that, is there anything that is immediately life-threatening to the patient; is it a drug side effect; it is simply the patient is sleeping or has been sleep-deprived for so long – what is going on? And there is no better way to know that, at this point, using Hyperfine. However, also, in the very near-future, combining Hyperfine with the Liminal non-invasive brain monitoring that Dave was mentioning.

Importantly, especially with trauma or intraparenchymal or intracerebral hemorrhage, any of these bleed patients or [inaudible 00.34.39] bleed, most of the things that we take care of in the neurosurgical intensive care unit are potentially associated with increased pressure inside the head, and the only way to measure that now, is through very invasive ways. I will not get too graphical about it, but let us say, putting a catheter or an ICP monitor into the brain to look at the pressure. And that is not only invasive but also are associated with significant problems and complications that might lead to new bleeds.

With the use of Liminal, we are hoping that we will be able to combine this portable imaging technology that is highly reliable to that non-invasive way to monitor the pressure inside the head. Because one of the major treatments, for example, for patient with brain bleeds, is to keep the patient calm. However, when you do that, of course, you lose the neurological exam and the only reliable thing becomes the pressure inside the head, which again is only obtained through invasive measures.

However, having the package, of course, of the portable MRI with the Liminal, and in the future, with the robotics that Dave mentioned with the safety, it is the complete package to take care of these patients in the ICU.

Going to the next slide.

This is a figure from the paper. It is complicated, but all you need to see, you can see the portable MRI. These are different sequences that we use to identify different characteristics of the pathologies inside the brain. However, you can see, for example, for the first image on the far left side, you can see the sequences of FLAIR, and the next one is the T2-weighted images. And you can see this is a conventional scan on the right. When you compare really the portable MRI images that you see in the first two columns to the conventional one on the right, there is really no difference, and, of course, this is a large bleed. And Hyperfine is exceptionally good in identifying these large images.

And on the middle, you can see on the bottom, actually, a CAT scan as well. And looking at these images, you will have a very hard time differentiating the Hyperfine images with the conventional high-field Tesla MRI or the CAT scan. They are incredibly useful, especially, as I mentioned, for clinically relevant bleeds.

Thus, Hyperfine, in a very short time, has been able to achieve image quality, that if you had a blinded person probably would not be able to differentiate this, especially for this FLAIR T2-weigthed images.

Value Proposition

Post surgical imaging

You can see an image on the bottom-right for one of the first scans that we have done at Yale in-surgery. Now, Yale has invested a significant several million dollars a 3T MRI which has some uses. However, the main thing that is important to point out, that any kind of neurosurgery, cranial surgery, no matter how good the surgery is, there are two issues. Number one, there might be issues that you have not recognized, that having a scan in a few minutes, literally, in the OR prior to the patient waking up, to rule out any kind of unexpected complications is of enormous benefit – which we can do this now with Hyperfine.

Number two, if the patient wakes up fine and everything is good, they still get a routine scan that evening. And this is a craniomoty, meaning, opening up the skull and it is a major surgery that is done in the evening. And again, similar to an ICU scenario, this one not emergently but urgently, or electively, the patient goes for a CAT scan or an MRI scan immediately post-op the same day within 24 hours. We do not need to do that any more when you have Hyperfine in the OR.

The third thing is that after some more basic surgeries, for example, a biopsy, for example, removal of a hematoma, for example, placement of a ventricular catheter, then you can immediately check the placement, as Khan showed on that pediatric case of hydrocephalus, that we can check the placement immediately and confirm prior to the patient leaving the OR that the placement is perfect.

The implications and the cost savings, both on the labor side, but also for patient comfort, and not risking the patient to go for imaging after surgery what Hyperfine offers is unparalleled.

Prior to Hyperfine, the portable imaging technologies we have are nowhere close to this. For example, after a shunt placement, like the one Khan showed, we obtain what is called shunt series in surgery, which is a simple X-ray that you have to then predict where the catheter is. It is nothing matching to Hyperfine.

Thus, the value proposition of the use of Hyperfine at this point – I will talk about the future in a minute – even at this point, are multiple and are related to the checking the success of surgery, ruling out anything that is unexpected that might affect the patient's outcome, even the same day, or prevention of the routine imaging that is typically obtained within 24 hours – you do not have to do any of those. And the cost savings to the hospital, the hospital system, but again, more importantly, to patient outcomes, as patient satisfaction, is huge.

Current and future uses

Then we look at again the current uses are the ones that are probably difficult to read, are the ones that I mentioned here. However, talking about the future for one minute, is that we see this also as a guidance system in surgery, meaning, that we can actually obtain near real-time imaging as we do surgery in the brain, not only to assess the effectiveness of our surgery, but also, to decide whether further intervention is needed or not. That will extend not only to pre-operative imaging of the patient as they come to the OR, as I mentioned intra-operative imaging, but also the post-op imaging. Especially, combined with Liminal, where we can also monitor the brain activity will be very valuable.

First OR case at Yale

This is one of the first cases we have done. What you are seeing on the high-field MRI on the top, is a case of meningioma, which after giving a contrast you can see that it is lighting up. And at the bottom, is the first Hyperfine imaging showing the complete removal of the tumor. And again, a post-op imaging that soon enough we will not need anymore, confirming the results of the Hyperfine.

I will stop there, and just emphasize it has been really transformative both in the intensive care unit and surgery, and it is very exciting to know that this is just the beginning. I will be happy to answer any questions at the end. Khan, back to you.

Guest Speaker

Shahid Nimjee

Associate Professor, Neurological Surgery and Co-Director Stroke Program, Ohio State University, Wexner Medical Center

Stroke Diagnosis

Hyperfine provides compelling platform for stroke diagnosis

Thank you very much, Dr. Gunel. That was terrific on the hemorrhagic side of stroke and looking at the value proposition for intra-operative and post-operative MRI. I would like to talk about the opportunity to use Hyperfine in acute ischemic stroke. And in my mind, as a neurosurgeon, one of the things I take care of most often now, is acute ischemic stroke. And the reason why that is, is in the initial treatment of stroke TPA was defined as a pharmacological treatment that improved patient outcomes in stroke, this was published in 1995. And it showed that there was a 30% improvement in outcome in patients who received a thrombolytic drug or a clot-busting drug called TPA when they presented with an acute ischemic stroke. These studies were done in the late 1980s and into the early 1990s, but used CT as the imaging modality to identify patients who could benefit from ischemic stroke treatment, in which case it was drug therapy, and that was the standard of care with a largely now antiquated imaging modality to look at how we can improve outcomes in stroke.

Fast-forward 20 years later, we have demonstrated now that if someone like me goes up into somebody's brain, who has a large vessel occlusion stroke, that we can improve their outcomes. There are five clinical trials that demonstrated it. And then, with respect to timing, we can go up to now 24 hours, thanks to two more clinical trials, that showed that if we used advanced imaging called CT perfusion, we can improve outcomes.

Now, CT perfusion is an imaging modality that was invented because we could not easily look at brain tissue. The only way you can truly look at brain tissue with with MRI. The issue with using MRI prior to the Hyperfine hypothesis was that you had to use a 1.5T or a 3T MRI which was very difficult to do, largely because of the screening process, the difficulty with actually finding a scanner in a hospital setting that could be reliably used for time-critical disease.

And that is where in my mind Hyperfine is an absolute game-changer. You can see the statistics on your screen right now – 15 million strokes worldwide. You look that it is the second leading cause of death globally. Interestingly, it is the number one cause of combined death and disability in the world today.

You see 15 million people worldwide. Let us just look at the hypothesis in the United States alone. We have 800,000 strokes in the United States alone. Of those, as you can see on your screen, 87% of those are ischemic. Of the patients who present with ischemic stroke only 6-8% of those patients receive TPA. Why? Because the big concern to giving TPA to more people is the risk of hemorrhage. And the risk of hemorrhage is there because we do not know whose brain tissue has already been affected by the stroke such that if we give the drug TPA, that we will then cause an ischemic stroke to become a hemorrhagic stroke.

Why is that important when you are only looking at the bleed? Well, the reason is even though you see about 6-8% currently who bleed after they get TPA, those that do bleed, 40% will die from that bleed. And when you look at 800,000 people who are presenting with stroke and 87% of those are ischemic, that is not a trivial number of patients. In fact, it is that concern for bleeding that has engendered tribalism within the medical community itself to not even using TPA in some centers.

And so, when you look at the opportunity to look at imaging of the tissue of the brain in time-critical disease you can now allay the concern with bleeding and you can then not only provide those patients thrombolytic therapy in a safer environment but you can also expand the number of patients that you can treat with a thrombolytic drug. And, in fact, you can redefine the workflow of acute ischemic stroke compared to how it is currently done.'

Diagnosing and treating stroke onset greater than six hours with Hyperfine Swoop

This is how we look at the current workflow and combining Hyperfine MRI in time-critical disease. If you come into a hospital center the patient has some kind of neurological deficit. It is usually paralysis on one side of the body. It is speech difficulty. There is BEFAST, which is the acronym that we all use in acute ischemic stroke. The immediate thing that happens after a clinical evaluation the patient goes for a CT scan. If the patient has blood in their head then they go under a treatment algorithm that is no longer on this page. If the patient does not have blood, this is where we can integrate the Hyperfine system to look at the difference between what has been irreversibly affected by the stroke and what tissue has been threatened by the stroke but can still be salvaged, and that is in the case of not only patients who present with large vessel occlusion stroke where I can take them to the angio-suite or the operating room and take the clot out, but also those patients who could benefit from thrombolytic therapy outside of the 4.5 hours that it is currently approved for, thanks to a clinical trial that was done in Europe that actually demonstrated that if you had the ability to evaluate the tissue using MRI in a time-critical setting, it is both safe and effective to treat that population that presents after the 4.5-hour time frame.

And let us just granularize this idea with a case.

Case Review

62-year-old male – stroke diagnosis confirmed

This is a 62-year-old patient who woke up with weakness on the right side of their body. The patient was brought to the ER by ambulance. And unfortunately, we did not know when the symptoms had started because the patient woke up with a stroke. This is what we call a 'wake-up stroke' and this is where the clinical trial that used MRI in this exact scenario demonstrated efficacy with thrombolysis. Thus, the patient was not a candidate for traditional thrombolytics under the current workflow of 4.5 hours. The patient underwent a Hyperfine MRI in the emergency room and it showed a large diffusion-weighted abnormality as well as a large vessel occlusion stroke. There was also a difference between the diffusion and the FLAIR. Given the imaging that was seen on the Hyperfine system, the patient was able to go for a thrombolectomy and the clot was removed and then the patient was subsequently discharged to rehab.

This is just a case example of how we can use Hyperfine to provide additional treatment opportunities to patients. And in my opinion, we scale that up to the hundreds of thousands of patients that present with stroke and the possibility of patients that currently receive acute treatment not only will we save lives, which is certainly the goal of any treatment in acute ischemic stroke – in any disease process – but acute ischemic stroke, we can improve lives and get patients walking and talking so they no longer remain disabled after their stroke, which in that disease process is absolutely essential.

Q&A

Khan Siddiqui: This question for Dr. Gunel, it is a two-part question. One is how many surgical patients you think would need an MRI scan? And the other question as a part of that, is how critical is it for hospitals to have affordable MRI scanners? Maybe, Dr. Gunel, take the first one, and both of you can comment on the criticality of affordable MRI for hospitals.

Murat Gunel: Sure. Yeah, how many surgical patients need an MRI scan. When you look at the reality, every craniotomy patient, meaning that every patient that has a brain surgery, gets a scan. That could be a CAT scan the same day of surgery, that could be an MRI scan next day, but everybody gets one. We are now basically doing Hyperfine scans every day at Yale, and we are doing this to prevent the routine scanning of patients. When you are thinking about different case scenarios, unfortunately, after brain surgery technically everything could go fine. However, you finish the surgery, everything is closed, the dressing is on, and the patient is not waking up.

Most of the time, luckily, that is due to the fact that we all have different metabolisms and the patient might be metabolizing the anesthesia differently, so they are just taking their time to wake up. However, you simply do not know.

Having a Hyperfine there, immediately doing the scan will tell you that there is not an expected complication or finding due to surgery and this is simply because of anesthesia. That is huge, that is number one. That is a rare scenario but that is incredibly useful.

The second one, as I mentioned, is everybody gets a scan because these unexpected problems either with the bleed or the cerebro spinal fluid circulation or accumulation, or a problem with one of the blood vessels is fairly common. To rule those unexpected findings out, again, all craniotomy get some kind of imaging. We are looking to prevent those after the surgery, you know, travel from the ICU with the nursing, with the transport, with the patient inconvenienced, with the risk to the patient such that we are doing the Hyperfine scans in the OR.

We are now, of course, correlating those with the scans obtained on the same day. However, soon enough, we will start not doing the later CAT scans or the MRI scans because we will have a Hyperfine scan in the OR. And with the new software the scans are really fast. Bringing the scanner into the OR and scanning the patient the time is literally only a few minutes. Obtaining the scans are going to be much faster. After that, I would imagine that it is going to be routinely adopted for all surgeries.

To answer your question, I think it can be used for every craniotomy patient.

And the second part of the question I will start answering is that we again, have 3T interpretive MRI at Yale. However, we are using Hyperfine sometimes more commonly now compared to the other scan because that adds probably, if you are optimistic, 30 minutes, if not an hour, to surgery. It is not safe. You have to put all the metallic equipment away. You have to take all the monitoring away from the patient. Whereas, with Hyperfine you don't have any of those.

The uses are complementary, as Dave was mentioning. However, I see Hyperfine more and more replacing and being extremely economical. Not every hospital – very few hospitals are going to spend $10 million to get a 3T MRI, but the Hyperfine is very economical and gets a lot of the answers that we can get from a high-field MRI in the OR. I will stop there.

Shahid Nimjee: To add to Dr. Gunel's comments, it is interesting to hear Dr. Gunel talk about they do have an intra-operative MRI. And OSU is in the process of building a $2 billion new hospital, I mean, just with everything. And one of the things we were looking at, is putting in an intra-operative MRI into our neurosurgical OR suites as well. And in addition to the cost, as Dr. Gunel mentioned, there is also a really large footprint, like a physical footprint, to have this huge MRI machine that essentially takes up OR space. Thus, not only is the real cost of the machine there, but there is also the additional cost of spending OR real estate to house an imaging system that has a large footprint as opposed to something that has not only a smaller footprint but has the ability to go from room to room, so you do not have to have a designated MR OR. Essentially, every OR becomes an MR OR once you have a portable system.

And then when you speak about how critical for hospitals it is, I think what institutions like Yales have done has set the hypothesis and tested it already – and early adopters like us – have demonstrated that if you use this you can change the paradigm. And once you show a paradigm shift the idea of how critical it is becomes it is no longer a financial or modeling question, it is a clinical question. Because I can tell you, Dr. Gunel and myself want data real-time, because we are always concerned about do we have to go back to the operating room, or is the patient safe. And often, when you do not have an exam, for the variety of reasons that Dr. Gunel mentioned, it is imaging that provides you with the peace of mind that it is not structural problem occuring in the brain and most often it is the concern for post-operative bleed and then you can go on from there.

And if you extend that to the ICU, look, the number one issue with EVD placement is malplacement. And, in fact, even with appropriate placement there is a certain percentage of our patients that they bleed into the ventricles themselves. And so, often, we are manipulating EVDs. And every time you manipulate an EVD, then you have to go back and obtain some kind of imaging. We are fortunate at OSU, we actually have a CT scanner in our neurocritical care unit. However, even that requires transportation and a lot of these patients are sick. They are attached to a bunch of things, so it is still an ordeal to even transport the half a block over – it is a couple of hundred feet. However, it is a lot better if you can bring the imaging of the patient, both in terms of the safety for the patient to keep all their lines in, and also to allow them to get fast imaging in a time-critical fashion that is available to the physician.

For those of you on the call, you have to understand that when the imaging comes it comes to the iPad of the person using it, and, in fact, I can see it on my iPhone, right. I am getting real-time data without waiting for it to go anywhere, and I can make a clinical decision. And that is really what this is all about here, especially for me, as someone who cares about clinical disease, I want information now, so I can make a decision quickly.

And that is really the response when we think about critical. For me, critical is saving patients and preventing complications.

Murat Gunel: And I think that is also an important point. Khan said you actually plug the machine, you bring to the patient's room, either me or one of the residents just run the machine on the iPad. Even though we have technicians, you do not even need them. Thus, 24 hours before the resident calls the attending they can actually do a Hyperfine and say, hey, there is a mental status change. I did a Hyperfine scan. There is nothing in the brain, it looks fine. And then I will be like, so why are you waking me up, kind of thing. It really is a paradigm-changer and really changes how we take care of patients.

Khan Siddiqui: Awesome, that was great. There is a follow-up question from Vijay Kumar at Evercore. His question is, how is having a portable, accessible MRI making it safe for patients – in a stroke scenario, I think it means – and does it allow physicians to monitor bleeding status or determine when to stop TPA?

Shahid Nimjee: Yeah, so that is a great question. I will tell you, so I can give you real-time information. Vijay, to answer the first part of your question, if somebody's stroke has already completed, meaning, that the stroke has already happened and the brain has already been irreversibly affected, you do not want to give patients TPA. And the reason why that is, is because that brain tissue is already dead, and all you do by giving patients TPA in that scenario is cause them to bleed. Thus, that is when you do not want to give TPA.

Currently, we have CT and we, kind of, can squint our eyes, and we can kind of guesstimate how much stroke has already happened on a CT. However, you do not really see stroke on a CT properly until about 12-24 hours after that stroke. If you are looking at anywhere between 4.5-12 hours, that is an opportunity where you can treat an additional large group of patients.

When you ask about how we can monitor with TPA, to your point Vijay, in theory you can. However, I have got to tell you a little secret: TPA as it is given now, is given as a drug called alteplase. Alteplase is a drug that you give 10% as a bolus injection, and then the other 90% is infused over an hour. There is a very closely-related drug to alteplase called tenecteplase and it is structurally different from alteplase with a very small change in one of the amino acid residues. And while it is not FDA approved for use, there have been multiple clinical trials done throughout the world that have demonstrated that it is at least equal to alteplase in the stroke scenario. And a number of hospitals for a variety of reasons are adopting the use of tenecteplase for actue ischemic stroke.

'And the reason why I am telling you this, Vijay, is because tenecteplase is given as a bolus injection. You give it in about 5-10 minutes and that is it, you are done. The reason why that is important is the monitoring issue while you are giving a thrombolytic will soon not be an issue. However, it is even more important then to be able to assess tissue in a real-time format so you can make a good decision. Because at the end of the day, neither alteplase nor tenecteplase are reversible. There are 'reversal strategies' but that is all they are – they do not absolutely reverse the drug, and I am sure Dr. Gunel can tell you stories, and I certainly have a number of stories where I actually go after the bleed in a good faith effort to try and save the patient after they bled, and it is literally like operating in Kool-Aid. Thus, I prefer not to have to do that in the first place. And imaging like this, provides me with that opportunity to do something safely.

Khan Siddiqui: Thank you, Dr. Nimjee. Let us take the next question from Larry Biegelsen at Wells Fargo. Larry's question is around training and workflow. What training has your center and staff undergone to move and operate this machine, is it relatively straightforward? And then, how have you addressed changes in this workflow? Is there any special training required to assess the resulting image given the resolution vs. conventional MR?

Shahid Nimjee: I was just making a joke that even a bullheaded surgeon like me can be trained to use it, right. It is like a couple of buttons and away you go. However, I will let you do it, because Yale is really instrumental in helping develop these protocols.

Murat Gunel: It might actually be interesting to share a video of real-time imaging with Hyperfine – bringing it into the room, plugging it in, and doing it. However, one thing that I would also mention, because I think this is relevant to one of the other questions, is that how the use of Hyperfine is exponentially increasing. When it was first introduced at Yale to the ICU, we were like, 'Would it be helpful here? Would it be helpful there?' Low resolution is really not real anymore in the sense that really, especially with the smoothing of the images at the raw image phase, it really is incredibly useful. It still again would miss some of the small findings which is completely irrelevant to us taking care of patients. Maybe radiology would care about that, but honestly what we are caring about is, is there something that is going to change my clinical management.

The use of the scans are extremely easy. As I mentioned, all of our residents are learning how to use it, and they will be able to image the patient themselves without any help. It is incredibly safe – you do not have to move any of the metal objects in the room – and it can be done in a few minutes. And I would think that the slope of its increased exponential use, is just going to continue in this very high rate, because we are showing more and more case scenarios how it is helpful. And the new publications from multiple centers will start coming out showing the different use scenarios and how helpful it has been.

And similar to Ohio State, we are building a new neuroscience tower here. And as we meet our radiology colleagues, there will be four new floors of intensive care units. And as we consider whether we would put a, say, 1.5T classic high-field MRI next to the ICUs, our Chief of Radiology said no, I do not want that. I just want these portable imaging. And he has nothing to do with Hyperfine but, of course, he has seen the technology. He would want those rooms next to the ICUs, so that we can bring the machine to the patient, not the patient to the machine. Because even if it is a few hundred feet, that is still you are transporting the patient and that is a major, major problem. And the ease of use and bringing the machine to the patient without disturbing them from their safe environment, especially in the ICU or the OR, makes a huge difference.

Shahid Nimjee: Yeah. Just to follow up on Dr. Gunel's point, that we actually have a hybrid OR at Ohio State. All bleeds in the brain, strokes in the brain, all blood vessel problems from the neck up and the spine are managed by three [inaudible 01.07.51] trained neurosurgeons. And so, we have a dedicated hybrid room which allows us to do all our endovascular and open vascular treatment in the room and we put a Hyperfine unit in there. And it just provides us with an enormous opportunity to scan someone after a stroke treatment, after an aneurysm treatment, whether it is endovascular or open-clipping. And again, it comes down to, as Dr. Gunel pointed out, saving doing a big scan in the ICU – maybe the patient is sick from the get-go, so you want to minimize transportation of the patient. It allows us to look at the tissue in a real-time format after we have closed the head or after we have done an endovascular procedure, and really allows us to plan subsequent therapy in an operative setting.

The reason why everyone talks like it is not like it is brain surgery is because you are always worried about hurting somebody as a brain surgeon. And anything you can look at, to provide you with a measure of confidence that everything is good or information where something is not good, but you can do something about it because you are still in the OR, that is really, really important.

Khan Siddiqui: Great. The next question is from Anthony Petrone from Jefferies. I think there is one question I think I can probably answer and then I will jump to the clinical question. One question is, he is asking is can we walk through Swoop's ability for partial image capture, does it allow for quicker diagnostic intervention?

I think what Anthony means is the progressive image rendering that we do is different from other MR scanners. What we do, is as data is coming in, the raw data is getting collected in our 3D acquisition, we start reconstructing the image with only 20% of the data and the image quality keeps improving as more and more data comes in, till the sequence is complete. And that gives the ability to clinicians to immediately identify what we call BBUs – big, bad and ugly findings – and immediately react to it, instead of waiting for the scan to complete.

Maybe I will ask the next question and if you can comment on this also in the same thing. What is the daily average throughput of scan do you think, especially for high-volume ERs, ICUs – is it preferable to have more than one device to handle excess patient volume? Any thoughts on how you think the volume of scans is going to be?

Murat Gunel: Yeah. We do routine daily chest X-rays for all patients in the ICU to rule out anything that is unexpected in the lungs that might interfere with a patient's prognosis. I see on the near-future all the sick patients getting a portable MRI prior to rounds to obtain the imaging to make decisions during the rounds and just becoming very routine.

As I mentioned, we are looking to probably put one or two units for each of the ICUs in the new building that we are going to have, combined with the units in the ED. We have not discussed much, but it is incredibly useful in pediatric EDs, because again, the moms or dads or any loved one can stay with the kids, as well as adult EDs. We had a horrible day in New Haven maybe a year ago. I think fentanyl was mixed with some other substance, that we had 72 patients coming to the ED with drug overdose, but some of them actually ended up, unfortunately, with some brain bleeds. And there is no way you can scan them, for example, quickly to understand. Any patient that comes to the ED with mental status change, doing a high-performance scan quickly will be able to differentiate what Khan called bad and ugly, all of those things.

Khan Siddiqui: BBUs.

Murat Gunel: All what we would call that would be of immediate threat to the patient outcome, we would be able to see with the Hyperfine. The use in the ED, especially pediatric and adult, the use in the OR, the use in the ICU, not considering the future indication, which again is image guidance and with robotics, even at this point are huge. And again, the knowledge is increasing exponentially now. It is a new technology. It is a disruptive technology. We are now in a new curve – we jumped curves, and we are accelerating on that curve. The adoption I believe from the medical community is going to be really fast.

Shahid Nimjee: Yeah. I think Dr. Gunel summarized that perfectly, I have nothing to add.

Khan Siddiqui: That is awesome. Any comment on the progressive rendering learning? How do you think about images showing up even before the scan is complete, how is it useful?

Murat Gunel: You are on your iPhone. You are looking at images as they come. And then, if you are seeing something big, bad and ugly you are calling the OR as the images are coming up, so it is incredibly useful. I mean, you can just to done image, one series –

Shahid Nimjee: I mean –

Murat Gunel: Go ahead.

Shahid Nimjee: No, finish Dr. Gunel, please.

Murat Gunel: No, I was just going to say in two minutes you know that later you have to go to the OR. You do not have to finish any other series. You will know what is going on and make a decision. If you do not see, you progressively obtain more and more series to get more information. However, again, the information that we need, that we have to act acutely, would be there in a few minutes. Sorry about that.

Shahid Nimjee: No, I think it is just interesting to hear that as a question. Because in current format, if we are concerned about something, let us use tissue edema as an example in the ICU where a patient has traumatic brain injury, right. The patient goes for an MRI. You know, Dr. Gunel or myself says I am really concerned about this issue in the tissue and so the patient needs an MRI. Well, on a great day, somehow by God's good grace, the MRI scanner is open and we transport the patient, and they get a prelim X-ray to show that it is safe to scan, because it is a high-field magnet. And then after that 20 minutes, then maybe the patient does not come back, because it is a really good day in the hospital and the patient gets lateral to the MRI scanner, and then they do a 20-minute scan. And then that scan gets – you cannot see it in real-time and it gets uploaded to PAX. And then by the time the patient gets back to the ICU, maybe those images are up in the PAX system where Dr. Gunel and I can finally see it, and about 40 minutes has gone by. That is a really – I just gave you the best scenario for a conventional MRI.

And right now, we talk about image acquisition and seeing it when 20% has been acquired, I mean, that is just seeing it. Even if you said no loading up or until the image is done, and you get your DWI in eight, and then the DWI gets pushed. And then your T2 FLAIR gets done in six, and that is going straight to my iPhone or going to the iPad. We are talking a difference of I see an image in 8 minutes vs. Having to look at an image in 40 minutes. And then you add this idea that you have 20% acquisition before you are uploading, so you can look at it literally in real-time. I mean, I am already stuck at the paradigm shift of getting to see an image in 8 minutes as oppose to 40, right. And now, we are doing things like 20% of image acquisition before transference. I mean, I am just glad to be at the buffet and now you are adding prime rib.

Khan Siddiqui: I think let us switch to more a question for Dave and Alok. Dave, there is a question from Vijay Kumar from Evercore on the market opportunity. You are assuming three portable MRIs per hospital. Do you currently have customers expressing interest in acquiring three systems – OR, ER, ICU settings – what is driving his assumption?

Dave Scott: Hey Vijay, thanks for the question. Absolutely, we are talking to several different centers that are interested in all three of those settings, as we have discussed, or even the fourth setting which is pediatrics. I think you have heard here today from Dr. Gunel and Dr. Nimjee the motivations for that, so that is what is driving those assumptions. And I think those assumptions are conservative because again, as Dr. Gunel just pointed out, every patient is going to be getting these scans if they are going into the OR, or they are going to be getting these scans on a regular basis in the ICU. Thus, I think the assumption of three systems per center is pretty conservative at this point.

Khan Siddiqui: Great. I am going to switch to Larry again and come back to Vijay, there is another question for me. Again, Larry Biegelsen has a question for you guys, Drs. Gunel and Nimjee. How have radiologists reacted to the technology, have they embraced it or have they looked at it skeptically or as a threat? You mentioned potentially saving lives. A stroke patient does have a need to provide data in clinical settings – and if you can answer that, that would be awesome.

Murat Gunel: I want to emphasize one other thing, which is outpatient clinic, and we have not discussed that at all. This is not needed in a hospital setting, unlike the other MRIs. And the two other things I will mention which is related to this is, as you know, when a patient comes in, either inpatient or outpatient, there is the technical billing and there is a professional billing. Professional billing is, of course, the physician's; technical billing is the facility. This allows for both. Thus, the reimbursement and how fast you can recover the cost is fairly rapid. And so far, our experience has been the technical billing has been equivalent to high-field MRI scans.

Radiologists, in general, depending on the indication embrace it. However, again, it is very different than a neurologist, neurosurgeon, or an ICU doctor, or ED doctor taking care the patient. All the respect to the radiologist, they are really not dealing with the patient but they are looking at imaging. I would imagine, and I know this from experience, they always want contrast that with a high-field MRI and do image correlation as they always do, but they also embrace the understanding what it is used for.

Having said that, either with an ultrasound or even an angiogram or anything in the OR, we do not ask radiologists to read them, we read them ourselves. Yale has applied to the Medical Association for the surgeons to also collect professional fees for these imaging studies without the need of radiology. Thus, depending on the use case, we do not even get a consultation from our colleagues in radiology. We interpret the scans ourselves and act on it, and ED doctors are able to do that. I am sure Dr. Nimjee in the angiogram suite is not asking radiology what do you think about that, because he is dual-trained and he is certified to do both. What do you think?

Shahid Nimjee: Yeah, I completely agree with you, Dr. Gunel. And I would add to, I was in clinic last week Friday and I needed an MRI on a patient as a follow-up, and the next available time slot for my patient is 2.5 weeks, right. I do not think of this as necessarily a competition. I do not see this as a threat. I think what this allows us to do, is to provide better patient care by using the technology to answer questions that Dr. Gunel and I would have as neurosurgeons in a real-time setting.

I do not think we will be pulling revenue away from a hospital system. I really look at this as a patient care issue. And I think Dr. Gunel used the right metaphor, a historical one, like an ultrasound. An ultrasound when I was a resident, when I had a full head of hair, was something that we had to call radiology and do everything. And now, an ultrasound is just something that is sitting in the corner and I can quickly check something, whether it is the wrist, the leg, so on and so forth – make a real-time clinical decision and move forward.

And Dr. Gunel also commented on angiography. You are right, I do 500 cases a year, and my practice is 90% vascular and 10% trauma. And so, with all of that, I am making a real-time decision using either digital subtraction angiography or CT scanning currently to make a clinical decision without consulting any other physician, right. I would like to add MR to that suite of diagnostic imaging capability in order to make a real-time decision.

I think it is less about tribes within the hospital and it is more about focusing on a hospital system being able to provide the best medical care for a patient.

Khan Siddiqui: Awesome. Thank you, Dr. Nimjee. There is a follow-up question from Vijay Kumar from Evercore for me. It is about, you spoke about hospital efficiency, nursing staff benefit, savings for hospital by using Hyperfine. Can you elaborate more on these clinical benefits for hospitals – non-clinical benefit for the hospital and provide more context?

Absolutely. If you think of a patient from the ICU has to be transported for MR imaging or even CT imaging. The patient does not go by themselves, right. The patient needs a transport person to take them. The patient is probably on a ventilator and needs to be transported on transport ventilator, has to be transported to a MR-compatible oxygen, all the IV lines have to be moved to MR-compatible, IV poles and pumps that need to go there. Typically, will get a nurse that goes with the patient. A respiratory therapist goes with the patient. And usually a resident fellow of some sort goes with the patient or some clinician goes down. All while, that is happening with that patient, the nurse probably has multiple patients they should be taking care of in the ICU, and she has to hand off all those patients to some other nurse. They have to know what next medication needs to be done on this patient, what things need to be worried about. Thus, you are not only taking this one nurse, and especially in this COVID scenario nowadays where the ICU is overloaded, to go down away from the ICU, but then overworking the nurses that are staying back to taking care of other patients that initial nurse was taking over. There is just a huge resource drain that happens in these scenarios.

I was a few weeks ago, at UC Maryland where we were observing an ICU patient come down had four staff that came from the ICU, and the patient was in the MRI unit for three hours to get one scan done. And they ran out of IV poles, so then they were stitching together a 50-foot IV pole, just so that they can continue providing the medication to the patient all the way from outside the MRI suite. I mean, that was insane to watch all that stuff happening and just hearing of the complications when things wrong. I do not even know if the drugs are appropriately being given to the patient with a 50-foot long IV line. I mean, there are a lot of benefits around that, that are non-clinical.

And I am sure Dr. Nimjee and Dr. Gunel can comment also, a lot of these patients before they stop at the ICU need to get some kind of MR imaging or CT imaging to clear, to make sure there is nothing acute happening before their discharge out of ICU. And typically, if you are trying to schedule four or five patients in the ICU, you cannot get done in radiology in one day. And sometimes patients are getting imaging done at 02.00 in the morning or maybe the next day and you are unnecessarily extending the length of stay for these patients in the ICU.

Some of the work that UC Irvine is doing they are showing that they are reducing a whole day of ICU admission by being able to move this patient through a Swoop than waiting for a conventional. Over there when the morning rounds happen and these four or five patients need an MR scan, and if the MR scans are not scheduled before noon, it never gets done that day. Then it is moved to the next day and end up staying in the ICU for another additional day. And you know the cost of extra days in the ICU, and especially in this value-based care and DRG-based billing that is all cost that the hospital has to bear.

There is an interesting question, I will take that. This is also from Vijay at Evercore. What about connected with the ER hospital radiology suite, is that an easy process or complex because the hospital already has 3D software?

That is my expertise in doing infomatics and connecting to all the systems. When we go and do an implementation, we integrate into the EMR or order entry additional support. We integrate into the PAX system, so that you can issue right away. We integrate into reporting risk system so that when the orders are placed they automatically show up on the scanner, so the clinicians do not have to enter patient information – you just select the order that was placed in. These are normal routine integrations we do, and we comply with all the normal standards that exist. And from day one, the scanner was build to comply with all these standards.

There is a question from another person on the line, and maybe Dr. Gunel, you can answer this one. How many neurosurgeons can read MRIs? How much time does it take to train a neurosurgeon to read an MRI? Would you say that you are trying to get reimbursed for a neurosurgeon reading an MRI?

Shahid Nimjee: Dr. Gunel is older than me, and so he will know this. Dr. Gunel is an internationally known vascular neurosurgeon and has been in the game for a long time. I am a few years younger, and I just took my boards four years ago. And I can tell you, all neurosurgeons are trained. It is part of our training that we are all board-certified to interpret CT and MR imaging. There is no training required, we already got it.

Murat Gunel: There you go, you got the answer.

Khan Siddiqui: There is another question from somebody else –

Shahid Nimjee: I did not know that until I took my boards, that is why it was on the tip of my tongue.

Murat Gunel: Yeah, I did the boards. And then, in November doing again. In neurosurgery, we have written boards and then we have oral boards. Two years you finish, before five years you submit your cases, you present them, and then we examine people. And we do ask about interpretation of the MRI scans. And if they say I will get a consultation from neuroradiology, we say they are out of town. They are at the beach hanging out, so you are on your own, how would you read that scan? We all read our own scans.

Khan Siddiqui: And then the last question is from another person on the call. Is Hyperfine real-time?

As I was mentioning earlier, as the image is happening the sequence is being acquired we provide that real-time data. It starts with 20% of data collected, we show the first image. And after that every 10% of data that is collected, we are updating that image as it is coming along. Yeah, it is almost real-time imaging. And as we improve the image quality and improve the scan times, especially when we get to interventions the goal is going to be real-time, so you can track the instrument and needles in real-time as the scan is happening.

Cool. I think I would like to thank everybody for joining this call. And Dr. Gunel, Dr. Nimjee it has been awesome getting your input this morning and thank you very much. Hopefully, we answered all the questions. And if there are any questions that are unanswered, we will set up calls later with those, and address those accordingly.

Dave Scott: Appreciate it. And Dr. Gunel, Dr. Nimjee thank you guys so much for your time. I really appreciate your taking the time out your busy days to speak with us today. As Khan said, if folks have any other follow-up questions you will be able to reach out. We will make some other additional times for phone calls and we can also set up calls with Dr. Nimjee and Dr. Gunel to answer more detailed questions.

[END OF TRANSCRIPT]

Important Information about the Business Combination and Where to Find It

In connection with the proposed business combination (the "Business Combination") between HealthCor Catalio Acquisition Corp. (the "HealthCor"), Hyperfine, Inc. ("Hyperfine") and Liminal Sciences, Inc. ("Liminal"), HealthCor has filed with the Securities and Exchange Commission (the "SEC") a registration statement on Form S-4 (the "Registration Statement"), which includes a preliminary proxy statement/prospectus and will include a definitive proxy statement/prospectus, and certain other related documents, which will be both the proxy statement to be distributed to holders of HealthCor's ordinary shares in connection with HealthCor's solicitation of proxies for the vote by HealthCor's shareholders with respect to the Business Combination and other matters as may be described in the Registration Statement, as well as the prospectus relating to the offer and sale of the securities of HealthCor to be issued in the Business Combination. HealthCor's shareholders and other interested persons are advised to read the preliminary proxy statement/prospectus included in the Registration Statement and the amendments thereto and the definitive proxy statement/prospectus, when available, as well as other documents filed with the SEC in connection with the Business Combination, as these materials will contain important information about the parties to the Business Combination Agreement, HealthCor and the Business Combination. After the Registration Statement is declared effective, the definitive proxy statement/prospectus and other relevant materials for the Business Combination will be mailed to shareholders of HealthCor as of a record date to be established for voting on the Business Combination and other matters as may be described in the Registration Statement. Shareholders will also be able to obtain copies of the preliminary proxy statement/prospectus, the definitive proxy statement/prospectus, and other documents filed with the SEC that will be incorporated by reference therein, without charge, once available, at the SEC's website at www.sec.gov. In addition, the documents filed by HealthCor may be obtained free of charge from HealthCor's website at www.hcspac.com or by written request to HealthCor at ir@hccspac.com.

Participants in the Solicitation

HealthCor and its directors and executive officers may be deemed participants in the solicitation of proxies from HealthCor's shareholders with respect to the Business Combination. You can find information about HealthCor's directors and executive officers and their ownership of HealthCor's securities in the Registration Statement for the Business Combination, which is available free of charge at the SEC's web site at www.sec.gov. Additional information regarding the interests of such participants is contained in the Registration Statement.

Hyperfine, Liminal and their respective directors and executive officers may also be deemed to be participants in the solicitation of proxies from the shareholders of HealthCor in connection with the Business Combination. A list of the names of such directors and executive officers and information regarding their interests in the Business Combination is contained in the Registration Statement.

Forward-Looking Statements

This filing pursuant to Rule 425 under the Securities Act of 1933, as amended (the "Securities Act"), includes "forward-looking statements" within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. HealthCor's, Hyperfine's and Liminal's actual results may differ from their expectations, estimates and projections and consequently, you should not rely on these forward-looking statements as predictions of future events. Words such as "expect," "estimate," "project," "budget," "forecast," "anticipate," "intend," "plan," "may," "will," "could," "should," "believes," "predicts," "potential," "continue," and similar expressions (or the negative versions of such words or expressions) are intended to identify such forward-looking statements. These forward-looking statements include, without limitation, Hyperfine's expectations with respect to future performance, development and commercialization of products and services, potential regulatory approvals, and anticipated financial impacts and other effects of the Business Combination, the satisfaction of closing conditions to the Business Combination, the completion of the Business Combination, and the size and potential growth of current or future markets for, and the potential benefits of, Hyperfine's, Liminal's and the combined company's products and services. These forward-looking statements involve significant risks and uncertainties that could cause the actual results to differ materially from the expected results. Most of these factors are outside HealthCor's, Hyperfine's and Liminal's control and are difficult to predict. Factors that may cause such differences include, but are not limited to: (1) the ability of HealthCor, Hyperfine and Liminal to meet the closing conditions in the Business Combination Agreement, including due to failure to obtain approval of the shareholders of HealthCor, Hyperfine and Liminal or certain regulatory approvals, or failure to satisfy other conditions to closing in the Business Combination Agreement; (2) the occurrence of any event, change or other circumstances, including the outcome of any legal proceedings that may be instituted against HealthCor, Hyperfine or Liminal following the announcement of the Business Combination Agreement and the transactions contemplated therein, that could give rise to the termination of the Business Combination Agreement or could otherwise cause the transactions contemplated therein to fail to close; (3) the inability to obtain or maintain the listing of the combined company's Class A common stock on the Nasdaq Stock Market, as applicable, following the Business Combination; (4) the risk that the Business Combination disrupts current plans and operations as a result of the announcement and consummation of the Business Combination; (5) the inability to recognize the anticipated benefits of the Business Combination, which may be affected by, among other things, competition and the ability of the combined company to grow and manage growth profitably and retain its key employees; (6) costs related to the Business Combination; (7) changes in applicable laws or regulations; (8) the inability of the combined company to raise financing in the future; (9) the success, cost and timing of Hyperfine's, Liminal's and the combined company's product development activities; (10) the inability of Hyperfine, Liminal or the combined company to obtain and maintain regulatory clearance or approval for their products, and any related restrictions and limitations of any cleared or approved product; (11) the inability of Hyperfine, Liminal or the combined company to identify, in-license or acquire additional technology; (12) the inability of Hyperfine, Liminal or the combined company to maintain Hyperfine's or Liminal's existing or future license, manufacturing, supply and distribution agreements; (13) the inability of Hyperfine, Liminal or the combined company to compete with other companies currently marketing or engaged in the development of products and services that Hyperfine or Liminal is currently marketing or developing; (14) the size and growth potential of the markets for Hyperfine's, Liminal's and the combined company's products and services, and each of their ability to serve those markets, either alone or in partnership with others; (15) the pricing of Hyperfine's, Liminal's and the combined company's products and services and reimbursement for medical procedures conducted using Hyperfine's, Liminal's and the combined company's products and services; (16) Hyperfine's, Liminal's and the combined company's estimates regarding expenses, future revenue, capital requirements and needs for additional financing; (17) Hyperfine's, Liminal's and the combined company's financial performance; (18) the impact of COVID-19 on Hyperfine's and Liminal's businesses and/or the ability of the parties to complete the Business Combination; and (19) other risks and uncertainties indicated from time to time in the proxy statement/prospectus relating to the Business Combination, including those under "Risk Factors" in the Registration Statement, and in HealthCor's other filings with the SEC. HealthCor, Hyperfine and Liminal caution that the foregoing list of factors is not exclusive, and they caution readers not to place undue reliance upon any forward-looking statements, which speak only as of the date made. HealthCor, Hyperfine and Liminal do not undertake or accept any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements to reflect any change in its expectations or any change in events, conditions or circumstances on which any such statement is based.

No Offer or Solicitation

This filing pursuant to Rule 425 under the Securities Act shall not constitute a solicitation of a proxy, consent or authorization with respect to any securities or in respect of the Business Combination. This filing shall also not constitute an offer to sell or the solicitation of an offer to buy any securities, nor shall there be any sale of securities in any states or jurisdictions in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such jurisdiction. No offering of securities shall be made except by means of a prospectus meeting the requirements of the Securities Act.