

THE HILL

What's new?

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# INNOVATION SHOWCASE

Virtual and augmented reality  
for healthcare

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18 May 2023 Tingewick Hall, John Radcliffe Hospital 10.30-16:00

[www.thehilloxford.org](http://www.thehilloxford.org)

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## About TheHill

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TheHill, Oxford is a health and care digital transformation catalyst, and is part of Oxford University Hospitals NHS Foundation Trust (OUH).

TheHill was founded in 2016 to build a community to support digital innovation in Oxford. Its aim was to catalyse change by facilitating connections between staff, patients, entrepreneurs and business. It received backing from Oxford AHSN and Oxford Health Partners. TheHill was hosted by Oxford University Hospitals NHS Foundation Trust (OUH) from its inception and during 2020 raised funding to support its activity. In 2021 TheHill became a permanent entity within OUH and is now fully embedded within the trust as its innovation team.

TheHill works with NHS trusts, universities, digital developers, innovators and investors to promote and encourage commercial and impactful technological solutions to problems in health and care. TheHill explores health innovation needs, identifies solutions presented by entrepreneurs and brings their solutions to market through our innovation pipeline.

TheHill supports ideas internal to the NHS or the technology of external companies, but all of them seek to make the NHS more efficient and effective, empower staff and benefit patients.



**David Walliker**

Chief Digital and Partnerships Officer, Oxford University Hospitals NHS Foundation Trust

*TheHill provides a step-change in our ability to engage with innovators and is an invaluable source of innovation for the Trust, as well as developing the innovative capacity of the organisation. The community built by TheHill empowers staff, improves care and ultimately helps to digitise the NHS for the benefit of patients.*

## VR and XR in Healthcare

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VR, and more broadly XR, is not a new branch of technology. Immersive simulations experienced via head-mounted displays have been used in medical training since the late 1980s and therapeutic VR interventions – specifically exposure therapy for phobias – have been used since the 1990s. But the evolution of digital hardware and software in recent years means that for the first time, high-quality, affordable VR is readily available to organisations and consumers alike.

XR as an umbrella term refers to virtual reality (VR), augmented reality (AR) and mixed reality (MR). Where VR is a fully immersive experience that obscures the natural world, AR maintains the user's real-world view and enhances it with digital overlays that incorporate artificial objects. MR blends physical and digital elements and enables them to interact.

Recent years have seen a profusion of XR solutions aimed at healthcare, particularly in three main categories:

### **Distraction of attention from pain, anxiety, distress**

This includes use cases ranging from immersive mindfulness and breathing exercises, to sedation and anaesthesia for major surgery. Studies show corresponding reductions in the use of opioids and other analgesics.

### **Rehabilitation and therapies**

Use cases include a range of applications for physical, neurological and mental health and recovery. Often these can be delivered by general nursing and support staff.

### **Education, training and patient information**

Simulations allow a level of engaged, experiential learning that can be delivered anywhere at any time.

XR solutions usually comprise a head-mounted display (HMD) connected to a tablet on which the software element is installed. Additional equipment might include hand-held controllers, a treadmill that allows users to 'walk' through the simulation or additional sensors to capture and respond to feedback from the user. HMDs used for AR feature front facing cameras to capture the real-world view. XR hardware and software are rapidly evolving, with machine learning, artificial intelligence (AI) and natural language processing (NLP) anticipated to lead to increasingly sophisticated simulations of people, environments and situations. For further information, visit the XR Health Association: [xrhealthuk.org](http://xrhealthuk.org)

## Welcome

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# THE HILL

## What's new?

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### INNOVATION SHOWCASE

### VR&AR

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**Megan Morys-Carter**

Director of Digital Innovation, Oxford  
University Hospitals NHS Foundation Trust

Executive Director of TheHill

Congratulations to the 16 companies that were selected from a longlist of 30 to showcase at this year's VR Showcase.

Showcasing innovation is an important part of TheHill's work connecting innovators with frontline healthcare workers who could benefit from technology. For this showcase we have chosen the theme of virtual reality and augmented reality – technology areas that are currently developing at a fast pace and which have opened up new possibilities, particularly in areas such as education and training, rehabilitation and psychological and behavioural support.

I would encourage clinicians and operational staff attending the showcase to immerse yourselves in the possibilities these technologies bring, to engage with the exhibitors and understand what is possible and consider the challenges that you have in your daily work. We hope you will return to your departments invigorated by the possibilities, and ready to engage with us to scope out your requirements and find the right fit for your needs.

For those exhibiting, this is a fantastic opportunity to get feedback and engagement from a wide range of NHS stakeholders. We hope you will leave with ideas, opportunities, a greater understanding of clinical realities and a renewed enthusiasm to shape and promote your products.

If you're a company who would like to join us next time for this or our other innovation support services, reach out to a member of the team or fill in our triage form at [www.thehilloxford.org](http://www.thehilloxford.org)

I'd like to take this opportunity to thank all of the exhibitors who have made the effort to join us today, all of the staff who have taken time out of their day to engage, and all of TheHill team who have worked together to make this event a success.

If you didn't make the showcase, or you'd like to follow up outside the event, please don't hesitate to contact us on [connect@thehilloxford.org](mailto:connect@thehilloxford.org).

## Welcome

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**Ed Jaspers**

Clinical Engagement Manager  
TheHill

I'm very pleased to welcome this inspiring group of innovators to OUH, representing between them some of the most exciting and impactful applications of VR and AR technology for healthcare. And I'm delighted, too, to welcome colleagues and friends from the Trust and beyond to explore the potential benefits of this technology, get hands-on with the kit and join the conversation about how these digital solutions might help solve the challenges we face.

TheHill received over an impressive haul of applications to take part in the event and we had to make some tough decisions to arrive at the shortlist featured here. I feel that our final selection demonstrates the range of activity taking place in this area and that these companies represent some of the most innovative and compelling examples of XR technology for healthcare. I hope that guests will take the opportunity to be inspired, ask questions and consider the opportunities that XR could offer you. And while you're here, please come and say hello to the team from TheHill. We're keen to get to know you and hopefully to involve you in the work we do to increase digital innovation adoption, to improve efficiency and effectiveness, and to empower staff and benefit patients.

## Event Timetable

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<b>10:30-16:00</b>	VR showcase	Tingewick Hall, John Radcliffe Hospital
<b>12:30-13:30</b>	Symposium* 'Virtual in real life: practical applications of healthcare VR'	Tingewick Hall, John Radcliffe Hospital
<b>17:00-19:30</b>	Social mixer informal networking and panel discussion* 'VR in healthcare - fad or the future?'	Tingewick Foyer, John Radcliffe Hospital

\* speakers to be announced soon

### With thanks

We would like to thank our Clinical Engagement and Marketing team for their continued work and dedication to make this event possible. Our thanks and appreciation also go to the exhibitors attending the showcase, who have contributed to the catering supplied.

# CardioCrown


**CardioCrown**

## Exhibition team


**Victor Harabari**
*Founder and CEO*

**Dr. Fjorda Kazazi**
*Software Engineer*

**Aurora Marina Mafé**
*Business Development Intern*

**Maria Marco Aragon**
*Marketing Intern*

## Company Introduction

In the stroke rehabilitation process, a core multidisciplinary team works in partnership with the patients and their families and carers to manage recovery. Depending on individual needs, cognitive, emotional, vision, swallowing, communication, and movement therapies will be provided. Therapy outcomes are dose-dependent: intensive, high-repetition, task-oriented, and task-specific therapies are the most effective. Most patients who are discharged from inpatient stroke rehabilitation are only 8-10 weeks poststroke and have not completely recovered. Despite most patients being offered treatment on an outpatient basis, they will struggle to adhere to ongoing intensive therapy due to transportation and financial difficulties, weather, mobility issues, depression, and anxiety. 80% of patients suffer a motor impairment, remaining out of daily activities and needing assistance. A report from the Stroke Association outlined that 39% of stroke survivors consider that they had not received enough rehabilitation therapies. This is due to the effects of COVID19, insufficient healthcare management, the lack of access to rehabilitation services, remote living, and health status.

## CardioCrown

CardioCrown's disruptive technology will empower patients with the tool to enable self-management of stroke rehabilitation at home. We are developing NeuroVive, a stroke rehabilitation tool that intends to add supplementary recovery procedures in addition to facility-based treatment. NeuroVive embeds Artificial Intelligence (AI), Functional Electrical Stimulation (FES), and Virtual Reality (VR) into one system which can be used by the patient at home with the help of family or carer. It will improve controlled voluntary arm and hand functions, track rehabilitation progress and provide constant feedback and psychological support. NeuroVive provides patients with an intensive and repetitive training program allowing patients to practice movements and tasks in a safe and controlled environment, with the ability to adjust difficulty levels and provide real-time feedback on performance. The system helps patients engage in intensive, repetitive, and task-oriented practice to promote neuroplasticity and recovery.


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# Cassette

# CASSETTE

## Exhibition team



**Ben Taylor**

CEO



**Mike Wyrley-Birch**

CSO



**Edward Whitwell**

COO

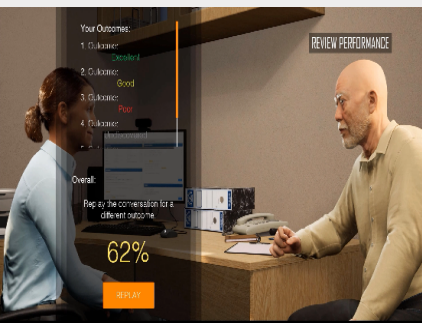
## Company Introduction

Healthcare is becoming more complex. Everyday there are advancements in technology, medication and science. Training and communication in healthcare has remained unchanged. Traditional text, video and quizzes are no longer fit for purpose/ Our solutions use immersive technology to meet this need, improving training and communication at scale, lowering cost compared to traditional pathways. Cassette currently develops bespoke solutions for clients such as Pfizer, Takeda and Baxter. We are also in the Beta stages of product development for a solution called Metaversity that provides immersive training via the web for nurses. At the event we will be able to showcase a training system to operate a Dialysis machine in VR and on web, plus web based experiences for orientating staff in medical environments e.g. how an MRI room is set up. We will also showcase an early stage of Metaversity - our platform for delivering soft skills immersive training solutions in nursing.

## Cassette

Our solution is an immersive CPD training platform for nursing. Nurses access and complete training via the Netflix style web portal. Content is 3D and interactive, enabling nurses to access simulated training anytime, anywhere. Our solution is web based, removing barriers to access that are often associated with VR headsets. Content is predominantly focused on soft skills such as patient symptom identification or managing conflict.

Our AI Patient Simulator allows us to simulate how a real patient would behave in the real world making the training experience more realistic. New AI patients can be created quickly and easily so large volumes of content can be produced. 'Virtual simulated training is 4 times faster, 40% improvement in confidence compared to traditional learning (PWC, June 2020). Cassette's vision is for virtual simulation to democratise learning and the mission is - For All, By All. The technology gives the flexibility to access simulation training anytime and anywhere benefiting working parents or those with caring duties and geographically underserved areas.



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# Concept Health Technologies



## Exhibition team



### Dr Farhan Amin

*GP Partner & Founder of  
Concept Health Technologies*

## Company Introduction

Concept Health Technologies was founded in 2019 by Dr Farhan Amin, a general practitioner working in the NHS. Dr Amin wanted his patients to receive a better care experience and not have to wait weeks or months to start rehabilitation services. Following successful clinical studies and the publication of results, Concept Health is supporting NHS organisations in England with full deployment of digital pulmonary rehabilitation services. A strong leadership team and company board consisting of industry veterans is guiding the strategic direction of the company. Dr Amin has been accepted on the NHS Clinical Entrepreneurs Programme and the RCGP Innovators Mentorship Programme. The highest accolade is the feedback we receive from delighted patients.

## Concept Health Technologies

Concept Health Technologies (CHT) is developing a new generation of personalised intelligent health solutions that transform the way physicians treat illnesses. In 2022, the company launched an ambitious collaboration with community nurses in Northern Lincolnshire and Goole to pilot VR-style headsets that can identify infected wounds via thermal imaging, share live video directly for a second opinion, view calendar information and travel data, and transcribe appointments directly into the electronic record. In addition, Concept Health's intelligent VR programmes allow patients with chronic physical and mental health conditions to participate in personalised rehabilitation at home. The machine learning algorithms augment health systems' ability to deliver supervision, clinical risk analysis and performance monitoring remotely 24 hours a day without the need for a large team of highly trained healthcare professionals.



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**a.health**

# Foretell Reality



## Exhibition team



**James Watson**

*CMO of The Glimpse Group*

## Company Introduction

Foretell Reality is a social Virtual Reality (VR) platform for professional use-cases focusing on authentic human interaction, collaboration, learning, and personal growth.

Therapy in VR has been shown to have positive effects on pain management, relaxation, mindfulness, and social skills. By allowing individuals to change their environment and activity patterns in a matter of seconds, VR provides a unique opportunity to separate from daily surroundings and create a space for inner reflection and personal growth. This is particularly advantageous for those who are unable to travel long distances or find nature nearby, enabling them to experience novel environments and learn new coping mechanisms. With the ability to remotely socialize with others in 3D yet remain anonymous, experience real-life environments and learn new skills, VR offers a truly transformative experience for mental health therapy.

## Foretell Reality

Our VR experiences, which include a variety of immersive environments and a broad range of tools, allow therapists to leverage the unique capabilities of VR and extend the boundaries of therapy and support groups. Our user-experience is designed to bring people together seamlessly and accommodate a wide range of segments, including different age groups, levels of technological knowledge, and personal needs. Participants can remain anonymous by customizing their avatars and masking their voice so that concerns around stigma of physical appearance, age, or race can be mitigated. In addition, we make a robust use of the three-dimensional and 360-degree viewing that VR allows. To measure the impact of programs conducted in Foretell Reality, administrators can gather and analyse data such as user participation, interaction, speech, and eye contact.



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# Goggleminds



## Exhibition team



### Azize Naji

Founder

## Company Introduction

Azize Naji has dedicated his career to improving the quality of education and training in healthcare. With over 10 years of experience working in the NHS, Azize has been instrumental in designing, implementing, and evaluating a wide range of education and training programs across various clinical specialities. Using his experience and passion, he became the CEO and founder of the multi-award-winning company, Goggleminds®. His team have developed a Virtual Reality (VR) training platform called the Mediverse®. This innovative platform is filled with immersive training experiences that provide healthcare professionals and students with a highly effective way to learn and improve their skills. The Mediverse® has been featured on the BBC and has received widespread acclaim for its ability to revolutionise healthcare training. It is currently being used in multiple NHS providers including Oxford University Hospitals and will soon be connecting people across the world.

## Goggleminds

Goggleminds® uses the power of VR to make healthcare training more accessible, more effective and more engaging through the Mediverse® training platform. The Mediverse® gives learners access to on-demand simulation training, enabling pre and post-registration healthcare professionals to practise and learn clinical skills in realistic and immersive virtual environments. Learners get the consistency of clinical experiences they need and can fail with no risk to patient safety. Modules are accessible on desktop computers and VR headsets. Available training scenarios span across adults and paediatrics and include managing a blocked tracheostomy, managing a patient with acute exacerbation of asthma, diagnosing and treating a patient with suspected sepsis and many more. All training scenarios are written by clinical experts in their field of expertise and are being used in departments including Anaesthetics, Doctors, HCA's, ED, ENT, Neurology, Nurses, OMFS, Paediatrics, Physicians Associates, Plastics, Respiratory and many others.



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# Healthy Mind VR

## Exhibition team



**Paul Johnson**

*UK Sales Consultant*

## Company Introduction

Therapeutic virtual reality to reduce pain and anxiety - we provide healthcare professionals with an evidence-based medical device that combines neuroscience, immersion through virtual reality technology, medical hypnosis and advanced therapeutic principles to alleviate pain and anxiety of patients, as well as addressing the well-being and mental health of staff. We are focused on working in partnership with UK NHS trusts and healthcare providers to continually improve our solution through the acquired feedback. We take our approach to partnership very seriously and place heavy importance on customer and user feedback with the patient and staff at the heart of our service.

## Healthy Mind VR

Our medical solution transports the users into purpose-built 3D experiences to journey through the natural and therapeutic environment of their choice. Every detail of our immersions has been designed, tested, and optimized to reduce pain and anxiety. Our immersions are amplified by the realism of our 3D environments, a soothing sound atmosphere and specific medical hypnosis script for each theme. Targeted breathing exercises with cardiac coherence are also integrated for better anxiety management or deep breathing for post-operative rehabilitation. Our medical device software (CE class 1) is already used daily on hundreds of patients in more than 250 healthcare facilities across Europe and in more than 25 different medical departments such as anaesthesia, paediatrics, oncology, phycology and emergency medicine.



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# Heka VR

# HEKA VR

## Exhibition team



**Thomas Saaby Noer**

*Head of healthcare*



**Maria Hoeborg**

*Healthcare Project Manager*

## Company Introduction

For patients who suffer from auditory hallucinations, pharmaceutical interventions are the primary treatment modality. These are continuously improved and tested, however we know that many patients are treatment resistant and will continue experiencing voices despite medical intervention.

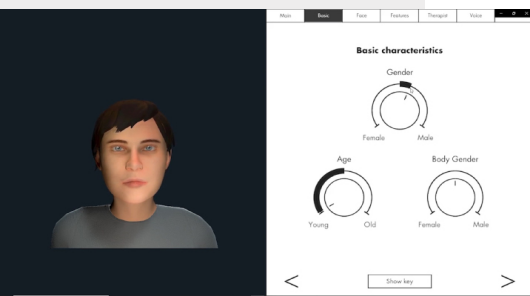
Despite the current medical and psychological interventions out there for auditory hallucinations, we know that 30% of schizophrenia patients will still continue to hear malevolent voices making an everyday meaningful life a constant struggle. We want to be able to provide an alternative treatment modality.


## Heka VR

HEKA VR is a virtual reality based psychological solution to help patients who experience auditory hallucinations (voices) through virtual reality based therapy called Avatar Therapy. This is one of the first treatment modalities combining Virtual Reality, Avatar Therapy and real-time voice modulation in the treatment of patients suffering from auditory hallucinations. Therapists can use this to treat otherwise treatment-resistant patients (resistant to standard pharmacological and cognitive interventions).

The use of Virtual Reality allows exposure to challenging situations in an immersive, but also protected, flexible and controlled environment. Exposure to auditory hallucination in real life is impossible to organize and control. VR exposure therapy can overcome or mitigate this problem by producing greater user acceptance and providing control over and access to situations.

With this project, we expect patients to be able to develop new skills and strategies to cope with their malevolent voices. This type of treatment may also improve the cost effectiveness and efficacy of the current treatment of auditory hallucinations.



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# i3 Simulations



## Exhibition team



**Devi Kolli**

*CEO and Founder*



**Mark Rayner**

*COO*

## Company Introduction

i3 Simulations is here to democratise and decentralise the creation of 3D intuitive, interactive, and immersive (i3) medical simulations. Extended reality (XR) and Virtual Reality (VR) simulations offer the most effective way to train practice-led skills and at i3 we offer a library of ready-to-use Artificial Intelligence (AI) enabled adaptive simulations and content authoring software for rapid and cost-effective production of bespoke medical simulations. By offering personalised simulations, we can assist medical professionals to improve performance and reduce patient error in the real world. Our team is committed and relentless in our goal, working to disrupt the market with ground-breaking immersive simulations.

## i3 Simulations

Resuscitation VR is aimed at the healthcare simulation sector and targeted towards solving problems that occur in training staff for high-stress, critical care environments. It is aimed at training junior doctors and other clinical staff in Critical Care Units (CCUs) across hospitals internationally. Initially sponsored by the Oculus (now Meta) funding programme “VR for Good” (Oculus, 2018) as a pilot study, Resuscitation VR has since formally launched in 2019 and currently has sign-ups in 70+ organisations in 30+ countries worldwide. Resuscitation VR modules are scalable, which means that additional procedures can be designed and developed using the same technological framework - including localisation to international standards, terminologies, and practices. The module library is regularly growing to include more critical care scenarios and localised content supported by this framework, and clinical partners can utilise a co-production design framework for bespoke modules at a low cost.



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# Rescape Innovation



## Exhibition team



### Simon Enoch

Partnership Director

## Company Introduction


Rescape has created a class 1 medical device, DR.VR Junior, utilising Virtual Reality to alleviate anxiety and reduce the perception of pain. This portable, independent system can be deployed in any setting and has no requirement for internet or any installation process. It is simple to use, effective and has an infection control protocol created in collaboration with Cardiff University Microbiology laboratories. These systems are being used in paediatric hospitals with great success, alleviating anxiety prior to procedures as well as during procedures and sparing extremely anxious children unnecessary general anaesthetics on occasion. The feedback from children, parents and clinicians has been overwhelmingly positive.

## Rescape Innovation

DR.VR is an independent, portable, plug and play system that allows the deployment of Immersive Therapeutic treatment in any healthcare setting. The system has been designed with a user centric focus, ensuring simplicity of use is matched by ease of deployment and clinical effectiveness. The system is classified as a Class 1 medical device.

DR.VR immerses the patient in a simulated world. The overwhelming amount of information created by being in this alternative reality increases the cognitive load to such an extent that it reduces the brain's ability to process pain and anxiety.



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# ROVR Systems



## Exhibition team



**Catherine Wilson**  
CFO



**Tom Baker**  
CTO



**Sir Muir Gray**  
Chief Medical Officer

## Company Introduction

Patients in care homes often suffer from pain and anxiety, and without the ability to leave the home and experience different environments, it is hard to relieve these symptoms. With the aid of VR, we can help elderly and disabled patients to have experiences in the virtual world that they can no longer have in reality. Transporting patients to beautiful places and relaxing environments can help to relieve those symptoms, and to keep their minds occupied. VR can also act as a social enabler, allowing those who are no longer able to interact with others in person to do so with the comfort of anonymity afforded by an avatar.

## ROVR Systems

ROVR Relieve consists of a Tablet and VR headset, providing shared or solo viewing of immersive 360 video experiences for relaxation, reducing anxiety, pain distraction and for promoting social connection.

ROVR Relieve was co-developed with care settings in Oxfordshire and Cornwall and with Oxfordshire County Council, and the Universities of Oxford and Plymouth. It was also developed in response to the UK's largest healthcare technology provider's request for dementia anxiety relief, and in collaboration with an NHS oncology department for anxiety distraction and pain relief. ROVR Relieve is in use with the NHS and residential care settings. ROVR Relieve delivers relaxing and ultimately distracting virtual reality scenes and sounds through a wireless VR headset, and tablet for use by carers. The immersive experience helps relax the mind and has a positive impact on carers and those cared for who are anxious, lonely or perhaps feel a sense of isolation, loss or pain.



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# SyncVR

## Exhibition team



**Ari Billg**  
*UK Business Developer*



**Jack Cato**  
*UK Business Developer*



**Istiaque Ahmed**  
*UK Healthcare Entrepreneur*



**Michael Trueman**  
*Junior Doctor, Clinical Lead*

## Company Introduction

SyncVR Medical UK Ltd is the leading medical virtual reality platform in Europe. Established 4 years ago in the Netherlands, SyncVR scaled massively and now works with 80% of the hospitals in the Netherlands, and has expanded to Germany, Norway, and now the UK where it operates in 15 NHS trusts. SyncVR delivers both its own applications and hosts third parties allowing it to provide virtual reality for the following use cases: pain and anxiety reduction, patient and clinician education, physiotherapy and rehabilitation, and mental health.

## SyncVR

SyncVR provides virtual reality applications which can be accessed by the patient via a headset and viewed by the clinicians via a tablet. The mobile device management platform allows for multiple applications to be easily accessed within a single headset. These applications range from distraction, immersion and hypnosis to assist with pain management. SyncVR can also provide gamified physiotherapy exercises that increase patient adherence to their rehabilitation exercises. And, finally SyncVR can support education with applications that use virtual reality simulations to educate patients and clinicians. By providing an immersive and engaging environment, we are able to increase adherence to treatment from patients and to increase uptake of education by both patients and clinicians.



# University of Oxford, Wellcome Centre for Integrative Neuroimaging



## Exhibition team



**Dr. Julien "Juju" Fars**

*Postdoctoral Research Fellow*



**Dr. Betina Ip**

*Royal Society Dorothy Hodgkin Research Fellow*



**Prof. Holly Bridge**

*Professor of Neuroscience*

## Company Introduction

We are a research group who have a VR product for our own experiment. We have a virtual reality training programme for people who have amblyopia (lazy eye). The aim is to change the relative strength of the visual stimulation of each eye to strengthen the visual performance of the amblyopic eye.

## University of Oxford, Wellcome Centre for Integrative Neuroimaging

We have adapted a standard visual training protocol used to improve binocular vision to a VR setup. The VR training programme requires participants to make a judgement about visual images that are presented in the amblyopic (weak) eye while the strong eye receives distracting noise. As the person improves at the task, the distracting noise to the good eye is reduced. This approach will be more engaging than performing a task at a computer and will eventually allow for interaction with objects in 3D. The end goal is to be able to perform the task with the amblyopic eye while the good eye is fully functioning.



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# Varjo Technologies



## Exhibition team



### Amir Khosh

*Technical Sales Manager at  
ST Engineering Antycip,  
Varjo preferred reseller*

## Company Introduction

To ensure maximum effectiveness of VR training for clinicians, more precise technology than what is currently available to consumers is needed. With too much latency or too low a resolution, the feeling of VR can become extremely unrealistic, which robs VR of its immersion, a major perk of the technology. To enable fully effective VR training, we need better and more responsive head-mounted displays (HMDs). Varjo is at the bleeding edge of HMD technology and offers an unparalleled level of detail and revolutionary ability to switch seamlessly between MR, VR and AR.

## Varjo Technologies

Varjo's industry-leading mixed and virtual reality headsets enable professional performance at the highest level in a fully immersive environment.

Varjo XR-3 delivers the most immersive mixed reality experience ever constructed, featuring photorealistic visual fidelity across the widest field of view of any XR headset. And with depth awareness, real and virtual elements blend together naturally.

Varjo VR-3 sets a new standard for virtual reality headsets with the industry's highest resolution across the widest field of view. By powering true-to-life virtual reality experiences, Varjo VR-3 enables a deeper level of focus in your daily workflow.

Varjo Aero offers a generational leap in visual fidelity for professionals and leading-edge VR users alike. With a future-proofed optical design and stunning dual mini-LED displays, Aero is the lightest & brightest VR headset available for both professional and recreational use.



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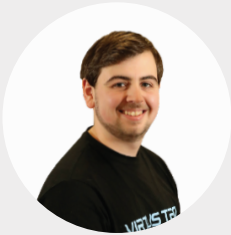
# Virtus Tech

## Exhibition team



### Dr Huw Williams

Senior Clinical Lecturer in  
Emergency Medicine at Cardiff  
University and practicing  
Emergency Medicine consultant in  
Prince Charles Hospital, Merthyr



### Robin Davies

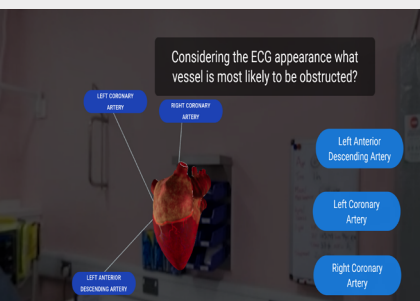
Chief Technology Officer

## Company introduction

Clinical placements for students in universities have become increasingly difficult to host. With rising pressure on recruiting a new supply of medical professionals in the NHS, experience placements and targets are dropping. For these organisations as well as many others, training can be expensive, time consuming and dangerous when you get it wrong. Like other operations within organisations, businesses are looking for a more automated and quicker way of training staff while keeping to a high standard for engagement and interactivity.

## Virtus Tech

Our solution is a web based no-code engine which allows health boards and universities to build an unlimited library of interactive VR training simulations, accessible on any device. Our all-in-one VR platform provides industry professionals with the tools to create their own virtual training content quickly and effectively where employees can be immersed in a 360-degree 'real world' scenario as well as interacting with 3D digital learning objects. Currently we are working on version 2.0 where 3D environments will become the base for all creators, adding assets and materials in from their own libraries. Our multi-user VR platform will allow medical students to engage in either 360 media or 3D environments, providing them with a safe space to engage with life like activities as if they were on shift. It is completely device agnostic as it is all done via the web, which means that it can be accessible on any device such as desktop, tablet, mobile, any VR headset and even mobile VR because we know not everyone has access to a VR headset.



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# VRiMS

# VRiMS

Virtual Reality in Medicine and Surgery

## Exhibition team



### Dr Jonathan Fenn

*BSMS Teaching Fellow Surgical Education and Extended Reality / VRiMS Fellow*

## Company introduction

VRiMS creates extended reality resources using virtual reality, augmented reality and the metaverse for medical and surgical education and global health. VRiMS is also a research group that uses scientific approaches to evaluate the benefits of using extended reality in medical and surgical education.

VRiMS in partnership with Brighton and Sussex Medical School and funded by Health Education England has delivered 7 one-week courses featuring cadaveric hands-on surgical procedures and reaching over 6000 participants from 101 countries.

## VRiMS

Metaverse resources, VR builds for NHS mandatory training with fire safety, basic life support and chest drain insertion, augmented reality apps for facial skin cancer and simulation training, live streaming 360 video. VRiMS doesn't copy, it creates.

With high fidelity hand tracking, the training courses feel extremely responsive, and the use of virtual environments helps to add a grounded realism to the experiences. Learning in virtual environments which resemble the real surroundings where learners would use these skills really adds a lot to the learning experience and can help with skill retention. Such realistic scenarios can also leave learners feeling more prepared to use the skills in these sometimes pressurised environments.



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# VR Therapies



## Exhibition team


**Rebecca Gill**
*Nurse and Founder*
**Matthew Fishlock**
*Chief Technology Officer*


## Company Introduction

Award-winning social entrepreneur and qualified nurse with over 12 years of experience in learning disabilities, brain injury rehabilitation and mental health services. Inspired by the amazing advances in technology, passionate about innovation and wellbeing but frustrated by accessibility, Rebecca founded VR Therapies. VR Therapies is a unique social enterprise dedicated to utilising virtual reality (VR) and immersive tech for physical and mental wellbeing. We take those too poorly to walk swimming with dolphins, children undergoing chemotherapy flying through space, people with dementia down memory lane and so much more. The experiences and benefits are truly endless. By providing a range of immersive and multisensory experiences, we create innovative combinations of physiotherapy, hydrotherapy, and more. Founded by learning disabilities nurse Rebecca Gill, we are dedicated to accessibility and inclusivity, with specialist skills in supporting those with additional needs such as SEND, ASD, as well as physical disabilities and mental health issues.

## VR Therapies

Come visit a fun new centre, the first of its kind in the UK. With lots of games and multisensory experiences available, you can try out the latest in virtual reality and immersive technology. Our magical multisensory centre features an activity room, wheelchair-accessible VR driving simulators, an interactive sensory room, and even the world-first combination of hydrotherapy with underwater VR headsets. Now everyone can experience swimming with dolphins! We also provide community sessions including group sessions at care homes, workshops at schools, events, training for teachers and therapists, consultancy etc. We are dedicated to making the benefits of VR accessible and affordable for everyone, so get in touch! Featured on the BBC, awards include Great British Entrepreneur Award for Inspirational Spirit, Accessible Europe Award with ITU & the United Nations for Cognitive Disabilities, as well as Innovation, Tech for Good, Holistic Therapy Service of the Year and many more.


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## Digital Innovation Ambassadors Programme

If you are a member of staff at OUH and would like to facilitate the adoption of digital innovation across the Trust, you might be interested in our Digital Innovation Ambassadors Programme.

### What is our Digital Innovation Ambassadors Programme?

This programme brings together colleagues from a wide range of specialities and disciplines from within OUH to champion the culture of digital innovation, support the digital skills needs on the ground by helping colleagues share tips and help solve problems, and facilitate the adoption of new technologies in departments across the organisation.

### What will I do as a Digital Innovation Ambassador?

You will be at the forefront of participating in engagement of wider staff groups, senior digital leads and an active part of the pipeline to adoption, supporting the identification of needs, clinical champions, projects to deploy digital enabled technology to improve staff and patient experience, helping evaluate new companies and Technologies from TheHill networks. We already have well established Special Interest groups set up for Remote Monitoring and AI & Diagnostics, run by OUH staff to share learnings and resources to advance digital innovation in those fields, and we're looking to build further on these.

### What are the benefits for me?

You will benefit from the opportunity to build your profiles, knowledge, network and get support navigating the innovation pathway for growing ideas, needs or embedding existing solution within your practice, with like-minded professionals who are as passionate about bringing in new innovations into the NHS as you are.

You will be supported within the wider remit of TheHill and other relevant OUH services and have the opportunity to take part in a variety of workshops, learning sessions and events.

### How do I find out more?

To find out more, please contact Sara Cocomazzi, our Clinical Engagement Manager via [Sara.Cocomazzi@ouh.nhs.uk](mailto:Sara.Cocomazzi@ouh.nhs.uk) and keep an eye on our website, social channels and OUH Communications for details on when to apply for the next cohort.

To see the profiles of our current digital innovation ambassadors please review our website: Digital Innovation Ambassadors Programme - TheHill ([thehilloxford.org](http://thehilloxford.org))



## Partnering with TheHill



**THE HILL**  
**Partnerships**

**OUR PARTNERS**

**ADDING real VALUE** to our activities

**BENEFITTING** from interactions with

- our communities
- our digital health and care ecosystem
- our innovator and clinical network

Contact us to discuss your engagement objectives and collaboration options

**Megan.Morys-Carter@ouh.nhs.uk**  
**Stefania.Schino@ouh.nhs.uk**

TheHill works with partners and sponsors who can add real value to our activities, and themselves benefit from the interactions with our communities, our wider digital health and care ecosystem, and our extensive innovator and clinical network.

We are actively looking for new opportunities for partnerships, sponsorships and contributors to our programmes and activities. Opportunities for involvement are broad, and can be tailored or follow our bronze, silver and gold package structures.

Get in touch with Stefania Schino on [stefania.schino@ouh.nhs.uk](mailto:stefania.schino@ouh.nhs.uk), to discuss your growth and engagement objectives and to see how we might be able to support these and work together in 2023/2024.

If you have a solution, product or idea that makes use of new and innovative technologies applicable to healthcare, we would love to hear more about it, please complete our online triage form at [thehilloxford.org](http://thehilloxford.org) so we can explore how we can work together.



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