

## CASE STUDY

# Mira Rehab

Preventing falls through fun and fitness

## Challenge

Falls are the main cause of accidental injury and death in older people. Half of all people aged 80 or over suffer a fall each year with the annual cost to the NHS estimated at over £2.3 billion.

Exercise is known to improve strength and balance, which can help to prevent at least a third of all falls, but many elderly people are unable or reluctant to attend physiotherapy classes or are in locations where these are not available or subject to long waiting lists. The University of Manchester and Mira Rehab collaborated to find an interactive digital health solution that would solve the problem.

## Innovation

Working with health professionals from the University of Manchester, clinicians and patients, the team developed and clinically tested Exergames (active video games) as a potential new community-based approach to improving balance and function in older adults. As well as creating the games to be safe, engaging, and feasible for use in both a group or home setting, the team also designed and tested a cloud-based remote monitoring system to allow clinicians to track patients' progress and prescribe personalised treatments.

## Impact

Clinical studies show that Exergames have significant personal and financial benefits. Regular use reduces fall incidence and, as one MIRA unit can be used by up to 20 people, Care Commissioning Groups can save up to £84,000 per year. Patients who used Exergames showed improvements in balance and strength and a reduction in pain and tiredness. They also demonstrated increased confidence in their mobility and ability to perform everyday tasks.

By pooling resources and skills, the team was able to secure collaborative funding to undertake the project and rapidly develop a novel medical product at the cutting edge of innovation.



*The University of Manchester has been a great help in this project, supporting with academic and clinical knowledge and validation. We are happy to be able to collaborate with professional and enthusiastic staff who completed an amazing, multi-centred trial in record time.*

Cosmin Mihaiu, CEO, Mira Rehab



*The advantages of working with industry include the ability to pool academic and technical resources for the rapid and agile development of a medical product with a route to swiftly commercialise and impact the health sector.*

Dr Emma Stanmore, University of Manchester



## Company Overview

Mira Rehab develops software platforms designed to make physiotherapy fun and convenient for patients recovering from surgery or injury. The software transforms existing physical therapy exercise into video games that increase motivation, measure patient compliance and help people get better in a faster, easier and more fun way.



*I thought how is this going to work? But it's amazing! I can do so much of what I want to do independently and it's all because I've signed up to this.*

Beryl, Trial Participant

**BIOLOGY | MEDICINE | HEALTH**

# Collaborate with us

Whether you're a forward-thinking international blue chip or an ambitious SME, a partnership with The University of Manchester can have a significant impact on the performance of your organisation. Our business collaborations range from projects which tap into the skills and technology we have available, to large-scale, strategic research partnerships focused on addressing important challenges in the biomedical and healthcare sciences.

## Why Manchester?

At The University of Manchester, we know the value of working together. Through collaboration, our internationally renowned research has made a positive impact on society by generating jobs and wealth, creating new therapies and treatments, improving patient outcomes and influencing global public health. We are proud of our long-standing, mutually beneficially relationships with industry and have a proven track record of delivering successful projects for external organisations.

Whatever the relationship, our dedicated business engagement experts are on hand to make it easy to work with the University, putting you in direct contact with world-leading research expertise and facilities to help you achieve your objectives and face future challenges with confidence.



- **Cancer**
- **Cardiovascular, Endocrine & Metabolic Sciences**
- **Cellular & Developmental Systems**

- **Evolution, Systems & Genomics**
- **Infection, Immunity, Inflammation & Repair**

- **Neuroscience & Mental Health**
- **Platform Sciences & Technologies**
- **Population Health**

## Contact us

Contact the Business Engagement Team to discuss how we can help you to innovate and build a strategy for success.

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