

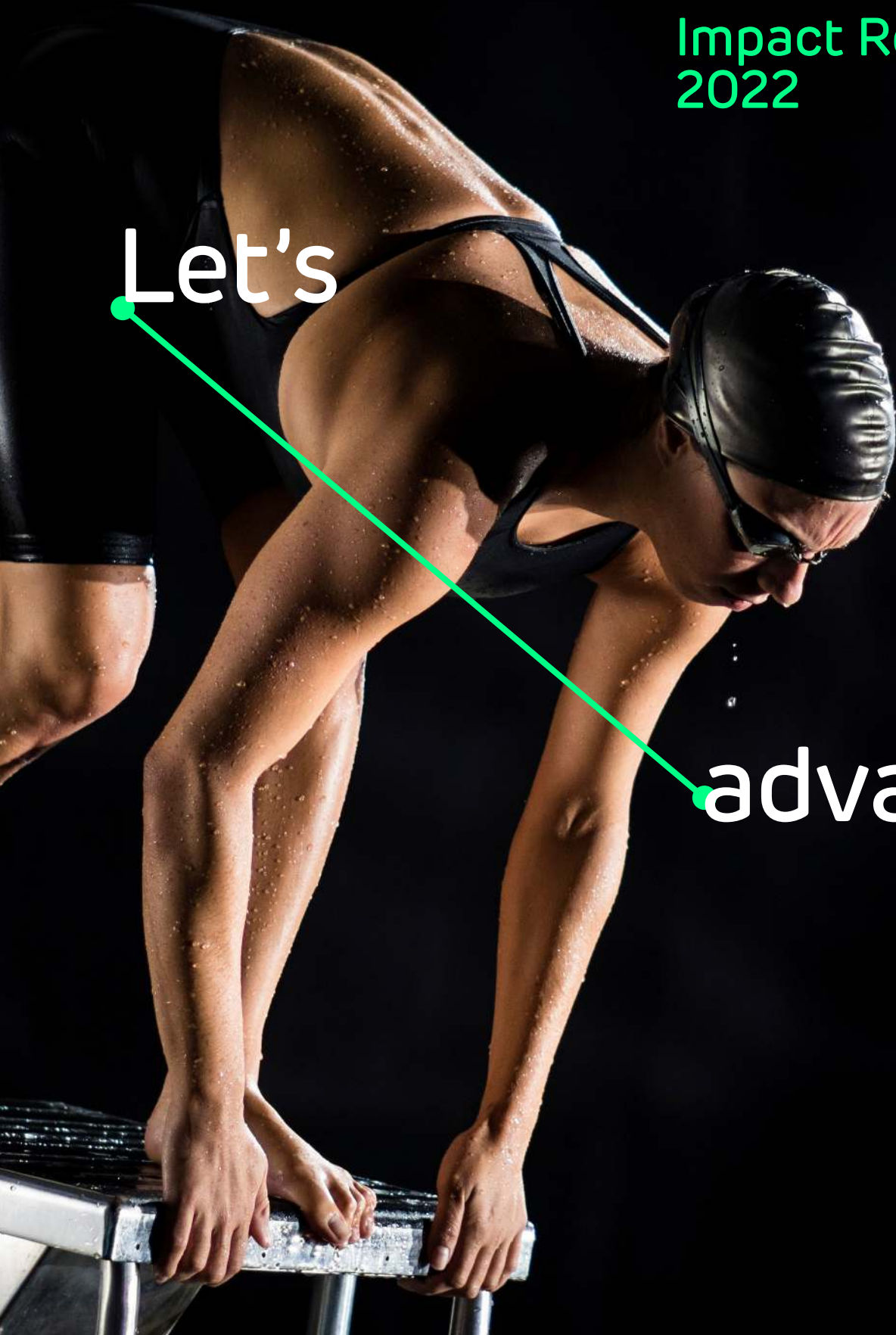
Orthopaedic  
Research UK



## Impact Report 2022

Let's

advance



---

# Contents

|   |   |    |  |
|---|---|----|--|
| 3 | A note from the Chairman of the Board of Trustees | 10 | Research                                     |
| 4 | A note from the Chief Executive                   | 15 | Education                                    |
| 5 | Introduction                                      | 20 | Innovation                                   |
| 7 | How we measure our performance                    | 23 | Complete list of educational events, 2021-22 |
| 9 | Our impact at a glance                            | 24 | Acknowledgements                             |



---

## A note from the Chairman of the Board of Trustees

We believe it is essential that charities are accountable for their actions and especially their funding. This is why we have reintroduced our annual impact report to demonstrate to our supporters and partners the difference we are making through the money we invest in research, training programmes and strategic partnerships with academic institutions and entrepreneurs.

We are a relatively small charity, operating in an area of huge demand from the millions of people suffering from poor musculoskeletal health. However, we believe that our investments can make a difference if they are well targeted, well managed and monitored, and if we work with the right partners.

We apply a rigorous evaluation process for all our investment decisions that involves our trustees, members of our Scientific Advisory Committee and external experts. All our committees comprise eminent figures in their respective fields of expertise. We also expect all recipients of funding to provide regular reports on the results achieved and the impact that it will have on the lives of patients.

It can be challenging to measure the impact of these investments, with the potential benefits often accruing many years down the line, but this will not stop us doing whatever we can to evaluate our performance and use this intelligence to inform our future activities.

Adrian Downing  
Chair of the Board of Trustees



---

# A note from the Chief Executive

As one of the few charities devoted to addressing the most important gaps in research funding and professional education in bone, joint and muscle wellbeing, we have a critical role to play in enabling pain-free movement for all.

Since 2004 we have funded 154 research projects and invested over £11m to advance knowledge and encourage innovation within musculoskeletal health. We have also expanded our education programmes using the unusual circumstances created by the pandemic to develop a virtual delivery model. Even though we have reintroduced face-to-face meetings and training programmes, the popularity of our virtual courses – 98% of participants rated our events as ‘excellent’ or ‘good’ in terms of educational value – means that they have become a permanent part of our future training offer.

We are particularly grateful to our partners within leading institutions, including the Royal College of Surgeons of England, the British Hip Society, the Royal College of Surgeons of Edinburgh, the British Orthopaedic Association and the NHS Clinical Entrepreneur Programme. These partnerships leverage our seed funding and networking skills to attract new money to the orthopaedic ecosystem.

The most significant development during the past year has been the announcement of our partnership with the Health Innovation Network (HIN) to deliver ESCAPE-pain, an award-winning, evidence-based group rehabilitation programme for people with chronic joint pain. The addition of ESCAPE-pain to our portfolio is consistent both with our mission of achieving pain-free movement for all and with our strategy of supporting innovative ideas that help the lives

of people suffering from poor musculoskeletal health.

We are also investing in innovative startups that are active in the musculoskeletal field. We see this as following in the footsteps of our founder Ronald Furlong, who combined a highly successful career as an orthopaedic surgeon with an equally successful career as a business entrepreneur. We need to embrace Furlong’s spirit of entrepreneurialism because the scale of the challenges facing all of us involved in musculoskeletal health continues to require new ideas, techniques and policies.

The conversations of all of us working within MSK health are understandably dominated by concerns about increased waiting lists, treatment backlogs and how demand from an ageing population will continue to outstrip supply. However, notwithstanding these challenges we are optimistic that by working with the right partners and mobilising the wider MSK community we can make a positive difference to the lives of millions of people.

Dr Arash Angadji  
Chief Executive



# Introduction

Our primary purpose is to use our funding to encourage breakthrough research, education programmes and innovation in bone, joint and muscle wellbeing and thereby reduce the burden of poor musculoskeletal health on individuals, workplaces and our health system.

We aim to achieve this through partnerships with leading academic institutions, charities and commercial organisations and by helping to mobilise the whole MSK community. By working together, this diverse and inclusive community can have a significant impact on the lives of millions of people.

We can share ideas and expertise, champion and celebrate innovation and speak with a common voice in the interests of those who need our help. Our role is to be a facilitator – connecting innovators with funders, academics with clinicians and encouraging collaboration across the whole MSK community.

## Our community of professionals



## Our partners

We recognise that as a small charity we can only make a significant contribution by working with others. By working with funders, academics, clinicians and business start-ups we can broaden our reach and capabilities, generate more impact from our investments and deliver benefits to patients much faster.



1

## Research

We fund innovative research projects in the UK that expand knowledge, improve patient outcomes and pioneer new forms of MSK diagnosis and treatment.

Clinical and scientific research is key to the advancement of knowledge and expertise within medical schools in universities and hospitals. Through our funding these institutions are able to provide academic research positions that may not otherwise be possible. This opens up new research areas and directly benefits early career to experienced researchers. Clinicians also benefit from access to cutting-edge research and improved training, helping them to provide better diagnosis, treatment and outcomes to patients.

2

## Education

We fund education primarily through the facilitation of conferences, workshops, seminars, training courses and webinars, that will improve knowledge of prevention, diagnosis, treatment and the management of musculoskeletal conditions. Through our educational activities we train the next generation of healthcare professionals who directly help patients to live pain-free with improved quality of life.

We also train healthcare professionals to deliver ESCAPE-pain. This group rehabilitation programme for people with chronic joint pain, integrates educational self-management and coping strategies with an exercise regimen individualised for each participant.

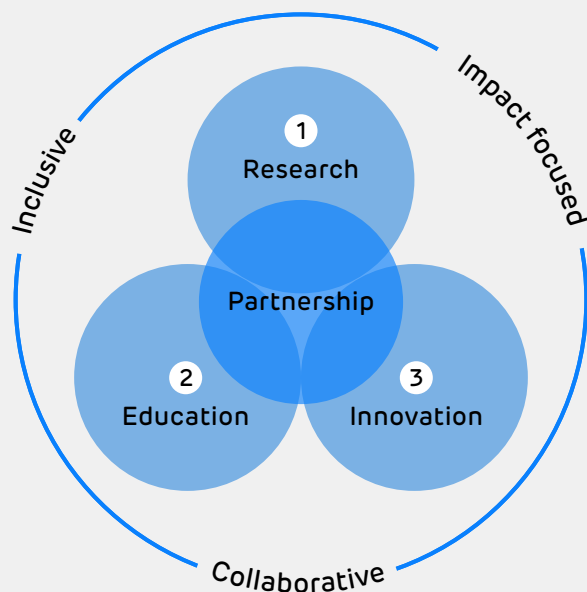
Our educational work is supported by a publishing programme. We have two books in publication which provide preparation aids for the FRCS (TR & Orth) examinations and complement our training courses.

3

## Innovation

We partner with innovative business startups to accelerate the development of diagnostic techniques and new treatments in musculoskeletal health.

Our investments provide seed funding to enable entrepreneurial businesses to test and refine their innovations and attract additional commercial funding. Any revenue generated from our investments will be reinvested in supporting our charitable activities and increasing our overall impact. Some of these investments involve the use of Big Data and artificial intelligence (AI) which is already transforming the prevention, diagnosis, treatment and management of people with poor MSK health.



# How we measure our performance



We apply a range of output and impact measures to our different activities.

|            | Output  | Impact   |
|------------|---|--|
| Research   | Level of annual investment in important research projects that fill gaps in existing knowledge.   | Furthering knowledge and improving clinical practice.<br>Supporting and developing a future generation of research talent.<br>Attracting partner funding to increase overall research spend within MSK sector. |
| Education  | Number of healthcare professionals attending our events.<br>Number of healthcare professionals completing our training programmes and the potential number of patients they will support. | Post event surveys to measure delegate/attendee satisfaction.<br>Revenue generated from sales of educational products, that can be reinvested in our charitable activities.                                    |
| Innovation | Championing innovative projects capable of bringing benefits to patients during a relatively short time frame.  | Developing value and generating commercial revenue that can be reinvested in our charitable activities.<br>Supporting entrepreneurs and innovative ideas generated by academics in the UK.                     |

---

However, although these measures are an important way of demonstrating our impact, we must not lose sight of the human dimension of our work – the stories of the thousands of people whose lives have been improved as a direct result of investments in MSK diagnosis, treatment and support. Here are just a couple of those stories:



### Mike's Story

Mike Rix has recently broken his personal records for running both 5 and 10k. What's remarkable isn't that he is in his early 50s, but that 8 years ago he had a hip replacement.

Mike, who has represented the GB in age-related triathlon competitions, is a wonderful example, especially to active sportspeople worried about undergoing the procedure, that a hip implant need not be the end of their sporting journey. Mike developed osteoarthritis and underwent a total hip replacement at the Royal Surrey County Hospital.

He has become a passionate advocate for the procedure which he claims has exceeded his expectations. He also recognises the importance of research funding to help patients like him benefit from new orthopaedic technologies that enable them to return to their former activity levels.



### Beverly's Story

When Beverly first got pains in her leg in her early 40s, she put it down to groin strain and tried physiotherapy to ease the pain. Beverly is a WPC who works as a specialist dog handler at Gatwick airport and must pass regular police fitness tests. As well as doing a physically demanding job, she is also an active mother of two and a keen horse rider so staying fit and mobile was a priority for her. When the physiotherapy and pain killers did not solve the problem she was referred by her GP for an MRI scan but the results were not what she was expecting – at the age of 42 she was diagnosed with osteoarthritis in her hips. She was initially told that she would need an operation in ten years' time but after an incident where her son had a riding accident and she was unable to run over to help him, she realised that the situation was getting worse and asked to be referred to a consultant.

Another MRI scan revealed that her right hip had deteriorated faster than had initially been predicted and a joint replacement was the only option. Beverly was admitted as an NHS patient under the care of orthopaedic surgeon Mr Praveen Panose at the Gatwick Spire Park Hospital and he reassured her that she would be able to continue with her job and her active lifestyle after the operation and would not be left with an unsightly scar. She found attending the pre-op meeting

of patients with physiotherapists unnerving as she was the youngest person there and found that the advice given was mainly aimed at older people. 'I felt quite isolated,' she says. 'I was the only one there not on a stick or in a wheelchair.' Statistics show that 10 percent of patients are under 50 and Beverly gave feedback to the hospital advising them to tailor their advice to different age groups.

Before the operation she undertook an exercise regime to strengthen her muscles and believes that this helped with her recovery. The procedure went well and Beverly was given a ceramic hip joint and a very neat 10 cm scar! Her proactive attitude to getting back on her feet, which included using the 'My Recovery' app, saw her tackling stairs within 24 hours, coming off pain killers after 2 weeks and returning to work with her beloved dogs Mason and Ollie after 6 weeks. She was quickly able to run, ride her horses and walk without leaning to one side. She has even appeared on TV as part of Dove's 'real women' campaign where she showcases her scar on the Sky Witness channel! Mr Panose says, 'Everybody recovers differently and at different time scales. Beverly's recovery was excellent. This is what we aim for in every patient'.

Beverly knows that at some point she will need to have her left hip replaced, but this time she knows what to expect and is not anxious about it. 'It's amazing how I have got my life back so quickly,' she says. 'My advice to anyone who is advised to have a hip replacement is don't hesitate. Don't put up with the pain – live your life'.

---

*"My advice to anyone who is advised to have a hip replacement is don't hesitate. Don't put up with the pain – live your life".*

# Our impact at a glance

To 31st March 2022

## Research

11m

investment  
in research  
since 2014

154

research  
projects

£115k

leveraged funding  
secured during  
past 12 months

476

researchers  
supported

## Education

100

educational events  
staged since  
September 2020

2,681

healthcare  
professionals trained  
in past 12 months

75

the number of  
countries providing  
delegates in past  
12 months

98%

of attendees rated  
our events excellent  
or good in terms of  
educational value

## ESCAPE-pain

20,000+

participants  
since inception

£30m

estimated saving in  
healthcare costs

414

facilitators trained  
since April 2021

130+

locations delivering  
face-to-face  
programme

## Innovation

3

MSK startups in which  
we are investing  
to accelerate  
innovation

£444k

investment  
in startups

£770k

additional  
investment from  
other parties

# Research

The results of research are generally readily available in the public domain through the publication of results in the media and the public presentation of research projects.

These presentations and publications are always peer reviewed to ensure a consistently high quality of research. By adopting these measures, we are able to satisfy the public benefit funding requirements.

Our evaluation process for deciding research investments is as follows:



## Peer Review

Peer review is the best way for health and medical research charities to decide what research to fund. Done properly, peer review allows charities to support the best research and the best researchers. This, in turn, can help charities maximise the impact of their funding and deliver changes that really matter to their supporters and stakeholders, so that patients benefit from the fruits of research.



We have implemented AMRC's five principles of peer review when selecting our research for funding:

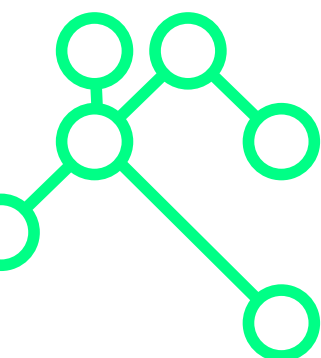
### Accountability

We are open and transparent about our peer review procedures and publish details, including the names of members of our research and scientific advisory committees.

1. **Balance**  
Scientific advisory committee reflects a fair balance of experience and scientific disciplines.
2. **Independent decision making**  
The scientific advisory committee is independent of the charity's administrative staff and trustees.
3. **Rotation of scientific advisors**  
Scientific advisory committee members have a fixed term of office and do not have tenure.
4. **Impartiality**  
Scientific advisory committee includes a significant number of non-beneficiaries. There is a conflict-of-interest policy and potential beneficiaries leave discussions when decisions are made.

Our peer review process goes through 4 different steps before we award our research grants, as described below:

1. **Internal triage**  
We check the eligibility of the research applications to ensure they are within scope. We assess the basic quality of research at this stage – this is done by experts.
2. **Written peer review**  
Experts from around the world provide written comments on the research application. We generally require at least two written reviews. Smaller grants may not require this unless the charity deems it necessary to make an informed decision.
3. **Committee**  
Made up of independent experts, the committee meets on behalf of the charity to discuss each application and the written peer review comments. The committee makes independent and impartial funding recommendations to the charity.
4. **Trustees**  
Our trustees make the final decision on whether the charity should award funding to the research application. Sometimes this decision making is delegated to the Research sub-committee, but all trustees are kept informed of the research review activity.





## Our principles on animal research

We are dedicated to improving patient lives and outcomes through high-quality research to better diagnose and treat MSK disorders.

To achieve this, many types of research methods are harnessed to achieve results. These include clinical trials, use of tissues samples, computer models and, when appropriate, animals. All approaches, including research using animals, play a vital role in the medical research process.

As a proud member of the AMRC, we support the principle of using animals in research, when necessary, to advance diagnosis and treatment of serious health conditions, where there is no alternative that can be used.

We do not take the decision to fund animal research lightly. We are committed to undertaking high quality animal research that is well-designed, uses rigorous and expert peer review, is well-reported, and ethically justified.

High standards of animal welfare – including housing conditions, well-trained animal technologists – are vital

to us. These minimise discomfort for animals and enable researchers to get reliable results. We regularly adopt best practice and ensure we can exceed the regulatory requirements to improve animal welfare and science.

### Our 3R principles

We are committed to the 3Rs of reduction, replacement and refinement, as basic principles of humane animal research. We actively employ these to improve animal welfare. Research funded outside of the UK must be carried out in the spirit of UK legislation as well as being compliant with all local legislation and ethical review processes.

We are committed to openness and transparency around the use of animals in research. We recognise that not everybody is comfortable with the use of animals in research. Along with other medical research charities, we work together through AMRC to continually review our funding practices and engage with the wider scientific community to encourage better practice and development of animal alternatives.

## Our research investments

Since 2004 we have funded 154 research projects and invested around £11m to advance knowledge and encourage innovation within orthopaedics.

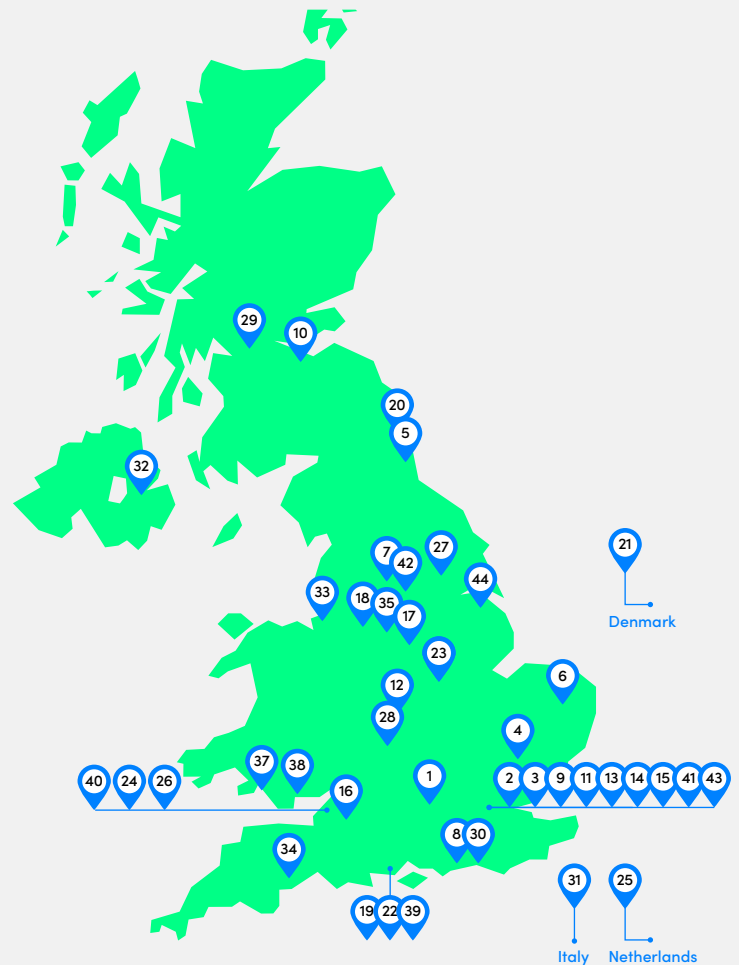
| Status & Value |     |                |
|----------------|-----|----------------|
| Live           | 33  | £2,062,976.13  |
| Completed      | 85  | £8,830,624.33  |
| Total          | 154 | £10,893,600.46 |

| £ by Study Stream       |                |
|-------------------------|----------------|
| Post-Doctorate          | £3,869,058.71  |
| PhD                     | £3,433,934.36  |
| Clinical Fellowship     | £1,879,911.14  |
| Early Career Fellowship | £526,901       |
| MD                      | £512,146.23    |
| Ronald Furlong Fund     | £444,279.02    |
| Inspiration Fund        | £134,114       |
| Mphil                   | £93,256.00     |
| Total                   | £10,893,600.46 |

| Distribution of Study Streams |     |       |
|-------------------------------|-----|-------|
| PhD                           | 53  | 34%   |
| Post-Doctorate                | 48  | 31%   |
| Clinical Fellowship           | 32  | 21%   |
| MD                            | 9   | 6%    |
| Early Career Fellowship       | 5   | 3%    |
| Ronald Furlong Fund           | 3   | 1.95% |
| Inspiration Fund              | 3   | 1.95% |
| Mphil                         | 1   | 0.65% |
| Total                         | 154 | 100%  |

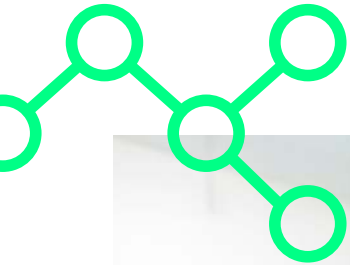
## Research Institutions

| Institution                                  | £                     | %           | no of Grants |
|--|-----------------------|-------------|--------------|
| 1 University of Oxford                       | £1,786,389.46         | 16.40%      | 25           |
| 2 University College London                  | £1,366,581.12         | 12.54%      | 19           |
| 3 Imperial College London                    | £1,011,116.00         | 9.28%       | 16           |
| 4 University of Cambridge                    | £625,498.70           | 5.74%       | 8            |
| 5 Newcastle University                       | £619,870.22           | 5.69%       | 9            |
| 6 University of East Anglia                  | £405,156.33           | 3.72%       | 6            |
| 7 University of Leeds                        | £372,480.91           | 3.42%       | 2            |
| 8 Western Sussex Hospitals NHS Trust         | £363,125.00           | 3.33%       | 5            |
| 9 King's College London                      | £297,436.82           | 2.73%       | 4            |
| 10 University of Edinburgh                   | £289,910.00           | 2.66%       | 4            |
| 11 Queen Mary, University of London          | £277,713.00           | 2.55%       | 5            |
| 12 University of Birmingham                  | £252,512.96           | 2.32%       | 3            |
| 13 Novara Therapeutics (Startup)             | £234,279.02           | 2.15%       | 1            |
| 14 St Georges University of London/SWLEOC    | £219,500.00           | 2.01%       | 4            |
| 15 Royal Veterinary College                  | £215,755.00           | 1.98%       | 3            |
| 16 University of Bath                        | £183,227.99           | 1.68%       | 2            |
| 17 University of Sheffield                   | £176,657.82           | 1.62%       | 3            |
| 18 University of Manchester                  | £156,527.63           | 1.44%       | 3            |
| 19 University of Southampton                 | £140,766.09           | 1.29%       | 2            |
| 20 Northumbria Healthcare NHS FT             | £128,115.00           | 1.18%       | 3            |
| 21 Aarhus University (Denmark)               | £122,788.67           | 1.13%       | 1            |
| 22 Renovos (Startup)                         | £110,000.00           | 1.01%       | 1            |
| 23 Nottingham University Hospitals NHS Trust | £109,408              | 1.00%       | 1            |
| 24 University of Bristol                     | £106,812.00           | 0.98%       | 2            |
| 25 Radboud University (Holland)              | £101,809.04           | 0.93%       | 1            |
| 26 Radii Devices (Startup)                   | £100,000.00           | 0.92%       | 1            |
| 27 University of York                        | £94,000.00            | 0.86%       | 1            |
| 28 University of Warwick                     | £93,930.00            | 0.86%       | 1            |
| 29 University of Strathclyde                 | £89,000.00            | 0.82%       | 1            |
| 30 University of Brighton                    | £88,999.98            | 0.82%       | 1            |
| 31 The Rizolli Institute                     | £83,242.70            | 0.76%       | 2            |
| 32 Queen's University Belfast                | £79,592.00            | 0.73%       | 1            |
| 33 University of Liverpool                   | £75,000.00            | 0.69%       | 1            |
| 34 University of Exeter                      | £74,690.00            | 0.69%       | 1            |
| 35 Sheffield Children's NHS Foundation Trust | £73,042.00            | 0.67%       | 1            |
| 36 University of Nottingham                  | £72,566.00            | 0.67%       | 1            |
| 37 Swansea University                        | £68,549.00            | 0.63%       | 1            |
| 38 Cardiff University                        | £63,416.00            | 0.58%       | 2            |
| 39 University Hospital Southampton           | £49,764               | 0.46%       | 1            |
| 40 North Bristol NHS Trust                   | £47,657.00            | 0.44%       | 1            |
| 41 Royal College of Surgeons of England      | £45,000.00            | 0.41%       | 1            |
| 42 Dewsbury & District Hospital              | £12,015.00            | 0.11%       | 1            |
| 43 London School of Hygiene Tropical Med.    | £7,500.00             | 0.07%       | 1            |
| 44 Grimsby – N.Lincs & Goole Hospitals       | £2,200.00             | 0.02%       | 1            |
| <b>Total</b>                                 | <b>£10,893,600.46</b> | <b>100%</b> | <b>154</b>   |



---

## Our research partners



By partnering with leading academic institutions and health bodies we can support new areas of MSK research and new research talent.

### Royal College of Surgeons of England and Royal College of Surgeons of Edinburgh

We are co-funding early careers research fellowships with RCSEng and RCSEd.

The first recipient of the RCSEng/ORUK fellowship, Sami Anjum, a clinical research fellow at Newcastle University, will be undertaking a year-long study into the role that statins might play in extending the longevity of joint replacements. One of the causes of the failure of artificial joint replacements is inflammation which leads to bone

degradation and aseptic loosening of the implant. Sami's research fellowship will explore the role of the immune system in causing this inflammation response and specifically whether the use of statins can provide a solution.

The first recipient of the RCSEd/ORUK fellowship, Becca Stoner, will be researching the use of statistical modelling to help better predict trauma patient outcomes. Becca describes how her project is designed for scenarios where there are several patients who require urgent treatment, 'In a mass casualty incident, to save as many lives as possible you need to know in what order to treat people. There are existing scoring systems to predict mortality, but they tend to be rather simplistic. By harnessing the power of AI, we can analyse the information we have about trauma patients, for example how their heart rate is changing over time

and what's happening to their blood pressure, to make better decisions."

Professor Michael Griffin OBE, President of the Royal College of Surgeons of Edinburgh, said: 'We are delighted to partner with ORUK in order to support the next generation of orthopaedic researchers.'

### NHS Clinical Entrepreneur Programme

We are partnering with the NHS Clinical Entrepreneur Programme, the world's largest entrepreneurial workforce development programme for clinicians. Funded by NHS England and founded in 2015 by Professor Tony Young OBE (a practising NHS surgeon and Director of Medical Innovation at Anglia Ruskin University), the programme has helped more than 500 NHS clinicians gain the skills, knowledge and experience to transform the way health and care is delivered. The impact of this support and mentoring has been the creation of around 250 life-science companies, 347 innovations and £270m of investment.

The programme involves partnerships across the NHS and with industry and charities and is designed to unlock the entrepreneurialism of the country's clinicians by giving them the commercial skills, knowledge and access to partners and sources of funding to turn their ideas into reality.

Orthopaedic and musculoskeletal specialists are well represented among the clinicians attending the programme, which has helped companies related to orthopaedics raise tens of millions of pounds. The discipline appears to attract inventive and entrepreneurial people, just like our founder and benefactor Ronald Furlong, who in addition to being a pioneering surgeon was responsible for a revolution in artificial joint and implant design.

ORUK is one of a number of charities working alongside the NHS Clinical Entrepreneur Programme. The expertise and knowledge it can

---

provide is valued by Professor Young, 'ORUK brings lots of experience, lots of networks, lots of connections into patient groups and into clinical groups and charities are often able to address different problems than the commercial sector might address and fund initiatives that may not necessarily be commercially viable but represent a real patient need. There will be a large number of great musculoskeletal ideas developed by our clinicians, that ORUK can support.'

*'We are delighted that ORUK is one of our founding partners and supporter of this new endeavour, which is not something that's been done anywhere else in the world – a national level workforce development programme in health care focused on entrepreneurship. I invite other research related charities to see the kind of trailblazing way that ORUK is stepping forward.'*

### The British Hip Society

We are collaborating with the British Hip Society to jointly fund a research fellowship, based at Newcastle University, into the results of hip revision surgery. The research will examine where and how the revision surgery is undertaken. In particular, it will analyse the effectiveness of a more networked approach, focused on dedicated centres, rather than a system in which hospitals work independently and some surgical teams undertake revision procedures on a relatively infrequent basis.

Professor Tim Board, who is chair of the research committee for the British Hip Society, says: 'It is great to see that Orthopaedic Research UK is increasing funding for UK-based research. The primary focus of this research fellowship will be on improving patient outcomes, although the study will inevitably help identify more efficient ways of working.'

### The British Orthopaedic Association

We have recently announced a joint Research Fellowship with the BOA, with the goal of developing a pipeline of research-active orthopaedic surgeons. The pilot scheme, starting in 2022, will award two fellowships of up to £65k for a project in any area of orthopaedics.

The BOA and ORUK are fully supportive of diversity and inclusion within trauma and orthopaedics and within research. We are particularly keen to promote and encourage applications from individuals who wish to undertake research flexibly or less than full time.



# Education



Our educational programme is based on a blended model of virtual and in-person events that will improve knowledge of prevention, diagnosis, treatment and the management of musculoskeletal conditions.

Our vision is to advance orthopaedic knowledge and develop the next generation of musculoskeletal practitioners through education and training. This is achieved through the provision of high-quality events and learning resources. Our educational activities provide a welcoming forum for knowledge exchange between Health Care Professionals (HCPs) working within musculoskeletal medicine and the associated specialities.

Our events portfolio has gathered pace over the last few years with the introduction of many new events to our programme. Recent years have seen us deliver large flagship conferences such as the London Shoulder Meeting, smaller hands-on cadaveric surgical courses, interview preparation courses, and a suite of online courses aimed at MSK physiotherapists.

We have intensified our FRCS (Orth) revision course offering with an expanded programme of events, which are complemented by additional learning aids such as textbooks, podcasts and a free webinar programme. We acknowledge the importance of passing the FRCS (Orth) examinations, so ensuring we support registrars on this journey has always been integral to our programme.

We actively research educational gaps within the events market and have been able to introduce new courses that our competitors are not offering, such as our consultant interview course, which prepares surgeons in training to achieve a consultant post.

As the COVID-19 pandemic escalated in late March 2020, ORUK responded by rapidly transitioning from our in-person programme of events to a virtual programme. This initially focussed on providing a continuation of support for candidates approaching their FRCS (Orth) examinations through a free webinar programme. In the first 3 months, our free webinar programme attracted over 1400 participants from 67 different countries. We subsequently launched our first comprehensive virtual course in August 2020 which, following its success resulted in the development of a full programme of virtual events.

In 2021 we launched a suite of virtual courses aimed at MSK paediatric physiotherapists – these have proved extremely popular, already attracting over 300 physiotherapists. We have received great feedback from attendees, many commenting that we uniquely bridge a knowledge gap. The courses have received praise for their content which is influencing changes to approaches when treating patients.

*"My colleague and I both attended the course last night and what we heard is going to be life changing for our patients and massively improve their quality of life"*

[Advanced paediatric orthopaedic course for physiotherapists](#)

The importance of collaborative working and partnerships is reflected within all our educational activities, as we believe this is key to advancing musculoskeletal knowledge.

Our educational activities are formed through close collaboration with HCPs and are often supported by industry partners. Partnerships have enabled further growth within our programme.

by S.J. Dawson Bowling (Author), I.R. McNamara (Author), B.J. Ollivere (Author), T.W.R. Briggs and Brigitte Scammell (Forewords), A. Angadji (Editor).



## Testimonials

*"In terms of educational value, the course was amazing and very well organised."*

London Basic Science Course

*"This course gave excellent hands on experience and the lectures will help guide management of patients with complex elbow injuries."*

St George's cadaveric trauma series: Elbow

*"This webinar will have a huge impact as I can now give the family of my paediatric patient the benefit of your knowledge. I can support her through an orthopaedic assessment with much more confidence."*

Foundation paediatric orthopaedic course for physiotherapists

*"I looked forward to this course every single week and have already revisited the earlier recorded sessions. I would highly recommend it to anyone working in paediatric orthopaedics as there are limited courses (for physios) specifically on this topic."*

Online Paediatric Orthopaedic revision course

*"This course has really put me on the right track to crack my exam with a correct approach."*

Cambridge basic science course



## Our education partners

### Orthopaedic Academy

We partner with Orthopaedic Academy, a long-established provider of webinar-based orthopaedic teaching programmes, to help deliver elements of our virtual programme.

This partnership has enabled us to provide a highly rated virtual continuous professional development programme that has been accredited by the Royal College of Surgeons of Edinburgh. A key element is an Intensive FRCS (Orth) mock viva and clinical exam course for senior trainees aiming to pass the FRCS (Orth) examinations and subsequently become consultants, which includes the opportunity for candidates to undertake mock exams and receive one-to-one feedback from faculty leaders. This was the first course of its kind in the UK that exactly simulated the new format of exam which moved to a virtual platform. Around 200 trainees attend the course each year, making it one of the most important platforms for developing future orthopaedic consultants, both in the UK and internationally.

### Let's Talk Dr

We partner with the virtual training provider, Let's Talk Dr, to help prepare students for the viva element of their FRCS exams. The company was set up by orthopaedic surgeon Dr Rishi Dhiri, who has been involved in regular television appearances and felt that the skills he developed in dealing with the media could be equally valuable to students. He says, 'My belief is that technique and the ability to speak and deliver is actually about 80 percent of the exam.'

The virtual training workshops he has created with ORUK provide participants with both the techniques and confidence to handle the unique pressures of a viva. He also believes that the communication skills registrars develop as part of their exam preparation will have a wider application to their medical careers: 'An essential part of being a good doctor is good communication. I can speak from personal experience. I have found that developing my presentation skills has actually made me a far better surgeon. It's made my brain much more logical in the way that I think through things and solve problems even when I'm in the operating theatre.'

## ESCAPE-pain

ESCAPE-pain is an award-winning, evidence-based group rehabilitation programme for people with chronic joint pain that integrates educational self-management and coping strategies with an exercise regimen individualised for each participant.



ESCAPE-pain stands for Enabling Self-Management and Coping with Arthritic Pain using Exercise. The programme was developed by Professor Mike Hurley at St George's University of London and Kingston University to help people with knee, hip and back pain. In 2020, ESCAPE-pain was named Musculoskeletal Initiative of the Year by Health Service Journal.

The programme transferred from the Health Innovation Network (HIN) to Orthopaedic Research UK (ORUK) on April 20, 2021, under a 5-year licence agreement from Guy's and St Thomas' NHS Foundation Trust.

ESCAPE-pain offers two programmes:

1. **ESCAPE-pain for knees and hips:** designed to benefit people with chronic knee/hip pain.
2. **ESCAPE-pain for backs:** designed to benefit people with chronic lower back pain.

We provide training for facilitators to deliver these programmes in the community.

ESCAPE-pain is estimated to have helped over 20,000 people suffering from joint pain and has saved an estimated £30m in health and social care costs. Participants frequently report that their pain improves, they take fewer medications and find they are more able to get back to doing the things they enjoy. With waiting lists growing ever longer, the programme provides many patients, with little chance of treatment in the near future, with an alternative to surgery that enables them to get their lives back, socially and emotionally. The success of the programme owes much to its community focus, with support provided in local community and leisure centres, as well as clinical settings.

Robust evaluation shows that the ESCAPE-pain programme for knees and hips:

- Reduces pain
- Improves physical function
- Improves the psychosocial consequences of pain
- Reduces healthcare and utilisation costs.

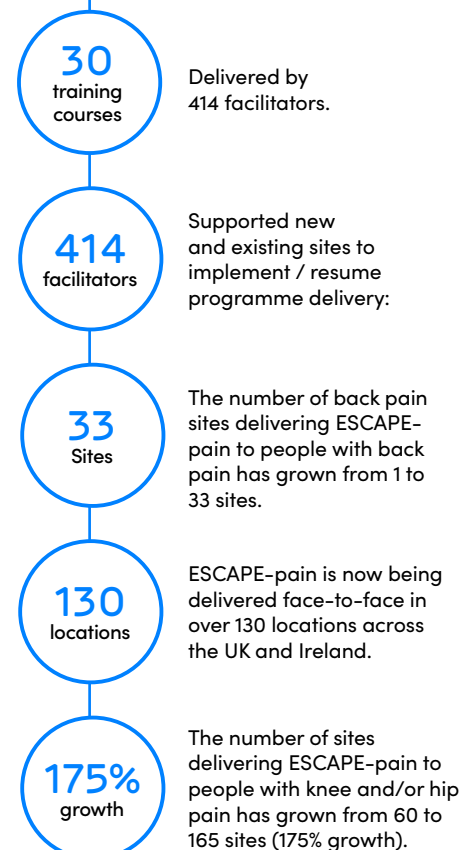
ESCAPE-pain is an evidence-based programme recommended by Public Health England as a preferred intervention for musculoskeletal management. Their report titled, '[Return on Investment Interventions for the Prevention and Treatment of Musculoskeletal Conditions](#)' shows the programme has a positive financial ROI of £5.20 for every £1 spent. (October 2017).

ESCAPE-pain won the 2021 [Self Care Forum's Innovation Award](#). Announcing ESCAPE-pain as the winner, Self Care Forum Chair Helen Donovan said: 'The ESCAPE-pain programme is an effective, scalable way to support people to self-manage osteoarthritis of the knee or hip, or lower back pain.'

The judges were hugely impressed both by its achievements and by its potential to help people tackle this hugely debilitating condition; we hope it continues to expand as a valuable self-care tool for those living with musculoskeletal pain.'

A study showing ESCAPE-pain can be delivered by exercise professionals in community centres has won the British Society of Rheumatology Nurse and Allied Health Professional Award in recognition that the programme can help reduce waiting times helping many more people to live better lives.

Since becoming involved with the programme in April 2021, ORUK's investment has helped achieve the following:



---

## Case studies – providers



### Susannah and Andy's story

Susannah and Andy lead Healthiness Limited, a not-for-profit organisation running the ESCAPE-pain programme in Liverpool. They find that the programme is a good fit with their existing work in the community and often provides a bridge for participants into more advanced exercise programmes. They have even seen ESCAPE-pain participants move on to relatively strenuous activities such as boxercise and dance classes or joining a walking group.

They like how the programme combines exercises with education on pain and medication management and its focus on empowerment – giving people the skills and knowledge to help themselves. They also see the benefits of the group dynamic – how people help and encourage each other to try new things.

According to Andy, 'Some of the results experienced by the Healthiness Limited team have been remarkable – literally people coming in with walking sticks or frames and then after a few weeks leaving without them because they have forgotten that they were using them. We had one gentleman attending a programme whose ultimate goal was simply to be able to put on his underwear without help – he was not able to bend down, and the pain was too great. His wife had to help him get dressed. He came to us after a few weeks into the programme and said,

'This morning, I put on my underwear on my own for the first time in about 15 years'. That's what the programme is all about. He was absolutely delighted that the programme had enabled him to do something that he'd taken for granted he was never going to be able to do again.'

Some of Andy's participants have even come off the waiting list for a joint replacement because their improvements have been so great. They have been able to improve the strength and power of their legs, which has meant that the pain has improved.



### Martha's story

Martha is a physiotherapist working within South-West Yorkshire Partnership NHS Foundation Trust and has been involved in the ESCAPE-pain programme for several years. She describes how many of the people referred to her are often in limbo – they have been told that they might need a joint replacement and are now just sitting around and waiting for a date for their procedure. Her message is that there is something they can do in the meantime: 'We are not a substitute for surgery but can support them by helping them deal with pain, improve movement and enhance their overall well-being.'

Martha describes how the ESCAPE-pain programme is like having a 'toolbox' ready for coping with all the elements of osteoarthritis. It provides them with the information to help recognise the symptoms of having a flare-up, understand what has

triggered it (for example, stress) and learn how to deal with it using simple exercises so they don't automatically refer to their GP or nurse. The programme includes advice on diet and the importance of maintaining a healthy BMI, explaining how even a small amount of weight loss can still have an impact on how much pressure is going through the joints.

Martha sees the social aspect of the ESCAPE-pain programme as particularly important: 'People can attend a group that's not too overwhelming in terms of size and where they're with other people in similar circumstances. There's a camaraderie that helps people overcome any initial nervousness and provides plenty of motivation to try new things. I love it when after the programme people decide to walk home together or share car journeys.'

---

## Case studies – participants



### Peter's Story

When Peter was diagnosed with spondylosis in his 70s he feared that he would not be able to continue with his hobby of archery, walk any distance or even stand up for long. The former police officer had been enjoying an active retirement, but severe back pain now meant that he was on medication and had to undergo painful procedures to try and alleviate the condition. Peter was also told that an operation on his back was not possible because of the risks involved.

---

When he was referred to an ESCAPE-pain programme being offered at his local sports centre in Bridlington, East Yorkshire, he decided to give it a go and soon found that the classes brought mental as well as physical benefits. 'As well as easing my back pain, I also lost weight and generally felt more positive,' he says. The facilitators took time to demonstrate the exercises and explain their benefits and Peter was so encouraged by his progress that he took out a gym membership to keep active. He found that the structured sessions, and support and encouragement of the facilitators and other participants, helped to motivate him and he enjoyed meeting new people.

'I would encourage anybody who is referred to join the ESCAPE-pain programme and to persevere with it,' Peter says. 'As you get stronger you are able to do more. I would recommend this programme for anyone with a back problem.'

---

*'I would encourage anybody who is referred to join the ESCAPE-pain programme and to persevere with it.'*



### Anne's story

When Anne fell while out for a walk and was sent for an X-ray, she had no idea that she was suffering from osteoarthritis. The diagnosis came as a shock and was followed by severe

pain in her knee and serious restrictions on her mobility which affected her daily life.

'I couldn't kneel down on the floor to play with my grandson or manage to do jobs in the house and garden which I had always done,' says Anne. As well as helping out with childcare she also has an elderly mother who relies on her, but Anne was finding that she was having to rely on other people to help. She was taking Ibuprofen to try and manage the pain but was determined not to spend the rest of her life on painkillers.

'My daughter-in-law saw that an ESCAPE-pain programme was starting in my local area of North Yorkshire, and I was able to sign up and take part,' Anne explains. 'As well as the physical exercises, all of which we could then do at home, we talked about what might trigger our conditions, how to manage pain and the importance of diet.' She found that being in a group was beneficial as the participants were able to support and encourage each other. The facilitators tailored the exercises to suit the individual participant's needs.

---

*'As well as the physical exercises, all of which we could then do at home, we talked about what might trigger our conditions, how to manage pain and the importance of diet.'*

Anne found that she benefited immediately and when the group sessions had finished, she used the ESCAPE-pain app to carry on exercising at home. Anne also encouraged a neighbour to follow the programme.

Anne describes herself now as 'not in pain and not on medication'. She has a very active life and credits the ESCAPE-pain programme with helping her to achieve this. 'It's about taking

responsibility for your own health,' she says.



### Regina's story

Regina describes herself as being 'in a really, really bad place' before she was referred to her local ESCAPE-pain programme in Bromley. Diagnosed with osteoarthritis, she was in considerable pain, used a wheelchair and relied on others to help her get around. It was difficult to get out to the shops and the social activities she loved, including attending church. 'It would take me 20 minutes to do a short walk which should have taken five,' she says.

After being referred to the ESCAPE-pain programme she found that the benefits of the classes were not just physical. She enjoyed being in a group where she made friends and was able to talk to people with similar health issues. She also appreciated the fact that the facilitators took time with all the participants to discuss their progress and listen to their concerns. 'They explained the exercises to us and encouraged us,' Regina says. 'The programme gave me physical and moral support – my confidence returned'.

Regina no longer relies on a wheelchair and is looking forward to returning to the gym soon. 'ESCAPE-pain has given me my independence back,' she says.

---

*'The programme gave me physical and moral support – my confidence returned'.*

# Innovation



**Our founder Ronald Furlong was a clinical entrepreneur. He combined a highly successful career as an orthopaedic surgeon with an equally successful career as a business leader.**

Furlong was the pioneer of uncemented hip implants, a disruptive innovation of its time that has subsequently benefited the lives of hundreds of thousands of people across the world. The business he co-founded to bring this innovation to the market, JRI, was the first company in the world to produce an uncemented hip implant with a hydroxyapatite coating, creating the real prospect of a hip implant for life. This product won the prestigious Queen's Award for Technical Achievement in 1993.

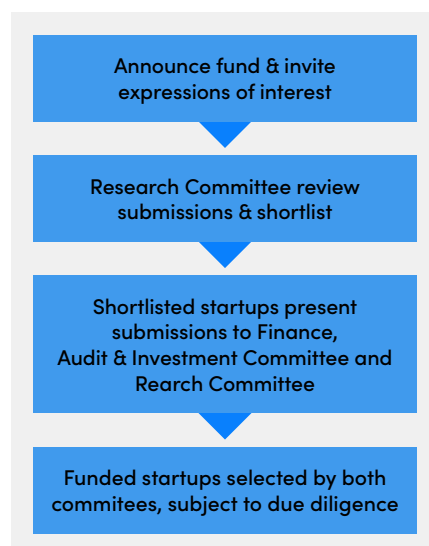
In 1989, he established the Furlong Research Foundation, later to become Orthopaedic Research UK. Since that time, we have maintained Furlong's spirit of entrepreneurialism, because the scale of the challenges facing all of us involved in musculoskeletal health continues to require new ideas and techniques. As one of the few charities devoted to addressing the most important gaps in research funding and professional education in bone, joint and muscle wellbeing, we have a critical role to play in enabling pain-free movement for all. The stark reality is that poor musculoskeletal health is a major and debilitating drain on society. It is the third largest area of expenditure for the NHS. Tragically, it is also linked to rising levels of obesity, anxiety, isolation and depression. With such a huge

societal impact, we must never accept the inevitability of pain, or indeed its cost.

This is why we are investing in startup businesses that are active in the MSK field, through the appropriately named the Ronald Furlong Fund for Start-ups. Our aim is to commercialise and accelerate the roll-out of innovative ideas that can benefit patients as quickly as possible.

We believe in the value of collaboration, working with innovators, funders, academics and clinicians across the whole MSK community. This is why we are delighted to be part of the NHS Clinical Entrepreneur Programme. We share the organisation's belief that clinicians are not only well placed to identify key problems and potential solutions, but many have the entrepreneurial ambition to bring their ideas to life. Orthopaedic and musculoskeletal specialists are already well represented among the clinicians attending the programme. The orthopaedic discipline appears to attract inventive and entrepreneurial people, just like our founder and benefactor Ronald Furlong.

Our evaluation process for deciding investments in innovative businesses is as follows:



## Our innovation partners

### Embryo Ventures

We are partnering with Embryo Ventures, a London-based venture firm which backs pioneering start-ups and entrepreneurs in the creation of Novara Therapeutics, which aims to commercialise the world's first patented bio-specific solution for the targeted diagnosis and treatment of bone microfractures. The Embryo Ventures team brings an entrepreneurial and commercial mindset to this project, which emerged from research and development work undertaken by the University of Brighton.

Embryo Ventures' Chief Executive Dr Arash Moavenian has a passion for orthopaedics that stems from his PhD at the University of Cambridge where he worked closely with the orthopaedic research unit at Addenbrooke's Hospital. He considers the type of technological solution championed by Novara Therapeutics as playing an essential role in helping to tackle the ever-growing burden of poor MSK health on individuals and society: 'Novara Therapeutics was born from our joint mission with ORUK to positively impact the lives of patients around the world. Leveraging on a firm foundation of robust intellectual property, we built a first-class team around Novara bringing on board Steve Smith as CEO to spearhead translation of the pioneering research toward a cost-effective solution for upstream diagnosis and treatment of orthopaedic diseases. For ORUK the joint venture provides a new route to secure external funding, accelerate impact and realise return on investment that can be used to fund new research and ventures.'

Dr Moavenian sees ORUK playing a central role in connecting these different skillsets, 'ORUK does great work creating opportunities across the MSK community to exchange ideas and insights and encourage collaboration, with the formation of

---

Novara Therapeutics exemplifying the value that can be created by connecting academics, clinicians and entrepreneurs and fostering new ways of working together.'

## Our innovation investments



### Novara Therapeutics

Novara Therapeutics is a joint venture company in which we have partnered with investment company Embryo Ventures to commercialise the world's first patented bio-specific solution for the targeted diagnosis and treatment of bone microfractures.

It builds on over a decade of research and development work undertaken by Brighton University, Newcastle University and the University of Milan into the use of a bio-specific contrast agent (based on a gadolinium-tagged peptide) in MRI scans and x-rays to identify bone microfractures. The presence of these microfractures is one of the reasons why older people suffer broken bones when they fall. Not only does it provide an early warning for potential bone weaknesses, but the compound has a therapeutic benefit by helping to stimulate new bone growth – for the technically-minded, it inhibits the osteoclasts responsible for removing bone cells, thereby reinforcing the work of the osteoblasts responsible for bone growth.

The researchers have also identified a new and exciting application of the compound to the treatment of bone cancer. They have observed how inhibiting the osteoclast process can prevent the spread of bone cancer cells to other parts of the body, especially the lungs. As a result of this discovery, Novara Therapeutics has pulled together a team of orthopaedic surgeons, oncologists and radiologists, mainly based at Newcastle University, to undertake further pre-clinical studies. It is seeking additional funding from leading cancer research charities.

---

*'ORUK has been instrumental in introducing us to people from very different backgrounds but with shared interests, whether that's identifying clinicians who might be interested in our technology or putting us in touch with potential investors. ORUK has the credibility that eminent researchers, professors, doctors are more than happy to give me an hour or a couple of hours for a conversation around our subject area.'*

Steve Smith,  
CEO of Novara Therapeutics



### Renovas

We are investing in this spin-off from Southampton University, which is pioneering the use of a nanoclay in an injectable gel form (Renovite®) that

can carry biologic drugs capable of augmenting bone tissue regeneration.

Our funding is supporting pre-clinical testing of this technology, already widely used in the cosmetics industry, to prove that it can facilitate the precise and safe delivery of the drugs to the injection site.

This precision technology means a lower effective dose of the biologic, reducing both side effects (which can be significant for such a potent drug) and cost. This has the potential to open up new application and markets for the use of biologics for other indications beyond its primary use in spinal fusion.

---

*'Not only is ORUK providing funding to help us get to the next stage in our development, but it has also opened-up multiple links to industry professionals, clinicians and in the future also patient groups. This access has proven invaluable to help us better understand the wider practical applications of our technology.'*

Dr Agnieszka Janeczek,  
Co-founder / CEO



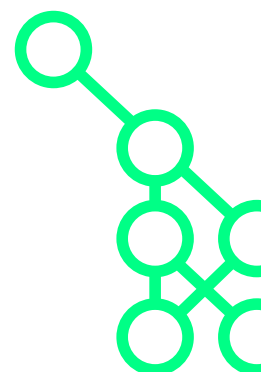
## Radii Devices

We have taken an equity stake in Radii Devices, a start-up company that uses state-of-the-art AI and biomechanical modelling to help clinicians design better fitting prosthetic sockets for people with limb loss or limb difference. The company was founded by University of Southampton postgraduate, Dr Josh Steer, who says that designers of prosthetic limbs 'should have access to the same technology as Formula 1 or NASA engineers'.

The socket between the patient's limb and a prosthetic is often a source of pain and discomfort and can sometimes even prevent the user from walking. Every patient is unique, so the sockets have to be custom made to each individual and the external shape of the patient's limb often changes over time, making the fitting of prosthetics a time-consuming process. Following amputation, up to nine clinical visits are required before a comfortable fit is achieved. Radii Devices aims to help clinicians design more comfortable prosthetic sockets, more efficiently, by providing them with analytical data from 3D scans of thousands of procedures.

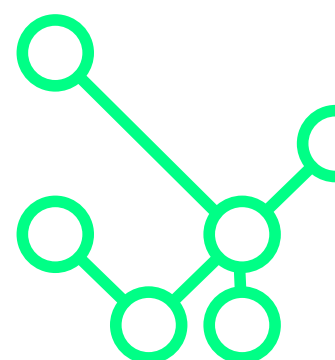
Our investment will fund a multi-centre clinical trial of the company's software in several clinics across the UK, to evaluate how well the software works and the quantifiable improvements that have been made.

Around 8,000 lower limb prosthetic procedures are undertaken every year in the UK and demand is growing, largely because of the rise in diabetes. Radii Devices has ambitious plans to expand into new territories, such as North America (where there is an enormous demand for prosthetics), and also into new areas of medicine. The company believes that its biomechanical modelling can be applied to other areas of medicine in which external medical devices are attached to the skin, including orthotics and the fitting of respiratory masks.



# Complete list of educational events, 2021-22

|  |   |
|--|---|
| London Shoulder Meeting  | Specialty Series for Paediatric Orthopaedic Physiotherapists: The Paediatric Foot |
| St George's cadaveric trauma series  |   |
| Musculoskeletal care in cerebral palsy: Present and future                   | Specialty Series for Paediatric MSK Physiotherapists                              |
| Orthopaedic and trauma course for emergency medicine                         | Intensive FRCS (Orth) mock viva & clinical exam course                            |
| London pelvis and acetabular fracture course                                 | Foot and ankle FRCS (Orth) mock viva course                                       |
| Early intervention in hip surgery  | Spine orthopaedic FRCS (Orth) revision course                                     |
| Brachial plexus and peripheral nerve injury masterclass                      | The London basic science FRCS (Orth) revision course                              |
| Improving outcomes from shoulder and elbow arthroplasty                      | Paediatric orthopaedic FRCS (Orth) revision courses                               |
| Peri-prosthetic fracture course  | How to pass the FRCS (Orth) revision course                                       |
| Paediatric trauma course   | Lower limb and paediatric FRCS (Orth) revision course                             |
| Plastering skills for orthopaedic surgery and emergency medicine             | Cambridge basic science FRCS (Orth) revision course                               |
| Top tips for T&O Consultant Interviews                                       | Shoulder and elbow FRCS (Orth) revision course                                    |
| Trauma & orthopaedics ST3 interview course                                   | Hand and wrist surgery FRCS (Orth) revision course                                |
| Foundation paediatric orthopaedic course for physiotherapists                | Trauma FRCS (Orth) mock viva course   |
| Advanced paediatric orthopaedic course for physiotherapists                  | Implant related infections  |
| Specialty Series for Paediatric Orthopaedic Physiotherapists: Cerebral Palsy | Big data and artificial intelligence in orthopaedics                              |

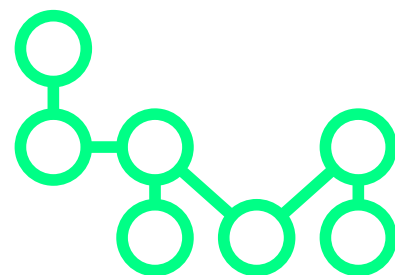




# Acknowledgements

We would like to sincerely thank the MSK community who continue to support us to deliver our charitable activities, in particular:

|           |               |           |                |           |                |
|-----------|---------------|-----------|----------------|-----------|----------------|
| Richard   | Abel          | Ambra     | Caruso         | Eileen    | Gentleman      |
| Irrum     | Afzal         | Gareth    | Chan           | Lydia     | Gilbert        |
| Eslam     | Al-Abadi      | Pratheek  | Chikkalur      | Sion      | Glyn-Jones     |
| Nuzhat    | Ali           | Susan     | Clarke         | Kishan    | Gokaraju       |
| Rob       | Allaker       | Justine   | Clarke         | Joe       | Gouda          |
| Kate      | Allen         | Sarah     | Clarke         | Martin    | Gouldstone     |
| Lynn      | Almond        | Justin    | Cobb           | Alison    | Gowdy          |
| Farhaan   | Altaf         | Carlos    | Cobiella       | Carol     | Graham         |
| Hanny     | Anwar         | Alice     | Coburn         | Agi       | Gridoriadis    |
| Magnus    | Arnander      | Henry     | Colaço         | Liam      | Grover         |
| Firas     | Arnaout       | Margaret  | Connolly       | Asshish   | Gulati         |
| Susannah  | Arrowsmith    | Martyn    | Coomer         | Chinmay   | Gupte          |
| Vipin     | Asopa         | Andrew    | Cooper         | Hayley    | Gwilliam       |
| Al        | Baird         | Dara      | Coppel         | Tina      | Hadley-Barrows |
| Sunil     | Bajaj         | Tom       | Crompton       | Andrew    | Hamer          |
| Cat       | Ball          | Natasha   | Curran         | Mark      | Hancock        |
| Marcus    | Bankes        | Sarah     | Curry          | Sarah     | Harkness       |
| Mohit     | Bansal        | Enrico    | Dall'Ara       | Paul      | Harnett        |
| Catherine | Barnard       | Sebastian | Dawson-Bowling | Priscilla | Harries        |
| Oliver    | Barnes        | Anthony   | Day            | Simon     | Harris         |
| Cath      | Barrow        | Joost     | de Bruijn      | Peter     | Harrison       |
| Kim       | Bebbington    | Shelby    | DeMeulenaere   | Anthony   | Herbert        |
| Amanda    | Begley        | Rishi     | Dhir           | Deborah   | Higgs          |
| Andy      | Bennett       | Alex      | Dickinson      | Caroline  | Hing           |
| Carol     | Bewick        | Peter     | Domos          | Richard   | Holleyman      |
| Leela     | Biant         | Tara      | Donnelly       | Shery     | Huang          |
| Mark      | Birch         | Adrian    | Downing        | Robert    | Hughes         |
| Emma      | Blain         | Linda     | Du Preez       | Mike      | Hurley         |
| Gordon    | Blunn         | Jay       | Dudhia         | Dominic   | Inman          |
| Tim       | Board         | Krysia    | Dziedzic       | Andy      | Ireland        |
| Tarek     | Boutefnouchet | Imogen    | Eales          | Sally     | Irwin          |
| Laura     | Boyd          | David     | Easton         | Simon     | Jameson        |
| Jenny     | Bramley       | John      | Edge           | Agnieszka | Janeczek       |
| Mike      | Brannan       | Benjamin  | Ellis          | Caron     | Jenkins        |
| Sally     | Brearley      | Antti     | Eskelinen      | Robin     | Johnson        |
| Sue       | Brown         | Mark      | Etherton       | Judith    | Jolly          |
| Aisling   | Burnand       | Nicola    | Evans          | Val       | Jones          |
| Paul      | Burton        | David     | Evans          | Rebecca   | Jones          |
| Kenny     | Butler        | Jeremy    | Fairbank       | Gemma     | Jones          |
| Jaime     | Candal-Couto  | Gavin     | Ford           | Rob       | Jones          |
| Naomi     | Caney         | Mark      | Forster        | Justina   | Jursenaite     |
| Andrea    | Carter        | Richard   | Fowler         | Deepak    | Kalaskar       |
|           |               | Diane     | Friday         | Amir      | Kamali         |



|           |              |
|-----------|--------------|
| Angela    | Kedgley      |
| Cormac    | Kelly        |
| Vikas     | Khanduja     |
| Sarah     | King         |
| Anna      | King         |
| Megan     | Kirbyshire   |
| James     | Knight       |
| Sally     | Knight       |
| Michail   | Kokkinakis   |
| Elizabeth | Laird        |
| Simon     | Lambert      |
| Jeremy    | Latham       |
| Patrick   | Latham       |
| Mark      | Latimer      |
| Liz       | Lawrence     |
| Zoe       | Lelliott     |
| Rob       | Letchford    |
| Alex      | Liddle       |
| Denny TT  | Lie          |
| Chaozong  | Liu          |
| Marion    | MacNeil      |
| Steve     | Mann         |
| Gareth    | Mapp         |
| David     | Martin       |
| Jonathan  | Massey       |
| Andy      | Maud         |
| Carey     | Mcclellan    |
| Catriona  | McDaid       |
| Alison    | McGregor     |
| Iain      | McNamara     |
| Judith    | Meakin       |
| Kaveh     | Memarzadeh   |
| Neal      | Millar       |
| Piers     | Milner       |
| Arash     | Moavenian    |
| Brenda    | Monaghan     |
| Stuart    | Monk         |
| Rhidian   | Morgan-Jones |
| Joanne    | Moss         |
| Helen     | Mulvana      |
| Ginder    | Narle        |
| Syed      | Nawaz        |
| Kia       | Nazarpour    |
| Leonora   | Neale        |
| Phillip   | Neville      |
| Karen     | Oliver       |

|          |                    |
|----------|--------------------|
| Ben      | Ollivere           |
| James    | Otter              |
| Debbie   | Palmer             |
| Nicola   | Parker             |
| Hannah   | Patel              |
| Jennifer | Paxton             |
| Yemi     | Pearse             |
| Elise    | Pegg               |
| Liz      | Philpots           |
| Ruth     | Pitman-Jones       |
| Jonathan | Quayle             |
| John     | Raffles            |
| Amar     | Rangan             |
| Kenneth  | Rankin             |
| Mike     | Reed               |
| Peter    | Reilly             |
| Jae      | Rhee               |
| Aida     | Ribera Navarro     |
| Sam      | Roberts            |
| Isabel   | Rodrigues de Abreu |
| Laura    | Rogers             |
| Neil     | Rushton            |
| Shiraz   | Sabah              |
| Taj      | Sallamuddin        |
| Anish    | Sanghrajka         |
| Matteo   | Santin             |
| Hazel    | Screen             |
| Farshid  | Sefat              |
| Aliah    | Shaheen            |
| Joanne   | Shannon            |
| Ruth     | Shaw               |
| Helen    | Sheldon            |
| Julia    | Shelton            |
| Joanne   | Sheppard           |
| Chris    | Shipway            |
| Fay      | Sibley             |
| Hamish   | Simpson            |
| Toby     | Smith              |
| Steve    | Smith              |
| Peter    | Smitham            |
| Gavin    | Spence             |
| Emma     | Sproat             |
| Duncan   | Stamp              |
| Joshua   | Steer              |
| Michael  | Stitt              |
| Rebecca  | Stoner             |

|           |                  |
|-----------|------------------|
| Philip    | Stott            |
| Vicki     | Strassheim       |
| Richard   | Stubbs           |
| Ramon     | Tahmassebi       |
| Amol      | Tambe            |
| Hiro      | Tanaka           |
| Duncan    | Tennent          |
| Kar       | Teoh             |
| Martin    | Thomas           |
| Emma      | Thomas           |
| Francesca | Thompson         |
| Richard   | Thomsett         |
| Ruth      | Threadgold       |
| Ralph     | Tomlinson        |
| Natalie   | Trice            |
| Ryan      | Trickett         |
| Alex      | Trompeter        |
| Julia     | Trusler          |
| Keith     | Tucker           |
| Chris     | Turner           |
| Robert    | Vallings         |
| Rich      | Van Arkel        |
| Catherine | Van Der Straeten |
| Krishna   | Vemulapalli      |
| Andrew    | Walker           |
| Nicola    | Walsh            |
| Ben       | Wanless          |
| David     | Watson           |
| Adam      | Watts            |
| Jason     | Webb             |
| Kerri     | Wells            |
| Matt      | Whitty           |
| Ben       | Wilkins          |
| Mark      | Wilkinson        |
| Elizabeth | Williams         |
| Donna     | Williamson       |
| Chris     | Wilson           |
| Nicky     | Wilson           |
| Geoff     | Wong             |
| Jo        | Wookey           |
| Niki      | Wright           |
| Zoe       | Zambelli         |

Orthopaedic  
Research UK



# Investing in our future movement



Orthopaedic Research UK  
Furlong House  
10a Chandos Street  
London W1G 9DQ

+44 (0)20 7637 5789

[info@oruk.org](mailto:info@oruk.org)

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

UK Registered Charity No. 1111657

