

# PRIMARY CARE CENTRE

## IMPACT REPORT



**RESEARCH**  
**VERSUS**  
**ARTHRITIS**

# IMPROVING THE FRONT LINE FOR MUSCULOSKELETAL CARE

Primary care is the first point of contact for the healthcare needs of most people. For musculoskeletal problems it is mainly provided by GPs (general practitioners), physiotherapists (often as first contact practitioners) or nurses (as advanced nurse practitioners). Additional care can be provided by practice nurses, pharmacists and other allied health professionals.

Primary care is the arena where most patients seek and receive help for their arthritis and musculoskeletal pain. Most of these individuals also live with multiple health conditions and thus care is often continued over many years, which creates key challenges to make sure it remains efficient whilst comprehensive, accessible, and well-coordinated. Better understanding of the best way to manage musculoskeletal conditions within primary care is therefore vital to improve services for people living with arthritis.

## Enter the Primary Care Centre Versus Arthritis...

Keele University has become a beacon for primary care research since it was founded 75 years ago. The University specialises in providing high-quality evidence that has been designed to directly address the challenges that are faced within primary care.

They do this by understanding the challenges that primary care patients and clinicians face, and defining their priorities to overcome them. Because of this reputation and knowledge, Keele was a clear choice for establishing the Primary Care Centre Versus Arthritis in 2008.

Under leadership of Professors Peter Croft, Elaine Hay and Christian Mallen, the Centre has received over £5.3 million of infrastructure funding from Versus Arthritis. This has supported network creation, capacity building, tackling unanswered scientific questions, obtaining additional funding, and integrating patient and public involvement. Overall, this has propelled the Centre to the forefront of primary care arthritis research, leaving a legacy that will continue to improve the lives of people living with arthritis.

**PRIMARY CARE  
CENTRE  
VERSUS  
ARTHRITIS**

Keele  
UNIVERSITY



75 years  
1949-2024







# PROFESSOR DANIELLE VAN DER WINDT

Director of the Primary  
Care Centre Versus Arthritis  
since 2023

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*The Primary Care Centre leveraged more than £50 million in grant income since its inauguration, with the National Institute for Health Research (NIHR) contributing most to this funding. The NIHR funded research across all four research themes, including several programme grants collaboratively funded with Versus Arthritis.*

*Our research has become a strategic priority for Keele: Professor Kate Dunn now leads the university-wide Centre for Musculoskeletal Health Research, investigating musculoskeletal conditions across the life course, from children to older people, and from laboratory science to health services research.*

*Centre of Excellence status contributed to increasing the profile and visibility of Keele’s leadership in primary care research, with Keele becoming a member of the NIHR School for Primary Care Research in 2008 (a funded collaboration of nine leading primary care departments in England), and leading this School since 2021 (Director: Christian Mallen).*

*Leveraged funding has also been essential for training and capacity building, with a large number of clinicians and methodologists successfully applying for fellowships across all levels, from doctoral to professorial awards, with their research focusing on improving outcomes for people living with pain and arthritis.*

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## **The Primary Care Centre Versus Arthritis brings together world-class researchers to tackle three key themes:**

### **1. Improving the management of musculoskeletal health in primary care settings**

The Primary Care Centre Versus Arthritis enhances musculoskeletal health in primary care by identifying gaps and opportunities through patient experiences and patient health records. Using this information, the Centre compares real-world evidence with best practices, and identifies areas needing improvement.

Translating these insights into actions, the Centre develops and implements tools and patient aids such as health information resources and questionnaires. These tools facilitate more proactive, shared, and supportive decision-making during primary care consultations. Ultimately, this improves musculoskeletal care.

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### **2. Optimising treatment for people living with musculoskeletal conditions**

The Centre has made substantial progress on treatment optimisation by developing personalised approaches that predict the most beneficial options for improving musculoskeletal health, and increasing their uptake.

Centre researchers have developed tiered treatment approaches, grouping patients according to symptoms and future long-term disability risk, and matching them to the most effective treatment options. This ensures timely and effective personalised treatment.

Centre research has identified strategies to improve treatment adherence, addressing factors driving non-adherence so that self-management strategies can be implemented effectively.

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### **3. Improving long-term outcomes for people living with musculoskeletal conditions**

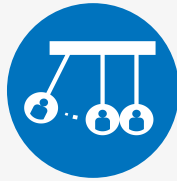
Patient benefit is maximised at a population level by improving care across the whole system. One way the Centre addresses this is through their Impact Accelerator Unit. This Unit brings clinicians and patients together with stakeholders who can drive large-scale change, such as policymakers and commissioners, to translate and accelerate research into practice.

The Centre also strives to maximise patient benefit by advocating for equitable care across the entire healthcare pathway, regardless of location, ethnicity, socioeconomic status, or other circumstances. To build this bigger picture, Centre members research ways to improve health record systems so that the musculoskeletal health of the UK is better understood and can be monitored.

# RESEARCH IMPACT AREAS



New Knowledge



Influence on Policy & Practice



New IP, Products & Services



New Networks



Increased Capacity to Conduct Research



Leveraged Funding



Patient and Public Involvement

## £5.3 MILLION VERSUS ARTHRITIS FUNDING



**1,000**

publications which have been cited over 50,000 times



**OVER £50 MILLION**

leveraged funding

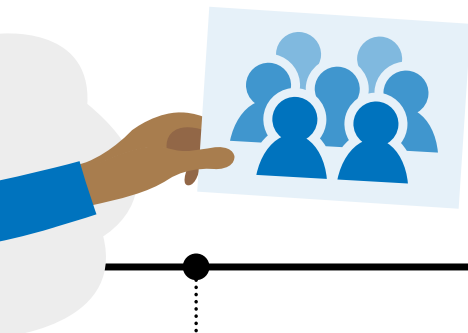


**FIVE-FOLD**

research capacity growth

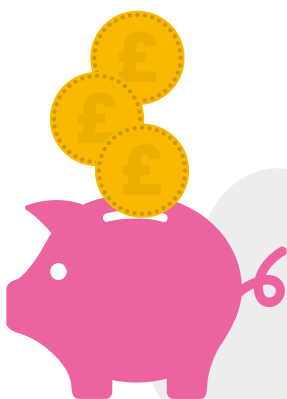
# RESEARCH ACHIEVEMENTS

At the Primary Care Centre



**2004**

Christian Mallen is supported by several Versus Arthritis fellowships which springboard him to his current senior research positions at National Institute for Health Research (NIHR), Keele University and the Wellcome Trust.



**2006**

Krysia Dziedzic becomes the first allied health professional to be awarded a senior lectureship by Versus Arthritis. She is now a Professor of Musculoskeletal Therapies and the Director of Keele University's Impact Accelerator Unit.

**2006**

A Research User Group is formed at Keele University.

**2008**

Primary Care Centre opens at Keele University with funding from Versus Arthritis. Professor Peter Croft is the Director.

**2010**

Professor Elaine Hay is appointed as the new Centre Director.

**2015**

Professor Joanne Protheroe's research reveals that in some regions more than 50% of the population have [low health literacy](#). This was [cited as a national exemplar](#) by the Office for Health Improvement and Disparities (previously Public Health England).

**2013**

Centre members contribute to [European recommendations](#) for managing osteoarthritis and have continued to co-author every update since.

**2012**

First ever cohort study of people with [polymyalgia rheumatica](#) initiated at Keele University.

**2010**

Keele University wins the Queen's Anniversary Prize for "pioneering early intervention and primary care in the management of chronic pain".





## 2016

Centre research uncovers that [increased prescribing](#) of long-term opioids for musculoskeletal pain carries [increased risks of adverse events](#). This discovery influences [pain management guidelines](#) internationally.

## 2016

MSK-HQ<sup>®</sup> is endorsed as a measure of musculoskeletal health by NHS England, the Chartered Society of Physiotherapy and the Royal College of General Practitioners.

## 2017

Centre research study called 'SWAP' evaluating primary-care based vocational advice for people with musculoskeletal pain is highlighted by [OHID](#) in its call for action to support a healthy productive later life.

## 2019

Dr Andrew Finney leads Keele's commitment to join a seven university Versus Arthritis 'Nurse and Allied Health Professional Internship Programme'. The first intern, Joanna Simkins, has since completed a master's degree and is now a clinical academic at Keele University.

## 2018

Centre members conduct the first ever study to describe the [information needs of patients](#) with osteoporosis and fracture.

## 2018

Several Primary Care Centre research projects are celebrated in the [NIHR Moving Forward](#) Physiotherapy for MSK Health and Wellbeing report.

## 2017

STarTBack is endorsed by our national healthcare guideline provider ([NICE](#)) and the NHS England Low Back and Radicular Pain Pathways.

## 2019

Centre-developed tools, including MSK-HQ<sup>®</sup> and STarTBack, are recommended in the UK Government's [five-year strategy framework](#) for musculoskeletal health.

## 2020

Keele summarises current evidence surrounding back, shoulder, hip and knee pain, leading to the co-production of [MSK Decision Support Tools](#) by Versus Arthritis and NHS England.

## 2022

Keele establishes the university-wide, interdisciplinary Centre for Musculoskeletal Health Research investigating musculoskeletal conditions across the life course, led by Professor Kate Dunn.

## 2023

Centre works alongside ITN and Versus Arthritis to launch a film on World Arthritis Day featuring its ['Osteoarthritis and You'](#) patient explanation package.

**THE FUTURE!**



# OPTIMISING PRACTICE

## Why is this research so important to people with arthritis?

Improving the quality of real-world practice is crucial to giving patients the best chance to reap the highest benefit from treatment and live well. Identifying opportunities for improvement, and the underlying reasons behind situations where best practice is not currently being delivered, is essential to design and deliver patient-centred care solutions and resources.

High-quality care is essential to improve an individual's health, across all conditions. Guidelines outline best practice recommendations for healthcare professionals to deliver high-quality care for each condition. However, there are multiple factors at play that influence whether a guideline is implemented successfully and equally across a country.

This missing gap between healthcare policy and translation into practice has inspired the Primary Care Centre Versus Arthritis to uncover what current musculoskeletal healthcare practice looks like in the real world, identify opportunities for improvement, and address them with targeted solutions.

## What examples of missed opportunities in practice has the Centre uncovered in the past?

### 1. Osteoarthritis is substantially under-recorded in primary care records

Maintaining medical records is a fundamental part of a healthcare professional's role. The information contained in medical records is crucial to practitioners and commissioners so that they can better understand, plan, and deliver services that match the healthcare needs of their local population. When records are incorrect, it can have a detrimental effect on people's health.

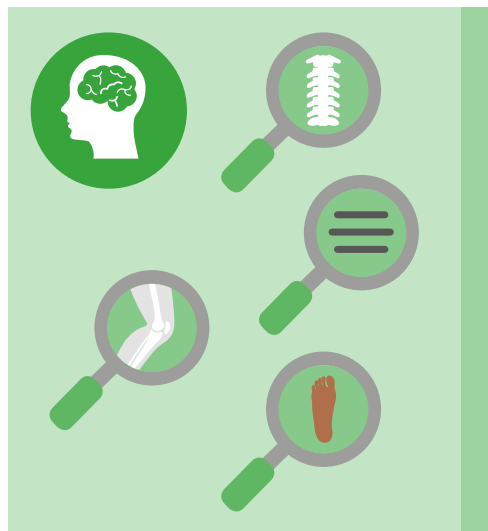


**New knowledge impact:** In 2018, Centre researchers identified [substantial under-recording of osteoarthritis](#) in primary care electronic health records. This means that the calculated prevalence of osteoarthritis is likely to significantly underestimate the scale of the disease. Publishing research on nationally important topics such as this allows practitioners and policymakers to use this information to drive change.

## 2. Information for patients is lacking, and this impacts on people's health

Understanding a condition is crucial because it is the premise for engaging with important self-management strategies. The Centre has revealed repeated examples of unmet health information needs. This is concerning because it can have a detrimental effect on patient outcomes by negatively affecting treatment adherence, a patient's relationship with their doctor, and/or their psychological wellbeing.

### Polymyalgia rheumatica, osteoporosis and gout

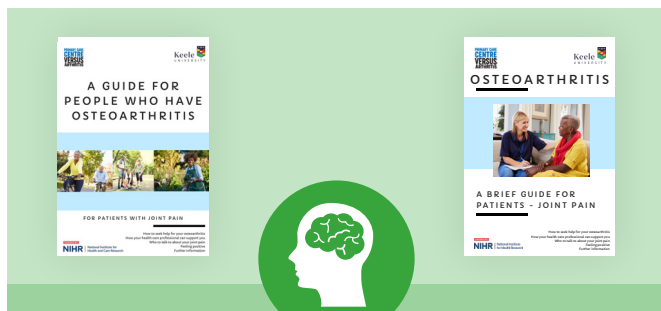


**New knowledge discoveries:** For the very first time in research history, the Centre:

- Began a cohort study of people with [polymyalgia rheumatica](#) in a primary care setting.
- Detailed the information needs of people with [osteoporosis](#).
- Studied patients' pathways and experiences from initial consultation to [gout](#) diagnosis.

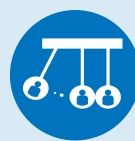
From these research projects, they discovered one shared issue. Health information is either [not presented](#) at the point of diagnosis or provided but [too complex](#). This highlights that improving health information is a key opportunity to improve patient experience.

### Osteoarthritis



**New knowledge impact:** In 2007, Centre researchers discovered that [self-care interventions](#) for treating knee pain, for example patient information on exercise and weight loss, are underused in primary care settings.

After uncovering this, Centre researchers led three EU-funded research projects alongside partners from Denmark, Norway, Portugal and Scotland. Collectively, they co-wrote an [osteoarthritis guidebook](#) alongside patients and health professionals, piloted an online version, and then conducted a multidisciplinary healthcare professional training programme to evaluate the impact of using the guidebook during an osteoarthritis consultation. The guidebook and its [accompanying leaflet](#) signposts to Versus Arthritis health information for further advice and support.



#### Policy and practice impacts:

Implementing the guidebook alongside an electronic health record template increases the uptake of national, best practice guidelines (NICE). It is available in over 26 languages.



**PPI impact:** The guidebook was co-produced by patient champions from the Centre's Research User Group. Their lived experience

actively shaped the content as well as the translation and cultural adaptations of the guidebook. Every [patient champion](#) felt as though they contributed to the project.



#### New partnership formed:

The Centre partnered with Lloyds Pharmacy to co-write information on managing osteoarthritis. As a result, engagement increased on Lloyds Pharmacy's arthritis pain webpage.

**LloydsPharmacy**



# DEBORAH'S STORY

## of missed opportunities in practice

### **Who is Deborah Riley and how is she linked to the Primary Care Centre Versus Arthritis?**

I joined the Centre's Research User Group back in 2017. I live with osteoarthritis, hypermobility, tinnitus and scoliosis, and so I understand biology quite well but wanted to challenge myself by learning more about research. It helps to keep my brain alive!

### **How has Deborah's lived experience inspired her involvement with research?**

Despite living with joint pain since childhood, I wasn't diagnosed with hypermobility until I was 45. My back pain has been so severe that one time I was left crying during a consultation. Where I live isn't very affluent, so I appreciate that there can be a struggle for resources, but I felt like my pain wasn't taken seriously. I wasn't offered a way to help me manage my pain without drugs. I ended up having to spend a lot of money at a private chiropractor. Eventually, my pain got so bad that I had to leave my job as a housing officer.

For me, it's all about the impact of the research. That's why it is important for me to be involved. My personal experiences make me think this way. At our patient and public involvement meetings, we talk about the impact on patients first and then work backwards to identify what the most important research questions are.

### **What research projects has Deborah been involved with?**

I have been involved in many Keele-based musculoskeletal research projects. I sit on many steering groups and have also volunteered in the 'Patients as Educators' project where we play an active role in helping junior doctors practice clinical examinations on real patients.

I was a co-applicant for an [NIHR-funded grant](#) led by Centre member Dr Julie Ashworth aiming to reduce opioid prescribing in the UK. Centre infrastructure funding was used for public and patient involvement support whilst developing this grant.

### **Why is patient and public involvement at the Centre a success?**

We are valued and taken seriously. You can feel that in the environment. Even though researchers, at the surface, can appear to speak a 'different language', I'm never made to feel stupid. Whenever I ask a question or make a comment, they try their best to help me understand the research so that I can best contribute. At Keele, public and patient involvement is well embedded, and everyone has an equal opportunity to speak.



# KELVIN'S RESEARCH

studying missed opportunities in practice

## **Who is Professor Kelvin Jordan and how is he linked to the Primary Care Centre Versus Arthritis?**

I am Professor of Biostatistics at Keele University, lead Keele's School of Medicine team of statisticians, and co-lead the Electronic Health Records research group. I have been at Keele for over 30 years. It feels like I have grown up with the Centre!

## **What research does Kelvin work on?**

I work on observational research studies, mainly focussing on musculoskeletal conditions, to discover things like how many people have these conditions and how it affects their lives. We look to see what treatments are being used, how this has changed over time, and how it relates to recommended management. We also uncover what factors are associated with better or worse patient outcomes. For example, do geography, ethnicity, deprivation, age, gender, or having other illnesses negatively affect a person's chance of achieving full musculoskeletal health, and if so, how can this be reversed?

## **What impact has Kelvin's research had?**

Ultimately, our work has established a strong reputation at Keele for musculoskeletal epidemiology, especially research using electronic health records. We have become the go-to-place for this. Versus Arthritis have been strong partners all the way through this journey, not just by funding us consistently but by helping us disseminate our findings and providing support to increase the impact of the research.



# PERSONALISING TREATMENT

## Why is this research so important to people with arthritis?

Research at the Primary Care Centre Versus Arthritis has produced evidence-based personalised treatment tools that continue to make a positive and tangible difference to people's lives with a musculoskeletal condition across the world.

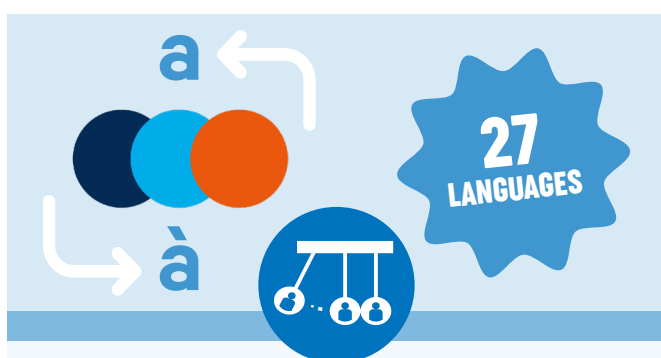
People living with a musculoskeletal condition deserve to receive the best care so that their health can improve sooner, and they can live as full a life as possible. One way of driving maximum patient benefit is by delivering care that 'matches' treatment to a person's individual preference, symptoms, and values. This approach empowers a person to make a shared decision about treatment, alongside their clinician, based on their specific experiences, priorities, and needs. Working alongside people with lived experience, the Centre has co-developed two highly-impactful personalised treatment tools:

### 1. STarTBack

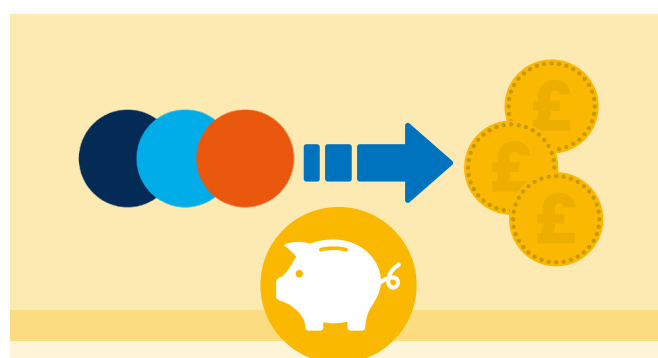


Low back pain is the leading cause of years lived with disability in the UK, a metric which combines the prevalence of a disease with a rating of how disabling that disease is. Treating low back pain effectively can be life-changing for a person. However, there are lots of different treatment options available and there isn't just one thing that works well for everyone. Knowing who does best with specific kinds of treatment, in a personalised way, is key to unlocking this opportunity to maximise patient benefit.

To address this, former Centre Director Professor Elaine Hay and Centre researcher Dr Jonathan Hill led work to develop a new approach called [STarTBack](#). STarTBack is a screening tool that helps GPs and physiotherapists to better understand how, or if, an individual's low back pain will become chronic. Knowing the nature of an individual's back pain is key to match individuals with tailored treatments that meet their specific needs in a streamlined way. Using STarTBack has been shown to [decrease disability from back pain](#), reduces time off work by half, and [saves £226.23 for our healthcare system](#) for every £1 spent into delivering the service.



**Policy and practice:** STarTBack has been translated into 27 languages and adopted by clinical organisations across Australia, Denmark, Canada and USA as a patient outcome measure for screening patients with low back pain. STarTBack is recommended in several national healthcare guidelines (NICE) and it was [presented as a case study](#) by the UK Government to encourage its wide adoption.



**Leveraged funding:** Building on the success of STarTBack, over £9 million has been leveraged from national and European funding bodies to fund further research investigating stratified models of care for musculoskeletal pain, including STarT MSK, SupportBack 2 Trial, SupportPRIM, SCOPiC and Back-UP.

## 2. MSK-HQ<sup>®</sup>

There are established ways to manage conditions like diabetes or hypertension because there are parameters in place that can be measured to gauge a person's health specific to their condition, such as blood glucose and blood pressure. Measures such as these enable healthcare professionals to know whether a patient's health is 'on track' and can be used to understand how their health is changing over time. Musculoskeletal health, however, is diverse and so this makes it tricky to find a suitable, all-encompassing metric.

Previously, there were no specific tools to gather musculoskeletal health insights. The only tools available were generic ones looking at overall quality of life. Quality of life, however, is very different to musculoskeletal health. That is why, in 2012, Versus Arthritis ran a workshop and funded Centre members, led by Professor Jonathan Hill, to co-develop a new tool tailored to musculoskeletal health. This is now called [MSK-HQ<sup>®</sup>](#). It is the first validated health questionnaire to bring a holistic approach to capturing a person's whole musculoskeletal health.



**Leveraged funding:** Three follow-on projects have been awarded on the back of MSK-HQ<sup>®</sup> totalling over £1.8 million, co-funded by Versus Arthritis, Pfizer, Nuffield Foundation and the Chartered Society of Physiotherapy.



### Policy and practice impacts:

In 2020, MSK-HQ<sup>®</sup> was validated for use in primary care settings. It is now recommended by the NHS and the Chartered Society of Physiotherapy. Research has since demonstrated that MSK-HQ<sup>®</sup> is better than a generic, quality of life questionnaire for monitoring individual patient needs and progress. MSK-HQ<sup>®</sup> is used across the world, and real-world implementation is being used to evidence [patient benefit](#).



### New IP, products and service impact:

MSK-HQ<sup>®</sup> has a copyright which is owned and managed by Oxford University Innovation.

## What new tools is the Centre now working on?

After discovering that there are many disparities between patients' and clinicians' views towards shoulder pain consultations, the Centre is now testing a new personalised consultation approach called PANDA-S.

This tool will help guide clinicians and patients to make negotiating treatment and referral options for shoulder pain easier and clearer by predicting which patients are more or less likely to experience disabling shoulder pain in the future.

**NIHR  
VERSUS  
ARTHRITIS**

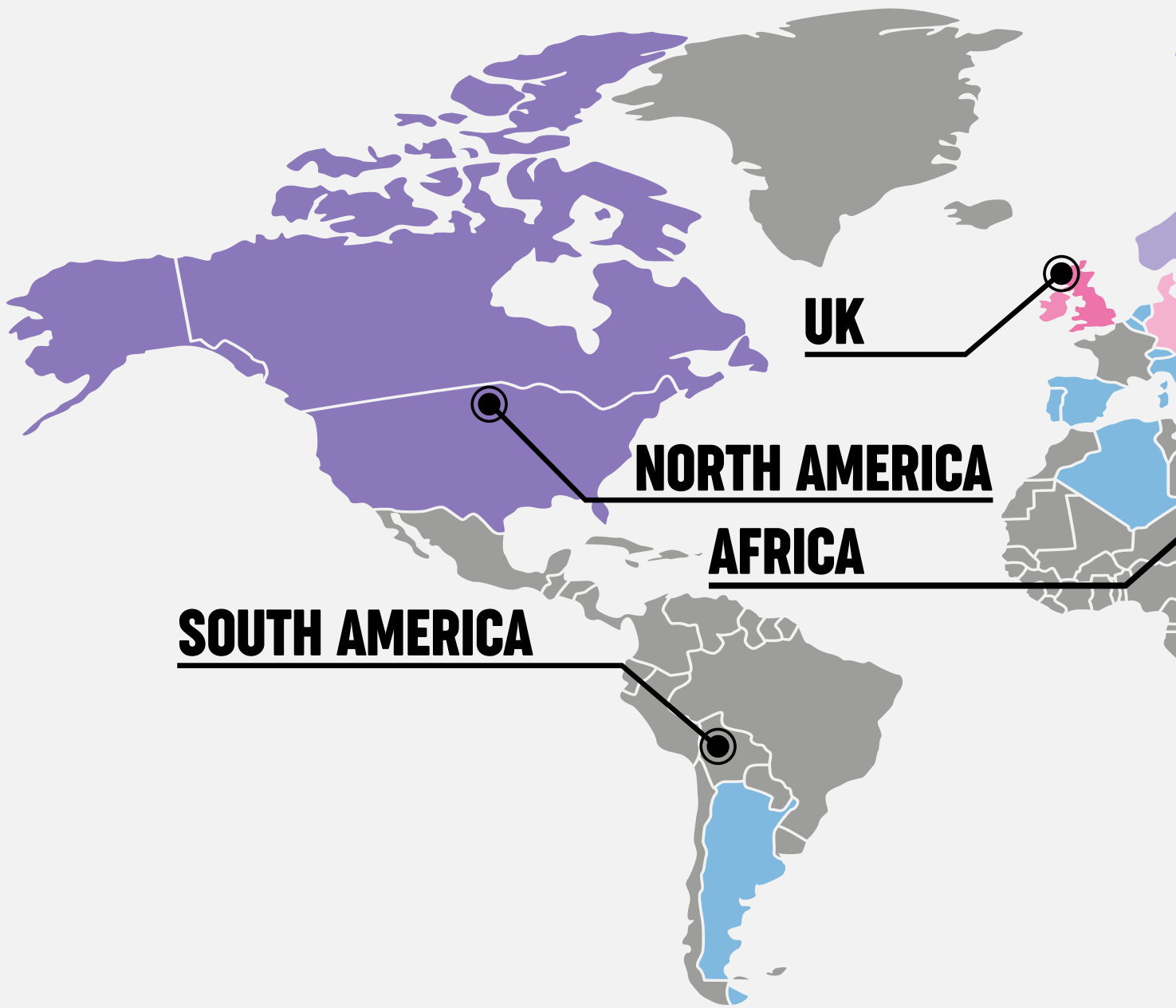


**£2.7  
MILLION**

**PANDA S II**



**Leveraged funding impact:** The PANDA-S project totals £2.7 million which is co-funded by NIHR and Versus Arthritis.

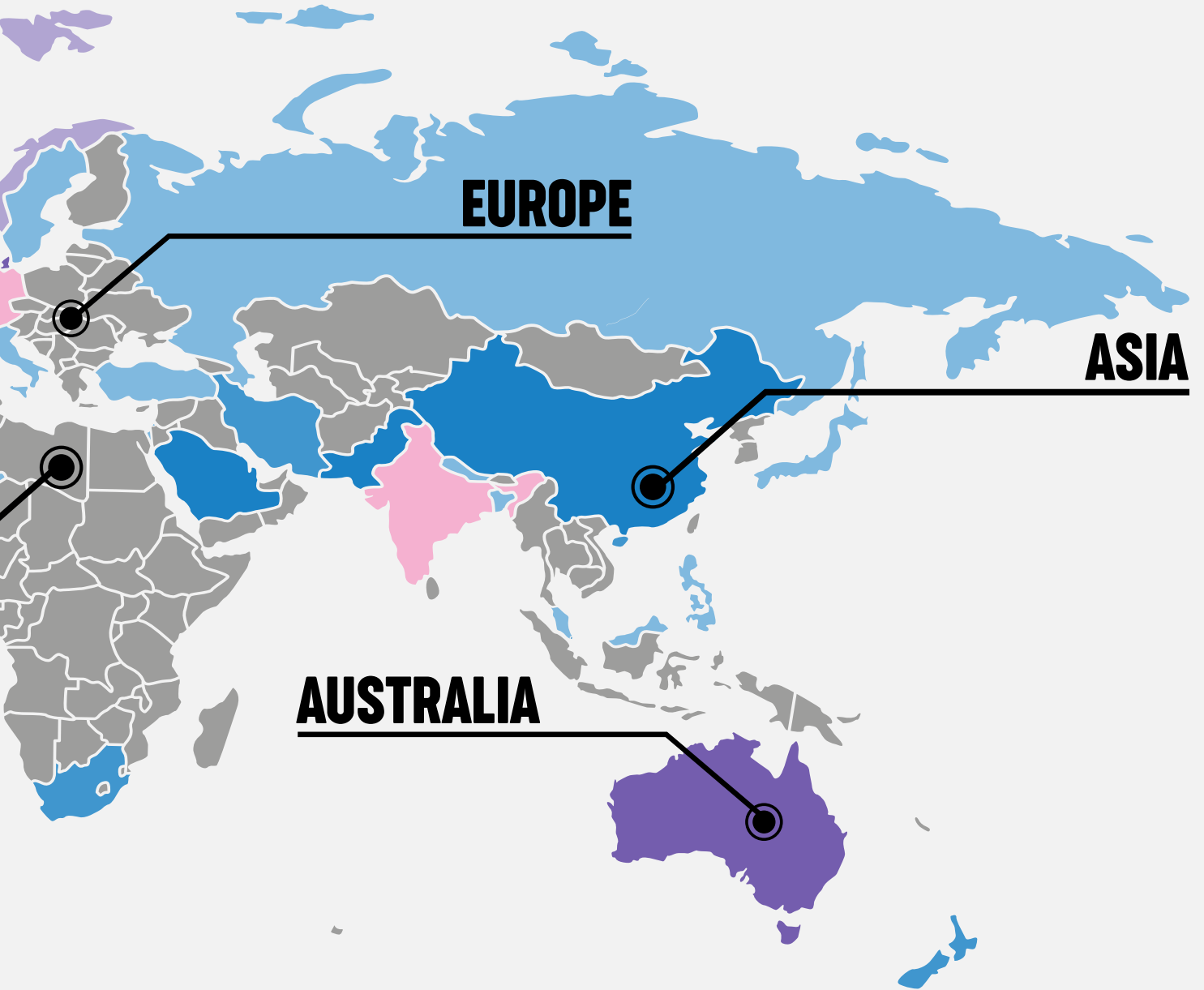


# THE REACH OF MSK-HQ<sup>®</sup>

Number of MSK-HQ<sup>®</sup> licenses by country







**EUROPE**

**ASIA**

**AUSTRALIA**

**600+**  
**LICENSES**

**16**  
**LANGUAGES**

# THE PEOPLE MAKING TREATMENT MORE PERSONALISED



## PROFESSOR JONATHAN HILL

### **Who is Professor Jonathan Hill and how is he linked to the Primary Care Centre Versus Arthritis?**

I joined Keele in 1999 and did my PhD to pilot and validate the STarTBack tool at the Centre. I then had a postdoctoral fellowship, funded by Versus Arthritis, to undertake a randomised clinical trial to test the effectiveness of the STarTBack approach. Versus Arthritis has underpinned much of the early part of my research career so I can now focus my time building capacity in others. I currently supervise nine fellowships.

### **Why have STarTBack and MSK-HQ® been so successful in its uptake across the world?**

These tools have been developed, validated, adapted, tested and translated for use by people with different MSK conditions, across different healthcare settings.

Because of this thorough development process, these tools are valuable and versatile across the whole musculoskeletal care pathway. They are simple to use and can be used by different types of practitioners, not just physiotherapists.

MSK-HQ® is now the go-to measure for reporting musculoskeletal health outcomes. It wouldn't have got to where it is now without the support and backing from Versus Arthritis, specifically Michael Li and Dr Benjamin Ellis. They have been hugely helpful with their policy links – this has helped catapult its translation into practice. Versus Arthritis Clinical Champions too, spread across the UK, have been instrumental in mobilising and implementing the tool nationally.

## KAY STEVENSON

### **Who is Kay Stevenson and how is she working with MSK-HQ®?**

I am a consultant physiotherapist, clinical lead for musculoskeletal health in the Midlands, and an honorary professor at Keele University. I also lead the Staffordshire and Stoke-on-Trent Integrated Care System Musculoskeletal Stewardship and Transformation Group. This group is tasked with improving the quality of musculoskeletal care across the system. The MSK-HQ® questionnaire is helping our team do just that.

### **Why is research on personalised treatment tools, such as MSK-HQ®, important?**

Just because it's easy to measure, it doesn't mean it's the right thing to measure. We want to know that any change in a patient's health is because of what we offer, and capture this. MSK-HQ® is measuring the things patients tell us in clinical practice in a comprehensive and standardised way. It resonates with clinicians because it captures what we hear every day.



As service leaders, having robust insights like this which evidence progress at both personal and population levels is vital. It enables us to make changes based on reliable measures of that change. Having the confidence to rely on that tool and know that the changes we are seeing are due to offering more personalised services, not chance, is important.

### **What role has Versus Arthritis funding for the Centre had in improving primary care musculoskeletal health?**

Research needs active mobilisation to get it out into the world. The Centre, with its strong focus on patient and public involvement and engagement, and dedicated Impact Accelerator Unit, has helped us mobilise that knowledge. When you bring together world-leading researchers, each with brilliant minds and a range of research expertise, and combine that with clinical and patient involvement, what you get at the end is a quality product.

# IMPROVING GOUT CARE

## Why is this research so important to people with arthritis?

There isn't just one solution that can improve gout care across the UK because every person's needs are different to help them live well. Centre research has made several transformational improvements to the entire gout healthcare pathway, and helped to amplify the voice of people living with gout so that their needs can be heard and met.

Gout is the most common type of inflammatory arthritis in the world and the only 'curable' form of arthritis. People with gout experience debilitating flare episodes where joints can become very painful, tender, and swollen. The drug treatment which prevents gout 'flares' is called urate lowering therapy as the treatment reduces the build up of urate crystals in joints. Gout is predominantly managed in the primary care setting and so the Centre is ideally placed, with its strong network of leading researchers, to conduct research on this topic.

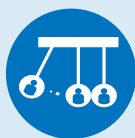
**1.6M**  
people in the UK  
have recorded  
diagnoses of gout.

## Improving diagnosis



**PPI impact:** The Centre has improved access to high-quality patient education by co-producing online resources that feature tips and clips from people with gout on a platform called [Healthtalk](#). Awareness of gout has increased too, with Healthtalk resources being viewed around 4,000 times every month. The Centre's Research User Group co-produced these resources and [Centre research](#) directly informed its content. For example, women with gout voiced a need for better representation, and so several testimonials from women are featured using clips taken from Centre research study interviews.

## Drug treatment



**Policy and practice impacts:** Centre research has reshaped prescribing patterns for gout treatment. [British](#), [American](#) and [European](#) guidelines have been updated surrounding the optimal use of urate lowering therapy, recommending which other drugs, like nonsteroidal anti-inflammatories such as naproxen and colchicine, should be used to treat painful flares:

- [Urate lowering therapy](#) should be considered and discussed with the patient after the first gout flare.
- [Naproxen](#) does not provide superior pain relief than low-dose colchicine for gout flares, but it has fewer side-effects, supporting its use as an option for first-line treatment.

## Management



**New knowledge impact:** Professor Christian Mallen worked with researchers at the University of Nottingham to show that [in 2012](#):

**ONLY 40%**  
of gout patients adhere to their urate lowering therapy.

**FEWER THAN A THIRD**

of people with gout in the UK received a prescription for urate lowering treatment within 12 months of diagnosis.



# CHRISTIAN'S RESEARCH

## studying gout

### **Who is Professor Christian Mallen and how was he linked to the Primary Care Centre Versus Arthritis?**

I am Executive Dean of the Faculty of Medicine and Health Sciences, NIHR Senior Investigator and Director of the NIHR School for Primary Care Research.

In 2004, I was the first GP awarded a Doctoral Training Fellowship from Versus Arthritis, subsequently securing both postdoctoral and Clinician Scientist Awards. I completed these three research fellowships at Keele University.

### **What research did Christian work on whilst at the Centre, and what impacts have been generated because of this research?**

My research was focussed on identifying 'missed opportunities' to improve primary care management for people with musculoskeletal conditions. I worked alongside Professor Edward Roddy to research ways to improve diagnosis, management and treatment for people living with gout. Our work informed policy and practice updates, including clinical guidelines that are still in effect today.

One key impact that has arisen from our gout research is HealthTalk, a set of gout health information resources which are used by practitioners and patients alike. Patient and public involvement through the Centre's Research User Group was instrumental in producing and disseminating these resources in the most effective, meaningful and appropriate way. Research journals are very rarely the best place way to spread research findings and generate real-world

impact! Working in partnership with patients is the only way to produce impactful research. There is no other mechanism to achieve this because it doesn't work to just assume what patients want or need.

### **Why is Centre funding so important?**

Despite nearly all musculoskeletal care taking place at primary care, there is limited funding invested in primary care research. With Versus Arthritis' funding, the Centre was formed, and with it a critical mass of primary care researchers was built.

Centre infrastructure funding underpinned core salaries, providing stability which leads to high-quality research and a supportive environment to allow career development. Versus Arthritis has played an influential role in supporting my academic career.

### **How has the Centre, supported by Versus Arthritis, contributed to the work you are doing today?**

Versus Arthritis fellowships have opened doors for me and boosted the credibility of my research. I was recently appointed Executive Dean of the Faculty of Medicine and Health Sciences at Keele University. The strong research portfolio, supported by Versus Arthritis, was vital to my success.

Versus Arthritis Centre of Excellence status also helped build Keele's reputation for conducting primary care research and to secure us membership of the NIHR School for Primary Care Research.

# CLOSING THE GAP BETWEEN RESEARCH AND PATIENT BENEFIT

## The Impact Accelerator Unit

The Primary Care Centre Versus Arthritis is our only research Centre of Excellence to have built a dedicated Impact Accelerator Unit, which is made up of a multidisciplinary team of healthcare professionals, academics, patients, and the public. The Unit exists to speed up the pace at which research becomes practice, so that people can benefit from the latest treatments more quickly. Infrastructure funding from Versus Arthritis laid the foundations for the Impact Accelerator Unit and in doing so it boosts the legacy of Centre research.



**Patient and public involvement impact:** Patient and public involvement is central to all work taking place at the Impact Accelerator Unit. The Unit has a dedicated Patient and Public Involvement and Engagement in Knowledge Mobilisation group, called the Link Group, who work with the Impact Accelerator Unit to co-create patient information and implement innovations into practice. Three examples of this are:

- Dissemination and knowledge mobilisation [toolkit](#), which offers guidance on how to transfer evidence-based findings into everyday healthcare practice.

- A hub called [Keele.Health](#), which hosts resources for healthcare professionals and patients based on Centre research.



- A support 'hive' offering online resources for people living in long term pain with their mental health, called [BeeFree](#).



**New knowledge impact:** Impact is coordinated by the Impact Accelerator Unit. The Centre has discovered many [high-quality and impactful findings](#) relating to musculoskeletal condition prevalence, incidence and prescribing patterns. Centre researchers calculated the [annual consultation prevalence of musculoskeletal problems](#) using primary care coded data, which informed the 10 million arthritis prevalence statistic that is cited in every single 'State of Musculoskeletal Health' report produced by Versus Arthritis



**Policy and practice impact:** This musculoskeletal condition prevalence calculation underpinned Versus Arthritis' 'Osteoarthritis in General Practice' strategy report. This report was presented to parliament, is cited by our national healthcare guideline provider ([NICE](#)), and outlined recommendations to reduce the impact of osteoarthritis in primary care settings.



**Capacity building impact:** Keele established a Research User Group in 2006 with fewer than 10 people. With [Centre funding](#) this group has grown in size to around 180 people. All have been inclusively involved in over 100 research projects.



## Why is the Impact Accelerator Unit so important to people with arthritis?

The Impact Accelerator Unit speeds up the process of mobilising evidence from research into practice. This is important because the pace at which research is adopted into practice can be very slow, which means patients don't always benefit of the latest research as quickly as they could.

# WORKING WITH THE IMPACT ACCELERATOR UNIT



## NATALIE KNIGHT

### **Who is Natalie Knight and how is she linked to the Primary Care Centre Versus Arthritis?**

I am the Race Equality Ambassador at Keele University and became a full-time member of staff in 2022. It is my role to champion equality and cultural competency across Keele University's research ecosystem through the NIHR Race Equality Framework for Public Involvement in Research. All the work I do strives to level the playing field for people from all communities to be involved in research, and ultimately diversify our research and Research User Group membership.

### **Why is patient and public involvement at Keele University a success?**

Good culture, structures, and connections, it's the premise to everything.



***Building new community connections and applying principles of good practice to build trust, cultural humility, sensitivity, and to break through barriers of stigma, is vital for race equality.***



### **What effect has the Impact Accelerator Unit had on the work you do?**

When I joined, the Impact Accelerator Unit had a history of great patient and public involvement that was supported by its existing Research User Group and Link group. It was the Research User Group and Link group members that set the challenge for the Impact Accelerator Unit to diversify its membership. These existing groups were a great platform to complete our Race Equality Framework self-assessment pilot. As a result of this framework, we have built capacity to grow our community engagement outreach work, which will expand our repertoire for accessing multiethnic communities.

### **What steps are being taken to improve equality, diversity and inclusion at the Centre?**

We are flexing our systems and processes to work best for people with lived experience from multiethnic communities. For example, working on the weekends so that people who work during the week aren't excluded from our work. We are also exploring novel approaches to involve people with lived experience, including building new pathways and routes for people to be involved in research community without needing to 'sign-up' formalities, as this can deter and exclude some from participating.

We want to value members regardless of their contributions and make sure that their voices are at the heart of driving research Involvement and engagement.



## AGNIESZKA LATUSZYNSKA

### **Who is Agnieszka Latuszynska and how is she linked to the Impact Accelerator Unit?**

Agnieszka is a Senior Research Fellow at Warwick Business School, University of Warwick. She does qualitative research in an area called Implementation Science and Organizational Studies, which draws upon organisation science as a necessary component of healthcare service delivery and is intended to accelerate the translation of clinical evidence into frontline practice. Warwick and Keele Universities have a long-standing partnership, working with Birmingham University and their respective local health and social care organizations through an initiative called the NIHR Applied Research Collaboration West Midlands.

### **What research questions did Agnieszka have about the Impact Accelerator Unit?**

Agnieszka was asked to examine the role of the Impact Accelerator Unit as a knowledge brokering organisation, which means how it links producers of research evidence (such as researchers) to users of research evidence (such as policymakers). She wanted to see how the unit's structures and processes support research evidence being implemented into practice. Agnieszka approached these questions by mapping out the Impact Accelerator Unit's network, interviewing its wide membership, and exploring how individuals in this network interact with each other. Agnieszka was able to identify how the Impact Accelerator Unit supports the uptake of health discoveries into the real world and understand ways that others could learn from their work.

### **What has Agnieszka discovered?**

Agnieszka has written two reports summarising her findings. These explore the ways the Impact Accelerator Unit accelerates research evidence implementation across the whole research pathway, and how they overcome potential implementation challenges. The Impact Accelerator Unit is a multidisciplinary team of people with different qualities, expertise, backgrounds, and experiences. They have people who understand both sides: research and evidence, and what happens in the real world. They all work together to identify what needs to change, and what evidence from research needs to be put into practice.

### **What does Agnieszka think makes the Impact Accelerator Unit successful?**

The Impact Accelerator Unit brings together many different people who work together as a team and empower one another to drive change. It's a dedicated physical space where people can discuss real-world problems and solutions as equals.



**The people who work with the Impact Accelerator Unit truly believe in the value of their work and the change they can make. Having a good team culture is key to this success.**





## LINDA PARTON

### **Who is Linda Parton and how is she linked to the Primary Care Centre Versus Arthritis?**

I joined Keele University's Link group in 2017. Before I retired, I was a teacher and headteacher, and volunteered and worked on international development projects.

### **Why is the Link group so important?**

The Link group connects patients and the public, researchers, healthcare professionals, community groups, policymakers, and knowledge mobilisation experts. Our focus is always on getting the right information to the right people in the right format, so that patients and healthcare professionals can benefit from research.

We discuss, at length, how research can be implemented in practice and how the Link group can be actively involved in this. This is a critical first step because in practice what a patient wants does not always match with what a clinician wants, or with what a researcher may assume a patient wants.

### **Why is the Impact Accelerator Unit a success?**

All the members are enthusiastic, welcoming and friendly. I feel like I really belong. Recently, I used my teaching experience to contribute to a seminar for researchers on knowledge mobilisation alongside physiotherapists and other Link group members.

One of the biggest gripes that most patients involved with research have is lack of communication. This is not the case at Keele. We are consistently communicated with and receive regular newsletters.

### **What impact has being a member of the Link group made to Linda?**

The Link group has opened many doors for me, including joining two NICE committees, a NIHR funding committee, and becoming a co-investigator on a global health research project.

I have learnt lots about health and research, as well as very practical things like what resources are available to patients, such as those provided by Versus Arthritis.



***Joining Link has improved my health literacy and enables me to self-manage my condition better.***





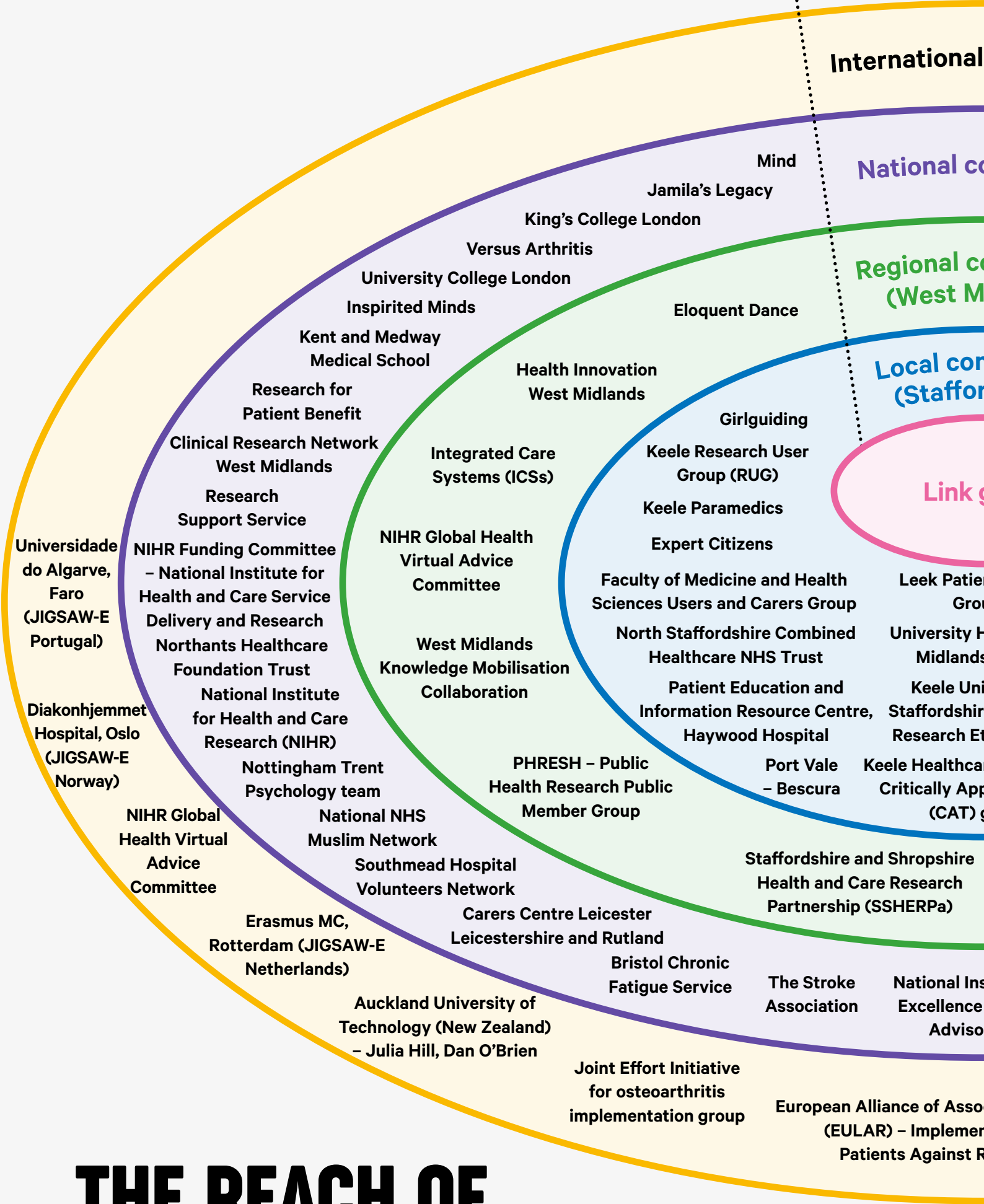


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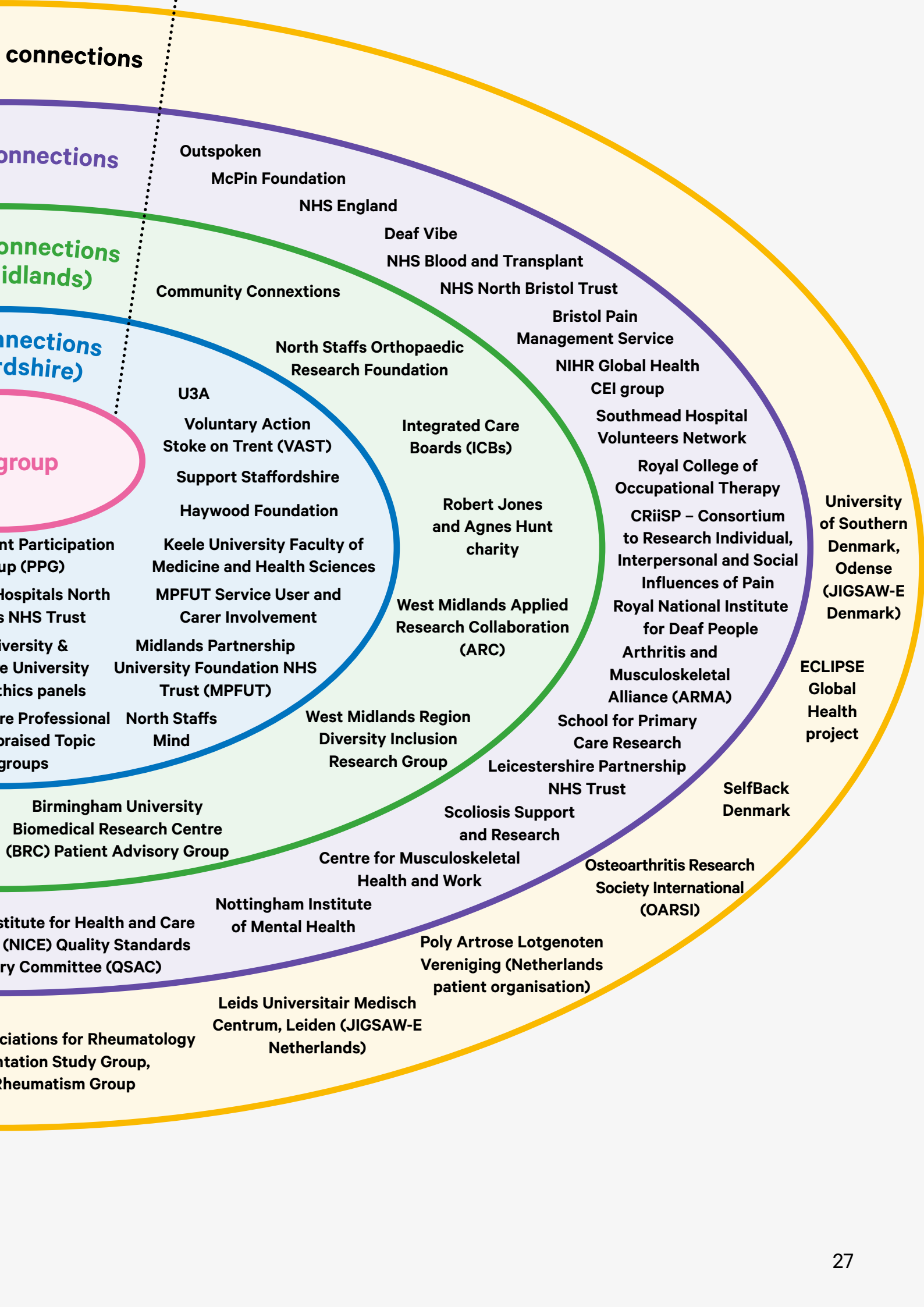
**At the heart of the Impact Accelerator Unit is its people, we share the same culture and values, we value partnerships, communication, respect, and we want to make a difference.**

”

**Professor Krysia Dzedzic,  
Impact Accelerator Unit Director**



# THE REACH OF THE LINK GROUP



For more information please visit our website  
[versusarthritis.org](https://versusarthritis.org)

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Versus Arthritis

Copeman House

St Mary's Gate

Chesterfield

S41 7TD