

FORECAST STUDY

Newsletter 3

The **FORECAST** Study: Factors Predicting the transition from acute to persistent pain in people with sciatica

STUDY NEWSLETTER 03: 10/06/23

Study Update

A huge thank you to everyone who has taken part in the **FORECAST** study so far. Working together, we are building a very rich and detailed picture of sciatica, and the **FORECAST** team cannot wait to start making sense of this information as the study goes on.

In our third newsletter, we are delighted to introduce two more of our collaborators, the **FORECAST** MRI physics team, and share more about their role in the study! Look out for Stuart and Mohamed's profiles at the end of the newsletter.

We are also looking forward to sharing some of our initial **FORECAST** data with patient partners and researchers across the country at the Advanced Pain Discovery Platform conference in Nottingham later this month. Watch this space for further updates.

In exciting news for **FORECAST**, we have received extra funding that will let us invite participants to come back for an in-person review one year after their initial appointment. This will add even more detail to the way that we can understand changes in symptoms and recovery over time, and Lucy is looking forward to catching up with some familiar faces again too! If you have been selected to come back in, we will be in touch in the run up to your twelve month date to arrange this.

Please remember to complete your follow-up questionnaires!

Working on FORECAST day-to-day



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Recruitment update

Recruitment continues at full pace until around the end of 2023, working closely with local health centres, musculoskeletal services, print media, and community sites.

Since our official study launch in May 2022, 105 participants have joined the study. We will recruit another 75 participants over the summer and autumn bringing the total to 180. We are also busily recruiting healthy volunteers (the same gender and age as our participants with sciatica) - please do pass on our details to any friends, family, and neighbours who might be interested!

Magnetic Resonance Imaging - MRI Scanning and the FORECAST Study

As MRI Scientists on the **FORECAST** study, our role is to get the best possible quality MRI scans in the lower spine of people taking part in the study.

MRI scanners use very strong magnets and radio waves to take detailed pictures inside the living body. The magnet we use is a doughnut shape and is strong enough to pick up a car. One thing that people often notice about MRI scanners is the banging sound that they make. This is an unavoidable part of the MRI process, as we vary the strength of the magnet, very slightly, from head-to-toe, left-to-right, and front-to-back. Even if it is a bit noisy, our team of specialist research radiographers do a great job of making the scan as easy as it can be for the person being scanned.

To get the best pictures of the spine, we use a set of detectors (called RF coils) that sit in the bed of the MRI scanner. At the start of the study we spent many weeks programming and changing the settings on the MRI scanner to get the very clearest pictures of spinal cord. The nerves that the clinicians want to see are very small and we take three different types of pictures, with the same scanner. One of the most important ones for this study is called a Diffusion Tensor Image (or DTI) which we expect will be most sensitive to nerve damage.

The great thing about working on a project like **FORECAST** is that we get to work with an excellent team from all different kinds of discipline. We can use our knowledge of the physics of MRI to get the best pictures for the clinicians and learn from them more about the spinal nerves and the psychological impact of sciatica.

The 3T research scanner Wellcome Centre for Integrative Neuroimaging Oxford - where all of our study MRI scans take place

We are continuing to look for people aged 30-85 who do not have back or leg pain to join our 'healthy' group so please do spread the word. Contact us on FORECAST@ndcn.ox.ac.uk, or call on 01865 234543 for more information - we would be delighted to hear from you!

**HEALTHY
VOLUNTEERS
NEEDED!**

Meet The FORECAST MRI Physicists



Stuart Clare

Stuart Clare is Associate Professor and Director of Operations at the Wellcome Centre for Integrative Neuroimaging (WIN) at the University of Oxford. After completing a physics degree at the University of Nottingham, he did a PhD in measuring brain activity using MRI, when the technique was in its infancy. He then moved to Oxford and helped set up the new functional MRI scanning facility there. As well as developing methods for MRI, Stuart is a passionate communicator of science and has worked with schools, charities, and museums to explain brain scanning to a huge range of people. He has even co-written and performs in a play about the history of brain scanning.



Mohamed Tachrount

Mohamed Tachrount is an MR physicist working on developing and optimising MR techniques on both human and rodents scanners at the Wellcome Centre for Integrative Neuroimaging. After finishing his undergraduate studies in physics in Constantine (Algeria), he obtained his PhD in Grenoble (France) and then moved to the UK. During his journey across different countries and labs, he has worked on a broad range of multidisciplinary projects including the assessment of normal and abnormal metabolism, quantitative measurements of blood supply and microstructure of brain and spinal cord. In addition to developing MR methods and processing pipelines, he's helping in explaining our research to the general public and promoting open and transparent research.

A final reminder..... to please remember to complete your follow-up questionnaires!

We are eagerly collecting follow-up questionnaires as they come in, from the brief symptom report surveys once a month, to the longer questionnaires at three and twelve months, to shed light in detail on how sciatica behaves over time - these questionnaires are vitally important to our study and we are looking forward to reading all of the responses.