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Research Roundup

This month, we share our announcement of funding for a new Parkinson's research centre and recognise 2 future leaders of Parkinson's research. Read more for the latest research news and opportunities to get involved.

Research news

New centre to accelerate Parkinson's research

Parkinson's UK and the UK Dementia Research Institute (UK DRI) join forces to establish a pioneering research centre.

A new £10m research centre is being set up dedicated to better understanding the causes of Parkinson's and finding new treatments to prevent, halt, and ultimately find cures for the condition. The new centre will recruit and bring together leading Parkinson's researchers. We'll be investing £5m over 5 years to drive forward this vital research and so will the UK DRI.

By collaborating we are joining our expertise, support and networks to work towards a united goal to help identify new approaches to predicting Parkinson's, alongside the development and testing of new treatments to prevent the onset, and slow or even reverse the progression of the condition.

Finding new treatments

Parkinson's results from the loss of neurons in a region of the brain called the substantia nigra, responsible for producing the chemical dopamine, which acts as a messenger between the parts of the brain and nervous system that help control and coordinate body movements. As these neurons deteriorate and the levels of dopamine reduce, the symptoms of Parkinson's appear.

Although the symptoms can be managed with medication and therapies, there are currently no treatments available that slow, stop, or prevent the underlying cause of

the condition. The new centre will play a pivotal role in driving research to develop new treatments that will tackle Parkinson's at its root cause.

Nicky Parsons, who has Parkinson's and works closely with us as a research volunteer, said:
"As someone living with Parkinson's, I know firsthand the challenges it brings, which is why I am so passionate about research and how important it is. More funding and partnerships like these means more hope. I hope for better treatments, a better quality of life, and one day a cure. Every step forward in research makes a real difference, not just for me but for my family, my friends, and everyone affected by Parkinson's."

What is the UK DRI?
The UK DRI is the UK's leading research institute for dementia and related neurodegenerative conditions, including Parkinson's. The mission of the UK DRI is to transform the lives of people affected by neurodegenerative conditions, by discovering the causes of neurodegeneration, developing new tools and treatments, and delivering solutions to maintain brain health in an ageing society.

What does this new partnership mean?

Professor David Dexter, Director of Research, said:
"Partnering with the UK DRI to form a new centre dedicated to Parkinson's is an exciting opportunity to increase dedicated research capacity in the UK. By harnessing the combined resources of the UK DRI and Parkinson's UK, I'm confident that the new centre will accelerate the discovery of the causes of Parkinson's, catalyse drug development and improve the effectiveness of clinical trials, and ultimately improve the lives of people affected by Parkinson's.

"The new Parkinson's Research Centre will form a component of our integrated approach to developing better treatments and cures for Parkinson's, sitting alongside our grants programmes, the Parkinson's Virtual Biotech, data and biosamples from our longitudinal cohorts, the Brain Bank and Landmark multi-omics

project."

Global cases of Parkinson's predicted to rise to 25 million by 2050

A study predicting health trends worldwide suggests that incidence of Parkinson's is rising due to an ageing population.

The number of people living with Parkinson's by 2050 could more than double compared to numbers in 2021, according to a study published by the British Medical Journal (BMJ).

Parkinson's is the fastest growing neurological condition, but there's still a lot we don't know about its causes. There's also a big gap in our knowledge about how global healthcare systems, race and ethnicity, and environment might affect the prevalence of Parkinson's. In this research, the team studied information from over 195 countries, to build a picture of the number of cases of Parkinson's in 2050, and the factors that might be contributing to this.

How did the researchers predict this number?

Researchers used information available from a database called the Global Burden of Disease Study to look at the trends of people being diagnosed with Parkinson's in different countries. They used these numbers to predict what might happen in the future, based on what we know now.

The main reason suggested for this rise in the number of people living with Parkinson's was age. By 2050, more people worldwide will be living longer. Age is already known to be the biggest risk factor for Parkinson's.

Different countries will have varying levels of an ageing population. So not every country included in the study saw the same rate of increase in Parkinson's. In Europe, the rate of increase in cases of Parkinson's was much lower than in other places, due to slowing of the population ageing overall. However the most significant increase in the number of people being diagnosed with Parkinson's

was predicted for western Sub-Saharan Africa, where people are generally living longer than before.

The study predicted that the number of people over 80 being diagnosed with Parkinson's will increase more than in any other age category. It also suggested that the cases in men would increase more than the cases in women, leading to a bigger gap in incidence between the sexes.

What does this mean?

This study is important because it helps demonstrate how much of an impact Parkinson's might have in the future. If people are living longer and more likely to be diagnosed, we need better systems in place in order to be able to support and care for people living with the condition worldwide.

The study also presents an interesting picture globally. As most of our understanding of Parkinson's comes from research that involves people from white, European backgrounds, there's even more need to make sure that research is including everyone so we can build a complete picture of the condition, and how to treat it.

It's important to note that it wasn't possible to get the same information from every country included. And those countries may vary in how they define and diagnose Parkinson's. This means that there could be some important gaps which are not being reflected in the results. The study also only considered age and sex, meaning that information on things such as environment and other health issues were not considered.

Professor David Dexter, Director of Research, said: "Prevalence of Parkinson's continues to increase globally, and this study looks at the impact of age - the largest known risk factor. It's particularly interesting to see a slower anticipated rise in Europe due to overall population age.

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"We still don't know for certain what causes Parkinson's, how to diagnose it definitively, or how we can stop, slow or reverse its progress through new treatments. Studies like this help make the case for more research to understand what geographical, genetic and lifestyle factors aside from age contribute and why Parkinson's is a growing condition.

"Until we find a cure, it's vital that people with Parkinson's, regardless of their location, socioeconomic group or race, have access to research, information and support that enables them to live well with the condition."

Future leaders in research recognised with Parkinson's UK funding award

Nearly £600,000 has been awarded to 2 outstanding scientists to develop their Parkinson's research careers.

Our latest senior research fellowship prizes have been awarded to Dr Marta Camacho of the University of Cambridge, and Dr Shenghong He of the University of Oxford.

The senior research fellowships are designed to recognise future leaders of Parkinson's research, and provide them with funds to set up their own project teams as they develop their careers.

Meet the award winners

Dr Marta Camacho will be exploring how constipation, and a build up of methane in the gut, might lead to thinking and memory problems for people with Parkinson's. Her project will work with people with and without Parkinson's, asking them to monitor the amount of methane in their breath, as well as keep a log of how their symptoms may be changing over time. She will also explore if taking a probiotic can help reduce thinking and memory problems by reducing levels of methane in the gut.

Marta said: "This work builds on my PhD which showed that methane in the gut was linked to memory and thinking problems in Parkinson's, a finding that contradicts previous research. This was really puzzling, and I think other funders would have hesitated to support further research.

"Parkinson's UK involves people with Parkinson's in their funding decisions, and they were just as puzzled as me about my research question. They took a chance on my project and I was granted the fellowship to continue my research. I am very grateful to Parkinson's UK."

Dr Shenghong He will focus on gaining a deeper understanding of the areas of the brain that are linked to problems with movement, such as tremor or difficulties walking, in people with Parkinson's. He will be using a non-invasive technique called focused ultrasound stimulation to look at how brain cells talk to each other in people who have undergone deep brain stimulation surgery. His work aims to improve the process of invasive and non-invasive deep brain stimulation, and make it more effective.

Shenghong said: "I am delighted to be awarded this fellowship. I look forward to working closely with Parkinson's UK and its diverse network to advance my research, particularly in using brain-computer interfaces and neuromodulation to improve the understanding and management of Parkinson's.

"I would also like to extend my gratitude to those who are donating and supporting Parkinson's research, as together we are making a significant difference."

Both researchers have already demonstrated great promise in the field of Parkinson's research, which was reflected in the strength of their applications for the award.

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Funding based on the priorities of the Parkinson's community
Mark is a research volunteer, and was part of a panel of people from the Parkinson's community asked to assess applications for the funding.

Mark said: "As a person with Parkinson's, it can often feel that little progress is being made in the treatment options and in the search for a cure.

"I found the experience [of reviewing applications] as a lay grant co-ordinator both reassuring and humbling. The quality of the candidates applying for the fellowship, their depth of knowledge, expertise, passion and commitment was outstanding."

Find out more about the lay grant reviewer role and how you can help decide what we fund by emailing **research@parkinsons.org.uk** or calling **020 7963 9326**

Take Part in Research

The development of new Parkinson's treatments is only possible if everyone is part of the research process. We need your help to push promising research forward.

Investigating whether nerve stimulation can reduce tremor in Parkinson's

The research
Researchers at the University of Nottingham want to find out if a device which delivers electrical stimulation to the wrist can help to reduce resting tremor in people with Parkinson's. They are also exploring what rate of stimulation is most effective.

Who do the researchers need?

- 30 people with Parkinsons
    - Who experience resting hand or arm tremor

- Unfortunately people with dementia, a history of epilepsy or who have an implanted device such as a pacemaker or deep brain stimulation are unable to take part.

What is involved?

- Taking part in 3 research visits which will last for 2 to 3 hours including breaks.
- All visits will involve:
- Wearing a non-invasive device which will stimulate a nerve in your wrist.
- Researchers will also perform an electroencephalography (EEG). An EEG uses small electrodes placed in a cap to measure electrical activity in the brain.
- There is a small travel allowance for people traveling outside of Nottinghamshire (40p/mile up to 100miles)
- For more information, please contact the researcher

Interested in taking part?

Please contact Kat Gialopsou by email at **Kat.gialopsou@nottingham.ac.uk**

Send Kat your number to request a call back if you prefer speaking over the phone.

The deadline for taking part in this research is **30 June 2025**.