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Welcome to the April 2024 edition of our guide to what's new in MS science

# Research Round up

## January: Ancient human DNA shows the origins of MS risk genes



Researchers have shown genes linked to MS may have evolved as a way to protect against infections.

They looked at ancient human DNA and compared it to modern-day samples. They could see where and when certain versions of particular genes started to be more common.

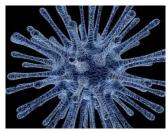
The researchers think the changes in the genes of our ancestors were beneficial at the

time. Many of the genes are linked to the immune system. But they also increased the risk of developing MS.

This most likely won't have an immediate impact for people currently living with MS. But, it helps researchers to understand more about what causes people to develop the condition.

#### Read the full story on our website

#### February: Insights into risk of MS in people living with HIV



A study of health information from people who are living with HIV and taking antiviral treatments showed they had a reduced risk of developing MS.

These results don't mean being HIV-positive will protect against developing MS. Nearly everyone in this study took antiviral drugs as a treatment for HIV. So, the researchers couldn't tell whether it was the virus or the antiviral therapy which reduced the risk of MS. More research is needed to understand this better.

This research gives us new evidence for the link between <u>viruses</u> and the risk of developing MS. It could suggest new ideas for treatments.

#### Read the full story on our website

#### March: The power of microglia in smouldering MS



The brain's resident immune cells are in overdrive in MS. New research has identified one potential reason why. And, how the cells could be controlled.

One of the researchers we fund, <u>Dr Cory Willis</u>, (pictured) is part of a team at University of Cambridge who have found why certain cells stay activated during the immune attacks in MS.

They used mice with an MS-like condition and looked closely at the brain immune cells called microglia. Specifically at the mitochondria inside, which are the energy

powerhouse of a cell. The team found microglia remain active because of how they use their mitochondria.

This suggests a new approach to finding future treatments for people with MS.

Read the full story on our website



## Meet the Researcher

Mollie McKeon is a PhD researcher at the University of Cambridge, where she researches the genetics of MS progression. Mollie's mum Ceridwen Roberts lives with secondary progressive MS. We spoke to both of them about Mollie's work and family living with MS.

**Mollie says**: "My mum is part of the inspiration for my research. She also inspires me with her determination, independence and resilience. It's instilled in me the same attitude towards my own research - and life!"

Read the full (and lovely!) story on our website

## Investing in symptom management

We want to help people live well with MS by improving MS care and services. So we're funding two new Doctoral Training Centres based at <u>Glasgow Caledonian University</u> and <u>King's College London</u>. They'll investigate how to manage MS symptoms without the use of drugs.



The centres will look for innovative interventions and new approaches to managing MS symptoms. In particular, they'll focus on how their research can be put into practice in existing MS care and services. This should mean it can quickly reach people affected by MS.

By supporting the PhD students doing this work we're also investing into the next generation of researchers.

# Following the trial trail

## **ChariotMS**

Our clinical trial for people with advanced MS is still recruiting across the UK. It's the only trial with no upper age limit. You can <u>watch a video of an interview with Mark</u>, a participant on ChariotMS, talking about his experience on the trial. He was kind enough to show what happens at the first appointment.

Contact <a href="mailto:chariotms@qmul.org.uk">chariotms@qmul.org.uk</a> for more information

### Octopus

<u>Octopus</u> is our revolutionary mega-trial. Now, recruitment has started in England, Scotland, Northern Ireland and Wales. You can look at <u>the Octopus website</u> to see locations of sites.

If you're interested in taking part in Octopus, you can <u>register your interest through the UK MS Register</u>. When you register, you'll be asked where you live. This is so the closest trial sites can contact you when they start recruiting. For most people, this won't happen for quite a while. Trial sites are still getting set up and there's now over 2000 people have already registered their interest.

# And finally...

Did you know? April is Global Citizen Science Month! Get involved in people-powered science!

#### Find out more on their website

"Citizen Science is open to ALL and involves curious and concerned people whose individual acts contribute to collective impact that's accelerating scientific research, discoveries, and local actions that improve the world."

If you'd like to know more about our research – get in touch! research.communications@mssociety.org.uk