Research Reporter

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

Research Round up

July: Artificial Intelligence and MS

MS Frontiers is the UK's largest biennial conference for MS research professionals. During each conference, we hold a debate on a hot topic in MS research. This year, Professor Nikos Evangelou from the University of Nottingham brought together researchers to debate whether artificial intelligence (AI) is ready to personalise care for people with MS.

The debate focused on whether AI could help people with MS by developing personalised care. Personalised care allows people to have choice and control over their care, tailored to their individual needs and circumstances. Rather than a 'one-size-fits-all' approach.

Read the full round-up of the debate on our website

September: ECTRIMS - hot topics and highly anticipated trial results

In September, nearly 9000 researchers, neurologists and healthcare professionals gathered in Copenhagen for ECTRIMS, the world's largest annual MS research conference. Among many talks about the latest advances in MS research (read some of the highlights), researchers presented the highly anticipated results from three trials:

- **MS-STAT2 Trial**: Professor Jeremy Chataway from University College London shared results from the trial testing whether simvastatin could slow down disability progression in people with secondary progressive MS. Unfortunately, despite promising earlier findings, the phase 3 trial with 964 participants showed no benefit.
  Read more about the MS-STAT2 results.
- **Tolebrutinib Trials**: The HERCULES trial showed tolebrutinib slowed disability worsening by about a third. This is the first time a drug in a phase 3 trial has successfully slowed disease progression in people with secondary progressive MS without relapses. The GEMINI trials found that while

tolebrutinib didn't reduce relapse rates in people with relapsing MS, it did slow disability progression.
Read more about these results.

October: Research shows genetically engineered human cells can repair myelin in mice

Scientists at our Edinburgh Centre for MS Research have used a gene-editing technique to boost myelin repair. The team genetically modified human cells to ignore signals that prevent myelin repair and transplanted them into mice. The results showed improved myelin regeneration. This is a really exciting result as it offers a potential new approach to repairing myelin and stopping MS.

Read more about this work.

October: New study suggests Black and South Asian people with MS in the UK don't have a higher risk of severe MS

Dr Ben Jacobs is a neurologist and researcher who, with our funding, is working to better understand MS in people from non-European ancestries. In his latest study, Ben used data from the UK MS Register to show that Black and South Asian people with MS in the UK do not have a higher risk of severe MS.

Read more about this work.

Following the trial trail

In November, our Octopus and CCMR2 trials both reached exciting recruitment milestones.

CCMR2 is testing a combination of metformin and clemastine in people with relapsing MS, to see if it can improve myelin repair. The team have now reached their recruitment goal of 70 people. We expect the final results of the trial in late 2025. Read more about this story.

Octopus is our mega-trial for progressive MS. The trial team have finished the first stage of recruitment, with over 375 people taking part in the trial. The trial will now move seamlessly into the next stage, with researchers aiming to recruit up to 1500 more people with progressive MS. Read more about this story.

Funding new research

We've committed to funding several new projects since the last Research Reporter:

When and why does the menstrual cycle worsen MS?

Dr Paul Ansdell from Northumbria University wants to understand the connection between the menstrual cycle and the worsening of MS symptoms. This could lead to better ways to manage symptoms.

Read more

New MRI markers of MS progression

Dr Rasha Abdel-Fahim and her team from Nottingham University Hospitals Trust are exploring whether two new MRI features can improve how we monitor MS progression.

Read more

Regulation of immune cells in MS

Dr Margarita Dominguez-Villar and her team at Imperial College London are exploring why a special group of immune cells work differently in MS. This could help researchers identify new targets for MS treatments.

Read more

Meet the history makers

For this year's Winter Cash Appeal, we are sharing loads of content from our researchers who are making history, with a particular focus on early career researchers. Check out the History makers hub for videos, blogs and podcasts from some of the amazing people who are changing the future of MS.

And finally…

Catherine Godbold returned from maternity leave in September. She is currently job-sharing with Caitlin Astbury.

Laura Ohlmeier has also recently re-joined the Research Communications team. Some of you may remember Laura, as she covered Hannah's maternity leave. We're delighted to have her back in the team!

If you'd like to know more about our research – get in touch!
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