



The All-Ireland Multiple Sclerosis Research Network (AIMS-RN) symposium
Summary Report

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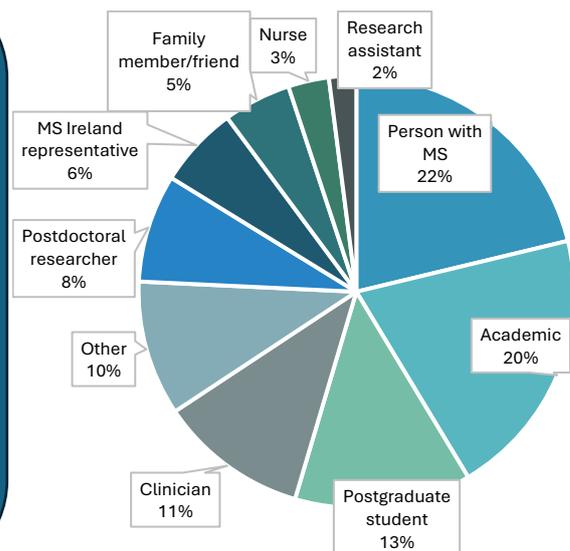
Introduction

On Friday 6th June 2025 we were delighted to host the AIMS-RN symposium at Maynooth University. This symposium showcased a wide range of high quality multiple sclerosis (MS) research that is taking place on the island of Ireland at the moment. Presenters came from a variety of different career stages and backgrounds, including from clinical, biomedical and psychosocial fields, with the patient voice also well represented throughout the day, notably in a wonderful PPI (public and patient involvement) panel discussion, and with input from MS Ireland. In spite of the different research perspectives and backgrounds of presenters and attendees, it was clear that all shared the same passion for furthering research in MS.

This report is intended to give some insight into the range of topics that were discussed in the symposium, although clearly this can only scratch the surface of what was covered on the day. For full details on talk abstracts and speaker bios, please refer to the symposium programme linked on the AIMS-RN Maynooth University website [here](#).

Symposium attendees

As with our presenters, symposium attendees came from different backgrounds. We were very happy to see that in addition to welcoming researchers and academics at various career stages, over one quarter of attendees were living with MS themselves or had a family member with MS. Delegates also included those with clinical backgrounds, including neurologists, neuropsychologists and nurse specialists. In addition, we were delighted to welcome a number of staff from MS Ireland.



Summary of presentations

Biomedical research talks

After welcoming attendees, the day got started with four presentations that focused on biomedical research in MS. First up was **Dr Michelle Naughton** from Queens University Belfast, who discussed the recent launch of the Northern Ireland MS Research Hub (led by Professor Denise Fitzgerald). In this initiative, researchers are combining expertise in ophthalmology, immunology, neurology and neuroscience to determine if changes in the eye can inform about changes in the brain in MS. In her talk, Dr Naughton discussed how the hub aims to enhance capacity in MS research in Northern Ireland using a model of co-production of research with the public, an approach which will also be embedded within clinical trials.

Our next speaker was **Dr Eric Downer**, who incidentally was the chair of last year's successful AIMS-RN symposium held at Trinity College Dublin. In his talk, Dr Downer discussed translational research that his lab has undertaken to assess the ability of cannabinoids to target innate immune inflammatory events associated with MS. Positively, Dr Downer highlighted how the anti-inflammatory effects of cannabinoids represent therapeutic avenues for further investigation in MS.



The third talk of the day came from **Dr María Muñoz-San Martín** from the Royal College of Surgeons in Ireland (RCSI) who discussed how miR-21, which plays a role in immune regulation and inflammation, has potential as a biomarker in MS. Dr Muñoz-San Martín discussed how her future work will investigate whether targeted manipulation of miR-21-regulated genes could represent a novel therapeutic strategy to limit

demyelination and promote remyelination.

The final speaker in the biomedical session was **Dr Lajos Csincsik** from Queens University Belfast. Following on from the earlier talk by Dr Naughton, Dr Csincsik introduced the Belfast Eye and MS (BEAMS) study, which suggests that high-resolution eye imaging may detect subtle signs of MS that reflect hidden changes in the brain. He also discussed how the long-term goal for this research is to create a streamlined, high-resolution retinal imaging toolkit to help monitor disease activity, guide treatment, and improve outcomes for people living with MS.

Psychosocial research talks

After a short break, the next set of talks focused on different psychosocial and applied MS research projects that are taking place in Ireland.

First, **Dr Fiadhnaít O’Keffee** from University College Cork (UCC) provided an overview of recent clinical research in the assessment and intervention of some of the neuropsychological and psychosocial outcomes of MS. This presentation gave a good insight into the vast range of challenges that may be experienced by people with MS, as well as how clinical neuropsychological research can help us to understand, measure and provide appropriate supports and interventions in MS.



Next, **Dr Sinéad Hynes** from the University of Galway discussed outcomes from her Cognitive Occupation-Based programme for people with MS (COB-MS) which aims to address both the functional and occupational problems specific to cognition and MS. While up to 65% of people with MS experience a decline in cognitive functioning, Dr Hynes noted how COB-MS has potential to

address this, with the intervention being demonstrated as feasible and acceptable by participants, with positive impacts on daily life reported. Building on the success of the COB-MS trial, Dr Hynes noted how there are plans to roll out this trial on a bigger scale in the coming months encouraging attendees to watch this space.

Following this, my talk (**Dr Rebecca Maguire**) discussed the mental health impacts of living with MS. After highlighting findings from the recent My MS My Needs survey that showed a high level of need for mental health support among people with MS in Ireland, I spoke about our project which explored the experiences of disclosure and stigma in MS. We found that those reporting negative disclosure experiences were less likely to be open about difficulties relating to their mental health, fatigue, and other MS symptoms. Conversely, positive experiences of MS disclosure were associated with lower levels of anticipated stigma and higher levels of openness around a range of symptoms. Such findings call for the development of supports and interventions to tackle stigma and enhance wellbeing among people with MS more generally.



Finally in this session, **Dr Guido Giunti** from Trinity College Dublin spoke about the design and development of digital health interventions for people with MS. Drawing from his experience as the creator of the "More Stamina" app which was designed to help people with MS deal with the challenges of fatigue, Dr Giunti shared how the solution was co-designed with patients, integrating their lived experiences and feedback into each development stage. In doing this, Dr Giunti's talk highlighted the power of collaboration between technology and those it serves.



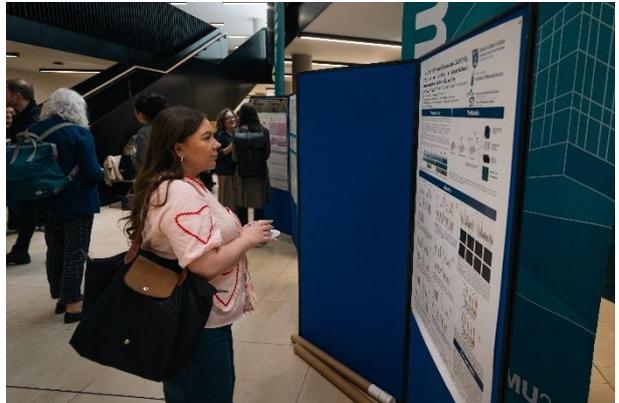
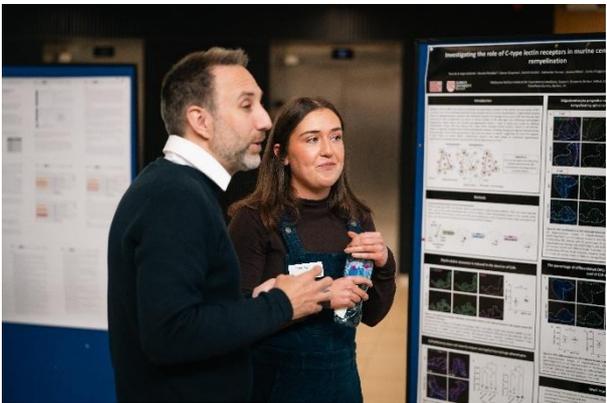
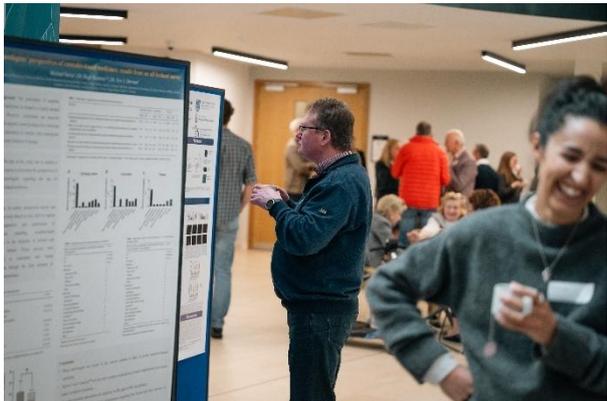
Poster session

During lunch, attendees were able to view a number of different posters spanning various areas of MS research. As with our speakers, poster presenters came from all over Ireland with posters showcasing diverse topics from biomedical, psychosocial and clinical fields.

On the psychosocial and clinical side, posters focused on the topics of cognitive reserve in MS (**Clara Stein** et al.), social cognition and psychological markers of wellbeing in MS (**Hannah Lynch** et al.), occupational therapy in MS (**Ashley Boers, Ciara O'Meara** et al.), and word-finding and disability in MS (**Lauren Costello** et al.).

A wide range of biomedical research was also presented in the poster session, including posters which focused on the effect of phytocannabinoids and PPAR γ (ant)agonists on reactivity in human-induced pluripotent stem cell-derived astrocytes (**Magdalena Imiolek** et al.), the role of MHC-II in central nervous system remyelination (**Jessica White** et al.), the altered expression of endoplasmic reticulum stress and oxidative stress proteins in PBMCs in MS (**Shima Shapoori** et al), the role of C-type lectin receptors in murine central nervous system remyelination (**Nira de la Vega Gallardo** et al.), changes in retinal pathology in relapsing-remitting vs secondary progressive MS (**Ashleigh McMullan** et al.), the eye as a window to brain inflammation in MS (**Michelle Naughton** et al.), and finally neurologists' perspectives of cannabis-based medicines (**Michael Savio** et al.).

Some photos of the poster session are below.



Panel discussion

In a wonderful panel discussion after lunch, people with MS and MS researchers shared insights on their experiences with public and patient involvement (PPI) in research.

Panel members included patient expert and EUPATI (European Patients Academy on Therapeutic Innovation) fellow **Sorcha Boyle**, who has been living with MS since 2014 and **Declan Groeger**, who has considerable experience contributing to MS research, having lived with MS for over 30 years. We were also delighted to be joined again by **Sinéad Hynes** whose work on the COB-MS



trial has been co-designed with significant PPI, as well as **Joan Alaboson** (Maynooth University) who has been using PPI to inform her PhD research at all stages, including working with fellow panel member Declan. Finally, wearing two hats as both a person with MS and a researcher, **Ciara O'Meara** (University of Galway) shared how her lived experience has helped informed her own research in MS. Together, panel members debated both the challenges and opportunities for PPI in MS research in Ireland. This discussion was expertly chaired by MS Ireland's advocacy and research officer **Alison Cotter** who posed a number of thought-provoking questions. While a number of barriers to PPI were evident, all agreed with the importance of continuing to ensure that the patient voice is embedded in MS research.



Research at MS Ireland

Our next session focused on research at MS Ireland. Here, **Professor Susan Coote** from MS Ireland (formerly the University of Limerick) spoke about a number of projects in which MS Ireland has been involved in or supported. Notably, Professor Coote spoke about sources of research evidence that have informed services planning at MS Ireland, which included a number of projects in which I have also been involved in (including our evaluation of community work services at MS Ireland and, more recently, a study focusing on volunteering at MS Ireland which was led by AIMS-RN summer fellow and recent Maynooth University BSc Psychology graduate, Linda McDonald).



Professor Coote also spoke about the considerable work that she has led in relation to the development and expansion of physiotherapy services at MS Ireland. As an example of this, **Dr Austin Fahy** from RCSI (and formerly Maynooth University) spoke about his PhD study which evaluated the Move Smart MS programme on anxiety among people with MS. This study showed how participation in Move Smart resulted in significant improvements in anxiety, in part through reducing the impact of physical MS symptoms. Additional focus group analysis suggested that peer support and goal-related coaching may have contributed to reductions in anxiety.



Flash talk session

After a short break, symposium attendees were treated to an excellent selection of early career flash talks which were based on abstracts selected by the symposium scientific committee.



First up, **Dr Laura Davenport** from St Vincent's University Hospital Dublin discussed findings from her qualitative study which explored the experiences of people with MS who had undergone autologous haematopoietic stem cell transplant (HSCT). This study highlighted how HSCT can lead to a number of physical and psychological consequences. Dr Davenport noted how a comprehensive and holistic care pathway is required to support people with MS at all stages of

the treatment process to ensure patient-centred planning and care.

The next talk was delivered by 2024 AIMS-RN summer fellow **Eva Scallan Dowd** (University College Cork). Here, Eva gave an overview of findings from a mixed methods systematic review that examined the impact that MS can have on parenting. Findings highlighted risk and protective factors, how parental MS impacts on parenting activities and daily family life, the emotional impact of MS on parents and their views of relationships within the family, and how parents with MS managing and cope. In this talk, Eva discussed how the review identified potential support mechanisms, including mental health supports, social networks, and family communication assistance.



The next two talks focused on biomedical research in MS. Firstly, **Almudena Otálora-Alcaraz** (Trinity College Dublin) discussed findings from her PhD which has focused on plant-derived cannabinoids as regulators of NLRP3 inflammasome signalling in immune cells. She noted how project findings indicate the components of the hemp plant *Cannabis sativa L.* have the propensity to target inflammasome signalling in

immune cells with relevance to MS.

This was followed by a talk by **Dr Andrea Kwakowsky** (University of Galway; University of Auckland) who discussed Tonabersat as a therapeutic option for MS. Based on data presented, Dr Kwakowsky suggested that clinical trial phase IIb-ready tonabersat may merit further investigation as a promising candidate for treating neurodegenerative disorders.



The final flash talk was delivered by **Joan Alaboson** (Maynooth University) who discussed some findings from her project examining peer support engagement among people with MS in Ireland. Findings from Joan's research show how, although most people with MS perceive benefits from peer support, few are able to access this support and, when they do, this is not always aligned with their needs. These findings will

be used to help improve the provision of peer support services at MS Ireland.

Clinical research talks

The final session of talks centred around clinical research and perspectives in MS. First up here was a talk delivered by **Fiona Magill** who is an MS nurse working at the Belfast Health and Social Care Trust. Fiona's talk gave some insight into the role of the nurse in the MS research team, including how nurses are critical to ensure the smooth running of clinical trials as well as the key skills required and the challenges that may be encountered.

The other two talks in this session came from members of staff at St Vincent's University Hospital Dublin. First, **Dr Audrey Reynolds**, a current University College Dublin (UCD) Newman Clinical Multiple Sclerosis Fellow, discussed findings from her research which is examining longitudinal analysis of physical, speech and cognitive markers of disability in MS. In her talk, Dr Reynolds highlighted how objective standardised marks of change are need in progressive MS. Examining changes in posturography (a measure of balance), neurocognitive assessment, and automated measurement of prosody of speech hold the potential to act as markers of change in this respect.

Following on from this, Principal Clinical Neuropsychologist **Dr Sarah Casey** discussed cognitive biomarkers for illness progression and disability in MS. Notably, she presented findings from initial 4-year longitudinal data which indicated how slower processing speed and performance on tasks measuring visual object meaning perception correlate with greater MS-related disability on clinical measures, with greater difficulties in visually-mediated object naming experienced in progressive MS. Dr Casey's talk also highlighted how such research could facilitate the evolution of clinical practice, optimising outcomes for each person with MS.

Keynote talk

We were delighted that are final keynote speaker of the day was **Dr Gavin McDonnell**, Consultant Neurologist at the Belfast Health and Social Care Trust. In his talk, Dr McDonnell presented an overview of how the treatment of MS has changed over the last three decades. While significant advances have been made, MS remains ultimately progressive and disabling for most, however the OCTOPUS trial, which is a new trial designed to test potential new treatments in progressive MS, may offer promise for people with MS. Dr McDonnell, who is leading the Belfast arm of the OCTOPUS trial, gave an outline of the unique trial design from the perspective of MS, as well as updates on eligibility criteria, recruitment, rationale for therapies being studied and progress to date.





Some of our speakers are pictured above. From left to right Lajos Csincsik, Gavin McDonnell, Guido Giunt, Michelle Naughton, Rebecca Maguire, Susan Coote, Eric Downer, Fiona McGill, Austin Fahy, Joan Alaboson, Sinéad Hynes.

Closing and awards

As the symposium drew to a close, the final task was to make the awards for best flash talk and best poster. While this was no easy task given the high quality of submissions, judges agreed that the best poster be awarded to **Michael Savio** for this poster “Neurologists’ perspectives of cannabis-based medicines: results from an all-Ireland survey”, while the best flash talk be awarded to **Joan Alaboson** for her talk “Multiple sclerosis peer support engagement, benefit perception and barriers. Findings from a mixed-methods survey in the Irish context.” These awards were kindly sponsored by Brain Worx.



Pictured here are Dr Eric Downer, accepting the best poster award on Michael’s behalf, as well as Joan and I.



Acknowledgements

Funding



This event was supported with funding from the Health Research Board Conference and Event Sponsorship Scheme (CES-2025-023) awarded to Dr Rebecca Maguire, in addition to support from the Assisting Living and Learning Institute at Maynooth University.



Organising and scientific committee

This symposium would not have been possible without members of the **organising committee** who are listed below. Many of these (Laura Coffey, Lajos Csincsik, Eric Downer, Maria Gialma, Jill McMahon and Fiadhnaít O’Keeffe) also acted as members of the **scientific committee**.

Joan Alaboson (Maynooth University)	Austin Fahy (RCSI)
Laura Coffey (Maynooth University)	Maria Gialma (Maynooth University)
Alison Cotter (MS Ireland)	Rebecca Maguire (Maynooth University)
Lajos Csincsik (Queens University Belfast)	Jill McMahon (University of Galway)
Eric Downer (Trinity College Dublin)	Fiadhnaít O’Keeffe (University College Cork)
Nuala Downes (Maynooth University)	Shima Shapoori (University of Galway)



Some of our committee members are pictured here. From left to right Lajos Csincsik, Rebecca Maguire, Shima Shapoori, Eric Downer, Jill McMahon, Austin Fahy, Joan Alaboson, Alison Cotter, Fiadhnaít O’Keeffe, Laura Coffey.

In addition, thanks to Jennifer Deane-King who helped out on the day, as well as members of the AIMS-RN executive committee, including Dr Jennifer Dowling and Dr Michelle Naughton, who helped with the judging.

MS Ireland

Thanks also to the staff of MS Ireland who attended on the day and are pictured below.



The team from MS Ireland. From left to right: Ava Battles, Mary McCusker, Aoife Lambe, Rebecca Maguire, Sorcha Barlow, Susan Coote, Aoife Kirwan, Alison Cotter

Photographs

Our official photographer was Tadhg Nathan, with some additional pictures thanks to Lajos Csincsik and Fiadhait O’Keeffe.

More information

For more information on AIMS-RN, please see <https://aims-rn.org/>