2026
NEWSLETTER

Motor Neurone Disease Research

Trinity College Dublin
The University of Dublin

rmn
Research Motor Neurone

Welcome to our annual newsletter. As we continue at a rapid pace through 2026, we take a moment to reflect back on the past year to share its achievements and the latest developments and progress in our ongoing fight against Motor Neurone Disease (MND), also known as ALS.

Last year was another productive and impactful one for everyone at Research Motor Neurone. We are proud to report that our research continues to advance and bring us ever closer to meaningful breakthroughs and more effective treatments.

In this edition, you'll discover updates on our recent progress, including promising scientific discoveries, pioneering clinical trials, and the inspiring fundraising initiatives that make our work possible. Your ongoing support is vital as we strive to develop better treatments—and ultimately find a cure—moving us closer to a future without MND.

Professor Orla Hardiman Honoured With Lifetime Achievement Award

RMN founder, Consultant Neurologist at Beaumont Hospital and Trinity College Dublin's first professor of Neurology Professor Orla Hardiman was honoured with a Lifetime Achievement Award in June of 2025 at a special ceremony held by the Irish Motor Neurone Disease Association (IMNDA) which marked MND Global Awareness Day and also celebrated 40 years of the organisation's work supporting people living with MND in Ireland.

Presenting Professor Hardiman with her award Taoiseach Micheál Martin said "Prof Hardiman's work has been life changing for people with MND and ALS in Ireland and across the world. The work of Professor Orla Hardiman has transformed the lives of countless individuals and families affected by MND, not only here in Ireland, but globally. Her dedication, compassion, and leadership embody the very best of Irish medical research and care. I am honoured to present her with this Lifetime Achievement Award on behalf of the IMNDA."

This Lifetime Achievement Award honours Professor Hardiman's unwavering dedication to advancing understanding, care, and research in MND. Her contributions continue to inspire colleagues, researchers, and the wider MND community, and her legacy will have a profound and lasting impact on the lives of those affected by the disease for generations to come.



Prof Orla Hardiman presented with her award by Taoiseach Micheál Martin

Bryan Alton Medal RCPI Recipient 2025



Medal Presentation to Prof Hardiman

Each year, RCPI Institute of Medicine honours an individual who has made significant contributions to clinical medicine by awarding them the Bryan Alton Medal, named after former RCPI President Dr Bryan Alton.

This prestigious medal was awarded to Professor Orla Hardiman during 2025 by the "RCPI Institute of Medicine in recognition of her exceptional contributions to clinical neurology, translational neuroscience, and the global understanding of amyotrophic lateral sclerosis (ALS).

The awarding of the medal took place during the Institute's November Symposium, held on the 27th of November 2025 in No 6, Kildare Street, Dublin.

Speaking about receiving the award Professor Hardiman said "I was very honoured to receive the Bryan Alton Award from the Institute of Medicine RCPI for our collective translational research work in the Academic Unit of Neurology TCD, and Beaumont Hospital on Amyotrophic Lateral Sclerosis. This award is shared with all of those who have worked as part of our group over the past 30 years"
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Remembering Clare McKenna

Memorable birthdays were celebrated in a particularly meaningful way, as Justin Mc Kenna and Donal Coyle chose to mark the occasion by hosting a joint fundraiser in memory of Justin's late wife Clare McKenna, who sadly passed away from Motor Neurone Disease (MND) and had been a patient at Beaumont Hospital in the care of Professor Orla Hardiman

In lieu of traditional gifts, family and friends were invited to come together and donate to Research Motor Neurone to honour Clare's life while supporting a cause of deep personal significance. The event provided an opportunity not only to celebrate a special birthday for both, but also to reflect on cherished memories and recognise the lasting impact Clare had on all who knew her.

The generosity and support shown was truly remarkable, resulting in the successful raising of €6090.00. These funds will contribute to essential research and support services for individuals and families affected by MND.While also ensuring that Clare's memory continues to inspire and make a difference to those suffering with MND and their families.

Getting Involved

We are deeply grateful to everyone who supported Research Motor Neurone throughout 2025 by organising inspiring fundraising events. Your efforts not only raise vital funds but also shine a powerful light on MND, bringing hope, awareness, and momentum to the fight against this disease.

If you would like to get involved by organising a fundraising event on our behalf you can get further information by visiting our website https://rmn.ie or scanning the QR code below. You can also get in touch by contacting Aisling Keenan @ Researchmnd@tcd.ie or by calling 00 353 868212659.

Shoulder To Shoulder Fundraiser



Shoulder to Shoulder Fundraiser Launch

In 2025, a group of high-profile Irish sports stars and leading sporting clubs came together in support of Research Motor Neurone to organise a powerful fundraising initiative, "Shoulder to Shoulder". The campaign aimed to unite communities in a show of solidarity with those living with ALS

Spearheaded by Denis Crehan and Daire Gilmore, the initiative called on the public to stand shoulder to shoulder in the fight against Motor Neurone Disease. Supporters were encouraged to "wear your jersey for your teammate" and take part in a sponsored walk held on the morning of Sunday, 27th of July—All-Ireland Football Final day—at St Brigid's GAA Club in Croghan, Co. Offaly. People across the country could also join in by organising their own local walks.

The event proved to be a tremendous success, drawing support from a wide range of prominent Irish sporting organisations, including Galway GAA, St Brigid's GAA, Clan Na Gael GAA, Leinster Rugby, Ireland U20 Rugby, Connacht U20 Rugby, and Garbally College.

Among those showing their support was former Galway GAA star and media presenter Michael Meehan, who proudly wore his jersey in solidarity with teammates and families affected by ALS.

Together, they turned solidarity into action. Surpassing its €50,000 target, Shoulder to Shoulder raised an incredible €61,789—each step taken and each jersey worn representing strength, compassion, and unwavering support. The funds will go toward supporting both Research Motor Neurone and the Irish Motor Neurone Disease Association (IMNDA), making a meaningful contribution to the ongoing fight against ALS.





Sunflower Fundraiser



Kate Crampton centre at the Sunflower Fundraiser

On Saturday, 9th of August 2025, Marie and Cathy Corrigan hosted a fundraiser as part of the annual Sunflower Day in support of Research Motor Neurone. The event aimed to raise vital funds for Motor Neurone Disease (MND) research and to support a cherished member of the Hollywood/ Grangecon and Stratford community in County Wicklow, Mrs Kate Crampton, following her diagnosis of MND.

Marie and Cathy brought together an unforgettable day filled with warmth, laughter, and a strong sense of community. Attendees described it as a truly beautiful occasion in every sense—the sun shone, the gardens were in full bloom, and a spirit of generosity was felt throughout. An inspiring €3,000 was raised on the day for Research Motor Neurone , contributing to ongoing efforts in the fight against MND and supporting essential research.

Following the fundraiser, Kate sadly passed from her illness. It is hoped that her memory, and the generosity shown on the day, will continue to inspire and support the vital work carried forward in her honour.

Successful Graduates Supported by RMN



Dr. Prabhav Mehra

Dr. Prabhav Mehra completed his PhD under the supervision of Associate Professor Bahman Nasseroleslami, supported by a Provost Award from Trinity College Dublin. During his doctoral research, he developed a novel standardised electrode placement for recording spinal electrical activity (ESG) during motor control and in response to external stimulation. This work led to the first reliable high-density electrophysiological framework (SC10X/U) for investigating spinal activity in both health and neurodegeneration. Dr. Mehra combined standardised high-density ESG with EEG and EMG to acquire multimodal recordings from the cortex, cervical spinal cord, and muscles simultaneously.

His research demonstrated that the spinal cord exhibits frequency-specific spatial patterns of activity and its connectivity with the cortex during motor control. These findings reveal that, similar to the cortex, spinal cord activity also features distinct neurophysiological patterns. Dr. Mehra also identified alterations in evoked spinal activity in individuals with multiple sclerosis, highlighting a potential electrophysiological signature of demyelination-related pathophysiology. His work on the standardised SC10X/U framework has been published in a high-impact peer-reviewed journal. Moreover, He has presented his research at relevant international conferences

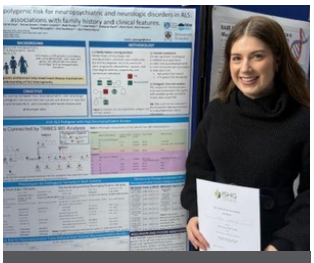


Dr. Colm Peelo

Dr Colm Peelo successfully completed his PhD under the supervision of Professor Niall Pender and Professor Orla Hardiman. His research focused on the cognitive and behavioural features of amyotrophic lateral sclerosis (ALS), with complementary work in Huntington's disease (HD) to better understand shared and disease-specific patterns of neurodegeneration. During his PhD, he conducted cross-sectional and longitudinal studies employing comprehensive neuropsychological assessment. His work investigated cognitive endophenotypes in familial ALS, early cognitive and behavioural change, social cognition, apathy, and the validation of cognitive screening tools across neurodegenerative disease.

Dr Peelo's research demonstrated stable cognitive endophenotypes in unaffected relatives of people with familial ALS, characterised distinct cognitive and behavioural profiles across ALS and HD, and identified domain-specific relationships between apathy and cognition. He also showed that the Edinburgh Cognitive and Behavioural ALS Screen (ECAS) has strong potential as a cognitive screening tool in HD, supporting its use beyond ALS. Collectively, his work advances the understanding of extramotor manifestations of neurodegenerative disease and highlights the importance of sensitive cognitive assessment for early diagnosis, disease monitoring, and clinical trial readiness.

Exploring How Genetics, Family history and Brain activity influence MND



Dr. Ciara O'Donoghue

Dr. Ciara O'Donoghue is a practicing doctor who works in the National ALS Service at Beaumont and a PhD researcher, working with Professor Orla Hardiman and Dr. Ross P. Byrne . Her work focuses on Motor Neuron Disease (MND/ALS), with a special interest in how genetics and brain activity might influence the illness. She combines her clinical work with research, aiming to deepen our understanding of ALS.

At a scientific meeting, Dr. O'Donoghue presented research highlighting how genetic risk factors linked to other neurological and psychiatric conditions may also play a role in ALS, suggesting shared biological pathways across brain disorders.

Her research also explores extended family networks, revealing that some cases considered "sporadic" may be connected to distant relatives with ALS.This approach could uncover hidden genetic links and new risk factors. In collaboration with Professor Roisin McMackin, she is investigating brain activity in ALS, examining whether individuals with a higher genetic risk for psychiatric conditions show distinct brain wave patterns. This work may help identify different subtypes of ALS and support more personalised approaches to treatment and care.

Together, these studies are helping to piece together the bigger picture of ALS. Understanding how genetics, family history, and brain activity fit into the puzzle could not only improve diagnosis but also move us closer to more personalised therapies.

Aileen Barrett Memorial Bursary

In 2024, we were proud to announce the establishment of the Aileen Barrett Memorial Bursary in honour of Ms Aileen Barrett.

Aileen was a highly respected leader, mentor, and former Head of Physiotherapy at Beaumont Hospital, who made an outstanding contribution to her profession. She also played a key role in Motor Neurone Disease (MND) research as the founding Chair of Research Motor Neurone, remaining actively involved until her passing in January 2023. Established by her son, Richard, the bursary supports allied healthcare professionals working in MND who reflect Aileen's dedication to excellence in patient care and research, ensuring her legacy continues to inspire others.

Since its inception, the impact of the Aileen Barrett Memorial Bursary is already evident. It has enabled healthcare professionals to further develop their knowledge and clinical skills, particularly in areas critical to the care of people living with MND. This has provided valuable opportunities to engage with the latest research and best practice, while fostering collaboration and shared learning across healthcare settings.

Importantly, the benefits extend far beyond individual recipients. Knowledge and expertise gained through the bursary are being shared with wider clinical teams and across the physiotherapy community, strengthening care provision at both local and national levels.
This is a clear demonstration of how the Aileen Barrett Memorial Bursary is not only supporting professional development, but also directly enhancing the quality of care delivered to people living with MND.

By empowering healthcare professionals and fostering continued learning, the bursary ensures that Aileen's legacy—her vision, compassion, and dedication—continues to make a meaningful difference for years to come.

Precision ALS: Shaping the Future

Since its launch in March of 2022 at Trinity College Dublin (TCD), Precision ALS (www.precisionals.ie), the €10 million research programme uniting researchers from SFI Research Centres ADAPT and FutureNeuro, alongside TRICALS, Europe's largest ALS research initiative, has continued to accelerate its groundbreaking work throughout 2025.

The project has made significant progress towards its core goal of developing a pan-European Patient Data Platform. This platform will enable research centres across Europe to work together to develop innovative, personalised treatments for MND patients through precision medicine, using artificial Intelligence, data science, and clinical expertise to shape the future of ALS research and offer new hope to people living with MND.

The Precision ALS Amsterdam Masterclass, held at the Novotel Amsterdam, was a standout event of 2025, bringing together researchers from the core Precision-ALS project and its European Partners, to present some of their work, share progress and shape the next phase of the programme.

A series of presentations—delivered both in person to a full audience and online—highlighted updates from Ireland and collaborators across Europe, including partners in Utrecht and Sheffield, Topics ranged from advances in automated time-to-event analysis in ALS to updates on the current Precision-ALS dataset.

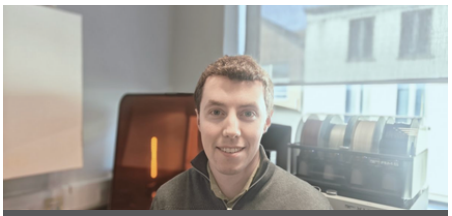
The meeting also brought together Principal Investigators, Scientific Board members, and key staff to focus on priorities such as governance, legal frameworks, and the potential expansion to new sites. Updates were provided across all work packages, with valuable discussions on future directions for the project.

This was followed by a satellite meeting at the ENCALS Conference in Turin on June 3rd, where stakeholders continued discussions on project progress.

Looking ahead, 2026 promises further important developments. We are proud to be part of this ambitious initiative and will continue to share updates as the project advances toward transforming ALS research and patient care.



Dr. Conor Hayden Awarded €600K Enterprise Ireland Grant for Innovative "Ribbon Device"



Dr. Conor Hayden

Dr. Conor Hayden, of Trinity College Dublin's School of Engineering and the ADAPT Research Centre, received €600,000 in 2025 from Enterprise Ireland's Commercialisation Fund to further develop his innovative "Ribbon device," a novel, non-invasive respiratory sensor.

The two-year project will focus on refining the technology and progressing it toward market. The Ribbon device is uniquely designed to continuously measure both respiratory rate and volume, addressing a significant gap in patient monitoring. By enabling earlier detection of respiratory decline, the device has the potential to Improve patient outcomes and reduce healthcare costs.Dr. Hayden, whose PhD research focused on Motor Neurone Disease, leads the project in collaboration with Trinity's Schools of Engineering and Medicine, supported by clinical experts from St James's Hospital.

He will oversee the technical development, drawing on previous experience from his Index-eTap project. The team also benefits from the expertise of Professor Bruce Murphy and Dr. Dara Meldrum, with clinical guidance from Dr. Deirdre Murray and Professor Ignacio Martin-Loeches.

Speaking about the award, Dr. Hayden expressed his gratitude for the support from Enterprise Ireland, Trinity's Schools of Medicine and Engineering, PrecisionALS, and the Trinity Technology Transfer Office. He noted that the Ribbon device originated from his PhD work on developing objective outcome measures for people living with MND and shared his enthusiasm for progressing its development.

Study Launches Investigating Neuroelectric Signaling

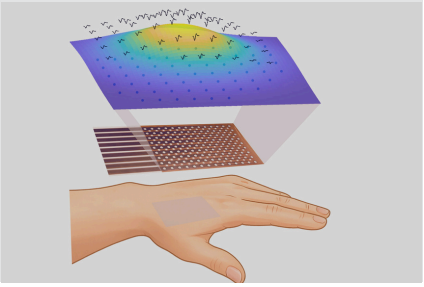
A new study examining neuroelectric signalling between the brain and motor neurons in Amyotrophic Lateral Sclerosis (ALS) is currently underway at Trinity College Dublin. Led by Dr Lara McManus, the research team is employing non-invasive high-density surface electromyography (HDsEMG) to identify and analyse the firing patterns of individual motor units within muscle tissue. By integrating signals from both the brain and motor neurons, the study aims to advance understanding of how brain–muscle connectivity is altered in motor neuron disease.

The research team includes Dr Saroj Bista, a postdoctoral researcher whose PhD work demonstrated that, in individuals with primary lateral sclerosis, regions of the brain not typically associated with movement can become active to support motor function.

Two doctoral students, Giuseppina Del Duca and Zuyu Du, have also joined the project. Giuseppina's research will use HDsEMG to study the properties and behaviour of motor units in people living with ALS, and how these may change over time. A motor unit is a single motor neuron and the muscle fibres it controls, working together to produce movement. Giuseppina will also examine whether differences in motor unit function can help to identify different subtypes of ALS.

Zuyu's work will focus on the relationship between brain and muscle, examining how brain activity influences motor neuron firing in people living with ALS. He will also develop new algorithms to improve the detection of motor unit firings, allowing researchers to more accurately track changes in motor neuron behaviour.

If you would like to find out more information about the study, or if you think you may like to take part, please see www.mcmanuslab.com or contact mcmanuslab@tcd.ie



Study into the early signs of impaired neural activity in MND

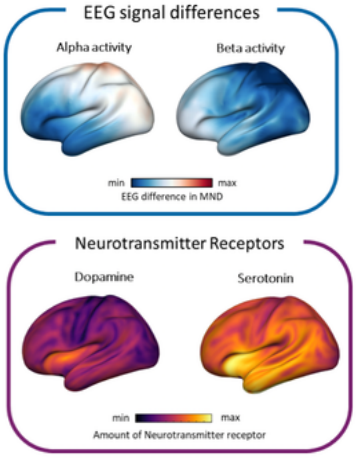


Dr. Gabriel Costa

Dr. Gabriel Costa is a postdoctoral research fellow at Trinity College Dublin studying the early signs of impaired neural activity in MND. In 2023, he was awarded a Marie Sklodowska-Curie COFUND Fellowship to use advanced data analysis methods to further our understanding of neurodegeneration in MND. Under supervision of Professor Orla Hardiman and Professor Bahman Nasseroleslami, his work at the Academic Unit of Neurology, TCD, has shown how distinct signals in the brain waves measured using Electroencephalography (EEG) are altered in MND,indicating the impairment of neural activity. These changes in brain cell activity may reflect ongoing degeneration, but they can also provide new insights into the mechanisms driving the disease.

To better understand the origin of these altered brain signals, Dr. Costa is combining EEG findings with detailed brain maps that chart the molecular and cellular characteristics of different regions of the human brain. This approach helps identify which neurons and brain areas are most likely responsible for the differences observed in EEG.

His recent work, presented at the ENCALS 2025 Conference in Turin, Italy, highlighted how particular neurotransmitters, the chemical messengers that neurons use to communicate, are linked to the EEG changes seen in MND. For this contribution, he was awarded a Best Poster prize at the conference.



Figures Above , First Image: Differences in EEG activity of distinct brain waves. Distribution of different neurotransmitters in the healthy brain. Second Image: The association of both types of brain maps, EEG activity and neurotransmitters, can help us understand the origins of impaired neural activity in MND.

MND Public and Patient Information Panel Update

Since its inception in 2023 the first Irish PPI advisory panel for MND research established under the leadership of Prof. Orla Hardiman and the MND research team in the School of Medicine, Trinity College Dublin has continued to provide an opportunity for people diagnosed with MND, their family, friends, or caregivers, to help shape the MND research carried out in the School of Medicine.

Public and Patient Involvement (PPI) aims to give a voice to people who are directly impacted by a medical condition, so they can have a say in how research about that condition is carried out. The opinions and perspectives of PPI panel members help researchers to design studies that are not overly burdensome for participants.

As of January 2026, the panel now has 24 active members; 16 people who have been diagnosed with MND and 8 family members.

If you have been diagnosed with MND or are a family member, friend, or caregiver of someone who has been, then you are eligible to join the panel. New members can join at any time. Participants are not required to have any specific skillset, and do not need to have experience in research or medical/scientific knowledge to take part.

If you would like to join the panel or receive an information leaflet, you can email **Aisling at researchmnd@tcd.ie.**

WE SINCERELY ACKNOWLEDGE THE SUPPORT OF THE MANY PRIVATE INDIVIDUALS AND ORGANISATIONS WITH THE VISION TO HELP US FIND SOLUTIONS FOR THE ULTIMATE BENEFIT OF PATIENTS WITH NEURODEGENERATIVE DISEASES. OUR SPECIAL THANKS TO THE FOLLOWING 2025 SUPPORTERS.

- Hähnel Industries – In memory of Mr Walter Hähnel
- Mr Andrew O'Connel – Caragen
- Mr Gerry O'Connor – GOC estate agents/ Stewartstown Ski Association
- Mr Daire Gilmore and Mr Denis Crehan - Shoulder to Shoulder Fundraiser
- Mr Donal Coyle and Mr Justin Mc Kenna - In memory of Clare McKenna
- Ms Marie Corrigan and Ms Cathy Corrigan - Sunflower Fundraiser
- Ms Kate Crampton - Sunflower Fundraiser
- Ms Ann and Mr Rodger Barnes - Christmas Lights Display Fundraiser
- Irish Motor Neurone Disease Association (IMNDA)
- PWC Dublin Asset & Wealth Management in Memory of Brian Keeshan
- Terence Taylor – The Roy Taylor Organisation
- Ms Lisa Kelly – VHI Women's Mini Marathon
- Ms Claire Skehan - Dublin City Marathon
- Ms Emma Bonass -VHI Womens Mini Marathon in memory of Noel Bonass
- Seamus and Pat Monaghan
- Coláiste Ghlór na Mara
- Mrs Maeve Kilgannon and family - Maeve's Coffee Morning
- Mr Peter Carr

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