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UK Charity Invest in ME Research

Contents

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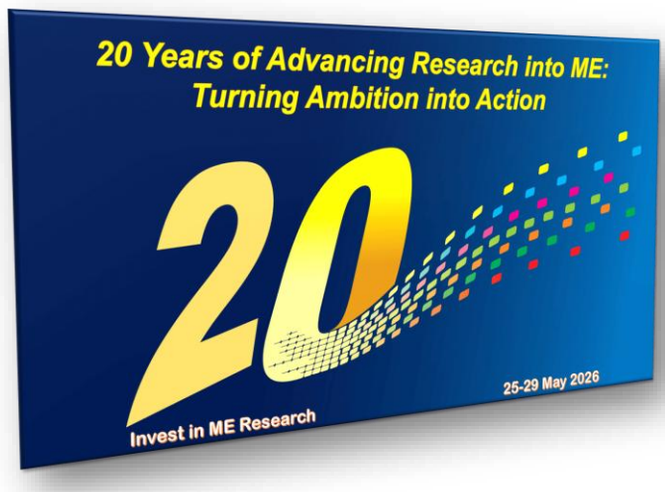
CHAIRMAN'S MESSAGE



Dear Friends and Supporters,

Welcome to International ME Conference Week 2026 - a milestone year in every sense as we mark twenty years of Invest in ME Research and reflect on what two decades of dedication, collaboration, and principled advocacy have made possible.

Over twenty years, this charity has remained focused on one unwavering objective: meaningful progress in the understanding and treatment of ME.

Our efforts have ranged from direct advocacy and raising educational standards through influential international conferences, to establishing research fellowships, funding the UK's only clinical trial for ME, and initiating and sustaining European networks of researchers, clinicians, and patient groups. These efforts have made a difference - and we have achieved them thanks to the extraordinary support of our supporters and the collaboration of this community of researchers, clinicians, patients, carers, and supporters.

This year's conference week spans five days - uniquely the only such 5-day event for ME in the world - and brings together a wonderful combination of events: the seventh early-career workshop led by Young EMERG; the European ME Research Group Annual Meeting, which this year discusses an EMERG-led pan-European research project for ME; our fifteenth Biomedical Research into ME Colloquium; the eighteenth International ME Conference, now integrated into the final day of the colloquium, bringing researchers, clinicians, and patients together in a shared forum; and a planning meeting organised for a future critical clinical platform project. The theme of the events this year - "**20 Years of Investing in ME Research to Discover ME**" - reflects both where we have come from and where we now proceed.

Our research colloquium focuses on systems biology, immunology, metabolism, neurology, microbiome research, AI and bioinformatics, and future pathways for treatment - representing the breadth and depth of international scientific engagement that our annual gatherings have helped to foster. We are delighted to welcome Professor Sarah Teichmann as keynote speaker at BRMEC15, and to host delegates and speakers from institutions across more than twenty countries - including the NIH, Karolinska Institutet, Columbia University, Imperial College London, the Quadram Institute, Cornell University, the University of Cambridge, Med. University of Vienna, Catholic University of Valencia and many more.

This is, quietly but significantly, a landmark year. Though formal announcements must wait a little longer, two major developments - one representing the first substantial pan-European research initiative of its kind for ME, the other a meaningful advance in clinical research capacity - are the direct result of work built patiently over two decades by this charity, its collaborators, and its supporters. Both are landmarks for European ME research. Both are the direct consequence of sustained network-building, collaboration, and long-term investment in research infrastructure. The groundwork laid through EMERG, through our annual colloquia, through investment in early-career researchers, and through European partnership is bearing fruit in ways that will become clear in due course. We look forward to sharing the full story when the time is right.

It is worth reflecting on how progress of this kind is made. The networks, research relationships, and institutional infrastructure that now exist were built here - collaboratively, persistently, and without public support - over twenty years. That is not a complaint; it is context.

Public funding, when it has materialised, has too often been directed towards familiar recipients and familiar approaches, at times reconstructing what already existed rather than building upon it. The effect has been to introduce delay where there was opportunity for acceleration, and to consume resource that might otherwise have gone directly to research. This may not be unique to ME; it is a pattern well recognised across many fields. But for a condition where patients have waited long enough, the cost is felt particularly keenly. Influence over the research agenda is not the same as advancing it. Administrative overhead is not the same as doing the work. And the structures this community has spent twenty years building do not need to be replicated elsewhere - they need to be resourced.

Control is not progress.
Administration is not research.
The wheel does not need reinventing - it needs funding and support.

The Centre at Norwich Research Park stands as one of the clearest expressions of what vision, commitment, and genuine collaboration can produce. The scientific and institutional infrastructure is in place. The missing ingredient has been consistent, adequate funding from those with both the means and the mandate to provide it.

Twenty years have shown that persistence, integrity, and collaboration yield results. Yet, as a small, entirely volunteer-run charity - no salaries, every donation directed to biomedical research - we continue to swim against the tide with continuing missed opportunities at the policy level demonstrating that, in the UK at least, rapid progress will come primarily through the efforts of the biomedical research community that has been built here, not through the goodwill of institutions that have repeatedly shown their preference for a status quo or strategic indecision.

Our great thanks to conference sponsors the **Irish ME Trust**, **Quadram Institute Bioscience**, **Terra Biological LLC**, **PrecisionLife**, and **Vazyme**, and to The Hendrie Foundation and LunaNova for their immense and valued commitment to our research.

As we open this conference week, we invite all delegates - researchers, clinicians, patients, early-career scientists, and supporters - to engage fully with the presentations, participate in the discussions, and build the connections that will carry ME research forward into its next chapter.

Welcome to International ME Conference Week 2026.

Kathleen McCall

Chairman, Invest in ME Research

20 Years – Building the Science

2026

INVEST IN ME RESEARCH

International ME Conference Week

25–29 MAY 2026

A UK VENUE TO INSPIRE

THE HEART OF HERITAGE. THE HOME OF RESEARCH.

CONTINUING THE JOURNEY

BUILDING ON PROGRESS

SHAPING WHAT'S NEXT

2027

INVEST IN ME RESEARCH

International ME Conference Week

31 MAY–4 JUNE 2027

A UK VENUE TO CONNECT

INNOVATION. COMMUNITY. IMPACT.

Invest in ME Research

- ✓ CUTTING-EDGE RESEARCH
- ✓ GLOBAL COLLABORATION
- ✓ PATIENT-LED. RESEARCH-FOCUSED.
- ✓ HOPE. EVIDENCE. CHANGE.

Uniting ressarchers, clinicians and people with ME for a better future.

From 2026 to 2027 – together we progress. ♡

INVESTINME.ORG

Our 2026 Conference Week Partners

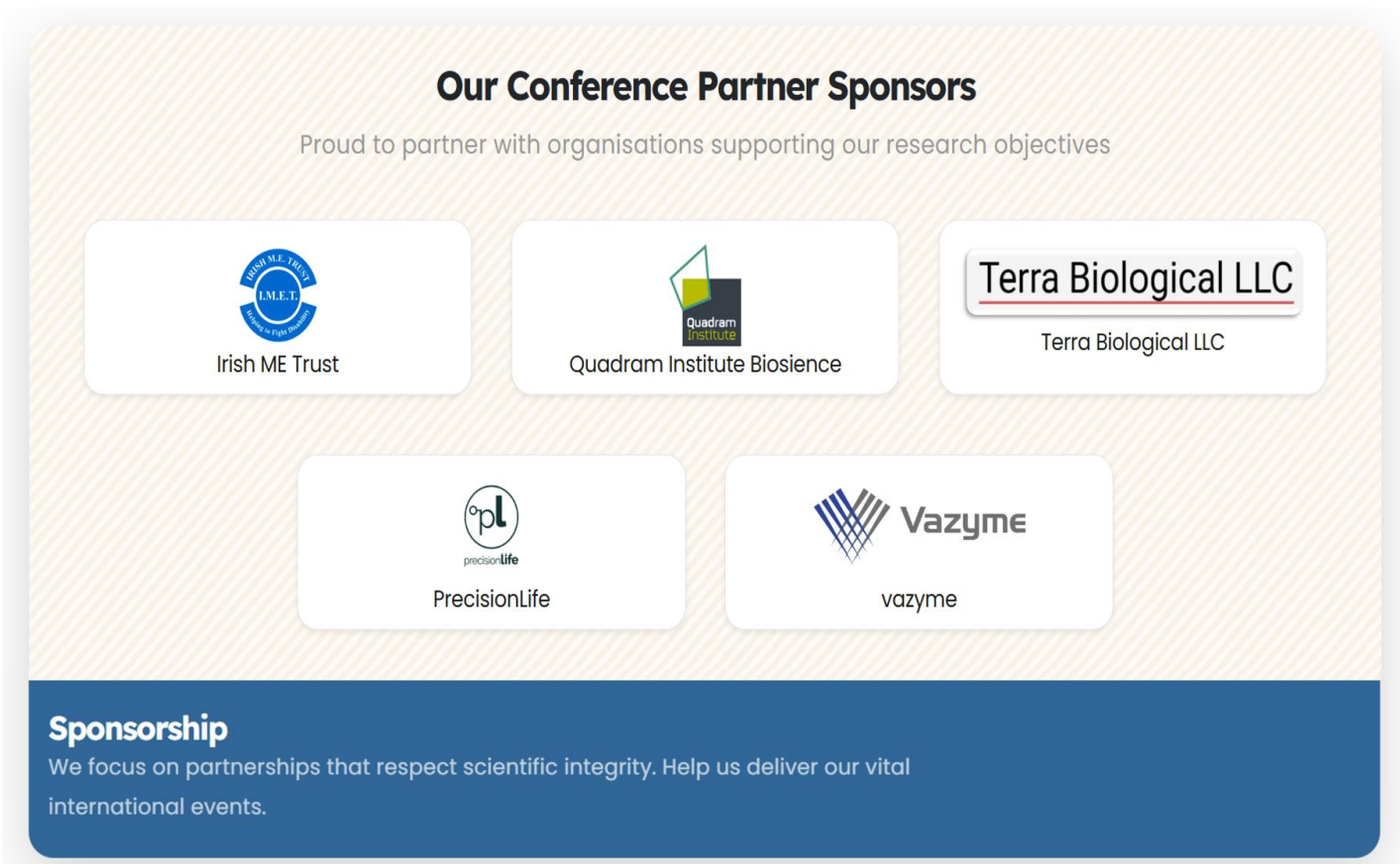
This May, Invest in ME Research marks twenty years of funding and facilitating biomedical research into Myalgic Encephalomyelitis - and does so by bringing the global ME research community together for the International ME Conference Week 2026.

Five days. Five events.
Researchers, clinicians, early-career scientists and patients from more than twenty countries.
To our knowledge, the only five-day international conference week dedicated entirely to ME anywhere in the world.

That this week exists at all is a reflection of twenty years of determination. That it continues to grow is, in no small part, due to the partners we are proud to acknowledge here.

The Irish ME Trust has supported every single conference since 2006 - a partnership spanning the full twenty years of this charity's history. That kind of sustained, unconditional commitment to ME research is rare, and its value cannot be overstated.
We extend our sincere thanks also to **Quadram Institute Bioscience**, **Terra Biological LLC**, **PrecisionLife** and **Vazyme**.

Together, these organisations represent something important - not simply financial support, but confidence in the science, in the researchers, and in the work this community is doing.
That confidence is what allows this conference week to exist, to grow, and to matter. We are grateful for every part of it.

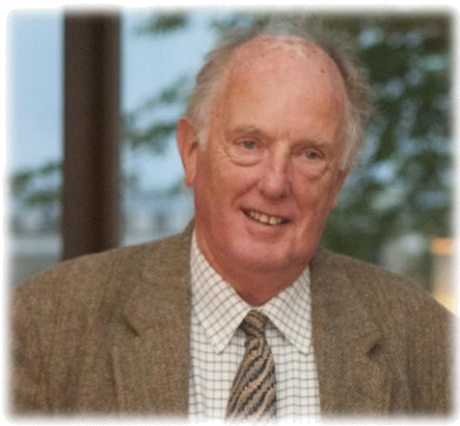


Advancing ME Research

The Fellowships at Norwich Research Park

Invest in ME Research, in partnership with the Quadram Institute, has established two postdoctoral fellowships at Norwich Research Park - the Ian Gibson Fellowship and the LunaNova Fellowship - both dedicated to advancing biomedical research into myalgic encephalomyelitis.

The Ian Gibson Fellowship, launched in 2022 and named in honour of the late Dr Ian Gibson - scientist, politician and tireless advocate for people with ME - was the first postdoctoral fellowship in the UK dedicated solely to ME research. Held by Dr Katharine Seton, it continues her career in ME research at the Quadram Institute, building on her PhD funded by Invest in ME Research and the University of East Anglia.



Dr Seton's research focuses on determining the contribution of the intestinal microbiome to oxidative stress in ME patients, and whether this drives alterations in immune function that accelerate premature immune ageing. She is also investigating the impact of microbiota replacement therapy on intestinal and systemic oxidative stress in ME patients - the first study to directly assess this relationship - with the aim of identifying whether targeting the gut microbiome can restore immune function and alleviate symptoms.

The LunaNova Fellowship, funded by technology company LunaNova and introduced in 2023, is held by Dr Krishani Perera, who joined Professor Simon Carding's laboratory at the Quadram Institute of Bioscience in July 2024. Her two-year fellowship centres on the gut-immune-brain axis and the search for biomarkers, with strong links to the European ME Research Group and international partners.

Dr Perera's research investigates whether the reactivation of human endogenous retroviruses - genes embedded within our genome that are ordinarily kept inactive - may drive accelerated ageing of immune cells in ME patients. Her work seeks to establish whether HERV reactivation plays a causal role in immune dysfunction. She is also contributing to the RESTORE-ME clinical trial, a phase IIb placebo-controlled study investigating microbiota replacement therapy, and to the COMPASS ME Study, which analyses microbial communities - viruses, bacteria, and fungi - in the mucus of people with ME.

Both fellowships sit at the heart of the strategy to develop the UK Centre of Excellence for ME at Norwich Research Park, supporting ongoing clinical trials and PhD studentships, and building the sustained research capacity that this seriously under-resourced condition demands.

With revised estimates now placing the number of people with ME in the UK at over 400,000 - a figure that continues to grow in the wake of the Covid pandemic - the urgency of this work has never been clearer.

Invest in ME Research has always maintained a clear focus: directing funding towards rigorous biomedical research with real potential, building a sustainable research base, and driving meaningful progress.

The fellowships at Norwich Research Park are a direct expression of that commitment.

Further information on Dr Seton: https://quadram.ac.uk/people/katherine-seton/

Further information on Dr Perera: https://tinyurl.com/Quadram-Krishani

Light ME Up – Exploring Red Light Therapy for ME

In April 2024, **Dr Katharine Seton**, PhD – the Ian Gibson Fellow funded by Invest in ME Research – began a pilot study looking at whether red light therapy could be helpful for people with ME.
Red light therapy is already an approved treatment (by the FDA) for conditions such as chronic pain, wound healing, and hair regrowth. However, it has not previously been formally tested in people with ME/CFS. Early research in other conditions suggests it may help improve energy levels, reduce pain, and support blood circulation. These are all areas that can be challenging for people with ME, so it made sense to explore whether this therapy might offer some benefit.
Red light is absorbed by the mitochondria – often described as the "batteries" inside our cells – where it may help increase energy production.
Research also suggests that timing matters, as the therapy appears to work best in the morning, in line with the body's internal (circadian) clock, particularly between 9am and 11am.
Importantly, the device used in this study was a targeted single-wavelength red light specifically designed for research purposes. This is difference from many commercially available products, which usually emit a broad spectrum of light. We would strongly advise patients not to purchase or use red light devices based on this early-stage research.

How the study worked

Over a 12-month period, 26 people with ME from across the UK took part in this 9-week study.
Importantly, the study was carried out entirely from home, so participants could take part in a way that suited their needs. This approach also made it possible for people who are more severely affected by ME to be involved in research.
Before starting the therapy, participants completed a set of assessments to understand their symptoms and daily functioning.
These included:

- A questionnaire about their ability to carry out everyday activities (FUNCAP27)
- Online cognitive (thinking and memory) tests
- Wearing a wrist activity monitor for seven days
- Keeping a sleep diary for seven days

Once these were completed, participants were sent a red light lamp to use at home.

They were asked to use the lamp for 2 minutes each morning, between 9am and 11am, for two weeks. After this two-week period, the same assessments were repeated to see whether there were any changes in symptoms. Participants were also asked to share feedback about their experience of taking part.

What did participants tell us?

Of the 26 people who started the study, 20 completed all aspects of it.
The early findings show that most participants found the red light therapy easy to use:

- 86% were able to set up and use the lamp on their own
- All participants said they would be willing to use the lamp again
- Around 14% said they would prefer a different time schedule

More than half of participants found it difficult to use the lamp between 9am and 11am. Despite this, participants showed remarkable commitment, with everyone using the lamp for at least 12 out of the 14 recommended days.
The therapy also appeared to be safe. Only one participant reported a mild reaction to the light.

Feedback on study assessments

Most people (86%) were able to wear the activity monitor for the full seven days.
However, eight participants reported discomfort from the wrist strap, and some experienced worsening of eczema. As a result, the research team is now exploring more comfortable strap options for future studies.
Participants were also asked to complete up to six cognitive tests in one sitting. Nearly everyone completed all the tests, but about one-third reported a temporary worsening of symptoms afterwards. This feedback is important and will help shape how assessments are designed in future research.

What happens next?

The research team is now carrying out the next stage of analysis. This includes working with a statistical expert to combine information from multiple sources, such as questionnaires, activity monitoring, sleep diaries, and cognitive tests, to explore whether red light therapy may provide any measurable benefits for people with ME.
The team hope to have results ready by the autumn and they look forward to sharing further updates with you then.

Sharing the research

We are also pleased to share that Katharine presented the preliminary findings from this study at the Young EMERG Workshop in Vienna in November 2025.
Her work was very well received, and she was awarded first place in the poster presentation competition – a fantastic achievement and recognition of the importance of this research.

LUNANOVA FELLOWSHIP - RESEARCH IN FOCUS

Ancient Viruses, Modern Disease - The Role of Human Endogenous Retroviruses in ME

A review published in the International Journal of Molecular Sciences argues that human endogenous retroviruses - ancient viral sequences embedded in our genome - may be active drivers of the biological processes underlying ME. Written by Perera, Oltra and Carding of the Quadram Institute Bioscience and Norwich Research Park, it represents a significant step towards understanding ME as a mechanism-driven, biologically distinct condition.

What Are Human Endogenous Retroviruses?

Human endogenous retroviruses (HERVs) are the remnants of ancient viral infections that integrated into human DNA millions of years ago. They now make up approximately 8% of the human genome. Under normal conditions they are kept inactive. When that suppression breaks down - through infection, stress, or immune dysfunction - HERVs can reactivate and begin producing viral proteins and RNA. This can amplify immune responses, drive chronic inflammation, and disrupt normal gene regulation. Reactivated HERVs have already been implicated in autoimmune diseases including multiple sclerosis, lupus, and juvenile rheumatoid arthritis.

The Link to ME

The review proposes that reactivated HERVs are plausible contributors to the hallmark features of ME - persistent post-infectious immune dysfunction, chronic inflammation, and the neurological and cognitive symptoms that characterise the disease.

Three principal mechanisms are identified. First, HERV proteins trigger sustained immune responses that may perpetuate the immune activation seen after acute viral infection. Second, HERV elements can act as alternative gene switches, upregulating inflammatory networks in ways consistent with the immune patterns observed in ME. Third, HERV reactivation disrupts the very mechanisms that would normally suppress it, creating a self-reinforcing cycle.

The paper draws on evidence from multiple sclerosis research, where a specific endogenous retrovirus has been the most thoroughly studied. The authors argue that the immune and inflammatory changes associated with HERV reactivation closely mirror those documented in ME - including altered natural killer cell function, T-cell exhaustion, and elevated pro-inflammatory cytokines. Viral infections known to trigger ME onset - including SARS-CoV-2, Epstein-Barr virus, and enteroviruses - are also known to reactivate HERVs, providing a coherent molecular link between post-infectious onset and the chronic immune dysregulation that follows.

Biomarkers and Treatment Implications

ME currently has no validated biological diagnostic test. The review identifies HERV expression patterns as a promising approach for distinguishing ME from healthy controls and from overlapping conditions such as fibromyalgia, long COVID, and depression. If validated, HERV signatures could also provide a quantitative measure of disease severity and a means of monitoring treatment response.

On the therapeutic side, the paper identifies several candidate strategies: HERV-targeted antibodies, antiviral agents that suppress HERV activity, immune modulators targeting downstream inflammation, and epigenetic interventions aimed at restoring HERV suppression at source. The authors are careful to present these as directions requiring clinical validation, not established treatments. They specifically call for clinical trials enrolling patients selected on the basis of defined HERV expression profiles as the necessary next step.

The authors' explicit goal is to transform ME from a symptom-based syndrome into a mechanism-driven, treatable condition. This review is a substantive step in that direction.

Original Paper

Perera KD, Oltra E, Carding SR. Human Endogenous Retroviruses in Myalgic Encephalomyelitis/Chronic Fatigue Syndrome: Emerging Roles in Pathogenesis, Immunity, Biomarkers and Therapeutics. Int. J. Mol. Sci. 2026, 27(10), 4309.
DOI: 10.3390/ijms27104309 - Published: 12 May 2026 - Open Access (CC BY)

COMPASS-ME

The COMPASS-ME Study - Investigating the Microbial Landscape of ME

One of the questions that has persistently complicated ME research is deceptively simple: what role, if any, do microbes play in triggering or sustaining the disease? Many patients report a viral infection preceding the onset of their symptoms, and the overlap with long COVID has reinforced the view that post-infectious mechanisms are central to understanding ME. Yet despite decades of investigation, no single pathogen has been definitively linked to the condition, and the broader microbial picture - encompassing not only viruses but bacteria and fungi - has remained poorly characterised.

The COMPASS-ME study, funded by Invest in ME Research and based at the Quadram Institute Bioscience on Norwich Research Park, is designed to address precisely this gap. Led by **LunaNova** fellow Dr Krishani Perera, working within Professor Simon Carding's research group, the study will analyse the mucosal microbial communities - including viruses, bacteria, and fungi - of individuals with and without ME, using mucosal swab samples taken from sites where microbial infections commonly begin. The approach is both scientifically rigorous and practically considered: given the significant mobility difficulties experienced by many people with ME, sampling methods have been chosen specifically to minimise the burden on participants and ensure the study is as inclusive as possible.

Dr Perera brings to this work a background in molecular virology developed across Kansas State University and postdoctoral research in France, where she studied viruses that persist in immune-privileged sites in the body and contribute to long-term health consequences. That expertise in viral persistence and immune evasion is directly relevant to ME, where the mechanism by which an initial infection might give rise to chronic, systemic illness remains one of the field's central unanswered questions.

The longer-term ambition of the COMPASS-ME study is to contribute to the development of reliable diagnostic tools for a disease that currently has none, and to identify the biological mechanisms that might, in time, be amenable to targeted treatment. It is work that is painstaking, methodologically careful, and - given the complexity of ME and the number of intersecting biological systems involved - necessarily cautious in its conclusions. That caution is a strength, not a limitation. The field has suffered from premature certainty in the past.
What is needed now is precisely the kind of systematic, well-grounded investigation that this study represents.

Further information: quadram.ac.uk

SEE ME

A clinical innovation fund which benefits patients through research by bringing together Quadram Institute (QI) scientists and doctors at the Norfolk and Norwich University Hospital (NNUH) has selected five new projects for funding.
The Quadram Institute Clinical Seedcorn Fund was first established in 2021/2022 to help clinicians develop research ideas with scientists at the Quadram Institute. The fund supports secondments of NHS staff to Quadram Institute laboratories and associated research costs.
Quadram Institute Bioscience (QIB) in partnership with the Norfolk & Norwich Hospitals Charity have provided £100,000 each to jointly fund £200,000 of new collaborative clinical research projects.

Included in this is a project entitled ***SEE-ME*** **-** Retinal Biomarkers of Visual Disturbances in Myalgic Encephalomyelitis/Chronic Fatigue Syndrome – and this will be run by 'Ian Gibson fellow' Dr Katharine Seton (QI) and NNUH consultant ophthalmologist Mr Colin Jones (NNUH).
This is a very novel research pathway and another spin-off from the ME research being carried out at the centre.
Further information: quadram.ac.uk

RESTORE-ME Clinical Trial

The RESTORE-ME trial - a phase IIb, randomised, placebo-controlled study of microbiota replacement therapy at the Quadram Institute - remains the UK's only clinical trial of its kind for ME, and one of the first to use objective outcome measures.

Progress has taken longer than originally anticipated. Microbiota replacement therapy is regulated by the MHRA as an investigational medicinal product, and obtaining the necessary manufacturing licence and regulatory approvals has proved a complex and time-consuming process.
The pandemic added further delay to building and infrastructure work required at the Quadram Institute.

The research team continues to work on related studies that will optimise the trial protocols alongside the regulatory preparations.
A further update will be shared as soon as there is more to report.
Meanwhile the associated PPI group that has been formed for the trial continues to meet, with the next meeting scheduled for July.
Further information: quadram.ac.uk

The Centre of Excellence for ME - A Case for Investment

The research infrastructure at Norwich Research Park was constructed over more than a decade through the sustained commitment of a volunteer-run charity and its supporters, and the dedication of a handful of researchers - without government funding, without research council backing, and without the institutional infrastructure that better-resourced disease areas take as given. Five PhD studentships. The first dedicated fellowships for ME research in the UK. The RESTORE-ME trial - a phase IIb, randomised, placebo-controlled study of microbiota replacement therapy, using objective outcome measures, funded entirely by Invest in ME Research. A programme of basic science, immunology, virology, and microbiome research embedded within one of Europe's leading gut biology institutes in one of Europe's most advanced research parks.

The Quadram Institute at Norwich Research Park houses one of Europe's largest endoscopy units, a clinical research facility, and world-class expertise in mucosal immunology and gut biology. It sits within a park of over 3,000 scientists spanning genomics, immunology, food science, and clinical medicine - one of the largest single-site concentrations of health research in Europe. Alongside RESTORE-ME, the COMPASS-ME study is investigating the mucosal microbes of people with ME, and Dr Krishani Perera's Luna Nova fellowship is examining the role of human endogenous retroviruses in immune ageing. The platform for translational biomedical ME research - the kind that moves between laboratory and clinic, generating findings that directly inform patient care - already exists. It was not created by a government initiative.

What sustained public investment in that platform could deliver is not difficult to imagine. Even a relatively small amount of funding - say, £4-5 million - could fund the expansion of the centre with multiple fellowships, PhD studentships, and early-career researcher positions needed to grow and sustain the programme over the long term. It could establish and expand the biobank and clinical database infrastructure that translational research requires. It could accelerate the work already underway on viral, fungal, and microbial contributions to ME. It could catalyse the European collaboration building on already established links and partnerships. It could, in short, transform a functioning research foundation - driven and funded over twenty years without government or research council support - into the properly resourced centre of excellence that patients need and the science is ready to deliver.

The context for that case is sobering. Between 2015 and 2020, UK public research funding for ME totalled just £6 million - compared to £53 million for Parkinson's disease and £22 million for multiple sclerosis, despite ME affecting comparable or greater numbers of people. The economic cost of ME to the UK was estimated at £3.3 billion annually by the 2020health Counting the Cost report - a figure based on 2014-15 data and a conservative prevalence estimate of 0.2% of the population, which the report itself acknowledged could be as high as 0.7%. That estimate is now a decade old, and with prevalence substantially revised upward and post-COVID case numbers having increased the affected population considerably, the economic burden will have risen in proportion. The case for directing serious, sustained investment towards research infrastructure that already exists, is already producing results, and was built without the support it deserved is not complex. It is simply overdue.
The Centre at Norwich Research Park is not a proposal awaiting validation. It is a functioning reality that requires only the investment the establishment has thus far chosen to direct elsewhere.

Dutch Research Award

Virus infection and reactivation and the gastrointestinal microbiome in myalgic encephalomyelitis

Rik Haagmans, one of the PhDs funded by Invest in ME Research, recently completed his project and, with the Quadram Institute, applied to the Dutch ZonMW agency for a recent round of awards for research as part of the ongoing Dutch strategy in their 10 year plan for research into ME.

We are glad to report that Rik was successful in this application and so continues with research into ME and has established now a collaboration with the Dutch programme.

Here below Rik has written a brief description of the new project.

Viral infections have long been associated with ME/CFS, and may trigger or contribute to maintaining ME/CFS.

In addition, gut microbiome as well as immune system abnormalities have been found in ME/CFS patients and gastrointestinal disturbances are a frequent occurrence in ME/CFS.
Gut microbiota play an important role in regulating the immune system and microbiome abnormalities may affect the immune reaction against viral infections, and chronic viral infections may contribute to immune system abnormalities themselves.
How the gut microbiome and viral infections interact and contribute to ME/CFS is still unclear, however.

Our project is funded by the Dutch funding organisation ZonMw through their ME/CFS research programme.

We will be investigating the activity of several viruses commonly associated with ME/CFS, as well as the composition of the gut microbiome and virome and markers of gut barrier integrity.
This will be done in the Dutch ME/CFS Biobank and Cohort (NMCB) and ME/CFS Lines cohort, as well as in a group of patients participating in the RESTORE-ME study which will take place at the Quadram Institute in the UK.

This way we hope to get a better understanding of the mechanisms underlying ME/CFS, as well as gain more insight into potential biomarkers and treatments.

More information about the project can be found at the QR code link on the right.

This project investigates the relationship between viruses and the gut microbiome in ME/CFS patients. This may assist in developing new diagnostic biomarkers for ME/CFS and identifying patients who may benefit from antiviral or microbiome-targeted treatments, such as faecal microbiota transplantation (FMT). In a faecal microbiota transplantation, stool containing healthy bacteria from a healthy donor is transferred to the intestines of a patient to restore the balance of bacteria.

Summer Student Bursaries for 2026

In 2026, Invest in ME Research again partners with the Quadram Institute to encourage knowledge and awareness of ME amongst undergraduate students via the Invest in ME Research Summer Student Bursaries.

Quadram Institute will offer up to three awards. The successful applicants will begin in June.
Invest in ME Research, in collaboration with the Quadram Institute at Norwich Research Park, is pleased to announce that we will again partner to establish new Summer Student Bursaries for 2026. These bursaries are designed to support undergraduate students in gaining practical experience in biomedical research, with a focus on Myalgic Encephalomyelitis.

This initiative aligns with the charity's objective of raising education and fostering the next generation of doctors and researchers. The discovery of new treatments relies heavily on research into the causes of the disease. The Summer Student Bursaries provide a unique opportunity for students to contribute to this vital research while developing their skills and knowledge in biomedical science - raising awareness of ME and influencing the next generation of researchers in the process.

Three eight-week bursaries are being offered, with involvement in various research projects at the Quadram Institute. Summer students will join an active research group working on microbiological and immunological aspects of ME. Projects will be aligned with ongoing research activities and may involve a combination of laboratory-based and computational approaches.
More details: https://quadram.ac.uk/vacancies/invest-in-me-research-summer-student-bursaries-2/
We are grateful to the Quadram Institute and Carding Lab for making this opportunity possible, further building on the excellent Centre of Excellence for ME foundations that already exist in Norwich Research Park.
Thanks to our supporters for making this, and the other forthcoming projects which we have initiated and in which we are involved, possible.

Last Year's Bursary Students

From over 50 applications, three students were selected for the 2025 bursaries: **Mya Pearce** (University of York, Biology), **Paige Cameron** (University of Southampton, Biomedical Sciences) and **Tayyibah Sarwar** (University of Westminster, Biomedical Sciences). Following their six-week placement at the Quadram Institute, they shared their reflections.

Their motivations were personal as well as academic. Paige's sister has ME, making the research feel urgent and meaningful. Mya was drawn to under-researched, idiopathic conditions. Tay discovered the bursary almost by chance through LinkedIn - and applied immediately.

All three arrived expecting a step beyond the teaching lab. What they found exceeded that. Mya investigated antibody reactivity to fungal antigens, learning flow cytometry alongside DNA extraction and PCR. Paige and Tay both worked on the virome in mucosal cavities of ME patients, developing qPCR, cDNA synthesis, and bioinformatic analysis skills - much of it entirely new to them.

The Quadram team made a strong impression. The students describe a welcoming, collaborative environment where questions were encouraged and expertise was freely shared. Tay noted that everyone - from scientists to canteen staff - was approachable.

All three leave with deepened ambitions: Mya is heading towards a masters in immunology, Paige towards biomedical research in disease mechanisms, and Tay towards drug development - with ME treatments in her sights.

As Tay put it: *"It was incredibly rewarding to know that the work I was contributing to could one day help improve understanding and treatment of ME."*

Further information: Invest in ME Research

Young EMERG Workshop Series

The idea behind the formation of the Young EMERG network was to build awareness and provide opportunities for emerging researchers in Europe and create a support network that could encourage interest in research into ME, thereby increasing capacity. Last year Young EMERG held their workshop in Vienna last November.

Supporting Young Researchers at Young EMERG Vienna Workshop

In addition to supporting Young EMERG committee members, Invest in ME Research offered a number of grants for young European researchers to attend the Young EMERG International ME Workshop in Vienna, enabling full engagement in the workshop at the Medical University of Vienna.
The charity's ongoing efforts to promote and develop ME research capacity are part of almost two decades of commitment to collaborative research.
Awardees shared their experiences for our supporters, highlighting the importance of advancing ME research.

Feedback from Young EMERG Vienna Workshop 2025

"The Young EMERG workshop in Vienna was exceptionally well organised, with engaging and relevant content throughout. It was inspiring to see young researchers exploring diverse approaches to ME/CFS. The programme was enriched by activities and the chance to connect with fellow researchers. My expectations were high, yet the workshop exceeded them.

I am deeply grateful to the UK charity Invest in ME Research for supporting my participation."

Aline Zamoro Martinez
MSc Nutrition and Health
Wageningen University & Research

"Participating in the Young EMERG Workshop in Vienna was an absolutely exceptional and deeply inspiring experience for me. From the very beginning, I felt that the workshops were prepared with great attention to every detail, both in terms of academic content and organization. Everything was executed at the highest level, which allowed me to fully focus on learning, exchanging experiences, and personal development.

The atmosphere throughout the workshop was incredibly supportive, open, and motivating. I truly felt part of an engaged, ambitious, and kind community of young people who share a passion for learning and continuous self-improvement. The energy was very uplifting and gave me a great deal of motivation to move forward and keep developing.

The lecturers made a particularly strong impression on me. Their expertise, experience, openness, and genuine commitment to working with participants were truly inspiring. The way they delivered the content was engaging, accessible, and thought-provoking. I often found myself reflecting deeply on the

topics discussed, as they challenged my perspective and encouraged me to ask important questions about my future development, both professionally and personally.

The Young EMERG Workshop Vienna was much more than just a series of workshops for me. It was a true impulse for growth, reflection, and further action. I am extremely grateful for the opportunity to participate in this event, and I can confidently say that it was one of the most valuable educational experiences I have ever had."

Hanna Tabisz
Nicolaus Copernicus University in Torun Collegium Medicum in Bydgoszcz
Poland

"I recently received a travel grant from Invest in ME Research to attend the Young EMERG workshop in Vienna, where I presented our upcoming project aimed at better characterising the mechanisms underlying post-exertional malaise (PEM). This project will use non-invasive metabolic imaging techniques to investigate muscle metabolic alterations during PEM.

Attending the Young EMERG workshop provided an excellent opportunity to gain a comprehensive overview of current research directions and priorities within the ME/CFS field. As with fatigue symptoms in other chronic conditions, the aetiology of ME/CFS is complex and multifactorial, requiring multidisciplinary approaches to identify underlying mechanisms and inform the development and testing of treatment targets.

The workshop showcased a broad range of ongoing research, with presentations spanning health economics, immunology, metabolism, and other relevant disciplines. I found it particularly valuable to learn about current initiatives aimed at strengthening collaboration within the field, including funding opportunities for visiting fellowships designed to support cross-institutional partnerships. Such collaborations will be essential for accelerating progress in ME/CFS research.

As a result of this experience, we have identified potential external research collaborators and aim to continue developing and applying metabolic imaging approaches to better characterise the mechanisms contributing to fatigue in ME/CFS. Ultimately, we plan to integrate these novel techniques into future study protocols to enhance mechanistic understanding and to provide objective measures of organ function and metabolism when assessing responses to management strategies and pharmacological interventions."

Jordan McGing
Oxford Centre for Clinical Magnetic Resonance Research
University of Oxford

Mike's European Marathons Spring 2026 update

I've just returned from running my 39th marathon for Invest In ME Research in European country 35 in Sarajevo, Bosnia.
Now entering my 12th year running for the charity, I've managed to raise £53K through my European marathon running project, interviewing people with ME in 30 countries that I've visited.
Sarajevo Marathon is only in it's 7th year and I lined up with only around 250 runners in warm temperatures (c20c) to run a single lap of the centre and out towards the West of the city with it's villages and mountainous backdrop. There was a 5 hour cut-off which I needed to be aware of but I got around the course fairly steadily and well within the limit. There were plenty of parts to the race where I didn't see anyone else on the course and had to ask the police for directions! Sarajevo itself was a wonderful mix of Ottoman and Orthodox architecture with beautiful mosques and churches, historic bridges and lush green hills all around.

Full race report and trip pictures:
https://www.mikeseumarathons.eu/sarajevo-bosnia.html

Next up for me is Reykjavik Marathon on August 22nd where I'm hoping to meet and liaise with ME Felag, the country's ME Association to help raise money and awareness. I've been to Iceland 10 years ago with my wife and enjoyed doing the 'Gold Circle' and exploring Reykjavik. I never thought I'd be back to run a marathon there! I've heard positive things about the race and the cool temperatures will be a welcome gift given all the hot races I've been through in Southern Europe. From what I understand, the course is relatively flat with often windy conditions and hopefully some stunning scenery to keep my brain occupied.
Although Iceland has a small population, my understanding is that there are quite a few people struggling with ME and that the Icelandic ME Association has been doing some excellent work in supporting them. I think they have had runners in the marathon fundraising before and I'm aware that they have some representatives coming to the Invest In ME Conference which I look forward to attending for the first time in 8 years.

I'm working on plans for next year, it's proving tricky as there aren't many countries left in Europe to go but I do still have Albania, Moldova, Turkey, Kosovo, Vatican, Faeroe Islands, Wales, Scotland and England(!) left to go. After that, I have a few more on my 'bucket-list' with a mix of big and small races -one of which includes a race that runs through Switzerland, Austria and Germany around Lake Constance which looks awesome.

I may also run a few more local half-marathons to me and see if I can raise the profile of ME in local media which I've done before a few times.
If you'd like to sponsor me and help fund biomedical research then please visit:

https://www.justgiving.com/fundraising/mikeseumarathons

Invest in ME Research

Our 20th Anniversary Funding Appeal

Maintaining the Momentum

In 2006, a group of volunteers decided that if biomedical research into ME was going to happen, they would have to make it happen themselves. No government mandate. No institutional backing. No salaries — ever.

Twenty years on, that decision has produced a Centre of Excellence at Norwich Research Park, a European research network, eighteen international conferences, and a growing body of science that is beginning to change what the world understands about ME.

Two postdoctoral researchers are now at the heart of that programme. Keeping them in the laboratory — and keeping this momentum alive — is what this appeal is about.

20	2	100%	0
Years	Postdoctoral Fellows	To Research	Salaried Staff

The Fellowships

Dr Katharine Seton *Ian Gibson Fellow*

Dr Seton's work focuses on the gut-brain axis — specifically how the intestinal microbiome contributes to oxidative stress and premature immune ageing in ME. Her research builds directly on an IiMER-funded PhD, and explores whether microbiota replacement therapy might reduce systemic oxidative stress in patients. The fellowship is named in honour of Dr Ian Gibson, scientist, MP, and tireless advocate for people with ME.

Dr Krishani Perera *Luna Nova Fellow*

Dr Perera investigates the virome and immune system stimulation in ME, with her work integrated into the RESTORE-ME clinical trial — until recently the only trial of its kind in the UK. Funded with the generous support of Luna Nova, this fellowship brings new expertise in immunology, infection, and the gut-brain axis to the Centre, and strengthens the European research network that has grown around it.

Ways to Support

Make a donation
One-off or regular giving at investinme.org

Leave a legacy gift
A gift in your will ensures the work continues

Donate in memory
Honour someone affected by ME

Set up a fundraiser
An event, a challenge, or a sponsored activity

Corporate partnership
Sponsor the conference or a research programme

The IiMER Biomedical Research Fund
Direct, unrestricted funding for biomedical ME research — deployed entirely free from policies that do not prioritise the science.

justgiving.com/campaign/invest-in-the-fellowships
investinme.org

Germany Takes Action: A Decade of Funding for Post-Infectious

International collaboration has always been central to this charity's strategy - and European partnership in particular. The formation of EMEA, EMERG, EMECC, and Young EMERG reflects a long-held conviction that progress in ME research would be built across borders before it was built within them. Experience suggested that meaningful change in the UK would depend, in part, on what was demonstrated and achieved elsewhere first.

That conviction shaped the programme for IIMEC18. Rather than look to UK ministers or research agencies to open the conference - an avenue pursued many times over the years without result - we looked to where genuine political will for post-infectious disease research had actually materialised.

The announcement of a decade of dedicated federal funding for post-infectious disease research in Germany represented exactly the kind of sustained, strategic commitment that patients with ME have long needed to see.

So we invited Federal Minister of Research, Technology and Space **Dorothee Bär** to open IIMEC18. Minister Bär was unable to attend in person, but she kindly contributed the following to our journal.

Bundesministerium für Forschung, Technologie und Raumfahrt, Berlin

Dorothee Bär MdB
Federal Minister of Research, Technology and Space

Berlin, arch 2026
Invitation to deliver the opening address at the 18th Invest in ME Research Conference

Dear Invest in ME Research,

Thank you for invitation to deliver the opening address at the 18th Invest in ME Research Conference on 29 May 2026 in Hinxton Hall, UK.
I appreciate your kind words about the leading role of the German National Decade Against Post-Infectious Diseases.

I can assure you that research and development of effective therapies against post-infectious diseases are of great importance to me and the Federal Ministry of Research, Technology and Space (BMFTR). I know from many conversations with patients that everyday life is difficult or even impossible to manage independently for people suffering from ME.

This disease is an enormous bürden for those affected, for their relatives as well as for our entire society. That is why organisations like yours and the commitment to funding biomedical ME research and enabling network events through Conferences and colloquia are important in countering this disease.

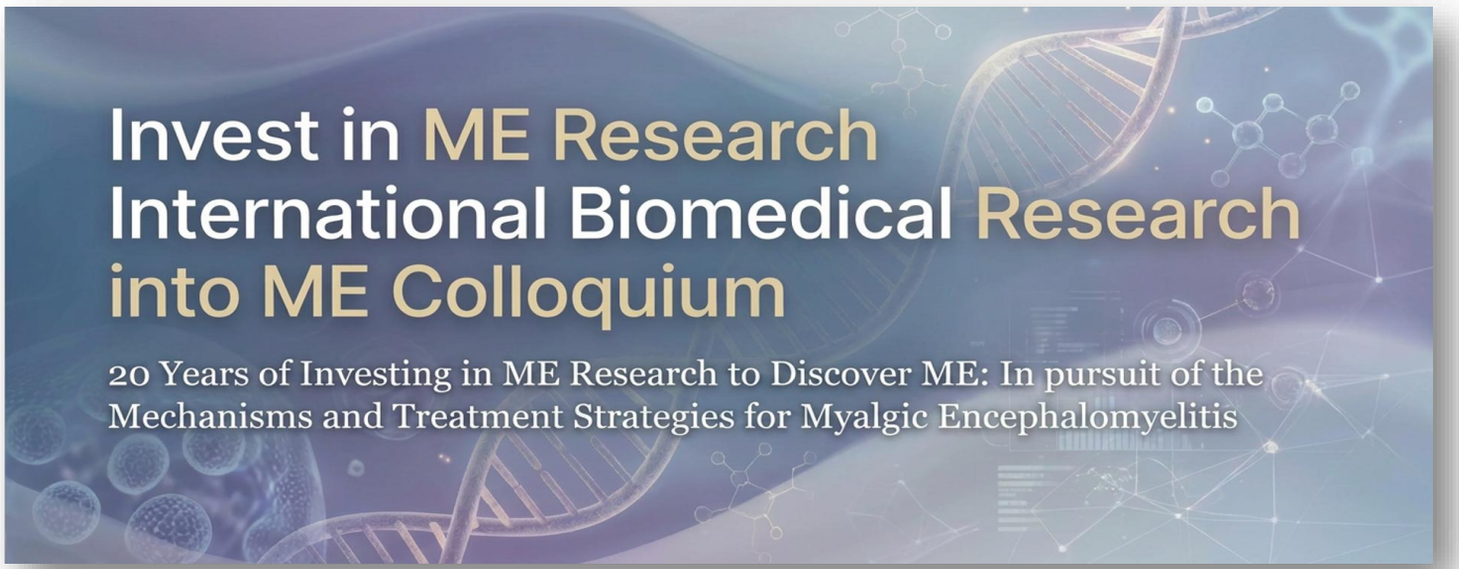
As you mention, the BMFTR will intensify research in this area over the next ten years as part of the National Decade Against Post-Infectious Diseases. Funds totalling 500 million euros have been earmarked for this purpose and for the duration of the Decade.
In accordance with the latest scientific findings, the focus within the National Decade will be on research into biomedical causes of these diseases and, building on this, improved diagnostic and therapeutic procedures.

I want to assure all those affected by post-infectious diseases that we are taking the necessary steps into the right direction.
We are committed to further creating the ideal research basis for realising treatment options that can provide a eure or significantly alleviate their suffering.

With the Decade, we are making significant leaps towards achieving these goals together.

Thank you once again for your kind Invitation and the honour of delivering the opening address at IIMEC18.
Unfortunately, I am unable to take part due to other commitments.

Yours sincerely,
Dorothee Bär



The BRMEC Colloquia - Fifteen Years of Building ME

The Biomedical Research into ME Colloquium series began in 2011 with what the charity described at the time as a "Corridor Conference" - an informal gathering of clinicians and researchers during the IIMEC6 conference weekend, discussing ways to collaborate and progress knowledge. Fifteen years on, that idea has grown into one of the most distinctive annual events in international ME research.

The colloquia are unique symposia designed specifically for biomedical researchers working on ME, or able to bring relevant expertise into the field. Unlike larger open conferences, they are focused, invitation-based gatherings - CPD-accredited, and attended by delegates from more than 20 countries. They bring together scientists, clinicians and early-career researchers in an environment that prioritises exchange and collaboration over presentation.

That emphasis on collaboration has had tangible results. The colloquia have been directly instrumental in forming new ME research partnerships across continents, and have spawned lasting international structures including the European ME Research Group (EMERG) and its associated early-career researcher network, Young EMERG.
Across fifteen colloquia the themes have shifted as the field has evolved - from early work on aetiology and autoimmunity, through metabolomics and systems biology, to the emergence of long COVID as both a parallel and a lens. BRMEC15 in 2026 addresses mechanisms and treatment strategies across nine sessions spanning systems biology, post-genomics, chronic infection, neuroinflammation, metabolism, immunology, biomarker discovery and therapeutics.
The ethos has remained constant throughout: volunteer-run, invitation-based, and focused solely on advancing the science that patients with ME need.

The colloquia have been chaired since 2019 by **Professor Simon Carding** of the Quadram Institute Bioscience, Norwich Research Park. Professor Carding brings exceptional breadth to the role.

His research career has spanned postdoctoral work at New York University School of Medicine and Yale University, where he worked on the

molecular genetics of gamma-delta T cells - **a field of direct relevance to immune dysfunction in ME** - and faculty positions at the University of Pennsylvania, the University of Leeds, and the University of East Anglia.
At the Quadram Institute he leads the Gut Microbes and Health research programme, one of the foremost centres for gut biology and mucosal immunology in Europe. He is co-chair of EMERG, and has been a central figure in building the international research infrastructure around ME.

https://www.investinme.org/brmec15-news-the-colloquia.shtml

This year's sessions are as follows -

Session 1: A Systems Biology Approach to ME

Moderated by **Tamas Korcsmaros**, Imperial College Londo, a systems biologist at Imperial College London whose work focuses on signalling networks, multi-omics data integration and the application of network medicine to complex disease.
Systems biology offers ME research something it has long needed - a way of looking at the whole picture. Rather than examining individual genes, proteins or pathways in isolation, it integrates data from across biological systems, combining computational modelling with experimental findings to reveal how the parts interact. For a disease as complex and variable as ME, this kind of joined-up approach may prove essential.

Dezső Modos, also of Imperial College London, applies network biology to understand how genetic variants - particularly those in non-coding regions of the genome - drive disease at the cellular level. His iSNP platform maps how these variants affect regulatory networks, building patient-specific models of disease pathogenesis that are directly relevant to the challenge of translating ME genomic data into meaningful biological insights.

Marek Ostaszewski of the Luxembourg Centre for Systems Biomedicine brings a different but complementary perspective. As a lead contributor to the COVID-19 Disease Map and a core member of the Disease Maps Project, his work focuses on building structured, reusable computational repositories of molecular interaction data - the kind of infrastructure that allows findings from across the ME research community to be integrated and interrogated systematically.

Veronika Kedlian, a postdoctoral fellow in the Saez-Rodriguez group at EMBL-EBI, will present work on a Human Thymus Ageing Cell Atlas that defines a spatially resolved model of thymic involution. The thymus plays a central role in adaptive immune development, and its decline with age has direct implications for immune function. Kedlian will also address current known links between thymic involution, immune ageing and ME - bringing single-cell and spatial transcriptomics approaches to bear on questions that matter directly to this audience.

Together, the three presentations reflect a field beginning to harness the full power of computational and systems-level science in the pursuit of ME's mechanisms.

Session 2: A Post-Genomics Approach to ME

The sequencing of the human genome was a beginning, not an end. Post-genomics research takes what that sequencing revealed and asks the harder questions - how are genes expressed, how is expression regulated, and how do molecular processes go wrong in disease? For ME, a condition whose biological mechanisms remain incompletely understood, these tools are proving increasingly powerful.
The session is moderated by **Dr Elisa Oltra**, professor of Cell and Molecular Biology at the Universidad Católica de Valencia and a member of the EMERG. Dr Oltra has investigated the molecular basis of ME, identifying irregularities in RNAseL expression and miRNA profile changes in patients - work that places her at the intersection of molecular biology and ME research.

Andrew Grimson, Professor of Molecular Biology and Genetics at Cornell University and Associate Director of the Cornell NIH ME Research Center, will present on T cell dysregulation in ME. His laboratory has used single-cell RNA sequencing to examine circulating immune cells in ME patients, finding evidence of T cell exhaustion - a state in which immune cells become progressively less effective, associated with chronic immune stimulation or long-term pathogen exposure. Published in the Proceedings of the National Academy of Sciences, the findings also identified changes in platelet gene expression during post-exertional malaise. The same pattern of T cell exhaustion has been observed in long COVID.

Dr Vilma Lammi of the Institute for Molecular Medicine Finland (FIMM), University of Helsinki, coordinates the international Long COVID Host Genetics Initiative. Her work spans the genetics of both long COVID and ME, including a genome-wide association study of long COVID published in Nature Genetics in 2025. At BRMEC15 she will present findings on common genetic variants across long COVID and ME from large-scale international cohorts - evidence that the two conditions may share underlying biological architecture.

Dr Elizabeth Worthey, Director of the Center for Computational Genomics and Data Science at the University of Alabama at Birmingham, brings a precision medicine perspective. A pioneer in clinical genomics, she was part of the team that in 2009 performed the first successful use of genomic sequencing to change a patient's treatment. At BRMEC15 she will present on actionable molecular stratification of ME using an N-of-1 precision medicine approach - work with direct implications for how patients might one day be diagnosed and treated according to their individual molecular profiles.

The three presentations reflect a field moving from description towards mechanism - and from mechanism towards the prospect of targeted intervention.

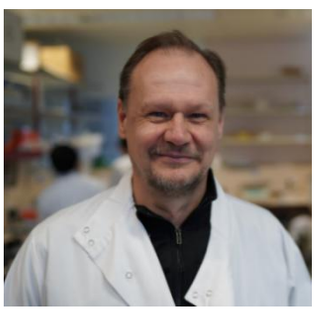
Session 3: Chronic Infection Aetiology

The role of chronic or persistent infection in ME has been debated for decades, but the tools to investigate it rigorously are now available. Viral persistence in tissue reservoirs, myeloid reprogramming, intracellular pathogens and the long-term consequences of immune activation following infection are all areas where ME research is now making meaningful progress. The parallels with long COVID - where spike

protein persistence and sustained immune dysregulation have been documented - have added new impetus to this work and new frameworks through which to interpret it.

The session is moderated by **Dr Friðbjörn Sigurðsson**, Akureyri Hospital, Iceland / EMERG and a leading figure in ME clinical services in Iceland. He was instrumental in founding the Akureyri Clinic - a nationally designated specialist service for ME and long COVID patients opened in 2024 - and has long championed awareness of the 1948-49 Akureyri Disease epidemic, one of the earliest and best-documented outbreaks of what would later be recognised as ME.

Fernando Real of the Institut Pasteur de Lille will present on viral persistence in tissue reservoirs and myeloid reprogramming. His work examines how macrophages and other myeloid cells can act as long-term hosts for persistent intracellular pathogens, and what this means for understanding chronic infection in ME.



Professor Greg Towers of Queen Mary University of London brings a molecular virology perspective. His research on host-virus interactions - including innate immune responses to HIV and SARS-CoV-2 - informs his BRMEC15 presentation on inflammatory responses to viral infection and how they might drive post-viral syndromes.

Professor Maureen Hanson of Cornell University has been one of the most productive ME researchers of the past two decades, with work spanning the microbiome, immune cell gene expression and exercise challenge studies. At BRMEC15 she will present on the search for chronic infection in ME.

Professor Nancy Klimas of Nova Southeastern University is one of the world's foremost clinician-researchers in ME and long COVID. Her landmark immunological work includes establishing natural killer cell dysfunction as a feature of ME. At BRMEC15 she will present on spike protein antigen persistence and long COVID from a monoclonal antibody perspective - work that speaks directly to the question of what sustains illness following acute infection.

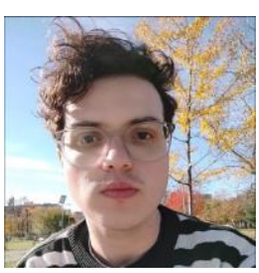
Professor Branislav Milovanović of the Institute for Cardiovascular Diseases Dedinje, Belgrade, and a member of EMERG, will present findings on intracellular infection with coxiella burnetii and bartonella in ME patients, and the relationship between these infections and dysautonomia - connecting the chronic infection hypothesis directly to one of ME's most consistent c linical features

Session 4: Nervous System and Neuroinflammation

Moderated by **Dr Jon Brooks**, University of Liverpool, UK
Neurological symptoms are among the most disabling features of ME - cognitive impairment, unrefreshing sleep, sensory sensitivity and autonomic dysfunction are reported consistently across patient populations worldwide. Yet the biological mechanisms underlying these symptoms remain poorly understood. Neuroimaging, neuro-PET and postmortem brain research are now beginning to reveal structural and inflammatory changes in the central nervous system in ME and related post-viral conditions, offering the prospect of both biological explanation and, in time, therapeutic targets.
The session is moderated by **Dr Jon Brooks**, Senior Lecturer at the University of Liverpool, whose research uses MRI-based neuroimaging techniques to study changes in the central nervous system in chronic pain and related conditions, including ME.

Associate Professor Gwenaëlle Douaud of the Wellcome Centre for Integrative Neuroimaging at the University of Oxford brings one of the most powerful datasets in neuroscience to bear on post-viral illness. As a core member of the UK Biobank imaging team, she has contributed to the analysis of brain scans from 100,000 participants. She led the landmark 2022 Nature study demonstrating that SARS-CoV-2 infection is associated with measurable changes in brain structure - including greater reduction in grey matter thickness in the orbitofrontal cortex and parahippocampal gyrus - findings with direct relevance to understanding the neurological basis of ME and long COVID. Her BRMEC15 presentation title is to be confirmed.

Dr Denise Visser of Amsterdam UMC will present Neuro-PET data from post-COVID patients. Her imaging work has demonstrated significant neuroinflammation throughout the brain in patients with long-term post-COVID symptoms - providing some of the first direct in vivo evidence of widespread brain inflammation in living patients following COVID-19 infection. The parallels with ME are clear and the implications significant.



Felipe Correa da Silva of the Netherlands Institute for Neuroscience works in postmortem brain research and neuroimmunology. At BRMEC15 he will present on microglial profiling in ME - examining the brain's resident immune cells directly in postmortem tissue from ME patients. This work offers a level of resolution into neuroinflammation in ME that has rarely been achieved before, and may help explain the cognitive and neurological symptoms that define the disease for so many patients.

Session 5: Immune System - Primary and Secondary

Immune dysfunction is one of the most consistently reported biological features of ME. Abnormalities have been identified across both innate and adaptive immune compartments - from natural killer cell dysfunction and T cell exhaustion to ion channel dysregulation and aberrant cytokine signalling. Whether these represent primary drivers of the disease or secondary consequences of another underlying process remains a central question in the field. This session brings together researchers working at the forefront of ME and post-viral immunology to examine the evidence from multiple angles.

The session is moderated by **Associate Professor Eva Untersmayr-Elsenhuber**, a specialist in immunology and head of the Gastrointestinal Immunology research group at the Medical University of Vienna. A member of EMERG, her extensive research background in food allergy, gastrointestinal immunology and pathophysiology brings a broad immunological perspective to the session.

Professor Leo Joosten of Radboud University Medical Centre in Nijmegen focuses on host defence mechanisms and the chronic inflammation that can follow pathogen exposure. His work on innate immune receptors, the inflammasome and Lyme disease pathogenesis is directly relevant to the question of how an initial infection can set in motion a sustained immune response. At BRMEC15 he will present on innate immunity and post-infectious immune dysregulation, and the insights this offers for ME research.

Professor Sonya Marshall-Gradisnik, Director of the National Centre for Neuroimmunology and Emerging Diseases (NCNED) at Griffith University, Australia, is one of the world's leading ME researchers. Her laboratory has pioneered work on natural killer cell dysfunction and calcium ion channel dysregulation in ME, and has demonstrated significant overlaps between ME and long COVID in immune cell dysfunction and symptom presentation. At BRMEC15 she will present on ion channels, calcium signalling and inner cell function - work that sits at the intersection of immunology and cell biology.

Marcus Buggert, Associate Professor Marcus Buggert, Center for Infectious Medicine, Karolinska Institutet studies human adaptive immunity to viral infections across blood and tissue compartments. His research on antigen-specific T cells and tissue-based immunology has informed understanding of how immune responses persist and become dysfunctional following infection.
At BRMEC15 he will present on tissue-specific immune dysregulation in long COVID - findings with clear implications for ME.

Session 6: Metabolism

Metabolic dysfunction is increasingly recognised as a central feature of ME. Studies have identified abnormalities in energy metabolism, mitochondrial function, fatty acid oxidation and cellular oxygen utilisation in ME patients. These findings point towards a disease in which the body's ability to generate and use energy at the cellular level is fundamentally compromised - a hypothesis that may explain the post-exertional malaise that is the hallmark symptom of ME, and which distinguishes it from other conditions characterised by fatigue.

Moderated by **Associate Professor Rikke Katrine Jentoft Olsen**, Aarhus University, Denmark / EMERG

Rikke Katrine Jentoft Olsen'group has a longstanding focus on inborn errors of mitochondrial metabolism and fatty acid oxidation disorders. In recent years she has extended this work to examine the role mitochondria may play in ME - bringing deep expertise in mitochondrial biology to a question that is now central to the field.

Professor Edmund Kunji of the MRC Mitochondrial Biology Unit, University of Cambridge, studies mitochondrial carrier proteins and their role in transporting metabolites, cofactors and ions across the inner mitochondrial membrane. His work on how these carriers regulate the flow of energy substrates is directly relevant to whether impaired mitochondrial transport underlies the energy metabolism failures observed in ME. At BRMEC15 he will present on the role of transport in mitochondrial energy metabolism.

Dr Robert Phair of Integrative Bioinformatics Inc, USA, is a systems biologist with over 35 years of experience in kinetic modelling of complex biological systems. He has developed the Itaconate Shunt Hypothesis for ME pathogenesis - proposing that a metabolic switch involving the itaconate shunt, normally part of the innate immune response, is inappropriately activated in ME, diverting energy metabolism away from normal mitochondrial function. At BRMEC15 he will present model predictions and experimental tests of this hypothesis.

Anouk Slaghekke of Vrije Universiteit Amsterdam is a PhD candidate whose research focuses on skeletal muscle adaptations in ME - peripheral muscle oxygenation, muscle structure and function, and post-exertional malaise. Her work on microvascular dysfunction and basal membrane thickening in skeletal muscle connects the metabolic abnormalities of ME directly to structural changes in tissue, offering a mechanistic account of why physical exertion produces such severe and prolonged consequences for ME patients. At BRMEC15 she will present on failures in the peripheral oxygen transport cascade - microvascular and mitochondrial dysregulation in long COVID and ME.

Session 7: Keynote

Professor Sarah Teichmann of the University of Cambridge is one of the world's leading computational biologists and a pioneer of single-cell genomics. As a founder of the Human Cell Atlas - the landmark international project to map every cell type in the human body - her work has transformed the way biology understands cellular diversity, tissue organisation and immune function. At BRMEC15 she will present on mapping the human body one cell at a time, bringing to the colloquium a perspective that spans the full breadth of modern biological science. Her presence as keynote speaker reflects the ambition of BRMEC15 to situate ME research within the wider frontier of biomedical discovery.

Session 8: Biomarker Discovery and Emerging Research Approaches

One of the most pressing needs in ME research is the development of objective, validated biomarkers - measurable biological indicators that can confirm diagnosis, stratify patients and track response to treatment. Progress in this area is now accelerating. But this session goes beyond biomarkers in the conventional sense, encompassing emerging research directions and novel therapeutic hypotheses that may shape the field in the years ahead.
The session is moderated by **Professor Jonas Bergquist**, Full Chair in Analytical Chemistry and Neurochemistry at Uppsala University in Sweden, with a background spanning clinical neuroscience, analytical chemistry and ME research across more than two decades.

Dr Jesper Mehlsen, co-chair of EMERG and a specialist in autonomic nervous system dysfunction with over 35 years of clinical and research experience, will present on objective tools for diagnosing autonomic dysfunction in ME - the tilt-test, Valsalva Manoeuvre, Heart Rate Variability and the COMPASS-31 questionnaire. These approaches offer a means of characterising the autonomic abnormalities consistently reported in ME patients and may contribute to validated diagnostic criteria.

Professor Ronald W. Davis, Director of the Stanford Genome Technology Center and a world-recognised figure in the development of genomic and biotechnological methodologies, has in recent years dedicated substantial effort to ME research. His team have developed novel nanotechnology-based diagnostic tools, including a nanoelectronics assay that has attracted considerable international attention as a potential objective test for the disease. His presentation addresses oxidative stress in ME/CFS and Long COVID - a domain of growing significance as researchers seek to characterise the metabolic and mitochondrial disturbances that may underlie the illness - and reflects the session's ambition to pursue biomarker discovery through the most advanced technological means available.

Dr Alexandre Akoulitchev of Oxford BioDynamics and **Professor Dmitry Pshezhetskiy** of the University of East Anglia will present on a potentially transformative development: the application of EpiSwitch 3D genomic profiling to ME. Their collaborative work, published in the Journal of Translational Medicine in 2025, identified a unique and reproducible pattern of three-dimensional chromatin architecture in ME patients absent in healthy controls, achieving diagnostic accuracy of 96% in an initial cohort - offering the prospect of the first reliable blood-based diagnostic test for the disease.

The Carding Group at the Quadram Institute will present on bacterial extracellular vesicle research and the pathways and mediators of the gut-microbiome-brain axis - exploring how signals from gut microbes transmitted via extracellular vesicles may influence brain function and immune responses in ME.

Dr Wenzhong Xiao of Harvard Medical School will present on a mouse model for reversing post-exertional malaise. If translatable to humans, this work could open a direct path towards therapeutic intervention for one of ME's most debilitating and defining features.

Dr Steve Gardner, CEO of PrecisionLife, will address the question of GLP-1 receptor agonists for ME and long COVID - drugs that have transformed treatment of obesity and type 2 diabetes - examining the evidence, the hope and the potential risks of applying them to post-viral conditions.

IIMEC18 International ME Conference Day – Colloquium Day 3

The day opens with an address from **Dr Hans Kluge**, WHO Regional Director for Europe.

As members of the European ME Alliance we have been working with our European partners on several campaigns relating to WHO Europe initiatives.

This will be the second time that WHO has contributed a message to the events.

BRMEC15 Session 9: Therapeutics

The Therapeutics session marks a pivotal point in the three-day programme - moving from the science of mechanisms towards the science of intervention. After two days of presentations on the biological underpinnings of ME, this session addresses what can now be done: clinical trial infrastructure, cognitive rehabilitation, mitochondrial intervention, and the use of digital and wearable technology to capture the complexity of ME in research and trials.

Moderated by **Professor Andrew Wilson**, University of East Anglia, UK
The final day of BRMEC15 merges with the 18th International ME Conference (IIMEC18), bringing researchers, clinicians and patients together for the first time in the programme.
Professor Wilson also presents in his own right, on the development of a platform for clinical trials in ME - infrastructure that is essential if the growing body of mechanistic findings in ME research is to be translated into tested and validated treatments.

Dr Vicky Whittemore is a Programme Director in the Division of Neuroscience at the National Institutes of Health, where she has played a central role in coordinating and advancing the NIH's investment in ME research. With a background spanning epilepsy, neurological disorders and translational neuroscience, she has served on key advisory and working groups shaping the direction of ME research at a national and international level, including the NIH P2P CFS Committee and the National Academy of Medicine's ME/CFS case definition working group. Her contribution to this session reflects the importance of sustained institutional commitment to the

field, and the role of collaborative international frameworks in moving ME research forward.

Professor Gitendra Uswatte of the University of Alabama at Birmingham will present preliminary findings from cognitive rehabilitation trials in adults with post-viral syndromes. Brain fog is one of the most common and disabling symptoms reported by ME patients, yet it has received comparatively little attention as a target for intervention. His work explores whether targeted rehabilitation approaches can produce measurable improvements in cognitive function in this population.

Associate Professor Rikke Katrine Jentoft Olsen of Aarhus University, who also moderates the Metabolism session at BRMEC15, will present on a randomised controlled trial examining hypoxia-induced mitochondrial stress-signalling in ME. This represents one of the most direct attempts yet to test and potentially intervene in the metabolic dysfunction that may lie at the heart of ME pathogenesis.

Dr Caroline Dalton of Sheffield Hallam University will present on harnessing wearable data in ME research and trials - addressing both the potential of digital tools to capture the complexity of ME in ways that conventional clinical assessments cannot, and their role in supporting more rigorous and sensitive outcome measurement in clinical trials.

The remainder of the IIMEC18 conference day will have the following presentations -

Eva Untersmayr-Elsenhuber - Associate Professor of Pathophysiology and Allergy Research at the Medical University of Vienna, and a member of EMERG, presents on emerging research for the discovery of ME mechanisms, with a focus on the DISCOVER-ME project. Her background spans immunology, gastrointestinal immunology, and allergy research, and she leads the Department of Pathophysiology and Allergy's gastrointestinal immunology group. As a lead and co-investigator in the DISCOVER-ME consortium, she brings expertise in immune mechanisms to the pan-European effort to identify biological markers and disease subtypes in ME.

Douglas D. Fraser - Professor and Clinician Scientist in Paediatric Critical Care at Western University in London, Ontario, presents on a global platform trial of repurposed drugs for long COVID. Director of the Translational Research Centre - a human tissue biobank with over fifteen years of operation - Professor Fraser leads two international multicentred long COVID research programmes examining sub-phenotypes and outcomes, and has extensive experience in profiling post-COVID patients for immune and proteomic changes.

Rowan Gardner, co-founder of PrecisionLife, a UK-based precision medicine company, brings over thirty years of experience applying computational methods to life science and patient data. Her work at PrecisionLife focuses on identifying novel disease mechanisms and therapeutic targets through advanced combinatorial analytics applied to complex disease datasets, including ME. In this session she examines new mechanistic insights into ME from large-scale genomic analysis, and considers what emerging findings may offer for future research directions.

Ana Palacio - University of Miami, presents follow-up findings from the Covid-UPP trial, examining outcomes in post-COVID patients and contributing to the growing evidence base on cardiovascular and systemic effects of long COVID and related post-viral conditions.

Leo Tamariz - University of Miami, presents a comparison of cardiovascular symptoms across ME, long COVID, and Gulf War Syndrome (GWS) cohorts. This cross-condition analysis contributes to understanding the shared and distinct physiological features of post-viral and post-toxic multi-symptom illnesses, with implications for diagnosis and clinical management.

Mari Gamme Sollie and Trine Alm Holterbakken - Røysumtunet, Norway, present on specialised care for seriously and very seriously ill people with ME. Røysumtunet is a Norwegian facility with particular expertise in managing severely affected ME patients, and this presentation addresses one of the most underserved areas in ME clinical practice - the provision of appropriate, safe, and informed care for those who are housebound or bedbound.

Friðbjörn Sigurðsson - Akureyri Hospital, Iceland, and EMERG member, presents on clinical approaches to treatment in ME. Drawing on clinical experience from Iceland's national hospital in Akureyri, this presentation addresses the practical management of ME patients and contributes to EMERG's work on developing harmonised European clinical protocols.

Per Julin - Karolinska Universitetssjukhuset, Sweden, and EMERG member, presents on the Karolinska Policlinic for Post-infectious Diseases, covering both its clinical work and associated research programme. The Karolinska clinic represents one of Europe's dedicated post-infectious disease centres, and this presentation describes its approach to the assessment and management of ME and related conditions alongside the research it generates.

BRMEC15 · Day 1 · 27th May 2026

Arrival Refreshments from 08:30

08:55	Welcome to BRMEC15 **Chair: Simon Carding, Quadram Institute, UK**
Systems Biology and AI *Chair: Tamas Korcsmaros*	
09:10	Application of Systems Biology to Understand Complex Chronic Diseases **Dezső Modos, Imperial College London, UK**
09:35	A Human Thymus Ageing Cell Atlas Defines a Spatially Resolved Model of Involution **Veronika Kedlian, Saez-Rodriguez group, EMBL-EBI, UK**
10:00	Mapping cell-cell communication and its changes upon inflammation and infection **Marek Ostaszewski, University of Luxembourg**
10:25	*Discussion*
BREAK 10:35	
Genomics *Chair: Elisa Oltra*	
11:10	Integrating Molecular and Clinical Insights in ME: Towards Mechanism-Driven Management **Elisa Oltra, Catholic University of Valencia, Spain / EMERG**
11:35	Understanding T cell dysregulation in ME **Andrew Grimson, Cornell University, USA**
12:00	Genome-wide association study of long COVID **Vilma Lammi, University of Helsinki, Finland**
12:25	*Discussion*
LUNCH 12:35	
Chronic Infection Aetiology *Chair: Friðbjörn Sigurðsson*	
13:35	Reprogrammed Myeloid Progenitors and Bone Marrow Pathology: Insights from Persistent Viral Infections in ME **Fernando Real, CNRS / Institut Pasteur de Lille, France**
14:05	Studying inflammatory responses to viral infection and considering how they might drive post-viral syndromes **Greg Towers, QMUL, UK**
14:30	Searching for chronic infection in ME **Maureen Hanson, Cornell University, USA**
14:55	Spike Protein Antigen and the Persistence of Long COVID: A Monoclonal Antibody Perspective **Nancy Klimas, Nova Southeastern University, USA**
15:20	Intracellular infection with Coxiella burnetii and Bartonella and dysautonomia in patients with ME/CFS **Branislav Milovanovic, Institute for Cardiovascular Diseases–Dedinje, Serbia / EMERG**
15:40	*Discussion*
BREAK 15:50	
Nervous System and Neuroinflammation *Chair: Jon Brooks*	
16:20	Neuro-PET data of post-COVID patients **Denise Visser, Amsterdam UMC, Netherlands**
16:45	Microglial profiling in ME/CFS **Felipe Correa da Silva, Netherlands Institute for Neuroscience, Amsterdam**
17:10	Brain Imaging in UK Biobank: genetics, ageing, COVID-19 **Gwenaelle Douaud, UK Biobank**
17:35	*Discussion*

18:20 Adjourn · Dinner 19:00

BRMEC15 · Day 2 · 28th May 2026

Arrival Refreshments from 08:30

Immune System – Primary and Secondary *Chair: Eva Untersmayr-Elsenhuber*

09:00	Chair: Opening **Eva Untersmayr-Elsenhuber, Medical University of Vienna**
09:10	Innate Immunity and Post-Infectious Immune Dysregulation: Insights for ME Research **Leo Joosten, Radboud University Medical Centre, Netherlands**
09:40	Crossing the Cell Membrane Threshold: Ion Channels, Calcium, and Inner Cell Function **Sonya Marshall-Gradisnik, NCNED, Australia**
10:05	Tissue-specific immune dysregulation in long COVID **Marcus Buggert, Karolinska Institute, Sweden**
10:35	*Discussion*

BREAK 10:50

Metabolomics – Body and Cell *Chair: Rikke Olsen*

11:20	The role of transport in mitochondrial energy metabolism **Edmund Kunji, University of Cambridge, UK**
11:50	Itaconate Shunt Hypothesis for ME Pathogenesis: Model predictions and experimental tests **Robert Phair, Integrative Bioinformatics Inc., USA**
12:15	Failures in the Peripheral Oxygen Transport Cascade **Anouk Slaghekke, Vrije Universiteit Amsterdam, Netherlands**
12:40	*Discussion*

LUNCH 13:00

Keynote

14:00	Mapping the Human Body One Cell at a Time **Sarah Teichmann, University of Cambridge, UK**

COFFEE BREAK 15:00

Biomarkers and Novel Pathways *Chair: Jonas Bergquist*

15:30	Diagnosing autonomic dysfunction: Tilt-test, Valsalva Manoeuvre, Heart Rate Variability and/or COMPASS-31 **Jesper Mehlsen, Copenhagen University Hospital, Denmark / EMERG**
15:55	Oxidative Stress in ME/CFS and Long COVID **Ron Davis, Stanford Genome, USA**
16:20	Beyond Linear DNA: 3D Chromatin Architecture and the Path to a Diagnostic Biomarker in ME (provisional) **Alexandre Akoulitchev & Dmitry Pshezhetskiy, Oxford BioDynamics / UEA, UK**
16:45	BEV Research: Uncovering pathways and mediators of the gut-microbiome-brain axis **Carding Group, Quadram Institute, UK**
17:10	Mouse-model on Reversing PEM **Wenzhong Xiao, Harvard Medical School, USA**
17:35	GLP-1s for ME/CFS and long COVID: hope, hype and hidden dangers **Steve Gardner, PrecisionLife, UK**
18:00	*Discussion*

18:15 Adjourn

BRMEC15 Day 3 · IIMEC18 Conference

29th May 2026 · Arrival Refreshments from 08:30

09:00	Opening of Conference / Summary of BRMEC15 Days 1–2 **Simon Carding, Quadram Institute, UK**
09:15	WHO Address **Hans Kluge, WHO Europe**
Therapeutics and Clinical Trials	*Chair: Andrew Wilson*
09:20	Support ME – A Platform for Clinical Trials in ME **Andrew Wilson, UEA, UK**
09:40	Brain Fog Treatment: Preliminary findings from cognitive rehabilitation trials in adults with post-viral syndromes **Gitendra Uswatte, University of Alabama, USA**
10:05	Hypoxia-Induced Mitochondrial Stress-Signaling: A Randomised Controlled Trial for ME **Rikke Olsen, Aarhus University, Denmark**
10:25	Digital Tools for a Complex Disease: Harnessing Wearable Data in ME Research and Trials **Caroline Dalton, Sheffield Hallam University, UK**
10:45	Data Standardization and Data Sharing for ME/CFS Research **Vicky Whittemore, NIH, USA**
11:10	*Discussion*
BREAK 11:10	
11:40	Emerging Research for the Discovery of ME Mechanisms **Eva Untersmayr-Elsenhuber, Medical University of Vienna, Austria**
12:10	A Global Platform Trial of Repurposed Drugs for Long COVID **Douglas Fraser, Western University, London, Canada**
12:40	Expanding Mechanistic Insights in ME - Analysis of DecodeME Population and What's Next **Rowan Gardner, PrecisionLife, UK**
BREAK 13:10	
13:50	Cardiovascular and Immune Phenotyping Across Fatiguing Syndromes: ME/CFS, Long COVID, and Gulf War Illness **Leo Tamariz, University of Miami, USA**
14:10	COVID-UPP Baseline Findings and the Measurement Gap in Long COVID **Ana Palacio, University of Miami, USA**
14:30	Specialised Care for Seriously and Very Seriously Ill People with ME **Mari Gamme Sollie & Trine Alm Holterbakken, Røysumtunet Clinic, Norway**
15:00	Karolinska Policlinic for Post-Infectious Diseases: Clinics and Research **Per Julin, Karolinska Institute, Sweden**
15:20	Clinical Approach to Treatment **Friðbjörn Sigurðsson, Akureyri Hospital, Iceland**
15:40	*Discussion*

16:10 Lunch / Dinner