

# PRIME

PRIME – building infrastructure for Patients, Researchers and Industry for ME/CFS

## PRIME Webinar 3: Post-Exertional Malaise (PEM)

Thursday 30<sup>th</sup> July, 2026 2-5pm GMT

Online: Register [here](#)

### General abstract:

Post-Exertional Malaise (PEM) is a hallmark symptom of ME/CFS characterized by a disproportionate, delayed worsening of existing symptoms—and the appearance of new ones—following minor physical or mental effort. Consequently, PEM is a mandatory criterion for inclusion in most recent ME/CFS studies, although this wasn't always true historically. This webinar will ask various questions about PEM, including: what it is, what causes it, and how can it best be explained and defined?

### Speakers:

- **Maree Candish**  
ME/CFS research advocate & Committee member of **Science for ME**
- **Mark Faghy**  
Professor of Clinical Exercise Physiology, University of Loughborough
- **Marjon Wormgoor**  
Independent researcher & ME/CFS research advocate
- **Todd Davenport**  
Professor and Chair of the Doctor of Physical Therapy (DPT) Program @ University of the Pacific
- **Maureen Hanson** – Liberty Hyde Bailey Professor in the Department of Molecular Biology and Genetics at Cornell University and Director of the Centre for Energating Neuroimmune Disease

Programme: Talks 20mins + 10mins questions

2-2.05pm

Welcome from the Chair (Daphne Lamirel, Action for ME)

2.05-2.35pm

**Talk 1:** *Post-Exertional Malaise - a perspective from the online ME/CFS community of Science for ME*  
**Maree Candish** – ME/CFS research advocate & Committee member of **Science for ME**

**Abstract:** Science for ME is an online community dedicated to improving the understanding of ME/CFS and related conditions. A recent initiative has been the collaborative development of a series of fact sheets on aspects of ME/CFS. Trish Davis led the writing of the second fact sheet which focuses on a core feature of ME/CFS, Post-Exertional Malaise (PEM), and includes input from people with a range of ME/CFS severities. This presentation will cover the content of the fact sheet, defining Post-Exertional Malaise, explaining what it is like to experience it, and noting some implications of PEM for ME/CFS research.

2.35-3.05pm

**Talk 2:** *The pathophysiology of PEM, what we know, but importantly, what we don't?*

**Mark Faghy** – Professor of Clinical Exercise Physiology, University of Loughborough

3.05-3.35pm

**Talk 3:** *Failure to capture PEM distorts evidence in ME/CFS and Long COVID trials.*

**Marjon Wormgoor** – Independent researcher & ME/CFS research advocate

**Abstract:** I will focus on how PEM has often been insufficiently captured, overlooked, or misinterpreted in trials, and how this may lead to intervention benefits being overstated and harms underestimated. This is not a new observation for those working in the field, but it remains insufficiently addressed in study design and interpretation, with important implications for the validity of the evidence base.

3.35-3.50pm - BREAK

Chair (Daphne Lamirel, Action for ME)

3.50-4.20pm

**Talk 4:** *How to Eat an Elephant: Contemporary Scientific and Clinical Approaches to Post-Exertional Malaise*

**Todd Davenport** – Professor and Chair of the Doctor of Physical Therapy (DPT) Program, Univ of the Pacific

4.20-4.50pm

**Talk 5:** *Molecular signals of PEM*

**Maureen Hanson** – Liberty Hyde Bailey Professor in the Department of Molecular Biology and Genetics at Cornell University and Director of the Centre for Energizing Neuroimmune Disease.

**Abstract:** We have probed components of blood samples from ME patients and sedentary healthy individuals taken before and after two successive maximal cardiopulmonary exercise tests in order to search for clues to the disabling phenomenon. I will describe the insights we have gained as a result of these studies.

4.50-5.00pm - Concluding Remarks

Speaker Bios:

PRIME Workshop 3: 30/07/2026

**Maree Candish** came to ME/CFS advocacy after a career in management consultancy and investment finance focussed on sustainable natural resources. In 2013 she and her two children were infected with a virus, and all three went on to develop ME/CFS. Maree is a committee member of Science for ME, an online forum that aims to increase the understanding of ME/CFS and similar illnesses by facilitating communication between people with ME/CFS, clinicians and researchers. For more than ten years now she has worked on a range of ME/CFS-related advocacy and research projects. She lives in New Zealand and is a member of the New Zealand government committee responsible for maintaining the national research standards that guide research with human participants and for advising the government on health ethics.

**Professor Mark Faghy** is a researcher and practitioner specialising in health, physiology, and human performance. His work focuses on understanding the pathophysiology of chronic post-viral conditions, including responses and tolerance to physical stimuli, recovery profiles, and symptom management. He has a particular interest in fatigue-related conditions, including post-exertional malaise, and is committed to translating research into practical insights to support individuals, clinicians, and wider communities.

**Marjon E.A. Wormgoor** is an independent researcher with a background in research and evaluation of healthcare services, and MSc degrees in Movement Science and Epidemiological Methods. She has worked with evaluation of treatment programmes, registries, and patient-reported outcomes, primarily in musculoskeletal and mental health conditions within specialist healthcare. Now retired from formal positions, she focuses on ME/CFS-related research and advocacy, with particular emphasis on capturing post-exertional malaise (PEM) in research methodology and clinical practice, as well as improving the integration of patient experiences in research and clinical practice. She is also active in board work within the Norwegian ME Association and is an ME/CFS caregiver.

**TODD E. DAVENPORT** is Professor and Chair in the Department of Physical Therapy at University of the Pacific in Stockton, California. He earned bachelor's degrees in psychology and exercise science (sports medicine) from Willamette University, Doctor of Physical Therapy from the University of Southern California, Master of Public Health from the University of California at Berkeley, and Doctor of Philosophy in Sport, Health, and Exercise Sciences from the University of Portsmouth. He completed the orthopedic physical therapy residency program at the University of Southern California. Dr. Davenport is a Catherine Worthingham Fellow of the American Physical Therapy Association. Dr. Davenport's research interests primarily relate to understanding the clinical presentation and underlying systems-level physiology of post-exertional neuroimmune exhaustion (often known as post-exertional malaise) in myalgic encephalomyelitis.

**Professor Maureen Hanson** is Liberty Hyde Bailey Professor in the Department of Molecular Biology and Genetics at Cornell University and Director of the Center for Enervating Neuroimmune Disease, which focuses on understanding the pathophysiology of ME that was incited prior to COVID19, with support from NIH and a variety of private donors. The Center encompasses research in immunology, muscle biology, genetics, biochemistry, and cell biology, carried out in multiple faculty laboratories. Prof. Hanson's lab has examined plasma proteomics, extracellular vesicle cargo, metabolomics, immune cell function, mitochondrial genomes, and the gut microbiome. She completed her Ph.D. and postdoctoral fellowship at Harvard University after an undergraduate degree from Duke University and has been elected to the US National Academy of Sciences.