# Annual Report & Accounts 2022-2023





SC036942

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# **Reference and Administrative Details**

Charity name	ME Research UK		
Charity registration number	SC036942		
Trustees	Jonathan P J Davies, Chair Mrs Sue Waddle, Vice Chair Mrs Jan McKendrick, Secretary Edward Dunkerley Prof Faisel Khan Mrs Lesley J Carr Dr Eleanor Roberts		
Founding Patron	Roger Jefcoate CBE DL		
Patron	The Countess of Mar		
Honorary Presidents	Robert D McRae Dr Vance A Spence		
Registered Office	The Gateway North Methven Street Perth PH1 5PP		
Telephone	01738 451234		
Email	contact@meresearch.org.uk		
Web	www.meresearch.org.uk		
Facebook	MEResearchUK		
Twitter	MEResearchUK		
Auditor	Morris and Young Chartered Accountants 6 Atholl Crescent Perth PH1 5JN		

# Trustees' Report

### Introduction by the Chair



It gives me great pleasure to present our latest Annual Report and Accounts, which represent the most successful year in our history in terms of research grant funding. We remain, by some margin, the largest charity funder of biomedical research into ME in the world (outside North America) and remain committed to using all of the resources at our disposal to continue our work on behalf of all of our fundraisers, supporters and everyone affected by the disease.

We remain indebted and extremely grateful to all of our supporters for the faith they place in us and in the work we do. With over £420,000 of donations and legacies received during the year, our ability to inform, influence and ultimately invest in biomedical research has been maintained and we remain committed to putting every penny to the best possible use. Thank you for your invaluable support - we could not exist without you.

Through a combination of income this year and existing research funds, we have awarded a further  $\pounds$ 1,028,000 in new research grants this year, including two new PhD's. We are delivering on our commitment to supporting and encouraging both young and established researchers into the field of ME research.

We have been encouraged this year by both the quality and quantity of research applications submitted to us but fully recognise that our desire to increase the pace and value of funding we provide to rigorous biomedical research will only be possible with the continued generosity of our fundraisers and supporters.

Our cumulative research funding now stands at over £4m and our most recent call for applications yielded further high quality potential research projects we are currently reviewing. We enter the new financial year with a healthy balance sheet but are focused on the challenge of matching our ambition with the funds at our disposal.

A final word of thanks to our dedicated staff team without whom none of what we do would be possible. On behalf of the Board, I thank them for their commitment and the value they bring.

Our determination to make a positive difference remains undimmed and we will continue to work towards our vision to bring to an end the suffering caused by ME.

Jonathan Davies

Chair of Board of Charity Trustees

# Trustees' Report

The Trustees present their report along with the financial statements of the charity for the period 1st November 2022 to 31st October 2023 - see Note 1 to the accounts. The financial statements have been prepared in accordance with the accounting policies set out in Note 2 to the accounts and comply with the charity's Constitution dated 3rd June 2019; the Charities and Trustee Investment (Scotland) Act 2005 and the Charities Accounts (Scotland) Regulations 2006 (as amended); and the requirements of the Office of the Scottish Charity Regulator (OSCR).

### Our Vision and Mission

Our vision is to end the suffering caused by ME/CFS by investing in high quality, scientific (biomedical) research into the causes, consequences and treatment(s) of the illness. Only through biomedical research will the illness be understood, accepted and real change to the lived experience of those with the illness become a reality.

In particular, we

- invest globally in high quality biomedical research into ME/CFS globally which we believe has the potential to further the understanding of the illness;
- inform the science community, civic society and those affected by the illness by taking a leading role in interpreting, analysing and commenting on published biomedical research into ME/CFS; and
- influence the biomedical research and funding agenda by working proactively and collaboratively with other organisations.

We exist solely to inform, influence and invest in biomedical research and, to date, we have invested over £4 million in biomedical research world-wide on 66 distinct projects and funded 5 PhD-level researcher studies. In addition, we have, alongside the Daphne Jackson Trust, launched a Fellowship to encourage post-doctoral researchers to return to their work and study ME/CFS. There is more to do and we are determined to do more. In fact, ME Research UK has funded more specific biomedical research ME/CFS projects than any other charitable organisation in the world outside North America. However, it is vital that more high-quality research is carried out into both the cause(s) of the illness and its effects with the ultimate aim to discover a treatment or a cure for this most disabling of illnesses. ME Research UK's Constitution specifically charges the charity "To advance scientific knowledge by commissioning or funding research into the causes, consequences and treatment of Myalgic Encephalomyelitis/Chronic Fatigue Syndrome (ME/CFS)"

ME Research UK is dedicated to ensuring that research into ME/CFS reflects the prevalence and seriousness of the illness and to funding the highest quality of biomedical research possible.

### The Illness

Myalgic encephalomyelitis (ME) is characterised by a range of neurological symptoms and signs, muscle pain with intense physical or mental exhaustion, relapses, and specific cognitive disabilities. Both the World Health Organisation's 'International Classification of Disease' (ICD10 (G93.3) under 'Post-Viral Fatigue Syndrome') and the Systematized Nomenclature of Medicine (SNOMED CT) lists ME as a disorder of the nervous system.

During the 1990s, the term Chronic Fatigue Syndrome (CFS) came into use. As there was (and presently remains) no specific diagnostic test for ME, and, as post-exercise 'fatigue' was one of its prominent symptoms, people with ME began to be diagnosed with CFS. In recent years, however, there has been a growing recognition that the diagnosis 'CFS'- based on a list of vague non-specific symptoms shared with other illnesses - is so broad that it can encompass a range of diverse patient groups.

# Trustees' Report

The National Institute for Health and Care Excellence (NICE) in their 2021 'Myalgic encephalomyelitis (or encephalopathy)/chronic fatigue syndrome: diagnosis and management' guideline (NG206) recognises that "Many people with ME/CFS consider the name 'chronic fatigue syndrome' too broad, simplistic and judgmental." It is to be welcomed that the 2021 NICE guideline refers to the illness as ME/CFS rather than the 2007 guideline label of CFS/ME. This change formed part of ME Research UK's submission to NICE during the consultation process and, increasingly, the media now use ME/CFS or even just ME when describing the illness.

Of course, none of the issues surrounding the name alter the reality of the illness for thousands of people, and the lay term 'ME' is still used by patients, patient groups and charities (including ME Research UK) to describe the illness affecting people diagnosed with ME/CFS, including that subgroup of CFS patients with an organic illness, characterised by neurological signs and symptoms.

NICE records that recent data from the UK ME/CFS Biobank suggests that there are over 250,000 people in England and Wales with ME/CFS, with about 2.4 times as many women affected as men. World-wide, as the German parliament was informed, the number affected is estimated at around 17 to 24 million people. In addition, it is estimated that around 1 to 2 percent of all SARS-CoV-2 infected people (up to 20 percent of all post-COVID sufferers) will meet ME/CFS diagnostic criteria after six months. It must therefore be assumed that the number of people affected by ME/CFS will almost double worldwide. In figures, this would correspond to 10 million new cases.

ME/CFS can affect people of all ages. It is a complex, multi-system, chronic medical condition that has considerable personal, social and economic consequences and a significant impact on a person's quality of life, including their psychological, emotional and social wellbeing.

Everyday life for people with ME/CFS, their family and carers is disrupted and unpredictable. Many people with the condition are unemployed, and less than a fifth work full-time. Approximately 25% are classified as severely affected and are house or bedbound. The quality of life of people with ME/CFS is lower than that of many people with other severe chronic conditions, including multiple sclerosis and some forms of cancer.

Neither is it clear what causes ME/CFS. In many cases, symptoms are thought to have been triggered by an infection but the exact cause of the illness remains unknown. Over the years there have been a number of attempts to devise a more sensitive way of diagnosing patients but none have yet been successful. Indeed, NICE identifies clinical and cost effective diagnostic tests as a key area where they recommend further research be undertaken.

What is certain is that ME/CFS is not a simple post-illness fatigue. It lasts longer and even minimal mental or physical activity can make symptoms worse. NICE records neither a cure nor a treatment for ME/CFS.

There is presently no diagnostic test or single universally accepted diagnostic definition for ME/CFS. People with the condition report delays in diagnosis, and many healthcare professionals lack the confidence and knowledge to recognise, diagnose and manage it. Fatigue associated with other chronic diseases may be erroneously confused with ME/CFS and some practitioners are reluctant to positively diagnose ME/CFS.

# **Trustees' Report**

Many people with ME/CFS report a lack of belief and acknowledgement from health and social care professionals about their condition and related problems, which may lead them to be dissatisfied with care and to disengage from services. This lack of belief by healthcare professionals and even family members is also recognised by NICE in the "Myalgic encephalomyelitis (or encephalopathy)/chronic fatigue syndrome: diagnosis and management" 2021 guideline. There are added issues for children and young people if illness makes school attendance difficult, bringing families to the attention of educational and social care services.

The four key diagnostic criteria in the NICE 2021 guideline are -

- (1) Debilitating fatigue that is worsened by activity, is not caused by excessive cognitive, physical, emotional or social exertion, and is not significantly relieved by rest.
- (2) Post-exertional malaise after activity in which the worsening of symptoms:
  - is often delayed in onset by hours or days;
  - is disproportionate to the activity;
  - has a prolonged recovery time that may last hours, days, weeks.
- (3) Unrefreshing sleep or sleep disturbance (or both), which may include:
  - feeling exhausted, feeling flu-like and stiff on waking;
  - broken or shallow sleep, altered sleep pattern or hypersomnia.
- (4) Cognitive difficulties (sometimes described as 'brain fog'), which may include problems finding words or numbers, difficulty in speaking, slowed responsiveness, short-term memory problems, and difficulty concentrating or multitasking.

Given the illnesses' prevalence and impact, it is widely acknowledged that ME/CFS has faced significant under-investment in biomedical research over many years, both in the UK and overseas. Within the UK specifically, for example, ME/CFS receives comparatively little funding compared to other neurological disorders. MS affects about 100,000 people compared to the c250,000 estimated to have ME/CFS but has received 20 times the funding.

# Trustees' Report

### **Department of Health and Social Care**

Throughout the year ME Research UK has been involved actively in the Dept for Health and Social Care's 'ME/CFS Delivery Plan' process. The process was developed around three key themes: research, attitudes and education, and living with ME. Within each of the themes, the "My full reality: the interim Delivery Plan on ME/CFS" report summarised issues and make recommendations for improvements with the final version expected to be released in 2024 after the consultation period ended in October 2023. ME Research UK responded to the plan and, in particular, to the research elements.

The draft Plan laid out 'Problem statements' on research:

- (1) There is low capacity and capability among the research community to respond to research needs in this area.
- (2) Historically, there has been low awareness of the need and scope for research into ME/CFS across the health and care research landscape.
- (3) There has been a relatively low amount of biomedical research funded on ME/CFS, compared with disease burden.
- (4) There remains a lack of trust between different stakeholders, including a perception of bias, expressed by patient and carer groups, about prioritisation and the peer-review process when applied to ME/CFS research.

Although ME Research UK broadly welcomed the aims of the draft Plan it was apparent that it actually added little new in the recommendations made. The central issues facing biomedical research into ME/CFS are actually well known, and have been for decades. These issues were narrated in the 'Inquiry into the status of CFS/M.E. and research into causes and treatment' - the 2006 Gibson report - which cast a critical eye on progress made to that point in implementing the research recommendations of the 2002 'Report of the CFS/ME Working Group' to the Chief Medical Officer. What is to be regretted, given the crucial role of government funders of research, is why there is no obvious or indeed oblique comment on how the (in)actions of central funders may have contributed to the problems being faced within the draft Plan. There has after all been a Highlight Notice for ME/CFS since 2003 and the disease has been, according to the MRC "a high priority for MRC for several years". Looking at the four problem statements identified, how many are caused by the lack of funding? How many researchers have chosen not to study ME/CFS due to the paucity of funding opportunities offered, or have abandoned their research after failing to achieve MRC backing?

This highlights even more clearly the crucial importance of the work of ME Research UK in funding the highest quality research globally - research which lays the foundation of larger projects, helps inform and inspire early career researchers, and which lays the foundations of improved healthcare professional education and practice.

# **Trustees' Report**

### **ME Research UK - Year in Review**

### Achievements and Performance

### A. Investing in Research

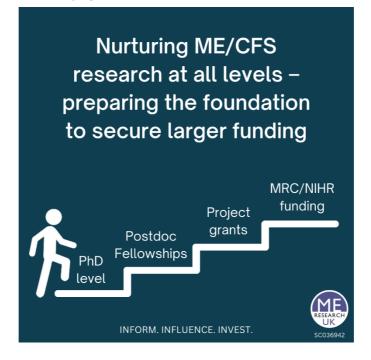
The most significant aspect of our charity and the core of our charitable purposes and aims is the provision of funding for research.

Through the provision of funds, we aim to -

- Be an accessible source of finance for scientifically sound research from researchers (normally) at the beginning of their careers
- Fund projects, the results of which produce findings to enrich the research-world's understanding of ME/CFS
- Generate data for larger studies or to build upon for applications to central funding bodies e.g. United Kingdom Research and Innovation/Medical Research Council
- Encourage new researchers into ME/CFS research

ME Research UK's charitable activities in the current period resulted in a further investment of  $\pounds$ 1,028,473 (2021/22:  $\pounds$ 489,848) covering 6 ME/CFS research projects in 4 countries totalling  $\pounds$ 772,048 (2021/22:  $\pounds$ 286,224) and 2 PhD-level research grants in 2 countries at a total commitment of  $\pounds$ 256,425, (2021/22:  $\pounds$ 203,624) in 2 countries.

This level of commitment is consistent with the charity's objectives and is judged to be manageable within the charity's overall financial position. The policy to never agree to fund projects unless funds are available engenders trust between the researchers and the charity and has proven to be a sound financial principle in the most trying of circumstances.



# Trustees' Report

A total of 25 (2021/22: 15) research applications were received in the year, of which 19 were not progressed to the full application stage. Of the remaining 6 full applications, one was awarded funding (jointly with the ME Association - as disclosed as 'offered but yet to be accepted'), and the other 5 are currently progressing through the external peer review process, after which they will be considered by the Science Committee. The size and complexity of the applications means additional scrutiny is required in order to ensure charity resources are expended wisely and that the tangible benefits to the research field and to people with ME are capable of being ascertained and quantified.

There was one PhD-level research application received in the year, which was awarded funding.

ME Research UK is heartened by the geographic spread of applications for funding received within the year, the diverse range of research topics and the number of applications themselves.

In August 2023, ME Research UK in conjunction with the Daphne Jackson Trust, launched a Fellowship scheme. The aim being to further deepen the pool of ME researchers and research in the UK by enabling post-doctoral researchers to return to their profession after a hiatus through health or other issues.

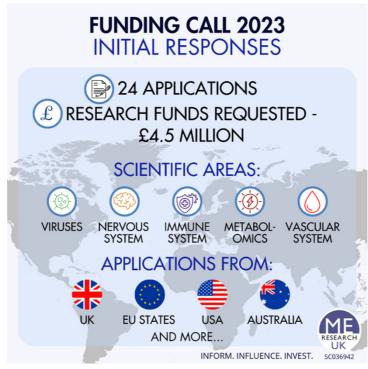
# From PhD-level research, post-doctoral fellowships, and to project funding ME Research UK is the only UK charity with laser-like focus on research through the various stages of research globally. With these initiatives, ME Research UK has now funded over £4m of high quality ME research since its inception in 2000.

Step-by-step we are helping to build the research infrastructure which has been absent for decades.

ME Research UK wishes to thank the members of the Science Committee (including volunteer peer reviewers) for their dedication throughout the year. Due to the additional resources available (for example from The Gordon Parish Charitable Trust and The Fred and Joan Davies Bequest), the charity has attracted an increased number of high quality applications from notable sources globally and for sums which demand additional scrutiny. Also, the increased knowledge-base of the illness and tools/methods available to researchers mean a high degree of skill and knowledge is required by Science Committee members and peer reviewers. Plans to streamline the review progress have been implemented with the result that applicants, and Science Committee members have a set schedule of work and are able to concentrate on progressing applications swiftly with the high degree of rigour for which the charity is renowned.

Additional capacity within the Science Committee and peer reviewers remains an area of action to ensure the level of scrutiny which the charity prides itself upon.

# **Trustees' Report**



The number of applications bodes well for progress in research in 2023/24 and for the reputation and future evolution of the charity beyond the current year. The applications currently before us, if funded, would cost £971,987 - which illustrates the value of a research-centred charity devoted to biomedical research into ME/CFS but also the needs of the research base for increased funding.

With the additional funds available from legacies largely now invested in research, the charity will concentrate its income and endeavours on funding a PhD level research award, a Fellowship, and a research project annually but with the capacity to increase this as and when further funds are received. Vigilant to the challenges on funding, the Board intends appointing a Donor Relations Officer in 2024 whose role will be to maximise the charity's fundraising potential.

In summary, ME Research UK has 19 ongoing studies, including 8 newly funded projects and 5 PhD-level research projects, and these represent more than  $\pounds 2$  million currently invested in ME/CFS research globally. The research for which we have recently awarded funding covers a number of areas of interest, including one study looking at mitochondrial abnormalities, 4 investigating the brain and nervous system, and 3 looking at biomarkers and diagnosis. The total value of awards given since 2000 now stands in excess of  $\pounds$ 4m.

# **Trustees' Report**



### New Research Projects in 2022/23

### MERUK-23-061

Dr Eliana Lacerda & Prof. Geraldine Cambridge, London School of Hygiene and Tropical Medicine & UCL, UK

Antibody Discovery using Novel Microarray of Functional Proteins in patients with Myalgic Encephalomyelitis/Chronic Fatigue syndrome: a pilot study £63,899,00

One potential explanation for many of the features of ME/CFS is that the body's immune system is attacking damaged proteins, some of which are involved in generating energy. These proteins may be damaged by an excess of toxic molecules (reactive oxygen species). An immune response is characterised by the production of antibodies, and Dr Lacerda and Prof. Cambridge plan to analyse the pattern of antibodies in samples from patients with moderate and severe ME/CFS (from the UK ME/CFS Biobank), linking them to changes in specific proteins. Their results may form the basis of new diagnostic tools for the disease, including stratification of patients based on severity.

# **Trustees' Report**

### MERUK-23-062

Dr Zack Shan, University of the Sunshine Coast, Australia

Non-invasive MR imaging of chronic neuroinflammation in myalgic encephalomyelitis/chronic fatigue syndrome (ME/CFS)

£419,485.00

Dr Shan and his colleagues are conducting the world's first controlled study directly assessing neuroinflammation in the brains of people with ME/CFS. Neuroinflammation occurs when the brain's immune system is activated, and this is believed to play an important role in ME/CFS. The team's advanced imaging techniques mean they can now analyse several aspects of this, including microglia and astrocytes (the immune cells of the brain), the lymphatic system, and various neurometabolites. Their results will provide evidence of whether neuroinflammation is a factor in ME/CFS, which could point to specific treatments.

### MERUK-23-063

Dr Bo Christer Bertilson, Medect Clinical Trials, Bragée Clinics, Sweden

Proteomic and metabolomic analyses to reveal biomarkers of ME/CFS - a case-control study of blood and spinal fluid

£98,000.00

Dr Bertilson and colleagues are using a technique called mass spectrometry to search for biomarkers of ME/CFS in blood plasma and cerebrospinal fluid samples from people with the disease. The team will use state-of-the-art methods to analyse proteins and metabolites in the samples, with the aim of identifying a profile of these molecules that is characteristic of ME/CFS and can help identify people with the disease. Proteins perform many critical roles in the body, while metabolites are produced during chemical processes. Identifying biomarkers of ME/CFS could improve diagnosis of the disease, as well as highlighting potential new treatment options.

### MERUK-23-064

Prof. Janet Taylor, Edith Cowan University, Australia

Investigation of motoneurone firing behaviour and associations with symptom severity in individuals with myalgic encephalomyelitis/chronic fatigue syndrome

### £28,557.00

Reduced muscle strength in people with ME/CFS may be due to problems with the nerves that drive these muscles, specifically those nerves in the spinal cord that supply the muscle fibres and control our movements. Prof. Taylor and her team plan to record the electrical activity of these nerves during muscle contractions, comparing people with ME/CFS and control subjects. They will also look at whether any abnormalities are due to a reduced action of serotonin, a chemical that carries messages between nerves. The findings may help us better understand the muscle problems experienced by people with ME/CFS, and lead to more effective treatments.

### MERUK-23-065

Prof. François-Jérôme Authier, Henri Mondor University Hospital, France

Neurocognitive impairment in Myalgic Encephalomyelitis (ME): Neuropsychological evaluation and functional brain imaging study - COGNIME 2022

### £129,900.00

Cognitive problems (affecting memory, concentration, reading, etc.) are a common, disabling symptom of ME/CFS, and Prof. Authier and his team are investigating how these abnormalities are related to functional changes in the brain. The group will carry out a comprehensive neuropsychological evaluation and functional brain imaging in patients with ME/CFS, in order to look at the correlations between them. In particular, they are exploring whether a specific pattern of brain hypometabolism (seen in many neurodegenerative diseases) may be used as a biomarker for ME/CFS, and whether patients can be stratified according to the severity of impairment.

# Trustees' Report

### Offered but not yet accepted

### MERUK-23-066

Prof. Fatima Labeed, University of Surrey, UK

The Electrophysiology of ME/CFS: Development of an Electrical Model for Exploration and Diagnosis £32,206.50 (50% share of joint grant with the ME Association)

Dr Labeed and colleagues are investigating whether the electrical properties of white blood cells can be used to diagnose ME/CFS. Every cell generates a small electric field across its membrane and on its surface, and these play a role in the cell's function. Previous research reported that the impedance of white blood cells (representing a combination of electrical properties) differed between people with ME/CFS and healthy controls. Dr Labeed is following up these initial findings using a more robust approach using samples from the UK ME/CFS Biobank, in the hope that they have the potential to be used as a routine diagnostic test.

### New PhD Projects in 2022/23

### MEPHD-23-004

Prof. Jo Nijs, Vrije Universiteit Brussel, Belgium

Mitochondrial dysfunction in Myalgic Encephalomyelitis/Chronic Fatigue Syndrome (ME/CFS): are autonomic phenotypes necessary to clear conflicting results?

£174,459.00

Prof. Nijs and colleagues are investigating the relationship between two features of ME/CFS thought to contribute to its symptoms. Dysfunction of the mitochondria (responsible for energy production in cells) may be an important factor in the disease, while there is also evidence of abnormalities in the autonomic nervous system (which controls heart rate, circulation, etc.). This PhD project will compare mitochondrial function between groups of ME/CFS patients divided according to the autonomic symptoms they experience. As well as understanding the disease process better, subgrouping patients could help improve diagnosis and selecting treatments.

### MEPHD-23-005

Douglas Barrett, Leicester University, UK

Impaired selective attention as a cognitive and neurophysiological markers of ME/CFS £81,966.00

Individuals with ME/CFS often report visual overload, difficulties filtering relevant from irrelevant visual information, and fatigue during visual search. Despite the prevalence of these symptoms, little is known about the way ME/CFS impacts sufferers' ability to perceive and prioritise objects and events in the visual scene. This studentship will provide a detailed description of the impact of ME/CFS on perceptual and cognitive processes that are essential for everyday visual function and develop novel diagnostic markers of the syndrome and its severity. The work addresses an urgent clinical need to identify and evaluate objective measures of sensory and cognitive impairment in ME/CFS, which will aid diagnosis and the evaluation of treatment outcomes.

### Projects Completed in 2022/23

None.

# **Trustees' Report**

### Ongoing Projects in 2022/23

Initiated in previous financial years, and payable (subject to progress) in 2023/2024 - Sums due represent total funding commitment.

### Research studies

### MERUK-18-047

Jarred Younger, University of Alabama at Birmingham, USA Tracking peripheral immune cell infiltration of the brain in ME

\$134,516.70 (£113,900.68 at date of conversion to US\$)

The central hypothesis behind Prof. Younger's project is that activated immune cells infiltrate the brain of ME/CFS patients causing neuroinflammation and symptoms such as fatigue, pain sensitivity, cognitive problems and sleep disturbances. The team plans to track radio-labelled peripheral immune cells using positron emission scanning to see whether they do indeed break the blood-brain barrier and infiltrate the brain. The project will be carried out in 15 women with ME/CFS and 10 age-matched healthy control women, who will be scanned at 24 hours and then 96 hours following injection of the labelled cells. As well as advancing our understanding of the pathogenesis of ME/CFS and the role of the immune system, the results of this study may indicate whether neuroinflammation is a worthwhile target for treatment of the illness, and even help in establishing a diagnostic test that can distinguish between patients and healthy control subjects.

### MERUK-20-054

Elisa Oltra, Catholic University of Valencia, Valencia, Spain

Metabolic impact of activated HERVs and associated innate immune response in severe ME: towards disease modelling

### £76,000

Human endogenous retroviruses (HERVs) are a family of viruses contained within the human genome and inherited by successive generations. They have been proposed as potential triggers of ME, and the applicants plan to identify HERVs that are overexpressed in a group of 12 women with severe ME compared with a matched group of women with fibromyalgia. These HERV 'fingerprints' could be used for diagnosis or patient subtyping. They also plan to look at the effects of activation of these ME-associated HERVs on nerve and muscle cells in laboratory conditions, to understand their potential impact on the symptoms of the illness. In an addition, the identified HERVs will be validated in an extended cohort of 50 ME patients, 25 fibromyalgia patients and 25 healthy control subjects.

### MERUK-21-055

James Allison, Newcastle University, UK

EluCidATe: Exploring pain and autonomic dysfunction in Chronic Fatigue Syndrome/Myalgic Encephalomyelitis and Temporomandibular disorders

### £13,576

Widespread pain is a problem for people with ME/CFS and impacts on everyday activities. In particular, a group of musculoskeletal conditions affecting the muscles that move the jaw, temporomandibular disorders (TMD), are more common in ME/CFS and cause pain in the face and jaws. The grant holder's research suggests that one reason for the link between ME/CFS and TMD may be that they have a similar underlying problem affecting the autonomic nervous system (ANS), which controls many unconscious activities such as breathing and circulation.

# Trustees' Report

The ANS is known to work less well in ME/CFS and this is worse still when TMD is also present. To investigate the contribution of the ANS to painful symptoms, the researchers will examine brain responses to, and subjective experience of experimentally induced pain in four groups of people: 1) ME/CFS only; 2) ME/CFS who also have TMD; 3) TMD only; and 4) Healthy participants with no ME/CFS and no TMD. To examine brain responses, the researchers will use electroencephalography which measures electrical activity from the scalp. Examining the brain's response to painful pressure applied to different body regions (finger and jaw) in each of these groups will help understand how pain differs in ME/CFS to in other people, and where in the brain these differences are located. They will also investigate whether they can "calm" the ANS using non-invasive stimulation of the vagus nerve (part of the ANS) and measure the effect this has on both brain activity and levels of pain. The study will inform future treatments for ME/CFS by identifying where in the brain differences in response to pain occur, what part the ANS plays, and by understanding why some people might differ in their response to treatment.

### MERUK-21-056

Bhupesh Prusty, Julius-Maximilians-Universität Würzburg, Germany

Understanding potential infectious triggers behind mitochondrial dysfunction in ME/CFS  $\pm 207,100$ 

ME/CFS is a complex disease with many potential unknown triggers. Recently it has been observed that a large subset of patients who had recovered from SARS-CoV-2 infection are developing ME/CFS-like symptoms and are continuing to have ME/CFS-like clinical conditions even after several months post infection. This has strengthened the idea of infectious origin behind ME/CFS. However, there are no strong experimental evidences to support this. Mounting epidemiological evidences implicate Human herpesvirus 6 (HHV-6), HHV-7 and Epstein-Barr virus (EBV) as three highly probable infectious triggers for ME/CFS. The researchers have recently observed several cellular changes in cells carrying functionally active HHV-6 virus, which overlaps with clinical abnormalities frequently observed in ME/CFS patients. The most convincing changes included dysfunctional mitochondria, and altered mitochondrial glucose metabolism. The researchers' results supported the previously documented notion that mitochondrial dysfunction and changed mitochondrial metabolic signatures might be induced by a soluble factor that can be transferred from cell to cell through serum. Their preliminary studies have detected several possible serum-transferable factors in ME/CFS patients that can originate after an infectious trigger. Preliminary infection experiments with SARS-CoV-2 supports the idea that it may not be the SARS-CoV-2 that directly causes ME/CFS like symptoms. Rather regaining of functional activity by herpesvirus genome, which often remains inactive in a healthy cell, might be a key factor for ME/CFS development. The researchers aim to identify and characterise some of these serum-transferrable factors using innovative, inter-disciplinary methodologies and ME/CFS patient samples, which will allow them to understand molecular mechanism(s) behind mitochondrial dysfunction in ME/CFS and hopefully help to develop different strategies for therapeutic interventions.

### MERUK-21-057

Leighton Barnden, Griffith University, Australia

Investigation of brain stem dysfunction using 7 Tesla MRI in ME/CFS

£151,000

Impaired concentration and memory, visual and auditory changes, headache and autonomic manifestations, predominate the signs and symptoms of ME/CFS and indicate primary brain involvement. Over 15 years, the Griffith University team has applied Magnetic Resonance Imaging (MRI) to study the brain in ME/CFS. Initially, they used unorthodox spin-echo MRI sequences which deliver the sensitivity and stability critical for group comparisons with healthy controls.

# Trustees' Report

They also performed correlations of MRI levels with severity and autonomic measures (heart rate and blood pressure) and discovered that ME/CFS severity was associated with upregulated white matter myelin independent of anxiety and depression. They also detected abnormal MRI correlations with autonomic measures within the brainstem reticular activation system (RAS), a diffuse network of small interconnected nuclei with important regulatory functions. Both findings implied impaired nerve conduction within the brainstem. In 2019, they used functional MRI to directly confirm deficits in connectivity between RAS nuclei. The RAS regulates the sleep-wake cycle and brain arousal levels, which affect attention, sensory perception, cognitive performance and memory, which are all deficient in ME/CFS and constitute its major symptoms. The RAS is the primary target of this proposal. Their RAS results, although unique, were limited by conventional 3T MRI imaging. This new ME Research UK-funded study will investigate the brainstem RAS with a higher powered research 7T MRI scanner, repeating the key MRI measurements of the earlier work with increased sensitivity and spatial resolution, but also adding recently developed MRI measurements to identify and characterise new aspects of RAS pathophysiology. Although targeting the brainstem RAS, they will again test for differences throughout the brain in ME/CFS. To confirm and expand the understanding of RAS dysfunction in ME/CFS the researchers will also test associations of RAS connectivity with extended clinical parameters. Advanced MRI imaging may yield valuable RAS biomarkers of ME/CFS.

### MERUK-21-058

Sarah Annesley, La Trobe University, Australia

Cell type specificity, molecular scope and epigenetic basis for mitochondrial and cellular dysfunction in ME/CFS cells

### £198,076

Previously, the researchers identified a clear and specific defect in immortalised white blood cells (lymphoblasts) from ME/CFS patients, namely an inefficient function of the last enzyme involved in production of energy by mitochondria (Complex V). The mitochondria are tiny compartments in cells which are responsible for generating most of the cell's energy. The inefficiency in mitochondrial energy production is accompanied by compensatory increases in the activity of a key regulator (TOR Complex I) of the production of mitochondrial proteins and in the levels and activities of mitochondrial energy-producing proteins. The increased levels of mitochondrial proteins has since been confirmed by another research group in white blood cells. Importantly, the researchers also showed that these abnormalities correlated with clinical markers of symptom severity and are highly specific and sensitive biomarkers of the disease. Whilst identification of changes in blood cells is beneficial due to their accessibility and involvement in immune responses, it is also important to determine if these changes occur in other cells and systems of the body. The next most accessible tissue is the skin. In this project the researchers will determine if the abnormalities in mitochondrial energy production and compensatory upregulation are present in cells from a different tissue, the skin, and if these alterations correlate with clinical measures of the disease. They will also determine if this is associated with alterations in other pathways and proteins and how this regulation is likely to occur through changes at the DNA, RNA and protein level. The results of this research will expand our knowledge of the underlying defect in energy production in ME/CFS and could lead to the identification of proteins and pathways for the development of therapeutic treatments and the identification of biomarkers of the disease for future development of a specific and sensitive diagnostic test.

# Trustees' Report

### MERUK-22-059

Amy Proal, PolyBio Research Foundation, Medford, MA, USA

Use of advanced metagenomic technologies for the identification of viruses in ICC-diagnosed ME/CFS patient tissue and nerve biopsy samples

£162,350

It is possible that polio-type and related viruses connected to ME/CFS do not "clear" from patients after acute infection, but remain in a persistent state. If that is the case, it is important to search for such viruses in samples beyond just the blood. That is because the viruses most connected to ME/CFS - especially the polio-type enteroviruses and herpesviruses - can infect nerves and "hide" in tissue. New computer-based technologies have been developed to identify viruses in human samples, including novel viruses that earlier techniques might have missed. The goal of this project is to use these technologies to search for viruses in two types of samples collected from ME/CFS patients: 1) Tissue/nerve samples obtained from the ankle via punch biopsy, which contain tissue and pain-associated nerves called C fibres; and 2) Stomach tissue/nerve samples obtained via endoscopy. The investigators will compare any viruses identified in the ME/CFS samples to those in similar samples obtained from healthy people.

### MERUK-22-060

Simon Carding, Quadram Institute, Norwich, UK Gut eukaryotic viruses as a player in ME/CFS

£123,874

Disturbances of the gut microbiome are seen in numerous human diseases including ME/CFS, where many patients also suffer from gut disorders. To date, most gut microbiome studies, including those on ME/CFS, focused on bacteria, ignoring or excluding viruses (the virome). However, viruses living or gaining access to the body via the gut have long been associated with ME/CFS. Gut virome studies have identified striking alterations in virus type and/or numbers in patients with colon cancer, inflammatory bowel disease, diabetes and Parkinson's disease, with evidence suggesting this may also be true for ME/CFS. These studies in ME/CFS have focused on specific virus families, but excluded others with more pathogenic potential. The investigators plan a comprehensive analysis of the intestinal virome of ME/CFS patients enrolled in a clinical trial microbiota transplantation therapy (MRT). The study aims to: 1) Define the virome of ME/CFS patients and identify "signature viruses" which can be distinguished as a new biomarker of disease; and 2) Establish the impact of MRT in those patients who respond positively to such treatment, by looking at any loss of identified "signature viruses", as well as evidence of reactivation of latent viruses.

### PhD-level research projects

### MEPHD-21-001

Alfredo Iacoangeli, King's College London, UK

Identification of new classes of genetic susceptibility to ME (funded jointly with Action for ME) £46,493.50

The biological abnormalities leading to the development of ME/CFS are not well understood, but genetics are thought to play an important part. This new project will look at a specific type of genetic variation called an RIP (retrotransposon insertion polymorphism). Retrotransposons are pieces of DNA often referred to as jumping genes because they can move around within the genome of a cell, potentially causing mutations (RIPs) that can change the function of that cell. RIPs have been implicated in the development and progression of disorders such as motor neurone disease and Parkinson's disease, and this project aims to use genetic-sequencing data from the UK Biobank to determine whether a specific RIP or set of RIPs is also involved in ME/CFS. As well as contributing to a better understanding of ME/CFS, this research may help identify new directions for treating the disease.

# Trustees' Report

### MEPHD-22-002

Chris Ponting, University of Edinburgh, UK

Experimental investigation of genetic risk factors for ME/CFS revealed by the DecodeME project £92,193.68

DecodeME is a genome-wide association study (GWAS) which aims to look for locations on the genome with DNA changes that are significantly different between ME/CFS patients and healthy control subjects, and which may therefore be associated with an increased ME/CFS risk. The aim of this PhD project will be to identify which specific genes are involved, what types of cell are affected by those genes, and how those changes may lead to alterations in cellular function in people with ME/CFS. Firstly, the researchers will identify which dysfunctional genes highlighted by the GWAS are most likely to contribute to the risk of ME/CFS. Then they will investigate the impact of these genetic changes in more detail by looking at their effects on the function of the cells involved.

### MEPHD-22-003

Sarah Annesley, La Trobe University, Australia

Cause-effect relationships in the mitochondrial energy inefficiency in ME/CFS

£64,937

The investigators have previously identified key changes in the way that ME/CFS cells make energy, specifically a decrease in energy production efficiency and activation of a major stress-sensing protein (TORC1). This combination of changes can accurately distinguish ME/CFS patients from healthy controls. The aim of this new study is to look at the interaction between these changes, and determine which event comes first and potentially causes the other defects. This will identify which proteins or processes could potentially be targeted for treatment, while understanding this cause-and-effect relationship may also help in predicting the effects of these treatments.

### Impact and Scientific Publications

A widely accepted means by which the work of the charity can be assessed is to gauge the number of scientific publications emanating from specific projects. Since 2000, ME Research UK has awarded or agreed to award 64 specific grants totalling over £4 million, to research institutions in the UK, Austria, Australia, Belgium, Canada, Germany, Spain, Sweden and the USA. The results of our studies are published as research papers in peer-reviewed scientific journals worldwide and are available to researchers globally.

Two papers were published in the charity year 2022/23 (2021/22: three) acknowledging the support of ME Research UK.

Key Findings from Our Funded Research

• Thapaliya K, Marshall-Gradisnik S, Barth M, Eaton-Fitch N, Barnden L. Brainstem volume changes in myalgic encephalomyelitis/chronic fatigue syndrome and long COVID patients. Frontiers in Neuroscience, 2023 March 2; 17:1125208

ME/CFS and long COVID patients had larger than normal volumes of several areas of the brainstem. These volume changes correlated with clinical measures of pain and breathing difficulty.

# Trustees' Report

• Josev EK, Chen J, Seal M, Scheinberg A, Cole RC, Rowe K, Lubitz L, Knight SJ. What lies beneath: White matter microstructure in pediatric myalgic encephalomyelitis/chronic fatigue syndrome using diffusion MRI. Journal of Neuroscience Research, 2023 October; 101(10):1572-85

White matter changes found in adults with ME/CFS were not yet present in adolescents with the disease, and may be related to older age and/or a longer duration of illness.

It is also telling the number of ME Research UK-funded researchers who are asked to speak on research which the charity has funded. Of the two conference which ME Research UK staff attended in Berlin (remotely) and Cambridge, the following presentations were given:

- Understand, Diagnose, Treat: ME/CFS Conference 2023" at Charité Universitätsmedizin, Berlin Prof. Carmen Scheibenbogen (who presented "ME/CFS as Part of the PCS Spectrum" and also co-chaired the 'Diagnosis' section of the conference), Dr Francisco Westermeier ("Assessing Endothelial Dysfunction"), Prof. Leonard Jason ("Predictors of ME/CFS following EBV and implications for PCS"), Dr Nuno Sepúlveda ("EBV Mimicry in ME/CFS"), Dr Bhupesh Prusty ("Mitochondrial Dysfunction and Herpesviruses in ME/CFS") and Dr Luis Nacul (who presented "Treating ME/CFS - State of the Art" and also co-chaired the 'Treatment' section of the conference. All of these have been, or are currently, funded by ME Research UK.
- Invest in ME Research Conference, Cambridge, UK Those presenting their work at the conference, and at the colloquia which preceded it, included ME Research UK-funded researchers such as Dr Bhupesh Prusty, Dr Kiran Thapaliya and Prof. Elisa Oltra.

The work of ME Research UK has also been covered in the media. The results from Dr Leighton Barnden and colleagues at Griffith University Queensland, Australia ME Research UK-funded study have been covered widely in Australia. Hailing 'a world-first' newspapers detailed Griffith University's use of high field MRI (7 Tesla) to investigate how COVID-19 and ME/CFS mirror the same effects on the brain structure.

ABC News online and The National Tribune hailed the importance of the ME Research UK - funded study whilst The Brisbane Times, The West Australian, WA today and Australian Doctor (ausdoc.) also featured the news.

During ME Awareness Week, we arranged for the iconic SEC Hydro (site of the Commonwealth Games and COP 26) to be light in blue (illustrated - front cover) and, also Greater Glasgow and Clyde's flagship medical facility - the Queen Elizabeth University Hospital.

### B. Informing

During 2022/23, the charity continued its role as an independent, science-centred provider of high-quality information and education for key decision-makers, healthcare professionals and those affected directly or indirectly by ME/CFS. In addition to the capacity to provide speakers for external events - to discuss ME Research UK's role, its achievements and to provide insight into current research and the research landscape for ME/CFS, ME Research UK also produces printed literature (leaflets and Breakthrough magazine) and embraces the opportunities afforded by new means of communication to remain relevant and at the forefront of research funding.

# Trustees' Report

Focusing on the provision of informed comment and accessible summaries of research, the charity appointed two new employees to the staff team - a Science Writer and a Science & Written Communications Officer. Both roles being key to create insightful comment on research and research trends with the latter also responsible for ensuring the information is disseminated in the most appropriate fora and form.

Our 'Breakthrough' magazine is provided free of charge to all who request it and is normally dispatched on a biannual basis. in both hard and electronic form. The magazine not only informs the reader of the charity's newly funded research but also describes and interprets the results of ME Research UK projects. Breakthrough also reports non-ME Research UK published studies that are presented in a form which aims to ensure that readers have a holistic perspective of worldwide research and of findings which may be relevant to them. The magazine is also available on-line ensuring as wide a readership as possible without any barriers to access. It is often cited as being especially useful to people with ME/CFS when speaking to GPs, nurses and other healthcare professionals about their symptoms. To expand its breadth and bring a new voice to our communications, the Trustees contracted with Cort Johnson, the highly regarded writer and creator of the influential Health Rising blog, to contribute articles to Breakthrough and the charity's website. The international view and research sectoral review adds significantly to the scope of ME Research UK's output.

Our Facebook page (MEResearchUK) strives to balance postings relating to fundraising activities of our active supporters with a more scientific focus with summaries of the most important worldwide research into ME/CFS and news of ME Research UK funded projects. In this way, those affected by ME/CFS can be kept abreast of recent developments. This, it is believed, results in a lively but informative realm that is both engaging and educational. Where possible, postings link back to the charity's main website thus driving traffic to one of our central resources and providing a route by which the casual visitor could become more engaged with our work and our cause. Since its launch in July 2012, our Facebook page has amassed 12,338 (11,317 in previous period) followers - an increase of 9% over the charity year (10.2% in previous period) - and is viewed regularly worldwide. It has steadily increased the audience for postings, created a community of regular commentators and provides a platform from which we can connect to supporters both old and new. ME Research UK's active X (Twitter) account further drives the successful dissemination of our research news and it will act as an additional avenue to engage more fully with potential donors and create a new community of supporters. With 4,091 followers (2021/22 - 3,336), representing an increase of 22.6% (26.8% in previous period) the facility has proved to be a useful, extra avenue for engagement with the ME community. In August 2023, the charity launched an ME Research UK - Researcher Zone X/twitter account to cater for the distinct needs of researchers. This feed provides links to new research, funding opportunities, meeting, conferences and the like as the charity seeks to raise its profile amongst researchers at all stages in their careers. At year end, it had 32 followers.

In addition, due the impetus of the Science & Written Communications Officer ME Research UK's Instagram account was reactivated and now has 537 followers.

As part of the evolution of the charity, ME Research UK continues its brand review to ensure maximum impact of its news and output to ensure supporters and the wider public are aware, trust and engage with the charity. The Board's decision to appoint two new members of staff in the year has significantly increased our capacity and capability in these areas.

# Trustees' Report

### C. Influencing

Highlights of the charity year included ME Research UK being:

 Active participant in the Department for Health and Social Care's ME/CFS Delivery Plan under the auspices of the UK Clinical Research Collaboration's ME/CFS Research Subgroup. This structure being part of the former Secretary of State's initiative and reports directly to the Chair of the UKCRC, and to the ME/CFS Delivery Plan Task and Finish Group. ME Research UK is a participant in the funder-led sub-group 'Building capacity and capability in the research community'.

ME Research UK's detailed response to the draft delivery Plan was hailed on social media as the basis for individual's responses and referenced on other websites as an 'excellent' analysis of the issues with links to ME Research UK's website.

 attending and contributed to the Forward-ME Group meetings. Forward-ME members work collaboratively to improve recognition and understanding of ME/CFS. The focus of the Group is the urgent need for biomedical research; effective diagnosis and appropriate symptom management; and appropriate care and support services for ME/CFS.

Through membership, ME Research UK influences the grouping's contributions to other areas of the Secretary of State for Health and Social Care's initiative - namely the overarching ME/CFS Delivery Plan Task and Finish Group and the Working Group sub-committees on attitudes and Education, and Living with ME/CFS.

Forward-ME is also a partner in DecodeME the world's largest ME/CFS study which seeks, through the recruitment of 25,000 people with ME, to see whether the disease is partly genetic and, if so, help pinpoint what its causes are. The study should help researchers understand the disease and ultimately find treatments.

- attending and played active part in Steering Group meetings of the UK ME/CFS Biobank hosted by the London School of Hygiene and Tropical Medicine. ME Research UK was a financial supporter of the biobank in its formative stages (Projects 29 & 32 - combined investment £76,542). The charity notes that samples for the biobank have been utlised by Prof Khan (Project 37) and Dr Westermeier (Project 50) as part of their current ME Research UK funded projects with samples planned to be used by Prof. Fatima Labeed (Project 66).
- been in contact with ME Research UK grant holders and potential funders to raise the profile of the charity.
- collaborating with Action for ME to co-fund a PhD-level research project at King's College, London
- through the efforts of the Chair, discussed with other organisations the research landscape and scope for collaborative working and a more pro-active approach to research project funding.
- attended virtually International ME/CFS Research Conference Berlin May 2023.
- attended Invest ME Research Conference Cambridge July 2023.
- Launch of both a specific X/tweet thread for researchers but also a new Fellowship which both aim to raise the charity's profile within the research community.

Overall, 2023 has seen the charity deliver and become more focused on informing, influencing and investing in ME research.

# Trustees' Report

### Structure, Governance and Procedures

### **Governance and Management**

At quarterly Trustees' meetings, the Trustees agree the broad strategy and areas of activity for the charity, including consideration of grant making, investment, reserves, risk management policies and performance. The day-to-day administration of grants and the processing and handling of applications, prior to consideration by the Trustees, is delegated to the Research & Communications Director.

The Board of Charity Trustees exercise operational planning responsibilities.

### **Recruitment and Appointment of New Trustees**

In terms of the Constitution, new Trustees are appointed by the Board of Charity Trustees acting by a majority decision. Application for appointment as a Charity Trustee is open to any individual aged 16 and over, whose skills, experience and qualifications are in accord with the charity's purposes. Prospective Trustees are required to complete and to sign a written application in such form as the Board of Charity Trustees may decide; completed applications are considered at the next scheduled Board meeting after receipt of the form.

No person, whether natural or legal, has the power to appoint a Trustee to the Board of ME Research UK.

The Board of Charity Trustees welcomes new applications but is acutely aware that applicants must contribute towards the good management of the charity and ought to enhance the capabilities of the Board. The Board of Charity Trustees therefore considers applications against the skill-set required for the proper functioning and evolution of the charity.

### Grant Making Policy and Procedures

ME Research UK has established its grant making policy to achieve its objectives for the public benefit. Any private benefit received by researchers, and research institutions and other bodies is purely incidental to the objects of our work. Policies and procedures are reviewed regularly and aim to ensure that research grants are awarded to projects which are scientifically sound, fall within the charity's purposes and have justifiable costings.

The charity actively encourages applications for pilot studies and seed-corn projects concerned with novel aspects of research into ME/CFS.

To support its aims, ME Research UK accepts both formal applications and informal funding queries. Once an application is received core members of the Science Committee undertake an initial assessment to ensure alignment with the call for funding and that the research is in conformity with ME Research UK aims. Thereafter applications are subject to peer review (including review by external experts). The peer review reports are collated and considered by the Science Committee which assesses the application, the peer review results (which include a standardised scoring system), and the charity's research objectives. Any queries are referred to the applicants before the Science Committee arrives at a decision of whether or not to recommend funding to the Board of Charity Trustees. The final decision on whether to fund lies with the full Board.

# Trustees' Report

In the current year, a number of grant applications were unsuccessful either that, upon peer review and Science Committee input, they were deemed to fall out-with ME Research UK's charitable objectives or that their research methodology or submitted expenses did not meet the requisite standards. Through careful scrutiny of applications - the scientific basis of the submission, the itemised costs - ME Research UK strives to ensure proper and rigorous safeguards for the stewardship of funds under its control.

The 2020 Science Committee Plan was put into effect aiming to streamline the awards process; capture key data; focus the applicants' proposals; introduce application deadlines and key time indicators. The alterations further professionalise the charity's operations and provide the structure to allow it to operate effectively in best interests of its supporters. Upon reviewing the implementation of the plan, the Science Committee consider the changes to have made a positive impact on their work and also for researchers as they provide certainty as to requirements and timescales. Further improvements are required as the Science Committee workload increases in volume and complexity and additional resources will be required. The additional experience and insight of the science writer will aid greatly the work of the Committee.

ME Research UK's Standard Grant Conditions provide that all payments of research funding are dependent upon satisfactory proof of research progress. Longer term projects i.e. those in excess of 1 year, are subject to regular (normally 6-monthly) progress reports. The charity therefore ensures that grant monies which have been given are utilised in line with the charity's purposes and that progress merits payment of further instalments of financial assistance.

ME Research UK endorses the position of the Association of Medical Research Charities as regards university funding, and ME Research UK-sponsored projects are conducted in accordance with the principles outlined in the Declaration of Helsinki, and approved by local research ethics committees as appropriate.

On PhD level research funding, applications must be made via the Institution concerned to ensure charity funds are protected. The charity funds the research and so the proposal progresses through the normal stages in our review process.

ME Research UK does not agree to fund research without having sufficient funds available to satisfy its liabilities.

### Grant Making Objectives

Through funding studies at recognised Institutions worldwide, ME Research UK funded-projects enrich the scientific literature of ME/CFS and have the ultimate aim of helping those affected directly or indirectly by ME/CFS and those who may develop ME/CFS in the future. The research we fund helps lay the foundation for further research in an area that is under-represented in scientific research and where replicated and larger scale studies are rare. ME Research UK believes that, by providing albeit small scale funding to research projects, momentum will build and lead ultimately to large scale research through the involvement of major governmental and private philanthropic bodies. Once the mechanisms of the illness are understood, more effective treatment and ultimately hopefully a cure will follow.

# Trustees' Report

ME Research UK, through its website, publications, attendance at conferences and contacts worldwide, invites applications for research grants. Having the name of the charity noted in the 'Funding Acknowledgment' section of scientific papers is an important way of bringing ME Research UK to the attention of other scientists. In the current year, all the projects accepted for funding were the result of our 'Call for Funding Applications' which went to researchers across the world. Full applications received are peer reviewed by independent researchers with specialist knowledge of the area, subject to the funding requested.

ME Research UK only funds projects at established institutions – such as universities, research centres and NHS hospitals (or equivalent overseas) – to ensure that, in the case of non-compliance with the terms of the research award, charity funds are protected and recoverable. Research grant instalments are normally paid only upon receipt of regular progress reports, which are reviewed against the requirements of the prevailing research award by the Research & Communications Director.

By careful, structured and objective consideration of applications and a prudent approach to payment of research monies, ME Research UK ensures high standards of care of the funds entrusted to it. Details of the application process, together with relevant forms are available on the charity's website www.meresearch.org.uk.

### Monitoring Achievement

Research is assessed by the completion of approved research projects within the planned timescale for the project and of publication of the results in peer-reviewed journals. Longer-term consequences of the research are more difficult to assess but published papers build a critical mass of information in the scientific literature. In addition, our funding lays the foundation for future work by allowing researchers to acquire pilot data on which to base applications to larger, often governmental, funding bodies. ME Research UK strives to repeat the success of Prof. Julia Newton, Dr Wan Ng and colleagues at Newcastle University who, in 2012, were awarded almost £1 million by the UK's Medical Research Council. Their successful application for funding was under a call for 'Understanding the Mechanisms of CFS/ME' and resulted in funding for two biomedical projects. At the time, Prof. Newton acknowledged ME Research UK for providing "the pilot/seed corn funding for four distinct projects from 2006 to 2011, which have allowed us to accumulate the data on which these successful applications to the MRC were based".

The Trustees monitor closely the feedback from Breakthrough and the data on uptake and use of Facebook and Breakthrough. It would appear that there is a strong demand for impartial, informed scientific comment in the sphere of ME/CFS.

### Future Plans

The past 5 years have seen a period of rapid evolution in the charity sector. With the COVID-19 pandemic and its aftermath still in evidence the fundraising landscape for charities has altered fundamentally with active fundraising recovering only slowly. The 'cost of living' crisis remains a major feature in people's lives and so donations to charities are not as high priority as before. This has, and will continue, to impact ME Research UK. In addition, previous sources of income, such as Amazon Smile are or will be closing as corporate entities curtail or seek to control more closely their philanthropic endeavours.

Due to the high level of legacy income received, ME Research UK has invested the funds in the highest quality researcher available and the fruits of this will be seen over the next few years. It is clear to Trustees that ME Research UK must and will continue its mission but with less funds available to it in the immediate future. The charity will not lower its rigorous standards but rather invest strategically to support ME research from PhD level through post doctoral research and up to full grant status. The charity is uniquely placed to dedicate its funds to create this progression of success and this will be built upon as additional income is available.

# Trustees' Report

### Accounting Matters Donated Facilities and Services

It is estimated that approximately 1221 voluntary hours were donated by members i.e. the Trustees of ME Research UK, and 89 voluntary hours were donated by others (most notably by peer-reviewers and members of our Science Committee to whom ME Research UK owes a great debt for their

The charity continued to take advantage of donation facilities from Microsoft, Google Ads, Virgin Money, Canva, DocuSign, and the SAGE Foundation. The value of these donations in kind was approximately  $\pounds$ 51,000 and has been recognised in the accounts - the calculated 'cost' of the advertising of \$58,677.15 ( $\pounds$ 47,275.99) is included in expenditure on raising funds.

### Key Management Personnel Remuneration

The Trustees consider key management to be the Board of Charity Trustees, in terms of setting strategy and policy and in assessing risk and responsibility for these matters rests with the Board.

No Trustee received any remuneration directly from the charity, other than approved expenses. Details of remuneration and expenses are disclosed in note 10 to the financial statements.

### **Financial Review**

insightful input).

The total funds held at the year-end were £1,055,314 (2021/22: £1,757,750,), including £49,009 of restricted funds (2021/22: £466,296). These funds are further explained at note 21.

The charity continues to rely on the generous donations of its supporters - as detailed in Note 3 to the accounts. The amount of charitable activity funded during the period is set out in Note 7 to the accounts, and the charities assets and liabilities are detailed in the Balance Sheet presented in page 36.

Given OSCR's recommendations for limitation of Trustees' liability insurance, our financial policy remains as it has always been, namely that no new projects be initiated until the necessary funds to complete them are secure and in place in the charity's bank accounts. This ensures that, for research project purposes, the charity assets will always be in excess of its liabilities. In this regard, the charity aims to be regarded as a sound partner in any project award and therefore to ensure a high level of trust between funding agencies. For non-restricted funds, the Trustees remain prudent in their outlook.

### Risk Management

The Board of Charity Trustees has considered the major risks to which the charity is exposed and has reviewed those risks and established procedures to manage them. At their meeting on 23rd October 2023, the Trustees adopted an updated Risk Register and the items recorded therein will remain under scrutiny.

The principle risks faced by the charity lie in continued reliance on the generosity of individual donors for income and, in the case of operational risks, from ineffective grant making and the ability of the charity to make grants, which fulfil its objectives.

# Trustees' Report

It is fully anticipated that opportunities for active fundraising activity by supporters will recover in 2023/24 and given the charity's increased profile and exposure; there will be (and is) increased competition between charities for donations and trust funders will see income squeezed due to anticipated challenges cause by the current economic situation. The employment of a Donor Relations Officer will add capacity to the charity to enable it to more effectively deepen and broaden our supporter base and opportunities to maximise the funds available for biomedical research.

The financial risks of increased employee numbers and slow recovery of donation income are containable given the financial strength of the charity both in terms of assets and in terms of relatively low running costs.

As scientific research is largely ineligible for funding support from certain bodies, e.g. the National Lottery, and as other bodies, notably companies, prefer to support 'community based projects', ME Research UK must rely mainly on voluntary donations. The charity strives to encourage active fundraising by facilitating giving through multiple on-line platforms; supporting individual and group projects (such as Walk for ME); and by forging strong links with fundraisers. The Trustees will bolster the current fundraising model by expanding marketing activities to ensure the work of the charity and fundraising opportunities are projected as widely as possible.

The operational risk from ineffective research is managed by retaining staff, peer reviewers and Science Committee members who understand the science and research methodologies behind research. The Trustees are aware that biomedical research is expensive and that the grants provided will be insufficient for large-scale research, which is why pilot studies and seed-corn projects concerned with novel aspects of research into ME/CFS are the focus of our work. ME Research UK is open to working cooperatively with other bodies to promote high quality research into ME/CFS.

Through collaboration and skillful targeting of resources, the Trustees ensure that maximum benefit flows from funds invested and that the aims of the charity are fulfilled.

### **Charity Test**

The Trustees are mindful of the continuing legal duty to fulfil the charity test under the 2005 Act.

It is considered that the charity fulfils the 'public benefit' test both directly, by the provision of research grants to institutions, and also indirectly, through the dissemination of research outcomes, news and analysis to the general public and by the provision of information via our website, Facebook and meetings. Our staff are also available to answer queries from members of the public by both telephone and e-mail. There are no identifiable disbenefits in the acts of the charity or any concerns relating to private benefit.

There are considered to be no restrictive elements in the provision of information in that the Charity's website and Facebook page are freely accessible to the general public without registration and the biannual magazine 'Breakthrough' is provided completely free of charge to any individual or group which requests copies.

Access to grants is via an open grant application system where the merits of the application are judged in a peer-reviewed system based on scientific merit. The results of ME Research UK funded projects are published, enabling the wider scientific community to enjoy the benefits of the results.

Due to the nature of biomedical scientific research, there is necessarily a limited pool of potential recipient institutions; scientific research requires trained staff, appropriate facilities and administrative support. ME Research UK, however, is committed to stimulating new research into ME/CFS; encouraging scientists to enter the field; and increasing the published research base on the illness.

# Trustees' Report

The Trustees keep under review the level of still to be utilised funds, and it ought to be noted that the charity does not undertake to fund research until the funds have been raised and that payment of successful grants is made to the recipient Institution in instalments. In addition, grant requests are impossible to predict, and so funds may accumulate unavoidably until suitable applications come to the charity. The Trustees continue to monitor the situation and have, and will continue to, take all opportunities to source new project opportunities.

### **Reserves Policy**

Transfers are made from unrestricted funds to ensure that sufficient is held in restricted funds to cover the charity's grant making obligations, and to effect minor adjustments.

The Trustees have also reviewed their Reserves Policy by examining income, expenditure and risk factors prior to implementing the results.

As the Trustees do not commit to funding research projects until the full costs have been raised, the Trustees minimise financial risk. Trustees continue to monitor their Reserves Policy in implementation of OSCR's general advice to Scottish charities. Within Unrestricted Funds, three months' operating expenses ( $\pounds$ 30,000) are identified as a financial reserve. Surplus funds beyond this level are available for immediate utilisation to fund research. However, it is the intention of the Board to further strengthen the charity's reserves by adopting a two-tier approach to reserves which will make provision for not only 3 months' operating expenses but also legacy operation and closure costs.

In recent years, surplus revenues have accumulated as the Trustees seek relevant research projects worldwide and the level of funds held has been augmented by inflow of larger donations from trusts/charities and executry income.

There are no significant doubts as to the charity's ability to continue as a going concern.

### **Investment Policy**

The Trustees adopted an Investment Policy at their meeting in January 2023. This policy is reviewable on an annual basis and this will include a report on investment returns.

Funds arising from investments are insufficient to make a material contribution to charity assets and are incidental to the charity's operation.

ME Research UK is a small charity with limited resources, the majority of which are dedicated to funding research commitments. The timing of payments to settle commitments is outwith the control of the charity.

As the timing of payments to settle research commitments is not within the control of the charity, our policy is to hold the vast majority of charity funds in cash on short-term deposit to be readily available but to seek to maximise the return. Thus, the vast majority of funds held is invested in UK banks and building societies to a) earn a competitive rate of interest on funds until they are required for use and b) to maximise deposit protection under the Financial Services Compensation Scheme.

On cash deposits, interest rates are such that growth in excess of inflation (RPI) is not possible without excessive risk or overly lengthy notice periods. The Trustees aim for a competitive rate given market conditions and need for liquidity.

# Trustees' Report

As charity reserves are held on a longer basis (albeit that the investments can be traded on a daily basis), the Trustees mandated a balanced approach between income and capital growth be adopted. The Trustees wished to maintain the capital value of these Investment Funds at least in line with inflation.

Ideally, the charity's investment objective is for capital growth in excess of inflation (RPI) and a stable, growing income stream. The charity seeks to produce the best financial return within an acceptable level of risk – namely low to medium level of risk. This balances the need to generate income from investments in the short term with the requirement for longer-term growth in the value of the portfolio.

The charity's reserves are held in Charifund and Charibond investments managed actively by M&G.

### Disclosure of information to auditor

Each trustee has taken steps that they ought to have taken as a trustee in order to make themselves aware of any relevant audit information and to establish that the charity's auditor is aware of that information. The trustees confirm that there is no relevant information that they know of and of which they know the auditor is unaware.

The annual report was approved by the trustees of the charity on 11 April 2024 and signed on its behalf by:

Jonathan P J Davies Trustee

## **Statement of Trustees' Responsibilities**

The Trustees are responsible for preparing the Trustees' Annual Report and the ' report and the financial statements in accordance with the United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice) and applicable law and regulations.

The law applicable to charities in Scotland requires the Trustees to prepare financial statements for each financial year which give a true and fair view of the state of affairs of the charity and of its incoming resources and application of resources, including its income and expenditure, for that period. In preparing these financial statements, the Trustees are required to:

- select suitable accounting policies and apply them consistently;
- observe the methods and principles in the Charities SORP;
- make judgements and estimates that are reasonable and prudent;
- state whether applicable accounting standards, comprising FRS 102 have been followed, subject to any material departures disclosed and explained in the financial statements; and
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the charitable company will continue in business.

The trustees are responsible for keeping adequate accounting records that are sufficient to show and explain the charity's transactions and disclose with reasonable accuracy at any time the financial position of the charity and enable them to ensure that the financial statements comply with the Charities and Trustee Investment (Scotland) Act 2005, regulation 8 of the Charities Accounts (Scotland) Regulations 2006 (as amended) and the provisions of the Constitution. They are also responsible for safeguarding the assets of the charitable company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

# **Independent Auditor's Report to the Members of ME Research UK**

### Opinion

We have audited the financial statements of ME Research UK (the 'charity') for the year ended 31 October 2023, which comprise the Statement of Financial Activities, Balance Sheet, Statement of Cash Flows, and Notes to the Financial Statements, including a summary of significant accounting policies. The financial reporting framework that has been applied in their preparation is United Kingdom Accounting Standards, comprising Charities SORP - FRS 102 'The Financial Reporting Standard applicable in the UK and Republic of Ireland' and applicable law (United Kingdom Generally Accepted Accounting Practice).

In our opinion the financial statements:

- give a true and fair view of the state of the charity's affairs as at 31 October 2023 and of its results for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and
- have been prepared in accordance with the requirements of the Charities and Trustee Investment (Scotland) Act 2005 and regulation 8 of the Charities Accounts (Scotland) Regulations 2006 (as amended).

### **Basis for opinion**

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the auditor responsibilities for the audit of the financial statements section of our report. We are independent of the charity in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the FRC's Ethical Standard, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

### Conclusions relating to going concern

In auditing the financial statements, we have concluded that the trustees use of the going concern basis of accounting in the preparation of the financial statements is appropriate.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the charity's ability to continue as a going concern for a period of at least twelve months from when the original financial statements were authorised for issue.

Our responsibilities and the responsibilities of the trustees with respect to going concern are described in the relevant sections of this report.

# **Independent Auditor's Report to the Members of ME Research UK**

### Other information

The trustees are responsible for the other information. The other information comprises the information included in the annual report, other than the financial statements and our auditor's report thereon. Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether there is a material misstatement in the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.

We have nothing to report in this regard.

### Matters on which we are required to report by exception

In the light of our knowledge and understanding of the charity and its environment obtained in the course of the audit, we have not identified material misstatements in the Trustees' Report.

We have nothing to report in respect of the following matters where the Charities Accounts (Scotland) Regulation 2006 (as amended) requires us to report to you if, in our opinion:

- adequate accounting records have not been kept, or returns adequate for our audit have not been received from branches not visited by us; or
- the financial statements are not in agreement with the accounting records and returns; or
- · certain disclosures of trustees remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit.

### Responsibilities of trustees

As explained more fully in the Statement of Trustees' Responsibilities [set out on page 28], the trustees are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the trustees determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the trustees are responsible for assessing the charity's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the trustees either intend to liquidate the charity or to cease operations, or have no realistic alternative but to do so.

# Independent Auditor's Report to the Members of ME Research UK

### Auditor responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decision of users taken on the basis of these financial statements.

# Extent to which the audit was considered capable of detecting irregularities, including fraud

We identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and then design and perform audit procedures responsive to those risks, including obtaining audit evidence that is sufficient and appropriate to provide a basis for our opinion.

### Identifying and assessing potential risks related to irregularities

Irregularities, including fraud, are instances of non-compliance with laws and regulations. We design procedures in line with our responsibilities, outlined above, to detect material misstatements in respect of irregularities, including fraud. The extent to which our procedures are capable of detecting irregularities, including fraud is detailed below:

- the nature of the regulated sector, control environment and understanding of the entity including, but not restricted to, the understanding that the trustees are not remunerated, and the prevalence of fraud in the sector especially in the current uncertain economic environment;
- results of our enquiries of trustees about their own identification and assessment of the risks of irregularities;
- any matters we identified having obtained and reviewed the Charity's documentation of their policies and procedures relating to:
  - identifying, evaluating and complying with laws and regulations and whether they were aware of any instances of non-compliance;
  - detecting and responding to the risks of fraud and whether they have knowledge of any actual, suspected or alleged fraud;
  - the internal controls established to mitigate risks of fraud or non-compliance with laws and regulations;
- the matters discussed among the audit engagement team regarding how and where fraud might occur in the financial statements and any potential indicators of fraud.

# **Independent Auditor's Report to the Members of ME Research UK**

As a result of these procedures, we considered the opportunities that may exist within the organisation for fraud and identified the greatest potential for fraud in relation to revenue recognition. In common with all audits under ISAs (UK), we are also required to perform specific procedures to respond to the risk of management override.

We also obtained an understanding of the legal and regulatory frameworks that the Charity operates in, focusing on provisions of those laws and regulations that had a direct effect on the determination of material amounts and disclosures in the financial statements. The key laws and regulations we considered in this context included the charity's own constitution, and various charity-specific legislation, including The Charities and Trustee Investment (Scotland) Act 2005.

Our procedures to respond to risks identified included the following:

- reviewing the financial statement disclosures and testing to supporting documentation to assess compliance with provisions of relevant laws and regulations described as having a direct effect on the financial statements;
- enquiring of Trustees concerning actual and potential litigation and claims;
- performing analytical procedures to identify any unusual or unexpected relationships that may indicate risks of material misstatement due to fraud;
- reading minutes of meetings of those charged with governance;
- tested a sample of income for understatement and other relevant audit procedures while consideration was given to revenue recognition;
- tested a sample of expenditure for overstatement and other relevant procedures;
- in addressing the risk of fraud through management override of controls, testing the appropriateness of journal entries and other adjustments; assessing whether the judgements made in making accounting estimates are indicative of a potential bias; and evaluating the business rationale of any significant transactions that are unusual or outside the normal course of business.

We also communicated relevant identified laws and regulations and potential fraud risks to all engagement team members and remained alert to any indications of fraud or non-compliance with laws and regulations throughout the audit.

Due to the inherent limitations of an audit, there is an unavoidable risk that we may not have detected some material misstatements in the financial statements, even though we have properly planned and performed our audit in accordance with auditing standards. For example, as with any audit, there remained a higher risk of non-detection of irregularities, as these may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls. We are not responsible for preventing fraud or non-compliance with laws and regulations and cannot be expected to detect all fraud and non-compliance with laws and regulations.

A further description of our responsibilities for the audit of the financial statements is located on the Financial Reporting Council's website at www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditor's report.

# Independent Auditor's Report to the Members of ME Research UK

### Use of our report

This report is made solely to the charity's trustees, as a body, in accordance with Section 44 (1)(c) of the Charities and Trustee Investment (Scotland) Act 2005 and Regulation 10 of the Charities Accounts (Scotland) Regulations 2006 (as amended). Our audit work has been undertaken so that we might state to the charity's trustees those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the charity and its trustees as a body, for our audit work, for this report, or for the opinions we have formed.

Morris & Young, Statutory Auditor Eligible to act as an auditor in terms of section 1212 of the Companies Act 2006 Chartered Accountants 6 Atholl Crescent PERTH PH1 5JN

Date:....

# Statement of Financial Activities for the Year Ended 31 October 2023 (Including Income and Expenditure Account and Statement of Total Recognised Gains and Losses)

	Note	Unrestricted funds £	Restricted £	Total 2023 £	Unrestricted funds £	Restricted £	Total 2022 £
Income and Endowments from:							
Donations and legacies	3	174,711	289,288	463,999	568,628	164,605	733,233
Other trading activities	4	8,058	-	8,058	8,079	-	8,079
Investment income	5	23,457	21,057	44,514	7,384	5,561	12,945
Total Income		206,226	310,345	516,571	584,091	170,166	754,257
Expenditure on:							
Raising funds	6	(69,295)	(80)	(69,375)	(63,767)	(305)	(64,072)
Charitable activities	7	(114,926)	(1,034,425)	(1,149,351)	(85,665)	(458,344)	(544,009)
Total Expenditure		(184,221)	(1,034,505)	(1,218,726)	(149,432)	(458,649)	(608,081)
Gain/(loss) on investment assets		(281)	-	(281)	(4,562)	-	(4,562)
Net income/(expenditure)		21,724	(724,160)	(702,436)	430,097	(288,483)	141,614
Transfers between funds		(306,873)	306,873		,		
Net movement in funds		(285,149)	(417,287)	(702,436)	430,097	(288,483)	141,614
Reconciliation of funds							
Total funds brought forward		1,291,454	466,296	1,757,750	861,357	754,779	1,616,136
Total funds carried forward	21	1,006,305	49,009	1,055,314	1,291,454	466,296	1,757,750

The notes on pages 38 to 53 form an integral part of these financial statements.

# Statement of Financial Activities for the Year Ended 31 October 2023 (Including Income and Expenditure Account and Statement of Total Recognised Gains and Losses)

All of the charity's activities derive from continuing operations during the above two periods. The funds breakdown for 2022 is shown in note 21.

> The notes on pages 38 to 53 form an integral part of these financial statements. Page 35

## (Registration number: SC036942) Balance Sheet as at 31 October 2023

	Note	2023 £	2022 £
Fixed assets			
Tangible assets	13	1,028	1,434
Investments	14	42,323	42,604
		43,351	44,038
Current assets			
Stocks	15	1,443	1,609
Debtors	16	18,018	9,953
Cash at bank and in hand	17	2,845,201	2,694,972
		2,864,662	2,706,534
Creditors: Amounts falling due within one year	18	(1,087,575)	(512,270)
Net current assets		1,777,087	2,194,264
Total assets less current liabilities		1,820,438	2,238,302
Creditors: Amounts falling due after more than one year	19	(765,124)	(480,552)
Net assets		1,055,314	1,757,750
Funds of the charity:			
Restricted income funds Restricted funds	21	49,009	466,296
Unrestricted income funds Unrestricted funds		1,006,305	1,291,454
Total funds	21	1,055,314	1,757,750

The financial statements on pages 34 to 53 were approved by the trustees, and authorised for issue on 11 April 2024 and signed on their behalf by:

Jonathan P J Davies Trustee Mrs Sue Waddle Trustee

The notes on pages 38 to 53 form an integral part of these financial statements. Page 36

# Statement of Cash Flows for the Year Ended 31 October 2023

	Note	2023 £	2022 £
Cash flows from operating activities			
Net cash (expenditure)/income		(702,436)	141,614
Adjustments to cash flows from non-cash items			
Depreciation	13	1,666	1,246
Investment income	5	(44,514)	(12,945)
(Gain)/loss on investment assets		281	4,562
		(745,003)	134,477
Working capital adjustments			
Decrease/(increase) in stocks	15	166	(41)
(Increase)/decrease in debtors	16	(8,065)	191,404
Increase in creditors	18, 19	859,877	88,995
Net cash flows from operating activities		106,975	414,835
Cash flows from investing activities			
Interest receivable and similar income	5	42,605	11,092
Purchase of tangible fixed assets	13	(1,260)	(619)
Income from dividends	5	1,909	1,853
Net cash flows from investing activities		43,254	12,326
Net increase in cash and cash equivalents		150,229	427,161
Cash and cash equivalents at 1 November		2,694,972	2,267,811
Cash and cash equivalents at 31 October		2,845,201	2,694,972

All of the cash flows are derived from continuing operations during the above two periods.

## Notes to the Financial Statements for the Year Ended 31 October 2023

### 1 Charity status

ME Research UK is a Scottish Charitable Incorporated Organisation (SCIO) and is registered with the Office of the Scottish Charity Regulator under Charity Number SC036942.

The address of its registered office is: The Gateway North Methven Street PERTH PH1 5PP

### 2 Accounting policies

#### Summary of significant accounting policies and key accounting estimates

The principal accounting policies applied in the preparation of these financial statements are set out below. These policies have been consistently applied to all the years presented, unless otherwise stated.

The financial statements are presented in Sterling (£). The financial statements are rounded to the nearest  $\pounds 1$ .

#### **Basis of preparation**

The financial statements have been prepared in accordance with Accounting and Reporting by Charities: Statement of Recommended Practice applicable to charities preparing their accounts in accordance with the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102) (effective 1 January 2019) - (Charities SORP (FRS 102)), the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102), the Charities and Trustee Investment (Scotland) Act 2005 and the Charities Accounts (Scotland) Regulations 2006 (as amended).

ME Research UK meets the definition of a public benefit entity under FRS 102. Assets and liabilities are initially recognised at historical cost or transaction value unless otherwise stated in the relevant accounting policy notes.

#### Going concern

At the time of approving the financial statements, the Trustees have a reasonable expectation that the Charity has adequate resources to continue in operational existence for the next 12 months. Thus the Trustees continue to adopt the going concern basis of accounting in preparing the financial statements.

#### Income and endowments

All income is recognised once the charity has entitlement to the income, it is probable that the income will be received and the amount of the income receivable can be measured reliably.

## Notes to the Financial Statements for the Year Ended 31 October 2023

### Donations and legacies

Donations and legacies are recognised on a receivable basis when receipt is probable and the amount can be reliably measured.

Incoming resources from tax reclaims are included in the statement of financial activities at the same time as the gift to which they relate.

#### Investment income

Investment income is recognised on a receivable basis.

#### Other income

The value of any voluntary help received is not included in the financial statements but is described in the Trustees' Report.

#### Expenditure

All expenditure is recognised once there is a legal or constructive obligation to that expenditure, it is probable settlement is required and the amount can be measured reliably. All costs are allocated to the applicable expenditure heading that aggregate similar costs to that category. Where costs cannot be directly attributed to particular headings they have been allocated on a basis consistent with the use of resources, with central staff costs allocated on the basis of time spent, and depreciation charges allocated on the portion of the asset's use. Other support costs are allocated based on the spread of staff costs.

#### Raising funds

These are costs incurred in attracting voluntary income, the management of investments and those incurred in trading activities that raise funds.

#### Charitable activities

Charitable expenditure comprises those costs incurred by the charity in the delivery of its activities and services for its beneficiaries. It includes both costs that can be allocated directly to such activities and those costs of an indirect nature necessary to support them.

#### Grant expenditure

Grants payable are payments made to third parties in the furtherance of the charitable objectives.

Where the charity gives a grant with conditions for its payment being a specific level of service or output to be provided, the grant has been recognised in the accounts on a prudent basis.

Grants payable without performance conditions are only recognised in the accounts when a commitment has been made and there are no conditions to be met relating to the grant which remain in the control of the charity.

### Grant provisions

Provisions for grants are made when the intention to make a grant has been communicated to the recipient but there is uncertainty about either the timing of the grant or the amount of grant payable.

## Notes to the Financial Statements for the Year Ended 31 October 2023

#### Support costs

Support costs include central functions and have been allocated to activity cost categories on a basis consistent with the use of resources, for example, allocation property costs by floor areas, or per capita, staff costs by the time spent and other costs by their usage.

#### Governance costs

These include the costs attributable to the charity's compliance with constitutional and statutory requirements, including audit, strategic management and trustees' meetings and reimbursed expenses.

#### Tangible fixed assets

Individual fixed assets costing £500 or more are initially recorded at cost, less any subsequent accumulated depreciation and subsequent accumulated impairment losses.

#### Depreciation and amortisation

Depreciation is provided on tangible fixed assets so as to write off the cost or valuation, less any estimated residual value, over their expected useful economic life as follows:

#### Asset class

Depreciation method and rate

Fixtures and fittings

33% straight line

#### Fixed asset investments

Fixed asset investments, other than programme related investments, are included at market value at the balance sheet date. Realised gains and losses on investments are calculated as the difference between sales proceeds and their market value at the start of the year, or their subsequent cost, and are charged or credited to the Statement of Financial Activities in the period of disposal.

Unrealised gains and losses represent the movement in market values during the year and are credited or charged to the Statement of Financial Activities based on the market value at the year end.

#### Stock

Stock is valued at the lower of cost and estimated selling price less costs to complete and sell, after due regard for obsolete and slow moving stocks. Items donated for resale or distribution are not included in the financial statements until they are sold or distributed.

#### Foreign exchange

Transactions in foreign currencies are recorded at the rate of exchange at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies at the balance sheet date are reported at the rates of exchange prevailing at that date.

#### Fund structure

Unrestricted income funds are general funds that are available for use at the trustees' discretion in furtherance of the objectives of the charity.

## Notes to the Financial Statements for the Year Ended 31 October 2023

Restricted income funds are those donated for use in a particular area or for specific purposes, the use of which is restricted to that area or purpose.

### **Financial instruments**

The charity only has financial assets and liabilities of a kind that would qualify as basic financial instruments which are recognised at their transaction value and subsequently measured at their settlement value.

## 3 Income from donations and legacies

	Unrestricted funds £	Restricted £	Total 2023 £	Unrestricted funds £	Restricted £	Total 2022 £
Donations and legacies;						
Donations from companies, trusts and similar						
proceeds Donations	-	-	-	564	-	564
from individuals	133,822	270,444	404,266	92,296	144,731	237,027
Legacies Gift Aid	30,336	6,069	36,405	462,560	13,383	475,943
reclaimed	10,553	12,775	23,328	13,208	6,491	19,699
	174,711	289,288	463,999	568,628	164,605	733,233

### 4 Income from other trading activities

	Unrestricted funds £	Total 2023 £	Unrestricted funds £	Total 2022 £
Trading income;				
Other trading income	8,058	8,058	8,079	8,079
	8,058	8,058	8,079	8,079

# Notes to the Financial Statements for the Year Ended 31 October 2023

## **5** Investment income

	Unrestricted funds £	Restricted £	Total 2023 £	Unrestricted funds £	Restricted £	Total 2022 £
Income from dividends; Dividends receivable from other listed investments	1,909	_	1,909	1,853	_	1,853
Interest receivable and similar income; Interest receivable on bank	1,909	-	1,909	1,055	-	1,000
deposits	21,548	21,057	42,605	5,531	5,561	11,092
	23,457	21,057	44,514	7,384	5,561	12,945

# 6 Expenditure on raising funds

	Unrestricted funds £	Restricted £	Total 2023 £	Unrestricted funds £	Restricted £	Total 2022 £
Staff costs	4,137	-	4,137	7,522	-	7,522
Communication costs Office and	3,205	-	3,205	3,062	-	3,062
accommodatio costs Fundraising costs and	n 3,968	-	3,968	3,392	-	3,392
fees	2,977	-	2,977	2,261	51	2,312
Advertising	47,276	-	47,276	37,385	-	37,385
Costs of goods sold Other	3,082 4,650	80	3,082 4,730	3,023 7,122	- 254	3,023 7,376_
	69,295	80	69,375	63,767	305	64,072

## Notes to the Financial Statements for the Year Ended 31 October 2023

	Unrestricted funds £	Restricted £	Total 2023 £	Unrestricted funds £	Restricted £	Total 2022 £
Research						
grant funding	-	1,028,473	1,028,473	-	478,366	478,366
Staff costs	96,518	-	96,518	66,175	-	66,175
Accommodation	6,097	-	6,097	6,150	-	6,150
Breakthrough						
costs	5,071	-	5,071	6,771	-	6,771
Trustee travel and accommodation costs	1,600	-	1,600	1,652	-	1,652
Employee travel and accommodation						
costs	942	-	942	78	-	78
Other	498	5,952	6,450	759	(20,022)	(19,263)
Governance						
costs	4,200		4,200	4,080		4,080
	114,926	1,034,425	1,149,351	85,665	458,344	544,009

### 7 Expenditure on charitable activities

Other costs include an expense of £5,952 (2022: credit of £20,022) relating to a foreign currency exchange difference. The charity agreed to fund two projects in US Dollars during 2019 and purchased the currency when the funding was contractually agreed. The US Dollars balance held at 31 October 2023 were translated into £ Sterling at the balance sheet date.

### 8 Analysis of governance and support costs

#### Governance costs

	Unrestricted			
		Total		Total
	General	2023	General	2022
	£	£	£	£
Audit fee	4,200	4,200	4,080	4,080
	4,200	4,200	4,080	4,080

# Notes to the Financial Statements for the Year Ended 31 October 2023

## 9 Grant-making

980,400
(169,539)
1,028,473
-
1,839,334

			Grants paid	Grants committed/ (withdrawn)	Paya	ible
Institution		Title of Project	2023	2023	2023	2022
University of Alabama at Birmingham	47	Tracking peripheral immune cell infiltration of the brain in ME	-	-	113,901	113,901
Universiteit Brussel	51a	Unravelling the role of epigenetic modification on the brain derived neurotrophic factor gene and histone de-acetylases for pain and post-exertional malaise in people with myalgic encephalomyelitis / chronic fatigue syndrome	13,165	-	-	13,165
Universiteit Leuven	51b	Unravelling the role of epigenetic modification on the brain derived neurotrophic factor gene and histone de-acetylases for pain and post-exertional malaise in people with myalgic encephalomyelitis / chronic fatigue syndrome	17,335	-	-	17,335
Carried forwa	rd to	page 45	30,500	- <u> </u>	113,901	144,401

# Notes to the Financial Statements for the Year Ended 31 October 2023

			Grants paid	Grants commited/ (withdrawn)	Paya	able
Institution		Title of Project	2023	2023	2023	2022
Continued from	n pa	ge 44	30,500	-	113,901	144,401
Charité University, Berlin	53	The role of autoantibodies in ME/CFS	4,014		-	4,014
University of Valencia	54	Metabolic impact of activated HERVs and associated innate immune response in severe ME: towards disease modelling	-	-	26,600	26,600
University of Newcastle	55	ELUCIDATE: Exploring pain and autonomic dysfunction in ME/CFS and temporomandibular disorders	-	-	9,051	9,051
Universitait Wurzburg	56	Infectious triggers and mitochondrial dysfunction in ME/CFS	69,000	-	69,100	138,100
Griffith University	57	Investigating brain-stem dysfunction in ME/CFS using 7-Tesla MRI	-	-	51,000	51,000
La Trobe University	58	Cell-type specificity, molecular scope and epigenetic basis for mitochondrial and cellular dysfunction in ME/CFS	66,025	-	66,026	132,051
PolyBio Research Foundation	59	Use of advanced metagenomic technologies for the identification of viruses in ICC-diagnosed ME/CFS patient tissue and nerve biopsy samples	-	-	162,350	162,350
Quadram Institute	60	Gut eukaryotic viruses as a player in ME/CFS	-	-	123,874	123,874
Carried forwar	d to	page 46	169,539		621,902	791,441

# Notes to the Financial Statements for the Year Ended 31 October 2023

	Grants paid	Grants commited/ (withdrawn)	Paya	able
Institution Title of Project	2023	2023	2023	2022
Continued from page 45	169,539	-	621,902	791,441
Kings College, PhD1 <sup>Understanding potential infectious triggers behind mitochondrial dysfunction ir London</sup>	-	-	31,828	31,828
Edinburgh University PhD2 <sup>Experimental</sup> investigation of genetic risk factors for ME/CFS revealed by the DecodeME project	-	-	92,194	92,194
La Trobe University PhD3Cause-effect relationships in the mitochondrial energy inefficiency in ME/CFS	-	-	64,937	64,937
London School of Hygiene & 61 Tropical 61 Medicine	-	63,899	63,899	-
University of the Sunshine 62 encephalomyelitis/CFS Coast	-	419,485	419,485	-
Karolinska Institute 63 Proteomic and metabolomic analyses to reveal biomarkers of ME/CFS – a case-control study of blood and spinal fluid	-	98,000	98,000	-
Carried forward to page 47	169,539	581,384	1,392,245	980,400

# Notes to the Financial Statements for the Year Ended 31 October 2023

	Grants paid	Grants commited/ (withdrawn)	Pay:	able
Institution Title of Project	2023	2023	2023	2022
Continued from page 46	169,539	581,384	1,392,245	980,400
Edith Cowan University 64 Investigation of motoneurone firing behaviour and associations with symptom severity in individuals with myalgic encephalomyelitis/chronic fatigue syndrom		28,557	28,557	-
Henri MondorNeurocognitiveimpairmentinMyalgicEncephalomyelitis(MiUniversity65Neuropsychological evaluation and functional brain imaging study – COGNIIHospital2022	,	129,900	129,900	-
University of 66 The Electrophysiology of ME/CFS: Development of an Electrical Model Exploration and Diagnosis	ōr	32,207	32,207	-
VrijeMitochondrial dysfunction in Myalgic Encephalomyelitis/Chronic FatigUniversiteitPhD4Syndrome (ME/CFS): are autonomic phenotypes necessary to clear conflictiBrusselresults?	ng	174,459	174,459	-
University of Leicester PhD5 <sup>IMpaired</sup> selective attention as a cognitive and neurophysiological markers ME/CFS	of	81,966	81,966	-
	169,539	1,028,473	1,839,334	980,400

As stated in the Trustees' Report, each of these projects relate to research which advances the objectives of the charity.

## Notes to the Financial Statements for the Year Ended 31 October 2023

### **10**Trustees remuneration and expenses

Three Trustees were reimbursed for travelling and meeting expenses totalling £1,635.34 during the year (2022: two Trustees were reimbursed £1,652.09). No Trustees, nor any persons connected with them, have received any remuneration from the charity during the year.

## 11 Staff costs

The aggregate payroll costs were as follows:

	2023	2022
	£	£
Staff costs during the year were:		
Wages and salaries	94,677	70,846
Social security costs	1,760	-
Pension costs	4,218	2,851
	100,655	73,697

The average number of employees (full time equivalent) during the year was:

	2023	2021
	£	£
Charitable activities	2.3	1.1
Fundraising	0.1	0.2
Governance	0.7	0.7
	3.1	2.0

No employee received emoluments of more than £60,000 during the year.

The Trustees consider key management to be the Board of Charity Trustees. No Trustee received any remuneration, other than approved expenses, from the charity.

### 12 Taxation

No corporation tax was charged during the year (2022: £nil). ME Research UK is a registered charity and has been accepted as a charity for tax purposes.

# Notes to the Financial Statements for the Year Ended 31 October 2023

## 13 Tangible fixed assets

	Furniture and equipment £	Total £
Cost		
At 1 November 2022	8,171	8,171
Additions	1,260	1,260
At 31 October 2023	9,431	9,431
Depreciation		
At 1 November 2022	6,737	6,737
Charge for the year	1,666	1,666
At 31 October 2023	8,403	8,403
Net book value		
At 31 October 2023	1,028	1,028
At 31 October 2022	1,434	1,434

#### 14 Fixed asset investments

### **Other investments**

	Listed investments £	Total £
Cost or Valuation		
At 1 November 2022	42,604	42,604
Revaluation	(281)	(281)
At 31 October 2023	42,323	42,323
Net book value		
At 31 October 2023	42,323	42,323
At 31 October 2022	42,604	42,604

The market value of the listed investments at 31 October 2023 was £42,323 (2022 - £42,604).

All investment assets were held in the UK.

# Notes to the Financial Statements for the Year Ended 31 October 2023

15 Stock		
	2023	2022
	£	£
Stock	1,443	1,609
16 Debtors		
	2023	2022
	£	£
Other debtors	18,018	9,953
17 Cash and cash equivalents		
	2023	2022
	£	£
Cash at bank	2,845,201	2,694,972
18 Creditors: amounts falling due within one year		
	2023 £	2022 £
Other creditors	1,074,209	499,848
Accruals	13,366	12,422
	1,087,575	512,270
19 Creditors: amounts falling due after one year		
Tycreators, amounts faming use after one year	2022	2022
	2023 £	2022 £
Other creditors	<b>–</b> 765,124	480,552
20 Obligations under leases and hire purchase contracts		
The total value of future minimum lease payments was as follows:		
	2023 £	2022 £
Within one year	2,318	2,318

# Notes to the Financial Statements for the Year Ended 31 October 2023

21 Funds							
	Balance at 1 November 2022 £	Incoming resources £			ansfersg £	Other recognised ains/(losses £	Balance at 31 October ) 2023 £
Unrestricted funds							
General	1,291,454	206,226	(184,22	21) (3	806,873)	(281)	1,006,305
Restricted funds	466,296	310,345	( <u>1,034,50</u>	<u>)5) 3</u>	806,873		49,009
Total funds	1,757,750	516,571	<u>(1,218,72</u>	26)		(281)	1,055,314
	Nov		incoming resources £	Resou exper £	nded gai	Other ecognised ins/(losses) £	Balance at 31 October 2022 £
Unrestricted funds							
General	8	61,357	584,091	(149	,432)	(4,562)	1,291,454
Restricted funds	7	54,779	170,166	(458	,649)	<u> </u>	466,296
Total funds	1,6	16,136	754,257	(608	<u>,081)</u>	(4,562)	1,757,750

The specific purposes for which the funds are to be applied are as follows:

Restricted Funds are for the purpose of grant-making for research projects.

# Notes to the Financial Statements for the Year Ended 31 October 2023

## 22 Analysis of net assets between funds

	Unrestricted Funds £	Restricted £	Total funds 2023 £
Tangible fixed assets	1,028	-	1,028
Fixed asset investments	42,323	-	42,323
Current assets	976,320	1,888,342	2,864,662
Current liabilities	(13,366)	(1,074,209)	(1,087,575)
Creditors over 1 year		(765,124)	(765,124)
Total net assets	1,006,305	49,009	1,055,314

	Unrestricted funds £	Restricted £	Total funds 2022 £
Tangible fixed assets	1,434	-	1,434
Fixed asset investments	42,604	-	42,604
Current assets	1,259,838	1,446,696	2,706,534
Current liabilities	(12,422)	(499,848)	(512,270)
Creditors over 1 year		(480,552)	(480,552)
Total net assets	1,291,454	466,296	1,757,750

# 23 Analysis of net funds

	At 1 November 2022 £	Financing cash flows £	At 31 October 2023 £
Cash at bank and in hand	2,694,972	150,229	2,845,201
Net debt	2,694,972	150,229	2,845,201

	At 1 November 2021 £	Financing cash flows £	At 31 October 2022 £
Cash at bank and in hand	2,267,811	427,161	2,694,972
Net debt	2,267,811	427,161	2,694,972

# Notes to the Financial Statements for the Year Ended 31 October 2023

### 24 Related party transactions

### **Controlling entity**

The charity is controlled by the Trustees of the charity.

### Related party transactions

## Prof Faisel Khan (Trustee)

### Insights into Pathophysiology of CFS/ME

The above Project was paid funding of £nil during the year (2022 - £12,473). £nil remains payable at 31 October 2023 (2022 - £nil). Prof Khan joined the Board after the decision was made to award this Project a grant and was not involved in the decision to award additional funding.

### Dr Eleanor Roberts (Trustee)

Beeline Science Communications Ltd, a business owned by Dr Eleanor Roberts, was contracted to provide additional writing capacity aligned to a specific agreed schedule of work to the charity following the departure of ME Research UK's Science & Engagement Director in the prior year. Amounts paid during the year were £nil (2022 - £1,690). At the balance sheet date the amount due to Beeline Science Communications Ltd was £nil (2022 - £nil). Dr Roberts was not involved in any decisions regarding the awarding of the contract.

**70 PROJECTS IN 10 COUNTRIES** 





SC038942