

MRC

Medical
Research
Foundation



MEDICAL RESEARCH FOUNDATION

Trustees' report and Financial Statements

For the year ended 31 March 2016

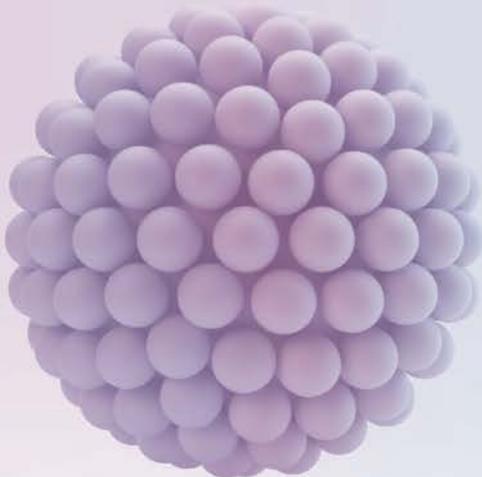




Table Of Contents

| | |
|--|----|
| Legal and administrative information | 4 |
| Our aims and how we arose | 6 |
| Welcome | 7 |
| Trustees' Annual Report | 8 |
| Our structure, governance and management | 34 |
| Auditor's Report | 37 |
| Financial Statements | 40 |
| Who we are | 70 |
| Our supporters | 75 |

Legal and Administrative Information

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Professor Caliope Farsides (from 1 April 2015)
Professor Sir Andrew Haines
Mr Stephen Visscher CBE
Mr David Zahn

Director

Dr Angela Hind

Africa Research Excellence Fund (AREF) Board

Professor Charles Mgone (Chair of the Board)
Professor Daniel Altmann
Dr Wendy Ewart MBE
Mr George Fowlis
Dr Yvonne Greenstreet
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Africa Research Excellence Fund (AREF) Director

Professor Tumani Corrah CBE MRG

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Our aims and how we arose

The Medical Research Foundation is the registered charity of the Medical Research Council.

The Medical Research Council (MRC) is the UK's main government-funded body charged with improving human health through medical research. In addition to its government funding, the MRC has long been eligible to accept charitable bequests and donations from the giving public and separately registered these funds with the Charity Commission in 1968. In 2010, the funds of these predecessor charities were transferred to a new, modern charitable company, the Medical Research Foundation. A Declaration of Trust and a subsequent Deed of Assignment allows for charity funds gifted by the public to benefit the MRC to be assigned to the Medical Research Foundation.

The aims of the Medical Research Foundation are to promote medical research anywhere in the world, and in particular to support research, training, public engagement with research and the dissemination of research results for the improvement of human health. These charitable funds are used to complement and extend the important medical research that is supported by the MRC.

Funding more research for human health.

A note from the MRC's Chief Executive

The Medical Research Foundation (MRF) is a very welcome new presence in the UK research funding landscape. The MRF's predecessor charities have been funding research for over 80 years and under the leadership of Professor Nick Lemoine, the MRF is now making a significant and increasing contribution to the national investment in medical research for human health. The giving-public support the aims and research of the MRC by donating to the MRF, and the MRF and the MRC have a close working relationship. The MRC will continue to support the MRF by providing high quality peer review of applications for research support – the same review by leading experts that the MRC applies to its own research proposals – and other free services such as office space. This should provide assurance to donors that their generous support will be used to support only the very best research and the very best people who have the greatest chance of improving human health.



Professor Sir John Savill
Chief Executive, Medical Research Council

Welcome

Welcome from the Chair of the Board of Trustees

The Medical Research Foundation's aim is simple - to improve human health. Achieving it is more complex and there are, of course, many excellent government agencies and charities in the UK and worldwide that are also working towards this goal. What makes the Medical Research Foundation unique in this multi-funder environment is that we are funded by the generous public and, unlike many health charities we cover the whole spectrum of medical research. Our focus is not on a single disease, a particular hospital, research institution or university; we respond to scientific opportunities as they arise and identify areas of ill health in the greatest need of research. We use our donors' funds to support medical research that will change lives and that is all that we do. We do not provide patient support services or advice, we do not lobby nor do we undertake advocacy. Other charities already do this well on behalf of their patient members. Research to improve lives is our sole focus.

We are committed to our long term strategy to provide more funds for research in areas of high disease burden - for individuals, families and society - and particularly where the current investment is disproportionately low. Uniquely amongst research funders, we focus the majority of our support on providing opportunities for the next generation of research leaders to develop their research ideas and skills. Not only are we supporting research in areas important to our donors and where there is the greatest need, we are also developing a cadre of research leaders for the future. We believe that these are the researchers who will help to address the health challenges of today and tomorrow. The research that we support from our restricted funds is determined by our donors and, in accordance with their specific wishes, this year we supported the research and careers of young scientists working on rare and devastating respiratory diseases, and asthma which has a high personal and societal burden affecting 1 in every 11 people in the UK. We continued our focus on improving understanding of mental health by co-funding a large study with the MRC on the impact of intellectual disabilities on long-term mental health.

We have a longstanding commitment to building research capacity in Africa and the Africa Research Excellence Fund (AREF) that we established last year became a fully registered charity this year. AREF has the potential to accelerate African health research by providing opportunities for talented Sub-Saharan Africans to develop and consolidate their research skills so that they can lead African research for Africa. It has now taken its first steps to achieve this by providing support for its first tranche of African research fellows. Professor Tumani Corrah who is leading the new charity has been successful in raising start-up funds from both European and African supporters and is now rising to the immense challenge of placing AREF on a secure financial footing. It is an honour to work with Tumani and his Board of African and UK research leaders who are all committed to providing opportunities for African researchers. I wish them well with their fundraising efforts.

During the year, we funded 49 new research projects and researchers, investing another £4m into research that will improve health. We were only able to achieve this with the support of our donors, our funding partners, the researchers that we fund, our trustees and our staff. I should like to thank them all. In particular I should like to thank my fellow trustees whose vision and commitment has ensured that we continue to be able to honour our donor's wishes. In particular, I should like to thank Louise Ansari who stepped down after three years of dedicated services and I warmly welcome Sue Wilkinson and Russell Delew who have recently been appointed as trustees; they bring with them a wealth of experience in fundraising and communications and will be invaluable as the charity moves into its next phase of development.

Finally, I should like to thank our small and dedicated team, led by our Director, Angela Hind, whom we ask to achieve so much with so little overhead costs. They safeguard our donor's wishes and ensure that we *fund more research for human health*.



Professor Nicholas Lemoine
Chair of the Board of Trustees

Trustees' Annual Report

The Trustees present their report and the audited financial statements of the charity for the year ended 31 March 2016. The trustees have adopted the provisions of the Statement of Recommended Practice "Accounting and Reporting by Charities" ("FRS 102 SORP") in preparing the annual report and financial statements of the charity.

The financial statements have been prepared in accordance with the accounting policies set out in notes to the accounts and comply with the charity's governing document, the Charities Act 2011 and Accounting and the FRS102 SORP published on 16 July 2014.

Trustees of the charity

The directors of the charitable company are its trustees for the purposes of charity law. The trustees who have served during the year and since the year end are listed on page 3, Legal and Administrative Information.

Public benefit statement

The Charities Act 2011 requires that all charities meet the legal requirements that its aims are for the public benefit. The trustees confirm that they have had regard to the guidance on public benefit issued by the Charity Commission when considering the objectives and activities of the Medical Research Foundation and its connected charities.

Our performance and achievements

The Medical Research Foundation's goal is to improve human health and we are unique in the way that we achieve this. We are a broad-based medical research charity and we provide support for research across the whole spectrum of biomedical research disciplines, giving priority to any of the major research questions that are central to improving human health. We are not restricted to providing support for a particular disease or condition or a particular research institution. We are able to respond to the emerging health needs of the nation and the wider world, and the research priorities and opportunities identified by scientific experts and our donors. Unlike other donor-funded medical and health charities, we do not provide advice, support nor do we undertake campaigning. All of our activities are focused on research - just more research for human health.

We aim to fulfill our goal of improving human health by:

- Providing support for **basic research** that increases understanding of the biological processes underpinning human health and disease, and for research on **conditions and diseases that devastate lives**;
- Funding training and career development opportunities for the **next generation of researchers** to address the biomedical research questions of the future;
- Providing opportunities for facilitating **collaborative research** and the **transfer of research skills and knowledge**; and,
- Providing support to disseminate research results beyond the scientific press to change healthcare policy and practice as well as personal life-choices.

We have the freedom to support research across the whole spectrum of the medical sciences because the majority of our supporters prefer to make unrestricted donations to support our work. We supplement the expertise of our Board with advice from the MRC's experts to identify the human health issues with the most pressing need for research, and to determine the form of support that we can provide that will make the biggest difference. Some of the research that we fund is specified by individual supporters who restrict their legacies and donations to fund research on particular diseases or by specific research teams whose research interests them. In these cases, we rely on scientific experts to advise us on the most pressing questions that need to be addressed and the most effective way to do so.

With all of our funds, our aim is to identify those areas of human health that create a high burden on families and societies but for which the investment in research is disproportionately low. We look for the gaps in research and we aim to fill them. On behalf of the giving public that funds the research we aim to make a difference. We do this by setting our research funding priorities on a five-yearly cycle, giving appropriate weight to the wishes of our donors and the research needs identified by the experts. During 2015/16, we continued to fund the research priorities identified by both groups. Our donors' priorities were respiratory diseases and basic research that underpins the understanding of human health and disease. The scientific experts prioritised investment in the career development of the very best mid-career medical researchers in the UK, mental health research and the development of health research capacity in Africa. We ran a number of competitions throughout the year providing funding opportunities for international standard research in these priority areas.

We believe that the post-PhD period is the most vulnerable yet the most creative and productive career stage for a medical researcher. We want to ensure that the very brightest and best of the UK's medical research

community have long and productive careers that make a difference to peoples' health and lives and, where we can, we use our funds to support the emerging research leaders of the future. By focusing our efforts in this way, not only are we supporting high quality research in areas of critical need, we are also safeguarding the future of this research. Our funding addresses today's research questions whilst also ensuring that the best people are in a position to answer tomorrow's. By investing in the research of the leaders of the future, we are providing a platform from which they can develop their research independence and increase their likelihood of securing longer-term, larger scale investments from the major research funders in areas that are important to us and our donors.

Not only are we interested in securing the future of UK medical research, we are also committed to increasing research capacity in Africa - research led by Africans in Africa on the health issues that are important to Africa. Last year, we set up the Africa Research Excellence Fund (AREF) to raise new funds to provide career changing opportunities for young African health researchers. This year we converted the AREF trust into an independent charity with the MRF as its trustee. We continue to nurture this unique new venture by providing guidance and support to its team and funding some of its capacity building activities.

Here we report on progress against our goals for 2015/16. We fulfilled our overarching aim to invest more in research to improve lives. In 2015/16 we invested in 49 new research grants, fellowship and studentship awards during the year (2015: 40) at a cost of £4.0m (2015: £3.6m) bringing our on-going commitment to medical research to £8.6m. You can find details of all of the new awards that we made during the year on pages 21-24. Here we highlight our major achievements: some new awards, some of the major outcomes from our on-going research programmes and other progress that we have made:

Basic research underpinning health and disease

Funding basic research into the biological processes underpinning health and disease is fundamental for improving human health and is a priority for us. Much of the research that we support into specific diseases is designed to improve understanding of the basic biology underpinning that disease. In addition, we fund basic molecular and cellular biology research. This year our major new investments in basic research aimed at understanding of conditions that devastate lives included the award of 11 major fellowships and grants to emerging research leaders. You will find these reported in the Tackling Diseases section of this report. In addition, we provided support to the MRC Institute of Genetics and Molecular Medicine Unit to purchase a fluorescent microscope to improve the efficiency of cell transfection experiments. We also supported Professors Mehul Dattani and Iain Robinson from University College London's Institute of Child Health for research into genetic mutations that cause pituitary endocrine disorders and their effects on growth and development.

One of our funded projects came to an end during the year and produced some interesting findings. The immune system protects the body against cancer and usually detects and destroys tumour cells, however, cancer has clever ways of avoiding recognition. Professors Graham Cook and Alan Melcher from the University of Leeds used our support to better understand how a virus called reovirus impacts on the immune system's response to tumours. The research has suggested a mechanism by which the virus acts to 're-awaken' immune defence cells to recognise and destroy tumour cells and to prevent other molecules from suppressing these defence cells. The research has highlighted the potential of reoviruses in cancer therapy. This research was supported from the Williams Barker Fund for Cancer Research.

Tackling diseases and conditions that devastate lives

Mental ill health is common and disabling, affecting 16.7 million people in the UK at any one time and accounting for 15 per cent of all the disability due to disease. Progress in understanding the factors that contribute to mental illness have accelerated in recent years and the UK is well placed to be at the forefront of the research efforts that will advance understanding of mental health. We have prioritised research addressing the increasing burden of mental ill health for some time. A number of years ago, we recognised that there was a gap in research training of psychiatrists and that filling this gap was critical for the future of UK mental health research. We responded by providing, with the MRC, £2m support for a programme led by Professor Stephen Lawrie at the University of Edinburgh to train academic psychiatrists in the modern neuroscience techniques needed by the future leaders of mental health research. The programme is training nine clinicians from across most of the psychiatry specialities, including child and adolescent psychiatry, with the expectation that these clinical researchers will progress to lead competitive and independent research teams around the UK addressing the many gaps in the understanding of mental ill-health.

Intellectual disabilities (ID) and their impact on long-term mental health is a significantly under-funded area of research. Affected families often have complex needs, which are not always met. In 2013, there were 900,000 adults and 170,000 children with ID in England. Although ID can be caused by events such as extreme prematurity, birth injury or brain infections, at least 85% of cases have a genetic cause. Some of this genetic risk is inherited, but not all. Errors in the genetic code can occur as chance events during the formation of the egg or sperm. Many of these ‘newly occurring’ errors are benign, but they can have serious consequences if they occur in key regions of the genome that are linked to the development of cognitive skills. Previous research suggests that some of these ID-related genetic errors greatly increase the risk to mental health in later life, yet in over 90% of cases no such information is available. Because any single event is so rare, a national study of many thousands of affected individuals is needed to build a clearer picture. This will allow researchers to compare multiple examples of each genetic error. We were persuaded by the need for new research in this area. Together with the MRC we provided a total of £2.6m (MRF: £900k) for Professor David Skuse (University College London) to lead a unique programme of research aimed at understanding how very rare genetic errors in children with ID can increase the risk of mental illness in later life. This work builds on the results of a successful pilot study, which we co-funded, confirming the feasibility of the research plans. Genetic screening by NHS resources will be harnessed nationwide, and families will contribute to the study online. The results could lead to a step-change in the treatment and care of people with ID. Early identification of genetic risk could provide guidelines for precision medicine, leading to better targeted services and interventions for people with ID and their families.

Liver disease is the only major cause of death still increasing year-on-year. It is the fifth biggest killer in England and Wales, and kills more people than diabetes and road deaths combined. At least 250,000 people in the UK and 130-200 million people worldwide are thought to be infected with the blood-borne Hepatitis C virus (HCV), which can cause severe liver damage in up to 20 per cent of patients. HCV is a smouldering international public health crisis – it is ten times easier to contract than HIV and the number of infected cases is increasing. Since 2010, the Medical Research Foundation has been trying to increase understanding of the key issues associated with HCV infection by providing £1.94m funding for the establishment of a national clinical research database and biobank to support HCV research. The HCV Research UK Resource was established by a consortium of clinicians and scientists from across the UK led by Professor John McLauchlan at the MRC

University of Glasgow Centre for Virus Research and Professor Will Irving of the University of Nottingham. The central aim of the resource is to support researchers asking fundamental clinical and scientific questions about HCV virus by making clinical data and samples available to the UK and international research communities. Over 11,000 patients from over 60 centres across the UK donated their clinical data and samples – a powerful commitment from patients and only possible in the UK with its integrated health care systems. The HCV Research UK Resource is now one of the largest HCV cohorts in the world. It underpins 65 large and small-scale research studies in the UK, Europe and Australia and has exceeded our initial expectations of its potential to change the lives of people with HCV. Most significantly, it provided samples for the pharmaceutical industry to assess the effectiveness of new life-changing drug therapies that are being introduced into the clinic and, following NHS England's decision to make these new treatments available to very ill patients on the condition that their samples were deposited with the HCV Research UK Resource, it will give clinicians around the world invaluable insights into the performance of these new therapies outside the usual confines of a clinical trial. And the power of the resource does not end there. STOP-HCV, a £5.2m research programme funded by the MRC to understand better the progression of disease and to optimise treatments for HCV patients has used data and samples from the HCV Research UK Resource, which would not have been possible without the MRF's investment. One of the requirements of our support was that the resource should become self-sustaining and raise funds through access to the samples to secure its long-term future. This has proven a successful model and although our funding is coming to an end, the resource is able to look to future research questions and has a current focus on recruiting patients with cirrhosis to evaluate the progression or regression of liver disease in those who do and do not respond to current therapy.

The HCV Research UK Resource has been a fantastic success story for the MRF and for the donors who made this possible – the late Miss Effie Millar Munro and Mr Alfred Tartellin who left legacies to the MRC to support research into liver diseases. But more importantly, it has been a huge step forward for the health of the individuals in the UK and around the world who are infected with HCV and who will benefit from the research results that are being generated. This has been an amazing collaboration between the MRF, HCV scientists and clinicians and the patients who generously donated biological samples and clinical data that have, and will continue to have, a lasting impact on human health.

Respiratory diseases are among the leading causes of death worldwide and four million people die prematurely from them each year. Disappointingly, there is a lack of adequate treatment options available for sufferers and to improve on these better understanding of the mechanisms underlying rare lung diseases is needed. Thanks to a number of donors who wished to alleviate the burden of these diseases, during the year we were able to support five emerging UK research leaders to drive forward understanding and ultimately improve the lives of patients with these rare lung diseases:

Idiopathic pulmonary fibrosis (IPF) is an incurable rare lung disease and 15,000 people in the UK are living with IPF. The key feature of IPF is the irreversible build-up of dense scar tissue within the air spaces of the lungs, which leads to breathlessness and ultimately respiratory failure. The causes are unknown, and current treatments do not stop the progression of disease, only slow it down. To help address this we awarded Dr Franco Conforti from the University of Southampton a fellowship to fill the gap in the understanding of the factors that drive the disease. Alveolar cells in lungs are important for the breathing process and are injured in IPF. Other cells in lungs, fibroblasts, which are usually responsible for promoting wound healing become abnormal in IPF and produce excess scar tissue. Fibroblasts are likely to produce mediators that damage the

alveolar cells further, but little is known about how these cells interact to cause abnormal wound-healing and exaggerated scarring. Dr Conforti's research will look at the interaction and try to determine if alveolar cells can be protected from the damaging effects of the fibroblasts.

Dr Amanda Tatler from the University of Nottingham is also interested in IPF and we awarded her a fellowship to look at how low levels of a protein called Elk1 leads to the development of significantly worse scarring of the lung in patients with IPF. Elk1 is expressed by all cells in the body and is responsible for switching certain genes on or off when required by a cell. Elk1 might act as a "brake" on the scarring process that characterises IPF and block the progression and development of IPF. It is known that patients with IPF have lower levels of the "brake" Elk1 than patients not suffering from IPF. Dr Tatler's study will use state-of-art molecular techniques to identify different biological pathways that may be important in IPF and are affected by the loss of Elk1 observed in IPF patients. The study aims to analyse the role that Elk1 may play as a master regulator of scarring in human IPF patients and shed important light on how IPF is initiated and progresses.

Cystic Fibrosis (CF) is another rare lung disease with a poor prognosis. Its incidence varies across the globe and in the European Union 1 in 2,000-3,000 new-borns are affected. CF is a genetic disorder caused by mutations in a gene that leads to the build-up of abnormally thick mucus in the bodies' passageways, in particular in the lining of the lungs. The mucus provides a favourable environment for bacteria to grow and increases the susceptibility of CF patients to fatal lung infections. If infection is detected early, aggressive antimicrobial treatment can clear it, but any later, treatments are only able to keep infection at bay. It is thought that bacteria may initially live in the nose and sinuses before they move into the lungs and cause infection. Dr Jo Fothergill from the University of Liverpool was awarded a fellowship to determine if new technology can be used to identify bacteria in the nasal passageway by analysing respiratory samples from the lungs of patients with CF. She will also look at how these infecting bacteria interact and look for genes that might make them resistant to antibiotics – a devastating complication for CF patients. We hope that developing new diagnostic approaches for the earlier detection of infection and the rapid identification of antibiotic resistant bacteria could lead to better, earlier and more targeted treatments which will improve long-term outcomes for people living with CF. It is known that people with CF have higher levels of glucose in their lungs than those unaffected and that this is associated with increased risk of infection. CF-related diabetes develops in 50% of adults with CF. Glucose is a critical energy source for the bacteria that cause lung infections and for the white blood cells that try to kill them. Dr James Garnett from Newcastle University was awarded a fellowship to determine how glucose levels are controlled in the airways – sufficient for white blood cells to kill bacteria but not so much that it creates a favourable environment for bacterial survival and growth. This research is crucial in determining the role glucose plays during lung infections in people with CF, as the modulation of glucose levels may prove to be a novel therapeutic approach to CF.

Mesothelioma is a rare and devastating cancer that develops in the cavity that lines the lungs and is largely triggered by the inhalation of asbestos. The average survival time from diagnosis is 9-12 months, with a 5-year survival rate of only 2%. The UK has one of the highest death rates in the world from mesothelioma and sadly there are limited effective therapies available to those who develop it. High levels of a protein inhibitor have been reported in the lung cavity of mesothelioma patients and leads to more inflammation due to the increased levels of a secreted protein (Interleukin-17) released from white blood cells. Dr Donna Small from Queen's University Belfast was awarded a fellowship to understand the relationship between the protein inhibitor and Interleukin-17 and the effect this relationship has on the inflammatory response and subsequent tumour growth

in patients with mesothelioma. We hope that the research will provide the knowledge base for developing treatments for mesothelioma that create a less inflammatory environment in the lung and that this approach could result in smaller, less aggressive tumours that respond better to therapy.

These promising young researchers will help to make substantial progress in the understanding of these rare lung diseases and their research will advance progress towards the development of better, more effective treatments in the future. All of this was possible thanks to generous legacies from the late Rosa Weable, Beatrice Nash, Hilda Thomas and the family of the late Michael Abbott. They all wanted to make a difference to the lives of those suffering from respiratory diseases and through these research leaders of the future, they will.

Asthma affects 5.4 million people in the UK - 1 in every 11. It costs the NHS around £1 billion each year, but current asthma treatments do not help symptoms in around 50% of patients. We set out to tackle this in 2015/16 and in collaboration with Asthma UK, we awarded £1.5m (MRF: £960k) to five emerging research leaders to develop the UK asthma research landscape and undertake research aimed at increasing understanding of the biological processes underpinning it with a view to alleviating the burden of the disease.

The key features of asthma are on-going inflammation in the lung, episodes of chest tightening and difficulty breathing; structural changes in the lungs of people with asthma can reduce lung function over time. These changes are worse in the lungs of severe asthmatics. It is important to understand how these changes occur and investigate new ways of reducing or reversing them. Closure of the airways during an asthma attack can play an important role in the development of these structural changes and this may be caused by the activation of a protein called TGFβ. Dr Amanda Tatler from the University of Nottingham was awarded a MRF-Asthma UK fellowship to investigate the complex relationship between normal breathing, airway closure and activation of TGFβ. In order to do so, Dr Tatler will develop a new model that mimics normal breathing and deep breaths and which closely represents the living, breathing lung. She will use this to investigate the effects of breathing on the activation of TGFβ in order to improve understanding of normal lung biology and its impact on structural change in the lungs of asthmatics. Not only will Amanda's model support her own asthma research, she will make it available to the wider research community and its uptake will reduce the numbers of animals required to make progress with research on lung diseases.

It is well known that people with asthma have an increased sensitivity to environmental factors such as pollen and pollution which can trigger an inflammatory response in the lining of the lungs that can lead to changes in airway cells. These cellular changes can then put people at higher risk of triggering asthma symptoms from future contact with environmental factors. Dr Rachel Clifford from the University of Nottingham was awarded a MRF-Asthma UK fellowship to understand how environmental factors change the gene expression by altering markers on an individual's DNA in airway smooth muscle cells leading to tightening of the airways and additional inflammation in the lung. The research is aimed at understanding new ways in which environmental factors drive chronic airway inflammation and the resulting remodelling of the airways and it is hoped that it will lead us closer to a new therapy and understanding whether therapy can reverse asthmatic specific changes in the lung.

Inflammation is a core feature in the airways of people with asthma. People with severe, poorly controlled asthma often have a different type of inflammation than people with milder forms of the disease and the processes that lead to this difference are unclear. Many current asthma treatments don't work well in patients with severe disease, possibly as a result of this different kind of inflammation. Dr Tara Sutherland from the

University of Manchester was awarded a MRF-Asthma UK fellowship to investigate the biological function of a group of proteins that are known to be produced in higher levels in the lungs of people with asthma. These proteins have been shown to influence the recruitment of cells that cause inflammation and directly change the way in which cells function in the lung. Understanding the behaviour of different cells involved in inflammation could help to identify new targets for treatments for people with severe asthma.

Many people with asthma find that viral infections are a trigger for asthma attacks and estimates suggest 85% of childhood and 60% of adult exacerbations are triggered this way. The most frequent trigger-viruses are the common cold viruses which invade and hijack the infected person's cell machinery to replicate and survive. Cells can usually detect that they have been invaded and turn on an antiviral defence mechanism; however, the cells of asthmatics do not mount a very effective anti-viral response. There is a real need for better medication to control asthma attacks caused by viral infection and a new strategy might be to target the infected person's cells rather than the virus. Dr Aurelie Mousnier from Queens University Belfast was awarded a MRF-Asthma UK fellowship to determine the human proteins essential for common cold virus replication and survival. It is hoped that this research will lay the foundations for new drug candidates that would stop common cold viruses hijacking the cell and prevent its replication in humans. Such developments would be highly significant for the wellbeing of people with asthma.

Small changes in a particular gene, called ADAM33, are associated with the development of asthma and airway 'twitchiness', which is another common feature of the disease. ADAM33 is thought to play a role in the lungs of young children, possibly even before birth. What isn't understood is how and why the altered ADAM33 gene causes susceptibility to the development of asthma. It has been found that in asthma, the ADAM33 enzyme is no longer tethered to the surface of cells in the airways and becomes 'rogue'. A higher level of this 'rogue' protein is associated with poorer lung function. We awarded a MRF-Asthma UK fellowship to Dr Hans Michael Haitchi from the University of Southampton to investigate whether airway remodelling occurs as a result of rogue ADAM33 enzyme acting on developing lung cells that it wouldn't normally come into contact with. Dr Haitchi will also investigate whether this airway remodelling affects reactions to irritants such as allergens later in life. The research will help to understand more about how the ADAM33 enzyme works and its interaction with environmental triggers of asthma, as well as its role in predisposing babies to asthma.

We were able to provide support for these excellent research projects and promising researchers thanks to generous funding from our supporters including the Susan Catherine, Cecily May and Dr Thomas Beardwood Gornall Fund, the late John Herring Smith and Nellie Schofield, and other donors.

Almost half of the world's population, including 700 million people in Africa, rely on biomass fuels (animal dung, crop residues, wood) for their everyday energy requirements. It is typically burnt indoors on poorly vented stoves and leads to high levels of household air pollution. Women and children are exposed the most and this exposure has been linked to a range of health problems including chronic obstructive pulmonary disease (COPD), lung cancer, ischaemic heart disease, and pneumonia in young children. Shockingly, household air pollution from biomass smoke is the third leading cause of global disability and leads to 4 million deaths per year. In Malawi, one of the world's poorest countries, over 95% of households depend on biomass fuels. Dr Kevin Mortimer from the Liverpool School of Tropical Medicine is leading an MRC, DfID and Wellcome Trust-funded trial in Malawi aimed at preventing pneumonia in children under 5 years of age through use of different cooking stoves and an MRC-funded study to investigate chronic lung disease in adults. Given our

current focus on alleviating the burden of lung diseases we used a small, restricted fund to extend the reach of and add value to this MRC-funded work by supporting Dr Mortimer to investigate additional lung health outcomes in the children and the relationship to household air pollution exposure. Our supplementary funding has provided a unique opportunity for a paediatrician training in research to become involved with Dr Mortimer's work and take a closer look at the impact of cooking stoves on children's lung health.

The donations that we receive from the public are both large and small and despite medical research being a costly endeavour, we can use both well to improve human health. We are unique amongst health charities because we work so closely with the MRC – the major UK government funder of medical research – and this provides us with opportunities to use small sums of money cost effectively to incorporate new research questions into large existing studies whose expensive infrastructure is already in place. Our funding adds value to the existing study by supporting new research questions that otherwise would not be asked, and ensures that our donors wishes have an impact on understanding in the most cost-effective way.

Training the next generation of researchers to improve lives

Training in UK

In addition to providing substantial support to develop the research careers of ten emerging research leaders we are also able to provide support for researchers at earlier career stages (those young scientists working on their PhD or in the early postdoctoral period) thanks to funds restricted by our donors for these purposes. We used these restricted funds to train 17 bright young researchers who we hope will go on to have promising medical research careers.

Training in Africa

Africa shoulders a crippling share of the world's disease burden and this is holding back the continent's economic development. Economic progress is possible but that progress demands better health. Better health requires better African-led health research and effective processes to translate that research into healthcare policy and practice. There are many challenges within African health and education systems that impact on African health research: some countries struggle to provide the highest quality undergraduate degrees relevant to health; the opportunities for specialist training and qualification in preparation for a research career are limited; and, the pace is slow and uncompetitive compared to the North.

To contribute to the efforts to improve the supply of well qualified young Africans into African health research, in 2014 we provided over £1.3m support for an 8-year BSc and Masters Scholarship programme at the MRC's research unit in the Gambia. The new programme is up and running following a hugely successful pilot programme and provides bright young West Africans with the opportunity to train in the UK, or elsewhere, with guaranteed research training opportunities in the MRC's research unit. Already our support has been used to fund scholarships for Oumie Kuyateh, Isatou Sey and Abdoulie Njie to study for BSc's in Biomedical Sciences in UK universities and Rahmatulai Maane and Lamin Sillah to undertake MSc's at Imperial College London and the London School of Hygiene and Tropical Medicine respectively.

We have been closely following the progress of the scholars funded through the earlier pilot programme in order to assess its success. Of the seven scholars that we supported to train to BSc level, three are currently undertaking specialist research training and are pursuing PhD's at highly rated, research-intensive institutions throughout the UK, one has been awarded a MSc scholarship at the prestigious London School of Hygiene and Tropical Medicine, and two have been awarded MRF MSc scholarships under the second phase of our support. The final scholar recently graduated with a BSc in Bioengineering with a high distinction from Carleton University in Canada and was awarded a Senate medal for outstanding academic achievement. She now works at the MRC unit in the Gambia as a trainee biomedical engineer and is proving to be a fantastic role model for young African women with an interest in science. We are delighted with the progress of these young scientists and we will follow their careers with interest.

Across Africa limited but excellent research capacity building initiatives are beginning to emerge that are supplying a cadre of PhD-qualified African health researchers. However the brightest stars, particularly at the postdoctoral stage, are often tempted away from African research – either abroad or into other sectors. This is partly because Africa still lacks an adequate supply of incentives and development opportunities that give researchers the skills and networks needed to carry out international-standard research and unlock substantial international research funding. To benefit African's health and to shape Africa's research agendas, more opportunities need to be provided across Africa and progress needs to be accelerated. Last year we set up the Africa Research Excellence Fund (AREF), under the Directorship of Professor Tumani Corrah, to raise new funds and provide new development opportunities for the brightest Sub-Saharan African researchers. AREF made significant progress this year: it was registered as an independent charity and has built a dedicated support team, predominantly based in Africa that has begun to raise new funds to launch distinctive, value-adding programmes. AREF launched its new Research Development Fellowships, aimed at providing talented emerging African researchers with the intellectual space and time to develop their own research ideas, enhance their technical and broader skills, and extend their international networks through three-to-nine month placements in South Africa or Europe. Nine researchers from across Sub-Saharan Africa were awarded AREF fellowships spanning a wide range of health research for example: Akena Dickens is developing a better way of diagnosing much-neglected depression in the community; Benjamin Kumwenda is using advanced methods to understand the emergence of antibiotic resistance in a hospital setting in Malawi; and, Haddy Fye is applying her advanced expertise in diagnosing liver disease to improving African patients' experience of sickle-cell disease diagnosis and care.

AREF is a new charity and the challenges of raising funds are not insignificant but it provides donors with a way to make a positive, developmental difference to Africa by Africans. It is a step away from the usual charity model of donating to tackle major crisis or the impacts of poverty and is proving to be attractive to donors. In the past year AREF has raised a remarkable £1.23m including £67k of personal donations, 60% of which were from Africans, support from foundations, trusts and industry of £988k and gifts-in-kind to a value of £293k. There is much more to be done to develop research capacity in African and fundraising will be one of AREF's priorities in the coming year.

Dissemination of research findings

Medical research results are typically published in peer reviewed papers in the scientific press. They are read by other experts and influence the approach taken by research scientists to subsequent research studies on human health issues. However, sometimes a research result has the potential to have a more immediate impact. Through our Alexander Fleming Dissemination Scheme, we provide funding to ensure that MRC and MRF-funded research results are disseminated to those who can use the results to make an immediate difference and are disseminated in a way that encourages people to factor the findings into their work (health care practitioners and policy makers) or lives (patients and the healthy population at large).

We continued to support the dissemination of research findings arising from MRC-funded research by Dr Emma Baple and Professor Andrew Crosby at the University of Exeter with a second Alexander Fleming Dissemination award. The MRC-funded research had identified novel genes responsible for five inherited disorders within the North American Amish community that are involved in brain development affecting growth and developmental processes. A lack of knowledge and awareness of these newly described conditions amongst both the Amish community and their health care providers presented a significant challenge for disease diagnosis, patient care, management and treatment. Increasing awareness is critical as early diagnosis and intervention results in improved outcome and quality of life for affected individuals and a reduction in expensive and often unnecessary clinical investigations. We provided funding to ensure these new research findings reached the most relevant, often hard to reach, communities. Our first award funded the development of disorder-specific information leaflets, family information days and an educational meeting in Ohio for health care workers, school teachers and developmental intervention workers. The new award will build on these earlier achievements and is allowing extension of this dissemination program into additional Amish communities. By funding these targeted and culturally appropriate activities, the MRF support is making a major difference to lives - helping to reduce the social and financial burden of these disorders on the Amish community and by facilitating earlier diagnosis, improving health and developmental outcomes for the children and adults affected by these conditions.

Encouraging collaborations & skill-sharing

Medical research is a dynamic, intellectual process that requires constant input of new ideas and development of new technologies to advance and produce benefits for health. To facilitate the collaborations and skill-sharing that are essential to this process, we have provided short-term subsidised accommodation in our residential property in London for over 40 years for researchers from overseas to collaborate with researchers in the UK. During the year, we completed a much needed £1.8m refurbishment of the property to bring it up to modern standards and safeguard its future. We were delighted to enter into a lease agreement with the Francis Crick Institute (the Crick) in late 2015 and hand over Perrin Lodge to our new tenant. The Crick will take a multidisciplinary approach to research, focusing on young and emerging talent and it has plans to export the best people to other institutions around the UK after a period of time with the Crick. The Crick is an ideal partner for the Medical Research Foundation as we have a mutual commitment to nurturing young scientists and securing the future of UK medical research and its ability to impact on the nation's health, through them. The Crick will use Perrin Lodge to provide short-term accommodation for new research leaders relocating to London, who have been appointed to bring important techniques and research expertise to enhance the institute's and UK's research base. Medical research is an expensive endeavour and significant long-term investment is required to support and develop research careers. Through our residential property, we are contributing in a unique way to the national effort to develop a cadre of leading researchers to improve human health.

Throughout the year, we continued our practice of using our smaller restricted funds to provide conference and travel awards to early and mid-career researchers. We were able to contribute to the 2017 European Drosophila Research Conference at the Francis Crick in London, which will showcase basic developmental biology research. This was made possible thanks to a fund left in the memory of the late Rosa Beddington, a world class UK developmental biologist.

New research that we supported

We have highlighted some of the 49 new grants, fellowships, studentships and dissemination awards that we made during 2015/16 in the earlier section; here we provide summary information on each of the new research awards that we made during the year. These new awards amounted to an additional investment in medical research and training of £4.0m.

Basic research underpinning health and disease

We provided support for research that underpins understanding of the biological processes that determine human health and disease:

Funded from the MRC LMB Fersht Research Fund

Two awards to fund salaries and consumables for Professor Alan Fersht's research on tumour suppressants at the MRC Laboratory of Molecular Biology, Cambridge.

£114,913

Funded from the MRC NIMR Robinson Research Fund

Award for two years to Prof Mehul Dattani and Prof Iain Robinson at University College London's Institute of Child Health for a project looking at novel gene mutations causing pituitary dysfunction in children.

£100,000

Funded from the Jeantet (Unwin) Prize Fund

Award to support travel and consumable costs of Dr Nigel Unwin's research on nicotinic acetylcholine receptor at the MRC Laboratory of Molecular Biology, Cambridge.

£20,000

Funded from MRC Human Genetics Unit General Research Fund

Award to the MRC Institute of Genetics and Molecular Medicine Unit, University of Edinburgh, to purchase a fluorescent microscope for use for cell transfection experiments.

£17,850

Funded from the Ernst Jung (Jones) Prize Fund

Award to support the development of a proposal for the world's first total body positron emission tomography (PET) scanner.

£9,431

Tackling disease and conditions that devastate lives

Asthma

Funded from the Asthma Research Fund

Jointly with Asthma UK, five awards to support mid-career researchers to undertake research aimed at alleviating the burden of asthma: Dr Aurelie Mousnier (Queens University Belfast); Dr Rachel Clifford (University of Nottingham); Dr Hans Michael Haitchi (University of Southampton); Dr Tara Sutherland (University of Manchester); and, Dr Amanda Tatler (University of Nottingham).

£962,173 (total award value £1,480,266)

Children's Health

Funded from Children's Health Research Fund

Award to support an additional study to Dr Kevin Mortimer's MRC New-Investigator Award at the Liverpool School of Tropical Medicine investigating children's lung health in relation to exposure to household air pollution in rural Malawi.

£50,912

Hearing, tinnitus and balance

Funded from the MRC Institute of Hearing Research (IHR) General Research Fund

Award to the MRC IHR, University of Nottingham, to support co-funding of research grants in topics relating to hearing, tinnitus and balance with the British Society of Audiology.

£10,000

Ten bursaries for PhD student's attendance at the 10th Tinnitus Research Initiative International Conference at the University of Nottingham

£5,000

Human herpes virus research

Funded from the Peggy Hart Fund

Support awarded to Dr Mandy Glass at the University of West Scotland for research on human herpes viruses and reactivation.

£230,503

Intellectual disabilities research

Funded from the General Purposes Fund

Co-funded award with the MRC, a grant to support Professor David Skuse's research at University College London assessing the genomic impact on neurodevelopment for intellectual disability in children.

£900,000 (total award value £2,548,515)

Lung diseases

Funded from the Respiratory Medicine Research Fund

Five awards to support mid-career researchers to undertake research into inflammatory, interstitial and fibrotic lung diseases: Dr Jo Fothergill (University of Liverpool); Dr Donna Small (Queen's University Belfast); Dr Amanda Tatler (University of Nottingham); Dr Franco Conforti (University of Southampton); and, Dr James Garnett (Newcastle University).

£1,212,993

Training the next generation of researchers to improve lives

Training in Africa:

Funded from the Africa Research Excellence Fund connected charity

Funding was provided to support for seven fellowships:

- Dr Kingsley Badum, hosted by the London School of Hygiene and Tropical Medicine, to characterise a biomarker that indicates when a person has been bitten by a malaria-infected mosquito.
- Dr Leopold Tientcheu Djomkam, hosted by the University of Cape Town, South Africa, to develop an experimental protocol for tuberculosis.
- Dr Benjamin Kumwenda, hosted by the University of Liverpool to identify differentially expressed virulence gene in Salmonella strains.
- Dr Haddy Fye, hosted by Oxford University to apply emerging technologies to the study of protein expression pathways of sickle cell disease.
- Dr El Hadji Amadou Niang, hosted by the Liverpool School of Tropical Medicine, to build capabilities in molecular biology techniques and molecular genetic data analysis.
- Dr Amin S. Hassan, hosted by Oxford University, to acquire hands-on training and skills in advanced HIV-1 molecular methods.
- Dr Akena Dickens, hosted by the University of Cape Town, South Africa, to train in psychometrics.

£146,118

Funded from the MRC Toxicology Unit Research Fund

Joint PhD Studentship award between the MRC Toxicology Unit in Leicester and the MRC Unit The Gambia to Omar Janha over four years research training aimed at reducing toxicity liability in the treatment of malaria.

£64,777

Training in the UK:

Molecular Biologists

Funded from the MRC LMB Celltech Fellowship Research Fund

Fellowship awards to support three researchers at the MRC Laboratory of Molecular Biology, Cambridge:

Dr Domagoj Baretic (stipend); Tycho Mevissen (salary support); and, Claudio Pathe (fees).

£122,482

Funded from the MRC LMB BIORAD Visiting Fellowship Fund

Fellowship awarded to Dr Jerome Boulanger at the MRC Laboratory of Molecular Biology, Cambridge to develop a fast structured illumination microscopy method for super-resolution imaging in live cells.

£58,192

Funded from the Jeantet (Pelham) Prize Fund

Contribution to help establish the Michael Neuberger Memorial Studentship Fund at Trinity College, Cambridge to provide or supplement the maintenance expenses of outstanding graduate students to undertake PhD's at the MRC Laboratory of Molecular Biology, Cambridge.

£50,000

Funded from the Strauss Bequest

Bursaries awarded to ten postgraduate students at the MRC Laboratory of Molecular Biology, Cambridge to support their PhD training in molecular biology: Goncalo Oliveira; Ananthanaryanan Kumar; Max Wilkinson; Christopher Rae; John Chen; Alina-loana Guna; Daniela Peris (two awards); Brenda Valeiras; Julian Willis, and Agata Zielinska.

£18,387

Funded from the Genetics of Mitochondrial Diseases Fund

A PhD studentship for 12 months awarded to Anabel Martinez Lyons to train with Professor Massimo Zeviani at the MRC Mitochondrial Biology Unit, Cambridge in mitochondrial medicine.

£23,362

Funded from the Jeantet (Henderson) Prize Fund

Award to support the salary, consumables and travel for 12 months for Wasi Faruqi at the MRC Laboratory of Molecular Biology, Cambridge to support a detector development project with a consortium of six laboratories.

£12,505

Dissemination of research findings

Funded from the Fleming Memorial Fund for Medical Research

Support for Dr Emma Baple and Professor Andrew Crosby at the University of Exeter to disseminate the results of MRC- funded research on genetic disorders in Amish families.

£30,000

Encouraging collaborations & skill-sharing

Funded from Rosa Beddington Research Fund

Award to contribute towards the 2017 European Drosophila Research Conference at the Francis Crick Institute.

£25,000

Plans for future periods

Our aims for 2016/17

We are committed to extending our support for high quality medical research that addresses the concerns of donors, and supports current research and health priorities. During 2016/17, we aim yet again to increase our expenditure on research and we will make £5.4m available for new research grant, fellowships, studentships and dissemination awards. This is in addition to our existing commitment of £8.6m to support on-going research. We will continue to focus our resources on those researchers with the potential to become the UK's research leaders of the future.

Basic research underpinning health and disease

We will support high quality researcher-led basic research aimed at improving understanding of the biological processes underpinning human health and disease. We will fund research and equipment to increase the understanding of interactions between the various systems of a cell, including DNA, RNA and protein biosynthesis, and how these interactions are regulated.

Tackling diseases and conditions that devastate lives

We will invest in research in two areas that are increasing in prevalence and are of particular concern to us:

Antimicrobial resistance

Antimicrobial resistance is the resistance of a microorganism to an antimicrobial drug that was originally effective for treatment of infections caused by it. Resistant microorganisms, including bacteria, fungi, viruses and parasites, are able to withstand attack by antimicrobial drugs such that standard treatments become ineffective and infections persist, increasing the risk of spread to others. The evolution of resistant strains is a natural biological phenomenon that occurs when microorganisms replicate themselves erroneously or when resistant traits are exchanged between them. The emergence of drug-resistant strains is accelerated by, amongst other things, the use and misuse of microbial drugs. Antimicrobial resistance is a significant and growing global public health problem that threatens the effective prevention and treatment of an ever increasing range of infections.

The UK's Chief Medical Officer has raised the alarm about antimicrobial resistance. The World Economic Forum has suggested adding antimicrobial resistance to the global risk register and the World Health Organisation has highlighted the serious implications for global health. A recent report suggests that unless action is taken, antimicrobial resistance will cost the world an additional 10 million lives a year by 2050, more than the number of people currently dying from cancer annually. The authors estimate that it will also have a cumulative cost of US\$1 trillion, more than one and a half times the annual world GDP today, or roughly the equivalent to losing the UK economy from global output every year.

The UK Research Councils, along with other UK funders, have mounted a multidisciplinary, research-led assault on this global problem. To support this important and co-ordinated effort the Medical Research Foundation will make around £2.26m available to fund a national, multidisciplinary training programme. The aim of the programme is to develop a cadre of UK researchers with the skills and networks needed to work effectively across traditional disciplines and boundaries to address antimicrobial resistance e.g. crossing bacteriology, microbiology, industry, mathematics, bioinformatics, modelling, social science, chemistry, synthetic biology, materials science, biomedical engineering and physical science, engineering, design, veterinary research, agricultural research etc. It is our intention that this training will enable the next generation of researchers to: increase understanding of resistant bacteria; accelerate therapeutic and diagnostics development; and understand the environmental factors surrounding the evolution, acquisition and spread of antimicrobial resistance. During 2015/16, we began defining our requirements for the national training programme and in 2016/17 we will host a workshop of antimicrobial resistance experts and potential applicants with the aim of developing a consortium and a proposal for delivering the national training programme. We plan to commit our funds in early 2017. The Fleming Memorial Fund for Medical Research which was established in the 1960's to commemorate the life and work of Sir Alexander Fleming - the discoverer of penicillin - will meet part of the costs along with funds generously bequeathed by the late Kathleen Goff, Doetje Sloman, Edwina Finalyson and Mary Beadle.

Adolescent and early adulthood mental health

Nearly 10 per cent of children aged 5 to 16 years have a clinically diagnosable mental health problem and there is a high degree of persistence of these problems into adult life. Evidence suggests that they have a serious impact on life chances and life expectancy. Eating disorders have the highest mortality rate of any mental illness and one in five of those most seriously affected will die prematurely from the physical consequences or suicide. Over 725,000 men and women in the UK are affected by eating disorders. The number of people being diagnosed and entering in-patient treatment in England alone has increased at an average rate of 7% per annum since 2009. Young women are most likely to develop an eating disorder. Children as young as seven can develop anorexia and there is a greater proportion of boys in this younger age group. Unusually, compared with other mental ill health issues, eating disorders result in both physical and psychological symptoms and can have long-term physical side effects including organ failure. It has been estimated that there is an annual direct financial burden of between £2.6 billion and £3.1 billion on sufferers and carers in the UK with total treatment costs to the NHS of between £3.9 billion and £4.6 billion (and, potentially, a further £0.9 – £1.1 billion of private treatment costs) and lost income to the economy of between £6.8 billion and £8 billion. More needs to be done to alleviate the burden of these devastating illnesses.

Rates of self-harm have increased in the UK over the past decade and are among the highest in Europe, and rates are much higher among groups with high levels of poverty and in adolescents and younger adults. Repeated self-harm results in about 150,000 attendances at accident and emergency departments each year and is one of the top five causes of acute medical admission. These statistics are shocking and clearly something needs to be done to protect our young people. However current understanding of these illnesses is limited. Whilst other research funders support research aimed at improving the quality and success of treatments for patients, we think that it is invaluable to understand why these illnesses occur in the first place, in order that approaches for prevention or early intervention can be developed.

In 2016/17, we will work in partnership with the MRC to make up to £2 million available (£1.5m from the MRF) to support new high-quality, internationally competitive research partnerships into the underlying bio-psycho-social mechanistic and environmental drivers of repeated self-harm and eating disorders in children and adolescents. Our aim is to encourage researchers working in associated areas or on more clinical research to re-prioritise research on these two mental health illnesses. We intend that this major injection of earmarked funding for pilot studies will initiate new scientific partnerships across disciplines and will develop a pipeline of new research proposals aimed at increasing understanding of these devastating mental health conditions.

Dissemination of research findings

We will continue to support the dissemination of MRF and MRC-funded research results beyond the scientific press to patients, study participants, healthcare practitioners and policy makers with a view to ensuring that healthcare policy and practice, and the ways that individuals conduct their lives, are based on up-to-date research evidence. We will provide support from the Fleming Memorial Fund for Medical Research charity. During the year we intend to review our Alexander Fleming Dissemination scheme to ensure that it is fulfilling its objectives and achieving maximum impact.

Encouraging collaborations & skill-sharing

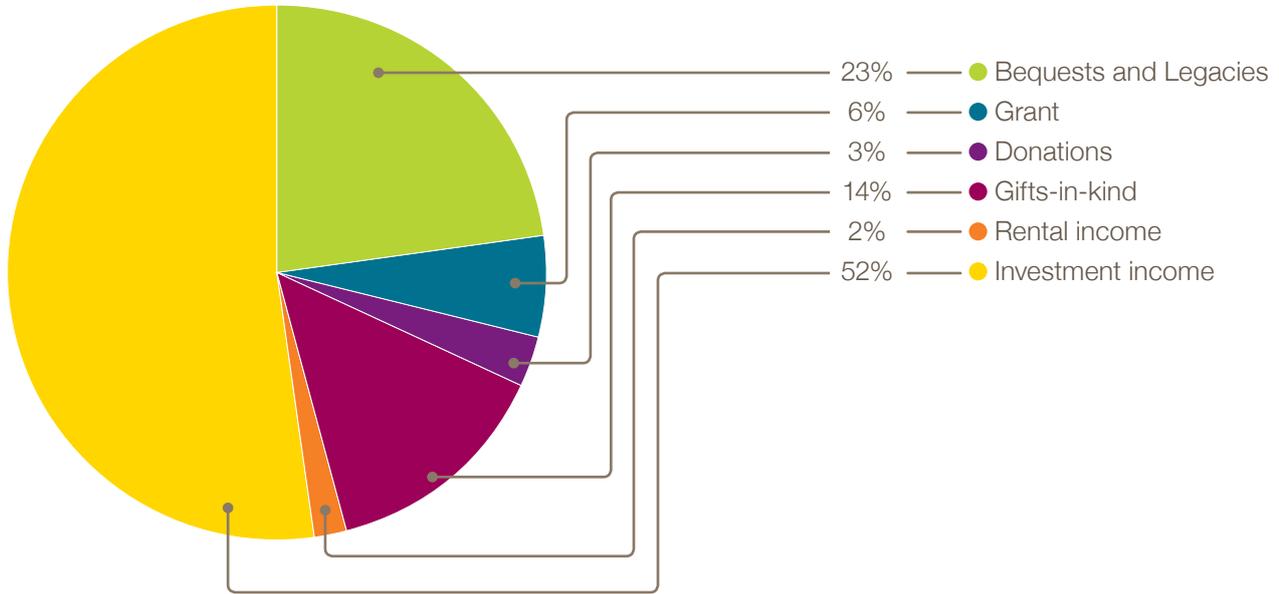
We aim to support collaboration and skill-sharing as a means of developing research capability in the UK and around the world, and in the coming year, we will use our smaller funds to provide support for skill-sharing and collaborations.

Supporting more research

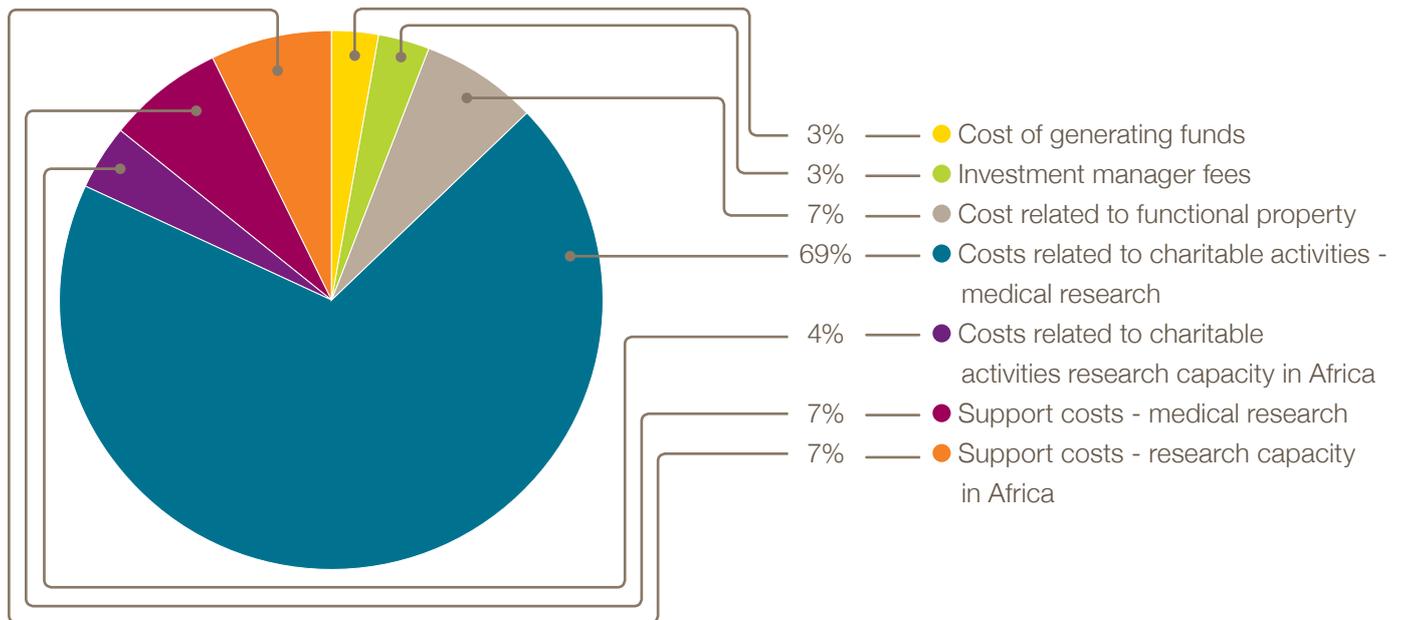
We will continue to ensure that all of our activities are designed to increase the quantity of the much needed medical research that we can support. We will continue our on-going efforts to improve our communications to reach wider audiences and we will implement our new developmental fundraising strategy which will improve and secure existing charitable income streams and develop new fundraising avenues. We will appoint an additional trustee to our Board with expertise in fundraising to ensure that our new fundraising function and activities are developed to the highest ethical standards and are responsive to the changing legislative environment. In addition, we will commence a wide-ranging review our investment policy and strategy with a view to maximising returns and controlling risk.

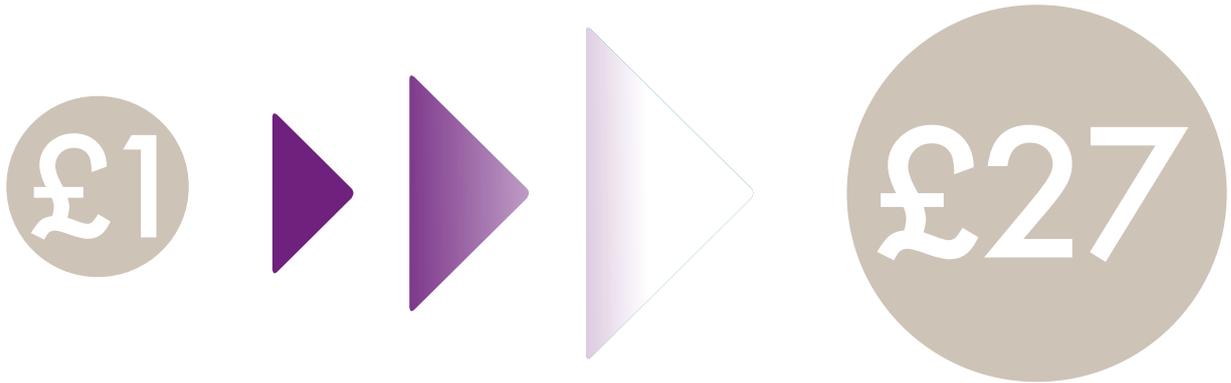
Our finances in 2015/16

Our income at a glance

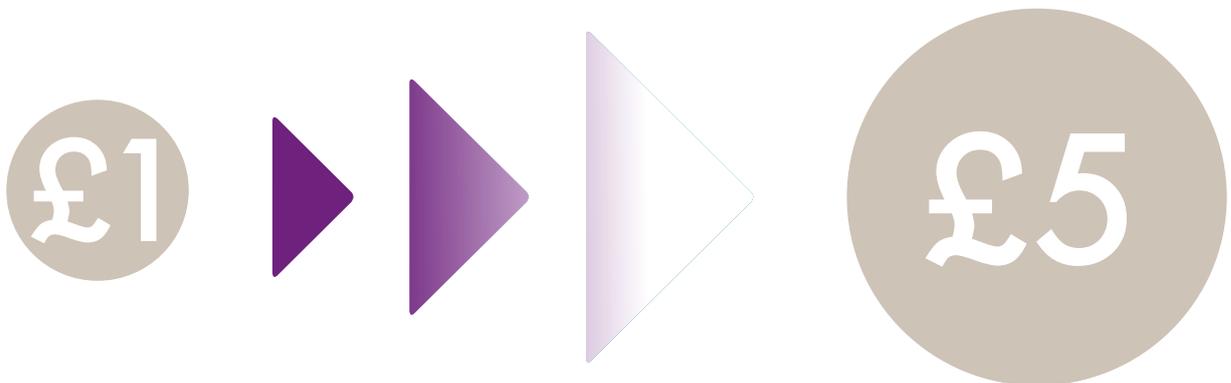


Our expenditure at a glance





For every £1 that we spent on fundraising for medical research, we raised £27



For every £1 that we spent on fundraising for developing research capacity in Africa, we raised £5

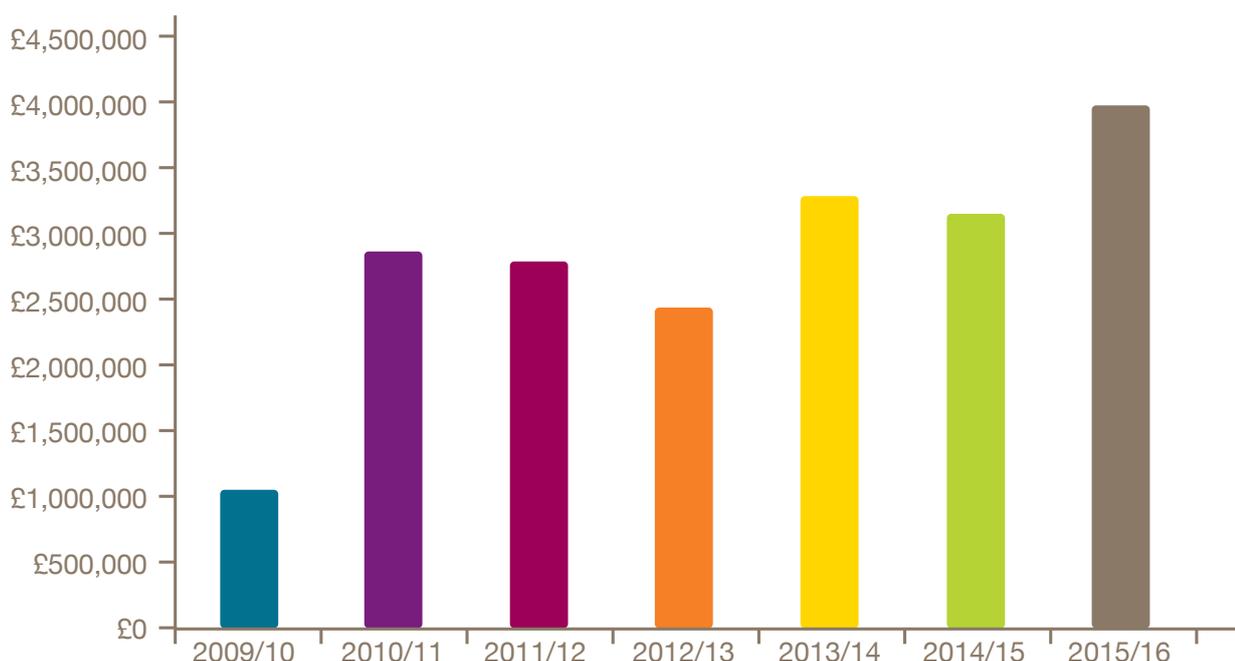
Incoming resources

We have had a reasonable year for voluntary income. Despite the economic downturn and the difficulties seen by many charities in raising funds in this environment, our voluntary income was relatively healthy at £1.2m, though this was lower than the previous two years (2014: £1.98m; 2015: £3.9m). Around half of this income was derived from legacies (£600k) with grants, donations and gifts-in-kind accounting for the remainder. This year's total income of £2.7m was significantly lower than the previous year (2015: £5.2m). We had been fortunate in 2015 to receive a single large legacy which amounted to 44% of our increased income that year. We will be implementing an active fundraising programme from 2016 to try to address this volatility in voluntary income. Our investments continued to provide just over half of our incoming resources and we received £1.39m in 2016 (2015: £1.36m). The financial markets were volatile during the year and the value of our investment holdings fluctuated throughout. At year-end, we had recognised losses on our investments assets of £1.57m and gains on investment property of £0.37m. We generated a small level of rental income from our residential property (£52k). This was lower than the previous year (2015: £66k) as the property was vacant for much of the time whilst we undertook a major refurbishment programme. The property has now reopened and is fully leased; going forward, rental income will increase and stabilise. In addition to our voluntary and investment income, we were in receipt of gifts-in-kind with a value of £365k. This was almost double the gifts-in-kind received in the previous year (2015: £192k) and the increase relates to support provided to our new Africa Research Excellence Fund connected charity.

Resources expended

Total expenditure during the year was £5.2m (2015: £4.0m) and expenditure on research commitments increased to £4.0m (2015: £3.2m) as we continued to pursue our long-term goal of spending more on research. This is the sixth year running that we have invested more in research than we received in income and reflects our on-going commitment to make more funds available to address the health issues that our donors and the UK's research experts wish to see investigated.

Our increasing commitment to research



The costs of raising funds

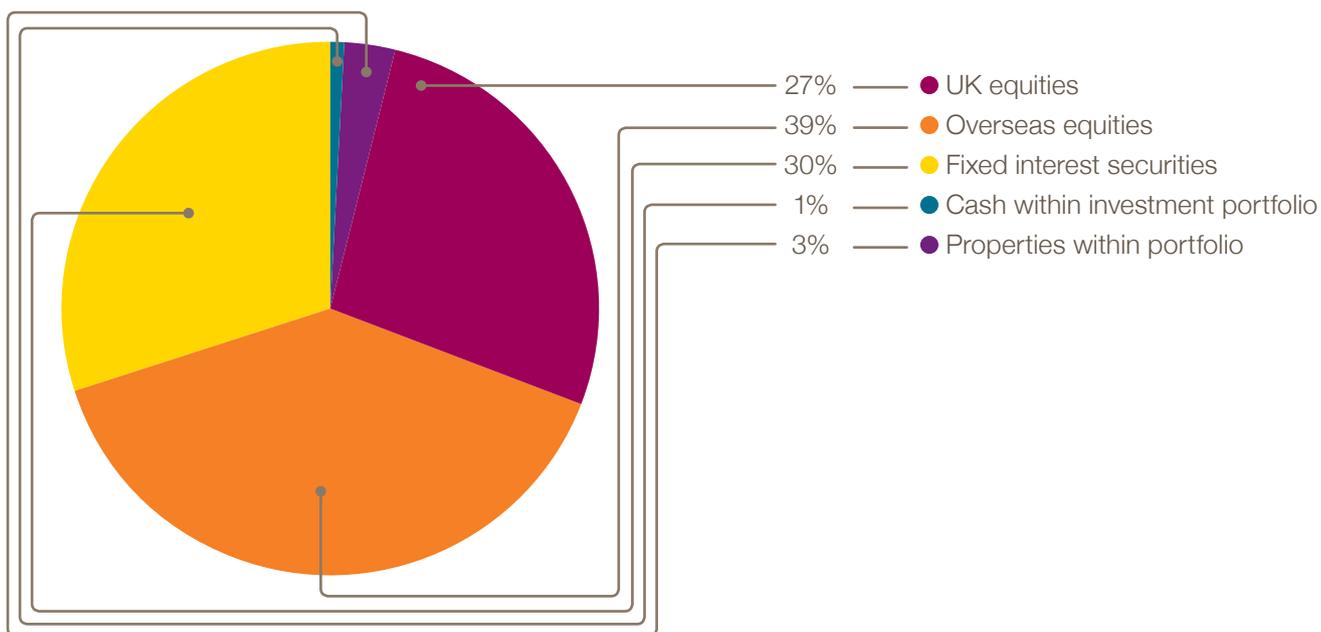
We continued to spend relatively little on generating voluntary income: £133k (2015: £74k), £25k of which was spent on raising charitable income for our medical research activities (we achieved a return on this investment of 27 times); and £108k raising funds for developing research capacity in Africa (a return on this investment of 5 times). The Africa Research Excellence Fund is a new charity and needs to make a significant investment in fundraising in order to achieve sufficient traction with the giving public that it can begin to raise sufficient funds to achieve its ambitious aims. We spent £14k developing a new fundraising strategy for our medical research fundraising activities which we will implement next year. Investment management fees of £166k were lower than the previous year (2015: £198k) and reflect a change in reporting. Governance costs decreased to £62k (2015: £90k), as a one-off legal fee relating to the sale of property was incurred in 2015.

Reserves policy

The trustees are committed to making more funding available to support research over the medium term and as a grant-giving charity, our commitments span many years. In addition, we do not actively fundraise for the majority of our activities but rely on the Medical Research Foundation's and the MRC's reputation to raise voluntary income, and on our investments to generate the income that we need to fulfil our commitments to existing research and our aims of increasing funds available for more research in the future. The charity's reserve policy has been designed to ensure that these commitments and aims can be fulfilled and reflects the fact that majority of the charity's voluntary income is relatively insecure and unpredictable; being dependent upon individual legacies and investment returns rather than regular programmed fundraising activities or major grants. The trustees consider it prudent to hold between £10 - £12m unrestricted funds in reserve. This reserve will provide funding for 2.5 years of identified research priorities, and associated operational costs, and is the timeframe that the trustees consider most realistic for generating new income streams should the existing streams fail. At 31 March 2016, the MRF held £10m (£11.9m at 31 March 2015). This is within the range that is acceptable to the trustees and we will review this in the coming year.

Investment policy and performance

We have an investment policy which aims to provide an annual income sufficient to allow us to achieve our goals of investing more in medical research whilst preserving the real value of the portfolio over the long term. We attach high importance to social, environmental and ethical considerations in relation to our investments; smoking causes a third of all cancer deaths in the UK and we do not invest directly or indirectly in tobacco manufacture or distribution. We require our investment managers to pay appropriate regard to relevant extra factors, including corporate governance, social, ethical and environmental considerations in the management of portfolios. We have set restrictions on our investments and have agreed a range of asset allocation limits within which our investment managers must operate. At 31 March 2016 the investments within our portfolio were allocated:



We have a benchmark against which our investment managers are monitored and they outperformed the benchmark by 1.1% for our main fund and 1.7% for our permanent endowment fund over the 12 months to 31 March 2016. Throughout the year, and with our investment managers, we have closely reviewed the suitability of our investment policy in the changing economic climate, and we concluded that it remains appropriate and achievable and will allow us to reach our research funding targets. We will undertake a wider review of our investment policy in the coming year. The trustees’ powers of investment are derived from the charity’s governing documents and in exercising these powers the trustees have acted in accordance with their duty as set out in the Trustee Act 2000.

Risk management

The Medical Research Foundation pays due regard to the management of risk. We have in place systems of internal control designed to manage the risk of failure to achieve policies, aims and objectives; these systems provide reasonable assurance of effectiveness. Major risks are considered to be those that have a high likelihood of occurring and would, if they occurred, have a severe impact on operational performance, achievement of aims and objectives or could damage the reputation of the Medical Research Foundation or the MRC. The risks associated with new activities are considered, assessed and reduced as part of the business case for the new activity. New risks to the existing business are managed as they arise. We review all major live risks at six-monthly intervals and risks that we have agreed to tolerate on an annual basis. Improvements to the risk management and control framework are continuously sought.

The trustees consider that the greatest risk that the charity faces is a reduction or withdrawal of gifts-in-kind which is considered to have a current value of £365k. Whilst the costs of replacing these services are not prohibitive for the Medical Research Foundation and would not create a financial risk, they would impact on our effective funding partnerships with the MRC and the ease and timeliness of the strategic advice that it provides in particular diseases areas. The charity is working with the MRC to ensure that any reduction of support is anticipated and managed.

Going Concern

The trustees consider it appropriate to adopt the going concern basis in preparing the financial statements. Cash balances are healthy and there are net assets on the balance sheet of £52.4m (2015: £56.1m). The Medical Research Foundation has sufficient assets to meet its liabilities as they fall due.

Post balance sheet events

There have been no significant post balance sheet events.

Our structure, governance and management

Legal entity

The Medical Research Foundation is a company limited by guarantee registered as a company in England and Wales on 6th September 2010 and as a registered charity on 30th September 2010. The governing documents of the charity are its Memorandum and Articles of Association.

Organisational structure

The Medical Research Foundation is governed by a Board of trustees, who for the purposes of the Companies Act 2006, act as Directors of the charitable company. The trustees' responsibilities include setting the strategic direction of the charity and providing effective governance. The Board meets at least four times each year. A director assists and advises the Board in all activities and has delegated authority for the implementation of the charity's policies and responsibility for the day-to-day management of the charity. The director is assisted by an operations manager, a grants and finance manager and a part-time administrator. The MRC provides the Medical Research Foundation with a range of services on a pro bono basis. Trustees give their time freely and there is no remuneration. Reasonable travel expenses are reimbursed.

The Medical Research Foundation is the corporate trustee for a number of connected charities (see Note 24 to the financial statements). The Medical Research Foundation director assists and advises the trustee in all activities relating to these charities (with the exception of the Africa Research Excellence Fund charity) and has delegated authority for the implementation of policies and responsibility for the day-to-day management of the connected charities. The Africa Research Excellence Fund (AREF) connected charity, established by a Declaration of Trust, is governed by the Medical Research Foundation as corporate trustee. Fund regulations have been established and the Medical Research Foundation has delegated authority to a committee, the AREF Board, to oversee the fund in accordance with the fund regulations. A part-time director assists and advises the AREF Board in all activities and has delegated authority for the implementation of the charity's policies and responsibility for the day-to-day management of the charity. The director is assisted by a part-time deputy director, full-time regional coordinator, part-time charity coordinator, full-time finance and fellowships manager, and full-time administrator. The Medical Research Foundation, Medical Research Council and Wellcome Trust provide AREF with a range of services on a pro bono basis.

The Medical Research Foundation holds over 100 funds for different purposes, all of which have been donated to the charity to support medical research. The funds were either donated to be used as the trustees see fit (unrestricted funds), were restricted by the donor for particular research purposes (restricted funds) or are permanent endowment funds which were established with a Trust Deed by the donor. Where the trustees have made in principle commitments to support new activities but further development is required before funds can be released, the trustees have designated funds for these purposes.

Appointment, induction and training of trustees

New trustees are appointed by the Board of the charitable company. Initial appointments are normally for a three year period and trustees can be reappointed for a further three years. Our constitution allows for no less than three and no more than seven trustees. The Board of trustees is committed to recruiting individuals with the necessary skills and expertise to progress the aims and objectives of the charity and recruitment processes are specific to the trustee vacancy. The MRC makes recommendations to the Board for two trustee positions and such appointments are then made by the Board of trustees. The Chair of the Board is elected annually by the trustees.

New trustees undertake a comprehensive induction programme focused on the strategic aims and objectives of the Medical Research Foundation, the relationship between the charity and the MRC, and any on-going policy reviews. Trustees are provided with opportunities for training in the duties and responsibilities associated with their role. Briefings are provided for all trustees, where relevant, by either the Medical Research Foundation's legal advisors, investment managers, accountants or other issue-specific experts. The MRC provides briefings on scientific matters.

The Board of trustees reviews its own effectiveness at eighteen-month intervals. Individual trustees meet with the Chair of the Board to discuss and assess personal and whole-Board effectiveness in the areas of general governance, strategic vision, expenditure on research, compliance and monitoring, and fundraising. Trustees review the performance of the director annually and professional advisors on a triennial basis.

Declared interests

Trustees, board and review panel members, and senior staff are required to disclose all private, professional or commercial interests that might, or might be perceived to, conflict with the Medical Research Foundation's, or connected charities' interests, and, in accordance with the charity's policy, withdraw from decisions where a conflict of interest arises. A register of these declared interests is maintained and is open to public inspection.

Key management personnel remuneration policy

The Medical Research Foundation and its connected charities do not directly employ staff (including key management personnel). The MRF's staff are employed by the Medical Research Council and seconded to the charity. This employment service is a gift-in-kind to the charity. The charity's staff are employed on MRC terms and conditions of employment and the MRC's pay and grading policies apply. The MRF reimburses the MRC for the direct costs of the staff that it employs on their behalf. The trustees are responsible for the remuneration of staff within the constraints of the MRC's remuneration policies and review the director's performance. The AREF connected charity key management personnel are provided as gifts-in-kind by the MRC.

Relationships with other organisations

The Medical Research Foundation cooperates with the Medical Research Council and other medical research funders in order to achieve its objectives. In the year, we co-funded research applications with the Medical Research Council and Asthma UK.

Funds held as Custodian Trustee on behalf of others

The Medical Research Foundation does not hold funds as Custodian Trustee on behalf of others.

Third party indemnity provisions

The Medical Research Foundation has purchased a professional indemnity insurance policy which indemnifies the charity, its trustee and employees against any loss arising from a wrongful act on their part. The total cost of this insurance for the year ended 31 March 2016 was £1,481 (2015: £1,226).

Financial instruments

The Trust does not acquire options, derivatives or other complex financial instruments. The main risk associated with financial instruments comes from uncertainty in the investment market and the volatility of yields. The charity controls this risk as best it can by retaining expert advisors and through regular review of the investment policy and strategy, and by directly holding less volatile assets, such as cash and property. Liquidity risk is expected to be low as all assets are traded on regulated markets. The ability to be able to buy and sell quoted stocks and equities is expected to continue and, as such, they could be sold if required. The stocks and equities held by the Medical Research Foundation are mainly traded in markets with good liquidity and high trading volumes. There are no material investment holdings in markets subject to exchange controls or trading restrictions.

Research and development

The Medical Research Foundation funds research and development but does not directly take part in any such activities. The Africa Research Excellence Fund connected charity delivers research training in order to meet its charitable objectives.

External audit

Crowe Clark Whitehill LLP, who is reappointed as auditor during the year, having expressed willingness to continue in office, will be deemed to be appointed for the next financial year in accordance with Section 487(2) of the Companies Act 2006 unless the company receives notice under Section 488(1) of the Companies Act 2006.

Auditor's Report

The trustees, who are also directors of the Medical Research Foundation for the purposes of company law, are responsible for preparing the report of the trustees and the financial statements in accordance with applicable law and United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards). Company law requires the trustees to prepare financial statements for each financial year. Under company law, the trustees must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the charitable company and of the incoming resources and application of resources, including the income and expenditure, of the charitable company for that period.

In preparing these financial statements, the trustees are required to:

- select suitable accounting policies and then apply them consistently;
- observe the methods and principles in the Charities SORP;
- make judgments and estimates that are reasonable and prudent;
- state whether applicable UK accounting standards have been followed, subject to any material departures disclosed and explained in the financial statements; and
- prepare the financial statements on the on-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 charitable company's transactions, disclose with reasonable accuracy at any one time the financial position of the charitable company and enable them to ensure that the financial statements comply with the Companies Act 2006 and the provisions of the charity's constitution. They are also responsible for safeguarding the assets of the charity and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities. Insofar as each of the trustees of the charity at the date of approval of this report is aware, there is no relevant audit information (information needed by the charity's auditor in connection with preparing the audit report) of which the charity's auditors is unaware. Each trustee has taken all of the steps that he/she should have taken as a trustee in order to make himself/herself aware of any relevant audit information and to establish that the charity's auditors is aware of that information.

Disclosure of information to the auditors

We, the directors of the company who held office at the date of approval of these Financial Statements as set out above each confirm, so far as we are aware, that:

- there is no relevant audit information of which the company's auditors are unaware; and
- we have taken all the steps that we ought to have taken as directors in order to make ourselves aware of any relevant audit information and to establish that the company's auditors are aware of that information.

On behalf of the Board



Professor Nicholas Lemoine
Chair of the Board of Trustees

Date: 28/11/2016

Independent Auditor's Report to the Members of the Medical Research Foundation

We have audited the financial statements of the Medical Research Foundation for the year ended 31 March 2016 which comprise the Statement of Financial Activities, the Summary Income and Expenditure Account, the Balance Sheet, the Statement of Cash Flows and the related notes numbered 1 to 29.

The financial reporting framework that has been applied in their preparation is applicable law and FRS 102, The Financial Reporting Standard applicable in the UK and Republic of Ireland, applicable to smaller entities.

This report is made solely to the charitable company's member, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the charitable company's member 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 charitable company and the company's member as a body, for our audit work, for this report, or for the opinions we have formed.

Respective responsibilities of trustees and auditor

As explained more fully in the Statement of Trustees' Responsibilities, the trustees (who are also the directors of the charitable company for the purpose of company law) are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view.

Our responsibility is to audit and express an opinion on the financial statements in accordance with applicable law and International Standards on Auditing (UK and Ireland). Those standards require us to comply with the Auditing Practices Board's Ethical Standards for Auditors.

Scope of the audit of the financial statements

An audit involves obtaining evidence about the amounts and disclosures in the financial statements sufficient to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or error. This includes an assessment of: whether the accounting policies are appropriate to the company's circumstances and have been consistently applied and adequately disclosed; the reasonableness of significant accounting estimates made by the directors; and the overall presentation of the financial statements.

In addition, we read all the financial and non-financial information in the Trustees' Report to identify material inconsistencies with the audited financial statements and to identify any information that is apparently materially incorrect based on, or materially inconsistent with, the knowledge acquired by us in the course of performing the audit. If we become aware of any apparent material misstatements or inconsistencies we consider the implications for our report.

Opinion on financial statements

In our opinion the financial statements:

- give a true and fair view of the state of the charitable company's affairs as at 31 December 2015 and of its incoming resources and application of resources, including its income and expenditure, for the year then ended;
- have been properly prepared in accordance with FRS 102, the Financial Reporting Standard applicable in the UK and Republic of Ireland, applicable to smaller entities; and
- have been prepared in accordance with the requirements of the Companies Act 2006.

Opinion on other matter prescribed by the Companies Act 2006

In our opinion the information given in the Trustees Annual Report for the financial year for which the financial statements are prepared is consistent with the financial statements.

Matters on which we are required to report by exception

We have nothing to report in respect of the following matters where the Companies Act 2006 requires us to report to you if, in our opinion:

- adequate accounting records have not been kept; 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; or
- the trustees were not entitled to prepare the financial statements in accordance with the small companies' regime and take advantage of the small companies' exemption in preparing the trustees' annual report.



Mike Hicks
Senior Statutory Auditor
For and on behalf of
Crowe Clark Whitehill LLP
Statutory Auditor
London

Date: 14/12/2016

Financial Statements

Statement of Financial Activities

| | | Unrestricted funds | Restricted funds | Endowment funds | 2016 Total | 2015 RESTATED Total |
|---|------|--------------------|------------------|-----------------|----------------|---------------------------|
| | Note | £000 | £000 | £000 | £000 | £000 |
| Income and endowments from: | | | | | | |
| Donations and legacies | 2 | 678 | 531 | - | 1,209 | 3,800 |
| Charitable activities | 3 | 52 | - | - | 52 | 66 |
| Investments | 4 | 744 | 649 | - | 1,393 | 1,364 |
| Total income and endowments | | 1,474 | 1,180 | - | 2,654 | 5,230 |
| Expenditure on: | | | | | | |
| Raising funds | 5 | (123) | (176) | - | (299) | (272) |
| Charitable activities | 6 | (4,082) | (789) | - | (4,871) | (3,730) |
| Total expenditure | | (4,205) | (965) | - | (5,170) | (4,002) |
| Net (losses)/ gains on investments assets | 14 | (857) | (621) | (88) | (1,566) | 4,671 |
| Net gains on investments properties | 14 | 334 | 38 | - | 372 | 1,700 |
| Net (expenditure)/ income | | (3,254) | (368) | (88) | (3,710) | 7,599 |
| Transfers between funds | 21 | (625) | 625 | - | - | - |
| Net movement in funds | | (3,879) | 257 | (88) | (3,710) | 7,599 |
| Reconciliation of funds: | | | | | | |
| Total funds brought forward | 21 | 31,568 | 19,532 | 5,000 | 56,100 | 48,501 |
| Total funds carried forward | | 27,689 | 19,789 | 4,912 | 52,390 | 56,100 |

All income and expenditure derives from continuing activities.

The statement of financial activities includes all gains and losses recognised during the year.

The notes on pages 44 to 70 form part of these financial statements.

Summary Income and Expenditure Account

| | | 2016 | 2015 |
|-------------------------------------|------|--------------|--------------|
| | Note | £000 | £000 |
| Income | | | |
| (Losses)/gains on investments | 14 | (1,194) | 6,371 |
| Interest and investment income | 4 | 1,393 | 1,364 |
| Gross income | | 199 | 7,745 |
| Expenditure | | | |
| Depreciation and impairment charges | | (161) | (146) |
| Total expenditure | | (161) | (146) |
| Net income | | 38 | 7,599 |

Balance Sheet

| | | 2016 | RESTATED 2015 |
|---|------|---------------|------------------|
| | Note | £000 | £000 |
| Fixed assets | | | |
| Functional property | 13 | 8,781 | 7,243 |
| Investment properties | 14 | 2,350 | 3,016 |
| Investment securities | 14 | 43,668 | 45,275 |
| | | 54,799 | 55,534 |
| Current assets | | | |
| Debtors | 15 | 221 | 163 |
| Short-term deposits | | 6,023 | 6,500 |
| Cash at bank and in hand | | 2,130 | 2,699 |
| | | 8,374 | 9,362 |
| Creditors: amounts falling due within one year | 16 | (6,628) | (5,633) |
| Net current assets | | 1,746 | 3,729 |
| Total assets less current liabilities | | 56,545 | 59,263 |
| Creditors: amounts falling due after more than one year | 17 | (4,155) | (3,163) |
| Net assets | | 52,390 | 56,100 |
| Charity Funds | | | |
| Permanent endowment funds | 21 | 4,912 | 5,000 |
| Restricted funds | 21 | 19,789 | 19,532 |
| Unrestricted funds | 21 | 27,689 | 31,568 |
| Total charity funds | | 52,390 | 56,100 |

Statement of Cash Flows

| | | 2016 | 2015 |
|--|-------|--------------|--------------|
| | Notes | £000 | £000 |
| Cash flow from operating activities | 24 | (1,818) | 121 |
| Net cash flow provided by/(used in) operating activities | | (1,818) | 121 |
| Cash flow from investing activities | | | |
| Payments to acquire tangible fixed assets | | (1,700) | (88) |
| Payments to acquire investments | | (12,854) | (10,878) |
| Receipts from sales of investments | | 13,933 | 11,001 |
| Dividends, interest and rents received from investments | | 1,393 | 1,346 |
| Net cash flow provided by/(used in) investing activities | | 772 | 1,399 |
| Change in cash and cash equivalents in the year | | (1,046) | 1,519 |
| Cash and cash equivalents at 1 April 2015 | | 9,199 | 7,680 |
| Cash and cash equivalents at 31 March 2016 | | 8,153 | 9,199 |
| Cash and cash equivalents consists of: | | | |
| Cash at bank and in hand | | 2,130 | 2,699 |
| Short-term deposits | | 6,023 | 6,500 |
| Cash and cash equivalents at 31 March 2016 | | 8,153 | 9,199 |

The Medical Research Foundation holds permanent endowment funds valued at £4,912,000 at 31 March 2016 (2015: £5,000,000). These are held in the form of managed investment funds and are unavailable for use by the Medical Research Foundation. Net gains or losses attributable to these funds are recognised quarterly and income generated is available support research specified by the donor.

The financial statements were approved and authorised for issue by the Board Signed on behalf of the board of trustees



Professor Nicholas Lemoine
Chair of the Board of Trustees

Date: 28/11/2016

The notes on pages 44 to 70 form part of these financial statements.
Company registration number: 7366816

Notes to the Financial Statements

1 • Summary of significant accounting policies

(a) General information and basis of preparation

The Medical Research Foundation is a company limited by guarantee in the England and Wales. In the event of the charity being wound up, the liability in respect of the guarantee is limited to £1 per member of the charity. The address of the registered office is given in the charity information on page 5 of these financial statements. The nature of the charity's operations and principal activities are described on page 6.

The charity constitutes a public benefit entity as defined by FRS 102. 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) issued on 16 July 2014, the Financial Reporting Standard applicable in the United Kingdom and Republic of Ireland (FRS 102), the Charities Act 2011, the Companies Act 2006 and UK Generally Accepted Practice as it applies from 1 January 2015.

The financial statements are prepared on a going concern basis under the historical cost convention, modified to include certain items at fair value. The financial statements are prepared in sterling which is the functional currency of the charity and rounded to the nearest £000.

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

The charity adopted SORP (FRS 102) in the current year and an explanation of how transition to SORP (FRS 102) has affected the reported financial position and performance is given in note 33.

(b) Funds

Permanent Endowment funds represent capital gifts to the charity for specified areas of medical research or associated activity. The terms imposed by the donors under the legacy or donation determine how the income generated by the capital may be used. The capital element of the permanent endowment funds is ring-fenced and remains within the endowment fund. Details of each fund can be found in the notes to the financial statements.

Restricted funds are for specified areas of medical research or associated activity, imposed by the donors under the terms of the legacy or donation. Income generated from the assets held in these funds is legally subject to the same restrictions as the original funds. Details of each fund can be found in the notes to the financial statements.

Unrestricted funds are available for use at the discretion of the trustees in furtherance of the general objectives of the charity and which have not been designated for other purposes.

Designated funds comprise unrestricted funds that have been set aside by the trustees for particular charitable purposes. The aim and use of each designated fund is set out in the notes to the financial statements.

(c) Income recognition

All incoming resources are included in the Statement of Financial Activities (SoFA) when the charity is legally entitled to the income, after any performance conditions have been met, when the amount can be measured reliably and when it is probable that the income will be received.

Income from donations is recognised on receipt, unless there are conditions attached to the donation that require a level of performance before entitlement can be obtained. In this case income is deferred until those conditions are fully met or the fulfilment of those conditions is within the control of the charity and it is probable that they will be fulfilled.

Fixed asset gifts-in-kind are recognised when receivable and are recognised at fair value.

Legacy income is recognised when the charity becomes aware that probate has been granted, there are sufficient assets in the estate to pay the legacy and that any conditions attached to the legacy are either in control of the charity or have already been met. On occasion legacies will be notified where it is not possible to measure the amount expected to be distributed with sufficient reliability. On these occasions, the legacy is treated as a contingent asset and disclosed.

Investment income is earned through holding assets for investment purposes such as shares and property. It includes dividends, interest and rent. Investment income and the surplus or deficit arising from the sale or revaluation of assets, is allocated to the funds in proportion to the value of each fund, as at the balance sheet date and appropriate intermediate dates.

(d) Expenditure recognition

Commitment accounting is employed. All expenditure is accounted for on an accruals basis. Expenditure is recognised where there is a legal or constructive obligation to make payments to third parties, it is probable that the settlement will be required and the amount of the obligation can be measured reliably. It is categorised under the following headings:

- Costs of raising funds includes the direct cost of advertising, fundraising consultants and investment manager's fees;
- Expenditure on charitable activities is determined by the aims of the charity – to fund biomedical research and related activities. Research costs, equipment, dissemination and travel grants, fellowships, studentships and scholarships and the costs associated with reviewing, awarding and managing them, are charged when the obligation to pay arises i.e. the full amount of the grant is accrued when a commitment is made. This category also includes the costs of maintaining the functional property used to facilitate medical research, which are charged as they arise. These costs include donated services and facilities (gifts-in-kind) which are allocated on a pro-rata basis from an estimate of staff time and are apportioned at the end of the year; and,
- Other expenditure represents those items not falling into the categories above.

Irrecoverable VAT is charged as an expense against the activity for which expenditure arose.

(e) Support costs allocation

Support costs are those that assist the work of the charity but do not directly represent charitable activities and include office costs and governance costs. They are incurred directly in support of expenditure on the objects of the charity. Where support costs cannot be directly attributed to particular headings they have been allocated to cost of raising funds and expenditure on charitable activities on a basis consistent with use of the resources. All support costs have been allocated on the basis of actual usage.

Fundraising costs are those incurred in seeking voluntary contributions and do not include the costs of disseminating information in support of the charitable activities.

The analysis of these costs is included in note 7.

(f) Tangible fixed assets – Functional property

Property fixed assets are stated at valuation less depreciation. Costs of freehold improvements are added to this value, if these are incurred between valuations.

Depreciation is provided at rates calculated to write off the values of the properties, less their estimated residual value, over their expected useful lives at the following effective rates:

Freehold buildings – 2% per annum on the straight line basis.

Freehold improvements – 5% per annum on the straight line basis.

(g) Tangible fixed assets - Investment properties

Investment properties are measured at fair value at each balance sheet date, with changes in fair value recognised in 'net gains/(losses) on investments' in the SoFA. A full valuation of the investment properties will take place every five years.

(h) Tangible fixed assets – Investments securities

Publicly traded investments, or those where fair value can otherwise be measured reliably, are measured at fair value at each balance sheet date, with changes in fair value recognised in 'net gains/(losses) on investments' in the SoFA. Other investments are measured at cost less impairment.

Current asset investments are short-term highly liquid investments and are held at fair value. These include cash on deposit and cash equivalents with a maturity of less than one year.

(i) Debtors and creditors receivable/payable within one year

Debtors and creditors with no stated interest rate and receivable or payable within one year are recorded at transaction price. Any losses arising from impairment are recognised in expenditure.

(j) Loans and borrowings

Loans and borrowings are initially recognised at the transaction price including transaction costs. Subsequently, they are measured at amortised cost using the effective interest rate method.

(k) Impairment

Assets not measured at fair value are reviewed for any indication that the asset may be impaired at each balance sheet date. If such indication exists, the recoverable amount of the asset is estimated and compared to the carrying amount. Where the carrying amount exceeds its recoverable amount, an impairment loss is recognised in the relevant expenditure heading in the SoFA.

(l) Provisions

Provisions are recognised when the charity has an obligation at the balance sheet date as a result of a past event, it is probable that an outflow of economic benefits will be required in settlement and the amount can be reliably estimated.

(m) Foreign currency

Foreign currency transactions are initially recognised by applying to the foreign currency amount the spot exchange rate between the functional currency and the foreign currency at the date of the transaction.

Monetary assets and liabilities denominated in a foreign currency at the balance sheet date are translated using the closing rate.

(n) Tax

The charity is an exempt charity within the meaning of schedule 3 of the Charities Act 2011 and is considered to pass the tests set out in Paragraph 1 Schedule 6 of the Finance Act 2010. It therefore meets the definition of a charitable company for UK corporation tax purposes.

2 • Income from donations and legacies

| | 2016 | 2015 |
|-----------------------|--------------|--------------|
| | £000 | £000 |
| Bequests and legacies | 601 | 3,376 |
| Grants | 167 | 147 |
| Donations | 76 | 80 |
| Gifts-in-kind income | 365 | 192 |
| | 1,209 | 3,800 |

Income from donations and legacies was £1,209,000 (2015: £3,800,000) of which £nil (2015: £nil) was attributable to permanent endowments, £531,000 (2015: £230,000) was attributable to restricted funds and £678,000 (2015: £3,570,000) was attributable to unrestricted funds.

Gifts-in-kind income represents the total costs borne by other organisations on behalf of the charity, and is all attributable to charitable activities.

The Medical Research Council provided the gifts-in-kind received by the Medical Research Foundation in the year. These services, detailed in an agreement between the MRC and the trustees, include HR and IT services, accommodation and meeting space and the time of research, estates and project managers spent on MRF's business, peer review and property refurbishment. The MRC and the Wellcome Trust provided the services of the AREF charity executive team and the MRC provided free accommodation and other support for AREF. These free facilities and services gifts-in-kind are recorded as voluntary income in the SOFA and are also recorded as expenditure. They are apportioned to charitable activities.

No government grants were received in the year (2015: £nil).

At 31 March 2016, there were three legacies which had been notified to the charity, but which had not met the criteria for recognition. Two of these legacies could be valued at £298,000 and a third could not be valued as at the balance sheet date and the date of signature of these financial statements.

3 • Income from charitable activities

| | 2016 | 2015 |
|--------------------------------------|------|------|
| | £000 | £000 |
| Rental income from functional assets | 52 | 66 |

Income from charitable activities was £52,000 (2015: £66,000) of which all (2015: all) was attributable to unrestricted funds. The total commercial market rent that could be achieved on the functional property is estimated to be £200,000 (2014: £195,000). The amount of rental income receivable is as shown.

4 • Income from investments

| | 2016 | 2015 |
|--|-------|-------|
| | £000 | £000 |
| Dividends - equities | 1,334 | 1,308 |
| Interest - deposits | 38 | 28 |
| Rental income from investment properties | 21 | 28 |
| | 1,393 | 1,364 |

Income from investments was £1,393,000 (2015: £1,364,000) of which £nil (2015: £nil) was attributable to permanent endowments, £649,000 (2015: £610,000) was attributable to restricted funds and £744,000 (2015: £754,000) was attributable to unrestricted funds.

5 • Costs of generating funds

| | 2016 | 2015 |
|---------------------------|------------|------------|
| | £000 | £000 |
| Costs of generating funds | 133 | 74 |
| Investment manager fees | 166 | 198 |
| | 299 | 272 |

Costs of generating funds was £299,000 of which £nil (2015: £nil) was attributable to permanent endowment funds, £176,000 (2015: £144,000) was attributable to restricted funds and £123,000 (2015: £128,000) was attributable to unrestricted funds.

Costs of generating funds include the costs of advertising for legacies for the Medical Research Foundation (£13,000 in 2016 and £12,000 in 2015) and developing a new fundraising strategy and fundraising consultants recruited to raise voluntary income for the Africa Research Excellence Fund charity (£90,000 in 2016 and £60,000 in 2015) plus associated expenses.

No investment manager fees have been charged to the Africa Research Excellence Fund charity.

6 • Analysis of expenditure on charitable activities

| | Costs related to functional property | Costs related to charitable activities | Support costs | 2016 Total | Restated 2015 Total |
|-----------------------------|--------------------------------------|--|---------------|--------------|---------------------|
| | £000 | £000 | £000 | £000 | £'000 |
| Medical research | 349 | 3,592 | 380 | 4,321 | 3,720 |
| Research capacity in Africa | - | 210 | 340 | 550 | 10 |
| | 349 | 3,802 | 720 | 4,871 | 3,730 |

Expenditure on charitable activities was £4,871,000 (2015: £3,730,000) of which £nil (2015: £nil) was attributable to permanent endowment funds, £789,000 (2015: £95,000) was attributable to restricted funds (including the AREF charity) and £4,082,000 (2015: £3,635,000) was attributable to unrestricted funds.

7 • Allocation of support costs

| Support cost | Basis of allocation | Medical research | Research capacity in Africa | 2016 Total | Restated 2015 Total |
|-----------------------------------|---------------------|------------------|-----------------------------|------------|---------------------|
| | £000 | £000 | £000 | £000 | £'000 |
| Governance (see note 8) | Actual usage | 56 | 8 | 64 | 90 |
| Derived from gifts-in-kind income | Actual usage | 70 | 295 | 365 | 192 |
| Human resources | Actual usage | 196 | 12 | 208 | 134 |
| Office costs | Actual usage | 58 | 25 | 83 | 35 |
| Total | | 380 | 340 | 720 | 451 |

No support costs have been allocated to costs of raising funds.

8 • Governance costs

| | 2016 | 2015 |
|-------------------------------|-----------|-----------|
| | £000 | £000 |
| Auditor's remuneration | 18 | 15 |
| Legal fees | 31 | 33 |
| Other direct governance costs | 15 | 42 |
| | 64 | 90 |

9 • Analysis of grants

| | Grants to institutions | Grants to individuals | Support costs | 2016 Total | 2015 Total |
|-----------------------------|------------------------|-----------------------|---------------|------------|------------|
| | £000 | £000 | £000 | £000 | £'000 |
| Medical research | 3,747 | 9 | 380 | 4,136 | 3,590 |
| Research capacity in Africa | 210 | - | 340 | 550 | 10 |
| | 3,957 | 9 | 720 | 4,686 | 3,600 |

Recipients of grants to institutions:

| | Number | Medical research £000 | Research capacity in Africa £000 | 2016 Total £000 | 2015 Total £'000 |
|--|--------|--------------------------|-------------------------------------|--------------------|---------------------|
| Cardiff University, UK | - | - | - | - | 280 |
| Imperial College London, UK | 1 | 210 | - | 210 | 1 |
| King's College London, UK | - | - | - | - | 384 |
| Liverpool School of Tropical Medicine, UK | 2 | 51 | 35 | 86 | - |
| London School of Hygiene and Tropical Medicine, UK | 1 | - | 29 | 29 | 38 |
| MRC Institute of Genetic and Molecular Medicine, Edinburgh, UK | 1 | 18 | - | 18 | - |
| MRC Institute of Hearing Research, Nottingham, UK | 1 | 10 | - | 10 | 10 |
| MRC Laboratory of Molecular Biology, Cambridge, UK | 20 | 386 | - | 386 | 155 |
| MRC Mitochondrial Biology Unit, Cambridge, UK | 1 | 23 | - | 23 | - |
| MRC Lifecourse Epidemiology Unit, Southampton, UK | - | - | - | - | 1 |
| MRC The Gambia Unit, Gambia | - | - | - | - | 340 |
| MRC Toxicology Unit, UK | 1 | 65 | - | 65 | - |
| Queen's University Belfast, UK | 1 | 163 | - | 163 | - |
| The Francis Crick Institute, London, UK | 1 | 25 | - | 25 | 1,821 |
| University College London, UK | 2 | 1,000 | - | 1000 | 32 |
| University of Cambridge, UK | - | - | - | - | 1 |
| University of Cape Town, South Africa | 2 | - | 25 | 25 | - |
| University of Edinburgh, UK | 1 | 202 | - | 202 | 7 |

| | | | | | |
|--|---|-------|-----|-------|-------|
| University of Glasgow, UK | - | - | - | - | 1 |
| University of Liverpool, UK | 2 | 310 | 39 | 349 | 251 |
| University of Nottingham, UK | 4 | 597 | - | 597 | - |
| University of Oxford, UK | 2 | - | 82 | 82 | 133 |
| University of Southampton, UK | 3 | 505 | - | 505 | - |
| University of the West of Scotland, UK | 1 | 231 | - | 231 | - |
| University of Newcastle, UK | 1 | 226 | 0 | 226 | - |
| Less Commitments recovered* | | (275) | | (275) | (44) |
| | | 3,747 | 210 | 3,957 | 3,411 |

* this relates to grants that have terminated and residual unclaimed funds have been recovered or grants that have been closed at one institution and then awarded to another (e.g. when a researcher moves institution).

Grants to individuals amounted to £9,000 (2015: £9,000).

Of the total grants payable, £nil related to grants made from unrestricted funds (2015: £648,000), £3,518,000 related to designated funds (2015: £2,647) and £439,000 related to restricted funds (2015: £125,000).

10 • Net (expenditure)/income for the year

Net expenditure is stated after charging/(crediting):

| | 2016 | 2015 |
|--|-------|---------|
| | £000 | £000 |
| Depreciation of tangible fixed assets | 161 | 146 |
| Impairment of tangible fixed assets | - | - |
| (Gain) on fair value movement of investment property | 334 | (1,700) |
| Profit on sale of fixed asset investment | (38) | - |
| Loss/(profit) on fair value movement of investments | 1,566 | (4,671) |
| | 2,023 | (6,225) |

11 • Auditor's remuneration

The auditor's remuneration amounts to an audit fee of £18,000 (2015: £15,000). No other services were provided.

12 • Trustee and key management personnel remuneration and expenses

The total amount of employee benefits received by key management personnel during the year was £133k (£131k in 2015). The Medical Research Foundation considers its key management personnel to comprise of the Director and the Director of the Africa Research Excellence Fund charity. The Medical Research Foundation does not act as its own employer. All staff are contracted by the Medical Research Council and seconded to the MRF. The charity reimburses the MRC for the full costs of the staff that it employs on the charity's behalf.

Employees whose annual emoluments for the year fell within the following bands:

| | 2016 | 2015 |
|---------------------|------|------|
| £60,000 - £70,000 | 1 | 1 |
| £100,000 - £110,000 | 1 | 1 |

Both of these staff worked on the Africa Research Excellence Fund Charity.

The following trustees' expenses were reimbursed or paid directly on their behalf during the year:

| | 2016 | 2015 | 2016 | 2015 |
|---------------------------------------|--------|--------|------|------|
| | Number | Number | £000 | £000 |
| Travel, Subsistence and Accommodation | 6 | - | 3 | - |
| | 6 | - | 3 | - |

None of the expenses above have been paid directly to third parties.

13 • Tangible fixed assets

| | Freehold Land and buildings | Freehold Improvements | Assets in the Course of Construction | Total |
|-----------------------------|--------------------------------|--------------------------|--|--------------|
| | £000 | £000 | £000 | £000 |
| Cost or valuation: | | | | |
| At 1 April 2015 (restated) | 7,300 | - | 88 | 7,388 |
| Additions | - | 38 | 1,662 | 1,700 |
| Transfers | - | 1,750 | (1,750) | - |
| At 31 March 2016 | 7,300 | 1,788 | - | 9,088 |
| Depreciation: | | | | |
| At 1 April 2015 (restated) | (146) | - | - | (146) |
| Charge for the year | (146) | (15) | - | (161) |
| At 31 March 2016 | (292) | (15) | - | (307) |
| Net book value: | | | | |
| At 31 March 2016 | 7,008 | 1,773 | - | 8,781 |
| At 31 March 2015 (restated) | 7,154 | - | 88 | 7,243 |

The net book value of land and buildings comprised:

| | 2016 | 2015 |
|---------------------------|--------------|--------------|
| | £000 | £000 |
| Cost or valuation: | | |
| Freehold | 7,300 | 7,300 |
| | 7,300 | 7,300 |
| Depreciation: | | |
| Freehold | (292) | (146) |
| | (292) | (146) |
| Net book value | 7,008 | 7,154 |

13 • Tangible fixed assets (continued)

The Medical Research Foundation holds the following property:

Perrin Lodge, Hampstead, London

Perrin Lodge is a freehold property built in the late 1960's using charitable funds. It consists of 14 self-contained flats used to house medical researchers with the aim of facilitating collaborative research and skill sharing. It was valued at 1 April 2014 by Powis Hughes Chartered Surveyor at £7,300,000.

No borrowing costs have been included in the cost of fixed assets.

14 • Fixed asset investments

| | Listed investments | Investment properties | Total |
|-------------------------|--------------------|-----------------------|----------|
| Cost or valuation | | | £000 |
| At 1 April 2015 | 45,275 | 3,016 | 48,291 |
| Additions | 12,854 | - | 12,854 |
| Disposals | (12,895) | (1,038) | (13,933) |
| Revaluation | - | 334 | 334 |
| Net gains and losses | (1,566) | 38 | (1,528) |
| At 31 March 2016 | 43,668 | 2,350 | 46,018 |
| Carrying amount: | | | |
| At 31 March 2016 | 43,668 | 2,350 | 46,018 |
| At 31 March 2015 | 45,275 | 3,016 | 48,291 |

Investments at fair value comprise:

| | 2016 | 2015 |
|--|---------------|---------------|
| | £000 | £000 |
| UK equities | 11,703 | 11,625 |
| Overseas equities | 17,032 | 19,772 |
| Fixed interest securities | 13,119 | 11,264 |
| Cash within investment portfolio | 592 | 1,476 |
| Investment properties within investment portfolio | 1,222 | 1,138 |
| Investment properties held outside of investment portfolio | 2,350 | 3,016 |
| | 46,018 | 48,291 |

14 • Fixed asset investments (continued)

The fair value of listed investments is determined by reference to the quoted price for identical assets in an active market at the balance sheet date.

The fair value of investment properties held outside of the portfolio is determined by independent, professional valuation at 31 March 2016. The Medical Research Foundation's interests in the investment properties were originally valued at the date of transfer (18 July 2013). One of the properties was sold in the year ended 31 March 2016. The remaining property was professionally valued at 31 March 2016 by Pater Johnson Merriman, Chartered Surveyors using the investment valuation method, which considers the aggregate rental value of the property and then assumes a market yield which enables the potential income to be capitalised to provide a freehold value of £2,350,000.

The following investment is considered material:

| | 2016 | 2015 |
|---|-------|-------|
| Newton Financial Management Ltd Global Growth and Income Fund for Charities | 4,893 | 4,981 |

15 • Debtors

| | 2016 | 2015 |
|----------------|------|------|
| | £000 | £000 |
| Accrued Income | 221 | 163 |
| | 221 | 163 |

16 • Creditors: amounts falling due within one year

| | 2016 | 2015 |
|-------------------|-------|-------|
| | £000 | £000 |
| Trade creditors | - | 36 |
| Grant commitments | 6,161 | 5,404 |
| Accruals | 451 | 179 |
| Audit fees | 16 | 14 |
| | 6,628 | 5,633 |

17 • Creditors: amounts falling due after more than one year

| | 2016 | 2015 |
|-------------------|-------|-------|
| | £000 | £000 |
| Grant Commitments | 4,155 | 3,163 |

18 • Grants payable

| | Under 1 year | Over 1 year | Total |
|------------------------------|--------------|--------------|---------------|
| | £000 | £000 | £000 |
| At 1 April 2015 | 5,404 | 3,163 | 8,567 |
| Cancelled grants | | - | (275) |
| Amounts paid during the year | (2,208) | - | (2,208) |
| Grants committed in the year | 3,240 | 992 | 4,232 |
| At 31 March 2016 | 6,161 | 4,155 | 10,316 |

Accrued grant commitments total £10,316,000 (2015: £8,567,000) of which £nil (2015: £nil) was attributable to endowments, £625,000 (2015: negative £534,000) was attributable to restricted and £9,691,000 (2015: £9,101,000) was attributable to unrestricted funds.

19 • Provisions for liabilities

The Medical Research Foundation has no provisions for liabilities at 31 March 2016 (2015: £nil).

20 • Contingent liabilities/assets

The Medical Research Foundation has no contingent assets or liabilities at 31 March 2016 (2015: £nil).

21 • Fund reconciliation Unrestricted and Designated funds

| | Restated Balance at 1 April 2015 | Income | Expenditure | Transfers | Gains/ (losses) | Balance at 31 March 2016 |
|---|--|------------|----------------|-------------|--------------------|-----------------------------|
| | £000 | £000 | £000 | £000 | £000 | £000 |
| Unrestricted Funds | | | | | | |
| General Purposes Fund | 17,352 | 667 | (704) | (292) | (464) | 16,559 |
| Designated Funds | | | | | | |
| Asthma Research Fund | 930 | 20 | (879) | 0 | (65) | 6 |
| Balzan Prize (Meade Research Fund) | 82 | 2 | 0 | 0 | (3) | 81 |
| Descartes Prize Fund | 150 | 4 | 0 | 0 | (6) | 148 |
| Diagnostic Techniques Research Fund | 528 | 14 | (2) | (1) | (16) | 523 |
| Eye Diseases Research Fund | 728 | 19 | (3) | (1) | (21) | 722 |
| General Purposes (Scotland) Research Fund | 135 | 4 | 0 | 0 | (4) | 135 |
| Genetics of Mitochondrial Diseases | 93 | 2 | (24) | 0 | (3) | 68 |
| Herrick Lupus Erythematosus Prize Fund | 0 | 429 | 0 | 0 | 1 | 430 |
| Human Movement & Balance Research Fund | 152 | 4 | 0 | 0 | (4) | 152 |
| Intellectual Disabilities Research Fund | 1,080 | 23 | (903) | (1) | (33) | 166 |
| Jeantet Prize Fund (Skehel) | 157 | 4 | (1) | 0 | (4) | 156 |
| Jeantet Prize Fund (Unwin) | 303 | 8 | (21) | 0 | (10) | 280 |
| John Chadwick Barlow Bequest | 172 | 5 | (1) | 0 | (5) | 171 |
| Kathleen Goff Training Fund | 3,545 | 92 | (6) | (55) | 313 | 3,889 |
| Leukaemia Research Fund | 269 | 7 | (1) | 0 | (8) | 267 |
| Lupus Erythematosus Research Fund | 719 | 19 | (3) | (1) | (21) | 713 |
| MRC Cardiovascular Imaging Research Fund | 165 | 4 | 0 | 0 | (5) | 164 |
| MRC Clinical Sciences Centre General Purposes Research Fund | 208 | 5 | (1) | 0 | (6) | 206 |
| MRC Clinical Trials Unit Research Fund | 119 | 3 | 0 | 0 | (3) | 119 |
| Subtotal | 9,535 | 668 | (1,845) | (59) | 97 | 8,396 |

21 • Fund reconciliation (continued)

| | Restated Balance at 1 April 2015 | Income | Expenditure | Transfers | Gains/ (losses) | Balance at 31 March 2016 |
|---|--|--------------|----------------|--------------|--------------------|-----------------------------|
| | £000 | £000 | £000 | £000 | £000 | £000 |
| 21 Fund reconciliation (continued) | | | | | | |
| Carried over from previous page | 9,535 | 668 | (1,845) | (59) | 97 | 8,396 |
| MRC CSC Bydder Research Fund | 144 | 1 | 0 | (135) | (10) | 0 |
| MRC CSC Cyclotron Unit Greenleaf Bequest | 66 | 1 | 0 | (62) | (4) | 1 |
| MRC Cyclotron Unit Horlock Bequest | 51 | 1 | 0 | 0 | (1) | 51 |
| MRC Institute of Hearing Research General Research Fund | 266 | 6 | (16) | (1) | (8) | 247 |
| MRC Institute of Hearing Research Stuart Gray Bequest | 370 | 10 | (1) | 0 | (11) | 368 |
| MRC LMB BIORAD Visiting Fellows Research Fund | 359 | 9 | (59) | 0 | (13) | 296 |
| MRC LMB Fersht Research Fund | 186 | 4 | (105) | 0 | (6) | 79 |
| MRC LMB Techne Fund | 327 | 9 | (1) | (1) | (10) | 324 |
| MRC LMB Yamanouchi Research Fund | 59 | 2 | 0 | 0 | (2) | 59 |
| MRC NIMR General Purposes Research Fund | 143 | 4 | 0 | 0 | (4) | 143 |
| MRC NIMR Robinson Research Fund | 278 | 7 | (101) | 31 | (8) | 207 |
| MRC Toxicology Unit Research Fund | 134 | 2 | (65) | 0 | (5) | 66 |
| Neurochemical Pathology | 68 | 1 | 0 | (64) | (5) | 0 |
| Nutrition Research Fund | 146 | 4 | 0 | 0 | (5) | 145 |
| Respiratory Medicine Research Fund | 1,237 | 51 | (1,214) | (2) | (37) | 35 |
| Rosa Beddington Fund | 479 | 13 | (27) | (1) | (14) | 450 |
| Stroke/Arterial Illness Research Fund | 100 | 3 | 0 | (1) | (3) | 99 |
| | 268 | 11 | (67) | (38) | (10) | 164 |
| Total Designated Funds | 14,216 | 807 | (3,501) | (333) | (59) | 11,130 |
| Total Unrestricted and Designated Funds | 31,568 | 1,474 | (4,205) | (625) | (523) | 27,689 |

21 • Fund reconciliation (continued) Restricted funds

| | Restated Balance at 1 April 2015 | Income | Expenditure | Transfers | Gains/ (losses) | Balance at 31 March 2016 |
|--|--|--------|-------------|-----------|--------------------|-----------------------------|
| | £000 | £000 | £000 | £000 | £000 | £000 |
| Africa Research Excellence Fund charity | 153 | 529 | (655) | 652 | - | 679 |
| Alice Cory Fellowship Income Fund | 583 | 26 | (2) | (1) | (17) | 589 |
| Cancer Research Fund | 3,575 | 95 | (13) | (4) | (106) | 3,547 |
| Dorothy Temple Cross Bequest Income Fund | 221 | 7 | (1) | 0 | (7) | 220 |
| Dr Gornall Bequest Medical Income Fund | 6 | 7 | 0 | (2) | (1) | 10 |
| Fleming Memorial Fund for Medical Research | 3,281 | 87 | (46) | (4) | (99) | 3,219 |
| Hepatitis Research Tartellin Fund | 1,371 | 36 | (5) | (2) | (40) | 1,360 |
| Jeantet Prize Fund (Pelham) | 1,652 | 43 | (56) | (2) | (50) | 1,587 |
| Liver Disease Research Fund | 63 | 2 | (10) | 0 | (2) | 53 |
| Mental Health Research Fund | 919 | 24 | (13) | (1) | (27) | 902 |
| MRC LMB Celltech Research Fellowships Fund | 938 | 23 | (122) | (1) | (32) | 806 |
| MRC LMB Merck Visiting Research Fellow Fund | 784 | 21 | (3) | (1) | (24) | 777 |
| MRC LMB Strauss Fund | 839 | 22 | (21) | (2) | (25) | 813 |
| Pain Research Fund | 848 | 22 | (3) | (1) | (25) | 841 |
| Poliomyelitis Research Fund | 1,082 | 29 | (3) | (2) | (32) | 1,074 |
| Sir Leonard Rogers Tropical Medicine Research Fund | 1,422 | 135 | (5) | (2) | (42) | 1,508 |
| Rheumatic Diseases Research Fund | 1,501 | 40 | (5) | (2) | (45) | 1,489 |
| Sir Cusrow Wadia Research Fund | 189 | 5 | (1) | 0 | (6) | 187 |
| Whittaker Bequest for Alzheimer's & Parkinson's disease research | 9 | 0 | 0 | 0 | 0 | 9 |
| Williams Barker Bequest Income Fund | 96 | 27 | (1) | 0 | (3) | 119 |
| | 19,532 | 1,180 | (965) | 625 | (583) | 19,789 |

21 • Fund reconciliation (continued) Permanent endowments

| | Restated Balance at 1 April 2015 | Income | Expenditure | Transfers | Gains/ (losses) | Balance at 31 March 2016 |
|--|--|--------|-------------|-----------|--------------------|-----------------------------|
| | £000 | £000 | £000 | £000 | £000 | £000 |
| Alice Cory Fellowship Fund | 355 | - | - | - | (6) | 349 |
| The Susan Catherine, Cecily May and Dr Thomas Beardwood Gornall Fund for medical research | 230 | - | - | - | (4) | 226 |
| The Susan Catherine, Cecily May and Dr Thomas Beardwood Gornall Fund for asthma research | 252 | - | - | - | (4) | 248 |
| Gertrude Nicholl Bequest Fund | 145 | - | - | - | (3) | 142 |
| Dorothy Temple Cross Fellowship Fund | 46 | - | - | - | (1) | 45 |
| Williams Barker Bequest Fund | 726 | - | - | - | (13) | 713 |
| Sir Leonard Rogers Tropical Medicine Research Fund | 3,246 | - | - | - | (57) | 3,189 |
| | 5,000 | - | - | - | (88) | 4,912 |

Fund descriptions

a) Permanent endowment funds

These permanent endowment capital funds are invested and the investment gains/(losses) on the capital element are reported in this note. The income generated by the investment of these permanent endowment capital funds is held in a restricted fund. The income is used to support research in line with the wishes of the donor. Income from the: Alice Cory Bequest Fund and Dorothy Temple-Cross Fellowship Fund is available to support research fellowships; Williams Barker Bequest Fund is available to support cancer research in a Yorkshire university; Sir Leonard Rogers Tropical Medicine Research Fund is available to support research on tropical diseases and medicine; Susan Catherine, Cecily May and Dr Thomas Beardwood Gornall Fund for Asthma research is available to support research on asthma; and Gertrude Nicholl Bequest Fund and Susan Catherine, Cecily May and Dr Thomas Beardwood Gornall Fund for Medical Research is available to support general research purposes.

All of the permanent endowment funds are held in charities linked to the Medical Research Foundation by the Charity Commission. None of these linked charities are incorporated companies. See note 27 for more information.

21 • Fund reconciliation (continued)

b) Restricted funds

Restricted funds relate to the funds of charities linked to the Medical Research Foundation by the Charity Commission. None of these linked charities are incorporated companies. See note 27 for more information.

c) Unrestricted funds

Unrestricted funds with a fund value of less than £50,000, at either the start or the end of the year, have been grouped under the 'Other Research Funds' category for the purposes of this note. In practice, all funds are managed separately. Designated funds have been assigned by the trustees to reflect donors' wishes where the legacy was not formally restricted by the donor but the donor expressed a wish about how the funds would be used or to set aside funds for agreed future research priorities.

Transfers

Material transfers relate to decisions by the Trustees to return some designated funds to the general purposes fund. During the year there was also a material transfer between the general purposes fund an unrestricted designated funds to correct a transfer in a previous period which had resulted in too much interest being allocated to the Kathleen Goff Training Fund.

During the year transfers were made between the unrestricted funds and the Africa Research Excellence Fund (AREF). These relate to grants paid to AREF by the Medical Research Foundation.

22 • Analysis of net assets between funds

| | Unrestricted funds | Restricted funds | Expendable Endowment funds | Total |
|------------------------------------|--------------------|------------------|----------------------------|---------------|
| | £000 | £000 | £000 | £000 |
| Fixed assets | 28,795 | 21,111 | 4,893 | 54,799 |
| Cash and current investments | 8,634 | (483) | 2 | 8,153 |
| Other current assets/(liabilities) | (5,616) | (808) | 17 | (6,407) |
| Creditors more than one year | (4,124) | (31) | - | (4,155) |
| Total | 27,689 | 19,789 | 4,912 | 52,390 |

23 • Connected Charities

The following charities are linked by the Charity Commission to the Medical Research Foundation. None are incorporated in their own rights. All are held as either restricted or permanent endowment funds within the Medical Research Foundation. The balances and movements in each of the funds are included in note 26.

Restricted Funds

The Liver Diseases in Scotland Research Munro Fund

Registration number: 1138223-4

Governing document: Will proved on 14 February 1983 as amended by a scheme dated 31 March 2011

Charitable object:

- a) The promotion of research in Glasgow into diseases and illnesses affecting the liver and the publication of the useful results of such research.
- b) If and in so far as the income and expendable endowment of the charity cannot be applied towards the object specified in sub-clause a) above, the trustees may apply it for the promotion of research elsewhere in Scotland into diseases and illnesses affecting the liver and the publication of the useful results of such research.
- c) The promotion of research in a) or b) above may take place in collaboration with organisations elsewhere in the United Kingdom.

The Hepatitis Research Tarttelin Fund

Registration number: 1138223-5

Governing document: Will proved on 4 July 1991 as amended by a scheme dated 31 March 2011

Charitable object:

- a) The promotion of research into hepatitis at such institutions as the trustees shall think fit and the publication of the useful results of such research.
- b) If and in so far as the income and expendable endowment of the charity cannot be applied towards the object specified in sub-clause a) above, the trustees may apply it for the promotion of research into cancer and the publication of the useful results of such research.

23 • Connected Charities (continued)

Cancer Research Fund in Connection with the Medical Research Council

Registration number: 1138223-6

Governing document: Individual small bequests and donations 1989

Charitable object: For cancer research.

Mental Health Research Fund

Registration number: 1138223-7

Governing document: Bequests and donations of unknown date

Charitable object: For mental health research.

MRC Laboratory of Molecular Biology Celltech Research Fellowships Fund

Registration number: 1138223-9

Governing document: Deed of covenant of 13 October 1989 and related terms of reference

Charitable object: To fund the Celltech fellowship working in the Protein and Nucleic Acid Chemistry Division of the MRC Laboratory of Molecular Biology, most preferably in the field of molecular immunobiology.

MRC Laboratory of Molecular Biology Merck Visiting Research Fellowships Fund

Registration number: 1138223-10

Governing document: Letter dated 29 September 1989

Charitable object: To fund a visiting fellowship at the MRC Laboratory for Molecular Biology.

MRC Laboratory of Molecular Biology Strauss Fund

Registration number: 1138223-11

Governing document: Correspondence with Samuel Strauss

Charitable object: To provide bursaries to graduate students.

Pain Research Fund

Registration number: 1138223-12

Governing document: Small donations and bequests between 1998 and 2004

Charitable object: Research into pain.

Poliomyelitis Research Fund

Registration number: 1138223-13

Governing document: Unknown

Charitable object: Research into Poliomyelitis.

Rheumatic Diseases Research Fund

Registration number: 1138223-14

Governing document: Bequests and donations

Charitable object: Research into rheumatic diseases.

23 • Connected Charities (continued)

Sir Cursow Wadia Research Fund

Registration number: 1138223-15

Governing document: Will proved on 15 April 1957

Charitable object: Benefit of medical research or scientific research at the University of Cambridge.

The Fleming Memorial Fund for Medical Research (The Fleming Memorial Fund)

Registration number: 1138223-18

Governing document: Trust deed dated 22 September 1959 as amended by a scheme dated 24 September 1969 as amended by a scheme dated 31 March 2011

Charitable object: The provision of assistance for medical research anywhere in the world.

Professor Sir Hugh Pelman Jeantet Prize Fund

Registration number: 1138223-20

Governing document: User Trusts

Charitable object: To support the work of Professor Sir Hugh Pelman for the public benefit.

Africa Research Excellence Fund (AREF)

Registration number: 1138223-21

Governing Document: Trust deed dated 3 March 2015

Charitable object:

The Trustees shall hold the capital and income of the fund upon trust to apply the income, and all or such part or parts of the capital as such time or times and in such manner as it may determine, to promote medical research in Sub-Saharan Africa for the public benefit, in particular by:

- a) Providing education and training opportunities for individuals who: 1) are citizens of a country in Sub-Saharan Africa; 2) are aspiring to or have already embarked upon a career in medical research in Sub-Saharan Africa; and 3) meet any eligibility criteria the Trustees may agree from time to time;
- b) Promoting excellence in medical research training in Sub-Saharan Africa; and
- c) Promoting the use of high quality medical research evidence in the development of public health policies and practices in Sub-Saharan Africa

For the purposes of this, Sub-Saharan Africa shall not include South Africa but shall include Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Congo (Brazzaville), Congo (Democratic Republic), Cote D'Ivoire, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gabon, The Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger, Nigeria, Republic of South Sudan, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Somalia, Sudan, Swaziland, Tanzania, Togo, Uganda, Western Sahara, Zambia and Zimbabwe.

This fund became a separately registered connected charity during the year ended 31 March 2016.

Prior to this, it operated under the registration of the Foundation.

23 • Connected Charities (continued)

Permanent Endowment Funds

Cory Fellowship Fund

Registration number: 1138223-1

Governing document: Will proved on 24 July 1956 amended by scheme dated 31 March 2011

Charitable object: The establishment of fellowships for the furtherance of research work in medical science.

Sir Leonard Rogers Tropical Medicine Research Fund

Registration number: 1138223-12

Governing document: Scheme dated 19 July 1976

Charitable object: The promotion or support of charitable research work in tropical medicine being carried out on in former British territories and Commonwealth countries in the tropics by persons approved by the Medical Research Council.

The Susan Catherine, Cicely May and Doctor Thomas Beardwood Gornall Fund

Registration number: 1138223-3

Governing document: Will proved on 24 October 1943 as amended by scheme dated 31 March 2011

Charitable object: The trustee shall pay one-quarter of the annual income to each of the following: 1) Asthma Research Council for the purposes of research, 2) The British Red Cross Society for the general purposes of the Society, 3) British Heart Foundation for the purposes of research, 4) by the Medical Research Council for such medical research work.

Williams Barker Bequest Research Fund

Registration number: 1138223-8

Governing document: Will proved on 7 September 1987

Charitable object: To fund research cancer research at the discretion of Medical Research Council preferably at 1) Leeds University, 2) Sheffield University or 3) a University in Yorkshire.

The Dorothy Temple Cross Research Fellowship Fund

Registration number: 1138223-16

Governing document: Trust Deed dated 23 August 1929 as amended by scheme dated 16 January 1953 as amended by deed dated 16 August 1965 as amended by scheme dated 31 March 2011

Charitable object: To fund Dorothy Temple Cross Travelling Fellowship for research of curative or preventive treatment of tuberculosis in all of its many forms.

24 • Reconciliation of net (expenditure)/income to net cash flow from operating activities

| | 2016 | 2015 |
|--|----------------|------------|
| | £000 | £000 |
| Net (expenditure)/income for the year | (3,710) | 7,599 |
| Dividends, interest and rents from investments | (1,393) | (1,364) |
| Depreciation and impairment of tangible fixed assets | 161 | 146 |
| Losses/(gains) on investments | 1,194 | (6,371) |
| (Profit)/loss on disposal of fixed asset investments | | - |
| Decrease/(increase) in debtors | (58) | (157) |
| Increase in creditors | 1988 | 268 |
| Net cash flow from operating activities | (1,818) | 121 |

25 • Financial commitments

Contractual commitments for the refurbishment of Perrin Lodge amounted to £37,000 (2015: £117,380).

26 • Related party transactions and ex gratia payments

Gifts totalling £nil were made during the year. In 2015 gifts totalling £100 were presented to two Trustees upon retirement in recognition of their long service to the Medical Research Foundation. There were no other related party transactions during the year (2015: none).

27 • Financial instruments

The charity holds a number of financial assets (for example investments, debtors and cash) and financial liabilities (for example creditors and provisions for grants payable) which meet the definition of basic financial instruments under the FRS 102 SORP. Details of the measurement bases, accounting policies and carrying values for these financial assets and liabilities are disclosed in notes 15 to 19 above.

28 • First-time adoption of SORP (FRS 102)

The charity has adopted the SORP (FRS 102) for the first time in the year ended 31 March 2016. The effect of transition from SORP (2005) to SORP (FRS 102) is outlined below.

a) Reconciliation of total charity funds

Adjustments to previously reported total charity funds were as follows:

| | 2016 | 2015 |
|--|---------------|---------------|
| | £000 | £000 |
| Total charity funds at 31 March 2015 under SORP (2005) | 54,216 | 46,781 |
| Valuation of Perrin Lodge | 1,720 | 1,720 |
| Change in accounting estimate for useful economic life of Perrin Lodge | 164 | - |
| Total charity funds at 31 March 2015 under SORP (FRS 102) | 56,100 | 48,501 |

The existing accounting policy in relation to fixed asset properties (Perrin Lodge) provided for regular revaluation and subsequent depreciation. The Trustees decided to take the opportunity to revalue Perrin Lodge to fair value at the date of transition (1 April 2014) and the deemed cost therefore increased from £6,200,000 to £7,300,000.

In addition to this, the Trustees revisited their previous estimation of the economic life of the fixed asset property and increase it from 20 years to 50 years. If the former policy had been retained, the depreciation charge in each of the years ended 31 March 2015 and 2016 would have been £365,000 (instead of £146,000). The actual charge for depreciation in each of the years ended 31 March 2015 and 2016 was £310,000 (based on the previous valuation), and as such the adjustment made in respect of the year ended 31 March 2015 is £164,000.

b) Reconciliation of comparative period net income

Adjustments to previously reported net income in the comparative period were as follows:

| | |
|---|--------------|
| | £000 |
| Net expenditure for the period ended 31 March 2015 under SORP (2005) | 1,064 |
| Movement on investment securities moved above the line | 4,671 |
| Movement on investment properties moved above the line | 1,700 |
| Change in accounting estimate for useful economic life of Perrin Lodge | 164 |
| Net income for the period ended 31 March 2015 under SORP (FRS 102) | 7,599 |

The adjustments to move realised and unrealised gains on investments is in line with the presentational requirements of the FRS 102 SORP.

The change in accounting estimate in respect of the useful economic life of Perrin Lodge is explained above.

Who we are

Board of trustees

Professor Nicholas Lemoine

Nick Lemoine is Director of Bart's Cancer Institute at Queen Mary University of London and Director of Research & Development for the Cancer Clinical Academic Unit at Barts Health, the country's largest NHS Trust. His main research interests are in molecular genetics and biological therapies for cancer. He is also Medical Director of the National Institute for Health Research Clinical Research Network. He has served as Chair of the Clinical Training & Career Development Panel as well as the Stratified Medicine Panel at the Medical Research Council, and has previously been a member of the MRC's Molecular & Cellular Medicine Board. He was elected as a Fellow of the Academy of Medical Sciences in 2006. Nick was nominated by the MRC for his position on the Board of trustees, until 6 September 2013 when he was re-elected in his personal capacity.

Professor Daniel Altmann

Danny Altmann is a biomedical research scientist. He has run a laboratory at the Hammersmith Hospital Campus of Imperial College since moving to the site for the opening of the MRC's Clinical Sciences Centre in 1994. His main research interests are the study of adaptive immunity in human diseases including severe bacterial infection and autoimmune disease such as multiple sclerosis. Danny took two and a half years out of bench research from 2011 to work with the Wellcome Trust on strategy for biomedical research funding initiatives in infection, immunity and population health. He is Editor-in-Chief of 'Immunology' and Associate Editor of 'Vaccine' journals.

Ms Louise Ansari

Louise Ansari has been Director of Communications at Diabetes UK since October 2011. Previous to this, she had worked on communications and campaigns for a range of UK and international organisations dealing with health, social policy and local services, including several years as Head of Communications at Lambeth Council, and as a media specialist at Which? Magazine, the Food Standards Agency, and the Health Education Authority. She is passionate about using communications to help improve people's lives.

Professor Calliope (Bobbie) Farsides (from 1 April 2015)

Bobbie Farsides is Professor of Clinical and Biomedical Ethics at Brighton and Sussex Medical School. She has been researching and teaching in the field of bioethics for over twenty years, and her research focuses on the experience of health care professionals and scientists operating in ethically contested fields of biomedicine. Bobbie also has a strong commitment to public policy work and serves on a number of committees. Research ethics has been a constant interest throughout her career including practically focused work in the developing world context. She recently chaired the Nuffield Council on Bioethics working party on Children's Participation in research and she chairs the Wellcome Trust's Ethics and Society Interview panel.

Professor Sir Andrew Haines

Andy Haines was Director of the London School of Hygiene & Tropical Medicine from 2001 to 2010. He was previously Professor of Primary Health Care and Head of the Department of Primary Care and Population Sciences at University College London, and worked part-time as a general practitioner in North London for many years. Before that, Andy was a consultant in epidemiology at the MRC's Epidemiology and Medical Care Unit. He was also formerly Director of Research & Development at the National Health Service Executive, North Thames and a member of the MRC's Council and the Strategy Board. He is a trustee of UK Biobank and a number of other charitable bodies. Andy was nominated by the MRC for his position at the Board of trustees.

Mr Stephen Visscher CBE

Steve Visscher is the Deputy Chief Executive – International for the Biotechnology and Biological Sciences Research Council (BBSRC). He joined BBSRC on its formation in 1994 from the Agricultural and Food Research Council, initially serving as Director of Finance, Executive Director and from 2008-2015 as Deputy CEO and Chief Operating Officer. He is actively involved in international research coordination and strategy, including developing international partnerships, multinational research initiatives and closer collaboration between funding bodies and research agencies. His external roles include Chair of the G20 Wheat Initiative Institutions' Committee, a director of the Norwich Research Park LLP campus and a director of the Canadian Global Institute for Food Security. Steve is a Fellow of the Royal Society of Biology, of the Chartered Institute of Management Accountants and of the Institute of Internal Auditors. He has served as a Trustee since 2012 having been nominated by the MRC for his position on the Board of trustees.

Mr David Zahn (from 1 January 2015)

David Zahn is Head of European Fixed Income and a Senior Vice President at Franklin Templeton Investments. He leads the management of European fixed income strategies and is a member of the Fixed Income Policy Committee. David is also a portfolio manager for a number of Global Aggregate and Global Government fixed income portfolios. Prior to joining Franklin Templeton in 2006, he was a senior portfolio manager at Citigroup Asset Management. He has more than 20 years of experience in the investment profession, and is a Chartered Financial Analyst (CFA) Charterholder, Chartered Alternative Investment Analyst (CAIA) Charterholder and a Financial Risk Manager (FRM). David holds a MBA from the University of Connecticut and a MA in War in the Modern World from King's College, London. He is a member of the CFA Institute's Asset Manager Code Advisory Committee.

Africa Research Excellence Fund Board

Professor Charles Mgone

Charles Mgone was the Executive Director of European & Developing Countries Clinical Trials Partnership (EDCTP) from 2007 to 2015. His role was to lead in the coordination of European Member States' national programmers on poverty-related and neglected disease and work in partnerships with sub-Saharan Africa and other parties to accelerate research and development of medical interventions against these diseases. Before joining EDCTP, Charles was the Network Director of the African Malaria Network Trust with responsibility for coordinating the African response to the malaria burden through accelerating the development of malaria vaccines and other interventions. He is the founding Chair of the Africa Research Excellence Fund Board. Charles is a strong advocate for African national ownership and local investment in health research.

Professor Daniel Altmann (see above; MRF Trustee)

Dr Wendy Ewart MBE

Wendy Ewart served as Deputy Chief Executive and Chief of Strategy at the Medical Research Council from 2012 until 2014 where she was responsible for the development and communication of its research strategy and impact while directing international policy, including global health, and leading the overall approach to planning and evaluation across the MRC. In this capacity, she was a Director of UK Biobank and the Francis Crick Institute. Prior to this, Wendy was Director of Strategy for the MRC from 2008 with responsibility for the development of the MRC's Strategic Plan 'Research Changes Lives'. Before joining the MRC she worked at the Wellcome Trust (1991-2003) managing funding programmes, including those for the developing world and was Head of Research Strategy at the Faculty of Medicine, Imperial College from 2003 to 2008. Currently Dr Ewart is also a member of the Science Advisory Council for the Welsh Government and Chair of the Independent Evaluation Panel for Ser Cymru 2, Welsh Government. Dr Ewart was awarded a Fellowship of the Faculty of Medicine, Imperial College in 2015.

Mr George Fowlis

George Fowlis is a Consultant Urological Surgeon in independent practice for the last 5 years, with 19 years consultant experience in all aspects of general urology and a subspecialty interest in oncology. George practices at various hospitals in Greater London, providing a patient-focused service in general urology, with particularly emphasis on oncology, endourology & paediatrics.

Dr Yvonne Greenstreet

Yvonne Greenstreet has over 20 years of experience in the global pharmaceutical industry, spanning research and development, strategy, and commercial development. Yvonne serves on the boards of directors of Pacira Pharmaceuticals Inc, Advanced Accelerator Applications and Indivior PLC. She is also on the Advisory Board of the Bill and Melinda Gates Foundation. Between 2011 and 2013, Yvonne was Senior Vice President and Head of Medicines Development at Pfizer and a member of the global executive team. Prior to Pfizer, she was at GlaxoSmithKline plc for 18 years where she was Senior Vice President and Chief of Strategy for worldwide Research and Development and served on the corporate investment committee. Yvonne trained as a physician and earned her medical degree from Leeds University in the UK and her MBA from INSEAD, France. She was recognized by Fast Company as one of the 100 most creative people in business in the US in 2013 and by Fierce Biotech as one of the top ten women in Biotechnology in 2012.

Professor Sir Andrew Haines (see above; MRF Trustee)

Professor Francine Ntoumi

Francine Ntoumi is currently Chair and Executive Director of the Congolese Foundation for Medical Research and Senior Lecturer on Immunology at the Faculty of Sciences and Techniques of University Marien NGouabi, Republic of Congo. She is also Associate Professor at the University of Tübingen in Germany. Francine's background is in molecular epidemiology and immunology of malaria and she has spent the past 20 years serving different institutions as the Multilateral Initiative on Malaria Coordinator. Prior to 2007, she was Senior Scientific Officer at the European and Developing Countries Clinical Trials Partnership (EDCTP). In 2010, *Le Metropolis* magazine made her one of Congo's top 50 women to make their mark on the country's history and in 2014 on the top list of the most influential women at the regional level. Francine is member of several scientific committees and international scientific networks in Africa and Europe. Since January 2009, she has been highly involved in developing health research capacity in Central Africa through the regional network of excellence, Central Africa Network on Tuberculosis, HIV/AIDS and Malaria. In 2012, Francine received the African Union Kwame Nkrumah Regional Scientific Award for women, and the Réseau International des Congolais de l'Étranger prize for her contribution in health research in Congo. In 2014 and 2016, she was awarded the Georg Forster Prize and Christophe Mérieux Prize respectively, for her career in malaria research.

Mr Mark Radford

Mark Radford is an independent consultant and entrepreneur in the medical research and social impact sectors, with almost 30 years of experience in Africa and the Middle East. Until April 2009 Mark was the Director of Operations for the MRC Unit, the Gambia. He previously headed a specialist procurement company operating in the humanitarian, government and multilateral sectors. Mark has extensive experience in organizational development and leadership, and in both humanitarian and research policy and practice. During the course of his career he has managed significant emergency interventions on behalf of OXFAM and Save the Children, as well as building successful start-ups in the biotechnology, medical research and educational spheres. An alumnus of the London School of Economics, Mark is a founding Director of Heart Biotech Holdings Ltd, and currently mentors international graduate Public Policy students at the University of Oxford.

Our supporters

Acknowledgements and thanks

We would like to say thank you to all our supporters without whom the important medical research that we fund would not take place. However large or small the donation or legacy, each is important to us and each ensures more ground-breaking science aimed at improving human health can be undertaken.

Supporters

During the year, we received legacies from the late Mr Jack Leonard Bell, Ms Nora Elloitt, Ms Muriel Louisa Franklin, Mrs Carol Anne Minnett, Mr James Campbell Balfour, Ms Cecilia Desiree Dickinson, and Mrs Mavis Tomlinson and we registered legacies in pipeline from the late Anne Hillary Lyall, Ms Elizabeth Robinson, Ms Mable Wood Douglass, and Ms Eveline Annie Hughes.

We received donations from Mrs Sarah Tucker, Mr Steve Bennett, A Oswal, Mr Brian D Clements, Pearson Hards Solicitor, IN Newman Ltd and St Johns Church Whorlton, and donations in memory of Ms Anita Bowler, Ms Helen Dando, Ms Marion Knox Dodd, Ms Vera Homewood, Mr David Humphreys Jones and Mr Keith Robson from friends and family. We received regular monthly donations from Mr P Farrow, Mr H Lidher, and Mr G Schneider.

During the year, the Africa Research Excellence Fund received support from Professor Richard Adegbola, Ms Surma Haja Bajaha, Dr Fatoumata Ceesay, Dr Joy Cole, Professor Tumani Corrah, Dr Delanyo Dovlo, Dr Peter Dukes, Dr Augustine Ebonyi, Dr George Fowlis, Sir Andrew Haines, Dr Jahangir Hossain, Dr Steve Howie, Dr Jane Kengeya-Kayondo, Mr Samer Khoury, Dr Abiodun Kuku, Professor John MacDermot, Professor Moffat Nyirenda, Mr Olaiya Orlando Ojo, Senator O Omiliani, Mr Charles Perrin, Mr Arthur Roberts, Ralf Clemen, Mr & Mrs A Williams, Gambia Electricals Ltd, MRC, West Africa Health Organisation, Vitof Foundation and THRIVE Uganda. Anonymous donations were received from philanthropists in Brazil, Nigeria and The Gambia.

The MRC made a significant contribution to the Medical Research Foundation by providing just over £350,000 in free services and accommodation to the Medical Research Foundation and the Africa Research Excellence Fund, along with expert scientific advice on emerging health needs, research priorities and peer review services. We are indebted to the MRC for its continued support.

Staff

We operate the Medical Research Foundation and its connected charities with minimal administrative support and the trustees would like to thank the business team for their unstinting efforts over the year: Angela Hind, our director; Ami Hodges, our senior research and governance manager, Erin He, our senior finance manager; Iain Lee; our interim grants and finance manager; and Khadeja Ahmed, our co-ordinator.

The majority of the staff of the Africa Research Excellence Fund are funded by supporting organisations: Tumani Corrah, director (funded by the MRC); Peter Dukes, deputy director (funded by the MRC); Jane Kengaya-Kyondo, East and South Africa Co-ordinator (funded by the Wellcome Trust); Gyasiwaa Amofa, co-ordinator (funded by the MRC); Sulayman Janneh, fellowships and finance manager (funded directly by AREF); and Joan Ikiriza, administrative support (funded by the Wellcome Trust). They are doing a magnificent job helping this new charity to fly.



