

Medical Research Council  
**Annual report and  
accounts 2017/18**

# Medical Research Council

Annual Report and Accounts 2017/2018

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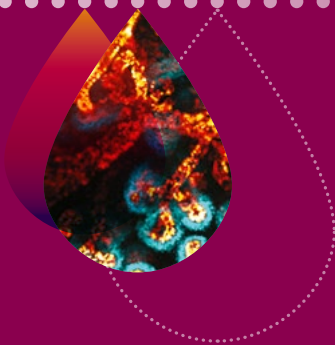
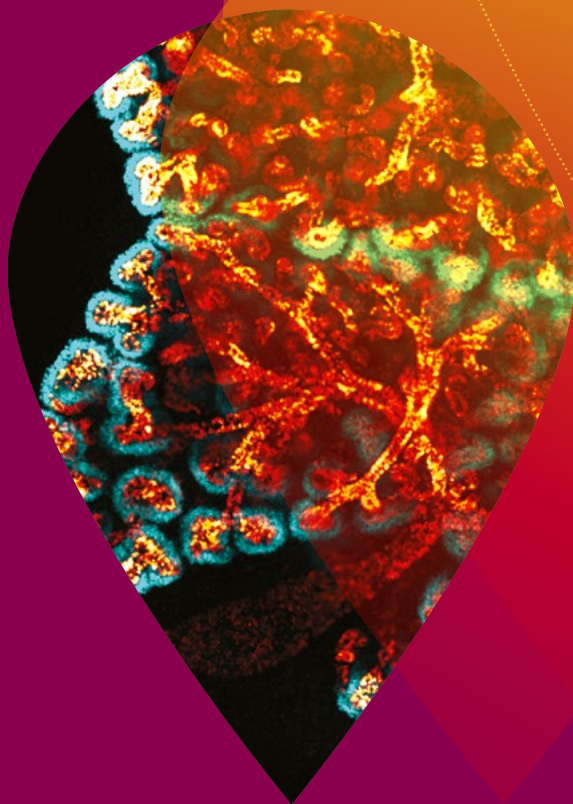
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# Performance report





### Transgenic kidneys

Genetically modified kidneys cultured in vitro reveal signalling activities within the collecting duct (orange) and nephron progenitor cells (cyan). How these cell-populations interact to regulate branching of the collecting duct and the formation of nephrons (15,000 form in the mouse and about 1,000,000 in the human) is an important scientific problem because low nephron endowment results in a higher incidence of kidney disease and hypertension. Advances in stem-cell based therapies and kidney organoids depend on a deep understanding how these processes are regulated so that they can be recapitulated in vitro.

© Nils Lindström  
MRC Institute of Genetics and Molecular Medicine

# Overview

The purpose of the Overview is to provide a short summary of the organisation, its purpose, and the activities during the financial year which address the objectives set out in the MRC strategic and delivery plans.

## Statement from the Chairman



From innovation and new initiatives, to securing impact from medical research, the MRC has lived up to its reputation as a world-leading organisation over the past year.

The government's commitment of an additional £2.3bn funding for science in 2021-22, together with the life sciences being championed as an important area for growth, present real opportunities for research and innovation.

Then in April 2018 we entered the new era of UK Research and Innovation, an organisation which is striving to ensure research and innovation continue to flourish in the UK.

A great example of innovation was the 2017 Nobel Prize in Chemistry awarded to Dr Richard Henderson of the MRC Laboratory of Molecular Biology (LMB) alongside Professor Jacques Dubochet and Dr Joachim Frank (both LMB alumni). Recognised for their work on developing cryo-electron microscopy (cryo-EM) to reveal the structure of biomolecules, their pioneering technique is the culmination of more than 30 years of research. It is an excellent demonstration of how innovative science and technology go hand-in-hand, and the rewards of long-term investment in research. This was a second boost for the burgeoning field of cryo-EM, which received an investment of £11.3 million for cryo-EM facilities across the UK last year (read more on page 19).

Through building up our existing institutes, and establishing ambitious new initiatives, we have continued to aim high and achieve much for medical research. Our newest institute, Health Data Research UK is taking shape with the appointment of Professor Andrew Morris as Director in August 2017. In partnership with eight other funders the institute will work to gain entirely new insights from health data to better understand human biology and disease mechanisms. In February 2018, we announced the six research sites of the institute which will start research operations imminently (read more on page 12).

The MRC has never been better articulated with industry, and the promise of faster translation of research into patient benefit means the potential of more impactful contributions to the health and wealth of the UK. A fantastic example of collaboration with industry delivering real-world benefit is the development of the first new treatment for the liver disease Primary Biliary Cholangitis (PBC) in 20 years. Developed through the MRC-co-ordinated academic/industry consortium UK-PBC, the drug is expected to benefit 50,000 people in the UK, and will be made available to patients in the next few months.

Promoting partnership is an important way of building up the UK ecosystem for health research and innovation. In April 2017, six of the UK's leading research universities were awarded centre status in the UK Dementia Research Institute (UK DRI) – a multimillion pound investment into dementia research led by the MRC, alongside founding charity partners the Alzheimer's Society and Alzheimer's Research UK. In addition, the UCL

hub recently secured funding for a new iconic hub building which will provide state-of-the-art facilities for the institute. I look forward to seeing the total number of UK DRI researchers growing from 250 up to 700 over the next six years.

In other dementia research news, I was delighted to see the contributions of three MRC-funded neuroscientists rewarded by the 2018 Brain prize: Professors Bart De Strooper, Michel Goedert and John Hardy share the award with Professor Christian Haass. They were recognised for their ground-breaking research on the genetic and molecular basis of Alzheimer's disease.

As well as setting up an ambitious new alliance of research funders focused on prevention, called the UK Prevention Research Partnership, the MRC has also continued to respond rapidly to pressing health crises, such as Zika and antimicrobial resistance. Professor Alain Kohl at the MRC-University of Glasgow Centre for Virus Research is a founding member of ZIKAlliance – a multinational and multi-disciplinary research consortium launched in 2017, comprising 53 partners worldwide. It will investigate clinical, fundamental, environmental and social aspects of Zika virus infection.

This year was the eighth and final year of Professor Sir John Savill's term at the helm of the MRC as Chief Executive; he stepped down from his role at the end of March 2018. I am delighted to welcome Professor Fiona Watt FRS as his successor, who will guide the MRC into the new, interdisciplinary environment of UK Research and Innovation as the MRC's first Executive Chair.

After this exciting year of achievements and accolades, to quote Sir John Savill's parting words, I am in full agreement that the future is bright for medical research and that MRC-funded research will continue to change lives for the better.



# Our purpose

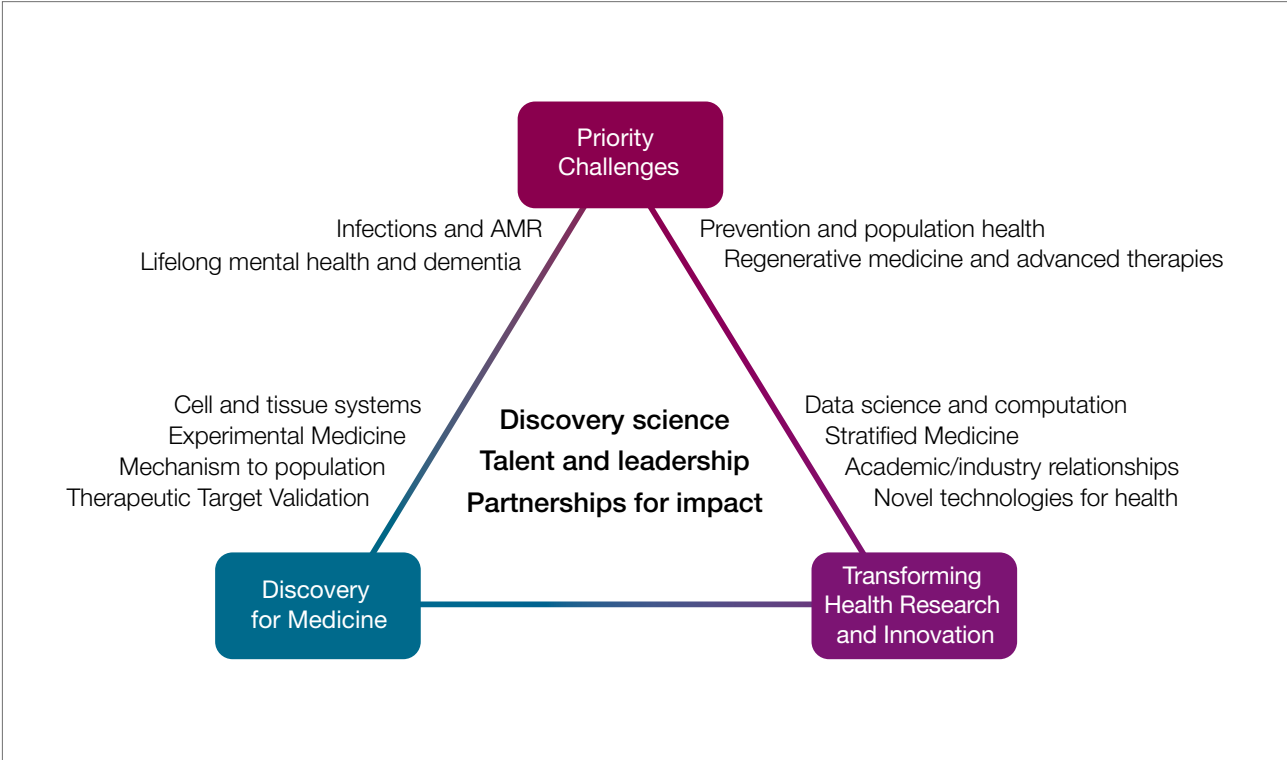
The MRC is a publicly-funded organisation dedicated to improving human health. It was established in 1913 and incorporated by Royal Charter in 1920. As of 1 April 2018, the MRC became part of UK Research and Innovation<sup>1</sup>. The MRC supports world-class research across the entire spectrum of medical sciences, from fundamental laboratory-based science to clinical trials, in all major disease areas. Research funded by the MRC is carried out in universities, hospitals and its research institutes and units across the UK and in Africa.

The MRC’s strategy *Research Changes Lives 2014-19*<sup>2</sup> was refreshed in 2014 and has four strategic aims:

- Picking research that delivers: setting research priorities which are most likely to deliver improved health outcomes
- Research to people: bringing the benefits of excellent research to all sections of society
- Going global: accelerating progress in international health research
- Supporting scientists: sustaining a robust and flourishing environment for world-class medical research

The MRC’s delivery plan 2016-2020<sup>3</sup>, identifies areas of priority focus which combine with our continuing support of outstanding underpinning research to address the strategic aims.

*The MRC’s UK and global priorities for a healthier society, increased innovation and productivity*



1. <https://www.ukri.org/about-us/governance-and-structure/uk-research-and-innovation-board/>  
 2. <https://www.mrc.ac.uk/publications/browse/strategic-plan-2014-19/>  
 3. <https://www.mrc.ac.uk/publications/browse/mrc-delivery-plan-2016-2020/>

Scientists apply to the MRC for funding for their research, and applications are reviewed by panels of independent experts to ensure that support is directed to the very best proposals. The MRC awards funding in both response mode and managed mode:

- Response mode funding opportunities are regular, scheduled opportunities assessed by boards and panels. They are available for any area of science relevant to the MRC, to eligible groups and individuals, offering funding on a range of scales, across career stages, from fundamental to translational and applied research.
- Managed or strategic mode funding opportunities are in a specific scientific area defined by the MRC usually for a one-off call or a time-limited period. Proposals may have special application and review mechanisms.

Additionally, to address important scientific opportunities and health needs, and when stand-alone grant support alone is insufficient, the MRC's three main support mechanisms are:

1. Institutes – very long-term flexible multidisciplinary investments
2. Units – more focused investments established for as long as needed to support a scientific need and/or deliver a research vision
3. Centres – build on existing MRC, and other, support to add coherence and value in establishing a university-partnered centre of excellence.

As of 31 March 2018, the MRC's large investments encompassed five research institutes [MRC London Institute of Medical Sciences, MRC Laboratory of Molecular Biology and three in partnership with other funders: the Francis Crick Institute (see box on page 13) the UK Dementia Research Institute (see page 14) and Health Data Research UK – (see box on page 12), 26 units (including two research units in Africa) and 19 centres. These include partnerships with the Alzheimer's Society; Alzheimer's Research UK; Arthritis Research UK; Asthma UK; British Heart Foundation; Cancer Research UK; Chief Scientist Office, Scotland; Engineering and Physical Sciences Research Council, Economic and Social Research Council, National Institute for Health Research; Public Health Agency, Northern Ireland; Public Health England, Public Health, Scotland; Wellcome and the Welsh Government. The MRC has a number of strategic partnerships that add value to MRC Unit investments, including MRC Harwell (which brings together the Mammalian Genetics Unit with the Mary Lyon Centre), the MRC Institute of Genetics and Molecular Medicine in Edinburgh, and the MRC Weatherall Institute of Molecular Medicine in Oxford. In addition, the MRC has a number of strategic partnerships that provide a national resource/capability, which include UK Biobank, the Biomedical NMR Centre, Dementias Platform UK, the MRC/NIHR National Phenome Centre, the UK Regenerative Medicine Platform, and the Research Complex at Harwell.

## Health Data Research UK (HDR UK)

By harnessing health and biomedical data in the UK, HDR UK will develop and apply cutting-edge data science approaches in order to address the most pressing health research challenges facing the public. Datasets useful for biomedical research come from many sources; biological, clinical, social and environmental, hence the need for a concerted interdisciplinary, and responsibly governed effort, at significant scale to unlock the potential of this information.

HDR UK is a joint investment led by the MRC, together with the National Institute for Health Research (England), the Chief Scientist Office (Scotland), Health and Care Research Wales, Health and Social Care Research and Development Division (Public Health Agency, Northern Ireland), the Engineering and Physical Sciences Research Council, the Economic and Social Research Council, the British Heart Foundation and Wellcome.

- Set up as a company limited by guarantee, HDR UK will support distributed research activities and act as single point of contact to facilitate partnerships, including future investors and industry wishing to work with the institute.
- In August 2017, Professor Andrew Morris took up his post as Director.
- In February 2018, the six primary research sites of the institute were announced (representing a £30m core investment). These sites will host the core capability and capacity of HDR UK and it is expected the institute will start research in May 2018. The successful sites are:
  - **Cambridge** – Wellcome Sanger Institute, European Bioinformatics Institute, University of Cambridge
  - **London** – UCL, Imperial College London, King's College London, Queen Mary University of London, The London School of Hygiene & Tropical Medicine
  - **Midlands** – University of Birmingham, University of Leicester, University of Nottingham, University of Warwick
  - **Oxford** – University of Oxford
  - **Scotland** – University of Edinburgh, University of Aberdeen, University of Dundee, University of Glasgow, University of St Andrews, University of Strathclyde
  - **Wales/Northern Ireland** – Swansea University, Queen's University Belfast

## Performance summary

This summary provides an overview of MRC activities during the financial year 2017/18. This addresses the objectives set out in the MRC strategic plan and expressed as part of delivery plans, which are themselves refreshed on an annual basis over the life of the Spending Review. Included are representative examples of:

1. The delivery of initiatives designed to meet identified opportunities for development of health insight, research expertise or infrastructure; and
2. The realisation of positive impact from research on new understanding or methodological approaches which contribute to improvements in health and society including economic growth.

To track the developing output from MRC funding, the MRC collects information directly from our researchers via researchfish®. For more information on this system and how data are collected, please see our annual Investing for impact pages<sup>4</sup>. The report highlights the benefits derived from MRC-funded research and reflects the focus delivery plans and our strategic objectives.

MRC senior management meet with their equivalents in BEIS on a quarterly and six monthly cycle (in the case of the Chief Executive) to discuss performance, risks and issues.

Researchers at the Francis Crick Institute have used genome editing technology to reveal the role of a key gene in human embryos in the first few days of development. This is the first time that genome editing has been used to study gene function in human embryos<sup>5</sup> which will help scientists to better understand the biology of our early development with a view to improving reproductive health. They published the results of a study into the function of oct4, a gene with an important role in embryogenesis. The work, published in Nature, used genome editing techniques. The team at the Crick was the first UK research group to receive an HFEA license to apply this technique in human embryos<sup>6</sup>.

## PROGRESS AGAINST OUR FOUR PRIORITY CHALLENGE AREAS:

### Lifelong mental health and dementia

The MRC recognises the burden that neurodegenerative disease and mental illness place on individuals, their families, the economy and society. Neurodegenerative diseases are strongly linked with age and the UK and other European countries have growing ageing populations. This raises concerns about the increasing burden these diseases will place on society in future, unless research can provide new approaches for their prevention or treatment. At present, mental health issues affect nearly one in six people in the UK. Mental illness is estimated to cost the UK economy £70-£100bn per year, while among neurodegenerative conditions dementia alone currently costs the economy £17bn a year.

4. <https://www.mrc.ac.uk/successes/investing-for-impact/>

5. Donated when no longer needed after in vitro fertilisation

6. <https://www.mrc.ac.uk/news/browse/genome-editing-reveals-role-of-gene-important-for-human-embryo-development/>

## Initiatives/impacts

- The UK Dementia Research Institute (UK DRI) is a multimillion pound investment led by the MRC alongside founding charity partners the Alzheimer's Society and Alzheimer's Research UK. Centred on the need for innovative, early-stage science to advance our understanding of how dementias develop and progress, the UK DRI's research aims to find new ways to defeat dementia and help bring new therapies to patients faster.
  - In April 2017, five of the UK's leading research universities were awarded centre status in the UK DRI: the University of Cambridge, Cardiff University, the University of Edinburgh, Imperial College London and King's College London. Associate Directors of the UK DRI were named respectively as Professors Giovanna Mallucci, Julie Williams, Giles Hardingham, Paul Matthews and Chris Shaw. The centres join University College London (UCL) which was confirmed in December 2016 as the institute's hub of research activity and operational headquarters, alongside the announcement of UK DRI Director, Professor Bart De Strooper.
  - Mr William Rucker was appointed to the role of Chairman for the UK DRI in December 2017.
  - The UCL hub commenced refurbishing facilities at the Cruciform Building in January 2018 and in March 2018 received £40m to build a new iconic hub building in partnership with UCL to provide enhanced, state-of-the-art facilities. Research is also underway in new labs at the five other centres. Once completed, the UK DRI hub at UCL will host up to 350 scientists as the centrepiece of the institute. Overall the total number of UK DRI researchers will grow to 700 across its six sites over the next six years.
- The 2018 Brain Prize was awarded to four neuroscientists for their ground-breaking research on the genetic and molecular basis of Alzheimer's disease. Three of the four have been funded by the MRC during their careers: Professors Bart De Strooper, John Hardy (both part of the UK DRI) and Michel Goedert (at LMB) share the award with Professor Christian Haass. The Brain Prize, awarded by the Lundbeck Foundation in Denmark, is worth one million Euros. Awarded annually, it recognises international scientists who have distinguished themselves by an outstanding contribution to neuroscience.
- Researchers at the MRC LMB used cryo-electron microscopy techniques to visualise the structure of abnormal Tau protein filaments for the first time in July 2017<sup>7</sup>. The structural information about Tau filaments will help shed light on the progression of neurodegenerative diseases, such as dementia, offering new prospects for drug development. It also marks an important research achievement, some 30 years after MRC LMB scientists identified Tau as an important part of the plaques that form in the brains of patients affected by Alzheimer's disease.
- A related advance using structural biology has come from scientists at the MRC Protein Phosphorylation and Ubiquitylation Unit at the University of Dundee, who in October 2017 solved the crystal structure of a key protein involved in Parkinson's disease. Knowledge of the PINK-1 protein structure represents a key advance in our understanding of the disease, and will provide a framework for the development of new drugs targeting this molecule.
- The MRC's Mental Health Strategy<sup>8</sup>, was launched in April 2017, and will drive forward discovery science in the field. The key goals of the strategy are to: employ a lifelong perspective to mental health with a focus on children and young people; accelerate the development of new therapies; establish a new data resource for mental health research harnessing informatics technology; develop a major new investment in global mental health; support research into strategies for prevention of mental health problems; and build capacity and capability in mental health research.

7. <https://www.mrc.ac.uk/news/browse/scientists-uncover-the-structure-of-tau-filaments-from-alzheimer-s-disease/>

8. <https://mrc.ukri.org/documents/pdf/strategy-for-lifelong-mental-health-research/>

- In December 2017, the government published its Framework for Mental Health Research, a document which the MRC helped to shape along with other public and charity funders of mental health research. The framework builds upon and chimes with the MRC's Mental Health Strategy. Setting out 10 recommendations to improve the impact of mental health research over the next decade, the framework focuses on prevention and early intervention, increased patient and public engagement, user-led research and stronger connections between physical and mental health research. The guidance also points to harnessing advances in technology, broadening the skill base and encouraging the wider life-science community to invest in mental health research.
- In November 2017, the MRC launched the £10m Mental Health Data Pathfinder scheme<sup>9</sup> to provide pump-priming awards to UK universities already engaged in mental health-related research. These coordinated awards will act as a precursor to the development of a national Mental Health Research Platform in the future.
- In February 2018<sup>10</sup>, researchers at the MRC Centre for Neuropsychiatric Genetics and Genomics at Cardiff University announced the discovery of 50 new gene regions that increase the risk of developing schizophrenia. They have combined this knowledge with state-of-the-art information about brain development to pinpoint new biological pathways implicated in this disorder, which offer new opportunities for treatment development.
- In 2016<sup>11</sup>, an app developed by MRC-funded scientists at the University of Manchester Farr Institute Of Health Informatics Research became a finalist at the annual AXA PPP Health Tech & You Award. 'ClinTouch' is a pioneering mobile phone app designed to improve the care and lives of people living with psychosis by monitoring real-time symptoms and reducing unscheduled and emergency hospital admissions.

## Regenerative medicine and advanced therapies

The MRC has been at the forefront in helping to realise the promise of regenerative medicine, and cell and gene therapies (advanced therapies), to deliver new and better treatments for chronic and incurable conditions that will truly revolutionise medical practice. The MRC is the main funder of academic regenerative medicine research in the UK and has long supported and trained world-leading researchers and clinicians to conduct ground-breaking research across the broad range of advanced therapies. This support will underpin scientific advances and their translation into clinical applications that will revolutionise medicine and patient care, and in so doing will deliver social and economic impact for the UK.

### Initiatives/impacts

- The UK Regenerative Medicine Platform (UKRMP), is a £42m initiative led by the MRC in partnership with of BBSRC and EPSRC. Established in 2013 the first tranche of funding (£25m) supported five interdisciplinary and complementary research hubs drawing together the major players in UK regenerative medicine across 17 institutions, and engaging 25 companies. During that time the Platform established several key research programmes which made substantial progress in the areas of neural regeneration in Parkinson's Disease, liver repair, retinal degeneration and bone and joint repair.

9. <https://mrc.ukri.org/funding/browse/mh-data-pathfinder/mental-health-data-pathfinder/>

10. <https://www.cardiff.ac.uk/news/view/1110054-genetics-researchers-close-in-on-schizophrenia>

11. <https://mrc.ukri.org/news/browse/mobile-app-to-help-patients-with-psychosis-is-a-finalist-of-health-technology-awards/>

The Platform has also generated research tools, technologies and materials for the wider research community, as well as providing training. £17m now supports the second phase of the Platform ('UKRMP2'), from 2018-2023, which will continue to address the key challenges and opportunities in regenerative medicine.

- In 2017<sup>12</sup>, scientists at the MRC Centre for Regenerative Medicine in Edinburgh revealed a new mechanism that might provide a new approach to treat liver disease, which is one of the top five causes of premature death in the UK. They found that in mice, bile duct cells can switch to become normal liver cells (hepatocytes) to help repair the liver after severe damage. Understanding how this natural back-up system is controlled could pave the way for new regenerative therapies able to stimulate self-repair in the liver.
- In March 2018<sup>13</sup> the first results published from a clinical trial using a new stem cell technology showed that patients regained sight after receiving retinal tissue engineered from human embryonic stem cells. The results of this ground-breaking clinical study described the implantation of a specially engineered patch of retinal pigment epithelium cells derived from stem cells to treat people with sudden severe sight loss from wet AMD, a major cause of blindness in the over 60s. Development of this technology was based upon research progressed through long-term support from MRC, and represents a major milestone for the field and for the London Project to Cure Blindness, a partnership between Professor Pete Coffey from University College London and Professor Lyndon da Cruz, a retinal surgeon at Moorfields Eye Hospital NHS Foundation Trust.
- The MRC continued to support development and validation of novel advanced therapeutics via the Developmental Pathway Funding Scheme, committing over £2m in support of novel gene therapy development in 2017/18;
- The Medicines and Healthcare Products Regulatory Agency granted a Promising Innovative Medicine Designation to OTL-101, a gene therapy product under development at University College London with MRC support, in partnership with Orchard Therapeutics. This designation recognises the significant potential clinical benefits of this product for treatment of adenosine deaminase severe combined immunodeficiency, commonly known as "bubble baby" disease, relative to alternative treatment options.

## Prevention research

Achieving substantial improvements in chronic disease prevention at the population level, through research into health behaviour and behaviour change has been, and remains, challenging. The MRC continues to pursue interdisciplinary research through extensive partnership working, with the goal of producing large and sustained changes in the 'real world'.

## Initiatives/impacts

- The UK Prevention Research Partnership (UKPRP), an alliance of research funders including charities, research councils and the UK health departments, was established during the year with its first funding call for Network Awards launched in October 2017. The main objective of the networks will be to create new interdisciplinary research communities and identify new topics ripe for disease prevention research. The

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12. <http://www.crm.ed.ac.uk/news/backup-liver-repair>

13. <https://www.cambridgenetwork.co.uk/news/patients-regain-sight-retinal-tissue-from-stem-cells/>

networks will do this by developing interactions between the research community and appropriate science, policy, community, technology, public and third sector, user and industrial groups. It is expected that four to six UKPRP networks will be established; award decisions will be made in 2018/19.

- MRC-funded researcher, Professor Susan Jebb, has provided input for the **NHS Diabetes Prevention Programme** as a member of the NHS Expert Reference Group<sup>14</sup>. Started in 2016, over 26,000 people have already been referred to the programme from almost half of the Clinical Commissioning Groups (CCGs) in England. The programme will gradually roll out to the whole country by 2020 with an expected 100,000 referrals to diabetes prevention programmes comprising diet, activity and weight management interventions. The research has demonstrated that this will be an effective way to address the human and societal cost of diabetes.
- Results from the PROUD study, published in 2016, indicated that a treatment known as PrEP is highly protective for people at high risk of HIV, reducing the risk of infection by 86 per cent. Based on this PROUD trial and population modelling, new research published in the Lancet in 2017 estimated that PrEP would save the NHS over £1 billion over an 80-year period (£12.5m per annum). Through collaboration with NHS England, PrEP has been made available to 10,000 individuals at risk of HIV in England, to collect data on the longer-term aspects of this intervention. For uninfected high-risk people, having a way to prevent HIV infection through PrEP could be life-saving, and PrEP could provide far-reaching benefits for society<sup>15</sup>.
- A promising clinical trial<sup>16</sup> testing a 'universal' HIV vaccine, developed to combat the evolving nature of the virus, is due to be completed in 2018. The RIVER clinical trial is the culmination of decades of painstaking work by MRC-funded researchers towards developing a vaccine to prevent and cure HIV infections, and is funded by the MRC in collaboration with five universities and industry partners. Led by Dr Sarah Fidler at Imperial College London, RIVER is a unique trial combining the efforts of the vaccine, developed by Professor Tomas Hanke in Oxford, with two other drug-based approaches to address the 'stealth mode' of the virus which can lie dormant for years in a form invisible to the immune system and to antiretroviral drugs.

## INITIATIVES AND IMPACTS FROM STRATEGIC AIMS: RESEARCH TO PEOPLE AND SUPPORTING SCIENTISTS

### Research to people

Research that tackles complex problems and achieves the quality and visibility needed to attract R&D investment and global partners will lead to new products, interventions, and policies that will change lives in the UK and globally. Bringing academics and industry together facilitates translation of research into the clinic.

### Initiatives/impacts

- The MRC, through HEIs, advances the impact of research discoveries via the Confidence in Concept (CiC) scheme and its companion initiative, Proximity to Delivery: Industry Engagement Fund. The CiC scheme aims to accelerate the transition from discovery science to the early stages of therapeutic/

14. <https://www.england.nhs.uk/ourwork/qual-clin-lead/diabetes-prevention/exp-ref-grp/>

15. <https://www.mrc.ac.uk/news/browse/daily-pill-to-prevent-hiv-infection-the-proud-study/>

16. <https://mrc.ukri.org/news/browse/mrc-research-leads-to-promising-clinical-trial-for-universal-vaccine-for-hiv-infections/>



biomarker development by providing locally-administered, responsive and flexible funding to support preliminary translational work. CiC funding has contributed to the creation of 26 spin-out companies and established 699 new relationships with industry over the last four years.

- MRC translational initiatives (including the Developmental Pathway Funding Scheme (DPFS), CiC, Stratified Medicine, and others) continued to facilitate spin-out creation from MRC research including, in 2017, GammaDelta Therapeutics, a spinout company founded by scientists from the Francis Crick Institute, King's College London and Cancer Research UK to develop novel immunotherapeutics.
- The UK Primary Biliary Cholangitis consortium UK-PBC, established via the MRC's Stratified Medicine Initiative, rapidly progressed the results of their phase III trials, completed in 2016, achieving EU market validation within a single year. NICE approved the UK use of this new treatment for PBC, known as Ocaliva, in 2017, and the NHS is expected to make Ocaliva available to patients later in 2018 to benefit the 50,000 people in the UK who suffer from PBC. Globally the sales of Ocaliva are estimated at \$108 million in 2017 and may reach \$1.6 billion by 2020<sup>17</sup>.
- In a powerful example of Patient and Public Involvement (PPI), UK-PBC partners achieved the renaming of PBC from Primary Biliary Cirrhosis to Primary Biliary Cholangitis, following the recognition of patient concerns around the inaccuracy of the name and it's perceived association with alcohol-related liver disease<sup>18</sup>.
- Medical research is increasingly exploiting molecular targets specific to sub-populations of patients to identify potent therapies with fewer side-effects. MRC has supported this approach through its stratified medicine initiative, including work to reduce the time taken to develop new treatments, which may lead to patients getting access to new life-saving and life-extending therapy faster. MRC innovation in clinical trial design is an important part of this process, which will transform the efficiency of drug development and deal with the need to accommodate this new spectrum of treatments precisely targeted at specific populations. In June 2017, a new drug became available for patients with bowel cancer as part of the national FOCUS4 clinical trial. This was coordinated at the MRC Clinical Trials Unit at University College London based upon a scientific discovery made only two years ago at the CRUK/MRC Oxford Institute for Radiation Oncology.

## Supporting scientists

Research capacity and leadership secures the UK's place at the forefront of biomedical research. The MRC also aims to provide a world-class research environment for medical research. Unlocking research opportunities requires highly technical and often expensive infrastructure that delivers value over a sustained period of time and across a wide range of disciplines. Coordinated and partnership investment is important to make the most of resources and increase the reach and impact of investments through the sharing of equipment and the co-creation of knowledge and skills.

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17. Biospace (2016) Why Intercept Pharma Just Became an Even More Attractive Takeover Target. News article from 01 June 2016. Last accessed 06 Nov 2017 <http://bit.ly/2ziTVIJ>

18. The name change was announced through editorials in the major journals, was supported by the professional liver bodies across the world, and will be incorporated into the 2018 edition of the World Health Organisation's International Classification of Diseases (ICD-11)

## Initiatives/impacts

- In July 2017, the Science Minister announced a new investment by the MRC and Wellcome to boost the field of cryo-electron microscopy (cryo-EM) in the UK. A total of £11.3 million for cryo-EM facilities was awarded to the universities of Glasgow, Oxford and Leicester. The funding, awarded by the MRC after working in partnership with Wellcome, will establish two new consortia – one across Scotland, led by the MRC Centre for Virus Research at the University of Glasgow, and another in the Midlands, led by the University of Leicester. It will also support a new dangerous pathogens containment facility in Oxford.
- UK Biobank was set up by the MRC and Wellcome in 2006 with support from the Department of Health. It involves 500,000 participants drawn from the UK population and provides a unique study collection available to the international research community. In July 2017, the full UK Biobank genotyping dataset was released to researchers. This powerful resource, which can be combined with other biomedical, health and lifestyle data from study participants, will enable a range of robust studies looking at the genetics of common diseases and conditions, such as mental health, hypertension, and the impact of smoking on lung function. More broadly, this 'open-science' resource had provided data for over 255 published papers by the end of 2017. The core support for UK Biobank was renewed by the MRC and Wellcome in 2017 and, in addition to the Department of Health (through NIHR), the funder partnership was expanded to include two new partners CRUK and BHF. This renewal brings the combined investment of the MRC and Wellcome in UK Biobank to over £200m since its creation over a decade ago.
- In August 2017, the MRC announced two industry-led partnerships for discovery scientists to access state-of-the-art facilities; AstraZeneca is providing its automated chemical library screening capability, and UCB its antibody discovery platform. The deals will help speed translation of discovery research into potential therapies by giving academic researchers the chance to use industry infrastructure and expertise to further their discovery science research.
- The MRC received substantial additional funding from the National Productivity Investment Fund (NPIF) in 2017/18. The 2017 Budget announced a £300m investment over four years from the NPIF to increase the number of highly-skilled researchers, including 1000 new PhD places across the research councils; additional fellowship positions; and funding specifically to attract top global talent to the UK (the Rutherford Fund). Through this investment, the MRC secured £11m for 118 additional students to commence their PhDs in the autumn 2017 and £37.5m for a further 98 fellowships starting by February 2018. This has approximately doubled the number of MRC studentships and fellowships supported in 2017/18.
- The MRC led, on behalf of 13 funders, the Medical Schools Council and the AMRC, a comprehensive analysis of clinical fellowship positions available in the UK in 2017. The survey of UK investment in clinical and health research fellowships quantified the substantial increase in the availability of clinical fellowships as a consequence of NIHR investment at early, in particular at pre-doctoral, career stages. However, the report identified a 13% decline in fellowships to establish an independent research career and a ~30% decline in senior fellowships, primarily due to the ending of the HEFCE-funded Clinical Senior Lectureship Awards scheme in 2011. The data on gender and ethnic diversity was also highlighted as an area of concern. This report has had an immediate policy impact and the Medical Schools Council has agreed to undertake this analysis on an annual basis, given the importance of the data to the health of clinical academia.

## Public engagement

The MRC aims to bring the benefits of excellent research to all sections of society by enhancing engagement and communication with our scientists and partners, policymakers and parliamentarians, and the public (including relevant populations in developing countries). The MRC's Communication and Engagement Strategy 2014-2019<sup>19</sup> outlines our commitments to effective partnerships such as working with universities to ensure researchers have access to relevant resources and training, supporting researchers to engage public and local audiences, sharing best-practice and pooling resources, and partnering with other research councils to improve evaluation. This will provide audiences with insight into science and its impact on health, show the human story behind scientific endeavour, and build public confidence in research.

### MRC Festival of Medical Research

A legacy of the MRC Centenary Open Week in 2013, the festival was launched in 2016 with the aims of engaging the MRC community, building trust in medical research, and increasing awareness of the benefits of medical research. The second festival was held in June 2017 with 39 establishments and one collective delivering 54 separate activities, attracting more than 11,000 visitors to events in the UK, The Gambia and Uganda.



In 2017, 74 per cent of festival activity organisers felt that, through their involvement in the festival, their staff and students had gained a better understanding of the MRC's strategic aims and 97 per cent of organisers felt that their audiences had increased their awareness and understanding of the benefits of medical research.

A third MRC Festival of Medical Research has been announced for 2018.

19. <https://www.mrc.ac.uk/publications/browse/communication-and-engagement-strategy-2014-19/>

## Facts and figures

In 2017/18 the MRC's gross research expenditure, funded by our BEIS allocation and contributions from other bodies, was £814.1m, compared to £755.5m in 2016/17. The support for world-class medical research to improve human health and enhance the economic competitiveness of the UK included:

- £380.2m on grants to researchers in universities, medical schools and research organisations.
- £150.0m on programmes within the MRC's own units and institutes including £4.0m on studentships.
- £194.1m on programmes within university units and partnership institutes including transfer of property, plant and equipment with a net book value of £24.2m.
- £71.4m on studentships and fellowships in universities, medical schools and research establishments.
- £18.3m for international subscriptions.

## Key issues and risks

A summary of the principle risks facing the MRC and details of how these are being managed can be found in the Governance Statement on page 47.

These risks cover a broad range of concerns and are those which would have the most impact on our ability to deliver our mission. Mitigation strategies are in place and risks are discussed regularly at a senior level. They are also fully shared with MRC Council and its Audit and Risk Assurance Committee.

## Going concern

The financial statements have been prepared on a going concern basis. For full disclosure please refer to Note u on page 97 of the accounts.

## Budget performance summary

The MRC's key financial metric is performance against budget. The financial statements do not take into account the £684.1m budgetary allocation from BEIS due to differences in accounting treatment of our budget in international accounting standards. The reasons for this are fully described in the financial results in the performance analysis.

Against budget programme spend was £36.2m (5.3 per cent) less than budget and capital was £9.9m (22.8 per cent) less than budget. This was largely due to slippage on Industrial Strategy Challenge Fund initiatives. Administration budget was £4.1m (18.6 per cent) less than budget but within forecast expectation.

Table 1: 2017/18 and 2016/17 budget performance summaries

2017/18	Programme Near Cash £000	Admin Near Cash £000	Capital £000
Total income	(127,279)	(95)	(1,083)
Total expenditure	775,158	18,031	34,834
<b>Net income &amp; expenditure</b>	<b>647,879</b>	<b>17,936</b>	<b>33,751</b>
Budget	(684,114)	(22,044)	(43,691)
<b>(Underspend)/overspend</b>	<b>(36,235)</b>	<b>(4,108)</b>	<b>(9,940)</b>

2016/17	Programme Near Cash £000	Admin Near Cash £000	Capital £000
Total income	(135,785)	(94)	(559)
Total expenditure	717,035	20,512	50,780
<b>Net income &amp; expenditure</b>	<b>581,250</b>	<b>20,418</b>	<b>50,221</b>
Less income from Dept. of Health	0	0	(8,700)
<b>Adjusted net income &amp; expenditure</b>	<b>581,250</b>	<b>20,418</b>	<b>41,521</b>
Budget	(581,316)	(22,888)	(41,600)
<b>(Underspend)/overspend</b>	<b>(66)</b>	<b>(2,470)</b>	<b>(79)</b>

## Financial Statement summary

Our Statement of Financial Position, Assets less liabilities and Total Equity increased by some £67m largely as a result of the increase in the pension asset of £119m, increase in grants payable as a result of additional funding received of £24m and £24m reduction in assets due to the transfer of business units to universities.

Table 2

Summary Statement of Consolidated Net Expenditure	2017/18 £000	2016/17 £000
Total income	(128,380)	(136,368)
Total expenditure	912,057	837,493
Other (income)/expenditure	131	(3,856)
<b>Net expenditure for the year</b>	<b>783,808</b>	<b>697,269</b>

Summary Statement of Financial Position	2017/18 £000	2016/17 £000
Non-current assets	888,696	796,782
Current assets	102,113	83,773
Current liabilities	(246,625)	(237,703)
Non-current liabilities	(26,605)	(11,946)
Assets less liabilities and Total Equity	717,579	630,909



# Performance analysis

The MRC uses a variety of approaches to track the outputs and impact of research funding, including annual feedback from researchers via the Researchfish® system<sup>20</sup>, classification of award research activity using the Health Research Classification System (HRCS)<sup>21</sup>, and commissioning independent evaluation studies. Combined with analysis of grant funding data, these approaches aim to provide a detailed picture of the MRC's activities and outcomes, past and present.

## Research areas funded

The 2016/17 HRCS classification of the MRC portfolio (Figure 1)<sup>22</sup> shows that two-thirds (69 per cent) of the MRC's research expenditure contributes to studies on underlying biological processes and on the causal components of disease (coded as Underpinning and Aetiology in HRCS). The remaining third of expenditure focuses on 'translational activities' (detection & diagnosis, treatment evaluation and treatment development). This is consistent with the MRC's focus on supporting excellent discovery science and its translation into early phase human studies in the UK, and all aspects of global health research. Research on the management of disease and health and social care services are a small part of the MRC portfolio, but a substantial part of the focus for NIHR and other patient-care focused funders, with which the MRC co-ordinates its work closely<sup>23</sup>.

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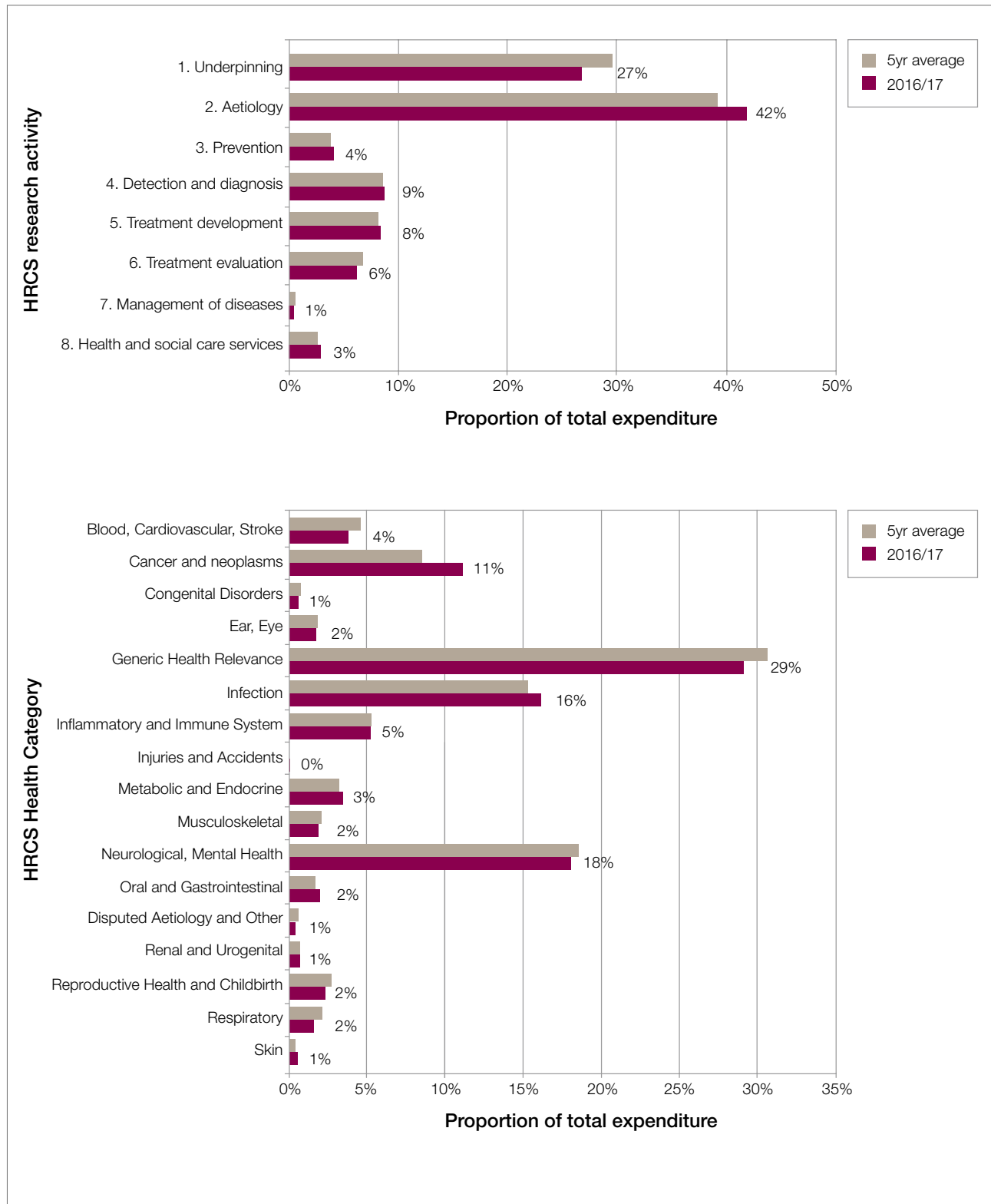
20. <https://www.ukri.org/funding/information-for-award-holders/research-outcomes1/>

21. <https://hrcsonline.net/>

22. Note that as awards made in 2017/18 take time to process and classify, the most recent year with complete data available is 2016/17.

23. <https://www.nao.org.uk/report/cross-government-funding-of-research-and-development/>

Figure 1: MRC funding by HRCS research activity (upper panel) and health category (lower panel)

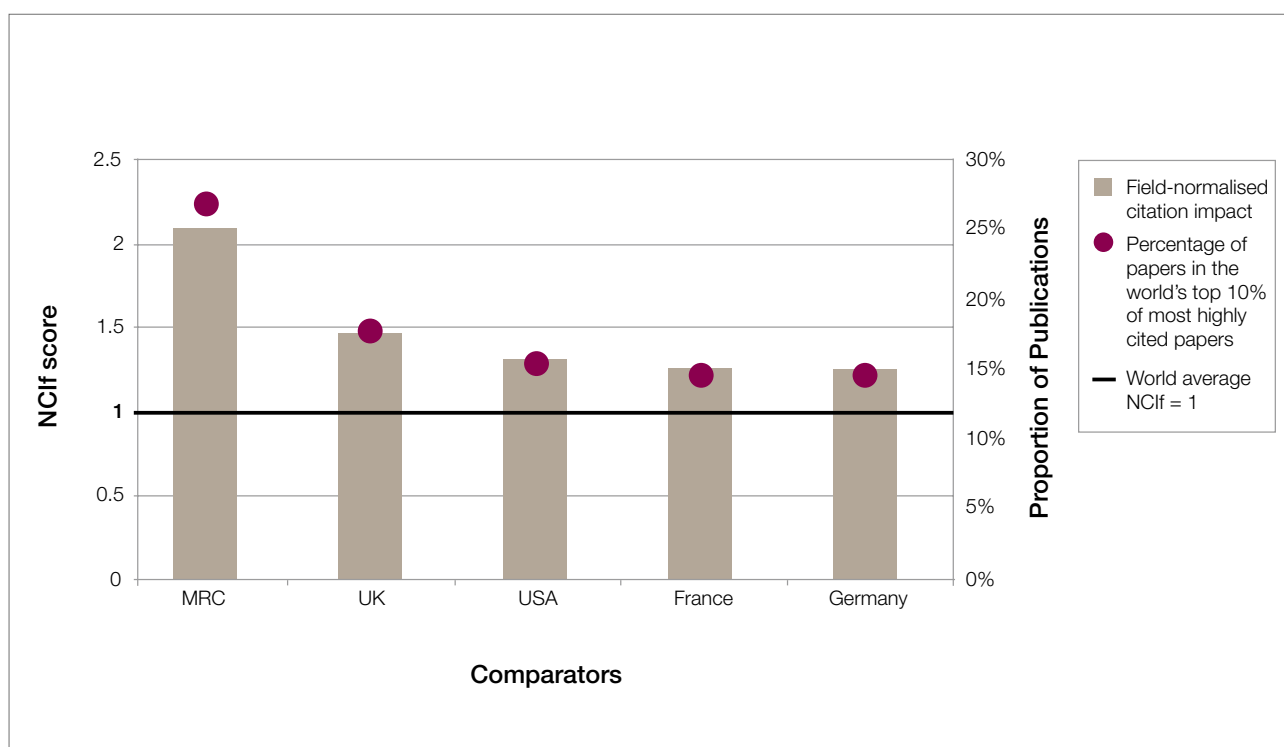




## Research excellence

The UK punches above its weight overall in R&D, and is ranked number one in the world for biomedical research<sup>24</sup>. It is clear that MRC-funded research teams make a substantial contribution to this excellent output. In 2016, 10,981 unique publications were reported by MRC-funded research teams via Researchfish®. Citation analysis can provide evidence for how influential a given article is within the context of its time and field of research. Analysis of publications across the fields of biological science, clinical medicine and health/medical-related research shows MRC publications cited ahead of the rest of the UK and other comparator research-intensive nations with an average field-normalised citation impact (NCIf)<sup>25</sup> score twice the world average (MRC = 2.08, other UK = 1.47, USA = 1.31, see Figure 2 below).

Figure 2: Comparison of MRC publications in biological sciences, clinical medicine and health/medical research and the UK and other research-intensive nations, by field-normalised citation impact



To support rapid dissemination of research results, the MRC is now actively encouraging investigators to share their pre-peer reviewed manuscripts via established preprint servers. These pre-print references will be replaced by the published article when available. In addition, the MRC recognises the need to use metrics responsibly, with recognition of the limitations of how such data can be interpreted. Internationally supported statements such as the San Francisco Declaration on Research Assessment (DORA)<sup>26</sup>, of which the Research

24. Based on field weighted citation impact (FWCI) for biological science, clinical science and health & medical science in Department for Business, Energy and Industrial Strategy (2017) *International comparative performance of the UK research base 2016*. Published online, last accessed 10/12/17 <http://bit.ly/2k1OVWe>

25. The MRC sources its citation data for publications from Clarivate Analytics, which sources data from 18,000 journals in its Web of Science core collection. The main indicator of citation rate is field-normalised citation impact (NCIf), which accounts for both the field of research and the year of publication in the analysis. Therefore, a NCIf score of 1 is considered the global average for publications in a given field and year.

26. <http://www.ascb.org/dora/>

Councils are signatories, and the Leiden Manifesto<sup>27</sup> highlight the care that should be taken over the use of metrics in research assessment. The UK's own expert review of the area published as the "Metric Tide" report<sup>28</sup> sets out a comprehensive set of recommendations to improve research assessment and management.

## Developing expertise

The MRC is about the people we nurture and support: we train, attract and retain the skilled individuals that make the UK a leader in biomedical research. We have a variety of support mechanisms targeted to researchers at key career transition points. Following a consultation with the community in 2014/15, we have made our support more flexible and provided additional guidance to help meet scientific career and community needs.

Those at an early stage in their research careers are supported via MRC's studentship training programmes. The MRC supports around 1400 PhD students at any one time. Figure 3 shows the breakdown of the MRC studentship population in April 2018.

Funding for studentships is awarded to research organisations, including universities, MRC institutes, units and centres, who are responsible for selecting outstanding candidates for projects supervised by leading researchers.

Just over half of MRC studentships are supported via 15 Doctoral Training Partnerships (DTPs) with 29 universities, which enable doctoral training across a broad range of subjects, further support such as cohort-building activities and access to high-cost training is provided to all MRC PhD students registered at DTP universities.

Industrial CASE studentships (8%) provide students with experience of research in a non-academic environment, such as industry. In 2017, we moved from making individual studentship awards to allocations of multiple studentships to research organisations (ROs), enabling industrial CASE studentship opportunities to be created in a more flexible and scalable way. This approach has attracted significant leverage, including 13 matched funded studentships, and will increase the total annual cohort size from around 26 studentships, delivered through the previous mechanism, to 54 studentships to start from October 2018.

In addition, the MRC utilised additional £11m National Productivity Investment Funding to support 118 new studentships (8 through the industrial CASE competition above) starting in October 2017, in areas key to delivering the government's industrial strategy, such as Digital Technologies & Informatics, Advanced Therapeutics, Accelerating Medicines Discovery & Translation, and Precision Medicine & Diagnostics.

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27. <http://www.nature.com/news/bibliometrics-the-leiden-manifesto-for-research-metrics-1.17351>

28. Wilsdon et al. (2015) *The Metric Tide: report of the independent review of the role of metrics in research assessment and management*. DOI: 10.13140/RG.2.1.4929.1363

Figure 3: Active MRC funded studentships as at 1 April 2018

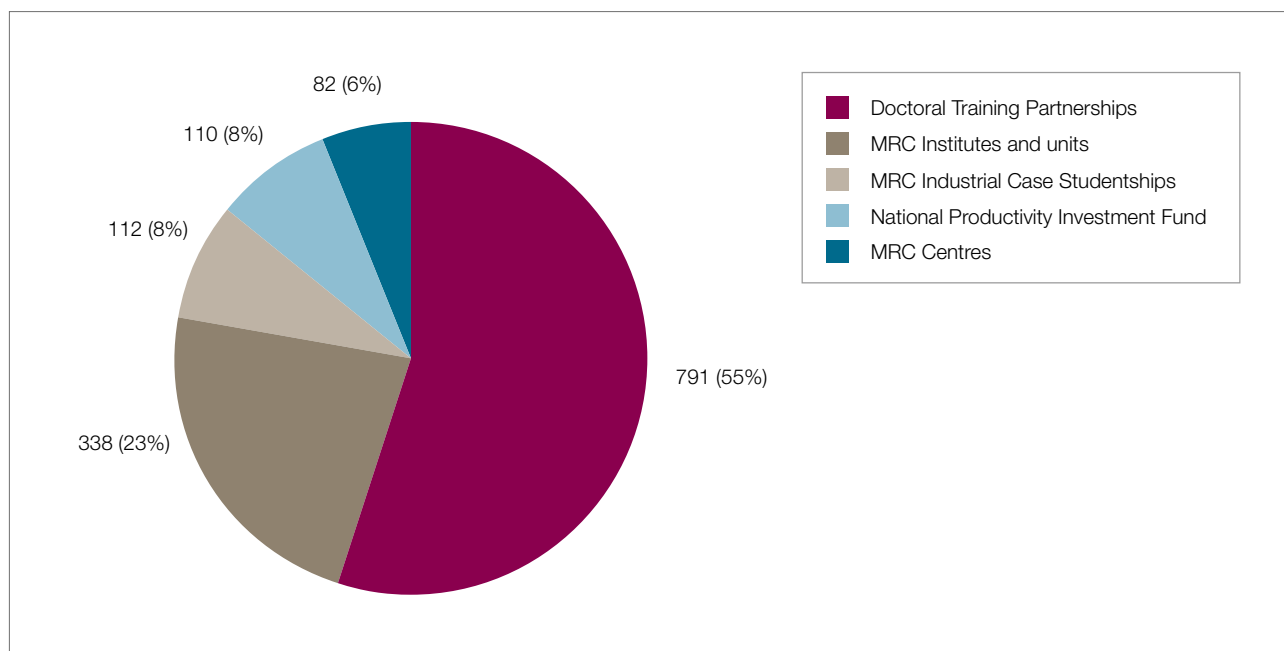
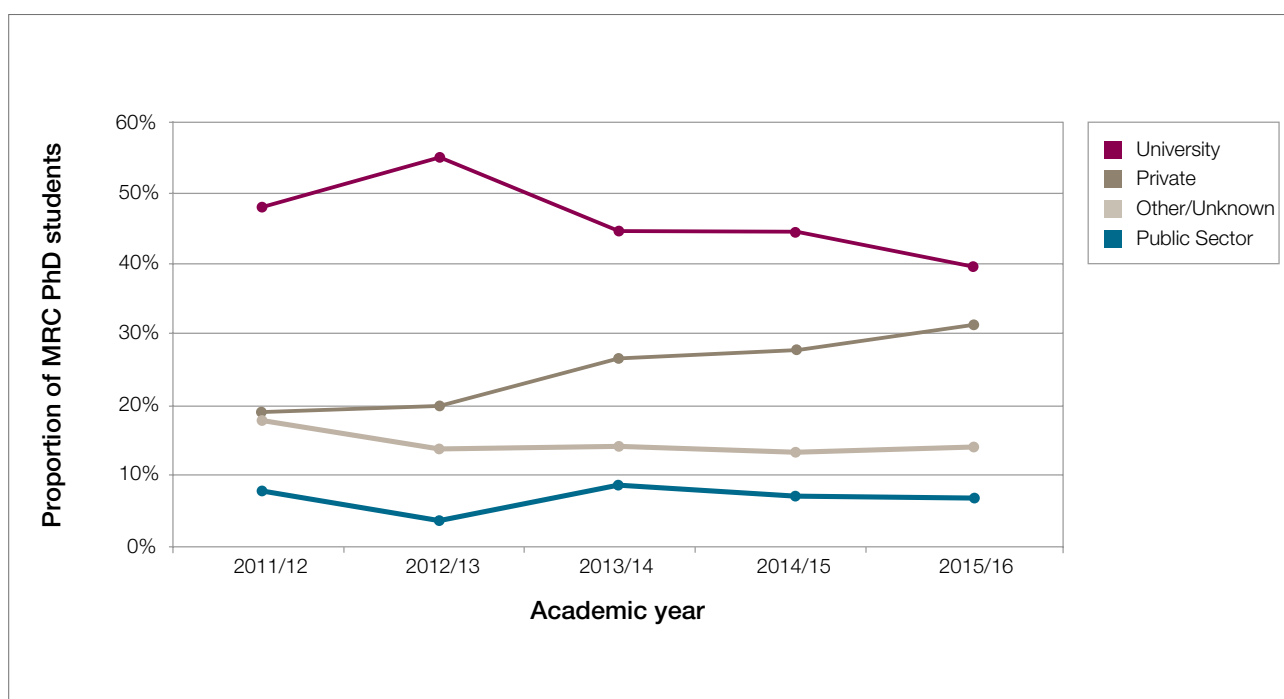


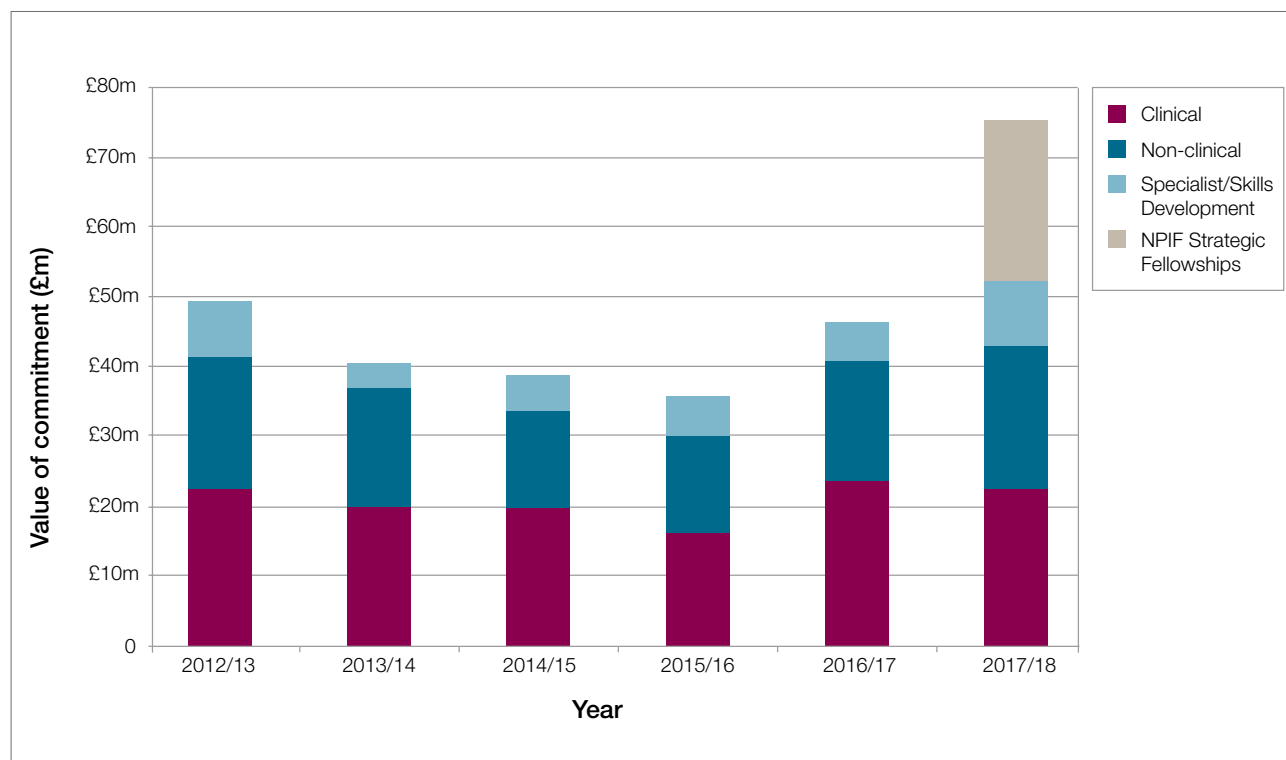
Figure 4: Employment status of MRC PhD students six months after completing study, by employment sector<sup>29</sup>



29. Data from the Higher Education Funding Council for England (HEFCE)'s Destinations of Leavers from Higher Education (DLHE) survey, which provides information about graduates six months after they complete their studies. This survey is a condition of funding for HEFCE-supported higher education institutions (HEIs) in England, which individual HEIs must fund and administer themselves, using materials provided by the Higher Education Statistics Agency (HESA). As such the data provided by HESA to research councils on their PhD students is limited to those who successfully completed the survey request, so may not account for all studentships in our portfolio.

While just under half of MRC doctoral students stay in academia six months after completing their studies, approximately a third of students moved to employment in the private sector. Over the past four years, there has been an increase in private employment post-qualification, with a matching decrease in PhD students remaining in academia (Figure 4), indicating that MRC's investment in PhD studentship contributes to both the next generation of researchers in academia and the wider economy.

Figure 5: New MRC fellowship commitment by financial year



MRC fellowships are personal awards for talented researchers to support them at key transition points in their careers. Many of today's leading biomedical and health researchers look back on their MRC fellowship as a significant stepping stone in developing their career. Fellowships are open to both clinical and non-clinical researchers across all areas of MRC's remit, with additional opportunities in quantitative and qualitative research skills provided by the Skills Development Fellowships. MRC fellowship awards are flexible to meet diverse needs, allowing training placements in the UK, abroad or in industry and enabling research to be combined with clinical work.

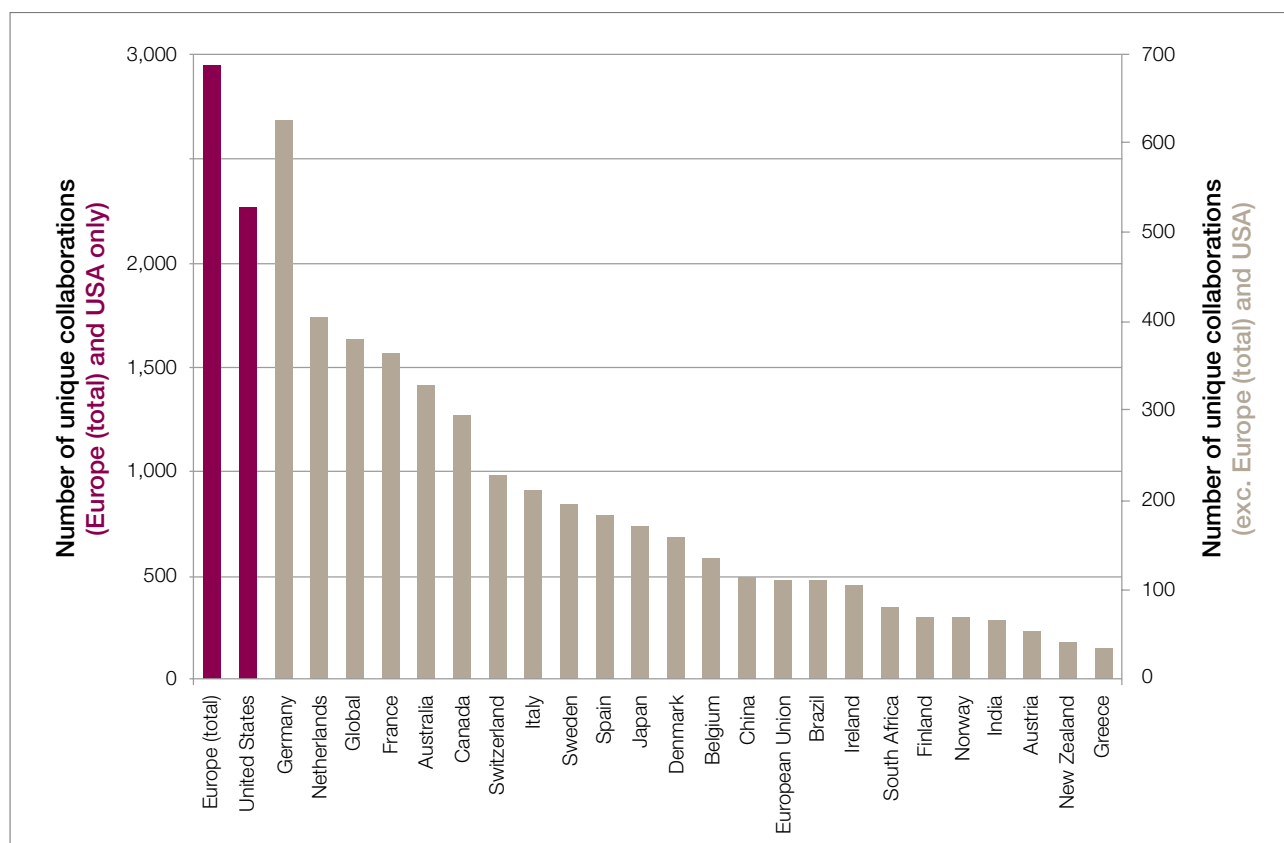
2017/18 saw unprecedented MRC investment, with a total of £75.5m committed to support personal fellowships. This was possible due to the National Productivity Investment Fund (NPIF), allowing the MRC to provide additional investment to nurture future leaders and ensure that the UK industrial sector has a supply of skilled researchers in both industry and the research base. A total of 174 awards were made, both via MRC's existing fellowship schemes (53 Clinical, of which 12 NPIF; 17 Non-clinical, of which 1 NPIF; 33 skills development fellowships, of which 15 NPIF) and via award of 71 personal NPIF strategic fellowships aligned to MRC's large investments, such as MRC institutes and units. Fellowship commitments by scheme are summarised in Figure 5.

## Integration into the global research environment<sup>30</sup>

Collaborations are central to addressing complex and multi-disciplinary research questions. Collaboration allows the necessary expertise, materials and facilities to be assembled, potentially from participating partners across the world. Studies have indicated that collaboration is important for research productivity, progress and impact<sup>31,32</sup>. The UK has a strong background of international collaboration in research; the 2017 Leiden Ranking<sup>33</sup> shows 56% of the biomedical and health sciences publications from UK HEIs (higher education institutions) have international co-authors, versus 51% of German or 33% of US publications.

Researchers report that 43% of the collaborations established as a result of MRC funding are with international partners. The most frequent partners for international collaboration are within Europe (16%) or the United States (12%), see Figure 6. The remaining 15% account for a further 2,412 reported new interactions across 196 countries. More than half of MRC researchers (58%) report collaborations with new partners occurring within five years of the award. The majority of follow-on collaborations over the last 10 years were within academia (61%) while a further 10% form new collaborations with the private sector.

Figure 6: Top 25 countries (excluding UK) for collaborators<sup>34</sup>



30. Data from researchfish®. See our methodology web page for more details:

<https://mrc.ukri.org/successes/evaluating-research-outcomes/methodology-for-evaluation/>

31. Katz and Martin (1997) What is research collaboration? *Research Policy* 26 (1-18) [https://doi.org/10.1016/S0048-7333\(96\)00917-1](https://doi.org/10.1016/S0048-7333(96)00917-1)

32. The Implications of International Research Collaboration for UK Universities (Digital Science report, 2016) <https://www.digital-science.com/resources/digital-research-reports/digital-research-report-the-implications-of-international-research-collaboration-for-uk-universities/>

33. Data from CWTS Leiden Ranking on collaborations as indicated by co-authorship for the leading world Universities (<http://www.leidenranking.com/>)

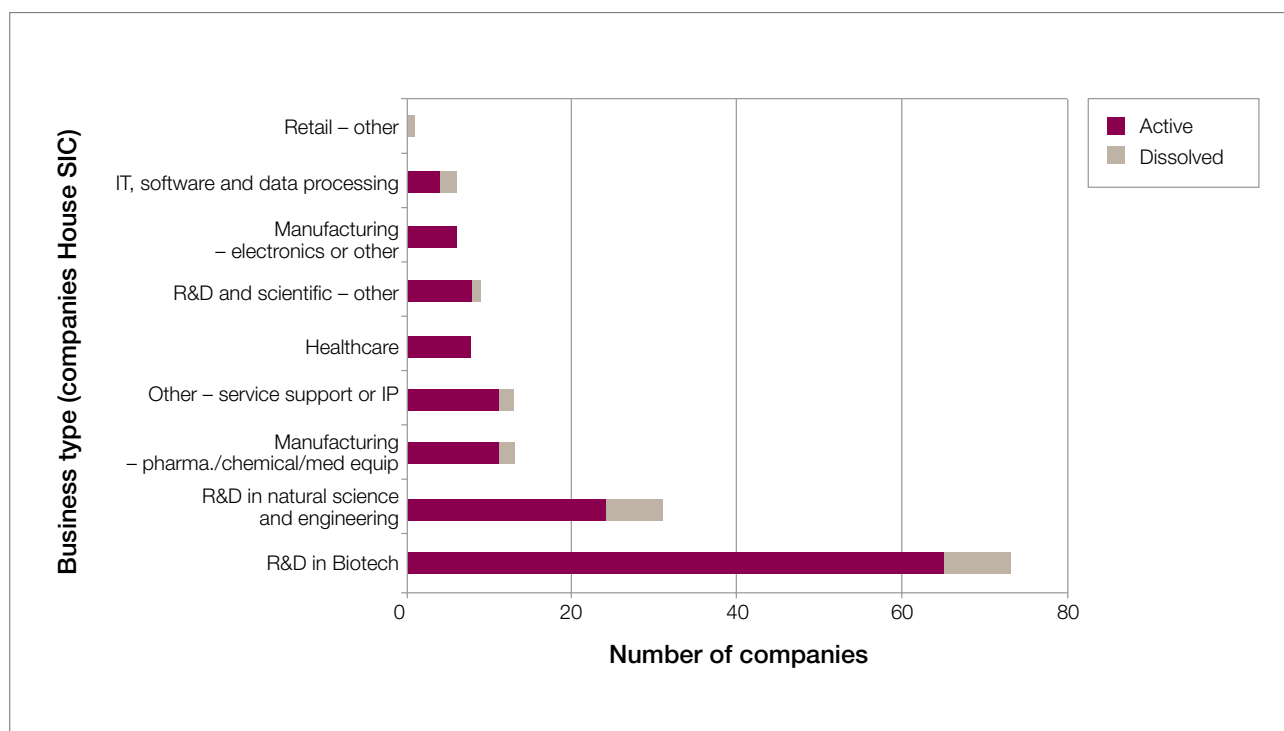
34. Note that 'Global' indicates global organisations such as the United Nations and World Health Organisation.

## Further support for MRC-funded research outcomes

Research funded by the MRC benefits from support from all sectors. Approximately a quarter of MRC research is funded from the outset in partnership with other funding organisations, including many charitable and private sector organisations. Contingent on excellent progress being made, researchers will subsequently obtain further funding to increase the scale and scope of work undertaken. The ‘crowding in’ of funding by MRC researchers is estimated at £4.66 billion of expenditure in the last five years, relative to £4.51bn in MRC expenditure over the same period. Independent studies have estimated that for every £1 of public investment in research approximately £1.36 is leveraged from the private sector<sup>35</sup>.

Researchers report a wide range of outputs from their MRC funding, and in many cases their work has resulted in new products, processes and ideas with economic and societal impact. For example, MRC research has helped found or develop at least 195 spin out companies, of which 72 have arisen in the last five years and 16 in 2016, the most recent year with data available. Of the 195, 157 companies are still active. The majority of these new companies are – as one might expect – in the biotechnology, pharmaceutical and healthcare sectors (59%), with a further 25% in other areas of science, engineering and R&D. The remainder focus on other forms of manufacture, data/IT or support services /intellectual property (see Figure 7, below).

Figure 7: The business type of MRC spinouts, by standard industrial classification (SIC) group



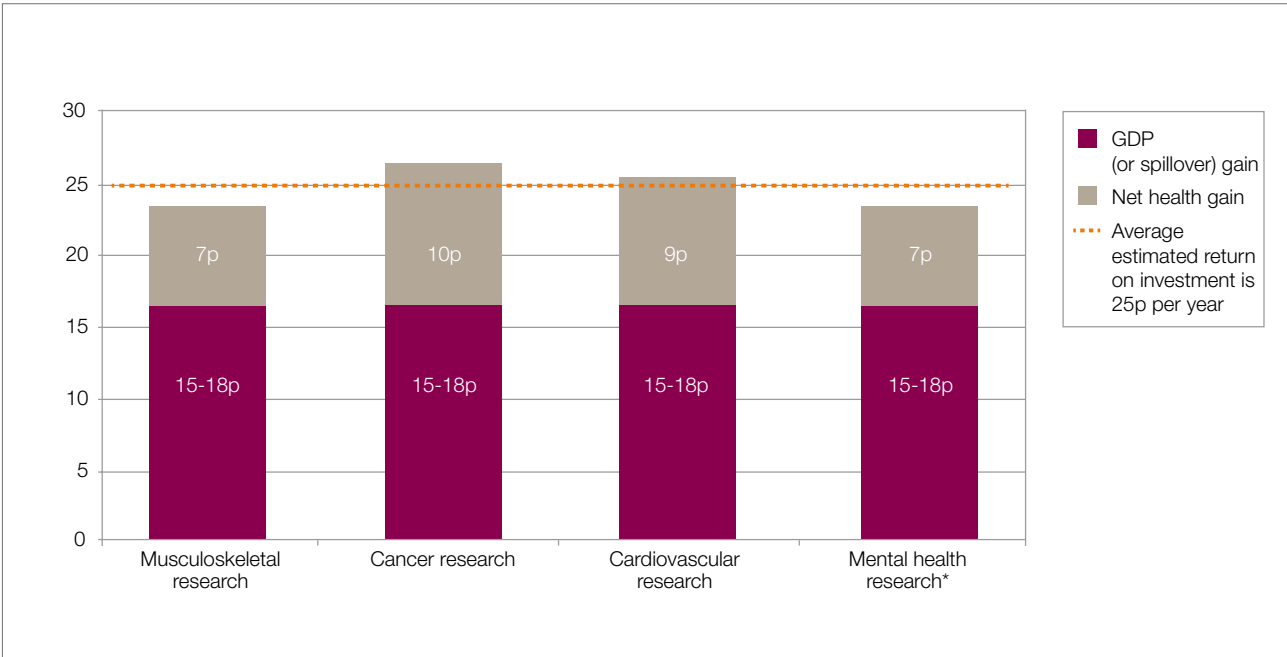
35. Data from researchfish®. <https://www.mrc.ac.uk/funding/guidance-for-mrc-award-holders/researchfish/>

## Evaluation of impact

The MRC has also supported a range of studies aimed at better understanding impact and refining estimates of the economic return on investment from medical research. In 2008 the first “What’s it worth?” report<sup>36</sup>, commissioned by the MRC, Wellcome Trust and Academy of Medical Science, found that cardiovascular disease research generated a 9% return on investment in terms of the health gain from new interventions. This approach was also used to assess mental health (7% net health gain<sup>37</sup>) and subsequently used to estimate the average health gain from cancer research (10%)<sup>38</sup>. The third and last of the “What’s it worth?” series, applying the same methodology to musculoskeletal disease research, was published in January 2018<sup>39</sup>.

In 2016 MRC funded research provided the first UK-specific estimate of spillover benefits from medical research<sup>40</sup>. The analysis concluded that investment in medical research had stimulated the private sector to invest more in UK research and development, equivalent to a return on investment from public and charitable funding for medical research of 15% to 18%. When added to the average net health gain from musculoskeletal, cancer, cardiovascular and mental health research, the total return on investment from medical research is estimated to be 25%.

Figure 8: What is medical research worth? Equivalent yearly return from £1 of public or charity investment



36. HERG, OHE, RAND Europe (2008) *Medical Research: What’s it worth? Estimating the economic benefits from medical research in the UK*. London: UK Evaluation Forum.

37. Note that the figure for mental health research was derived from a more limited study in the 2008 report, and is subject to greater uncertainty than the other figures.

38. Glover et al. (2014) Estimating the returns to UK publicly funded cancer-related research in terms of the net value of improved health outcomes. *BMC Medicine* 12:99 DOI: 10.1186/1741-7015-12-99

39. Glover et al. (2018) Estimating the returns to United Kingdom publicly funded musculoskeletal disease research in terms of net value of improved health outcomes. *Health Research Policy and Systems* 16(1): DOI: 10.1186/s12961-017-0276-7

40. Sussex et al. (2016) Quantifying the economic impact of government and charity funding of medical research on private research and development funding in the United Kingdom. *BMC Medicine* 14(32): DOI: 10.1186/s12916-016-0564-z

## Environmental policy/sustainability

This report sets out the MRC's UK environmental performance against a common basket of metrics: greenhouse gas emissions; water usage and waste disposal, and their corresponding financial data.

In line with HMT sustainability reporting guidelines, MRC facilities located overseas and MRC shareholdings in scientific facilities in the UK and overseas are excluded from the data presented.

Table 3

<b>Greenhouse gas emissions</b>					
<b>Non-financial (000 tonnes CO<sub>2</sub>)</b>	<b>2013/14</b>	<b>2014/15</b>	<b>2015/16</b>	<b>2016/17</b>	<b>2017/18</b>
Total gross emissions	35.53	39.86	37.47	31.33	23.16
Total net emissions	35.53	39.86	37.47	31.33	23.16
Gross emissions – scope 1 (direct)					
Gas & LPG	8.28	7.67	7.42	6.68	6.12
Owned transport	0.01	0.01	0.01	0.01	0.02
Gross emissions – scopes 2&3 (indirect)					
Electricity (1)	27.26	31.96	29.87	24.45	16.87
Business travel (2)	0.12	0.22	0.18	0.19	0.15
<b>Related energy (million kWhr)</b>					
Electricity	56.37	59.50	59.7	54.39	37.54
Renewable electricity	0	0	0	0	0
Gas	44.30	40.60	40.2	36.27	26.78
LPG	0	0	0	0	0
Other	0.5	0.6	0.5	0.3	0.3
<b>Finance (£m)</b>					
Expenditure on energy	6.32	6.32	6.48	6.68	4.45
CRC Costs	0.4	0.5	0.5	0.5	0.4
Accredited Offsets	0.0	0.0	0.0	0.0	0.0
Business travel	2.74	2.47	2.37	2.36	2.08

Notes: (1) During 2017/18, the size of the MRC estate reduced owing to university unit transfer. This reduction in size is reflected in the reduction in usage as well as the positive actions taken to enhance sustainability.



### **Performance commentary**

MRC greenhouse gas emissions are dominated by the use of electricity. All research activities are energy hungry and specialised buildings like those that the MRC use, often including containment laboratories and animal houses, require many air changes per hour, 24 hours a day, 365 days per year. The MRC is endeavouring to conduct research in as economical and sustainable a way as possible.

The MRC Estates Management Section (EMS) has created a utilities tracker to more closely monitor the monthly costs and usage of MRC utilities. Individual establishments are written to immediately upon significant changes in their usage of gas and electricity.

Examples of initiatives at individual establishments include:

#### **Laboratory of Molecular Biology (LMB):**

LMB has invested a significant amount of effort into validating their comprehensive metering and energy management system through 2017. This work is almost now complete and will allow LMB Estates and Facilities to better understand patterns in energy usage from both plant and laboratory operations in the coming year and beyond. This will be of significant use in identifying the potential impact of a suite of energy saving initiatives that are currently in the developmental stage. When these initiatives are implemented the metering system will also provide accurate data on the energy savings that have resulted.

#### **MRC Harwell:**

Harwell initiated a project to monitor and reduce the energy usage on site in February 2013. This has produced real reductions in use of both gas and electricity. The reduction in energy use in 2017 was largely driven by an increased use of LED lighting on site. The local energy group is discussing the possibility of installing an electric car charger in the car park and currently gauging possible usage.

A reverse osmosis plant to reduce the amount of gas used is now in situ – payback period expected to be 18 months. Other initiatives at Harwell include installing software to control all AG500 air conditioning units from a central computer; ongoing pipe lagging of offices; and repairs to faulty windows.

## Waste management

Table 4

<b>MRC waste management data</b>					
<b>Non-financial (000 tonnes CO<sub>2</sub>)</b>	<b>2013/14</b>	<b>2014/15</b>	<b>2015/16</b>	<b>2016/17</b>	<b>2017/18</b>
Total waste	922	1044	1209	1400	694
Hazardous waste (total)	137	177	278	315	225
Non-hazardous waste					
Landfill	168	257	220	212	71
Reused/recycled	570	485	507	635	203
Composted	47	53	56	46	37
Incinerated with energy recovery	0	72	148	192	158
Incinerated without energy recovery	0	0	0	0	0
<b>Finance (£m)</b>					
<b>Total disposal cost</b>	0.55	0.72	0.47	0.45	0.47
<b>Total hazardous waste</b>	0.08	0.12	0.11	0.10	0.17
Non-hazardous					
Landfill	0.10	0.18	0.09	0.07	0.05
Reused/recycled	0.34	0.33	0.20	0.20	0.14
Composted	0.03	0.04	0.02	0.02	0.02
Incinerated with energy recovery	0.00	0.05	0.05	0.06	0.11
Incinerated without energy recovery	0.00	0.00	0.00	0.00	0.00

### Performance commentary

The MRC recycles as much material as possible and has amongst other things installed a polystyrene compactor at one of its sites. The nature of the research conducted means that a substantial amount of clinical waste is produced and this is disposed of properly in line with legislative requirements.

There have been initiatives to reduce the use of plastic cups and cardboard coffee cups used at LMB by encouraging staff to use glasses for water and their own ceramic cups for takeaway hot beverages – in the last six months this successfully reduced plastic cup usage to the extent that no new supplies of them have had to be purchased.

# Finite resource consumption

Table 5

<b>Water</b>					
<b>Non-financial (000 cubic metres)</b>	<b>2013/14</b>	<b>2014/15</b>	<b>2015/16</b>	<b>2016/17</b>	<b>2017/18</b>
<b>Water consumption (Office Estate)</b>					
Supplied	4	5	10	3	8
Abstracted	0	0	0	0	0
<b>Water consumption (Non-Office Est.)</b>					
Supplied	198	197	277	183	106
Abstracted	0	0	0	0	0
<b>Finance (£m)</b>					
Water supply costs (Office Estate)	0.01	0.01	0.01	0.01	0.01
Water supply costs (Non-Office Est.)	0.36	0.38	0.33	0.33	0.20

## Performance commentary

Water consumption has been measured by the MRC for several years. While consumption can sometimes be high because of individual building’s purposes – e.g. animal houses; measurement itself can help to identify previously unknown leaks and similar issues which reduce wastage and expense. Proactive steps taken in order to achieve water saving at high use sites include use of a reverse osmosis system in animal drinking units and reuse of water collected from the main air handling units (rejected water produced as part of the humidity control system). At MRC Harwell, water savings have been achieved by diverting condense away from the drain and back to the main water tanks in our specialist building – up to 10 tonnes of water per day have been returned this way during the cooling season in the summer.

## Financial results

Each year we receive a budgetary allocation from BEIS. The MRC is required to control budgets under the Resource Accounting and Budgeting regime and may not exceed the limits that they have been set. There is no flexibility allowed in practice to carry forward previous years' underspends.

The MRC has separate budgets for:

- Programme – which includes Near-Cash current expenditure such as pay or procurement and Non-Cash including depreciation, which is the current cost associated with the ownership of assets. This budget includes a ring-fenced allocation for Administration.
- Capital for new investment and renewal.

Within the programme budget some transactions will have an immediate or near-immediate impact on the fiscal position, for example pay, procurement and depreciation. Other transactions will only have an effect in future periods, for example the take-up of provisions, or revaluation of assets. Both types of transaction fall within the programme budget. Administration budgets are controlled to ensure that as much money as practicable is available for science programmes.

A summary of the MRC's financial results for 2017/18 is shown in table 6 and for the preceding year in table 7. Tables 6 and 7 show results using the accounting conventions required for reporting to central government. This form of accounting differs in a number of ways from that required for our formal audited accounts. A reconciliation between the two sets of accounts is shown at table 8.

The Programme Near-Cash outturn of £647,879k was £36,235k lower than budget. Capital expenditure at £33,751k was £9,940k lower than budget. This was mainly due to slippage on Industrial Strategy Challenge Fund initiatives. Administration near cash expenditure was £4,108k less than budget of £22,044k, which was within the parameters expected by the organisation.

Table 6: Summary of Financial Return for 2017/18

	2017/18							
	Programme			Admin			Capital	Total
	Near Cash £000	Non Cash £000	Total £000	Near Cash £000	Non Cash £000	Total £000	£000	£000
<b>Total Income</b>	<b>(127,279)</b>	<b>0</b>	<b>(127,279)</b>	<b>(95)</b>	<b>0</b>	<b>(95)</b>	<b>(1,083)</b>	<b>(128,457)</b>
Pay and Operating Costs (1)	183,876	956	184,832	18,031	(5)	18,026	0	202,858
Depreciation and impairment charges	0	23,253	23,253	0	0	0	0	23,253
Provision movement	693	0	693	0	0	0	0	693
Research and development funding	589,950	0	589,950	0	0	0	61,690	651,640
Other operating expenditure	618	0	618	0	0	0	0	618
Finance expenditure (1)	21	109	130	0	19	19	0	149
Direct Capital	0	0	0	0	0	0	(26,856)	(26,856)
<b>Total Expenditure</b>	<b>775,158</b>	<b>24,318</b>	<b>799,476</b>	<b>18,031</b>	<b>14</b>	<b>18,045</b>	<b>34,834</b>	<b>852,355</b>
<b>Net Income &amp; Expenditure</b>	<b>647,879</b>	<b>24,318</b>	<b>672,197</b>	<b>17,936</b>	<b>14</b>	<b>17,950</b>	<b>33,751</b>	<b>723,898</b>
Budget	684,114	25,050	709,164	22,044	0	22,044	43,691	774,899
(Underspend)/overspend	(36,235)	(732)	(36,967)	(4,108)	14	(4,094)	(9,940)	(51,001)

(1) Non cash relates to exchange rate (gains)/losses

Table 7: Summary of Financial Return for 2016/17

	2016/17							
	Programme			Admin			Capital	Total
	Near Cash £000	Non Cash £000	Total £000	Near Cash £000	Non Cash £000	Total £000	£000	£000
<b>Total Income</b>	<b>(135,785)</b>	<b>0</b>	<b>(135,785)</b>	<b>(94)</b>	<b>0</b>	<b>(94)</b>	<b>(559)</b>	<b>(136,438)</b>
Pay and Operating Costs (1)	195,000	(1,968)	193,032	20,512	0	20,512	0	213,544
Depreciation and impairment charges	0	28,215	28,215	0	0	0	0	28,215
Provision movement	1,318	0	1,318	0	0	0	0	1,318
Research and development funding	520,619	0	520,619	0	0	0	65,255	585,874
Other operating expenditure	75	0	75	0	0	0	0	75
Finance expenditure (1)	23	204	227	0	(1)	(1)	0	226
Direct Capital	0	0	0	0	0	0	(14,475)	(14,475)
<b>Total Expenditure</b>	<b>717,035</b>	<b>26,451</b>	<b>743,486</b>	<b>20,512</b>	<b>(1)</b>	<b>20,511</b>	<b>50,780</b>	<b>814,777</b>
<b>Net Income &amp; Expenditure</b>	<b>581,250</b>	<b>26,451</b>	<b>607,701</b>	<b>20,418</b>	<b>(1)</b>	<b>20,417</b>	<b>50,221</b>	<b>678,339</b>
<b>Less Income from Dept of Health (2)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>(8,700)</b>	<b>(8,700)</b>
<b>Adjusted Net Income &amp; Expenditure</b>	<b>581,250</b>	<b>26,451</b>	<b>607,701</b>	<b>20,418</b>	<b>(1)</b>	<b>20,417</b>	<b>41,521</b>	<b>669,639</b>
Budget	(581,316)	(32,249)	(613,565)	(22,888)	0	(22,888)	(41,600)	(678,053)
(Underspend)/overspend	(66)	(5,798)	(5,864)	(2,470)	(1)	(2,471)	(79)	(8,414)

(1) Non cash relates to exchange rate (gains)/losses

(2) Capital contribution re: Clinical Research Infrastructure

Table 8: Reconciliation of finance tables to Annual Accounts

	Account Note	2017/18 £000	2016/17 £000
<b>Financial Statements</b>			
<b>Net Expenditure for the year</b>		<b>783,808</b>	<b>697,269</b>
<b>Not charged to Budget</b>			
IAS 19 Pension adjustments: finance Income	10.f	(41)	4,171
IAS 19 current service costs		(15,835)	(1,914)
Provision movement – amount provided in year & unwinding of discount		34	21
Share of losses of joint venture		(11,994)	(1,824)
Notional Service Charge not included in budget		(5,911)	(6,227)
<b>Other charges to Budget</b>			
Provision movement – Amount Expended in year		693	1,318
Property, plant & equipment additions	7	15,166	6,304
Intangible asset Addition – Software	8		23
Less net book value of disposed property, plant & equipment	7	(90,158)	(20,802)
Long Term Receivable		48,743	0
Profit/(Loss) on Disposal of Joint Venture		(607)	0
<b>Expenditure per Finance Table</b>		<b>723,898</b>	<b>678,339</b>

**Fiona Watt**

**Accounting Officer**

**Medical Research Council**

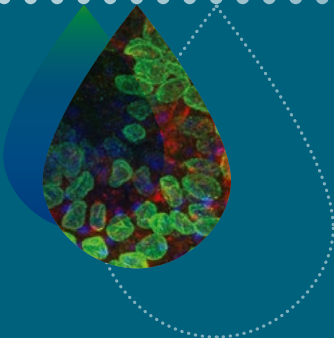
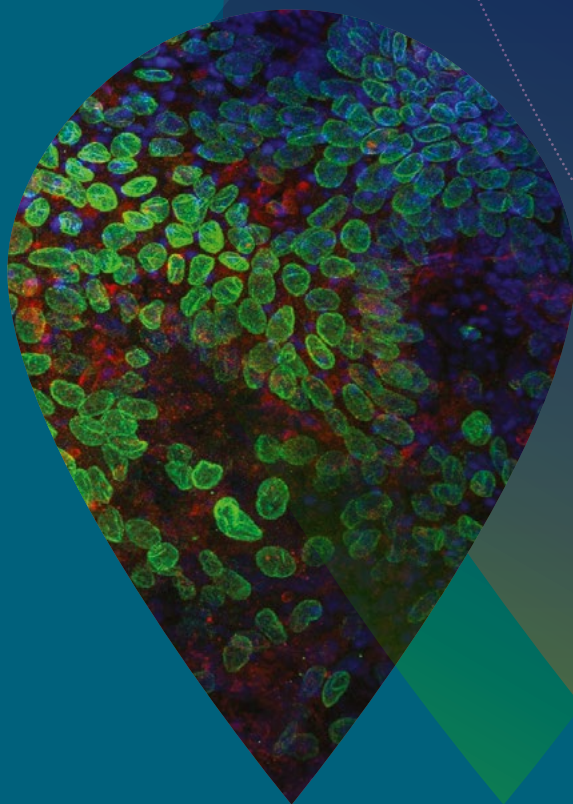
Date: 3 July 2018





# Accountability report





### Murine colonic epithelial organoid

The image shows a colonic organoid stained for LaminB1, to define the nuclear envelope (green) and gamma-tubulin (red) to stain centrioles, DNA is stained blue. Organoids are new ways of growing cells in vitro. Rather than being attached to the bottom of a dish like normal cell culture, organoids grow in a 3D matrix which allows them to keep a structure similar to that which is seen in tissue. In this image you can see that the bulk of the organoid is fed by a number of smaller protrusions known as crypts that contain Lgr5 positive stem cells. These stem cells are capable of supplying the organoid with all the different cell types that are normally found in the small intestine.

© Ronan Mellin and Luke Boulter  
MRC Human Genetics Unit, MRC Institute of Genetics and Molecular Medicine

# Corporate governance report

## The Directors' report

### Council and Management Board members

The membership of the MRC's Council and its committees is listed on page 50 in the Governance Statement. Council members' remuneration is listed in the Remuneration Report (page 68). The Chairman of the MRC's Council is Mr Donald Brydon and the Chief Executive Officer was Professor Sir John Savill. Management Board membership in 2017/18 was as follows:

Name	Job title
Sir John Savill	Chief Executive
Professor David Lomas	Deputy Chief Executive
Mr Bruce Minty	Chief Operating Officer (until Dec 2017)
Dr Declan Mulkeen	Chief of Strategy
Dr Rob Buckle	Chief Science Officer
Dr Tony Peatfield	Director of Corporate Affairs
Mr Hugh Dunlop	Chief Operating and Finance Officer
Mr Sandy Bulger	Major Projects Director (until Nov 2017)
Ms Sally-Louise Smith	HR Director (until Jun 2017)
Ms Shar Nebhrajani	Director of External Affairs (until Nov 2017)
Dr Chris Watkins	Director of Innovation (until Oct 2017)

### Conflicts of interest

During 2017/18 all Management Board member were circularised for details of conflicts of interests. Identified conflicts are included in the Remuneration and Staff Report on page 69.

Council members are asked to complete a declaration of interests form when they are appointed and to inform the MRC of changes in their circumstances as they arise. To ensure this happens, the Chairman asks members to state if there are any changes to their declared interests at each Council meeting. Members are also sent a copy of their current form and biography annually and asked to update it or state if there are no changes. Completed forms are published on the MRC website at the following link: <https://mrc.ukri.org/about/our-structure/council/mrc-legacy-council/>

## Pension liabilities

The accounting treatment of pension liabilities and details of the MRC's pension scheme are fully disclosed in the Remuneration report (page 64), accounting policy note 1(o) (page 95) and note 10 to the accounts (page 108).

## Information assurance and security

Information assurance and security is covered in the governance statement on page 52.

## Freedom of information

Fifty requests were handled in 2017, including one EIR, and 16 requests were handled up to the end of March 2018. All requests were handled within the statutory time limit. A breakdown of the requests received during 2017 and 2018, by requestor and request type, is provided in tables 9-12.

Table 9: 2017 FOIA requests by requestor

Requestor type	No. (%)
Academic/HEI/RO	7 (14%)
Charities and interested parties	0 (0%)
Media	5 (10%)
Parliament	1 (2%)
Private Sector	8 (16%)
Public	27 (54%)
Public Sector	2 (4%)
<b>Total</b>	<b>50</b>

Table 10: 2018 FOIA requests by requestor

Requestor type	No. (%)
Academic/HEI/RO	0 (0%)
Charities and interested parties	3 (19%)
Media	1 (6%)
Parliament	0 (0%)
Private Sector	2 (13%)
Public	10 (63%)
Public Sector	0 (0%)
<b>Total</b>	<b>16</b>

Table 11: 2017 FOIA requests by type

Request type	No. (%)
Contracts	1 (2%)
Corporate strategy, policy and governance	38 (76%)
Outputs	1 (2%)
Research funding	8 (16%)
Research strategy, policy and governance	2 (4%)
<b>Total</b>	<b>50</b>

Table 12: 2018 FOIA requests by type

Request type	No. (%)
Contracts	0 (0%)
Corporate strategy, policy and governance	12 (75%)
Outputs	0 (0%)
Research funding	4 (25%)
Research strategy, policy and governance	0 (0%)
<b>Total</b>	<b>16</b>

# The Statement of Accounting Officer's responsibilities

The financial statements presented on page 84 are the accounts of the Medical Research Council.

Under paragraph 3 of Schedule 1 of the Science and Technology Act 1965 the Council is required to prepare a statement of accounts for each financial year in the form and on the basis directed by the Secretary of State for Business, Energy and Industrial Strategy, with approval of HM Treasury. The accounts are prepared on an accruals basis and must give a true and fair view of the Council's state of affairs at the year-end of its income and expenditure, changes in taxpayers' equity and cash flows for the financial year.

In preparing the accounts, the Accounting Officer is required to comply with the requirements of the Government Financial Reporting Manual and in particular to:

- Observe the Accounts direction issued by the Secretary of State for Business, Energy and Industrial Strategy, including the relevant accounting and disclosure requirements, and apply suitable accounting policies on a consistent basis;
- Make judgements and estimates on a reasonable basis;
- State whether applicable accounting standards as set out in the Government Financial Reporting Manual have been followed and disclose and explain any material departures in the financial statements;
- Prepare the financial statements on a going concern basis.

The Department for Business, Energy and Industrial Strategy has appointed the Executive Chair as Accounting Officer of the MRC. The responsibilities of an Accounting Officer, including responsibility for the propriety and regularity of the public finances for which the Accounting Officer is answerable, for keeping proper records and for safeguarding the MRC's assets, are set out in the Accounting Officers' Memorandum, issued by HM Treasury and published in Managing Public Money.

The Accounting Officer has taken all reasonable steps to ensure that he is aware of any relevant audit information and to ensure that the Council's auditors are aware of that information. As far as the Accounting Officer is aware, there is no relevant audit information of which the MRC's auditors are unaware.

The Accounting Officer confirms that this annual report and accounts as a whole is fair, balanced and understandable and that he takes personal responsibility for the annual report and accounts and the judgments required for determining that it is fair, balanced and understandable.

# MRC Governance Statement for 2017/18

This governance statement sets out my assessment of the MRC's potential vulnerabilities and capability to deal with the challenges facing us in our operating environment.

## 1. Scope of responsibility

As Accounting Officer, I have personal responsibility for maintaining a sound system of governance and internal control that supports the achievement of MRC's policies, strategic aims and objectives whilst safeguarding the public funds in accordance with the responsibilities assigned to me and disclosed in "Managing Public Money".

The MRC is an independent non-departmental public body of the Department for Business, Energy and Industrial Strategy (BEIS). The MRC's lines of accountability with BEIS are defined through a management statement, code of practice and financial memorandum.

The MRC together with other research councils is reliant on the UK Shared Business Services Ltd (UK SBS LTD) for the provision of administration systems and this statement explains the oversight and assurance process and results for the service supplied.

## 2. The purpose of the governance statement

This governance statement for 2017/18 sets out the dynamics of the MRC and its control structure. It explains the review processes which enable me to have confidence in the effectiveness of the controls and provides a sense of the MRC's performance during the year and how successfully it has coped with the challenges it faced. This statement explains how the MRC has complied with the principles of good governance, reviews the effectiveness of these arrangements, and complies fully with the Corporate Governance Code.

## 3. The governance framework/structure

The MRC governance framework includes Council, the Council Audit and Risk Assurance Committee (CARAC), Management Board, Strategy Board, Operations Board and other fora, senior management, officials and staff. The MRC's decision-making and advisory bodies are described below.

**The MRC's Council** meets five times a year. Council is the MRC's top level decision-making body directing and overseeing corporate policy and science strategy. It decides all issues of major importance including issues of corporate strategy, sets key strategic objectives and targets, makes major decisions involving the use of financial and other resources, and ensures the organisation is effectively managed. Council members have a corporate responsibility for ensuring that the Council's decisions are well-founded and comply with any statutory or administrative requirements for the use of public funds.

**Council appointments:** Council is led by the Chairman, with the MRC Chief Executive as Deputy Chairman and twelve other members, at least half of whom are appointed on account of their scientific qualifications. Council members are appointed by and are accountable to the Secretary of State for Business, Energy and Industrial Strategy in accordance with the Code of Practice for Ministerial Appointments to Public Bodies. In addition, there is a BEIS observer on Council.

From 1st April, a new Council has been constituted for the MRC as a constituent part of UK Research and Innovation (UKRI) under a new Executive Chair, but the former Council continues in place for a limited legacy period to oversee the winding up of the MRC as an independent legal entity.

#### **Main activities for 2017/18<sup>41</sup>**

- Reviewing delivery of commitments in the MRC strategic plan and other items of strategic importance;
- Reviewing and approving decisions on MRC intramural investments including progress and future plans for the university unit programme and the realisation of benefits from the programme;
- Discussing and approving the MRC Industry Charter;
- Reviewing and advising on the MRC's priorities in promoting data access and open science following publication of the UK Concordat on Open Research Data;
- Reviewing and advising on governance and principles for MRC shareholdings;
- Monitoring progress with major initiatives including the Francis Crick Institute;
- Reviewing and approving financial plans and performance;
- Reviewing and approving operational activities including IT issues and cyber security;
- Considering arrangements for winding up the research councils after the launch of UKRI including plans for the MRC Pension Scheme;
- Receiving reports from subcommittees including the Council Audit and Risk Assurance Committee, the Ethics, Regulation and Public Involvement Committee, and the Remuneration Committee.

#### **Review of effectiveness**

No issues were identified.

#### **Boards and subcommittees**

Council is supported in its role by several boards and subcommittees<sup>42</sup>. There are four subcommittees made up of Council members and supplemented, where appropriate, with other members bringing specialised expertise and knowledge. Subcommittees have responsibility for specific areas of Council's remit; in some cases, authority is delegated to them to act on behalf of Council, and in other cases they are acting in an advisory capacity either to Council (Ethics, Regulation and Public Involvement Committee (ERPIC)) or to the Chairman (Nominations Committee). Council is also advised by an Employee Representation Forum.

The **Council Audit and Risk Assurance Committee (CARAC)** met five times in 2017/18. It supports and advises Council and the Chief Executive on matters of governance, risk and control. Meetings are attended by representatives from the National Audit Office (NAO) and the Government Internal Audit Agency (GIAA).

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41. Agendas and redacted minutes are available on the MRC website.

42. The terms of reference and membership of the committees are available on the MRC website <http://www.mrc.ac.uk/About/Structure/Council/CouncilCommittees/index.htm>

### **CARAC main activities for 2017/18:**

- Reviewing audit reports and tracking implementation of recommendations;
- Detailed scrutiny of annual accounts;
- Oversight of risk management with emphasis on the management of corporate and fraud risks;
- Review of information assurance and cyber security;
- Review of assurance process and findings;
- Monitoring of major programmes.

### **Review of effectiveness**

CARAC carried out a review of effectiveness in February 2017. No significant issues were identified.

The **Remuneration Committee (RemCom)** reports to Council and met twice during the year. It is chaired by the MRC Chairman and there are three or four additional members, who are all Council members.

The MRC Chief Executive, the Chief Operating Officer and the HR Director are also invited to attend and advise RemCom. RemCom reviews the HR Strategy and Finance, in particular the pay, grading and bonus arrangements for the most senior staff.

The **Ethics, Regulation and Public Involvement Committee (ERPIC)**. Is chaired by Baroness O'Neill of Bengarve (a Council member) and currently has five other members. It is an advisory committee which meets twice a year and reports to Council.

The **Nominations Committee (NomCom)** reports to Council. It is chaired by the MRC Chairman and there are two additional members. NomCom advises the Chairman on senior key appointments and meets as and when required. There were no meetings of NomCom in 2017/18.

**Strategy Board** met seven times in 2017/18 under the chairmanship of the CEO. It is responsible for developing, coordinating, and overseeing the implementation of and evaluation of the MRC's strategic plan. Membership includes the Chair of each of the Research Boards and Strategic Overview Groups plus an MRC institute or unit director and a representative of the extramural programme. Strategy Board reports to Council and has a budget delegated by Council for strategic awards. In addition there have been joint meetings with councils and council members have attended Strategy Board meetings as observers.

The four **Research Boards** each meet three times a year and are each responsible for one of the four major areas of medical science that together make up the MRC portfolio. They, together with expert funding committees with more focused remits (e.g. Fellowship awards, translational research), are responsible for assessing applications for research funding and have delegated budgets for new awards. There are four strategic overview groups (Training and Careers, Global Health, Translational Research, and Population Health Sciences) which are responsible for ensuring that the MRC's activities in these key areas are well coordinated and strategically positioned.



Council and Committee attendance, 1 April 2017 – 31 March 2018

Name of Member	Attendance			
	Council	RemCom	CARAC	ERPIC
Dr John Brown	4/5		4/5	
Professor Jonathan Bisson <sup>43</sup>	1/3			
Mr Donald Brydon <sup>44</sup>	4/5			
Prof Doreen Cantrell	4/5			
Prof Chris Day	4/5			
Prof Dame Sally Davies <sup>45</sup>	1/1			
Prof Dame Janet Finch	4/5		5/5	
Prof Patrick Johnston <sup>46</sup>	0/1			
Prof John Iredale	5/5			
Mr Richard Murley	5/5			
Baroness Onora O'Neill	5/5			2/2
Dr Menelas Pangalos	2/5			
Prof Irene Tracey	4/5			
Dr Pauline Williams	4/5			
Prof Sir John Savill <sup>47</sup>	5/5		4/5	
Ms Anna Anderson			5/5	
Mr Roger Dunshea			5/5	
Ms Charlotte Moar			5/5	
Ms Kathryn Packer			4/5	

**Key**

- Council member
- Independent CARAC members
- Management

**Management Board** is the MRC's principal executive decision-making body. It meets monthly and is accountable to Council through the Chief Executive.

43. Professor Bisson was appointed with effect from 1 October 2017  
 44. Mr Brydon also chaired RemCom and NomCom  
 45. Dame Sally's term came to an end on 30 June 2017  
 46. Professor Johnston sadly died in June 2017  
 47. Prof Sir John Savill was the Chief Executive and Deputy Chair of Council

## Partner organisations

The MRC is a key funder in a variety of partnerships. The MRC's interests in each of these partnerships are governed via a Joint Venture Agreement or by contracts. In some instances, separate companies have been established and the MRC has a nominated Director on each board. Whilst the detail for each partnership differs, the MRC has appropriate agreements in place and actively engages through representation at senior level. The partnerships are:

- UK BioBank
- The Francis Crick Institute (The Crick)
- UK Dementia Research Institute (DRI)
- Health Data Research UK (HDRUK)

Our risk and assurance frameworks ensure that matters emanating from these partnerships activities are reported and that issues are responded to in an appropriate manner. Council determines the most appropriate structure for each partnership. The governance and monitoring arrangements for these partnerships are subject to audit by GIAA on a rolling programme.

MRC university units are governed by strategic alliance agreements and have specific assurance arrangements. These arrangements are subject to audit by GIAA.

## 4. The risk and internal control framework

The MRC believes that identifying and managing risks and opportunities plays a critical part in the effective and efficient delivery of the MRC's long-term organisational objectives, creating confidence and trust within the scientific community and the general public and enabling better planning for the future.

The system of internal control is designed to manage risk to a reasonable level rather than eliminate all risk of failure to achieve policies, aims and objectives.

The MRC has a robust risk management system designed to identify and prioritise the risks to the achievement of MRC's policies, aims and objectives, to evaluate the likelihood of those risks being realised and the impact should they be realised, and to manage them efficiently and effectively. The system of control has been in place in MRC for the year ended 31 March 2018 and up to the date of approval of the annual report and accounts, and accords with HM Treasury guidance. The MRC has reviewed its risk management arrangements against the new "Managing of Risk in Government – framework" and can confirm that no weaknesses have been identified.

The task of overseeing the risk management strategy is delegated to the Head of Risk Management and Assurance. The Risk and Assurance Team provides challenge and support. The team co-ordinates the documenting and updating of corporate and fraud risks, these are reviewed regularly by Management Board and then reported to CARAC and Council.

All MRC directors and managers share the responsibility to ensure the effective implementation of risk management and internal controls.

There is a system for escalating all risks that exceed the MRC risk appetite to Operations Board and/or Management Board and if appropriate to CARAC and/or Council for discussion

The risk management framework includes:

- setting out a risk management policy and strategy and defining the risk appetite for the MRC;
- signing up to overall assurance statements by directors; (DASIC see 13)
- updating and reviewing the corporate and fraud risk registers at least quarterly by senior management and reviewing at CARAC;
- underpinning the corporate risk register with directorate, unit and project level risk registers;
- requiring all risks to have a senior manager/director as “risk owner”;
- a formal project management approach with embedded risk management for major activities, including the business-critical programmes;
- All decision papers to Council, Management Board and Strategy Board require a statement on the risks relevant to the decision.
- The use of risk management software “EasyRisk” to record and track all risks and audit recommendations.

## 5. Fraud and error risk management

The MRC is committed to standards of regularity and propriety and does not tolerate any form of fraud, bribery and/or corruption.

The MRC has a detailed fraud and error risk register that is reviewed regularly by Management Board, CARAC and Council.

There is a mandatory e-learning programme on fraud and bribery for all senior staff and those working in high risk areas, in addition a series of fraud awareness workshops were held during the year.

The Head of Risk Management and Assurance attends the BEIS Counter Fraud Working Group and the Cabinet Office Counter Fraud network where best practice is shared and current fraud issues discussed.

There was one low value fraud reported during the year. This was investigated and reported to CARAC, there was no loss to the MRC.

## 6. Information assurance and information security

The management of information risks is fully integrated within the risk management process and the Chief Operating and Finance Officer is the MRC’s Senior Information Risk Owner.

Every MRC establishment undergoes an annual review of their information security systems. In 2017, all establishments undertook an independent assessment against the Government’s security standard called Cyber Essentials Plus. This standard sets the basic requirements for cyber security for any organisation to help protect themselves against the most common attacks from the internet. This standard aligns itself with the mandatory

requirements in the Cabinet Office Security Policy Framework. In February/March 2018, the GIAA carried out an assessment against the government security framework “10 Steps to Cyber Security” for the MRC Laboratory of Molecular Biology and the MRC Harwell Institute. The report assessed the status within these two institutes as “moderate” and work is ongoing to address the areas of concern. Each MRC establishment provides its own IT service and all receive key business services from UKSBS Ltd. These are subject to robust governance arrangements and regular audits. These are reported separately in the annual report.

The MRC submits an annual Security Health Check return to BEIS. The security health check confirms compliance with the mandatory security outcomes described in the HMG Security Policy Framework. The return reflects an assessment of specific Information Assurance risk areas that are consistent with the risks recorded in the Council’s risk register together with any areas of concern.

The MRC has adopted the Cabinet Office policy on Government Security Classifications. The MRC has produced its own guidance to support the policy.

### **Information security incidents**

For the year ending 31 March 2018, the MRC IT Security team logged twenty-seven security incidents, none of which required reporting to BEIS or the Information Commissioner.

## **7. Transparency**

In line with the Government’s commitment to greater transparency of public information, the MRC publishes information on how we spend the public funding we receive. Information on senior staff pay, management and staffing structures, spending over £25,000 and transactions on Government Procurement Cards over £500 is routinely published on our website and is also accessible on [www.data.gov.uk](http://www.data.gov.uk). All new contractor and consultancy appointments are vetted to ensure that they are not deliberately avoiding paying appropriate tax and NI. All contract renewals must provide the MRC with the same assurances. Data is presented for the MRC’s intramural research units and institutes, head office, regional administrative centres and research facilities.

The MRC, jointly with the other research councils, has participated in the Gateway to Research project. This project provides a website with information about the research that the councils have funded, together with the associated outputs and outcomes.

## **8. MacPherson Review**

The review of quality assurance of Government analytical models undertaken by Sir Nicholas MacPherson and published by HM Treasury in March 2013 made a number of recommendations for government departments and their Arm’s Length Bodies. To comply with this review and the BEIS requirements MRC have reviewed their use of analytical modelling in 2017/18 and have not identified any that were business critical.

## 9. Tax assurance

The Alexander Review was published in May 2012 making several recommendations to ensure that the highest standards of integrity could be demonstrated in the tax arrangements of senior public appointees. I can confirm that the MRC's senior staff are all paid through the payroll and that arrangements are in place through retained HR to provide assurance that appropriate tax arrangements are in place to cover any other appointees covered by the report.

In 2017/18 the MRC identified six contractors who fell within the Alexander Review criteria. The MRC has sought and gained assurance that the appropriate tax arrangements are in place for the contractors identified.

Council members are 'office holders' as defined within HMRC guidance and their remuneration is subject to income tax and National Insurance contributions under PAYE where applicable and managed through the payroll.

As such, the MRC is in compliance with the recommendations in the HM Treasury 'Review of the tax arrangements of public sector appointees' published in May 2012.

## 10. UK Research and Innovation (UKRI) Transition Programme

The Higher Education and Research Bill, which included the proposal for the creation of UK Research and Innovation (UKRI) on 1st April 2018, received Royal Assent on 27th April 2017. UKRI will operate across the whole of the UK with a combined budget of more than £6 billion and is bringing together the seven Research Councils, Innovate UK and a new organisation, Research England. UKRI intends to be an outstanding organisation that ensures the UK maintains its world leading position in research and innovation.

Our present system is a success and key elements of it will remain including controls existing in 2017/18 which will continue in 2018/19. UK and International asset transfers are well underway and are scheduled to complete before October 2018 during which time the existing legacy bodies will remain legal entities. The structures and committees for the internal governance of UKRI are all agreed and terms of reference exist for the main committees (the Strategy Committee, the Investment Committee and the Finance and Operations Committee and the Audit, Risk, Assurance and Performance Committee (ARAPC)).

## 11. Regularity and propriety

I can confirm that for 2017/18 neither I nor my staff authorised a course of action, the financial impact of which would have been that transactions would have infringed the requirements of regularity as set out in Managing Public Money; and that Treasury approval has been obtained for all novel, contentious or repercussive transactions relating to 2017/18.

Pay setting arrangements throughout the Civil Service are set out in guidance issued by HM Treasury. I can confirm that MRC was compliant with the requirements.

## 12. Whistle-blowing

The MRC has a whistle-blowing policy which sets out ways to report concerns, include a dedicated confidential email address and options to contact the Chair of the Audit and Risk Committee. The policy has not been invoked during 2017/18.

## 13. Research integrity

MRC Council receives an annual report on research integrity, including information on any cases of misconduct relevant to MRC-funded work. An annual research integrity statement for 2016/17<sup>48</sup> has been published on the MRC web site in line with responsibilities agreed under the Concordat to support research integrity.

## 14. Review of effectiveness

As the MRC Accounting Officer, I have responsibility for reviewing the effectiveness of the system of governance, risk management and internal control. My review is informed by the work of the executive managers within the MRC who have responsibility for the development and maintenance of the internal control framework, as well as by internal auditors and by comments made by the external auditors in their management letter and other reports.

I have been advised on the implications of the result of my review of the effectiveness of the system of internal control by Management Board and CARAC and have developed plans to address weaknesses and ensure that continuous improvement of the system is in place. This Governance Statement represents the end product of the review of the effectiveness of the governance framework, risk management and internal control.

### **Directors' Annual Statement of Internal Control (DASIC)**

All MRC directors (intramural institutes/units, overseas offices and head office) provide an annual assurance statement (DASIC) on their areas of responsibility. These returns provided an overall positive assessment on the compliance with policies and systems of internal control.

All units now embedded in universities have provided a University Unit Assurance Statement, similar to the DASIC statement.

All returns are reviewed and validated by corporate leads for each area of responsibility before being considered by Operations Board and CARAC. No significant weaknesses were identified.

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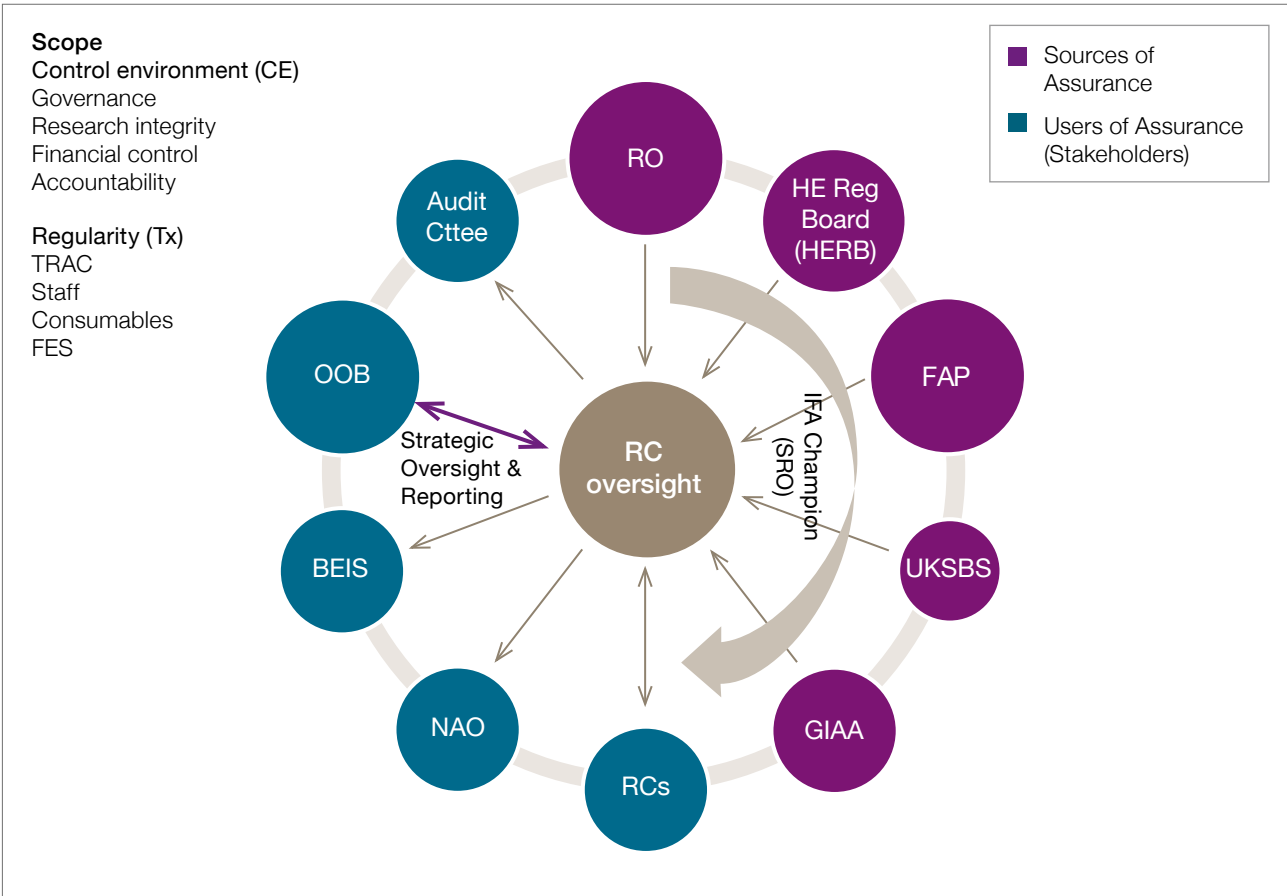
48. <https://www.mrc.ac.uk/research/policies-and-guidance-for-researchers/>

**Funding assurance activities**

Across the RCUK community research funding totals £3.3bn of which £664.1m relates to MRC. The funding landscape has two major funding streams: 1. Grants administered through the Siebel system c£334.9m and awarded to eligible research organisations (ROs); 2. Funding distributed outside the Siebel system c£329.1m including Strategic partnerships.

The Funding Assurance Working Group (FAWG) has continued to review the Integrated Funding Assurance (IFA) framework and improve the approach to IFA. This framework is predicated on establishing appropriate accountability within the research organisation in receipt of funding and collating assurance from a range of sources (see purple in Figure 9) for key stakeholders (see blue in Figure 9).

Figure 9: IFA Framework



**Siebel Grants**

The assurance provided though this framework indicates a very low level of current and historic errors for all Councils. In his report the Head of Funding Assurance provides “Moderate” assurance based upon the programme of work undertaken.

Some of the key changes during the year have been:

- Amendments to the grant terms and conditions – to provide clarity on research council's expectations relating to due diligence and assurance
- Auditing of UK research organisations approach to due diligence and assurance
- Development of draft International funding assurance policy, framework and process
- Increased resources for funding assurance team
- Further development of the processes relating to the Global Challenges Research Fund (GCRF)

In addition to the research councils' demonstration of compliance to the Cabinet Office Minimum Grant Standards in 2017, they have also been taking part in the Grants Accelerator work. Data has been provided evidencing the Councils overall self-scoring rates of **established/advanced**, which will be used as part of the overall BEIS assessment.

The International Assurance sub-group, (including the FA team) has continued to develop and refine the approach to due diligence and assurance for overseas funding.

### **Non-Siebel awards/funding**

Strategic partnerships represent the major part of MRC non-Siebel funding to third parties.

Major components include:

- International Subscriptions £18.3m – represents MRC or UK contributions to organisational resources for international and other collaborations and may not be tracked to a specific deliverable.
- University units £142.9m.
- Joint ventures (e.g. Crick) and large investments £57.6m.

I take assurance on these activities primarily through the governance frameworks in place, including:

- Memorandum of Understandings, concordats, etc. setting out the rules and relationships for our engagement;
- Representative roles within the key organisations e.g. Board members, seats on governing bodies, committees etc.
- Linked to the above, we take assurance from externally audited accounts and audit reports.
- Separate assurance maps and assurance frameworks for large partnerships e.g. the Crick.
- The University Unit Assurance Framework, with results reviewed by Management Board.
- Detailed review of financial records and progress reporting for overseas grants

### **Audit activity**

During 2017/18 GIAA conducted two audits relevant to the IFA framework:

- Retained Function: Grants Processing [Moderate assurance];
- Integrated Funding Assurance: Non-Siebel Funding Activity [Moderate assurance].

The recommendations from the reports will be taken forward as part of the assurance work within UKRI.



By taking assurance from HERB's that the control systems within HEI's are working effectively and combining this with the transaction level testing undertaken by the Funding Assurance Programme (FAP), research councils are able to provide a high level of assurance to the public that funds are being spent in accordance with the principles contained within Managing Public Money.

The assurance provided through IFA framework indicates a number of funding pressures and the very nature of the activities is that they are complex and novel. Nevertheless, I am reassured through the mechanisms described here that they are being managed in an appropriate manner and that there are no major issues that warrant reference here.

## 15. Current significant risks

The most significant risks to MRC are set out below; all risks are discussed quarterly at Management Board and at CARAC:

### **Loss of Charitable Status**

If the MRC loses charitable status as a result of the transfer to UKRI, they will lose zero VAT rating, this will result in increased costs with possible impact on achievement of objectives.

Mitigation: UKRI and BEIS in are discussion with HMT, Charity Commission and HMRC to seek resolution.

### **Dementia Research Institute (DRI)**

There is a risk that the government support for an MRC-led Dementia Research Institute does not translate into a step change in impactful discovery research in the UK.

Mitigation: In partnership with other funders the Institute was establish in late 2017 and the Director appointed. Research sites have been selected. An assurance framework has been agreed and there are regular funders meeting with the Director.

### **Health Data Research UK (HDR UK)**

MRC's ambition to create a transformative improvement in biomedical and health informatics is not realised.

Mitigation: MRC working in partnership to develop Health Data Research UK. Institute established, assurance framework being developed. The MRC and HDR UK are working with Understanding Patient Data on the implications of the opt out clause and the General Data Protection Regulation.

### **ODA/GCRF programmes**

There is a risk that the arrangements around ODA for globally relevant medical research do not foster effective research or reach spend targets.

Mitigation: MRC is working with closely the other research councils, relevant government departments and GCRF delivery partners to ensure coherence of the opportunities available. In addition, the MRC has a separate risk register overseen by the ODA Project Board.

## EU Exit

Following the referendum on 23 June 2016, the UK is now scheduled to leave the EU on 29 March 2019. This means that future access to EU research funding and the nature of future immigration arrangements with the EU for researchers is subject to the negotiations between the UK and EU which at the time of the laying of this report are still underway. To address the uncertainty in relation to future EU funding, in August 2016 the UK Government announced that it would guarantee certain EU funded projects after the UK has left the EU. The Research Councils and Innovate UK continue to monitor developments and we are addressing this risk by working closely with colleagues in government and the wider sector to ensure an effective and joined up approach to the implications of leaving the EU.

## The Crick

There is a risk that the value of the investment will not be realised, arising from:

- a) The ongoing operation of the Crick does not result in the expected benefits.

Mitigation: Establishment review to be completed by October 2018

- b) Construction work for the British library and Cross Rail 2 adjacent to the Crick will have a detrimental effect on research operations, research programmes and benefits realisation for the Crick (cause vibration and electromagnetic interference that will impact on the sensitive equipment installed in the basement)

Mitigation: The MRC and the Crick continue to work closely with British Library and TfL, DoT and BEIS on options to reduce the risk.

## Recruitment and retention

There is a risk that the MRC will be unable to recruit or retain staff with appropriate knowledge and skills to deliver its strategy, there are a number of factors that contribute to this risk including turbulence in the sector and restrictions on pay scales.

Mitigation: Operations Board review turnover and recruitment information, use of allowances, emphasis on the non-pay elements of the remuneration package.

## General Data Protection Regulation (GDPR)

The introduction of GDPR, on 25 May 2018, brings about substantial changes to the existing Data Protection Act 1998. The Information Commissioner's Office has indicated that they expect to see organisations striving for compliance rather than achieve full compliance on Day One. Nevertheless, failure to comply could result in fines up to 20m euros or 4% of turnover and significant reputational damage to the MRC. A cross Council and Innovate UK project, led by the AHRC Director of Resources as SRO, has been established to take forward the changes. A 'health check' led by the Professional Support Unit, with assistance from internal audit, identified the project as a 'medium' bordering on a 'low risk'. This, however, continues to be a key risk due to the significant impact of non-compliance if there is an incident where we are at fault.

## Assurance

### Government Internal Audit Agency (GIAA)

In 2017/18 The Head of Internal Audit provided the MRC with an overall moderate level of assurance on the adequacy and effectiveness of MRC's controls framework.

The internal audit programme is developed annually in consultation with CARAC, Management Board and the Head of Risk Management. In 2017/18 the audit programme (including cross-council) included 22 audits. There are no limited assurance reports for MRC from the core programme.

There were 21 audits relevant to the MRC in the cross-council programme of these 5 reports received limited assurance (listed below), the first four do not directly impact on MRC operations or internal controls.

There are five limited assurance cross-council reports:

- Transfer of Assets and Liabilities to UKRI
- Change Management: RCUK Digital and Technology Project (Phase 1)
- Change Management: RCUK Digital and Technology Project (Phase 2)
- General Data Protection Regulation (GDPR): Implementation Project (Phase 3)
- Retained Function Assurance: GPC and iExpenses

Recommendations from all audits will be taken forward by UKRI.

All reports have been discussed by CARAC. The MRC has a comprehensive system for tracking implementation of audit recommendations. Progress on implementation is reviewed at Operations Board and CARAC.

## 16. UK Shared Business Services Ltd (UK SBS) Assurance

UK SBS Ltd (UK SBS) provides processing services in human resources, procurement, payroll, finance and IT to all seven research councils.

The UK SBS Executive Director has written to me stating that the Head of Internal Audit (Government Internal Audit Agency) has provided an opinion of Moderate Assurance for both the internal operations within UK SBS and for its customer facing operations.

To provide additional assurance MRC has been operating a number of supplementary controls. GIAA has examined the additional controls across all research councils and the overall classifications of assurance that can be provided are:

- |                                |                      |
|--------------------------------|----------------------|
| • Payroll                      | – Moderate Assurance |
| • Human Resources              | – Moderate Assurance |
| • GPC and iExpenses            | – Limited Assurance  |
| • Order and payment processing | – Moderate Assurance |
| • Procurement                  | – Moderate Assurance |

The accepted audit recommendations in these areas will be taken forward as part of the assurance work within UKRI.

## 17. Conclusion

This governance statement represents the results of the review of effectiveness of the governance framework, risk management and internal control. I have considered the evidence provided and the advice of GIAA and CARAC. Although there are considerable challenges within the organisation, the conclusion of the review is sufficient to satisfy me that the operation of systems of governance, risk management, and control are appropriate for the MRC and its risk profile.

Sir John Savill has given me assurance that the contents of this Governance Statement are factually correct.

**Fiona Watt**

**Accounting Officer**

Date: 3 July 2018

# Remuneration and staff report

## Remuneration report

### Remuneration Committee

(unaudited information)

Remuneration of the head office directors and of the heads of the MRC's units and institutes is reviewed by the MRC Remuneration Committee. The committee is chaired by the MRC Chairman and there are three additional members who are all Council members. Remuneration Committee membership during 2017/18 was:

- Mr Donald Brydon, Chairman
- Dr John Brown, Edinburgh
- Professor Chris Day, Newcastle University
- Dr Mene Pangalos, Astra Zeneca

The MRC Chief Executive, Sir John Savill, also attends Remuneration Committee meetings. Hugh Dunlop (MRC Chief Operating and Finance Officer), Paul Tait (Deputy HR Director), Rebecca Leigh (Head of Reward and Recognition) and Louise McFarlane (Corporate Pay and Reward Manager) provided advice to the committee but were not present during discussions about their own terms and conditions of service.

### Remuneration policy

(unaudited information)

No formal pay scale exists for the MRC's most senior staff. Pay for this group is based on the concept of 'personal pay' and is reviewed by the Remuneration Committee.

2017/18 marked the ninth year of pay restraint for the MRC. When not in a pay freeze, the Remuneration Committee makes reference to the changes made for all other staff in the MRC when agreeing pay rises for the senior employees; the individual's appraisal against annual or three to five year objectives; the scientific (or other) performance of a unit or group; the breadth of responsibilities as reflected in staffing, budgetary and other resource management issues; contributions to the delivery of wider corporate objectives (for example, in areas of ethics, corporate governance, public communication, and strategic partnerships); and external market data. Market data are used to inform the competitiveness of remuneration packages in order to secure or retain world-class scientists as a corporate and national asset.

Remuneration is subject to a minimum acceptable level of performance. Pay adjustments are informed by both the general pay award rate and the provisions of the Additional Salary Reward Scheme (branded Special Award Scheme), which allows for a maximum 10 per cent of annual salary payment for exceptional employee contributions, paid as a one-off non-consolidated payment at the end of year or a smaller quantum in-year.

Senior scientific staff are appointed on open-ended contracts, subject to five-yearly review in accordance with the MRC's scientific peer review system. Notice periods in the event of redundancy are a minimum of six months. Termination payments are in accordance with the MRC's Redundancy Compensation Scheme.

## Senior staff remuneration

(audited information)

The following section provides details of the remuneration and pension interests of the Chief Executive, the Management Board and Council members.

A summary of the level of remuneration for the MRC's Management Board is shown in table 13. The levels of honoraria for MRC Council members are also shown in table 16.

### Chief Executive

The performance management and remuneration arrangements for the Chief Executive are established and managed by the Department for Business, Energy and Industrial Strategy as the MRC's sponsor department. Research council Chief Executives are paid both a basic salary and performance pay comprising an annual and an appointment term bonus.

The Chief Executive was an ordinary member of the MRC's pension scheme until the end of March 2012 when he withdrew.

The appointment term bonus is assessed each year and the amounts agreed are retained and are then paid out at the end of the appointment term. If the Chief Executive leaves early the Director General may recommend a reduced bonus to be paid depending on the circumstances.

### Salary including Performance-Related Pay

Salary, including performance-related pay, covers both pensionable and non-pensionable amounts and includes gross salaries, performance pay or bonuses and allowances. It does not include amounts which are reimbursement of expenses directly incurred in the performance of an individual's duties.

## Cash Equivalent Transfer Values

A Cash Equivalent Transfer Value (CETV) is the actuarially assessed capitalised value of the pension scheme benefits accrued by a member at a particular point in time. The benefits valued are the member's accrued benefits and any contingent spouse's pension payable from the scheme.

A CETV is a payment made by a pension scheme or arrangement to secure pension benefits in another scheme or arrangement when the member leaves a scheme and chooses to transfer the benefits accrued in their former scheme. The pension figures shown relate to the benefits that the individual has accrued as a consequence of their total membership of the pension scheme, not just their service in a senior capacity to which disclosure applies. They also include any additional pension benefit accrued to the member as a result of their purchasing additional years of pension service in the scheme at their own cost. CETVs are calculated within the guidelines and framework prescribed by the Institute and Faculty of Actuaries.

## Real increase in Cash Equivalent Transfer Values

This reflects the increase in the CETV and takes account of the increase in accrued pension, contributions paid by the employer and contributions paid by the employee, which includes the voluntary purchase of additional years of pensionable service and the value of any benefits transferred from another pension scheme or arrangement.

Table 13: Senior staff remuneration (audited information)

	2017/18				2016/17			
	Remuneration	Bonus	Pension benefit	Total	Remuneration	Bonus	Pension benefit	Total
	£000	£000	£000	£000	£000	£000	£000	£000
<b>John Savill</b>								
Chief Executive	140-145	5-10	-	145-150	140-145	10-15	-	150-155
<b>Jim Smith</b>								
Deputy Chief Executive and Chief of Strategy	-	-	-	-	75-80	5-10	29	115-120
<b>David Lomas</b>								
Deputy Chief Executive	40-45	-	-	30-35	10-15	-	-	10-15
<b>Bruce Minty</b>								
Chief Operating Officer	150-155	25-30	21	200-205	145-150	10-15	35	190-195
<b>Declan Mulkeen</b>								
Chief of Strategy	115-120	20-25	34	170-175	110-115	10-15	34	155-160
<b>Sally-Louise Smith</b>								
Director of Human Resources	35-40	10-15	5	50-55	110-115	5-10	40	155-160
<b>Hugh Dunlop</b>								
Chief Operating and Finance Officer	125-130	20-25	82	230-235	125-130	10-15	93	225-230
<b>Robin Buckle</b>								
Chief Science Officer	100-105	5-10	79	190-195	25-30	-	51	80-85
<b>Chris Watkins</b>								
Director of Innovation	60-65	-	17	75-80	30-35	-	84	115-120
<b>Sharmilla Nebhrajani</b>								
Director of External Affairs	50-55	-	-	50-55	25-30	-	-	25-30
<b>Sandy Bulger</b>								
Director of Major Projects	135-140	10-15	11	155-160	135-140	10-15	33	180-185
<b>Tony Peatfield</b>								
Director of Corporate Affairs	160-165	15-20	34	210-215	105-110	-	33	140-145

Remuneration includes any allowances but not benefits in kind or employers pension contribution. There were no benefits in kind paid in the year. John Savill worked part-time and his full year equivalent salary was £170k-£175k. He was not a member of the MRC pension scheme. Sally Louise Smith died in June 2017. Her full time equivalent salary was £140k-£145k. Sharmila Nebhrajani worked part-time and left the MRC in November 2017 and her full time equivalent salary was £135k-£140k. Chris Watkins left the MRC in October 2017 and his full year equivalent salary was £120k-£125k. Jim Smith worked part-time and his full year equivalent salary was £185k-£190k. David Lomas worked part time and his full year equivalent salary is £95k-£100k. Bruce Minty left in December and his full year equivalent salary was £110k-£115k. Sandy Bulger left in November and his full year equivalent salary was £95k-£100k.



Table 14: Senior staff pension (audited information)

	Accrued pension at Retirement Age as at 31.3.18 and (Lump sum) £000	Real increase/ (decrease) in pension and related lump sum at retirement age £000	CETV at 31.3.18 or date left £000	CETV at 31.3.17 £000	Real increase/ (decrease) in CETV £000
<b>Mr B Minty</b>					
Chief Operating Officer	10-15 plus 20-25 lump sum	0-2.5 plus 2.5-5 lump sum	287	252	35
<b>Dr D Mulkeen</b>					
Chief of Strategy	40-45 plus 125-130 lump sum	0-2.5 plus 5-7.5 lump sum	816	749	67
<b>Mrs S-L Smith</b>					
Director of Human Resources	5-10 plus 25-30 lump sum	0-2.5 plus 5-7.5 lump sum	102	95	7
<b>Mr H Dunlop</b>					
Chief Operating and Finance Officer	50-55 plus 155-160 lump sum	2.5-5 plus 10-12.5 lump sum	1,013	899	114
<b>Dr R Buckle</b>					
Chief Science Officer	20-25 plus 70-75 lump sum	2.5-5 plus 10-12.5 lump sum	373	301	72
<b>Mr A Bulger</b>					
Director of Major Projects	10-15 plus 40-45 lump sum	0-2.5 plus 2.5-5 lump sum	309	266	43
<b>Dr A C Peatfield</b>					
Director of Corporate Affairs	40-45 plus 130-135 lump sum	0-2.5 plus 5-7.5 lump sum	991	941	50
<b>Mr C Watkins</b>					
Director of Innovation	25-30 plus 85-90 lump sum	0-2.5 plus 2.5-5 lump sum	404	376	28

Pensions and lump sums are those calculated as at retirement age or date of leaving. Details of the MRC Pension Scheme appear in Note 10 of the Annual Account.

All of the people named in table 13 not named above do not have any pension entitlements.

## Fair pay disclosures

The Hutton Report requires the MRC to calculate the mid-point of the banded remuneration of the highest paid director, and the ratio between this and the median. The calculation is based on the full-time equivalent on an annualised basis. The range of staff remuneration is £16,619 to £219,682 (2016/17 £11,587 to £203,892). MRC Median pay is £33,305 (2016/17 – £32,975). The mid-point of the banded remuneration of the highest paid director is £182,500 (2016/17 – £187,500). The Chief Executive's full time equivalent pay based upon working four days a week as a multiple of median pay is 5.5 (2016/17 – 5.7). One individual was paid in excess of the highest paid director. The mid point of his remuneration is £217,500 (2016/17 £202,500). Total remuneration includes salary, non-consolidated performance-related pay and benefits-in-kind. It does not include severance payments, employer pension contributions and the cash equivalent transfer value of pensions. The reason for the reduction in the ratio is in part due to the reduction in the Chief Executives bonus and part due to the 1% pay remit.

## Compensation for loss of office

Entitlements under conditions of service are the same as those for other members of staff and, should their contract be terminated early, they would be entitled to compensation under the terms of the MRC Redundancy Scheme. Details of the service contract of the Chief Executive and staff on personal contracts are given in the table below. These individuals do not have any specific contractual rights for termination of their contract.

Table 15: Senior staff contracts

Chief Executive and Directors	Contract Start Date	Contract End Date	Notice Period
Professor Sir John Savill Chief Executive	1 Oct 2010	31 March 2018	3 months
Dr D Lomas Deputy Chief Executive		31 March 2018	3 months
Mr B Minty Chief Operating Officer	Permanent contract	31 December 2017	3 months
Dr D Mulkeen Chief Science Officer	Permanent contract	–	3 months
Mrs S-L Smith Director of Human Resources	Permanent contract	8 June 2017	3 months
Mr H Dunlop Chief Operating and Finance Officer	Permanent contract	–	3 months
Mr A Bulger Director of Major Projects	Permanent contract	30 November 2017	3 months
Dr A C Peatfield Director of Corporate Affairs	Permanent contract	31 March 2018	3 months
Dr R Buckle Chief Science Officer	Permanent contract	–	3 months
Dr C Watkins Director of Innovation	Permanent contract	6 October 2017	3 months
Ms S Nebhrajani Director of External Affairs	Permanent contract	8 November 2017	3 months

## Council members

(unaudited information)

MRC Council members are appointed by the Minister of State for Business, Energy and Industrial Strategy in accordance with the code of practice of the Office of the Commissioner for Public Appointments (OCPA). The normal period of appointment is four years. In exceptional circumstances members may be re-appointed for one further four-year term.

The positions of Council members are non-pensionable and there is no entitlement to compensation for loss of office. Emolument comprises an honorarium, set annually by BEIS; enhanced honoraria are paid to some members, such as Council subcommittee chairs, to reflect additional responsibilities. Details of amounts paid to each member during the year are shown in table 16 below.

Dr Pauline Williams chose not to draw her honorarium. Professor Dame Sally Davies, as an employee of the Department of Health, was not entitled to receive honoraria.

Table 16: Council honoraria 2017/18 (audited information)

Member	Position/Affiliation	Annual Honoraria	
		2017/18 £000	2016/17 £000
Mr Donald Brydon	Chairman	15-20	15-20
Professor Sir John Savill (1)	Deputy Chair	-	-
Professor Jonathan Bisson (2)	Cardiff and Vale University Health Board	-	-
Dr John Brown	Cell Therapy Catapult/Life Science Advisory Board	5-10	5-10
Professor Doreen Cantrell	University of Dundee	5-10	5-10
Professor Dame Sally Davies (3)	Department of Health	-	-
Professor Chris Day (3)	Newcastle University	5-10	5-10
Professor Dame Janet Finch	Nursing and Midwifery Council	5-10	5-10
Professor John Iredale	University of Bristol	5-10	0-5
Professor Patrick Johnston (4)	Queens University Belfast	0-5	5-10
Mr Richard Murley	Rothschild	5-10	0-5
Baroness Onora-O'Neill	House of Lords	5-10	5-10
Dr Menelas Pangalos	Astra Zeneca, Cheshire	5-10	5-10
Professor Irene Tracey	University of Oxford	5-10	0-5
Dr Pauline Williams	GlaxoSmithKline	-	-

(1) Professor Sir John Savill was also the CEO so did not receive an honorarium. His remuneration is covered in table 13.

(2) Professor Jonathan Bisson's term started on 1 October 2017

(3) Professor Dame Sally Davies' term came to an end on 30 June 2017. Professor Chris Day's term came to an end on 31 March 2018.

(4) Professor Patrick Johnston died in June 2018.

## Declared interests

(unaudited information)

In common with others who serve the public, individuals working with the MRC observe the Seven Principles of Public Life as set out by the Committee on Standards in Public Life. Members of the MRC's Council, boards and subcommittees are required to declare any private, professional or commercial interests that might, or might be perceived to, conflict with the MRC's interests, and these declarations are published on the MRC website.

Senior MRC staff are required under the staff Code of Conduct to declare details of any company directorships and other significant interests which might conflict with their management responsibilities.

# Staff report

## Reporting of Civil Service and other comprehensive schemes – exit packages

Exit packages cost band	Number of compulsory redundancies	Number of departures agreed	Total number of exit packages by cost band
	2017/18(2016/17)	2017/18(2016/17)	2017/18(2016/17)
<£10k	6(23)	8(25)	14(48)
£10k-£25k	15(21)	14(30)	29(51)
£25k-£50k	11(6)	4(14)	15(20)
£50k-£100k	0(2)	6(15)	6(17)
£100k-£150k	0(0)	0(0)	0(0)
£150k-£200k	0(0)	1(0)	1(0)
>£200k	0(0)	0(0)	0(0)
<b>Total number of exit packages</b>	<b>32(52)</b>	<b>33(84)</b>	<b>65(136)</b>
<b>Total resource cost (£000)</b>	<b>£666(£860)</b>	<b>£1,016(£2,045)</b>	<b>£1,682(£2,905)</b>

## Staff costs and related numbers

### a. Staff costs

	2017/18 £000	2016/17 £000
Salaries and wages – permanent	71,749	83,658
Salaries and wages – non-permanent	2,038	2,114
Social security costs	6,891	2,995
Pension costs	34,554	20,375
	<b>115,232</b>	<b>109,142</b>

### b. Staff numbers

The average number of full time equivalent employees during the year was made up as follows

	2017/18	2016/17
Science	528	701
Research project support	358	404
Infrastructure and Administration	256	282
Technical services	285	328
Locally employed staff (overseas)	740	1,486
<b>Total</b>	<b>2,165</b>	<b>3,205</b>

## MRC Employees

(as at 31st March 2018)

Gender	MB directors (incl. CEO)	Other band one staff	All employees
Female	0	11	703
Male	6	41	609
<b>Total</b>	<b>6</b>	<b>52</b>	<b>1312</b>

Ethnic group	No. of employees	Percentage
Black and minority ethnic (BME)	133	10.1
Non-BME	865	65.9
Not disclosed	305	23.2
Other ethnic group	9	0.7
<b>Total</b>	<b>1312</b>	<b>100%</b>

Disability	No. of employees	Percentage
Yes	14	1.1
No	570	43.4
Not disclosed	728	55.5
<b>Total</b>	<b>1312</b>	<b>100%</b>

Sickness absence	2017/18
Total number of employees (as at 31 March 2018)	1312
Total days lost to sickness	6689
<b>Average working days lost per employee</b>	<b>5.1</b>

**For all off-payroll engagements as of 31 March 2018, for more than £245 per day and that last for longer than six months**

No. of existing engagements as of 31 March 2018	4
Of which...	
No. that have existed for less than one year at time of reporting.	1
No. that have existed for between one and two years at time of reporting.	2
No. that have existed for between two and three years at the time of reporting	1

**For all new off-payroll engagements, or those that reached six months in duration, between 1 April 2017 and 31 March 2018, for more than £245 per day and that last for longer than six months**

No. of new engagements, or those that reached six months in duration, between 1 April 2017 and 31 March 2018	2
Of which...	
No. assessed as caught by IR35	1
No. assessed as not caught by IR35	1
No. engaged directly (via PSC contracted to BEIS) and are on the BEIS payroll	0
No. of engagements reassessed for consistency/assurance purposes during the year.	3
No of engagements that saw a change to IR35 status following the consistency review	3

**For any off-payroll engagements of board members, and/or, senior officials with significant financial responsibility, between 1 April 2017 and 31 March 2018**

No. of off-payroll engagements of board members, and/or, senior officials with significant financial responsibility, during the financial year.(1)	1 – Deputy CEO, only person with capability to fill in for current CEO. An employee of UCL. UCL have confirmed they are on their payroll paying tax and NI.
Total no. of individuals on payroll and off-payroll that have been deemed “board members, and/or, senior officials with significant financial responsibility”, during the financial year. This figure should include both on payroll and off-payroll engagements.(2)	17 All MRC employees

The 17 Board members includes 11 members of the Management Board and 6 directors of MRC institutes and units.

## MRC Trade Union Facility Time Report 2017/18

Number of employees who were relevant union officials during the relevant period	Full-time equivalent employee number
12	11.6

Percentage Time	Number of Employees
0	0
1-50%	11
51%-99%	0
1	1

Provide the total cost of facility time	£34.8k
Provide the total pay bill	£68,940.2k
Provide the percentage of the total pay bill spent on facility time, calculated as: (total cost of facility time ÷ total pay bill) x 100	0.05%

Table 17: Paid trade union activities

As a percentage of total paid facility time hours, how many hours were spent by employees who were relevant union officials during the relevant period on paid trade union activities?

Time spent on paid trade union activities as a percentage of total paid facility time hours calculated as: (total hours spent on paid trade union activities by relevant union officials during the relevant period ÷ total paid facility time hours) x 100	0
---	---



## Employment of disabled persons

The MRC has worked with the other research councils to produce an overarching Equality and Diversity Action Plan. In addition, the MRC has an Equality and Diversity Vision that sets out the MRC's commitment to fulfil obligations as a public body under the Equality Act 2010, Disability. It is MRC policy that there should be no discrimination, harassment or less favourable treatment or victimization of any employees, job applicant or funding applicant, either directly or indirectly related to a protected characteristic (including disability) or trade union membership or activity. The MRC reviews the impacts on equality of our new and existing policies, processes and functions on an ongoing basis. These reviews are undertaken by the policy owner.

The MRC undertakes equality training for managers and employees and 'unconscious bias' training is being rolled out across the organisation.

The MRC is a 'Disability confident employer' which means MRC aims to help employ and retain disabled people and those with health conditions for their skills and talent. By working to remove the barriers and provide opportunities to disabled people and those with long term health conditions to fulfil their potential. The MRC has developed a reasonable adjustment guide so that managers are aware of their responsibilities for employees with disabilities or who become disabled. The MRC has also developed a network of employees who are 'equality champions'. These employees work with HR, local trade unions and health and safety to ensure that employees are supported in the workplace.

Disabled employees are offered the same training and development opportunities as any other staff and adjustments are made to attend training as necessary.

## Equality and diversity

As highlighted in the previous section, the MRC has an Equality and Diversity Vision, with underpinning action plans and policies. The vision reflects the MRC's obligations under the Equality Act 2010. During 2017/18 the MRC has continued to focus on improving opportunities for Women in Science. The MRC published its first Gender Pay Gap Report under the new regulations and committed to examining pay practices regularly to check their justification, eliminate bias and ensure fairness. MRC units have been successful in achieving and maintaining their Athena Swan accreditation. In addition, working with other research councils, the MRC has been leading the way in publishing equality data. The MRC works closely with trade unions and employees through its engagement mechanisms to listen to equality issues, and feed these into action plans and raise awareness of equality and diversity.

## Employee engagement

The MRC recognises the importance of its staff and their vital contribution to the organisation's success. We are committed to effective two-way communication and consultation with staff.

Consultation and engagement is managed through a number of channels, and examples are outlined below:

- The MRC has an effective partnership with our National Trade Union Side who represent staff on a range of matters including pay, benefits, pensions and organisational change.
- MRC policies have consultation in their core principles, eg. when organisational change is made through the quinquennial (five-yearly) scientific review process, a formal and rigorous consultation process is put in place, including the provision for staff to make representations to the MRC Council as the decision-making body.
- Regular staff bulletins are cascaded to all staff, updating them on contractual and non-contractual employment related terms including pay, benefits, pensions and policies. These are then printed and displayed on staff notice boards at all units and available on the staff intranet for future reference.
- All-staff emails from corporate directors communicate strategic matters and important messages to staff.
- MRC Life is a magazine newsletter which has accessible articles of interest from around the MRC and also information on HR and development activities.
- The SpeakUp staff surveys (ran in 2012, 2013, 2015 and 2017) provide an effective means of obtaining feedback from our staff on a number of areas including their role, Learning and Development, local management, Pay and Benefits, Resources and Workload, Engagement and Leadership and Managing Change.
- Senior Leadership Visits – Management Board members visit each MRC site to present to all staff on the current issues facing the MRC. Staff have the opportunity to ask questions and engage at these meetings.
- HR Roadshows – when any major HR change is planned eg pay restructuring, roadshow presentations are made at all units to which all staff are invited. These roadshows are led by the HR Director.

# Parliamentary accountability and audit report

## Accountability report

### Regularity of expenditure

(audited information)

Our assessment of risk relating to the use of public funds is concerned with all MRC funds being used for the purposes intended by Parliament (regularity), and that fraud and impropriety are adequately safeguarded against. Information for this assessment is derived through the interaction of key controls throughout the year both within the organisation and from external assurance such as the work of internal and external auditors. Detail of the control framework is commented upon in the Governance Statement.

There have been no material issues of regularity (funds not being used for the purposes given) reported through the year.

### Audit fees

(audited information)

The accounts have been audited by the Comptroller and Auditor General, who has been appointed under statute and is responsible to Parliament. The cost of the audit was £150,000. No remuneration was paid to the external auditors in respect of non-audit work in 2017/18.

Internal audit was provided independently by the Research Councils' Audit and Assurance Services Group (AASG). AASG reports annually to the Audit Committee. The cost of internal audits and funding assurance undertaken during 2017/18 was £359,322. No remuneration was paid to the internal auditors in respect of non-audit work during 2017/18.

### Thefts, losses and special payments

During the year the MRC incurred losses of £13,625.

- Thefts of computer equipment, mobile devices and peripherals (nine cases) estimated at £13,625 in total.

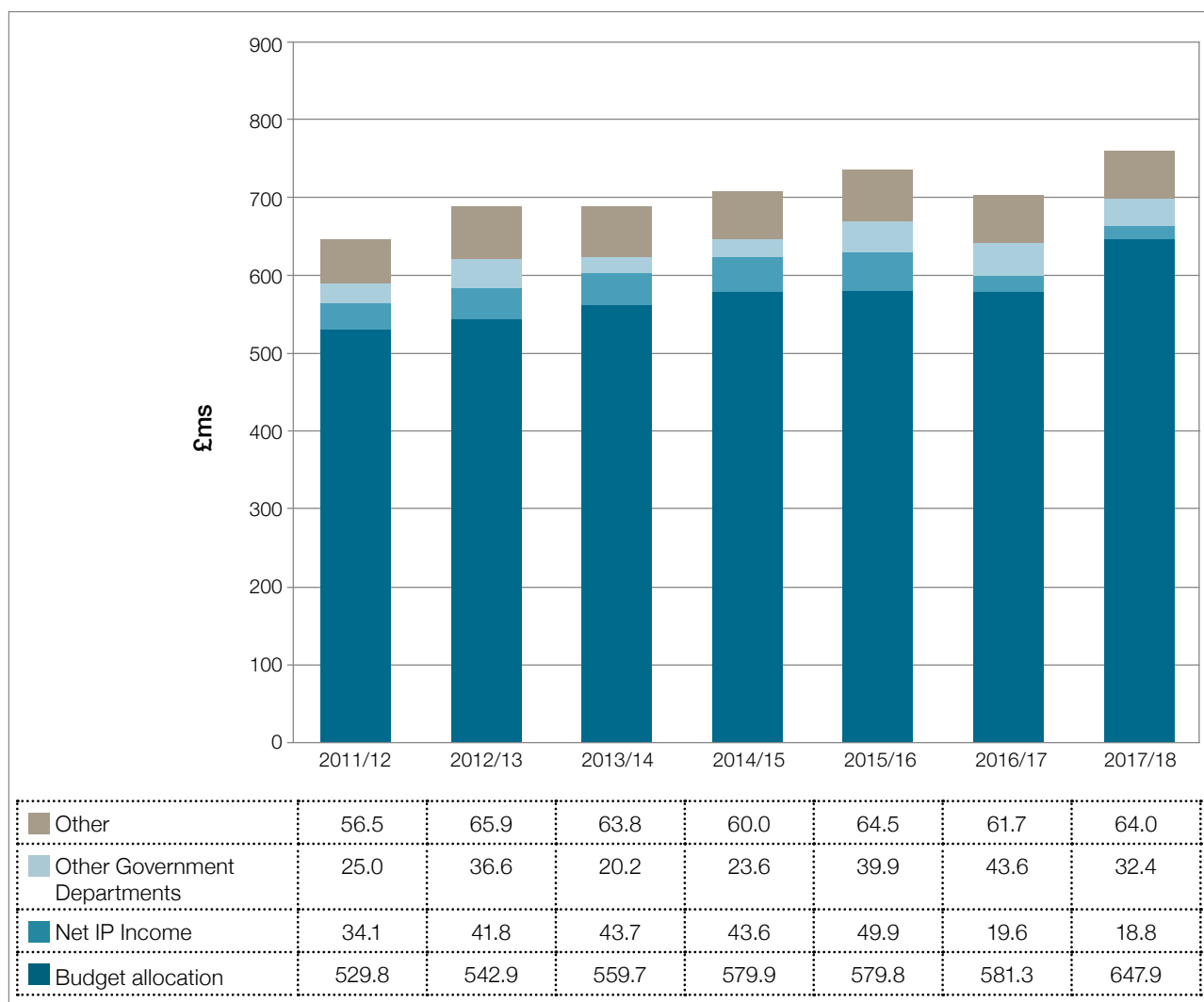
## Long-term expenditure trends

MRC's annual expenditure is largely determined by the budgetary allocation from BEIS which is set as part of the Spending Review. Contributions from other bodies and income from intellectual property can also increase MRC's spending power.

The latest Spending Review (SR15) covers the years 2016/17 to 2019/20. The figures below show expenditure for the first two years of the SR15 and for the previous Spending Review period (SR10) 2011/12 to 2015/16 by the following categories:

1. Programme Near Cash
2. Administration Near Cash
3. Capital

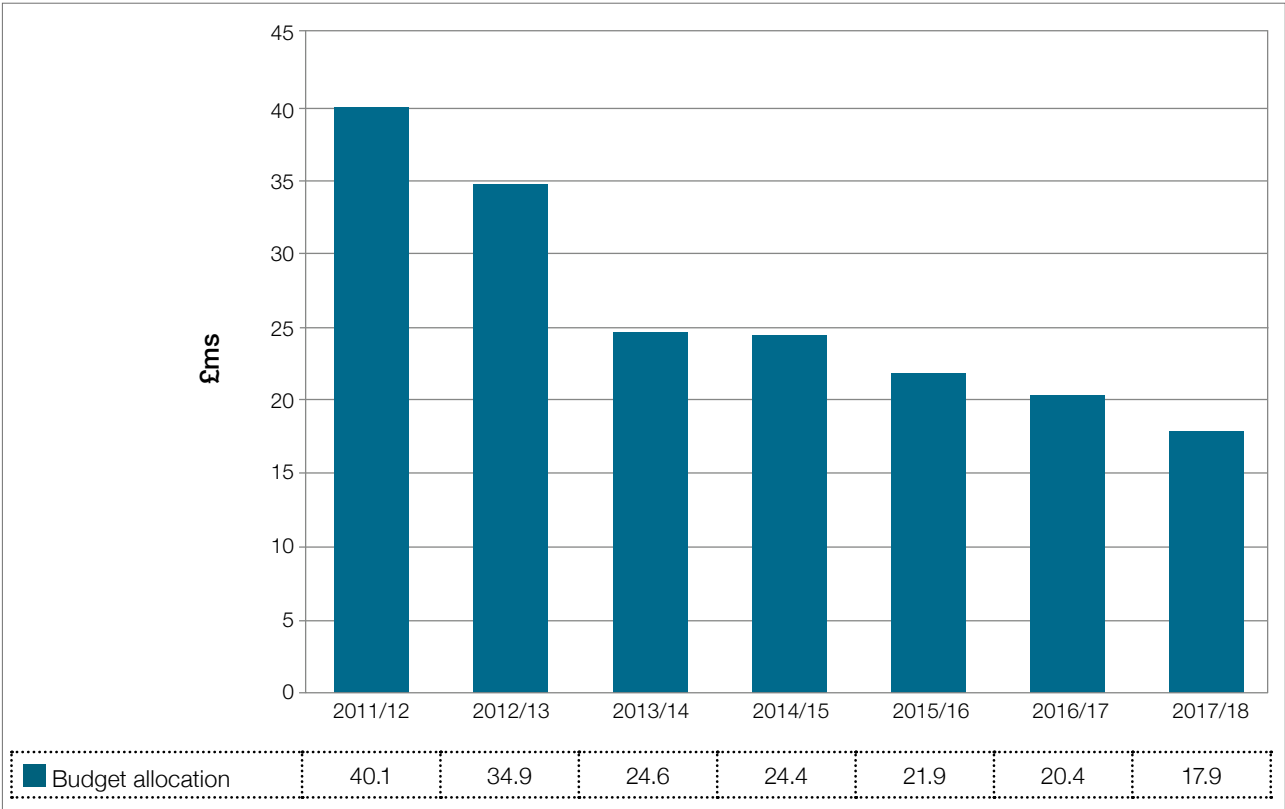
Figure 10: Programme Near Cash Expenditure by source of funding



Annual Programme expenditure increased by more than £118m over the period 2011/2012 to 2017/18. The SR 10 settlement protected MRC’s Programme expenditure in real terms and this was underpinned by intellectual property (IP) income. The increase in expenditure in 2017/18 is due to additional allocations from the Industrial Strategy Challenge Fund and National Productivity Fund.

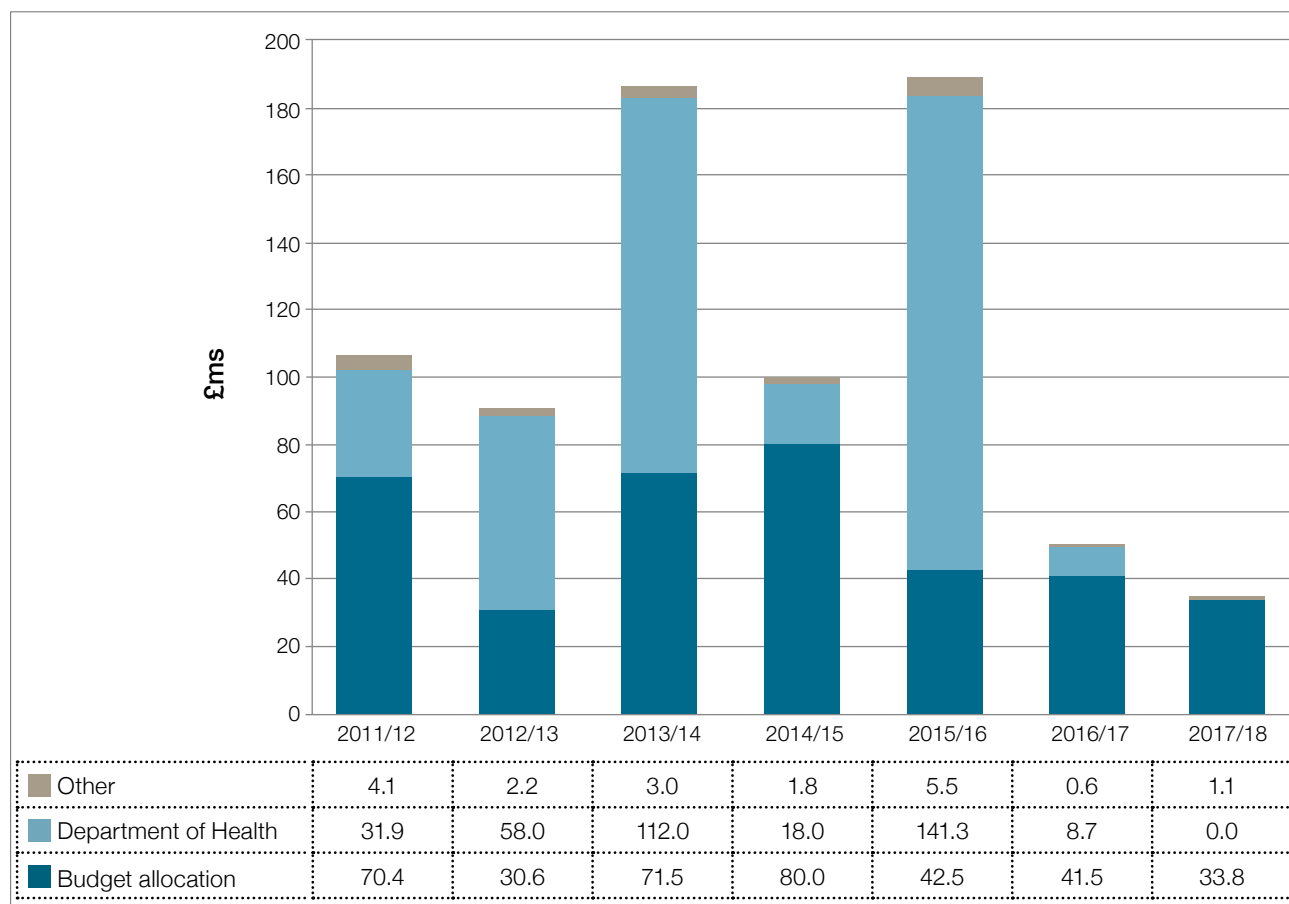
Partnerships and collaborations with other government departments together with grant funding from other bodies and intellectual property income have also supported research expenditure over the period.

Figure 11: Administration Near Cash Expenditure



Administration expenditure decreased significantly over the period. The downward trend over the period reflects the on-going reduction in administration budgets due to public sector efficiency measures.

Figure 12: Capital by source of funding



There was an increase in budgeted expenditure in 2011/12 for construction of the new building for the Laboratory of Molecular Biology and in 2013/14 and 2014/15 for investment in Bioinformatics and Regenerative Medicine.

Department of Health funded the construction of Francis Crick Institute between 2011/12 and 2014/15 and funded Clinical Research Infrastructure investment in 2015/16 and 2016/17.

# The Certificate and Report of the Comptroller and Auditor General to The Houses of Parliament

## Opinion on financial statements

I certify that I have audited the financial statements of the Medical Research Council for the year ended 31 March 2018 under the Science and Technology Act 1965. The financial statements comprise: the Statements of Comprehensive Net Expenditure, Financial Position, Cash Flows, Changes in Taxpayers' Equity; and the related notes, including the significant accounting policies. These financial statements have been prepared under the accounting policies set out within them. I have also audited the information in the Accountability Report that is described in that report as having been audited.

In my opinion:

- the financial statements give a true and fair view of the state of Medical Research Council's affairs as at 31 March 2018 and of the net expenditure for the year then ended; and
- the financial statements have been properly prepared in accordance with the Science and Technology Act 1965 and Secretary of State directions issued thereunder.

## Opinion on regularity

In my opinion, in all material respects the income and expenditure recorded in the financial statements have been applied to the purposes intended by Parliament and the financial transactions recorded in the financial statements conform to the authorities which govern them.

## Basis of opinions

I conducted my audit in accordance with International Standards on Auditing (ISAs) (UK) and Practice Note 10 'Audit of Financial Statements of Public Sector Entities in the United Kingdom'. My responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the financial statements section of my certificate. Those standards require me and my staff to comply with the Financial Reporting Council's Revised Ethical Standard 2016. I am independent of the Medical Research Council in accordance with the ethical requirements that are relevant to my audit and the financial statements in the UK. My staff and I have fulfilled our other ethical responsibilities in accordance with these requirements. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

## Responsibilities of the Medical Research Council and Accounting Officer for the financial statements

As explained more fully in the Statement of Accounting Officer's Responsibilities, the Medical Research Council and the Accounting Officer are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view.

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

My responsibility is to audit, certify and report on the financial statements in accordance with the Science and Technology Act 1965.

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. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with ISAs (UK), I exercise professional judgment and maintain professional scepticism throughout the audit. I also:

- identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Medical Research Council's internal control.
- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Medical Research Council's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of my auditor's report. However, future events or conditions may cause the entity to cease to continue as a going concern.
- evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

I communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

In addition, I am required to obtain evidence sufficient to give reasonable assurance that the income and expenditure reported in the financial statements have been applied to the purposes intended by Parliament and the financial transactions conform to the authorities which govern them.

### **Other Information**

The Medical Research Council and the Accounting Officer are responsible for the other information. The other information comprises information included in the annual report, other than the parts of the Accountability Report described in that report as having been audited, the financial statements and my auditor's report thereon. My opinion on the financial statements does not cover the other information and I do not express any form of assurance conclusion thereon. In connection with my audit of the financial statements, my responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or my knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work I have performed, I conclude that there is a material misstatement of this other information, I am required to report that fact. I have nothing to report in this regard.



## Opinion on other matters

In my opinion:

- the parts of the Accountability Report to be audited have been properly prepared in accordance with the Secretary of State directions made under the Science and Technology Act 1965;
- in the light of the knowledge and understanding of the Medical Research Council and its environment obtained in the course of the audit, I have not identified any material misstatements in the Performance Report or the Accountability Report; and
- the information given in Performance Report and Accountability Report for the financial year for which the financial statements are prepared is consistent with the financial statements.

## Matters on which I report by exception

I have nothing to report in respect of the following matters which I report to you if, in my opinion:

- adequate accounting records have not been kept or returns adequate for my audit have not been received from branches not visited by my staff; or
- the financial statements and the parts of the Accountability Report to be audited are not in agreement with the accounting records and returns; or
- I have not received all of the information and explanations I require for my audit; or
- the Governance Statement does not reflect compliance with HM Treasury's guidance.

## Report

I have no observations to make on these financial statements.

**Sir Amyas C E Morse**

Date: 9 July 2018

**Comptroller and Auditor General**

National Audit Office

157-197 Buckingham Palace Road Victoria

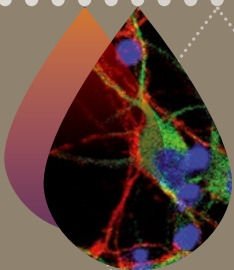
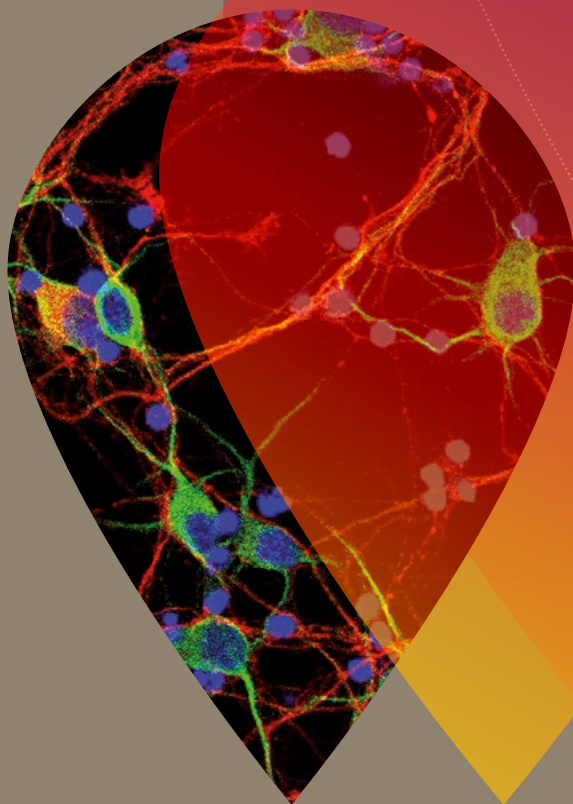
London

SW1W 9SP



# Financial statements





## Rat Cortical Neurons

Rat Cortical Neurons cultured in vitro and stained for the axon (red) and the somatodendritic arborisations (Green). Nuclear DNA is in blue. Neurons are highly polarised cells. As they differentiate they grow an axon which can be meters long, and can establish connections with other neurons to assemble neural circuits. Rat cortical neurone progenitors can be cultured and their polarisation to generate mature neurons can be followed in detail using microscopy, which make these cells excellent system to study neuronal morphogenesis and polarisation. Elucidating how cell polarity arises, is remodeled and maintained in these cells remains a major challenge in molecular cell biology. It also represents a major step toward understanding brain development, and a wide range of congenital disorders and pathologies such as neurodevelopment diseases.

© Dr Tim Kroecher (Group Leader: Franck Pichaud)  
MRC Laboratory of Molecular Cell Biology

# Statement of Comprehensive Net Expenditure

for the year ended 31 March 2018

	Note	2017/18 £000	2016/17 £000
<b>Income</b>			
Income from sale of goods and services		(3,583)	(7,481)
Other operating income	4	(124,797)	(128,887)
<b>Total operating income</b>		<b>(128,380)</b>	<b>(136,368)</b>
<b>Expenditure</b>			
Staff Costs	5	115,232	109,142
Purchase of goods and services	6.1	103,461	106,316
Depreciation and impairment charges	6.2	23,253	28,215
Provision expense	6.3	(52)	(180)
Research and development funding	6.4	651,640	585,874
Other operating expenditure	6.5	12,612	1,899
Notional service charge	1.1	5,911	6,227
<b>Total operating expenditure</b>		<b>912,057</b>	<b>837,493</b>
<b>Net Operating Expenditure</b>		<b>783,677</b>	<b>701,125</b>
Finance income		(36)	(4,241)
Finance expenditure		167	385
<b>Net expenditure for the year</b>		<b>783,808</b>	<b>697,269</b>
<b>Other net comprehensive expenditure</b>			
Net (gain) on revaluation of property, plant and equipment	7	(20,502)	(3,493)
Net (gain)/loss on revaluation of intangible assets	8	(30,261)	2,318
Net (gain) on revaluation of investments	9.2	(1,314)	(3,133)
Actuarial (gain)/loss on defined benefit pension plan	10.b	(128,095)	128,921
<b>Total comprehensive net expenditure for the year ended 31 March 2018</b>		<b>603,636</b>	<b>821,882</b>

The notes on pages 90 to 116 form part of these accounts.

# Statement of Financial Position

as at 31 March 2018

	Note	2018 £000	2017 £000
<b>Non-current Assets</b>			
Property, plant and equipment	7	410,190	479,727
Intangible assets	8	62,673	40,616
Financial assets	9	262,154	273,441
Pension asset	10.d	122,293	2,998
Trade and other receivables	11	31,386	0
<b>Total non-current assets</b>		<b>888,696</b>	<b>796,782</b>
<b>Current assets</b>			
Trade and other receivables	11	71,223	68,799
Cash and cash equivalents	12	30,890	14,974
<b>Total current assets</b>		<b>102,113</b>	<b>83,773</b>
<b>Total assets</b>		<b>990,809</b>	<b>880,555</b>
<b>Current liabilities</b>			
Trade and other payables	13	(244,418)	(235,118)
Provisions falling due within one year		(2,207)	(2,585)
<b>Total current liabilities</b>		<b>(246,625)</b>	<b>(237,703)</b>
<b>Total assets less current liabilities</b>		<b>744,184</b>	<b>642,852</b>
<b>Non-current liabilities</b>			
Trade and other payables	13	(24,615)	(9,606)
Provisions for liabilities and charges		(1,990)	(2,340)
<b>Total non-current liabilities</b>		<b>(26,605)</b>	<b>(11,946)</b>
<b>Total assets less total liabilities</b>		<b>717,579</b>	<b>630,906</b>
<b>Taxpayers' equity and other reserves</b>			
General fund		491,495	500,837
Revaluation reserve		41,131	86,476
Intellectual property reserve		62,660	40,595
Pension Reserve		122,293	2,998
<b>Total equity</b>		<b>717,579</b>	<b>630,906</b>

The notes on pages 90 to 116 form part of these accounts.

**Fiona Watt**

**Accounting Officer**

**Medical Research Council**

Date: 3 July 2018

# Statement of Cash Flows

for the year ended 31 March 2018

	Note	2018 £000	2017 £000 Restated
<b>Cash flow from operating activities</b>			
Net expenditure for the year	SoCNE	(783,808)	(697,269)
Adjustments for non-cash transactions	14	127,406	54,708
(Increase) in trade and other receivables	11	(33,810)	(15,312)
Increase/(decrease) in trade and other payables	13	24,309	(35,890)
(Decrease) in provisions		(728)	(1,338)
<b>Net cash outflow from operating activities</b>		<b>(666,631)</b>	<b>(695,101)</b>
<b>Cash flow from investing activities</b>			
Purchase of property, plant and equipment	7	(15,166)	(6,304)
Purchase of intangible assets	8	(0)	(23)
Purchase of investments	9	(0)	(0)
Proceeds of disposal of Non-current assets held for sale		17,000	0
Proceeds of disposal of property, plant and equipment		180	103
<b>Net cash inflow/(outflow) from investing activities</b>		<b>2,014</b>	<b>(6,224)</b>
<b>Net cash outflow before financing</b>		<b>(664,617)</b>	<b>(701,325)</b>
<b>Cash flows from financing activities</b>			
Grant from sponsoring department	3	680,533	654,504
<b>Net cash inflow from financing activities</b>		<b>680,533</b>	<b>654,504</b>
<b>Net increase/(decrease) in cash and cash equivalents</b>	12	<b>15,916</b>	<b>(46,821)</b>
Cash and cash equivalents at the beginning of the year	12	14,974	61,795
Cash and cash equivalents at the end of the year	12	30,890	14,974

The notes on pages 90 to 116 form part of these accounts.

# Statement of Changes in Taxpayers' Equity

for the year ended 31 March 2018

	Revaluation reserve	Intellectual Property reserve	Pension reserve	General reserve	Total Government funds
	£000	£000	£000	£000	£000
Balance at 1 April 2016	85,363	48,562	123,898	527,075	784,898
Grants from sponsoring department (note 3)				654,504	654,504
Addition of intangible assets		1,395			1,395
Net (loss) on revaluation of intangible assets (note 8)		(2,318)			(2,318)
Net gain on revaluation of property, plant and equipment (note 7)	3,493				3,493
Net gain on revaluation of investments	3,133				3,133
Actuarial (loss) in the pension scheme (note 10.b)			(128,921)		(128,921)
Transfers between reserves	(5,513)	(7,044)	2,257	10,300	0
Contributions from other employers within the pension scheme			5,764		5,764
Notional service costs				6,227	6,227
Net expenditure for the year				(697,269)	(697,269)
<b>At 31 March 2017</b>	<b>86,476</b>	<b>40,595</b>	<b>2,998</b>	<b>500,837</b>	<b>630,906</b>
Balance at 1 April 2017	86,476	40,595	2,998	500,837	630,906
Grants from sponsoring department (note 3)				680,533	680,533
Transfer to lease liabilities	(3,211)				(3,211)
Net gain on revaluation of intangible assets (note 8)		30,261			30,261
Net gain on revaluation of property, plant and equipment (note 7)	20,502				20,502
Net gain on revaluation of investments (note 9.2)	1,314				1,314
Actuarial gain(loss) in the pension scheme (note 10.b)			128,095		128,095
Transfers between reserves	(63,950)	(8,196)	(15,876)	88,022	0
Contributions from other employers within the pension scheme			7,076		7,076
Notional service costs				5,911	5,911
Net expenditure for the year				(783,808)	(783,808)
<b>At 31 March 2018</b>	<b>41,131</b>	<b>62,660</b>	<b>122,293</b>	<b>491,495</b>	<b>717,579</b>

The notes on pages 90 to 116 form part of these accounts.



# 1. Statement of Accounting Policies

## a. Basis of accounting

These financial statements have been prepared in accordance with a Direction issued by the Secretary of State for Business, Innovation and Skills (BEIS) in pursuance of Section 2(2) of the Science and Technology Act 1965.

These financial statements have been prepared in accordance with the 2017/18 Government Financial Reporting Manual (FReM) issued by HM Treasury. The accounting policies contained in the FReM apply International Financial Reporting Standards (IFRS) as adapted or interpreted for the public sector context. Where the FReM permits a choice of accounting policy, the accounting policy which is judged to be most appropriate to the particular circumstances of the MRC for the purpose of giving a true and fair view has been selected. The particular policies adopted by the MRC are described below. They have been applied consistently in dealing with items that are considered material to the accounts.

### **Adoption of New or Revised Standards Effective and Major FReM Changes for 2017/18**

All International Financial Reporting Standards, Interpretations and Amendments to published standards, effective at 31 March 2018, have been adopted in these financial statements, taking account the specific interpretations and adaptations included in the FReM.

### **Effective for Future Financial Years**

The IASB and IFRIC issued certain standards and interpretations with an effective date after these financial statements. Where these changes are relevant to MRC's circumstances they are listed below and will be adopted at the effective date. They have not been adopted early and their adoption is not expected to have a material impact on MRC's reported income or net assets in the period of adoption.

IFRS 9 Financial Instruments: Classification and Measurement (effective for periods beginning on or after 1 January 2018) – IFRS 9 is a replacement for IAS 39 and introduced new requirements for the classification and measurement of financial assets, impairment, hedge accounting together with the elimination of two categories.

The standard contains requirements in the following areas:

- **Classification and measurement.** Financial assets are classified by reference to the business model within which they are held and their contractual cash flow characteristics. The 2014 version of IFRS 9 introduces a 'fair value through other comprehensive income' category for certain debt instruments. Financial liabilities are classified in a similar manner to under IAS 39, however there are differences in the requirements applying to the measurement of an entity's own credit risk.
- **Impairment.** The 2014 version of IFRS 9 introduces an 'expected credit loss' model for the measurement of the impairment of financial assets, so it is no longer necessary for a credit event to have occurred before a credit loss is recognised

- **Hedge accounting.** Introduces a new hedge accounting model that is designed to be more closely aligned with how entities undertake risk management activities when hedging financial and non-financial risk exposures
- **Derecognition.** The requirements for the derecognition of financial assets and liabilities are carried forward from IAS 39.

IFRS 15 Revenue from Contracts with Customers – (effective for periods beginning on or after January 2018) – IFRS15 provides for a single, principles based five-step model to be applied to all contracts with customers. Guidance is provided on topics such as the point in which the revenue is recognised, accounting for variable consideration, costs of fulfilling and obtaining a contract and various related matters. New disclosures around revenue are also introduced.

IFRIC 22 Foreign Currency Transactions and Advance Consideration – (effective for periods beginning on or after 1 January 2018) – The interpretation addresses foreign currency transactions or parts of transactions where:

- there is consideration that is denominated or priced in a foreign currency;
- the entity recognises a prepayment asset or a deferred income liability in respect of that consideration, in advance of the recognition of the related asset, expense or income; and
- the prepayment asset or deferred income liability is non-monetary.

IFRS 16 – Leases – (effective for periods beginning on or after January 2019) – IFRS 16 brings most leases on-balance sheet for lessees. This will be using a single model eliminating the distinction between finance and operating leases. Lessor accounting however remains largely unchanged and the distinction between operating and finance leases will be retained. The impact of this will be assessed in the coming years.

It is expected that these new standards will have little impact due to the nature of MRC's business.

## b. Accounting convention

These financial statements are prepared under the historical cost convention, modified by the revaluation of non-current assets, and, where material, current asset investments to fair value as determined by the relevant accounting standard. This is in accordance with the 2017/18 FReM issued by Treasury. The accounting policies contained in the FReM apply International Financial Reporting Standards (IFRS) as adapted or interpreted for the public sector context.

These financial statements are presented in Sterling, the MRC's functional currency and all amounts have been rounded to the nearest thousands.

## c. Changes in accounting policy

There are no changes in accounting policy in the 2017/18 financial year.

#### d. Investment in Joint Ventures

A joint venture is a contractual arrangement whereby two or more parties undertake an economic activity that is subject to joint control.

The MRC has one joint venture investment: the Francis Crick Institute.

Investments in Joint Venture are accounted for using the equity method, unless they are not yet fully operational, in which case they are valued at the cost to MRC of the development (as represented by assets under construction or the purchase of shares). This is deemed equivalent to fair value of the investment in the development phase. Impairment is considered at each year end, taking into account the ongoing service potential of the assets held.

The Crick is accounted for using the equity method.

UK Biobank Limited (Biobank), UK Dementia Research Institute (DRI), Health Data Research UK (HDR) and LifeArc are not treated as Joint Ventures as the MRC is not entitled or exposed to variable returns from its relationship with these entities.

#### e. Property, Plant and Equipment and depreciation

Expenditure on property, plant and equipment includes the purchase of land, buildings and equipment costing £10,000 or more. Property, plant and equipment are included at valuation, being its fair value at the date of revaluation less any subsequent accumulated depreciation and impairment losses if any. Equipment, excluding computers and software, is revalued annually using appropriate indices. Land and buildings are professionally revalued every five years and in the intervening period relevant indices are used. The basis of valuation for land and buildings is open market value for existing use where this can be established. However, because of the specialised nature of the MRC's properties, most valuations are on a depreciated replacement cost basis. Any surplus on revaluation is taken to a revaluation reserve. Impairments in value are charged to the Statement of Consolidated Net Expenditure in the year in which they arise.

Assets under construction are valued at cost, including directly attributable in-house costs required to bring the asset into working condition for its intended use.

Increased depreciation charges arising from revaluations are matched by transfers from the revaluation reserve to the general reserve.

On disposal of a revalued asset, the resulting element of the revaluation reserve that is realised is transferred directly to the general reserve.

Provision is made for depreciation on all property, plant and equipment at rates calculated to write off each asset evenly to its residual value over its expected useful life, as follows:

Freehold land	Not depreciated
Leasehold land	Up to 60 years (subject to length of lease)
Freehold buildings	Up to 60 years
Leasehold buildings	Up to 60 years (subject to length of lease)
Major facilities (items costing over £50,000)	11 years
Other scientific equipment	5 to 15 years
Computers	3 years
Engineering, office and catering equipment	8 years
Motor vehicles	5 years
Assets under construction	Not depreciated until brought into use

Depreciation is charged from the date the property, plant and equipment are available for use.

#### f. Intangible assets and amortisation

The values of patents, licences and royalties held by the MRC are capitalised as intangible assets based on their expected income streams. Income from these patents, licences and royalties is generated from agreements between the MRC and companies engaged in the commercial exploitation of MRC inventions and research. The values of these intangible assets are amortised over the period these agreements are in force. For most cases this is between seven and fifteen years, and such assets are not capitalised until the income stream is reasonably certain. Income streams are reviewed each year. Any surplus or deficit on valuations following such reviews is taken to the intellectual property reserve and this is revalued at 31 March each year.

Software costing £10,000 or more are included in intangibles and are stated at fair value and amortised from the date they are available for use over their useful lives estimated at three years.

#### g. Impairment

The carrying amounts of the MRC's assets are reviewed at each statement of financial position date to determine whether there is any indication of impairment: a financial asset is considered to be impaired if objective evidence indicates that one or more events have had a negative effect on the estimated future cash flows of that asset. If any such indication exists, the asset's recoverable amount is estimated.

An impairment loss is recognised whenever the carrying amount of an asset or its cash generating unit exceeds its recoverable amount. Impairment losses are recognised in the Statement of Comprehensive Net Expenditure where they result from a consumption of economic benefit or service potential.

A fall in value relating to changes in market price are first taken to the revaluation reserve relating to that asset (if there is one).

## h. Ownership of equipment purchased with MRC research grants

Equipment purchased by an institution with research grant funds supplied by the MRC belongs to the institution and is not included in MRC's property, plant and equipment. Through the Conditions of Grant applied to funded institutions, the MRC reserves the right to determine the disposal of such equipment and of the proceeds of any sale. Once the research has been completed the institution is free to use the equipment without reference to the Council.

## i. Grant-in-aid

Grant-in-aid is treated as financing, rather than income and is credited to general reserve in the year in which it is received.

## j. Income

MRC derives its income from a number of sources. These include income from Commercial Activities, contributions from other government bodies and contributions and grants from other bodies and other income. Commercial activities include royalties from licence agreements relating to intellectual property. It also receives income from government departments and other bodies which help co-fund research both of a collaborative and non-collaborative nature. Other income is derived from service charges derived from the lease of premises, the sale of laboratory and library services, as well as proceeds from the sales of radio isotopes and other items. All income is shown net of trade discount, Value Added Tax and other taxes. Income is recognised in accordance with IAS 18. See note s for details of deferred income.

## k. Research and development

As a research organisation, all of the MRC's research and development expenditure is charged to the Statement of Comprehensive Net Expenditure when it is incurred.

## l. Notional service charge

The MRC receive support services from UK SBS Ltd, which is owned by Department for Business, Energy and Industrial Strategy. Rather than transact directly with UKSBS, the department has implemented a recharging solution whereby MRC administration grant levels are reduced, and the Department pays UK SBS on behalf of the council. For 2017/18 this charge was £5,911k (2016/17 £6,227k).

## m. Cash and cash equivalents

Cash and cash equivalents comprise cash balances and deposits which are repayable on demand.

## n. Value Added Tax (VAT)

As the MRC is partially exempt for VAT purposes, all expenditure and non-current asset purchases are shown inclusive of VAT where applicable. Residual input tax reclaimable by the application of the partial exemption formula is taken to the Statement of Comprehensive Net Expenditure as a reduction of expenditure.

## o. Pension costs

Employer superannuation costs are based on an actuarially derived calculation under IAS 19. See Note 10. The defined benefit plan requires contributions to be made to separately administered funds. The cost of providing benefits under the defined benefit plan is determined using the projected unit credit actuarial valuation method.

Actuarial gains and losses are recognised in full as income or expense in the Statement of Comprehensive Net Expenditure.

The past service cost is recognised as an expense on a straight-line basis over the average period until the benefits become vested. If the benefits are already vested immediately following the introduction of, or changes to, a pension plan, past service cost is recognised immediately.

The defined benefit liability is the aggregate of the present value of the defined benefit obligation and actuarial gains and losses not recognised reduced by past service cost not yet recognised and the fair value of plan assets out of which the obligations are to be settled directly. If such aggregate is negative, the asset is measured at the lower of such aggregate or the aggregate of cumulative unrecognised net actuarial losses and past service cost and the present value of any economic benefits available in the form of refunds from the plan or reductions in the future contributions to the plan. The asset is recognised as MRC has rights to any surplus once the pension entitlements have been discharged.

## p. Derivatives and other financial instruments

Due to the non-trading nature of its activities and the way in which the MRC is financed, the MRC is not exposed to the degree of financial risk faced by non-public sector entities. Moreover, financial instruments play a much more limited role in creating or changing risk than would be typical of the listed companies to which IAS 32, 39 and IFRS 7 mainly apply. The MRC has very limited powers to borrow or invest surplus funds and financial assets and liabilities are generated by day to day operational activities and are not held to change the risks facing the MRC in undertaking its activities.

Trade receivables are recognised and carried at original invoice amount less an allowance for any uncollective amounts. Provision is made when there is objective evidence that the MRC will not be able to collect certain debts.

Bad debts are written off when identified. The amount of provision is the difference between the carrying amount and the recoverable amount and is recognised in the Statement of Comprehensive Net Expenditure.

Trade and other payables are recognised in the period in which related money, goods, or services are received or when a legally enforceable claim against the MRC is established or when the corresponding assets or expenses are recognised. Receivables and payables which mature or become payable within 12 months from the statement of financial position date have been omitted from the currency profile.

#### q. Grants payable

Research grants and fellowships are recognised in line with a schedule of pre-agreed payment profiles, which include matching considerations, over the period of the grant duration and to the period which they relate.

Where the terms and conditions do not specify a pre-agreed payment profile or other matching considerations, obligations are recognised in full.

#### r. Operating segments

An operating segment is a component of an entity that:

- engages in activities from which it may earn revenues or incur expenses (including revenues and expenses incurred internally),
- whose operating results are regularly reviewed by the entities' 'chief operating decision maker' to make decisions about resource allocation to the segment and to assess its performance, and
- for which discrete financial information is available. Segments are reported if they exceed 10% of the thresholds of revenue, net expenditure level or assets.

#### s. Significant estimation uncertainty

The preparation of the financial statements requires management to make estimates and assumptions that affect the application of policies and reported amounts. Estimates are continually evaluated and are based on historical experience and other factors including expectations of future events that are believed to be reasonable under the circumstances.

Actual results may differ from these estimates. The estimates and assumptions which have a significant risk of causing a material adjustment to the carrying amount of assets and liabilities are discussed below.

#### **Deferred Income**

The MRC receives funding for mainly collaborative projects to support the MRC's research. The majority of such funding is received from the UK public sector, medical charities, and from overseas via the European Commission (EC). Some of the funding may involve payment for the collaboration a number of years in advance of the accounting period to which it relates; such as is common with the EC. Where there is a variance between work done in the accounting period and received funding, income will be deferred. When there is both a) a condition which makes the grant repayable or returnable and b) a variance between the work done in the accounting period and received funding.

#### **Pension Costs**

The determination of the pension cost and defined benefit obligation (liabilities) of the employer's pension scheme depends on the selection of certain assumptions which include the discount rate, inflation rate, salary growth, mortality rates and expected rate of return. See Note 10 for further details.

## **Property, Plant and Equipment**

Property, plant and equipment lives have been estimated by management. Much of the asset stock is of a specialised nature, scientific equipment and buildings; lives have been based on management's experience of productive use and these are sometimes at odds with the actual useful lives with the assets. Where there are material differences in the estimated lives of the assets, the assets are re-lived and accounted for accordingly.

## t. Significant judgements/estimates

The MRC's significant accounting policies are stated above. Not all of these policies require management to make difficult subjective or complex judgements. Those that follow are intended to provide an understanding of the policies that management consider critical because of the level of complexity and judgement involved in their application and their impact on the financial statements.

### **Intangible assets**

Based on future discounted royalty income streams, estimates are subject to business uncertainty in terms of sales and the fluctuation of exchange rates, the most significant being sales in US dollars. Significant judgement has been required in assessing the impact of these variables. The policy has been judged to be compliant with IAS 38.

### **Impairment of assets**

Property, plant and equipment are included at recoverable amounts. Management assess whether assets retain their recoverable amount or whether the asset is impaired, suffering a permanent diminution in value. Judgements are made on obsolescence, damage and loss resulting from normal business operations, and changes in value as part of the annual review of property, plant and equipment. This includes assets of significant value brought into use for the first time. Further details are given in Note 7.

## u. Going concern

The Higher Education and Research Bill received Royal Assent on 27 April 2017 confirming the creation of a single executive non-departmental public body, UK Research and Innovation (UKRI). Under the Higher Education and Research Act 2017, UKRI incorporated the assets, liabilities and functions of the seven Research Councils, Innovate UK and Government's funding of research in higher education from 1 April 2018.

Confirmation of UKRI's budget allocation for 2018-19 to 2020-21 was received from BEIS in March 2018 which shows continued funding for the functions exercised by MRC for this period.

As the functions previously provided by MRC will continue to be provided by UKRI with the same assets and liabilities, it remains appropriate for the financial statements of MRC for the financial year ended 31 March 2018 to be prepared on a going concern basis in accordance with the Government Financial Reporting Manual issued by HM Treasury.



## 2. Segmental information

### Analysis of MRC Net Expenditure by Business Segments

	Intramural	Extramural	Corporate	Commercial Activities	Total
	2017/18	2017/18	2017/18	2017/18	2017/18
	£000	£000	£000	£000	£000
<b>Income</b>					
Income from sale of goods and services	(3,309)	(15)	(259)	(0)	(3,583)
Other operating income	(29,976)	(63,950)	(86)	(30,785)	(124,797)
<b>Total operating income</b>	<b>(33,285)</b>	<b>(63,965)</b>	<b>(345)</b>	<b>(30,785)</b>	<b>(128,380)</b>
<b>Expenditure</b>					
Staff Costs	67,847	8,254	35,567	3,564	115,232
Purchase of goods and services	62,115	22,707	10,220	8,419	103,461
Depreciation and impairment charges	15,057	0	0	8,196	23,253
Provision expense	0	0	(52)	0	(52)
Research and development funding	4,908	646,113	619	0	651,640
Other operating expenditure	11	0	12,601	0	12,612
Notional service charge	0	0	5,911	0	5,911
<b>Total operating expenditure</b>	<b>149,938</b>	<b>677,074</b>	<b>64,866</b>	<b>20,179</b>	<b>912,057</b>
<b>Net Operating Expenditure</b>	<b>116,653</b>	<b>613,109</b>	<b>64,521</b>	<b>(10,606)</b>	<b>783,677</b>

Net expenditure by business segment is detailed above, these are the critical operating segments, consistent with International Financial Reporting Standard 8 (IFRS 8) – Operating Segment. The report mirrors the budgetary and operating components of management information used to make decisions about operating matters. Information regarding operating segments is provided as part of the monthly reporting information to senior management.

Intramural is defined as the group's own research units and institutes. Extramural comprises all research and special contribution grant support to higher education institutes and NHS trusts. Corporate comprises the group's Head Office and administrative functions outside of the intramural programme including all other non-capital expenditure which does not belong to any of the other segments.

Commercial activities are activities devoted to the exploitation of the group's intellectual property. The Council requires a financial return from successful commercial exploitation of original MRC research. Such income arises from royalties, equity stakes and other forms of receipt agreements as a result of licencing council inventions and know-how.

	Intramural	Extramural	Corporate	Commercial Activities	Total
	2016/17	2016/17	2016/17	2016/17	2016/17
	£000	£000	£000	£000	£000
<b>Income</b>					
Income from sale of goods and services	(3,209)	(14)	(4,258)	(0)	(7,481)
Other operating income	(32,000)	(66,373)	(85)	(30,429)	(128,887)
<b>Total operating income</b>	<b>(35,209)</b>	<b>(66,387)</b>	<b>(4,343)</b>	<b>(30,429)</b>	<b>(136,368)</b>
<b>Expenditure</b>					
Staff Costs	82,630	6,595	16,497	3,420	109,142
Purchase of goods and services	64,716	21,110	13,051	7,439	106,316
Depreciation and impairment charges	21,171	0	0	7,044	28,215
Provision expense	0	0	(180)	0	(180)
Research and development funding	5,382	579,692	800	0	585,874
Other operating expenditure	65	0	1,834	0	1,899
Notional service charge	0	0	6,227	0	6,227
<b>Total operating expenditure</b>	<b>173,964</b>	<b>607,397</b>	<b>38,229</b>	<b>17,903</b>	<b>837,493</b>
<b>Net Operating Expenditure</b>	<b>138,755</b>	<b>541,010</b>	<b>33,886</b>	<b>(12,526)</b>	<b>701,125</b>

### 3. Grant from sponsoring department

The grant from sponsoring department is provided by BEIS for the financial year 2017/18. The grant received is treated as financing and credited directly to reserves.

	2017/18	2016/17
	£000	£000
Grant received and credited to general fund	680,533	654,504

### 4. Other operating income

	2017/18	2016/17
	£000	£000
Contributions from other government departments	34,451	43,631
Contributions and grants from other bodies	59,561	54,827
Commercial activities	30,785	30,429
<b>Total</b>	<b>124,797</b>	<b>128,887</b>

## 5. Staff costs

	2017/18	2016/17
	£000	£000
Salaries and wages – permanent	71,749	83,658
Salaries and wages – non-permanent	2,038	2,114
Social security costs	6,891	2,995
Pension costs	34,554	20,375
	<b>115,232</b>	<b>109,142</b>

## 6. Operating expenditure

### 6.1 Purchase of goods and services

	2017/18	2016/17
	£000	£000
Rentals under operating leases	3,482	3,321
Accommodation	18,298	23,978
Professional services	3,390	3,024
IT costs	5,374	6,852
Training and other staff costs	2,668	2,721
Travel and subsistence	3,286	3,907
Telecommunications costs	934	969
Advertising and publicity	484	318
Commercial activities	8,419	7,439
Audit fees	150	140
Other audit costs	379	302
International subscriptions	18,325	17,099
Postage and freight	1,073	1,304
Research consumables	23,441	23,842
Catering services	985	1,039
Miscellaneous other costs	12,773	10,051
Losses and compensation	0	10
	<b>103,461</b>	<b>106,316</b>

## 6.2 Depreciation and impairment charges

	2017/18	2016/17
	£000	£000
Depreciation (Note 7)	14,987	21,159
Amortisation of intangible assets (Note 8)	8,204	7,056
Impairment of PPE (Note 7)	62	0
	<b>23,253</b>	<b>28,215</b>

## 6.3 Provision expense

	2017/18	2016/17
	£000	£000
Decommissioning provision movement	0	(48)
Early retirement provision movement	(52)	(132)
	<b>(52)</b>	<b>(180)</b>

## 6.4 Research funding

	2017/18	2016/17
	£000	£000
Research grants	284,990	302,567
Research students/advanced course studentships	26,850	26,592
Post-doctoral fellowships	40,174	39,063
Industrial Strategy Challenge Fund	29,416	0
National Productivity Investment Fund fellowships/studentships	8,351	0
University unit funding	142,930	103,444
The Francis Crick Institute funding	51,184	56,858
Other research funding	67,745	57,350
<b>Total</b>	<b>651,640</b>	<b>585,874</b>

## 6.5 Other operating expenditure

	2017/18	2016/17
	£000	£000
(Profit)/Loss on disposal – PPE	11	75
Loss on Joint ventures in the year	11,994	1,824
Loss on disposal of Joint ventures	607	0
	<b>12,612</b>	<b>1,899</b>

## 7. Property plant & equipment

MRC	Land and Buildings £000	Assets under Construction £000	Equipment and Vehicles £000	Total £000
<b>Cost or valuation</b>				
<b>At 1 April 2017</b>	<b>614,032</b>	<b>249</b>	<b>150,532</b>	<b>764,813</b>
Additions	2,229	1,780	11,157	15,166
Disposals	(186,103)	(3)	(44,268)	(230,374)
Transfers	0	0	0	0
Revaluation	21,228	0	1,140	22,368
Impairment	0	0	(62)	(62)
<b>At 31 March 2018</b>	<b>451,386</b>	<b>2,026</b>	<b>118,499</b>	<b>571,911</b>
<b>Depreciation</b>				
<b>At 1 April 2017</b>	<b>(186,803)</b>	<b>0</b>	<b>(98,283)</b>	<b>(285,086)</b>
Provided during the year	(5,687)	0	(9,300)	(14,987)
Disposals	107,123	0	33,093	140,216
Transfers	0	0	0	0
Revaluation	(1,269)	0	(595)	(1,864)
<b>At 31 March 2018</b>	<b>(86,636)</b>	<b>0</b>	<b>(75,085)</b>	<b>(161,721)</b>
<b>Net book value</b>				
<b>At 31 March 2018</b>	<b>364,750</b>	<b>2,026</b>	<b>43,414</b>	<b>410,190</b>
At 1 April 2017	427,229	249	52,249	479,727

The net book value of land and buildings comprises:

	2018 £000	2017 £000
Freehold	60,191	116,163
Long leasehold	303,420	305,634
Short leasehold	1,139	5,432

The land at Mill Hill in respect of the former site of National Institute for Medical Research was sold in the year for the sum of £70m. This was completed in February 2018. The site was revalued to £70m, on classification as held for sale during 17/18. It was then sold for £70m so the profit was nil. The consideration is being received in installments.

Property, plant and equipment include £53,545,072 (2016 – £104,315,654) in respect of freehold land which is not depreciated.

The last professional revaluation was performed in 2013/14 by Powis Hughes and Associates, Chartered Surveyors, an independent valuer. Land and buildings were valued in accordance with the Royal Institute of Chartered Surveyors Valuation Standards (8th Edition), the “Red Book” and are prepared either on a Market Evidence or a Depreciated Replacement Cost basis.

MRC	Land and Buildings £000	Assets under Construction £000	Equipment and Vehicles £000	Total £000
<b>Cost or valuation</b>				
<b>At 1 April 2016</b>	<b>651,778</b>	<b>5,136</b>	<b>165,768</b>	<b>822,682</b>
Additions	97	653	5,554	6,304
Disposals	(41,328)	(1,000)	(26,608)	(68,936)
Transfers	0	(4,540)	4,540	0
Revaluation	3,485	0	1,278	4,763
<b>At 31 March 2017</b>	<b>614,032</b>	<b>249</b>	<b>150,532</b>	<b>764,813</b>
<b>Depreciation</b>				
<b>At 1 April 2016</b>	<b>(203,414)</b>	<b>(0)</b>	<b>(107,377)</b>	<b>(310,791)</b>
Provided during the year	(9,222)	(0)	(11,937)	(21,159)
Disposals	26,431	0	21,703	48,134
Revaluation	(598)	(0)	(672)	(1,270)
<b>At 31 March 2017</b>	<b>(186,803)</b>	<b>(0)</b>	<b>(98,283)</b>	<b>(285,086)</b>
<b>Net book value</b>				
<b>At 31 March 2017</b>	<b>427,229</b>	<b>249</b>	<b>52,249</b>	<b>479,727</b>
At 1 April 2016	448,364	5,136	58,391	511,891

The net book value of land and buildings comprises:

	2017 £000	2016 £000
Freehold	116,163	120,117
Long leasehold	305,634	321,336
Short leasehold	5,432	6,911

## 8. Intangible assets

MRC	Patents & Licences £000	Software Licences £000	Total £000
<b>Cost or valuation</b>			
At 1 April 2017	267,462	979	268,441
Additions	0	0	0
Disposals	0	(405)	(405)
Revaluation <sup>1</sup>	30,261	0	30,261
<b>At 31 March 2018</b>	<b>297,723</b>	<b>574</b>	<b>298,297</b>

<b>Amortisation</b>			
At 1 April 2017	(226,868)	(957)	(227,825)
Charge for the year	(8,196)	(8)	(8,204)
Disposals	0	405	405
<b>At 31 March 2018</b>	<b>(235,064)</b>	<b>(560)</b>	<b>(235,624)</b>

<b>Net Book Value</b>			
<b>At 31 March 2018</b>	<b>62,659</b>	<b>14</b>	<b>62,673</b>
At 1 April 2017	40,594	22	40,616

1 Change in assumption of impact of threats to future income has resulted in an increase in valuation at 31 March 2018.

MRC	Patents & Licences £000	Software Licences £000	Total £000
<b>Cost or valuation</b>			
At 1 April 2016	268,385	1,353	269,738
Additions	1,395	23	1,418
Disposals	0	(397)	(397)
Revaluation	(2,318)	0	(2,318)
<b>At 31 March 2017</b>	<b>267,462</b>	<b>979</b>	<b>268,441</b>

<b>Amortisation</b>			
At 1 April 2016	(219,824)	(1,342)	(221,166)
Charge for the year	(7,044)	(12)	(7,056)
Disposals	0	397	397
<b>At 31 March 2017</b>	<b>(226,868)</b>	<b>(957)</b>	<b>(227,825)</b>

<b>Net Book Value</b>			
<b>At 31 March 2017</b>	<b>40,594</b>	<b>22</b>	<b>40,616</b>
At 1 April 2016	48,561	11	48,572

## 9. Financial assets

	Notes	2018 £000	2017 £000
Investments in joint ventures	9.1	253,817	266,418
Other investments	9.2	8,337	7,023
<b>Total</b>		<b>262,154</b>	<b>273,441</b>

### 9.1 Investments in Joint Ventures

	Francis Crick Institute Ltd £000	Imanova Ltd £000	Total of Joint ventures £000
As at 1 April 2017	265,811	607	266,418
Additions	0	0	0
Share of (losses)/gains during the year	(11,994)	0	(11,994)
Revaluation	0	0	0
Loss on disposal of joint venture	0	(607)	(607)
<b>At 31 March 2018</b>	<b>253,817</b>	<b>0</b>	<b>253,817</b>

As at 1 April 2016	267,666	576	268,242
Additions	0	0	0
Share of (losses)/gains during the year	(1,855)	31	(1,824)
Revaluation	0	0	0
<b>At 31 March 2017</b>	<b>265,811</b>	<b>607</b>	<b>266,418</b>

#### The Francis Crick Institute Limited and UKCMRI Construction Limited

The Francis Crick Institute is a UK registered charity and limited company formed to deliver the proposed UK Centre for Medical Research and Innovation. The MRC, in partnership with Cancer Research UK, University College London, Kings College London, Imperial College of Science Technology and Medicine and the Wellcome Trust, own the Francis Crick Institute Limited. The entity is designed to allow the delivery of the scientific aims of the joint venture. The original Joint Venture Agreement was signed on 9th November 2010 which established the Francis Crick Institute as a charity limited by shares, following agreement of the Charity Commission. A Deed of accession varying the original Joint Venture Agreement was signed by all venturers in 11 October 2011.

Shares in UKCMRI Construction Limited the construction company owned by the original partners, of which each partner held one £1 share, were transferred to The Francis Crick Institute Ltd upon as part of the JVA and became a wholly owned subsidiary of the Francis Crick Institute Ltd. The funding of the project has been by capital contributions leading to shares. The MRC investment in the Francis Crick Institute Ltd is represented by issued shares.



The Institute became operational on 1 April 2015. The investment is therefore valued under the equity method in accordance with the arrangements of IFRS 11 Joint Arrangements as a Joint Venture and additional disclosures regarding the investment are made under IFRS 12 Disclosure of Interests in Other Entities.

The Crick's objects as set out in its Articles of Association are "the advancement of human health and education for the benefit of the public by the promotion and carrying out, directly and indirectly, of all aspects of biomedical research and innovation."

The principal place of business is Midland Road, London.

The proportion of share capital of the Crick that the MRC holds is 41.90%

The results of the Crick are summarised below:

<b>Summarised financial details</b>	<b>2017/18 £000</b>	<b>2016/17 £000</b>
Current assets	51,780	54,670
Non-current assets	580,028	606,073
Current liabilities	(26,015)	(26,342)
Non-current liabilities	-	-
Revenue	146,388	151,454
Profit/(loss) from continuing activities	(28,415)	(7,348)

<b>Other financial information</b>	<b>2017/18 £000</b>	<b>2016/17 £000</b>
Cash and cash equivalents	38,569	39,740
Current financial liabilities (excl trade and other payables and provisions)	-	-
Non-current financial liabilities (excl trade and other payables and provisions)	-	-
Depreciation of non-current assets	(39,567)	(26,690)
Amortisation of intangible assets	-	-
Interest income	153	231
Interest expense	-	-

<b>Other information</b>	<b>2017/18 £000</b>	<b>2016/17 £000</b>
Capital commitments	4,387	3,541
Grant commitments	-	-

In addition at the year end the Francis Crick Institute owed the Council £3,438 (2016/17 £242,405) and the Council owed the Francis Crick Institute £3,279,592 (2016/17 £877,513).

A lease was made between the original founders and the Francis Crick Institute Ltd on 7th June 2012 granting lease of land at Brill Place, Camden, London (site of the Francis Crick Institute) to the Francis Crick Institute Ltd. The lease term is for a period of 55 years at peppercorn rent. The land had already been revalued by Powis Hughes, Chartered Surveyors on 14th April 2011. The valuation was carried out in accordance with RICS Valuation Manual, as amended April 2010, known as the revised "Red Book", at Market Value. The MRC's interest in the land is recorded at £53,545,072 and reflected in the financial statements accordingly, (2016/17 – £52,315,654).

### Imanova Limited

The Molecular and Translational Imaging centre (to be known as Imanova) is an innovative alliance (joint venture) between the MRC, Imperial College of Science Technology, Kings College London and University College. Established in April 2011, Imanova and its partners bring together a breadth and depth of knowledge and expertise that will drive research and innovation in imaging sciences. The company will create, manage and operate a new centre of excellence in the field of translational imaging research. The company is a not for profit entity, of which the MRC owns 25% shareholding.

MRC has accounted for its investment in Imanova as a joint venture, in accordance with IFRS11. It held 25% of the ordinary shares of the company.

Due to the ongoing losses the joint venturers decided to sell Imanova to InviCRO Inc for £1. The investment was therefore sold and shows a loss on disposal of £607k.

## 9.2 Other investments

	2018	2017
	£000	£000
As at 1 April 2017	7,023	3,890
Revaluation	1,314	3,133
<b>At 31 March 2018</b>	<b>8,337</b>	<b>7,023</b>

## 10. MRC Pension Scheme

### MRC Pension Scheme

The MRC operates a funded pension scheme (MRCPS) providing benefits based on service and final pensionable pay at the normal retirement age of 65. The scheme is a defined benefit scheme that prepares its own scheme statements. Benefits accrue at the rate of 1/80th of pensionable salary for each year of service. In addition, a lump sum equivalent to three years' pension is payable on retirement. Members pay contributions of between 6.0% and 6.5% pensionable earnings to the Scheme.

Due to the number of MRC units transferred to universities in recent years a University section has been set up to account for the obligations to those former employees employed by the universities that remain in the MRC pension scheme. During the year obligations of £5m (2016/17 – £5m) of were recognised under Section 75 (S.75) of the 1995 Pensions Act in respect of liabilities of transferred employees; the University section, has been set up within MRCPS to manage S.75 liabilities. These costs are reflected in the valuation of the pension scheme.

The required MRCPS contribution rate is assessed every three years in accordance with advice of the Government Actuary. The latest actuarial assessment of the MRCPS was at 31 December 2016 at which showed a surplus of £160.3m (2013 valuation £160.1m) and the market value of the assets of the MRCPS was £1,406m (2013 = £1,054m), an ongoing funding level of 113 per cent (2013 valuation 118 per cent). The actuarial value of the assets was sufficient to cover 113 per cent of the benefits that had accrued to members after allowing for expected future increases in earnings. Triennial valuations are conducted under the Pensions Act 2004 on a scheme specific funding basis. The present MRCPS employers' contribution rate remained at 14% in 2017/18 (2016/17 – 14%) but will rise to 15% in 2018/19.

The contributions due to the scheme are set out in the schedule of contributions for each section. The most recent schedules of contributions were signed on 7 December 2017 and are due to be reviewed following the next actuarial valuation of the scheme which is due to be carried out as at 31 December 2019.

The following payments are due in 2018/19:

#### **MRC Section**

By the members:	6.5% of pensionable pay
By MRC:	15.0% of pensionable pay
By other employers:	15.9% of pensionable pay

The total contribution expected to be paid into the MRC section in 2018/19 is £14m.

#### **University Section**

By the members:	6.5% of pensionable pay
By the universities:	15.9% of pensionable pay
By MRC:	23.6% of pensionable pay

The total contribution expected to be paid into the university section in 2018/19 is £13m.

As at 31 December 2016 the average maturity of the scheme as a whole was around 21 years.

The valuation used for IAS 19 disclosures has been based on the data for the most recent actuarial valuations as at 31 December 2016, and updated to take account of the requirements of IAS 19 in order to assess the liabilities of the scheme at 31 March 2018. The mortality assumptions included within the figures are that male (female) members who retire at typical ages will live to approximately age 90 (91).

#### a. Financial assumptions used to calculate scheme liabilities

	2017/18	2016/17
	%	%
Rate of increase on pensionable salaries	3.25	3.25
Rate of increase on pension payments	2.25	2.25
Discount rate	2.60	2.50
Inflation rate	2.25	2.25
Expected return on equities	2.60	2.50
Expected return on bonds	2.60	2.50
Expected return on overall fund	2.60	2.50

The results of any actuarial calculation are inherently uncertain because if the assumptions which must be made. The table below indicates the approximate effects on the actuarial liability as at 31 March 2018 of changes to the main actuarial assumptions.

Change in assumption		Approximate effect on total liability	
Discount rate	-1/2% a year	+11.0%	+£161m
Rate of increase in earnings	-1/2% a year	-1.0%	-£15m
Rate of increase in pensions	-1/2% a year	-8.0%	-£117m
Removing age rate for pensioner mortality		+3.0%	+£44m

#### b. Analysis of Actuarial (loss)/gain

	2017/18	2016/17
	£000	£000
Actual return less expected return on pension scheme assets	92,322	189,905
Experience gains arising on the scheme liabilities	(1,650)	1,791
Changes in demographic assumptions	7,306	0
Changes in financial assumptions	30,117	(320,617)
<b>Actuarial (loss) /gain</b>	<b>128,095</b>	<b>(128,921)</b>

c. Analysis of actuarial (loss)/gain expressed as a percentage of the scheme's assets and liabilities at the statement of financial position date

	2017/18	2016/17	2015/16	2014/15	2013/14
	%	%	%	%	%
Actual return less expected return on pension scheme assets	5.84	12.94	0.02	7.60	3.51
Experience gain/(loss) arising on the scheme liabilities	(0.11)	0.12	0.43	0.12	(1.29)
Actuarial (loss)/gain	8.78	(8.80)	9.21	(6.17)	9.81

d. The assets and liabilities in the scheme

	2017/18	2016/17	2015/16	2014/15	2013/14
	£000	£000	£000	£000	£000
<b>Assets</b>					
Equities	961,824	881,819	711,368	703,649	680,755
Property	329,147	323,592	322,124	282,234	244,404
Bonds	238,467	221,465	179,769	188,938	114,109
Cash	52,591	40,761	37,507	52,934	44,152
	<b>1,582,029</b>	<b>1,467,637</b>	<b>1,250,768</b>	<b>1,227,755</b>	<b>1,083,420</b>
<b>Actuarial value of liability</b>	(1,459,736)	(1,464,639)	(1,126,870)	(1,204,861)	(1,009,683)
<b>Surplus/(Deficit) in scheme</b>	<b>122,293</b>	<b>2,998</b>	<b>123,898</b>	<b>22,894</b>	<b>73,737</b>

Equities and bonds contain assets that have a quoted market price in an active market. As at March 2018, the value of those assets within equities is £434,780k and £128,144k within bonds.

An investment strategy is in place which has been developed by the pension trustee, in consultation with the Employer to mitigate the volatility of liabilities, to diversify investment risk and to manage cash. To this end the majority of assets are invested in growth assets, which in the long term are expected to yield a greater return than would be available for fixed income assets such as bonds and gilts

e. The movements in the scheme surplus

	2017/18	2016/17
	£000	£000
<b>Surplus at the start of the year</b>	<b>2,998</b>	<b>123,898</b>
Current service costs net of employee contributions	(34,554)	(20,375)
Employer contributions	25,795	24,225
Other finance income (note 10f)	(41)	4,171
Actuarial (loss)/gain (note 10b)	128,095	(128,921)
<b>(Loss)/Surplus at end of year</b>	<b>122,293</b>	<b>2,998</b>

## f. Other finance income

	2017/18	2016/17
	£000	£000
Expected return on pension scheme assets	36,510	42,266
Interest on pension scheme liabilities	(36,551)	(38,095)
<b>Net return – other finance income (note 10e)</b>	<b>(41)</b>	<b>4,171</b>

## 11. Trade and other receivables

	2018	2017
	£000	£000
Due within one year		
Trade receivables	16,586	18,358
Less provisions for bad debts	(16)	(16)
	16,570	18,342
Other receivables	21,769	5,684
Accrued income	17,006	29,309
Prepayments	15,878	15,464
<b>Total</b>	<b>71,223</b>	<b>68,799</b>
Due after more than one year		
Other receivables	31,386	0
<b>Total</b>	<b>31,386</b>	<b>0</b>

## 12. Cash and cash equivalents

	2018	2017
	£000	£000
Balance at 1 April	14,974	61,795
Net change in cash and cash equivalent balances	15,916	(46,821)
<b>Balance at 31 March</b>	<b>30,890</b>	<b>14,974</b>
The following balances were held at commercial banks and cash in hand	17,124	9,175
The following balances were held with the Government Banking Service	13,766	5,799
<b>Balance at 31 March</b>	<b>30,890</b>	<b>14,974</b>

## 13. Trade and other payables

	2018 £000	2017 £000
<b>Due within 1 year</b>		
Trade payables	(94,188)	(92,036)
Accruals	(136,062)	(123,396)
Taxation and social security	(1,244)	(1,641)
Deferred income	(9,785)	(14,567)
Current part of finance leases	(6)	(0)
Other payables	(3,133)	(3,478)
<b>Total</b>	<b>(244,418)</b>	<b>(235,118)</b>
<b>Due after more than 1 year</b>		
Accruals	(21,410)	(9,606)
Finance leases	(3,205)	0
<b>Total</b>	<b>(24,615)</b>	<b>(9,606)</b>

## 14. Adjustments for Non-cash transactions

	2018 £000	2017 £000 Restated
Depreciation and impairment charges	23,253	28,215
Capital grant of assets <sup>1</sup>	24,222	20,624
Other operating expenditure	12,612	1,899
IAS19 pension costs	15,876	(2,257)
Lease liability reclassification	(3,211)	0
Sale of asset – funds not yet received	48,743	0
Notional service charge	5,911	6,227
<b>Total</b>	<b>127,406</b>	<b>54,708</b>

<sup>1</sup> The net book value of assets of MRC Research Units transferred to the University Sector during the year.

## 15. Commitments

### Capital

The council has future commitments to capital expenditure of £1,431k (2016/17 – £0k).

### Research awards

Forward commitments on research awards:	2018 £000	2017 £000
Not later than one year	549,900	487,109
Later than one year but not later than five years	887,638	744,170
Later than five years	1,775	5,057

## 16. Related party transactions

The MRC is a non-departmental public body sponsored by BEIS. For the purposes of International Accounting Standard 24, BEIS is regarded as a related party. During the year, the council has had various material transactions with BEIS and other bodies for which BEIS is regarded as the parent department; namely the Biotechnology and Biological Sciences Research Council, the Engineering and Physical Sciences Research Council, the Economic and Social Research Council and the UK SBS Ltd. The Council also has related party transactions with the Crick, Imanova, UK Biobank Ltd, Dementia Research Institute, Health Data Research UK and Medical Research Council Technology Limited. Crick and Imanova are detailed in Note 9.

### UK Biobank Limited

UK Biobank Limited is a company limited by guarantee and a registered charity. It is a major UK medical research initiative, with the aim of improving the prevention, diagnosis and treatment of a wide range of serious and life-threatening illnesses – including cancer, heart diseases, diabetes, arthritis and forms of dementia.

As MRC is one of two members of the company, along with Wellcome Trust but does not control the company as noted in Note 1(d) it is treated as a related party. MRCs transactions with UK Biobank are expensed as grant payments. Grant expenditure by the council to UK Biobank Limited during 2017/18 was £7,434,000 (2016/17 – £0). There was an outstanding balance due to Biobank at the end of the year of £8,253,166 (2016/17 – £7,612,182 restated)

### UK Dementia Research Institute

UK Dementia Research Institute (DRI) is a company limited by guarantee and a registered charity. It is a UK medical research initiative and breaks new ground by bringing together world-leading expertise in biomedical, care and translational dementia research in a national institute. The institute will carry out research relevant to all dementias, including Alzheimer's disease, Parkinson's disease, frontotemporal dementia, vascular dementia, Huntington's disease and beyond.

As MRC is one of three members of the company, along with Alzheimer's Society and Alzheimer Research UK but does not control the company as noted in Note 1(d) it is treated as a related party. MRCs transactions with DRI are expensed as grant payments. Grant expenditure by the council to DRI during 2017/18 was £5,361,603 (2016/17 – £0). There was an outstanding balance to DRI at the end of the year of £10,722 (2016/17 – £0).



### **Health Data Research UK**

Health Data Research UK (HDR) is a company limited by guarantee and a registered charity. HDR UK will develop and apply cutting edge data science approaches in order to address the most pressing health research challenges facing the public.

HDR UK is a joint investment led by the Medical Research Council, together with the National Institute for Health Research (England), the Chief Scientist Office (Scotland), Health and Care Research Wales, Health and Social Care Research and Development Division (Public Health Agency, Northern Ireland), the Engineering and Physical Sciences Research Council, the Economic and Social Research Council, the British Heart Foundation and Wellcome. Due to the fact that MRC does not control HDR as noted in Note 1 (d) it has been treated as a related party. MRCs transactions with DRI are expensed as grant payments. Grants expenditure by the council to HDR during 2017/18 was £443,113 (2016/17 – £0). There were no outstanding balances to / from HDR at the end of the year, or the prior year.

### **LifeArc (formerly Medical Research Council Technology Limited)**

LifeArc (formerly Medical Research Council Technology Limited) (LA) is a company limited by guarantee and a registered charity. Its principal activity is the management, development and exploitation of the Council's intellectual property assets, including its valuable patent rights associated with the production of monoclonal antibodies.

Due to the fact that MRC does not control LA as noted in Note 1 (d) it has been treated as a related party.

LA is associated with the Medical Research Council and received funding during the year for the management of the MRC patent portfolio and for research purposes as follows: Management fees of £2,100,000 (2016/17 – £2,100,000). At the year end, £2,272,716 (2017 – £2,588,909) was due from the MRC to LA and £0 (2017 – £432,595) was due to the MRC from LA.

The council provides administrative services to the Trustees of two registered charities, The Medical Research Foundation and The Fleming Memorial Fund for Medical Research, which are therefore regarded as related party transactions. Two of the Trustees who manage the charities are nominated by the Council.

**Table 1**

The table below lists Council members who are at an organisation that has received funding in the 2017/18 financial year.

Name	Organisation	Number of Awards	Amount Awarded (£)	Amount of goods and services (£)
Sir John Savill	University of Edinburgh	25	17,465,311	
Professor Doreen Cantrell	University of Dundee	4	4,887,954	
Professor Chris Day	Newcastle University	11	8,717,592	
Professor Dame Janet Finch	The University of Manchester	24	12,751,494	
Professor John Iredale	University of Bristol	16	12,538,613	
Professor David Lomas	University College London	51	40,112,515	
Dr Menelas Pangalos	Astra Zeneca			15,000
Professor Irene Tracey	University of Oxford	45	31,906,266	
Professor Jonathan Bisson	Cardiff University	7	3,742,284	
Dr Pauline Williams	Autifony Ltd			20,677
Dr Pauline Williams	GlaxoSmithKline plc			20,000

## 17. Financial Instruments and Derivatives

IFRS 7, Financial Instruments: Disclosures, requires disclosure of the role which financial instruments have had during the period in creating or changing the risks the council faces in undertaking its activities. Specifically: (a) the significance of financial instruments affecting financial position and performance; and (b) the nature and extent of risks arising from financial instruments to which it is exposed. Because of the largely non-trading nature of its activities and the way it is financed, the MRC is not exposed to the degree of financial risk faced by businesses. Moreover, financial instruments play a limited role in creating or changing risk on its operational activities.

### Liquidity risk

The council's net revenue resource requirements are largely funded by the grant-in-aid from its sponsor department. The capital expenditure is also financed through the grant-in-aid. The council is therefore not exposed to significant liquidity risks.

### Interest rate risk

The council has a low level of exposure to interest rate fluctuations; it does not actively seek to invest cash in money markets. Any excess funds held outside of the Government Banking Systems banking framework, which could attract interest, are maintained in low level current accounting arrangements, as part of its banking arrangements with Lloyds Banking Group.

### Foreign currency risk

The council maintains US dollar and Euro bank accounts in order to deal with day-to-day transactions. There is a risk attached to holding foreign currency denominations but this is not considered to be material.

**Receivables and creditor risk**

Financial assets and liabilities are held at fair value and changes in values are recognised in the Statement of Comprehensive Net Expenditure. The fair value of the council’s financial assets and liabilities are equivalent to the carrying amount unless stated above. The council has limited powers to borrow or invest funds; financial assets and liabilities are generated by day-to-day operational activities and are not held to change the risks facing the council in undertaking its activities. Of current outstanding trade debt 24% is greater than 30 days old (2016/17: 17%).

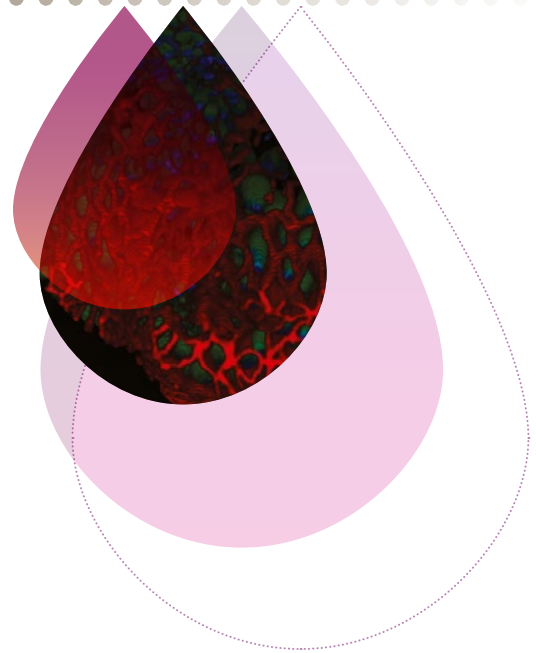
**18. Events after the reporting period**

In accordance with the requirements of IAS 10 Events after the Reporting Period, post Statement of Financial Position events are considered up to the date on which the Accounts are authorised for issue. This is interpreted as the same date as the date of the Certificate and Report of the Comptroller and Auditor General.

As set out in Note 1u Going concern, under the Higher Education and Research Act 2017, UKRI incorporated the assets, liabilities and functions of the seven Research Councils, Innovate UK and Government’s funding of research in higher education from 1 April 2018.







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