



07/08 Annual report and accounts





# Medical Research Council Annual Report and Accounts 2007/08

Presented to Parliament by the Secretary of State for Innovation, Universities and Skills, and by the Comptroller and Auditor General in pursuance of Schedule I, Sections 2(2) and 3(3) of the Science and Technology Act 1965.

Sir John Chisholm  
**Chairman**

Sir Leszek Borysiewicz  
**Deputy Chairman and Chief Executive**

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# THE MEDICAL RESEARCH COUNCIL

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The Medical Research Council (MRC) is a publicly-funded organisation dedicated to improving human health. We support research and training across the spectrum of basic and applied medical research in universities and hospitals, in our own units and institutes in the UK, and in our units in Africa. Established in 1913 to administer public funds for medical research, the MRC was incorporated under our present title by Royal Charter in 1920. Our Royal Charter and mission were last amended in 2003. The MRC's mission is to:

- Encourage and support high-quality research with the aim of improving human health.
- Produce skilled researchers, and to advance and disseminate knowledge and technology to improve the quality of life and economic competitiveness in the UK.
- Promote dialogue with the public about medical research.

We receive a funding allocation from Parliament, through the Department for Innovation, Universities and Skills (DIUS)<sup>1</sup>, in line with the provisions of the Government's spending review cycle, and receive additional funding from other sources including other government departments, international agencies, industry and medical research charities.

Our current allocation from DIUS was agreed under the 2007 Comprehensive Spending Review (CSR2007). By the end of CSR2007 (2010/11), the MRC will receive £682 million as its yearly budget. The increase in funding agreed under CSR2007 is one of the biggest commitments of support ever given to a research organisation, and will allow the MRC to maintain the strength and innovation of the fundamental sciences while increasing investment to speed up the translation of research into health benefits.

This Annual Report describes our progress between 1 April 2007 and 31 March 2008 in meeting our strategic aims and objectives.

A selection of the outstanding achievements of scientists supported by the MRC during 2007/08 are highlighted in our Annual Review. For more information about MRC activities and to view MRC publications visit [www.mrc.ac.uk](http://www.mrc.ac.uk).

## COUNCIL MEMBERSHIP

The MRC is governed by its Council which directs and oversees corporate policy and scientific strategy, ensures that the MRC is managed effectively and makes major policy and spending decisions. Council members share collective responsibility for the MRC's actions and performance. Responsibility for implementing the Council's strategy and decisions is delegated to the Chief Executive Sir Leszek Borysiewicz.

### Current membership (at 31 March 2008)

**Sir John Chisholm**  
Chairman

**Sir Leszek Borysiewicz**  
Deputy Chairman and Chief Executive (*appointed 1 October 2007*)

**Professor David Armstrong**  
King's College London

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<sup>1</sup> The Department for Innovation, Universities and Skills was established in June 2007 following the dissolution of the Department of Trade and Industry.

**Mr Michael Brooks**

Financial Management Consultant

**Dr Harry Burns**

Scottish Executive Health Department

**Professor Sally Davies**

Department of Health

**Professor Carol Dezateux**

University College London

**Professor Christopher Kennard**

Imperial College London

**Dr Michael McBride**

Northern Ireland Department of Health, Social Services and Public Safety

**Professor Andrew McMichael**

University of Oxford

**Dr Lefkos Middleton**

Imperial College London

**John Neilson**

Observer for the Secretary of State for Innovation, Universities and Skills

**Professor Sir John Savill**

University of Edinburgh

**Professor Herb Sewell**

University of Nottingham

## Outgoing members during 2007/08

**Professor Colin Blakemore**

Deputy Chairman and Chief Executive (*appointment ended 30 September 2007*)

**Professor Kay Davies**

University of Oxford (*appointment ended 29 December 2007*)

**Dr Peter Fellner**

Vernalis, PLC (*appointment ended 31 July 2007*)

**Professor Geneva Richardson**

King's College London (*appointment ended 29 February 2008*)

# EXECUTIVE SUMMARY 2007/08

## Strategic coordination

- The MRC and the National Institute for Health Research (NIHR) are working together to respond to the challenges of the Government's review of UK health research funding. Each organisation has innovative plans for investing the extra £355 million directed at publicly-funded health research through the 2007 Comprehensive Spending Review (CSR2007). During 2007/08, the MRC and NIHR agreed responsibilities relating to clinical trials and in key areas of public health need.
- Increased Government investment announced under CSR2007 will be instrumental in allowing the MRC to plan and effect improvements on an ambitious scale, while it sustains existing strengths in basic research. Partnerships with NIHR and the UK health departments will continue to be essential in allowing us to do this and to increase and refine translational activities.

## Delivering knowledge and translating discovery

- The MRC has maintained high-quality basic research during 2007/08, and there has been a bigger drive to translate it – boosting capacity, developing research leadership and forming partnerships. We have also introduced changes to governance and funding structures to support strategy development and the delivery of research priorities. During 2008/09, we will implement further changes to board structures, reflecting the developing relationship with NIHR and new arrangements for supporting clinical trials.
- Priorities and award highlights in fundamental basic and clinical research in 2007/08 included support for underpinning research in areas such as basic biological processes, developmental and biomedical genetics, human immunology and virology, and continuing and developing key partnerships in structural biology.

We have also built on plans for capacity-building in radiobiology and radiotherapy, nanotoxicology and respiratory research. Stem cell science continues to be a major focus. We have also made progress with the renewal of our two largest institutes.

- The main mechanisms supporting activities that promote translational research were response-mode schemes and targeted initiatives. Priorities and award highlights included experimental medicine, the reshaping and refocusing of intervention and methodology research in the context of the new MRC-NIHR translational strategy, initiatives in translation research in infections, toxicology, vaccines and global health, population and public health research and research to underpin policy development, such as addiction.
- The MRC has continued to develop closer relationships with industry – accelerating the translation of knowledge into practice and ensuring that industry is involved in shaping the future strategy of the MRC. During 2007/08, we increased the number of expert members from industry on the MRC's research boards and panels. Industry experts are also represented on ad hoc committees which have substantial delegated budgets. Over 980 delegates attended MRC-industry showcases involving scientists from academia and industry. The events highlighted new advances and discoveries that aim to improve health.
- Receipts from commercial activities and capital disposals, managed by MRC Technology, reached £85.4m in 2007/08, bringing total cash generated since 1998 to £384m. In 2007/08, MRCT filed 21 patent applications and 15 applications progressed to be granted. The overall patent portfolio contains 130 patent families and, during the year – cost £1m to maintain. Heptares Therapeutics Ltd, a new MRC spin-out company based on technologies developed at the Laboratory of Molecular Biology (LMB) in Cambridge, was launched.

## Developing people

- The MRC employs more than 4,000 staff in the UK and overseas through the intramural programme, and supports capacity – building to increase the number of scientists in key and evolving disciplines. We reviewed and updated the Human Resources Strategy for 2006–2009.
- The MRC has made new commitments of over £72.2 million for training and career development awards during 2007/08. This supported 107 new fellowships and approximately 450 new post-graduate students (excluding masters awards). We have continued to increase our commitment to research training for clinicians making over 60 new awards to clinicians.
- The MRC approved its strategy for Women in Science and developed its awareness raising activities, completing a pilot programme of diversity awareness workshops and continuing to implement the Gender, Race and Disabilities equalities schemes. During the year, the MRC's equalities sub-committees assessed 21 policies.

## Partnerships

- Relationships with other research funders, such as the UK health departments and within industry continue to provide opportunities to align strategy and priorities and to develop joint approaches and policy.
- The MRC has continued to take forward opportunities to increase the impact of publicly funded research through large-scale strategic programmes as well as individual funding agreements with partners, particularly those within the charity sector.

## Public engagement

- The MRC launched its Public Panel during 2007/08. The panel is a network of individuals, from a variety of backgrounds, whom we can call on to provide a broad range of public views, experiences and expertise to different aspects of our work.
- The MRC and the Biotechnology and Biological Sciences Research Council (BBSRC) are conducting the largest project ever conducted in the UK on public attitudes towards stem cell research. The project, funded through the Government's Sciencewise scheme, is due to be completed in summer 2008.
- The MRC produced more than 50 corporate publications and materials to support events. Our 2006/07 Annual Review, *People behind discovery*, won a communications award for the best not-for-profit annual report.

## Promoting best practice in research

- The MRC continues to provide leadership in the governance of biomedical research in setting standards nationally and internationally. During 2007/08, the MRC published guidance on medical research involving adults who lack the mental capacity to consent, and has issued a code of practice on the use of aquatic species in research. Working with other funders, we have developed joint guidance on responsibility in the use of animals in biomedical research. Published in May 2008, the guidance sets out the expectations of the funding bodies collectively for the first time.

## Supporting research excellence

- During 2007/08, the MRC spent over £178m in supporting more than 1,000 grants to researchers in universities and medical schools, and £58m on training awards for over 1,400 postgraduate students and over 300 fellows. We also spent over £343m to support more than 500 programmes within MRC research units and institutes.
- Over 300 new grants were awarded to universities, medical schools and research organisations in the UK, with a total value of over £170m. We awarded four new centres grants, three following the 2006/07 call for proposals in ageing, lifelong health and wellbeing and one new centre in drug safety.

## Increasing business effectiveness

- The MRC has delivered efficiency savings worth £56.3m against a target of £52.3m by reducing administrative costs, reprioritising programme spend and increasing joint funding of research, and improving efficiency within MRC units and institutes.
- The MRC has worked closely with Research Councils UK (RCUK) to determine and deliver efficiency targets identified for CSR2007. The research councils are working together to develop an RCUK Shared Service Centre, which aims to serve all research councils with shared corporate support services by the end of 2009.

## Finances

- The MRC's Departmental Expenditure Limit (DEL) allocation for 2007/08 was £490m for resource expenditure and £62m for capital expenditure. Income from commercial activities was included in DEL for the first time in 2007/08.
- The MRC incurred £442m of resource expenditure and £76m of capital expenditure during 2007/08, resulting in an underspend in resource and overspend on capital. However, after adjusting for the addition of the income from commercial activities, this resulted in an underspend in both resource and capital; £13.9m resource and £129m capital. The majority of this capital underspend has been earmarked for future spending on for the new major builds at the LMB in Cambridge and the UK Centre for Medical Research and Innovation in London.



# FOREWORD

From the Chief Executive

**I was pleased to be appointed as Chief Executive of the Medical Research Council in October 2007 in succession to Professor Colin Blakemore. During his term, Professor Blakemore instituted significant changes and engaged in new initiatives and partnerships that I am now building on. In particular, I would highlight those that will have a real impact in the near future, notably his efforts in ensuring recognition for the work of the MRC in the Comprehensive Spending Review (CSR), and laying the foundations of two major capital programmes – for the rebuilding of the Laboratory of Molecular Biology in Cambridge and the initiation, with our partners, of the UK Centre for Medical Research and Innovation (UKCMRI).**

My tenure opened with the exciting opportunity and challenge of taking forward the recommendations of the Cooksey Review, in partnership with the National Institute for Health Research (NIHR), to develop translational research, while ensuring the continued excellence of basic research that has always been the foundation of the UK's internationally recognised biomedical research success. This has been supported by Government through the CSR settlement which recognised both the need to grow basic biomedical science as well as significantly boosting funding for translational research.

I will thus continue the MRC's overarching drive to push forward research discoveries into outcomes, while maintaining the strong fundamental research base – as we always have done. This has been our objective throughout our history, but translation is now far more managed and focused as we build our relationship with NIHR and develop specific joint programmes and calls to boost important areas. We are also advancing our own priorities for cultivating the strengths of UK science, such as in the fields of stem cell and population research.



**"I WILL THUS CONTINUE THE MRC'S OVERARCHING DRIVE TO PUSH FORWARD RESEARCH DISCOVERIES INTO OUTCOMES, WHILE MAINTAINING THE STRONG FUNDAMENTAL RESEARCH BASE – AS WE ALWAYS HAVE DONE."  
SIR LESZEK BORYSIEWICZ  
CHIEF EXECUTIVE**

The spending review settlement has already provided a significant boost and will be pivotal in allowing the MRC to plan and effect improvements on an ambitious scale, while sustaining existing research strengths. Strong Government support and increased funding provides the means to move forward with NIHR towards our shared vision and to support our work with the research councils in addressing key policy challenges with our cross-council programmes. The MRC is leading the cross-council programme on ageing research: Lifelong Health and Wellbeing, as well as fully committing to support other themes including Living with Environmental Change and the Digital Economy programme.

In this year's report we outline the steps we have taken to develop MRC strategy, put in place effective governance and funding structures to address some of the challenges posed by the Cooksey Review, and develop our strategy to share the priorities and objectives of key partners and stakeholders. We have established a new Strategy Board to advise the Council, to develop scientific planning and manage strategic research funding. Four new thematic overview groups will also contribute to strategy development. Their remits cut across the MRC's portfolio, and they will identify opportunities and support the coordination of cross-board funding policies and initiatives. Evaluation has become increasingly important, and the MRC is refining methods to assess performance and the evidence of how research benefits health, quality of life and the economy.

Our longstanding aim is to maintain our support for high-quality science, through a mixture of grants awarded in response mode and specific programmes in our units and institutes. During 2007/08, the MRC has funded excellent fundamental research – which underpins developments that ultimately impact in the clinic, and benefit human health and society. We have strengthened translational research and have taken forward plans in priority areas such as stem cell research, investing in centres of

excellence, major research grants, and support for scientists in the early stages of their careers.

Partnerships have enabled more research to be carried out and on a larger, more ambitious scale, and will be central to our aim of putting translation into practice. The MRC has joined with Cancer Research UK, the Wellcome Trust and UCL to form a consortium to create the new UKCMRI. The new centre will bring together academics and clinicians and offer opportunities for industry within a world-class centre of medical research excellence with shared facilities and enhanced infrastructure.

International partnerships are setting the global agenda for science and taking forward projects on a worldwide level. Our funding of global research enables us to boost capacity and resources in novel regions and disciplines and to form collaborations that result in science and outcomes that would otherwise be impossible. A key aspect is recognising the importance not just of infectious diseases, such as HIV, TB and malaria, but also of chronic diseases that are already affecting regions that have limited resources, such as diabetes, cardiovascular disease and cancers as a consequence of changes in lifestyle.

We have been developing links with industry to implement our translational plans. We have been building these at every level, working with individual companies and representative bodies so that we can be responsive to their needs. We have increased industry representation on our research boards and panels and have supported working collaborations between researchers, joint training initiatives and events that span the

“WE STRONGLY SUPPORT PLANS TO CREATE EUROPE’S LEADING CENTRE FOR MEDICAL RESEARCH IN THE HEART OF LONDON. IT WILL MAINTAIN BRITAIN’S POSITION AT THE FOREFRONT OF GLOBAL MEDICAL RESEARCH, STRENGTHEN THE UK ECONOMY AND, THROUGH ITS LINKS WITH THE NHS, HAS HUGE POTENTIAL TO CHANGE PATIENTS’ LIVES”.  
PRIME MINISTER,  
GORDON BROWN  
(DECEMBER 2007)

border between academia and industry. The success of the MRC depends on the ability and dedication of the people we support and of our own staff, a success which is mirrored by the many national and international honours and prizes they have received. I would like to record my thanks for all the support I have received since joining the MRC as its Chief Executive. I would also like to extend my personal best wishes to Diana Dunstan who retired as Director of Research Management this year. Diana made many remarkable contributions in her years with the MRC, and I am delighted that she will continue to work with us, on behalf of all of the research councils, in our work with the European Commission.

In the coming years, new priorities, more efficient working and the emphasis on translation will bring discoveries in science closer and faster to the clinic. This will be an integral part of our future, along with our partners in NIHR, the research councils and charities. The importance of this cannot be overstated as it enables novel therapies to be identified as early as possible, improves prevention, diagnosis and public health approaches that impact on individuals, communities as well as boosting the economy. However, it is also essential that there is a vibrant and well-resourced basic science base, without which there can be no sustainable translation, and the MRC will always continue to support scientific excellence in these fields. Supporting scientific excellence in all its facets is the only route to novel discoveries and the realisation of benefits into outcomes which result in better and longer lives for us all.



# SECTION ONE

Strategic coordination:  
MRC and NIHR in partnership

**For decades, UK scientists, doctors, nurses and other clinicians and academics have led the world in revolutionising medicine and healthcare. Increasing global competition in the quest to apply medical discoveries for patient benefit and economic advantage led the Government to commission Sir David Cooksey's Review of UK health research funding, published in December 2006.**

Part of the mission of the Medical Research Council (MRC) is to encourage and support high-quality research with the aim of improving human health, enhancing quality of life and increasing economic competitiveness in the UK. The aim of the MRC's partnership with the National Institute for Health Research (NIHR) is to build on this objective, developing strategies that reflect it, as well as providing research training and career development opportunities that ensure that biomedical scientists are supported at key stages of their careers.

The MRC and NIHR are responding to the challenges set by the Cooksey review. The Office for Strategic Coordination of Health Research (OSCHR) has worked with the Department of Health (DH), the Department for Innovation, Universities and Skills (DIUS), the MRC and NIHR to coordinate planning for the 2007 Comprehensive Spending Review, and will continue to provide a forum to discuss future directions and to review progress. Increased Government investment – which will bring annual medical research funding above £1.7 billion by 2010/11 – is instrumental in allowing us to plan and effect improvements on an ambitious scale, while sustaining existing research strengths.

## THE VISION

Both organisations share a vision for research – from basic medical sciences to applied health research – in which we provide strong, well-targeted funding to develop the potential for new treatments, diagnostics and new measures

**“TOGETHER UNDER OSCHR, WE’VE LOOKED AT THE BARRIERS TO PROGRESSING RESEARCH SO THAT IT’S TURNED INTO BENEFITS FOR PEOPLE MORE QUICKLY.”**  
**SIR LESZEK BORYSIEWICZ**

to prevent disease and promote good health emerging from UK research. We are working towards a stronger evidence base for innovation, an environment that is highly attractive for private sector health R&D investment and good coordination of funders of clinical research training and infrastructure across universities and the NHS. It is also vital to sustain existing UK strengths in basic and underpinning research.

## INVESTING FOR INNOVATION IN HEALTHCARE

Each organisation has innovative plans for investing the extra £355 million directed at publicly funded health research through the Comprehensive Spending Review. The MRC is investing £132m in a variety of ways, including a novel, managed developmental pathway funding scheme that takes research from early intervention development to early stage trials in humans; strategically directed research – for example in stem cell research; addressing barriers to translation by investing in research in biomarkers and methodology; and enhancing population sciences and public health research.

We are also supporting training, careers, and infrastructure and providing funds for major innovations in academic sector support for multidisciplinary research, collaborations with industry in translational areas.

Coordinating strategies under the auspices of OSCHR is for the first time creating an overall shared plan with NIHR to build the health research environment for the twenty-first century.

## LEADING CHANGE

To deliver the vision, the MRC and NIHR are each focusing on their areas of strength in targeting funding and managing research to ensure an efficient and effective partnership. In evaluation and late-stage clinical trials, which both organisations have historically supported, NIHR has been given responsibility. In the same way, the MRC is now the lead organisation for methodology – the development of innovative research methodologies to enable and accelerate health research.

Across the translational spectrum, MRC and NIHR will manage research in a more active and coordinated way – ensuring we fund what is needed to move innovations into practice, and relying less on response-mode applications.

The MRC will lead on the early development of new opportunities, from discovery R&D to early stage clinical trials. The management of the MRC's early-stage clinical trials will be closely linked to the Efficacy and Mechanisms Evaluation and Health Technology Assessment programmes, to ensure effective push-through and pull-through where needed, and to ensure feedback from large trial outcomes.

Together, the MRC and NIHR will increase the capacity of universities and NHS trusts to support and manage translational medical research. Both will provide stable support for expert staff in project management, clinical research facility management and regulatory support.

# SECTION TWO

Delivering knowledge

**The MRC supports the discovery and exploratory development of fundamental research towards patient benefit. Strong Government support, additional funding under the 2007 Comprehensive Review Settlement (CSR2007) and key partnerships with the National Institute for Health Research (NIHR) and the UK Health Departments are essential in allowing us to sustain existing research strengths and to increase and refine translational activities.**

During 2007/08, we have maintained high-quality basic research and there has been a bigger drive to translate it, boosting capacity, developing research leadership and forming partnerships. We have also introduced changes to governance and funding structures to facilitate strategy development and the delivery of research priorities. During the coming year, we will fully implement changes to board structures, reflecting the developing relationship with NIHR and new arrangements for supporting clinical trials.

We describe other activities in supporting the translation of fundamental basic and clinical research and how they are delivered in the **Translating discovery** and **Working in partnership** sections. Further details on how we propose to use resources during CSR2007 in the MRC Delivery Plan 2008/09 to 2010/11, available from our website.

## STRUCTURES TO SUPPORT STRATEGY AND DELIVERY

The MRC established the new Strategy Board during 2007/08. The board develops strategic scientific plans for the MRC and it advises the Chief Executive on the apportionment of budgets across the research boards and approves awards from a new Strategic Research Fund, which is distinct from the funds for translational

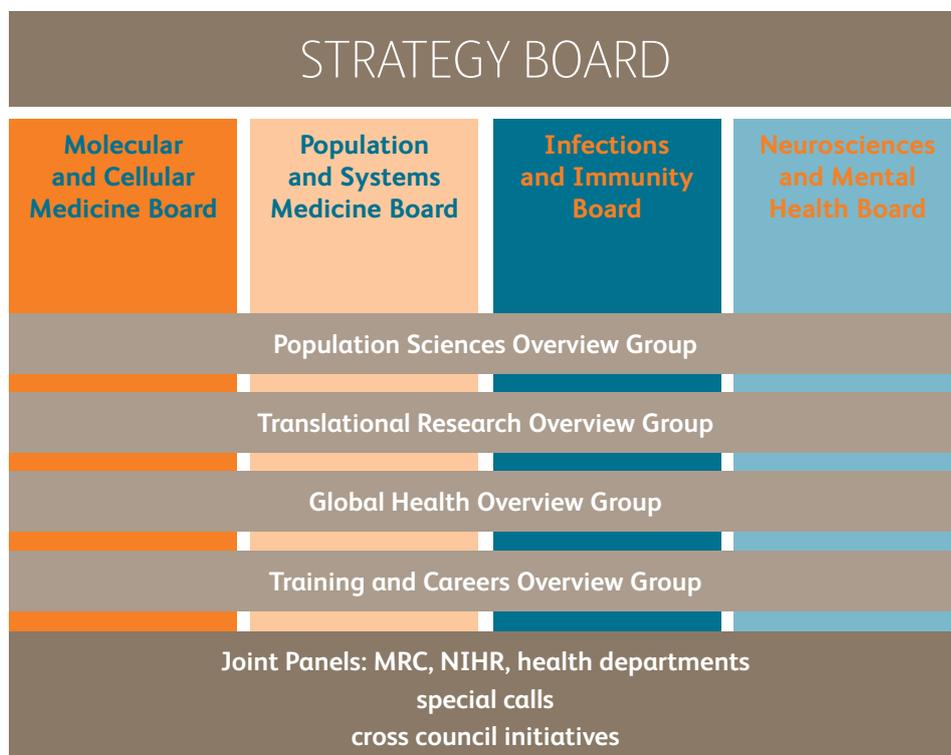
research and response mode applications considered by the research boards. During 2008 the board will develop the MRC's future Vision and Strategic Plan. The Council will continue to provide high-level strategic direction for the MRC, with the Strategy Board taking forward opportunities to engage with other strategic thinkers, influencers and stakeholders to identify perspectives on research needs and challenges over the coming years.

We established four thematic Overview Groups with cross-cutting remits across the MRC's portfolio, to contribute to strategy development, identify gaps and opportunities and ensuring coordination of cross-board funding policies and initiatives. The new groups – in global health, population sciences, training and careers and translational research – also oversee the implementation of the MRC's

funding policies. They do not receive funding for response-mode applications and are not constituted as grant-awarding boards, but will have specific budgets for fellowship panels and for specific calls for proposals.

The MRC is also implementing changes within the research boards. Closer working between the MRC and NIHR and changes in the funding arrangements for clinical trials have resulted in the redistribution of responsibilities and budgets across four, rather than five, MRC research boards. Below in figure 1 is a summary of the new structure, which will be fully implemented by October 2008. The MRC Health Services and Public Health Research Board will formally be disbanded at the end of the current funding round. Further information on the new group and board responsibilities is on the MRC's website.

FIGURE 1 – NEW MRC STRATEGY AND FUNDING STRUCTURES



Alongside changes to structures, the Council also approved a new evaluation strategy, which provides guidance on how the MRC can best support research to create an excellent science base, and evidence of how research benefits health, quality of life and the economy. The strategy aims to develop evaluation methodology to better meet the MRC's needs, to strengthen the evaluation of research funding, policy decisions and improve the assessment of the impact of biomedical research. Effective evaluation of our performance and the research we fund is increasingly important as we continue to build our partnership with NIHR, Research Councils UK (RCUK) and other stakeholders.

Information on the MRC's research funding schemes is found in **Supporting research excellence**.

## PRIORITIES IN FUNDAMENTAL RESEARCH

The main mechanisms by which the MRC supports fundamental basic and clinical research is by supporting research grants in response-mode and programmes in MRC units and institutes. We address priority or under-represented areas with targeted initiatives and partnerships. Priorities and award highlights in 2007/08 included support for underpinning research in areas such as basic biological processes, developmental and biomedical genetics, human immunology and virology, and continuing and developing key partnerships in structural biology. We also built on plans for capacity-building in radiobiology and radiotherapy, nanotoxicology and respiratory research. Stem cell science continues to be a major focus.

## Underpinning fundamental science

**MRC Centre for Developmental and Biomedical Genetics, University of Sheffield:** The MRC awarded £2.85 million to establish the MRC Centre for Developmental and Biomedical Genetics at the University of Sheffield (Director Professor Philip Ingham), supporting interdisciplinary research teams of basic and clinical scientists. Investigations cover the cellular basis of development and disease using drosophila and zebrafish model systems and innovative training programmes to help develop capacity.

**MRC/University of Bristol Centre for Synaptic Plasticity:** In July 2007, the Neurosciences and Mental Health Board (NMHB) renewed support for the next five years for the MRC/University of Bristol Centre for Synaptic Plasticity, which forms a key part of MRC's basic research portfolio to investigate the mechanisms of synaptic plasticity and the relevance to the underpinning knowledge base for many neurological disorders. We awarded £7m to support the centre and three of the centre's core research programmes.

**Model systems:** The MRC's overarching aim in molecular and cellular medicine is to maintain a strong portfolio of basic science research and continue to encourage its translation into medical applications. During 2007/08, the Molecular and Cellular Medicine Board (MCMB) allocated £37.9m to new research projects and programmes and supporting infrastructure. Basic biological processes are highly conserved between species, and the board continues to fund high-quality research in model systems such as drosophila, zebrafish and mice, to increase understanding of how these processes influence the development and progression of disease in humans and to identifying approaches to therapy.

**Virology:** In February 2008, the Infections and Immunity Board (IIB) considered the final report of the strategic review of virology. The review highlighted the strengths in basic virology

research within the UK and the long-standing contribution MRC funding has made to understanding the molecular mechanisms by which viruses enter specific cell types and how they subvert the cell machinery to benefit the virus. A recommendation in the review was to build on these strengths, further integrating basic virology with complementary disciplines and strengthening translational, clinical, as well as public health research for a range of human pathogenic viruses, including hepatitis C, respiratory and gastroenteritis viruses, RNA viruses and influenza.

Among new five year awards in virology, the MRC funded a proposal from Professor John Sinclair (University of Cambridge) for work on the interaction between human cytomegalovirus (clinically important in patients with a weak immune system) and cells they infect. Better understanding of these mechanisms could lead to new targets for antiviral drugs and vaccines.

**Human immunology:** The IIB also considered the output from the strategic review of human immunology. The report highlighted a number of strengths, the contribution the MRC had made – particularly in the field of infectious diseases – and some 'knowledge gaps' in human immunology research. It also highlighted the importance of maintaining quality basic research as well as increased activity in translation, which could be aided by specialists in different disciplines working side by side to create a multidisciplinary environment with greater partnerships between academics, industry and NIHR and with other funders. The report also suggested that training could expose non-clinical scientists to clinical laboratories and clinically-trained scientists could have access to more basic research.

To support long-term basic research, the IIB funded a five-year proposal from Professor Colin Watts, University of Dundee, for a project on the triggering of the immune system by invading microbes and pathogens. The work will increase our understanding of how the immune system is activated but will also potentially inform us how to achieve better immune activation after vaccination.

## Stem cell science

The MRC has continued to support the development of strategic initiatives and to fund a wide range of stem cell research and capacity-building projects in the area of regenerative medicine. In the second half of 2007, we began a review of MRC strategy for stem cell research – to be completed next year – with a view to strengthening the UK stem cell research base in key areas so that maximum impact could be achieved from future investment.

**Centres:** In October 2007, the MRC made a five-year award to launch the MRC Centre for Regenerative Medicine in Scotland under the directorship of Professor Sir Ian Wilmut, building on a previous MRC Centre Development award to the Institute of Stem Cell Research in Edinburgh. The centre aims to link basic research on the mechanisms controlling stem cell behaviour to four areas of potential clinical application – repair of the nervous system, the liver, bone and cartilage, and reconstruction of the immune and blood systems.

We also supported development of centres of excellence by awarding three MRC strategic appointments to overseas research leaders moving to the UK – at the universities of Edinburgh and Oxford and Kings College London.

**Research grants:** The MRC has awarded a number of major research grants in the past year, including a five-year award to Professor Peter Andrews in Sheffield to study the genetic stability of human embryonic stem cells in culture. We made two awards to the Institute of Ophthalmology in London for study of the use of stem cells in eye repair.

In Newcastle, Dr Mary Herbert and colleagues are attempting to achieve somatic cell nuclear transfer (SCNT) in human eggs for the first time, to create human embryonic stem cell lines that will provide accurate models for rare human diseases, and in the longer term provide 'personalised' stem cells for treatments that may avoid problems of immune rejection. The MRC funded a three-year project that will develop

this technology, making use of the spare eggs donated by women undergoing IVF treatment under an egg-sharing arrangement.

The MRC continues to support the next generation of stem cell researchers. In 2007/08, we funded three New Investigator Research Grants with £1m. Under MRC management, four Joint Collaborative Stem Cell Career Development Fellowships were awarded, totalling £1.4m, three funded by the MRC and one by the Alzheimer's Society. There were a further six MRC priority studentships awarded for stem cell research.

**UK Stem Cell Foundation:** The MRC has continued to work in partnership with the UK Stem Cell Foundation to help promote the application of stem cell technology in the clinic. With £2.3m, we contributed to five joint awards in translational stem cell research, addressing cartilage, bone and liver regeneration and the generation of clinical grade neural stem cells for the treatment of Huntington's and Parkinson's Diseases.

**UK Stem Cell Bank:** The MRC/Biotechnology and Biological Sciences Research Council (BBSRC)-funded UK Stem Cell Bank is now fully operational, and is being actively used by both the UK and international research communities for the free provision of ethically-sourced and quality-controlled human embryonic stem cell lines (hESC). There are 63 hESC lines registered in the bank, with 12 quality-controlled hESC lines publicly released. The UK Stem Cell Bank is also leading the International Stem Cell Banking Initiative (funded by the ISCF), which was established in the 2007 with the aim of harmonising standards and developing guidelines for international stem cell banking and the development of clinical grade lines within a solid ethical framework.

**Coordination of research:** The MRC is one of four research council sponsors of the UK National Stem Cell Network (UKNSCN), launched in April 2007. The network provides a central coordination activity to serve academic, commercial and public interest in stem cell research. The first UKNSCN annual

research conference is being held in Edinburgh in April 2008.

The MRC is one of the founding members of a new public-private partnership launched in the summer of 2007 with the aim of using stem cell technology for drug development. The initiative is being developed under a not-for-profit company called Stem Cells for Safer Medicines, which involves the MRC, BBSRC, the Department of Health, Scottish Office and the Technology Strategy Board (TSB) from the public sector, and AstraZeneca, GlaxoSmithKline (GSK) and Roche from the private sector. The role of the company is to fund research leading to development of stem cell technologies as a way of assessing toxicological responses to candidate drugs, and a number of pilot awards have recently been made under phase I of the initiative.

Coordination of research remains critically important if efficient progress is to be made towards fulfilling the promise of stem cells. The MRC chairs both the high-level UK Stem Cell Funders Forum and the International Stem Cell Forum (ISCF), which Sir Leszek Borysiewicz undertook for the first time in 2007/08. The MRC contributes funding to the ISCF to support international collaborative effort, and a major milestone was reached in sharing international stem cell knowledge with the publication of the biological characteristics of 59 human embryonic stem cell lines in *Nature Biotechnology* in June 2007. This work was coordinated by a multinational consortium led by Professor Peter Andrews in Sheffield, and a further £1m funding has been agreed for phase II of this study which is expected to report in 2009.

## Building investment in under-represented areas

**Nanotoxicology:** With the increasing development of nanotechnology there is the potential for new forms of harm to the human body. Following the Government response to a report from the Royal Society and Royal

Academy of Engineering, the MRC issued a highlight notice to encourage innovative, high-quality research applications in nanotoxicology relevant to human health and to understand the absorption and distribution of nanoparticles in the body, and their potential for toxicity.

We are funding four programmes of nanotoxicology research with more than £2m, including on the effects of nanoparticles on the lung, toxicity of prosthetic-derived nanoparticles and nanoparticle genotoxicity. We continue to receive high-quality applications in this area, and anticipate the continued growth of MRC-funded research in nanotoxicology.

**Radiobiology and radiotherapy:** Formal agreements between the MRC, Cancer Research UK (CRUK) and Oxford University to establish the new Radiation Oncology and Biology initiative concluded in October 2007, and the research teams from the former MRC Radiation and Genome Stability Unit at Harwell have transferred to Oxford University. The new research building on the Churchill Hospital site, to which the MRC made a substantial capital contribution, is now complete, and the MRC and CRUK-supported research teams have moved in.

The initiative includes basic research on radiobiology alongside translational and clinical research aimed at improving radiotherapy, and will provide a substantial postgraduate training programme for both basic and clinical researchers.

**Respiratory research:** After recognising some years ago that the portfolio of support in respiratory research was weak relative to the burden of disease, we issued a research highlight notice requesting applications in this area. This served to greatly enhance the board's support for respiratory-related applications. We also awarded an MRC centre in asthma research a two-year funding extension. More recently we launched a highlight notice in musculoskeletal research – another gap in the portfolio – and this is having a significant impact on the numbers of applications that are being received and funded.

## Large facilities and resources

**Mary Lyon Centre:** The MCMB completed a strategic review of the Mary Lyon Centre at Harwell, which provides state-of-the-art facilities for functional genomics research using mice. In the future the MRC will aim to increase the profile of this facility and make it more widely accessible to the external research community in both academia and industry. A search for a new director to replace Professor Bob Johnson is underway – we hope to make a new appointment during 2008/09.

**Structural biology:** The MRC is managing a project on behalf of other partner research councils to develop a new research complex at the Rutherford Appleton Laboratories alongside the Diamond synchrotron. This will provide infrastructure for world-class research by users of Diamond, ISIS and the Central Laser Facility. Construction of the new laboratory building, with support from the Large Facilities Capital Fund, has begun, and completion is planned for autumn 2009. On behalf of the research councils in the partnership, the MRC led the recruitment process for a director for the new complex, and appointed Professor Simon Phillips (University of Leeds) to the post.

The MRC and BBSRC have jointly allocated funding of £6.4m over five years for a UK National Protein Production Facility (led by Professor David Stuart, MRC Research Professor and recently appointed Life Sciences Director at Diamond) to support high throughput structural studies. Once the building is complete, this will move from its current site in Oxford to the research complex. The MCMB has also agreed to contribute £500k to continue joint funding of the BBSRC-led Collaborative Computing Project 4, which supports structural biology research.

**Brain tissue banks:** Well-characterised human brain tissue provides an essential resource for research into neurological and psychiatric disorders. On behalf of the UK Clinical Research Collaboration (UKCRC),

the MRC convened an expert group that has developed future strategies for the collection and distribution of such material in the UK, to help maintain the UK's position at the forefront of international neuropathological research. The group discussed topics such as establishing a national UK network of brain banks to improve coordination, efficiency and disease coverage, and how best to collect control brain material and tissue from rarer neurological and psychiatric conditions. It will report recommendations to UKCRC in 2008.

**Neuroimaging:** In February 2008, the NMHB awarded a team, led by Professor Irene Tracey at Oxford University, to fund a 7-Tesla Magnetic Resonance Imaging (MRI) scanner for central nervous system neuroscience work. Professor Tracey is the Director of the Oxford Centre for Functional Magnetic Resonance Imaging of the Brain (FMRIB).

There was also an MRC award to Professor Stefan Neubauer and colleagues in the University of Oxford to enable provision of a whole body scanner for research that requires cardiovascular imaging – including pain, neurodegeneration, neurosurgery, psychiatric disease, plasticity in disease including multiple sclerosis and stroke, cognitive neuroscience, language and memory. Other research groups in the UK will be able to access the scanner, contributing significantly to experimental medicine in the UK.

**Nutrition:** The MRC initiated a strategic review of nutrition and energy balance research during 2008 to inform MRC's long-term strategy for the field. MRC spend in nutrition and energy balance is approximately £38m a year and includes studies on the effect of diet on normal biological function and disease, the consequences of maternal diet and birth weight in later life, obesity and appetite control, gut function and gastrointestinal disease and the fundamental mechanisms underpinning these areas. The majority of this research is supported in MRC units and centres.

This review will establish a national landscape in nutrition research with the input from

other major funders including the BBSRC, the Economic and Social Research Council (ESRC), the Food Standards Agency, DH, the Wellcome Trust and CRUK and based on the strengths, needs and gaps in the field will advise on opportunities to add value to MRC's portfolio. The outcomes of the review will be considered by the MRC's Council in July 2008.

## CROSS-COUNCIL PRIORITIES

Working with the other research councils allows us to align strategy in shared priority areas, supporting large-scale programmes as well as smaller-scale joint initiatives between two or more councils and other funders.

Over the CSR2007 spending review period, the research councils will be working together to deliver six cross-council programmes designed to address the major research challenges of the next 10 to 20 years. Coordinated by RCUK, the ambitious programmes involve new ways of multidisciplinary working to address key challenges in lifelong health and wellbeing, energy, environmental change, security, the digital economy and nanoscience.

The MRC is leading the programme on Ageing – Lifelong Health and Wellbeing, aligning population science activities with NIHR and other cross-council agendas. A summary of activities relating to this programme is provided below. The MRC is also making a significant contribution to the Living with Environmental Change (LWEC) programme. Our aim within the LWEC programme is to develop a coherent strategy for health issues relating to environmental change, supporting the generation of knowledge and policy development to understand the impact of environmental change, reduce the costs and increase resilience. Within the Digital Economy programme, the MRC's role will contribute to wider programmes of e-health research.

Current activities in e-health/e-science are outlined below. The MRC will be working with the other councils to support opportunities that relate to the medical and health arena within the remaining programmes: Global Threats to Security, Nanoscience, through Engineering to Application, and Energy.

### Ageing – Lifelong Health and Wellbeing:

The research councils have identified up to £18m to support the Ageing – Lifelong Health and Wellbeing Initiative. Led by the MRC, the programme aims to develop interdisciplinary research approaches to advance the understanding of the dynamics of ageing. Key priorities include aligning activities with NIHR and other funders and stakeholders, building on earlier collaborative programmes on research into ageing. Following a call issued in 2007, the MRC in conjunction with BBSRC, the Engineering and Physical Sciences Research Council (EPSRC), and ESRC agreed to support three Centres of Excellence that would address a variety of research themes and facilitate multidisciplinary research and capacity building.

The research councils committed £12m to award three new centres. The MRC committed £8m, with BBSRC, EPSRC and ESRC committing a further £4m between them, to Professor Doug Turnbull (University of Newcastle) for the Centre for Brain Ageing and Vitality, to Professor Ian Deary (University of Edinburgh) for the Centre for the Ageing Brain, and to Professor Nick Tyler (University College London) for CRUCIBLE, an interdisciplinary research centre. CRUCIBLE brings together a wide variety of UCL departments and research groups involved in ageing research, complementing the university's Institute of Healthy Ageing.

To coincide with the call, the MRC and Unilever sponsored a 'Spark' meeting to identify alternative perspectives in ageing research. Forty international experts on ageing and diseases of ageing participated in the event discussing 'The Healthy Ageing Phenotype'. A key theme that emerged was the association of physiological resilience – the ability to respond and adapt to stress – with healthy ageing.

The Lifelong Health and Ageing Unit, whose director is Professor Diana Kuh, has been established to take responsibility for the MRC National Survey of Health and Development (NSHD). The MRC has funded this survey, which follows the lives of more than 5,000 people born in a single week in 1946, continuously for 46 years. The unit has been awarded £5m of core funding over five years with an additional £2.4m project grant to collect data to study cardiovascular, respiratory, musculoskeletal and mental health in older age.

Over the next five years the unit will also carry out more collaborative work with other cohorts and build a new NSHD data library and data sharing system. The MRC Lifelong Health and Ageing Unit will share its findings with policy-makers, health practitioners and other researchers who can translate their research findings to promote healthy ageing.

### Connecting for research (e-health/

**e-science):** Large-scale science is increasingly carried out, and distributed through, global collaborations enabled by the internet. Support for e-health/e-science underpins a wide range of cohort studies, methodologies and networks such as the General Practice Research Database. To extend this support, the MRC organised a number of workshops, initiatives and steering groups in key areas of particular importance to MRC-funded projects such as Health Informatics, Consent and Confidentiality and the NHS National programme for IT/Connecting for Health. An MRC e-science 'All Hands Meeting' on 27 February 2007 brought together the e-science community to share problems, solutions and best practice, and to discuss emerging issues and solutions.

Working in partnership with other research councils and the Wellcome Trust, the MRC contributed £500k to a call led by EPSRC on information-driven health after which nine projects were awarded. The MRC is also contributing up to £1.5m to a further initiative led by the Wellcome Trust in partnership with ESRC and EPSRC to promote electronic databases for health research.

**Chemical biology:** The MRC has continued to support a joint initiative with EPSRC in chemical biology, inviting grant applications from the research community in response mode. To help boost training in this area, MCMB allocated £400k to contribute to the EPSRC Life Science Interface Doctoral Training centre in chemical biology at Imperial College, which will support additional PhD studentships.

**Social neuroscience:** In July 2007, the MRC in partnership with Cold Spring Harbor Laboratory (CSHL) hosted a summer workshop at St Anne's College, University of Oxford, on 'The Biology of Social Cognition'. The week-long event was based on the residential summer courses run by CSHL in the US. The course was organised by Professor David Skuse, Institute of Child Health, UCL, and Professor Ralph Adolphs, California Institute of Technology, Pasadena, who put together an interdisciplinary programme of seminars and workshops. Attending the course was a small group of international early-career investigators from a range of disciplines and both students and lecturers found the course thoroughly enjoyable and informative.

This workshop forms part of a recent cross-research council initiatives in the area of social neurosciences, following on from the launch of the joint MRC/ESRC highlight notice 'Society, Social Behaviour and the Neurosciences' in 2006.

## ENHANCING RESEARCH INFRASTRUCTURE

The MRC's institutes have a broad but cohesive long-term inter and multi-disciplinary approach. The three institutes offer maximum flexibility to engage in innovative 'risky' research, avoiding traditional university-style departmental boundaries.

The MRC has been working on major new plans for its two largest institutes, the Laboratory of Molecular Biology (LMB) in Cambridge and the National Institute for Medical Research (NIMR) in London, whose buildings are over 50 years old. The plans provide up-to-date, competitive environments for a new generation of researchers.

The MRC has acquired a plot of land on a very long lease at Addenbrooke's Hospital in Cambridge – work on the construction of a new building for LMB is due to start during 2008. It is anticipated that the new building will be occupied by 2011/12. In addition to the current complement of research staff, there will be room for an already approved expanded initiative in neurobiology and for developing LMB's translational research programmes. Close collaborative relations will be maintained with the hospital and with Cambridge University Clinical School, which will occupy some research space in the new building.

The MRC has joined with CRUK, the Wellcome Trust and UCL to form a consortium to set up a new joint research institute in Central London – the UK Centre for Medical Research and Innovation (UKCMRI). The aim is to create a world-class centre of medical research excellence that benefits from economies of scale, shared facilities, enhanced infrastructure, critical mass to optimise collaboration and the capacity to take scientific discoveries from the laboratory bench to the hospital bed. The centre will be sited on land adjacent to the British Library and St Pancras Station.

The consortium has acquired the freehold on the site and design work on the new building will begin later in 2008. It is anticipated that the new institute will be occupied in 2013/14. UKCMRI will gather science teams from the National Institute for Medical Research (NIMR) at Mill Hill, the CRUK London Research Institutes and UCL, working closely with researchers located in other universities and research intensive hospitals. The Wellcome Trust will fund scientists working at the centre, adding to the interdisciplinary mix.

## ECONOMIC IMPACT

The work of the MRC has an impact on the UK economy through two main routes; firstly medical research results in the development of new or improved health interventions, or healthcare practice, and secondly medical research results in new ideas, methods, materials and skilled people which impact on research and development in all sectors.

Impact through the first route may lead to productivity gains from a healthier workforce, direct savings in the healthcare system, societal benefits from health gains, or direct value from commercialisation of research. The MRC has a world leading track record in supporting research which has made significant, affordable and cost effective improvements in length and quality of life. Additionally, new multi-million pound markets have been created based on discoveries resulting from research supported by the MRC and other public research funders. Examples within the MRC's own units and institutes include research in the fields of antibody technology, kinases, and stem cells. MRC Technology's success in establishing a pipeline of exploitable intellectual property, licensing this to others, establishing spin out companies and generating significant income is significant (and outlined in detail within the following section **translating discovery**). Licensing income receipts from all sources rose to £85.4m during 2007/08 bringing total cash generated since 1998 to £384m, one of the highest rates of return internationally.

New ideas and skilled people resulting from medical research have been shown to stimulate private sector research and development, which can in turn lead to new products and services, improved productivity and higher national income. In 2007/08 14 per cent of MRC funded students had their first post graduate job in industry and six per cent of the 2,120 research publications from MRC units and institutes were co-authored with collaborators in the private sector. External funding from the private sector to MRC units and institutes rose above £30m in 2007/08.

The MRC has, in collaboration with the Academy of Medical Sciences and Wellcome Trust, commissioned a study to better understand the processes by which medical research leads to economic impact, and to help quantify the overall rate of return to the UK. The study will focus on cardiovascular research and mental health research and its findings will be published in 2008/09.

Further information on MRC initiatives to accelerate the translation of medical research, develop links with industry, and deliver skilled people to the workforce can be found in **developing people** and **working in partnership**.

# SECTION THREE

Translating discovery

**A major focus of MRC strategy for the coming years is to support research which translates basic science into improved healthcare, products and services. During the last year the MRC has been increasing investment in clinical and public health research, spending an additional £30 million a year. Over the coming year we will continue to increase investment in translational research, aiming to spend an additional £25m a year by the end of 2008/09.**

Joint plans with the National Institute for Health Research (NIHR), coordinated by the Office for the Strategic Coordination of Health Research (OSCHR), and the perspectives of other stakeholders are essential in achieving our ambitious goals for translation. Relationships with the pharmaceutical and biotechnology industries, working directly with companies and supporting links between researchers, are particularly important. The successful development and commercialisation of knowledge generated within the MRC's own research units and institutes, managed by MRC Technology, also generates significant additional funding to reinvest in science.

## TRANSLATION INTO PRACTICE

Existing response-mode schemes and targeted initiatives provide the main mechanisms to support activities which aim to promote translational research. Managed programmes aim to add value to early laboratory and clinical discoveries to aid translation and to support research and skills to address bottlenecks. During 2007/08 the main focus of strategic funding was experimental medicine, with a number of initiatives and calls directed at the different stages of the process.

Priorities and award highlights in 2007/08 included the reshaping and refocusing of

intervention and methodology research in the context of the new MRC-NIHR translational strategy, initiatives in translation research in infections, vaccines and global health, population and public health research and research to underpin policy development, such as addiction.

Strategic reviews have also provided opportunities to address the translational agenda. The strategic review of toxicology, conducted in 2006, endorsed the need for improvements in the science of drug safety testing and well-trained multidisciplinary toxicologists, and called for more integration of the different disciplines of toxicology research. This led to the establishment of a new MRC/ Universities of Liverpool and Manchester Centre for Drug Safety Science and a new training partnership initiative, the Integrative Toxicology Training Partnership (ITTP). Further information on both of these initiatives is in this section.

## New arrangements for clinical trials

As part of the developing MRC and NIHR joint strategy for translational research, a new joint arrangement for clinical trials was announced in autumn 2007. In 2008/09, NIHR will take over the management of the MRC's investment in evaluative research and clinical trials. The MRC's future investment in these areas will focus on two programmes: the Efficacy and Mechanisms Evaluations (EME) programme and the Global Health programme. The MRC will also continue to increase spending to support developments in methodological approaches in key areas.

### **Efficacy and Mechanisms Evaluations:**

The EME programme, a new clinical research programme, was launched on 1 April 2008.

EME, funded by the MRC, and administered by NIHR as the lead organisation, supports excellent clinical science with an ultimate aim of improving health or patient care. Its remit includes clinical trials and evaluative studies

which add significantly to our understanding of biological or behavioural mechanisms and processes, explore new scientific or clinical principles, evaluate clinical efficacy of interventions where proof of concept in humans has already been achieved and aim to develop or test new methodologies. The strategy will involve the EME programme working with the already established NIHR Health Technology Assessment (HTA) programme, to ensure that promising technologies are carried from the efficacy and safety stage through to being assessed for clinical and cost-effectiveness to the NHS. The first wave of proposals will be considered in July 2008.

**Global infections research:** In global infections research, the MRC continued to develop its partnership with the European and Developing Countries Clinical Trials Partnership (EDCTP). The partnership aims to accelerate the development of new or improved drugs and vaccines for HIV/AIDS, tuberculosis (TB) and malaria, with a focus on phase II and III clinical trials and capacity building and on Sub-Saharan Africa. The EDCTP involves 14 EU countries, Switzerland, Norway, and a number of African countries, and has an overall goal of reducing poverty by improving the health of populations in developing societies.

In 2007, there were eight calls for proposals on vaccines and drugs (including microbicides) for HIV/AIDS, TB and malaria. UK researchers were very active in submitting proposals to the calls, in collaboration with African and European researcher partners. The MRC, together with the Department for International Development (through its partnership agreement with the MRC) have committed significant co-funding for these calls. The impact of earlier EDCTP spending is evident. For instance, data generated from an EDCTP-funded study, involving researchers from the MRC Clinical Trials Unit, contributed to the US FDA granting tentative approval for the registration of a fixed-dose anti-HIV drug specifically formulated for paediatric use. This will be the first fixed drug combination (which combines doses of two or more drugs) specifically designed for young children to be registered by the FDA.

As a result of this tentative FDA approval, this FDC antiretroviral drug will be included in the World Health Organization (WHO) Prequalification Programme and will become available for distribution under the Presidents Emergency Plan for AIDS relief (PEPFAR) and Clinton Foundation programmes.

The MRC also renewed funding for the MRC Tropical Epidemiology Group, led by Professor Richard Hayes. The group initiates and collaborates in research on the epidemiology and control of public health problems of developing countries, with a main emphasis on intervention studies. It is known internationally for methodological advances in cluster randomised trial design. The group leads major programmes of work on HIV and other sexually transmitted infections (STIs), TB and malaria and works closely with the MRC/UVRI Uganda Research Unit on AIDS and the MRC Laboratories in The Gambia.

The MRC's new Strategy Board considered a report based on the outcomes of two meetings held in March 2008 on its approach to investment and partnership in Africa. The board endorsed the headline finding that work was needed to re-balance the portfolio, not least to strengthen MRC's commitment to non-communicable disease research. The board also agreed that MRC work in Africa should not only be of high quality and impact, but should be well integrated into robust regional and national research structures. The Global Health Oversight Group will examine the opportunities and issues in more detail in 2008/09.

**Methodology:** Under the single health research strategy, the MRC is the lead organisation for methodology research, which will underpin all areas of the MRC's and NIHR's remit, including the translational and public health agendas. Several activities are being implemented which will serve to strengthen the national methodological platform in health sciences research and enable the development of new methodological approaches in key areas of research need, for the MRC and NIHR and also other public and commercial sector stakeholders including a new MRC/NIHR funding stream.

A new Methodology Research Programme funding investigator-led and needs-led research was launched in November 2007 and will begin funding proposals in July 2008. The programme includes research on methods development to underpin the biomedical sciences, experimental medicine, clinical trials, population health sciences, health services research and health policy.

The MRC will establish a network of UK-wide centres of excellence in trials methodology research in 2008/09 to underpin the planned expansion in clinical trials activity by MRC and NIHR. During 2008, we will fund proposals in initiatives to establish a UK-wide network of regional hubs of expertise.

## Strengthening translational research

**Translational infections research:** In June 2007, the MRC – through IIB – and six other partners of the UK Clinical Research Collaboration (UKCRC) announced plans for a £16.5m UK-wide Translational Infections Research initiative. Partners are the Biotechnology and Biological Sciences Research Council (BBSRC), the health departments in England, Northern Ireland, Scotland and Wales and the Wellcome Trust.

The initiative resulted from the work of a UKCRC planning group, chaired by Sir John Lilleyman, formerly of the National Patient Safety Agency. The group examined findings from previous reviews of microbiology, mapped the funders' principal priorities and funding in the field, and consulted key professional organisations.

The main aims are to boost capacity for translational and applied infections research that aims to making a significant clinical and public health impact, develop research leadership and facilitate diverse research development and user communities to form productive, goal-oriented partnerships. In December 2007, we shortlisted three consortia proposals and awarded five strategy development grants.

**Translational vaccine research:** Following a rapid review, initiated by the IIB, of MRC vaccine research at the end of 2006 – which identified gaps in the translational of novel science to vaccine products and immunisation policies – the MRC launched a call for proposals in Translational Vaccine Research in February 2007.

The IIB allocated £3.5m to the call. A specialist panel of industry, academic and policy experts funded six proposals. Four awards addressed the need for early laboratory tests to show whether vaccine candidates offer long-term protection from infection and disease. Another award was for a one Phase 1 clinical trial by Oxford-based Professor Adrian Hill's group of a novel malaria candidate vaccine. A further award was for the development by the Health Protection Agency's Centre for Emergency Preparedness and Response of improved animal models in which to studying influenza infection and vaccine protection.

The panel was also asked to assess a proposal for the Department of Health and recommended funding for a consortium to evaluate candidate pre-pandemic influenza vaccines.

Recognising the opportunities to sustain the board's initiative through the full range of new MRC and NIHR funding schemes for translational research, the IIB decided it will re-examine the balance of the vaccines portfolio in 12 to 18 months.

**Flu research:** In February 2008, the MRC completed its funding initiative to strengthen influenza research. Over the previous two years, it has made 26 awards with a total new commitment of £13.3m under the Pandemic Influenza Research initiative, run by the IIB. As a result, the MRC's annual spending on flu research has nearly doubled to about £6m a year.

Funded projects include the study of the structural biology of the virus surface to identify new targets for drugs and vaccines, Flu Watch led by Dr Andrew Hayward at University College London, and public health research that enhances understanding and establishes

a ready-prepared cohort for pandemic studies of antiviral effectiveness, immunological and clinical response and transmission dynamics. Other groups funded by this initiative are developing safer, rapid laboratory assays for highly pathogenic flu viruses, and technologies to enable the rapid, large-scale production of pandemic flu vaccines. Professor Keeling at Warwick University is leading a project that aims to strengthen the basis for modelling social interactions important for the spread of airborne infectious disease.

## Population and public health

**Maximising resources for health:** Following an international workshop held in 2006, the MRC and the Mental Health Research Network (MHRN) have developed a searchable web-based survey of human research cohorts. The resource includes a number of large cohort studies (involving over 1,000 individuals) and some smaller studies funded by the MRC – closely linked to the MRC's Data Sharing Initiative, which aims to maximise opportunities for enabling wider use of publicly funded data for further high-quality, ethical research.

**UK Biobank:** Biobank reached its key recruitment milestone of 100,000 participants this spring. Throughout the year, UK Biobank has worked on plans for enhanced assessments to develop more detailed and accurate exposure measures and extending the range of data collected. The joint MRC/Wellcome Trust International Review, conducted in 2006, first identified opportunities to enhance the resource. Biobank is now consulting with the regional collaborating centres, the broader UK scientific community and the UK Biobank International Scientific Advisory Board on proposals, and plans to take forward discussions with existing and potential funders during 2008.

**Teenage mental health:** The Neurosciences and Mental Health Board (NMHB) awarded

a research grant to Professor Glyn Lewis and colleagues at the University of Bristol to study the development of psychosis in young adults. Professor Lewis's team will study participants in the Avon Longitudinal Study of Parents and Children to investigate whether cannabis use during adolescence is associated with psychosis.

**Healthcare interventions:** As well as awarding £15.5m to major new large-scale, multicentre, clinical trials this year, the Health Services and Public Health Research Board (HSPHRB) announced a call in March 2007 for proposals for intervention evaluation study platforms. The projects, which covered development and feasibility plans for a broad spectrum of complex interventions in healthcare, include a feasibility study of a licensed premise intervention to reduce alcohol misuse and violent injury, a study to determine the feasibility of molecular selection of therapy in patients with metastatic colorectal cancer and the development of an awareness-based intervention to enhance quality of life in severe dementia.

We made 12 awards in March 2008 at a total value of £4.7m and committed a further £1m to a strategically important larger scale pilot feasibility trial.

The board also supports (£2.5m over five years) the MRC Population Health Sciences Research Network (PHSRN), which includes all of the board's intramural units and three units from other boards. The aim of the network is to bring together and add value to the MRC's existing investments in public health, health services and epidemiology research, by focusing on the methodological approaches to population health sciences research. In 2007, the PHSRN completed a substantial update of the Complex Interventions Framework designed to provide the latest guidance for investigators.

**Review of the Clinical Trials Services Unit and Epidemiological Studies Unit:** Under the joint directorship of Professor Rory Collins and Sir Richard Peto, the chief aim of the Clinical Trials Service Unit (CTSU) is to generate and disseminate high-quality reliable evidence from observational epidemiology and randomised

evidence (worldwide meta-analyses and large trials) that lead to practicable methods of avoiding death and disability from common disease (for example, vascular diseases and cancer) before and during middle age. It is unique in the scale of the projects it undertakes.

In 2007, the HSPHRB led a tripartite scientific review of the CTSU on behalf of three of the key UK funding partners the British Heart Foundation (BHF), Cancer Research UK (CRUK) and the MRC, which included a joint international review subcommittee visit to the CTSU in Oxford during December 2007.

**Centres of excellence in public health research:** HSPHRB is the major interface with the UK Clinical Research Collaboration (UKCRC) in a coordinated approach to strengthen public health research in the UK. A £20m investment has established five centres of excellence across the UK to strengthen research into complex public health issues such as obesity, smoking and health inequalities. The five successful centres, which were awarded funding via a competitive process, are based in Newcastle, Cardiff, Belfast, Cambridge and Nottingham. Between them, the centres will conduct research across a broad range of public health issues, and on topics including diet and nutrition, physical activity, and alcohol, tobacco and drugs.

The centres bring together leading experts from a range of disciplines working in partnership with practitioners, policy makers and wider stakeholders to tackle public health issues which are likely to have a significant impact on the health of the nation.

The Scottish Collaboration for Public Health Research and Policy, a £3m joint initiative of the Chief Scientist Office of the Scottish Executive Health Department and the MRC, aims to improve the evidence base for public health policy by making the most of enhancing research capacity in Scotland. The collaboration will be directed by Professor John Frank, whose previous position was Director of the Institute for Population and Public Health at the Canadian Institutes of Health Research. The initial five-year programme of work will, through the

establishment of a series of overlapping centres of excellence, develop and test interventions that address questions of importance to policy makers and practitioners, as well as significant gaps in the evidence base.

## Research into policy

**Addiction:** Building on the recent expansion of health research funding, the MRC and NIHR have agreed that addiction should be a priority area for research funding. This is in response to the high morbidity and economic costs of habitual drug use and to respond to the Government's Foresight report, *Drugs Futures 2025*, which highlighted the need for more research. An Addiction Project Group set up by the MRC met twice during the year and suggested a number of research priorities. The MRC will discuss these with various other policy makers including other government departments. New funding schemes launched later in 2008 will support research to improve the knowledge base for future innovation in this important public health area.

## WORKING WITH INDUSTRY TO ACCELERATE TRANSLATION

During 2007/08 we have been working to develop closer relationships with industry – nurturing partnerships with individual companies and trade organisations and supporting collaboration between scientists to deliver our wide-ranging translational plans, and to ensure that our policies are responsive to the needs of industry.

## Building partnerships

During 2007/08 we have increased the number of expert members from industry on the MRC's research boards and panels. Industry experts are also represented on *ad hoc* committees which have substantial delegated budgets. For example, the Biomarkers funding panel had a budget of £11m and the Experimental Medicine funding panels had £16m. Over the course of the year, 30 different industry experts from a variety of companies have served on our boards and panels.

The MRC's Senior Advisor on Industry Liaison, Professor Ian Kimber (Manchester, ex-Syngenta), has continued to develop the profile of the MRC among industry, to ensure that our policies are responsive to the needs of the sectors of pharma, biotech, diagnostics and devices. The main interface is with the trade organisations – the Association of the British Pharmaceutical Industry (ABPI), BioIndustry Association (BIA) and the Association of British Healthcare Industries (ABHI). Sir Leszek Borysiewicz, MRC Chief Executive, also embarked on a programme of meetings with the chief executives of ABPI and BIA and with senior representatives of the major pharmaceutical companies with a major research base in the UK (including AstraZeneca, GlaxoSmithKline and Pfizer). To ensure that the momentum generated by these meetings is not lost, a high-level MRC Pharmaceuticals Forum will be set up with a remit to oversee all aspects of strategic interaction between the MRC and the R&D-based pharmaceutical business.

## Showcase events

During 2007/08, we completed the first round of the programme of MRC-industry showcases holding four events; investigating infections and immunity (in April 2007), focus on inflammation (September), advances in oncology and cancer (November) and breakthroughs in neuroscience and mental health (February 2008). Over 980 delegates attended the showcases which

highlighted new advances and discoveries that aim to improve health.

The neuroscience and mental health meeting in February 2008 featured a question and answer session with a panel of 12 industrial scientists and a 'Dragon's Den' session for individual scientists to pitch their ideas and current research interests to the panel. Mr Robert MacLaren from the Institute of Ophthalmology, London, won the poster prize of £3,000 for his work on developing photoreceptor transplantation as a cure for blindness.

The September 2007 showcase, focusing on understanding the causes of inflammation and identifying potential new therapeutic approaches, resulted in 12 joint applications being submitted through the £3m Industry Collaboration Awards Scheme.

The second round of showcases will begin with a meeting on infections and immunity in Cambridge in September 2008. Once established, the MRC Pharmaceuticals Forum will consider the future of the showcase programme.

## Supporting research collaboration

Strategic partnership awards, joint funding and coordinated calls for proposals provide the main routes for increasing the level of collaboration between researchers in the academic community and industry. In 2007/08 the MRC participated in joint calls with other funding bodies and international initiatives, working in partnership with individual companies and managing targeted calls for proposals.

To strengthen our support for translational research, the MRC has joined with the Technology Strategy Board (TSB) in calls for proposals in cell therapy research and technologies for health. The TSB was established as an executive non-departmental public body in July 2007 and aims to stimulate innovation in those areas which offer the

greatest scope for boosting UK growth and productivity. Its activities are jointly supported and funded by the Department for Innovation, Universities and Skills (DIUS) and other government departments, the devolved administrations, regional development agencies and research councils.

Launched in November 2007, the remit of the £10m cell therapy call covered projects that involve the development of living cell processes and cell-focused applications for improved healing, including living cell bioprocessing, smart dressings and wound repair. Proposals were required to involve two or more collaborators located in the UK, with at least one from industry. The second call, technologies for health, aimed to improve healthcare provision by bringing medical diagnosis, condition monitoring and care and analytical capabilities closer to the patient community.

The European Innovative Medicines Initiative (IMI) – a €2 billion partnership between the European Commission and EFPIA (European Federation of Pharmaceutical Industry Associations) – presents a unique opportunity for European public and private sector research organisations to collaborate on shared research objectives. Launched in April 2008, IMI will run until 2017, supporting projects which aim to improve the mechanisms for bringing new medicines to the marketplace, addressing safety and efficacy issues alongside training and knowledge management. The MRC has supported two dissemination events to help raise awareness of the initiative with the scientific community. The first, held in December 2007, focused on key opinion leaders in the academic community. This was followed in early February 2008 by a meeting that attracted more than 200 delegates and partners. A new £50k networking fund has also been established to support the development of proposals to the IMI.

In another partnership, the MRC and GSK have joined to fund a programme for identifying and validating genes associated with common human diseases. A key aim will be to translate these observations into new drug targets and

biomarkers of disease. There have been two major awards – a project on depression and another involving large population-based cohorts to identify new genetic variants associated with obesity and related metabolic disorders. Over the next three years, the MRC and GSK will each invest £1m in the programme.

The MRC's strategic review of toxicology, conducted in 2006, endorsed the need for improvements in the science of drug safety testing and well-trained multidisciplinary toxicologists, and called for more integration of the different disciplines of toxicology research. This led to the establishment of a new training partnership (described below) and to a call for a new centre of excellence. The MRC established the new MRC and Universities of Liverpool/Manchester Centre for Drug Safety Science. The centre, directed by Professor Kevin Park, is one of the first OSCHR investments. It will investigate the mechanisms of clinically-important adverse drug reactions with the aim of improving drug selection and design to help prevent these reactions in the future. The centre will also provide an environment for collaborations between scientists from academia, government and industry and will provide impartial advice to the NHS and regulatory agencies. The MRC support for the centre is £3.7m and further funding is provided by the ABPI and industry.

## Training

Training forms a key interface with industry. In the first year of the revamped collaborative CASE studentship scheme – PhD awards in partnership with industry – the MRC made 46 awards at a value of £3.2m. The scheme was redesigned during 2007, with advice from industry stakeholders, with two funding streams; a quota competition for large companies and a project-specific competition for small and medium enterprises.

The Integrative Toxicology Training Partnership (ITTP), which also resulted from the strategic

review of toxicology discussed above aims to provide funding for the training of a new generation of integrative toxicologists. Attracting excellent students into the discipline through the development of a prestigious, multidisciplinary training programme, involving academia, industry and regulators.

The MRC has made an initial award of £2.7m over five years to support the partnership, which is managed by the MRC Toxicology Unit in Leicester. The first competition for PhD studentships applying modern, innovative approaches to solve toxicological problems attracted 51 applications. Following supplement of the budget for the initiative by a further £500k, 11 awards were made in February. The MRC anticipates awarding two ITTP Career Development Fellowships later in the year.

## MRC TECHNOLOGY

MRC Technology (MRCT), the MRC's technology transfer company, works to translate cutting-edge scientific discoveries into commercial products. MRCT identifies and protects intellectual property (IP) resulting from research within the MRC's own units and institutes, usually in the form of patents, which allow rights in the exploitation of the inventions to be 'traded' in the form of licences to companies.

Many new treatments arise from the MRC's patented technology. Perhaps the most well-known of these is Herceptin®, a monoclonal antibody to the Her2 receptor found on a subgroup of breast cancers. Since the product's launch in 1998, many thousands of women have benefited from treatment by this drug.

### TECHNOLOGY TRANSFER FUND INCOME

Licensing income receipts from all sources reached £85.4m (2006/07 £64.8m) during the year, bringing total cash generated since 1998 to £384m. There has been a further rise in

revenues from the 'Winter 1' patent portfolio – antibody humanisation by CDR grafting.

A summary of MRCT performance for the year ended 2007/08 is shown in table 1 below. Further information on commercial income and expenditure is in note 13 of the annual accounts.

TABLE 1 – MRC PERFORMANCE 2007/08

| Year    | New patents | New licences | Receipts (£k) |
|---------|-------------|--------------|---------------|
| 1998/99 | 40          | 25           | 2,853         |
| 1999/00 | 32          | 26           | 7,582         |
| 2000/01 | 34          | 36           | 17,946        |
| 2001/02 | 50          | 42           | 11,713        |
| 2002/03 | 41          | 32           | 14,181        |
| 2003/04 | 28          | 26           | 15,920        |
| 2004/05 | 24          | 24           | 22,005        |
| 2005/06 | 25          | 40           | 141,957       |
| 2006/07 | 25          | 39           | 64,769        |
| 2007/08 | 21          | 31           | 85,444        |
|         |             | Total        | 384,370       |

## PATENT PORTFOLIO

MRCT's business managers operate on a portfolio basis using their scientific training and research backgrounds to cover the technical and commercial aspects of IP developed in units and institutes. The decision to file a patent is based on a range of technical, legal and commercial factors. Often in the competitive world of science, a patent must be filed at short notice to protect an invention before it is revealed to the world through 'public disclosure' at a scientific conference or through publication of a paper. In 2007/08, MRCT filed 21 patent applications and 15 applications moved through to grant. The overall patent portfolio contains 130 patent families and cost £1m (2006/07– £1.1m) to maintain.

## DRUG DISCOVERY GROUP

The last 12 months have been very productive for MRCT's Drug Discovery Group (DDG).

The DDG's Therapeutic Antibody Group (TAG) is recognised worldwide for its antibody humanisation skills, and this expertise has helped at least 10 therapeutic antibodies to reach the clinic and the market. In particular, Actemra® obtained regulatory approval for rheumatoid arthritis and juvenile idiopathic arthritis in Japan. Tysabri® (currently used worldwide to treat multiple sclerosis), also gained approval from the US Food and Drug Administration (FDA) for its use in Crohn's disease. TAG has also humanised an antibody against a novel target in collaboration with Dr Andrew McKenzie (LMB, Cambridge), which could help in the treatment of inflammatory diseases such as asthma. Working in collaboration with biotechnology companies, TAG has already helped several companies to develop antibody-based therapeutics to treat a variety of diseases, including Schering Plough (cancer) and Intellect Neurosciences (Alzheimer's disease).

In small molecule projects, the DDG has made significant progress on two of its key programmes. First, the DDG has a tuberculosis (TB) project originating from Drs Steve Smerdon and Roger Buxton from the National Institute for Medical Research (NIMR). The team has developed very potent (low nanomolar) inhibitors of the target which are currently being investigated in whole cell TB assays. The programme has generated interest from a major pharmaceutical company.

A further project showing great promise is a kinase programme for the treatment of cancer and primary open angle glaucoma (POAG), which was brought to the DDG by Professor Sir Philip Cohen from the Protein Phosphorylation Unit in Dundee. The team discovered potent and selective inhibitors and initial *in vitro* absorption, distribution, metabolism and excretion (ADME) data is very encouraging. The team are further optimising the series prior to partnering discussions and have filed a patent to protect the inventions.

Over the last year DDG reviewed 14 proposals, nearly all from MRC-funded research, as possible candidates for DDG projects. Of these, five were accepted as projects, covering a diverse range of therapeutic areas, including malaria, cancer, glaucoma and asthma.

DDG continues to work closely with MRC scientists, both in driving translation of their projects, but also in provided compounds to advance research in a variety of fields such as malaria, metabolic disease and cancer. Two recent publications by MRC scientists include data obtained from DDG compounds. One from Dr Mike Blackman of NIMR was published in the journal *Cell*, and the other, from Dr Gerry Melino at the MRC Toxicology Unit, was published in *Biochemical and Biophysical Research Communications*.

## LICENSING AND AGREEMENTS

The financing of a new MRC spinout company (Heptares Therapeutics Ltd) was completed in July 2007. The company will focus on the structural determination of G-protein coupled receptors (GPCRs). The MRC has been allotted approximately 20 per cent of Heptares shares in return for an exclusive licence to certain existing IP in the GPCR field and IP generated by certain MRC groups in this field over the next two to three years. Over the past 12 months, commercial agreements were concluded with Organon (Netherlands), Intellect Neurosciences (USA), Mitsubishi (Japan), Lay Line Genomics (Italy), Covagen (Switzerland), GSK (Belgium), GSK (US and UK). We also signed 11 EU Framework contracts and five non-EU consortium agreements.

## BUSINESS DEVELOPMENT

The outstanding deal in the period was a licence to a humanised mouse monoclonal antibody. This antibody, which originated in the MRC Virology Unit, could be a therapy for a major global viral infection. Humanised antibodies of this type are now established drugs and there are many on the market. MRCT licensed the

rights in this potential therapeutic antibody to a substantial US biotechnology company in return for upfront payments, clinical milestones and a future royalty on sales. The development work that took this antibody from the unit bench to a clinical candidate validates the investment that MRC has made in the MRCT DDG and emphasises MRCT's crucial role in the translational process.

## THE DEVELOPMENT GAP FUND

The Development Gap Fund (DGF) is an innovative and successful MRC pre-seed fund managed by MRCT. It is designed to increase the commercial potential of MRC discoveries arising from the MRC intramural research programme. DGF achieves this by providing funding at the earliest stage of the technology pipeline to demonstrate proof of concept and commercial potential. A summary of proposals submitted to the DGF during 2007/08 is shown in figure 2.

FIGURE 2 – 2007/08 SUBMISSIONS

|                               |      |
|-------------------------------|------|
| Submissions                   | 25   |
| Units represented             | 12   |
| Projects funded               | 13   |
| Total funds committed (£,000) | 995  |
| Average project cost (£,000)  | 73.4 |
| Project duration (months)     | 6-24 |

A second interim assessment of fund activity and outcomes has been performed, including data from the pilot scheme and to October 2007. This assessment found:

- Projects fell into four of the MRC research boards.
- Proposals covered a diverse range of subject areas/technologies including software development, cancer, infectious diseases, genomics and drug discovery.
- Funding was requested for proof of concept (39/51) and validation studies (42/51), exemplification of patent claims (20/51) and to generate supporting data to add value to MRC IP and aid with commercialisation.

A summary of total proposals submitted to the DGF is shown in figure 3.

FIGURE 3 – SUBMISSIONS TO THE DGF FROM THE PILOT SCHEME TO OCTOBER 2007

|                               |       |
|-------------------------------|-------|
| Submissions                   | 79    |
| Units represented             | 21    |
| Projects funded               | 51    |
| Total funds committed (£,000) | 4,830 |
| Average project cost (£,000)  | 90.8  |
| Project duration (months)     | 6-36  |

A number of economic and non-financial outcomes are now emerging from the fund:

- Nine patents have been filed as a result of DGF.
- In 14 instances patent claims were exemplified.
- Investment totalling £6.16m was generated from DGF projects, namely:
  - Licensing from nine different companies (£2.5m).
  - Third party investment in MRC start-up companies (£3.76m).
- Joint ventures (£499k).
- In six cases intellectual property was linked to a start up company.
- Synergy between DGF and the other technology transfer activities of MRCT is evident.
- 10 projects have been performed in collaboration with the MRCT Drug Discovery Group.
- 44 skilled jobs have been created.
- 14 scientific papers have been published in peer reviewed journals.
- Improved awareness of translational research and technology transfer activities.

DGF has had a positive financial impact on the commercialisation of MRC discoveries and this is likely to continue as the fund matures.

Further information on the work of MRCT can be found at [www.mrcttechnology.org](http://www.mrcttechnology.org).

# SECTION FOUR

Developing people

**It is crucial that the UK has sufficient highly-skilled researchers to maintain the strength of its internationally-renowned biomedical research in making and translating new scientific discoveries. One of the MRC's key objectives is to ensure that biomedical scientists are supported at key stages of their careers, through enhanced, targeted training and development programmes. One of the principal aims of the partnership with the National Institute for Health Research (NIHR) is to ensure that researchers are supported effectively over the course of their career. We also directly support a diverse community of scientists and support staff within our own units and institutes.**

## RESEARCH TRAINING AND CAPACITY BUILDING

The MRC supports researchers at postgraduate research training level, through to a wide range of fellowships and further career development. In reviewing the long-term health of certain disciplines and sub-disciplines we develop schemes to attract and retain individuals in areas which need strengthening and to enhance career structures. The MRC is dedicated to ensuring researchers have the right skills and works closely with the other research councils through the Research Council's UK (RCUK) Research Careers Diversity Unit (RCDU). Further information can be found at [www.rcuk.ac.uk/rescareer/rcdu](http://www.rcuk.ac.uk/rescareer/rcdu).

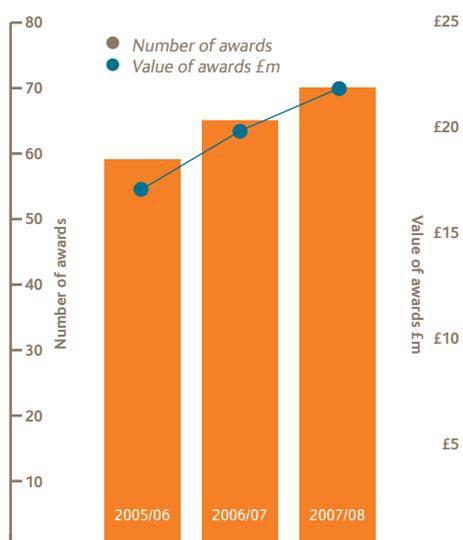
The MRC's research training programme is currently overseen by the Training and Career Development Board (TCDB). It is responsible for ensuring that the MRC remains a standard bearer for research training. In 2007/08, the TCDB made new commitments of over £72.2 million. This supported 107 new fellowships and approximately 450 new post-graduate students (excluding Masters awards).

## Clinical and public health research fellowships

For the third year running, we have increased our commitment to research training for clinicians by awarding more fellowships than ever before. In 2007/08, 62 new clinical fellowships were awarded at a total value of £19.88m, which included 52 Clinical Research Training Fellowships (CTRF). We funded six CRTFs in partnerships with the Royal College of Obstetricians and Gynaecologists, the Multiple Sclerosis Society, Kidney Research UK, the Royal College of Physicians, the Royal College of Surgeons of Edinburgh and the Royal College of Surgeons of England. We also awarded 12 Health Services Research and Health of the Public Fellowships and one Stem Cell Fellowship, jointly funded with the Alzheimer's Society.

The increase in the number of clinical fellowships (including health services and health of the public fellows) and their value over the period 2005/06 to 2007/08 is shown in figure 4.

**FIGURE 4 – NUMBER AND VALUE OF CLINICAL FELLOWSHIP AWARDS 2005/06 -2007/08**



## Non-clinical fellowships

The MRC continued to commit funding to support the best of the next generation of non-clinical scientists. We awarded 17 new fellowships, with a total value of £21.1m, supporting 10 Clinical Development Awards and seven Senior Non-Clinical Fellowships.

## AWARD HIGHLIGHTS

### Interdisciplinary research

The MRC and the Economic and Social Research Council (ESRC) together run a joint scheme aimed at promoting research training opportunities at the interdisciplinary boundary between medical research and social science. In 2007/08, the MRC and ESRC jointly funded 12 post-graduate students and nine early-career fellows, the MRC's contribution to these awards would be £2.11m.

### Health of disciplines

During 2007/08, we made 12 new awards to enhance research capacity in biostatistics and informatics. Priority areas for 2008/09 include health economics and toxicology.

#### Biostatistics

The MRC Career Development Award in Biostatistics is a postdoctoral fellowship aiming to support individuals working in, or who wish to move into, health-related research. It provides up to four years of support for the development and investigation of innovative statistical methods and their application in clinical research. In 2007/08, three awards were made worth £830k.

## Informatics

The MRC's Fellowship in Biomedical Informatics supports specialist multi-disciplinary training aimed at creating a research workforce able to take forward new developments in the fields of bioinformatics, neuroinformatics, health informatics and computational biology. In 2007/08, eight awards were made at a total value of £2.15m. Co-funding was also provided by the Engineering and Physical Sciences Research Council (EPSRC).

## Toxicology

In December 2007, the MRC launched the Integrative Toxicology Training Partnership (ITTP) which brings together industry, academia and government stakeholders. Following the Strategic Review of Toxicology in 2006/07, the MRC's Council made £2.7m available for toxicology training over five years. This funding will be used to support PhDs and Career Development Fellowships fostering integrative approaches to training aligning modern cell and molecular biology with other fundamental and health-related disciplines. The MRC Toxicology Unit is managing this initiative.

## Health economics

NIHR, the MRC and ESRC launched a major joint initiative in early 2008 to provide a raft of new career development opportunities for outstanding individuals who wish to pursue research careers in economics of health. These are early-career post-doctoral fellowships, masters and training placements to work in policy and practice environments.

## Working with industry

This CASE studentships scheme aims to provide students with excellent training and experience working in both academic and industrial laboratories. Following consultation with our industry stakeholders, the competition in 2007 was re-launched consisting of two funding streams, a quota competition for

large companies with the capacity to support a number of students, and a project-specific competition enabling small to medium-sized enterprises opportunities to initiate new research collaborations with academic scientists. In December 2007 we made 46 PhD studentship training awards with a total value of £3.2m, with 29 students starting in 2008 and 17 in 2009. We expect to make another call for project-specific awards in 2008.

## Studentships

The majority of the MRC's investment in studentships is made via doctoral training grants (DTGs) to universities (£13.8m in 2007/08). The amount each university receives is based on its existing grant income from the MRC. This method of allocation was adopted by the MRC's Council in July 2002 and has now been running for four years, with the first set of grants issued coming to an end. This year, the TCDB has begun its review of the DTG system, consulting key stakeholders as part of the process. The review will also assess how the DTG system has worked in practice and recommend the best model for the future allocation of DTGs. The review will report in the second half of 2008.

In addition to the DTGs, the MRC also awards studentships in areas of strategic importance. Fifty one new awards, worth £3.7m, started in October 2007 covering the following priority areas – public health, health economics, translational infection, dementias, pre-clinical imaging, stem cells, informatics and respiratory medicine. All students will receive enhanced stipends.

Dorothy Hodgkin Postgraduate Awards is a UK scheme to bring outstanding students from India, China, Hong Kong, South Africa, Brazil, Russia and the developing world to study for PhDs in top-rated UK research facilities. The Prime Minister launched the scheme in November 2003. The 2008 tranche of awards will provide funding for 92 new PhD students (54 core awards and 38 additional awards).

Each scholarship is jointly funded by one UK research council and one private sector partner. The MRC provides funding for this scheme which is managed by the EPSRC on behalf of the sponsors.

## Returners

The MRC supports the Daphne Jackson Trust Fellowship Scheme for returners. The fellowships are composed of a retraining programme linked to a challenging research or development project and aim to help re-establish professional expertise, as well as personal confidence, with significantly improved job prospects at the end. The research councils are actively involved and have now sponsored over 31 per cent of all the fellowships. The MRC supports two fellowships.

## Skills agenda

The MRC is dedicated to ensuring researchers have the right skills. To achieve this it works together with its partner research councils through RCUK's RCDU. A major part of the strategy is delivered through research councils' funding of the UK GRAD Programme, which supports universities in the development of researchers' skills. In August 2007, the research councils announced a joint investment of over £15 million for the next phase of the programme which will run from 2008-2012. The new programme will give greater prominence to the career development needs of research staff whilst building on the transferable skills activities for postgraduates developed under the previous phase of the programme.

The MRC continues to fund payments for the career development and transferable skills training of researchers which were introduced following the recommendations in SET for success – the supply of people with science, technology, engineering and mathematics skills (report from the Roberts' Review, 2002). This funding is provided to improve the training

and employability of researchers. In addition, the MRC, through the RCDU, has been actively involved in the development of the revised concordat to support the career development of researchers, launched in early summer.

## ATTRACTING FIRST-RATE PEOPLE AND MAXIMISING POTENTIAL AND PERFORMANCE

Continued progress in improving human health depends on creating and maintaining a diverse community of scientists and support staff able to respond effectively to new scientific opportunities and health needs. The MRC employs more than 4,000 staff, both in the UK and overseas through its intramural programme and in scientific training and supports capacity building to increase the number of scientists in key and evolving disciplines. Our Strategic Plan for 2004–2007 sets out an aim to develop human resources (HR) policies, procedures and partnerships to ensure effectiveness in attracting the best researchers and continuing to create, re-locate or close its units in line with overall funding strategies.

During 2007/08, the MRC:

- Updated its HR Strategy for 2006–2009, endorsed by the MRC's Council.
- Continued to evolve reward and remuneration systems that are responsive to market and performance, and cost-effective.
- Worked with our new Chief Executive to evolve the system for intramural governance and appraisal of directors.
- Implemented a new 'Build-Grow-Help them Go' model for employment across units to support quinquennial review reporting and 'People Planning' more generally.
- Implemented a new SAP HR system as part of the MRC's enterprise resource planning solution to provide high-quality management

information, and improve decision-making across the MRC.

- Consulted on and published schemes and action plans to support gender issues alongside race and disability as part of our diversity programme.
- Worked jointly with the other research councils on the RCUK Shared Service Centre project.
- Maintained an overview of the outcomes of stress audits and other indicators of workplace stress across the intramural programme, including an overall action plan.
- Continued to apply the Investors in People 'diagnostic toolkit' to further units as part of the wider programme to achieve accreditation of all units.
- Celebrated the graduation of our first cadre of graduates from our accredited Certificate in Management.
- Introduced an improved outplacement Scheme in Partnership with Penna Consulting.

## Diversity and equal opportunities

The MRC values the diversity and experience of its employees and is committed to achieving equality of treatment for all. It is our policy to ensure that no applicant for employment, or employee, receives less favourable treatment than another, or is disadvantaged by requirement or conditions, which cannot be shown to be justifiable, on the grounds of race, ethnicity, colour, nationality, gender, marital status, sexual orientation, gender re-assignment, religion, faith or philosophical belief, age or disability. The average number of disabled persons employed at any time during the year was 57.

A total of 588 permanent employees joined the MRC during 2007. Of these, 59 per cent were women. We have continued to attract employees from a wide range of ethnic backgrounds as shown in figures 6.

FIGURE 5 – NEW STARTERS – GENDER ANALYSIS

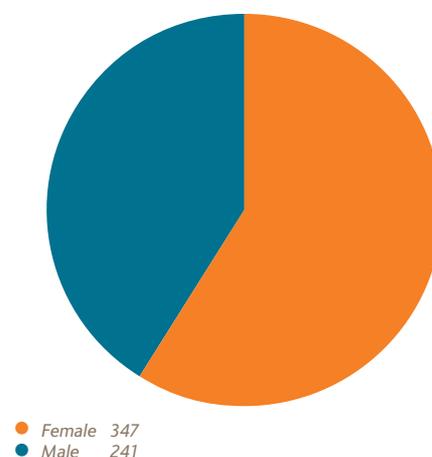
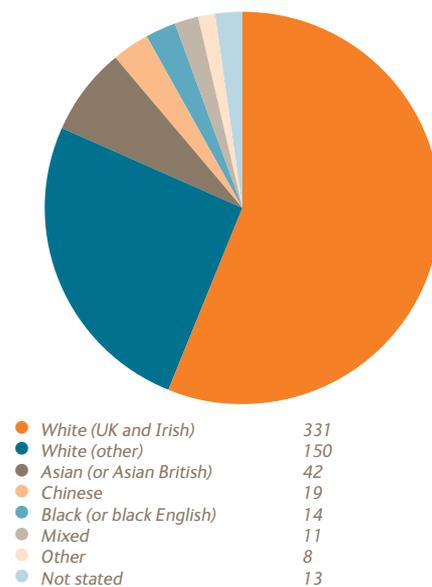


FIGURE 6 – NEW STARTERS – ETHNIC GROUP ANALYSIS



Based on 588 new starters who reported ethnic origin.

During 2007, a pilot programme of seven diversity awareness workshops was developed and delivered across all sites. The initial feedback from this training has been extremely positive. The Corporate Governance and Communications, Science Guidance, and Human Resources and Procurement sub-committees continued to implement the Gender, Race and Disabilities equalities schemes and impact assessed 21 policies.

The Women in Science strategy document was approved and a number of actions were taken forward throughout the year to improve awareness (for example, keynote presentations and poster displays at dedicated conferences).

In the coming year, priorities include the appointment of a dedicated Equalities Manager, the introduction of further Diversity Awareness training across the MRC, and plans to address a number of equality issues such as flexible working and women in science.



# SECTION FIVE

Working in partnership

**In fulfilling its mission the MRC works with a broad range of stakeholders within the UK and internationally. Working with other research funders, particularly across government departments and the charity sector, allows us to develop joint approaches and to align strategy and priorities. These relationships play a major part in maintaining vital support for research and skills, and in increasing the impact of publically-funded research. National and international Partnerships enhance the role the MRC can play in the progression of knowledge on a global level.**

The impact of some of our key relationships are highlighted here. Our partnerships in public engagement, which support dialogue and stakeholder involvement, are described more fully in **Public engagement**. Relationships with industry are covered in more depth in **Translating discovery**.

## NIHR AND THE HEALTH DEPARTMENTS

As outlined in the section on **Strategic coordination**, the MRC is working with NIHR under a strategic partnership to deliver outcomes for healthcare, and to maximise the translation of basic science discoveries into benefits for human health. Each partner has innovative plans for investing the extra £355 million for publicly-funded health research from the Comprehensive Spending Review 2007 (CSR2007). Our strategies, coordinated under the auspices of the Office for the Strategic Coordination of Health Research (OSCHR), focus on five key areas – translational research, public health research, e-health records research, research methodology and human capital. The health departments of the devolved administrations – Wales, Scotland and Northern Ireland – have been contributing to a UK-wide

programme of activity brought together by OSCHR. Together the partners will establish health research priorities for the UK, based on burden of disease and scientific opportunities.

## THE UK RESEARCH COUNCILS

The strategic partnership Research Councils UK (RCUK) drives the coordination and harmonisation across the research councils. Led by research council chief executives, RCUK aims to optimise the ways in which the councils work together to deliver our goals and to enhance the impact of UK research, training and knowledge transfer. Over the CSR2007 period, the research councils will be working together to deliver six cross-council programmes. The MRC is leading the programme on Ageing – Lifelong Health and Wellbeing and will contribute significantly to the Living with Environmental Change and Digital Economy programmes. Further information on the MRC's CSR2007 settlement and our contribution to cross-council programmes is found in **Delivering knowledge**.

As part of the Department for Innovation, Universities and Skills (DIUS) research council harmonisation agenda, the MRC has been actively involved in the implementation of the cross-council collaboration to establish an RCUK Shared Service Centre (SSC). The SSC, which will be based in Swindon, will provide shared corporate support services to all councils by the end of 2009. Further information on the SSC is found in **Increasing business effectiveness**.

## WORKING WITH UNIVERSITIES

Universities are key partners in helping the MRC to deliver our research strategy, accounting for

over £230 million of research expenditure in 2007/08. The MRC's grant schemes and training awards are open to all UK universities and we made awards to around 40 higher education institutions in the last year, details of these awards can found on our website at [www.mrc.ac.uk](http://www.mrc.ac.uk).

Shortly after taking up the position of MRC Chief Executive, Sir Leszek Borysiewicz began a series of visits to universities, initially focusing on universities receiving the largest amounts of MRC funding and those that offer strategic opportunities. The programme of visits will continue throughout 2008. These formal and informal interactions provide valuable opportunities to explore new ways of working that may include new mechanisms for implementing the MRC's translation research strategy.

## INTERACTIONS WITH INDUSTRY

Effective relationships with industry are essential to accelerate the translation of knowledge into practice. Over the last 12 months we have increased the level of interaction with the pharmaceutical and biotechnology industries, increased the representation of industry experts on our research boards and panels (from three to nine out of a total of 89 members) and have expanded funding schemes which support links between scientists in the academic and industrial sectors. We have introduced a £3m award scheme to support collaborative projects emerging from the MRC-industry showcase events, now in their second year.

Further details of how we have been developing our relationships with individual companies and with representative bodies to underpin our strategy is in **Translating discovery**. Priorities for the coming year include aligning objectives for training and capacity development, and increasing the earmarking

of funds for collaboration with industry, including coordinated calls for proposals with the Technology Strategy Board and initiatives to increase industrial participation in centres of excellence. We are also aiming to establish a high-level MRC Pharmaceuticals Forum to oversee strategic interaction between the MRC and the R&D-based pharmaceutical business. The MRC is consulting with the Association of the British Pharmaceutical Industry and the BioIndustry Association on forum membership.

## WORKING WITH MEDICAL RESEARCH CHARITIES

Working with charities is an important way to increase the impact of our funding. Partnership with individual charities and the Association of Medical Research Charities (AMRC) raises awareness of the research we fund. We also develop strategy with charities, working on joint approaches and plans that often lead to joint funding projects. Joint funding with charities for initiatives and individual awards adds significantly to the research we alone can support, particularly in training and capacity building in under-represented disciplines and priority areas.

Partnerships allow the sharing of best practice and contribute to the development of policy and practices. The outcome of key relationships with the charity sector are described below, other partnerships in communication and developing joint policy and procedures are described in the sections **Working in partnership** and **Promoting best practice in research**.

In April 2007, we hosted a training day for AMRC, building on earlier work that helped develop AMRC's training programme for medical charities for peer review. The event, attended by around 20 delegates, included policy discussions, sharing best practice and practical

advice on undertaking peer review. The MRC has also assisted the Comparative Clinical Sciences Foundation in developing its scientific strategy, by helping to assemble an expert advisory panel.

The Motor Neuron Disease (MND) Association and the MRC have together pledged £15m over five years to support high-quality research aimed at finding new treatments and cures for this debilitating neurodegenerative condition. The MRC and the MND Association have also recently set up the jointly-funded Lady Edith Wolfson Fellowship scheme, which will support clinicians who pursue research on the disease process and treatments. In December 2007, experts in motor neuron disease, other scientists and lay experts from the MRC public panel contributed to research discussions and identified how to advance the field. Delegates agreed that the research should focus on hunting for MND genes, investigating biomarkers and developing better animal models.

In 2007, we jointly funded a project with the Multiple Sclerosis Society entitled 'Pathological and imaging exploration of progressive disability in multiple sclerosis', at the University of Nottingham. We also jointly funded Multiple Sclerosis Society Clinical Research Training Fellowships.

In 2007/08 in partnership with the Alzheimer's Research Trust and Kidney Research UK the MRC awarded two more joint clinical fellowships. These provide training for medics and associated professions for a career in academic research. There were also joint funding arrangements with a number of other charities, including the Chronic Granulomatous Disorder Research Trust, the Cystic Fibrosis Trust and the newly established Lady Edith Wolfson Fellowship scheme, jointly funded with the MND Association. There were no joint fellowship awards with these charities during 2007/08, but funding will continue to be available in the coming year.

During 2006/07, the MRC, together with Asthma UK, the British Lung Foundation and the British Thoracic Society, awarded 21 studentships to build capacity in respiratory research. The first 13 of these started in October 2007, with

another eight due to begin in October 2008.

Working with the National Cancer Research Initiative (NCRI), the MRC, the Department of Health, Marie Curie Cancer Care, Macmillan Cancer Relief and Cancer Research UK are jointly funding the NCRI Research Collaboratives scheme for Supportive and Palliative Care (SuPaC). The partners issued a call for proposals for research in this area which will be of direct benefit to lung cancer patients, and are encouraging interdisciplinary collaborations. The shortlisting stage has taken place and awards will be made later in 2008.

Collaborative partnerships, such as the National Prevention Research Initiative and the development of the UK Centre for Medical Research and Innovation, also involve significant collaborations with the charity sector. The British Heart Foundation (BHF) has contributed £1m each to two recent calls for proposals on biomarkers and experimental medicine. Out of the 18 awards for biomarkers projects, seven are supported in partnership with the BHF.

## THE MEDICAL RESEARCH FOUNDATION

The MRC continued to work in partnership with the trustees of its independently managed charity, the Medical Research Foundation. The public make bequests and donations to the charity to support MRC research. During 2007/08, the MRC provided the trustees with peer review and administrative support, and advice on the foundation's emerging funding strategy. With this support, the trustees were able to make 36 new awards and increased spending on research within the MRC's remit to £820k.

In the coming year, the MRC will advise the trustees on emerging research priorities. Trustees intend to use this advice to further develop the foundation's funding and fundraising strategies.

## INTERNATIONAL PARTNERSHIPS

Research is becoming more competitive on a global level. To ensure that the MRC maintains its international reputation for high-quality science, we need to engage with the best minds, ideas and resources, wherever they are located. This is a view that was supported by the House of Commons Science and Technology Committee's Inquiry into the international activities of the research councils in May 2007.

The MRC has been working with the other research councils to establish new offices in China, India and the USA. The MRC has led the project to establish an RCUK office in Beijing and is the managing council for the office. The office was formally launched in October 2007 by John Denham, Secretary of State for Innovation, Universities and Skills, and Vice-Minister Li Xueyong of the Chinese Ministry of Science and Technology. Further information about the office in China can be found at: [www.rcuk.cn](http://www.rcuk.cn).

RCUK launched its Washington office at a reception at the residence of the UK Ambassador to the USA in November 2007. The office in Delhi will open later in 2008. All three offices will promote the UK as a world centre for research and innovation, and provide researchers with more information about the research landscape, potential partners and funding opportunities. They will enable the research councils to establish closer links with other funding agencies and support UK researchers in accessing data, facilities and resources and in influencing the international research agenda.

### Leadership and strategy

Sir Leszek Borysiewicz has agreed to act as champion for European activities for the research councils and UK representative to the European Heads of Research Councils

“THE UK AND CHINA ARE AT THE FOREFRONT OF CUTTING EDGE SCIENCE. THIS NEW OFFICE HAS THE POTENTIAL TO HELP MANY MORE SCIENTISTS AND RESEARCHERS THINK THE BIG IDEAS AND DELIVER THE ANSWERS TO SOME OF THE WORLD’S BIGGEST PROBLEMS: CURING DISEASES; POWERING HOMES AND INDUSTRY MORE EFFICIENTLY; SAVING THE PLANET FOR FUTURE GENERATIONS; TRANSFORMING MILLIONS OF PEOPLE’S LIVES FOR THE BETTER.”  
SECRETARY OF STATE FOR INNOVATION, UNIVERSITIES AND SKILLS, JOHN DENHAM, UK-CHINA SYMPOSIUM, BEIJING (NOVEMBER 2007)

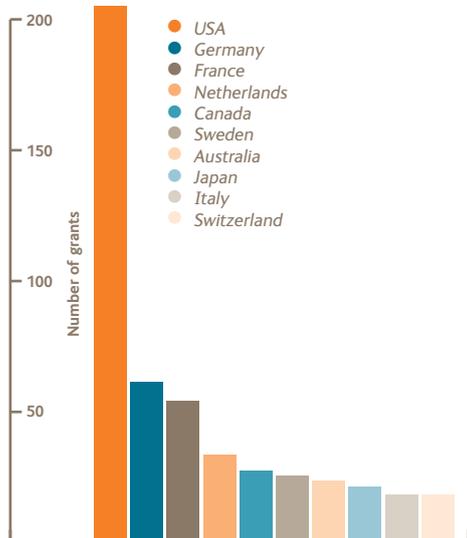
(EuroHORCS). During 2007/08, the European Medical Research Councils developed a ‘white paper’ outlining the current status and future strategies for biomedical research in Europe. The white paper, which called for an increase in European spending on biomedical research to nurture an active and competitive medical research community, was launched at a press briefing in Frankfurt in January and has been favourably received by the Commissioner for Research, Dr Janez Potocnik.

In spring 2007, the MRC agreed that the UK should join the International Neuroinformatics Coordinating Facility (INCF). This global initiative to coordinate and foster international activities in neuroinformatics was established in August 2005 following recommendations from the Global Science Forum of the Organisation for Economic Co-operation and Development. As one of 14 countries who have joined this facility, membership allows the UK input into INCF’s key activities and strategic development ([www.incf.org](http://www.incf.org)).

### Collaboration between researchers

International collaboration through MRC research grant funding remains stable. Around one third of currently active grants involve collaboration with researchers overseas. The USA remains the lead partner (accounting for 33 per cent of all partnerships) with Germany (10 per cent), France (8 per cent) and The Netherlands (5 per cent) following, as shown in figure 7.

**FIGURE 7 – INTERNATIONAL COLLABORATION ON CURRENT MRC GRANTS**



## Infrastructure and funding

The MRC provided almost £13m to support subscriptions to the Human Frontier Science Program, the International Agency on Research in Cancer and the European Molecular Biology Laboratory. These subscriptions support international collaboration in providing support for infrastructure and mechanisms to promote the interaction and movement of researchers.

To facilitate the development of new European infrastructure, the MRC is a funding partner in the six proposals for research infrastructure in the life sciences which emerged from the European Commission-funded Strategic forum on Research Infrastructures (ESFRI). All six proposals received funding from the commission for a two-year preparatory phase during which the scientific legal and financial case for developing new infrastructures will be discussed and prepared.

The MRC is participating in three EU-funded ERA-Net projects which aim to develop and coordinate publicly funded research programmes.

- The 'Network of European Funding for Neuroscience Research' (NEURON), established in January 2007 launched a joint call for proposals for trans-national research projects in neurodegenerative diseases to encourage research in understanding basic mechanisms of neurodegeneration through to proof-of-concept clinical studies in people.
- The MRC joined a new ERA-NET for instrumentation in the life sciences which will explore further opportunities for infrastructure funding in the life sciences.
- The World Health Organization identified Medicines for Children as a major public health need. The MRC secured around £300k of EU funding to work with other EU partners on the establishment of a European research agenda to define research priorities for medicines for children research across Europe. The MRC leads the central work package in partnership with the Department of Health supported Medicines for Children Network (MCRN) in Liverpool.

The MRC provided around £50k during the last year to support MRC units to develop proposals for support under the seventh European Commission framework programme. The MRC represents the UK on the programme management committee for health and provides the academic national contact point for health. During the first round of the seventh framework programme, the UK was awarded 15.7 per cent of the budget available in the cooperation theme for health (€102m out of the €652m available). This was second only to Germany (17.9 per cent) and significantly ahead of the third largest recipient, France, which was awarded 10.6 per cent. The success rate for UK applicants in the first call health was 20 per cent; MRC units and institutes had a similar success rate of 25 per cent.



# SECTION SIX

## Public engagement

**During 2007/08, the MRC communications team focused on implementing strategic objectives to foster dialogue and stakeholder involvement; to support and encourage our scientists to engage with the public; and to explain and promote the link between research and the health of the public. We also worked to improve the methods we use to communicate directly with our researchers in universities and in our own units and institutes.**

Our four regional communication managers, in their second full year of activity, provided more media and public engagement training sessions for our scientists; added to the number of opportunities available to our scientists to use their new communication skills; and further embedded communications into the units' programmes by helping them develop their own annual communication plans. At MRC Head Office, communications was divided between communicating corporate policy and promoting the results of MRC-funded research. Highlights included the Max Perutz writing competition for PhD students with author Ian McEwan on the judging panel; a communications award for the 2006/07 annual review *People Behind Discovery*, and the launch, with the Biotechnology and Biological Sciences Research Council (BBSRC), of the biggest national public dialogue project ever held on stem cell science.

## FOSTERING DIALOGUE

### PUBLIC INVOLVEMENT

During 2007/08 we launched our Public Panel, a network of individuals whom we are able to call on to provide a broad range of public views, experiences and expertise to different aspects of the MRC's work.

The Public Panel members come from a variety of backgrounds, and have lay expertise in different aspects of healthcare and medical research – either through association with a medical research charity, or through their personal experience as a patient or carer of a patient with a particular illness or condition. The main criterion is that their individual expertise is appropriate for the activity they are taking part in. We place great importance on ensuring that activities are appropriate and suitable both to the work of the MRC and the lay members we involve.

Current and recently completed projects involving lay members include:

- Patient research cohort initiative panel.
- Motor Neuron Disease Association and MRC joint workshop.
- National Prevention Research Initiative – scientific committee.
- UK Stem Cell Bank steering committee.

The MRC continues to work closely with other organisations under the banner of the UK Clinical Research Collaboration to encourage joint working and add value to individual patient and public involvement projects. During 2007, we were involved, alongside organisations such as INVOLVE and the Association of Medical Research Charities, in developing a patient and public involvement strategy for the UK Clinical Research Collaboration.

### PUBLIC CONSULTATION

The largest project ever conducted in the UK on public attitudes towards stem cell research is currently being undertaken by the MRC and the BBSRC. The project, funded through the Government's Sciencewise scheme ([www.sciencewise-erc.org.uk](http://www.sciencewise-erc.org.uk)), is due to finish in summer 2008 and has several aims including raising awareness among the public of the challenges and opportunities associated with stem cell research; and encouraging dialogue between the research community and the public.

The British Market Research Board is running the project on behalf of the research councils.

During 2007/08 several activities have taken place including a stakeholder meeting to discuss issues and terms of reference for the programme; a media launch event at the Science Media Centre, and the completion of a series of in-depth interviews with key stakeholders.

### WORKING WITH PARLIAMENTARIANS

We continue to work closely with parliamentarians, primarily through the All Party Parliamentary Group on Medical Research. We have also played a leading role in providing scientific briefing for parliamentarians on the Human Fertilisation and Embryology Bill. Several times during the debates the MRC and its partners, the Academy of Medical Sciences and the Wellcome Trust were praised for the concise and clear briefings provided.

Parliamentary Select Committee Inquiries and consultations across government and other bodies also provide valuable opportunities to influence the development of policy across a broad spectrum of issues relating to health and medical research. During 2007/08 we participated in over 35 consultations and inquiries, either directly, through Research Councils UK (RCUK), or in conjunction with the other research councils. These contributions cover a diverse spectrum and include inquiries relating directly to the MRC such as the development of the new UK Centre for Medical Research and Innovation (UKCMRI) and the introductory hearing for the MRC Chairman, broader strategic issues such as the Science and Innovation Strategy 'The Race to the Top', the role and value of population statistics collected by the Office of National Statistics and the HMT consultation 'Counting the Population', and the science and research strategies of government departments. A summary of contributions is shown in table 2 below. Copies of the submissions can be found on our website ([www.mrc.ac.uk/PolicyGuidance/PublicEvidence/index.htm](http://www.mrc.ac.uk/PolicyGuidance/PublicEvidence/index.htm)).

**TABLE 2 – CONTRIBUTION TO INQUIRIES AND CONSULTATIONS**

| Body                     | 2007/08 submissions |
|--------------------------|---------------------|
| Select Committees        | 13                  |
| Government consultations | 12                  |
| Parliamentary parties    | 0                   |
| Regulatory bodies        | 3                   |
| European Commission      | 1                   |
| Other bodies             | 7                   |

We continue to support placements for MRC PhD students and the Parliamentary Office of Science and Technology. In 2007, Fiona McKewen, a student at the Institute of Psychiatry, King's College London, won the placement.

## WORKING IN PARTNERSHIP

The MRC continued to work with the research councils to implement the RCUK Science and Society strategy, which sets out RCUK's aims for collaboration on public consultation, working with schools, and incentives for scientists to engage with the public.

In collaboration with BBSRC, under the RCUK banner, we developed an exhibition on ageing research. The exhibition, part of the cross-council Ageing – Lifelong Health and Wellbeing programme, was launched at a parliamentary event in November 2007 and will tour the country during 2008. The successful MRC-BBSRC exhibition on stem cell science called 'Hope not Hype', launched in 2006, continued to draw interested members of the public to dialogue events at science centres throughout the UK.

During the year, we also worked with the National Institute for Health Research (NIHR)

and the Association of British Pharmaceutical Industry (ABPI) to organise a stakeholder conference titled 'Healthcare Innovation: the next frontier'. Focusing on healthcare innovation, the conference provided an opportunity to demonstrate the potential of the three organisations working more closely together.

Last year, the MRC participated in a number of communication coalitions – joining forces with external partners for increased impact. An example is the Coalition for Medical Progress (CMP), which is made up of organisations from all sectors involved in research using animal models. We continued to play a leading role in the UK Stem Cell Communications Coalition and in the newly formed communications group for the National Prevention Research Initiative (NPRI).

## EXPLAINING THE LINK BETWEEN RESEARCH AND THE HEALTH OF THE PUBLIC

### PRINT COMMUNICATIONS

We produced more than 50 publications and event support materials during the financial year and advised a range of MRC groups on their publications needs. The *2006/07 Annual Review: People behind discovery* won a CorpComms Award for best not-for-profit annual report. These awards are given to organisations that best demonstrate "excellence in corporate communications". The review was praised for being "educational and informative" and for changing "perceptions of research".

Our newsletter, *MRC Network*, which is distributed to MRC-funded scientists, opinion-formers, other stakeholders, the media and the public, underwent a dramatic re-design in 2007 and is now produced bimonthly. It now

has a more magazine-like feel, with emphasis on providing up-to-date news and features alongside information about MRC policy developments. We also continued to update and modernise our other publications, including *Key Facts*, a booklet introducing people to the organisation. We updated *MRC research for lifelong health: Stem cells*, and continued this series with an edition about the brain, due out in summer 2008.

In 2007/08 we began work on a branding microsite and our branding guidelines, which will be rolled out to all staff in spring 2008. We carried out photoshoots at a number of MRC units and centres, enabling us to further develop our extensive image bank.

### WEB COMMUNICATIONS

Since we launched the new MRC website at the end of 2006, we have continued to make improvements to its functionality, content and structure. During 2007 we implemented a new online form system. This has been used very successfully to survey MRC staff about internal communication, for funding applications, to facilitate public engagement and to obtain feedback about the site. In November 2007 we commissioned an external agency to test the site for usability and benchmark it against those of other research organisations. The testing showed that users found the site useful, relevant and easy to use. We have continued to develop email newsletters and RSS feeds and expand the number of people who use these features, and launched podcasts to support the news and features section of the site.

As part of our aim to communicate the wider benefits to society of our research outputs, we are producing 'case studies' – termed *Stories of discovery*, published on our website. Stories on the following subjects were published on the website during the year:

**Flu**  
**HIV and behaviour in the UK**  
**Iron supplements**  
**Measles**  
**Obesity**

**Optical Projection Tomography - a better way to view tissues and genes**  
**Schizophrenia**  
**Stem cell research**  
**Tuberculosis**

These were grouped with information on health topics for ease of access on the website.

We have also launched a new part of our website targeted at our existing and potential grantholders, entitled 'Funding for Health – New Research Opportunities' ([www.mrc.ac.uk/Opportunities/index.htm](http://www.mrc.ac.uk/Opportunities/index.htm)). The page covers details of the MRC's funding opportunities, especially those under the MRC and NIHR strategy for health research. During the year, announcements included changes to MRC clinical trials funding arrangements, methodology research, cell therapy research and health technologies, regional hubs for clinical trials methods and models of disease. The site also includes details of other MRC research opportunities and policy news.

#### **WORKING WITH THE MEDIA**

The MRC maintained a strong media presence during 2007/08, with high levels of national coverage in print, online and broadcast media. MRC scientists' achievements continued to reach a wide public audience. Research that was of most interest to the press included progress in development of stem cells for treatment of degenerative eye diseases, stunning images that highlighted how fruit flies are used in genetic research into human conditions and the announcement that the MRC is to partner the Wellcome Trust, Cancer Research UK and University College London to build the new UKCMRI.

Increased political and public scrutiny of both UK health research strategies and the wider global scientific agenda this year has meant that the MRC has been in and out of the media spotlight. To ensure and enhance our reputation nationally and internationally, we have taken two approaches to media training; there has been strategically-planned generic training for our high-profile scientists who are

regularly interviewed in press, radio or TV; and for scientists working in specific health-related fields that have a high public profile, such as ageing and lifelong health. Our Uganda-based scientists received training on how to manage their involvement with the Ugandan media. There has also been responsive 'issue-led' training to support scientists working on research that suddenly finds itself at the heart of media interest. For example, we have worked closely with those involved in stem cell research related to the Human Fertilisation and Embryology Bill.

In addition to the research results publicised in press releases, selected research papers were highlighted on the MRC news website as web-stories written with the non-specialist in mind. We have also started to make podcasts available on the MRC website. These audio interviews and features represent both a training opportunity for scientists, allowing them to talk about their work in a lay-friendly way and gain experience of a broadcast interview, and the chance to reach new audiences via the internet. The web stories and podcasts helped to boost news and historical content and attract visitors to the website.

With the help of our regional communication managers, we have continued to build relationships with scientists in MRC institutes, units and centres offering support in preparation for media interest in their work, guidance in describing their research achievements in lay language and coordination of filming in response to interest from documentary makers.

#### **PUBLIC COUNCIL MEETING**

Our public Council meeting, 'Faces of Medical Research', was held at Lord's cricket ground in July 2007. The meeting was an opportunity for the public to find out more about the MRC's work and to meet with five of the scientists featured in the 2006/07 annual review. Over 80 people, including students, early career researchers and clinicians, charity representatives and members of the public, participated in a panel discussion with MRC

supported scientists who talked about their work and discoveries, and the pathways that had led them to a career in research. The meeting was also web-cast live and was available to view after the meeting.

Discussions covered a wide range of issues including views on the impact of the Cooksey Review in relation to MRC policy and decision-making structures, our role in supporting researchers in developing international links, issues relating women in science and work-life balance, and impact of other areas of science such as physics and engineering on medical research.

## **SUPPORTING OUR SCIENTISTS IN PUBLIC ENGAGEMENT**

The MRC's continued commitment to engaging with the public about its research means ensuring that our scientists can rise to meet the expectations of a range of audiences: from five-year-olds who want to paint pictures of red blood cells and Women's Institute members who would like to know more about animal welfare policy, to journalists who want the latest on a potential flu epidemic. Compacting a career's worth of science into a few simple sentences or explaining a difficult biomedical concept can be challenging, so investing in excellent training for scientists plays a vital role in successful communication.

To help scientists make the most of their involvement in the round of science festivals in Edinburgh, Cambridge, Brighton and Cheltenham, and events linked to the BA's National Science and Engineering Week, we provided engagement training for over 100 intra- and extramural scientists. With their new skills our scientists have gone on to organise unit open days; arrange schools visits; speak at regional and national events and café

scientifique – a forum for the public to debate scientific issues – hosting politicians and school children alike. They have also supported national schemes such as Researchers in Residence.

Our units and institutes made substantial progress towards developing their own annual communication plans. The plans are intended to help our scientists build a sustainable programme of engagement with stakeholders that can be evaluated for outputs and impact on an annual basis.

## INTERNAL COMMUNICATIONS

During this period of ongoing change for the MRC, we have continued to communicate with our internal stakeholders, both our own staff in units and institutes and our grant-holders in universities, to ensure they are kept up-to-date and informed about the direction in which the MRC is moving and how they may be affected. With the help of our internal communications manager – a new post for the MRC – we are reviewing and streamlining our methods for communicating with our internal community, maximising the effectiveness of existing communication tools and contact points, and providing opportunities for dialogue and two-way communication.

To help raise MRC science and administrative staff's awareness of how medical research is reported in the UK newspapers, the press team emails a summary of science coverage in UK newspapers to MRC staff by 9am daily on week days.

In December 2007, we launched a weekly email for MRC staff entitled 'Policy Watch', covering relevant research policy news in periodicals and journals, upcoming policy events, relevant consultations and mentions of the MRC in Parliament. Since its launch, this news brief has received favourable feedback and its distribution

list has been extended. The email currently goes to all staff at MRC Headoffice, unit directors, Council members, senior unit administrators, MRC Technology and other members of staff in our units and institutes who have requested it.



# SECTION SEVEN

Promoting best practice in research

**The MRC is committed to supporting research of the highest scientific standard, which is conducted safely and respects the wishes and integrity of any patients or volunteers involved.**

The MRC aims to provide leadership in the governance of biomedical research in setting standards nationally and internationally. We work in partnerships with other funders and key stakeholders to develop policies to lever the maximum benefit from public spending on research and infrastructure. We provide guidance to the UK scientific community to implement good practice and to meet legislative and ethical requirements relating to research involving human participants, their tissue or data, and to research involving animals.

Further information on our policies relating to good research practice can be found on our website where there are also key documents and publications.

## SETTING STANDARDS

### Research ethics

During the year, we extended the remit of the committee which provides advice to the MRC on ethical and regulatory issues relating to research to encompass public involvement. The Ethics, Regulation and Public Involvement Committee provided advice to the MRC on a number of issues, including the assessment of the ethical considerations relating to a proposal from a team at the North East England Stem Cell Institute. The project aimed to find ways of improving the efficiency of therapeutic cloning – a technique which would allow scientists to create patient-specific stem cells and develop regenerative therapies for many debilitating conditions such as diabetes, heart disease and Parkinson's disease.

This project involves the MRC reimbursing part of the treatment costs of women undergoing *in vitro* fertilisation (IVF) at the Newcastle Fertility Centre at Life, who choose to donate some of the surplus eggs produced to be used in the research. The committee concluded that it is ethically acceptable and the MRC's Council made the award. It is not a usual MRC policy to provide payment for the treatment of people who participate in research. However, in this case the Council agreed that the women would be taking no additional risks to their health by providing surplus eggs for research and that this would be the only approach that could provide the number of human eggs necessary for this ground-breaking research. The MRC put in place a number of conditions for the award, and as well as ensuring that all the right safeguards are in place to protect participants. An independent social science study, undertaken alongside the main study, has also been funded to learn from women's experiences and to inform future research involving egg donation and payment of IVF treatment costs. The research plans had already been licensed by the Human Fertilisation and Embryology Authority (HFEA), the UK body with the formal responsibility for licensing such work, and had received local research ethics committee approval prior to the MRC decision to award.

The MRC continues to support the Global Forum for Bioethics in Research, which held its eighth Global Forum conference in Vilnius, Lithuania, in July 2007. The theme of the forum was Fostering the Research Ethics Infrastructure in the Developing World/Transition Societies. Special emphasis during the conference was given to the ethical aspects of mental health research.

In October 2007, the MRC published guidance on medical research involving adults who lack the mental capacity to consent to participate in research. This coincided with legal developments that culminated in the passing into law of the Mental Capacity Act 2005. Our guidance sets out the general principles for assessing the capacity to consent of potential research participants. It also explores ways to enable adults who lack the capacity to consent to participate in research projects within the

current legal frameworks and with appropriate protections in place.

We hope that the guidance will help researchers ensure that research involving people who lack mental capacity is conducted in a legally and ethically acceptable manner. It will give confidence to researchers that they can include in their studies adults who lack capacity to consent, in accordance with the safeguards that we require and recommend.

## Regulatory Support Centre

The MRC established the Regulatory Support Centre (RSC) in 2006 to help researchers across the UK to meet the increasing regulatory and governance requirements relating to research involving human participants, their tissues or data. The RSC gives advice and guidance on aspects of research governance and regulation, and provides web tools and other resources, to all MRC-funded researchers.

During 2007/08, the RSC expanded, appointing an additional member of staff to support the training needs of MRC researchers. The centre also initiated a programme of training – the first two series of workshops will deal with the topic of consent and human tissue storage and quality assurance. A second web-based toolkit dealing with experimental medicine research was launched in May 2008.

Working with the UK Clinical Research Network (UKCRN), the RSC launched the UK Clinical Research Collaboration Regulatory and Governance Advice Service, which provides consistent and authoritative advice on a range of regulatory and governance issues. Following a successful pilot, coordinated by the UKCRN and the RSC, the service has been rolled out to all areas of the UK. The service provides advice to local research coordinators, who may be NHS or university-based. Alongside access to online resources and toolkits the service provides a route for handling complex queries, such as those involving more than one regulatory issue.

The service is supported by an advice network comprising representatives of the key regulatory bodies, governance bodies and policymakers.

## Research involving animals

The MRC is committed to refining techniques, reducing numbers, and replacing animals in research if possible (the '3Rs'). Research we support must avoid the use of animals wherever an alternative exists. However, there are still some medical questions which can be answered only by using animals and we believe that some responsible animal research will be essential for the foreseeable future if medical researchers are to make progress in the fight against infectious disease, cancers and genetic, developmental, neurological and psychiatric disease.

Although many MRC research programmes already develop new knowledge or methods that help replace or refine animal use, our major contribution in this area is as one of the main funders of the National Centre for the Replacement, Refinement and Reduction of Animals in Research (NC3Rs). The MRC's funding for the NC3Rs increased again this year, to reach £1.8 million in 2007/08. The NC3Rs promotes the advancement of the 3Rs, bringing together stakeholders in academia, industry, government, regulatory authorities and animal welfare organisations. The NC3Rs provides the MRC with advice and guidance on the 3Rs and animal welfare, for example, reviewing all grant applications involving the use of primates or – in extremely rare cases – cats, dogs or horses.

The NC3Rs published its third annual report in January 2008 ([www.nc3rs.org.uk](http://www.nc3rs.org.uk)). Highlights of the centre's work during 2007/08 include:

- Increased funding for high-quality 3Rs research, with £2.4m invested in 11 grants, £1m more than in 2006.
- Doubling of NC3Rs total income from Government to £5m a year by 2010/11.
- First event held at Westminster to raise awareness of 3Rs research among parliamentarians.

- Development of a new programme of initiatives with the chemical industry.
- Ambitious project to review the use of animals in nausea and emesis research.

During 2007/08, the MRC, the Biotechnology and Biological Sciences Research Council (BBSRC), the Natural Environment Research Council (NERC), the Wellcome Trust and the NC3Rs worked together to develop joint guidance on responsibility in the use of animals in biomedical research. Published in May 2008, the guidance sets out the expectations of the funding bodies collectively for the first time. The implementation of the principles in the guidance, which builds upon guidelines previously developed by the MRC and some of the other partners, is now a condition of receiving funds from the five funding bodies.

In July 2007, the MRC issued a code of practice for the supply and use of aquatic species in research. This is the second publication in this series and follows the same principles as those outlined in the 2006/07 code relating to rodents. The use of aquatic species in research can provide the first step in genetic analysis and thereby reduce numbers of overall animals used for studying a variety of different processes. The code is directed at the MRC's own staff, but also aims to communicate best practice to those working in universities.

## Research integrity

The MRC requires that the scientists we support observe the highest standards of integrity. Allegations of scientific misconduct are rare. When they occur, the MRC takes them very seriously. In situations that involve researchers in a university, the MRC will draw the university's attention to the allegation and request that the university invokes its procedure for investigating such allegations. Where the allegation is that an MRC employee has acted improperly, as part of its responsibility to Parliament, the public and the scientific community, the MRC investigates them fully

through its formal Scientific Misconduct Procedure, and reports to Management Board on the outcomes. Since 2006, Research Councils UK (RCUK) has conducted a survey of good research conduct on behalf of all the of the research councils. There were no allegations of scientific misconduct during 2007/08.

In April 2007, the Government announced an inquiry on human tissue analysis in UK nuclear facilities. The inquiry, which is confidential, is chaired by Mr Michael Redfern QC. Its terms of reference and other details are on the inquiry's website ([www.theredferminquiry.co.uk](http://www.theredferminquiry.co.uk)). The MRC was identified as having been involved in research on the biological effects of ionising radiation and on radiological protection between 1955 and the present. The MRC is cooperating fully with the inquiry and will publish the formal evidence it has provided when the inquiry has reported.

## INCREASING ACCESS TO RESEARCH FINDINGS

### Open access publishing

The MRC is a champion of 'open access' publishing in science. The aim is to make high-quality peer reviewed publications freely available to a wider audience, to help support and advance biomedical research worldwide. This takes two forms: first, authors may pay publication costs and retain copyright when their papers are published, rather than the copyright being transferred to the scientific journal and, second, published papers are deposited in a freely accessible repository. This means that the papers are available online without the need for journal subscriptions, and access to papers is free of charge.

Our policy, which we introduced in 2006/07, is mandatory for all MRC grantholders whose proposals were submitted after 1 October 2006, and for all MRC establishments for manuscripts submitted for publication after 1 June 2007. Whether a paper is wholly or partially funded by the MRC, our policy mandates that electronic copies of papers must be freely available from PubMed Central (PMC) and other PMC international repositories such as UK PubMed Central (UKPMC) within six months of publication.

Since the launch of the policy, we have also continued to provide support and guidance to our researchers to aid successful implementation of the new policy. Not all publishers offer an open access option for submitting papers to their journals, so we are negotiating and working with publishers to develop suitable options for our researchers. Our scientists are also negotiating directly with non-compliant publishers for open access options. During 2007/08, several publishers have incorporated options into their publishing models to enable compliance with our open access policy: examples of these include Elsevier, the American Association of Immunologists, Portland Press, and the American Association for the Advancement of Science.

## Enabling new research uses of MRC-funded research data

The MRC works with researchers and other funders on policies to promote sharing and preservation of research data as part of our responsibility to lever the maximum benefits from publicly funded research. Research datasets from populations, particularly longitudinal cohorts, can prove particularly valuable, however, there are some barriers to data sharing. Some are purely technical due, for instance, to the way data are labelled in different studies or the diversity in software used by researchers. However, barriers also exist

in the different expectations that researchers have of the proper balance between the interests of data creators and of other scientists who would like access to the data for their own independent use.

During 2007, the MRC published guidance for researchers on the governance of access to datasets. The principles address the need to balance the interests of data creators, custodians, users and study participants, while adhering to statutory and other regulatory requirements, and ensuring transparency and an independent input to the processes by which a study team decides whether or not to provide access and under what terms and conditions.

The many regulatory and good practice requirements for research can be confusing. The MRC Data and Tissues Toolkit draws these requirements together in one place to help researchers plan and obtain approvals for new studies. Launched in October 2007, the toolkit uses the same route map approach as the existing MRC-Department of Health Clinical Trials Toolkit.

Lack of visibility is another obstacle to accessing existing studies for new research. A step forward was the launch in 2007 of a web-based, searchable directory of population datasets relevant to mental health research. The directory, maintained by the UK Mental Health Research Network, is based on a survey commissioned by the MRC in 2006. The directory describes 'What's in the box' for each individual study and can be searched using terms that researchers commonly use.

Pilot work with the MRC's 62-year-old National Survey for Health and Development demonstrated that enhancing data sets to enable sharing has benefits for the primary researchers. Strategies for sharing can also give today's curators faster and more accurate access to historic data for their own research.

The exploratory work with the mental health cohort directory and the National Survey provides prototypes and lessons for the planned MRC Data Support Service. To create

the service, the MRC is procuring external services to provide essential capabilities to enable dataset discovery and to enhance data management practices for better sharing and preservation.

# SECTION EIGHT

Supporting research excellence

The main factors in MRC funding decisions are the quality of the research and its potential significance in terms of improving human health. The proposals we receive are stringently reviewed by a core of scientific experts, including our research boards, our College of Experts and other external UK and international expert referees. The work we support, in universities, hospitals, and in our own and other research institutes, aims to address important scientific questions and gaps in existing knowledge, taking account of prospects for good scientific progress and resources.

In 2007/08 our total research spend was £579 million and supported:

- Over 1,000 grants to researchers in universities and medical schools, amounting to around £178m.
- Over 500 programmes within the MRC's own research institutes and units, amounting to around £343m.
- Training awards for over 1,400 postgraduate students and over 300 fellows, amounting to £58m in 2007/08.

## SUPPORTING RESEARCH IN UNIVERSITIES, MEDICAL SCHOOLS AND RESEARCH INSTITUTES

The MRC supports research through a range of grants and personal awards to scientists in universities, medical schools and other research institutes. The schemes which comprise our extramural research programme are designed to:

- **Fund high-risk/high-impact work:** studies which may be the basis of longer-term research; enhanced clinical research training; better support for 'early career' researchers;

simpler, more flexible support for collaboration between grant-holders.

- **Encourage multidisciplinary working,** with forward-looking research strategies, greater emphasis on outputs and national needs, and greater transparency of funding and accountability.
- **Target funds** towards the most productive individuals and groups through a small number of grant schemes with flexible scale and duration – driven by research needs and not by funding and duration limits.
- Fund individual **centres of excellence.**

The MRC received around 1,141 grant applications during 2007/08 and made 307 awards. A breakdown of applications and awards is shown in table 3 below. Information on the MRC's large investment programme can be found below and studentships and fellowships are reported in **Developing people.**

## Calls for proposals

The MRC issues targeted calls for proposals to stimulate research in strategic priority areas identified through the spending review cycle and in other areas approved by the MRC's Council. These calls are time-limited with awards made as strategic grants, within the available budget. In 2007/08 the MRC managed six calls for the proposals and issued seven new calls: 131 of the total 1,141 grant applications considered last year were submitted in response to specific calls. A summary of these calls is shown in table 4 and further information on the outcome of these calls and key awards can be found in **Delivering knowledge** and **Translating discovery.**

TABLE 3 – APPLICATIONS AND AWARDS BY GRANT TYPE

| Grant type   | Number of applications | Number of Awards | Amount awarded (whole life value) (£k) |
|--|------------------------|------------------|--|
| Centre Grants <sup>1</sup>                                   | 11                     | 7                | 18,739                                 |
| Collaboration Grants   | 7                      | 4                | 977                                    |
| Discipline Hopping Awards                                    | 40                     | 15               | 1,440                                  |
| LINK Grants  | 2                      | -                | -                                      |
| New Investigator Awards/<br>New Investigator Research Grants | 157                    | 37               | 11,924                                 |
| Research Grants  | 898                    | 233              | 143,273                                |
| Trial Grants <sup>2</sup>                                    | 26                     | 11               | 13,579                                 |
| <b>Total</b>   | <b>1,141</b>           | <b>307</b>       | <b>189,932</b>                         |

(Data correct at 16 May 2008)

<sup>1</sup> Renewals and invited full proposals only

<sup>2</sup> Full proposals after outline stage

Ongoing calls include:

- Biomarkers.
- Derivation of clinical grade embryonic stem cell lines.
- Experimental Medicine 2.
- Hubs for trials methodology research.
- Methodology research programme.
- Models of disease.
- Patient research cohorts initiative.
- Research platform for induced pluripotent stem (iPS) cells.

Plans for the coming year include calls for applications involving research on addictions, development pathway funding, motor neuron disease, pre-clinical and disease focused research networks, the National Prevention Research Initiative (NPRI) third call and UK Clinical Research Collaboration translational infection research.

## Assessment and award commitments

During 2007/08, all applications were considered by the MRC's peer review process within 26 weeks of submission. All applicants received an acknowledgement of receipt and guidance on the timetable for consideration. Feedback was provided on all proposals within seven working days of a decision being made (based on a sample of applications from each board round). Details on all of the MRC's grant schemes, award rates and information about recent awards can all be found on the our website ([www.mrc.ac.uk/ApplyingforaGrant/index.htm](http://www.mrc.ac.uk/ApplyingforaGrant/index.htm)).

Over each of the last five years, the MRC has continued to increase the amount of money committed to new grant applications, as shown in figure 8.

The MRC has continued to fund a high proportion of high-quality (internationally competitive) grant applications. In 2007/08 they funded 92 per cent of internationally-competitive applications as shown in figure 9.

TABLE 4 – 2007/08 CALLS FOR PROPOSALS

| Call                                      | Number of applications | Number of Awards | Amount awarded (whole life value) (£k) |
|---|------------------------|------------------|--|
| Discipline hoppers                        | 40                     | 15               | 1,440                                  |
| Intervention evaluation study platforms   | 34 full applications   | 12               | 4,700                                  |
| Milstein fund awards                      | 15                     | 7                | 2,000                                  |
| NPRI (second call)                        | 21                     | 14               | 2,680                                  |
| Pilot Industry Collaboration Award Scheme | 4                      | 3                | 505                                    |
| Translational vaccine research            | 31 full applications   | 5                | 3,000                                  |

FIGURE 8 – NEW GRANT COMMITMENT BY FINANCIAL YEAR (WHOLE LIFE VALUE £M)

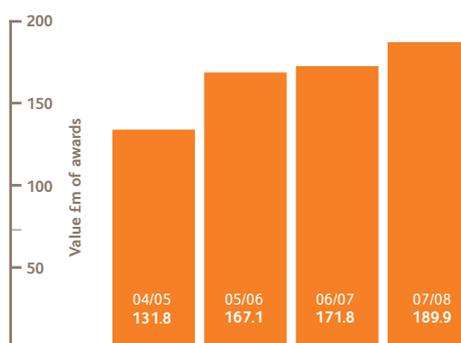
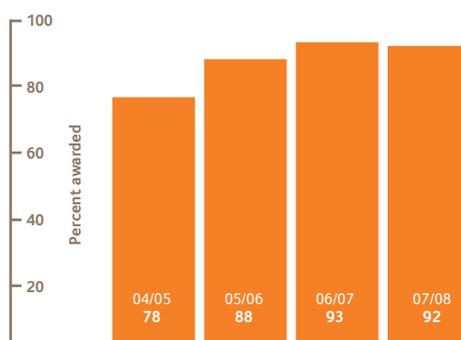


FIGURE 9 – SUCCESS RATE OF INTERNATIONALLY COMPETITIVE GRANT APPLICATIONS



## Large investments: supporting research in research units, institutes and centres

The MRC's large investment programme enables us to deliver key strategic goals in a way that would be more difficult through individual response mode grants. The MRC's intramural programmes continue to play a vital role in enabling key strategic goals to be achieved in a way that would be more difficult through extramural funding. This is because they allow the MRC to nurture areas of importance to health that are not well represented in universities, and enable more long-term support and more of a focus on research as opposed to other academic duties. Dedicated research units enable the MRC to respond flexibly and quickly to sudden health developments or to provide special capability for translating research into healthcare and practice.

Such support also allows the MRC to meet strategic needs for resources, services or facilities, and enables more long-term support with a greater emphasis on research in relation to other academic duties. It also supports high-quality, cost-effective research and career development and training.

The MRC large investment programme is delivered through institutes, research units and centres. There are currently:

- **Three institutes** which have a broad but cohesive long-term (at least 15 years) inter and multi-disciplinary approach. The MRC institutes offer maximum flexibility to engage in innovative 'risky' research, avoiding traditional university-style departmental boundaries.
- **29 units, including two in Africa**, which meet a scientific strategic need. Our units provide a tailored environment in which long-term support can flourish in the context of the MRC's overall mission.
- **25 centres, and one joint initiative** support long-term partnerships between the MRC and UK universities, with dedicated commitment and investment from both partners. The aim of the centres is to help universities develop and sustain centres of excellence with clear strategic direction in areas of importance for UK medical research. They are created to provide intellectually stimulating and well-resourced environments which not only are attractive to established researchers but will also encourage the most able young scientists to take up a career and remain in the UK.

During 2007/08, the MRC funded three new centres, from the 2006/07 lifelong health and wellbeing centre competition, which was part of a joint research council initiative on ageing. The new centres are:

- The MRC Centre for Brain Ageing and Vitality, Newcastle University.
- The MRC Centre in Cognitive Ageing and Cognitive Epidemiology, University of Edinburgh.
- The Crucible Centre, University College London.

The MRC also commissioned and funded one additional new centre, the MRC Centre for Drug Safety Science, University of Liverpool. Full centre status, and funding for a further five years was awarded to the MRC Centre for Developmental and Biomedical Genetics, University of Sheffield and the MRC Centre for Regenerative Medicine, University of Edinburgh. The locations of MRC's large UK investments is shown in figure 10.

FIGURE 10 – LARGE UK RESEARCH INVESTMENTS



## Reviewing the MRC portfolio and large scale investments

The review mechanisms take two forms. Scientific reviews of units, centres or institutes validate the quality and importance of the science being carried out and the resources that are appropriate. These reviews normally take place for each unit or institute every five years, and are hence known as quinquennial reviews (QQRs). Strategic reviews focus on issues such as changes in health need, new scientific opportunities to address important questions, MRC/UK roles with respect to other research activities within Europe and internationally, and capacity building in staff resource and infrastructure.

The reviews provide the overall strategic framework for the MRC's delivery in a specific scientific field. From 2008/09 the four thematic groups and research boards, with direction from the Strategy Board, have oversight of the MRC's portfolio, and are involved in mechanisms to review it.

### Scientific quinquennial reviews in 2007/08:

We conducted two scientific (quinquennial) reviews during 2007/08, the MRC Biostatistics Unit (Cambridge) and a joint review of the Clinical Trials Service Unit and Epidemiological Studies Unit (Oxford) with the British Heart Foundation and Cancer Research UK (CRUK). Each unit was assessed as 'internationally-competitive', and funding was agreed for a further five years. In November 2007 the MRC Unit for Lifelong Health and Ageing, London (formerly the National Survey of Health and Development) was also awarded five years' funding for future research under its new Director (Professor Di Kuh).

We initiated two scientific quinquennial reviews this year. The review of the MRC Anatomical Neuropharmacology Unit, Oxford and the Institute of Hearing, Nottingham (with regional centres in Glasgow and Southampton). Both are due to be completed during 2008/09.

In April 2007, the MRC Radiation and Genome Stability Unit, Harwell, together with Oxford-based researchers within the Medical Sciences Division and scientists from the Gray Cancer Institute in Northwood, combined to form a new centre of excellence: the Radiation Biology and Oncology Initiative. Based in Oxford, the radiobiology initiative is supported by the MRC and CRUK.

The Health Services Research Collaboration, Bristol, closed in October 2007, as recommended by the strategic review conducted during 2006/07.

**Centre reviews in 2007/08:** MRC centres involve long-term partnerships between the MRC and UK universities, with dedicated commitment and investment from both partners for five year periods. Funding is tailored to the needs of individual centres, supporting capacity building, translational work and new initiatives. Awarded as five year grants, centres are also subject to review every five years. Light-touch mid-term reviews will be introduced in future to ensure they are meeting key milestones and to address other issues.

We conducted two centre reviews during 2007/08: the MRC Centre for Synaptic Plasticity, University of Bristol, and the MRC Centre in Allergic Mechanisms of Asthma, King's College London GKT Schools. Both were assessed as 'internationally-competitive' with funding awarded for a further five years and two years respectively.

**Strategic reviews in 2007/08:** The MRC completed the strategic review of the Mary Lyon Centre, Harwell, during 2007/08. The aim of the review was to determine the future role of the centre and its new director, following the retirement of the current director. The MRC expects to appoint a new director in the coming year.

The MRC initiated three new reviews – the strategic reviews of human immunology, neurodegeneration, and nutrition and energy balance are due to be completed during 2008/09.

Ongoing strategic reviews include the reviews of MRC investments in Africa and virology. We will carry out a strategic review of genomics in the coming year.

## Publication output indicators

One way of measuring the quality of MRC-funded research is through the numbers of our scientists' peer reviewed publications in journals.

Many studies are carried out that look into refereed publications and citation rates. This type of analysis was used in the annual report against the Government's 10-year Science and Innovation Framework, published in July 2005. This showed that in some major medical research scientific areas, the UK's share of world citations is second only to the USA. The UK achieved a higher level of scientific returns in terms of investment for each researcher among G8 countries. Another more recent study (2007) by Evidence Ltd, research performance analysts, showed that the UK leads the world in its impact for health and biological sciences.

In the calendar year 2007, scientists in MRC units and institutes published 2,064 papers in peer-reviewed journals. This is an increase of around three per cent from last year.

Of the collaborations reported, around 48 per cent were co-authored with overseas partners as shown in figure 12. Around 33 per cent involved researchers or funders from the charity sector and 10 per cent involved researchers or funders from the private sector. Of these 2,064 papers, 112 were produced in collaboration with other MRC researchers.

FIGURE 11 – MRC INTRAMURALLY-SUPPORTED PUBLICATIONS

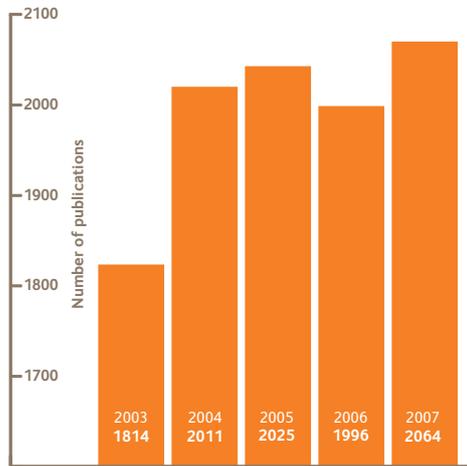
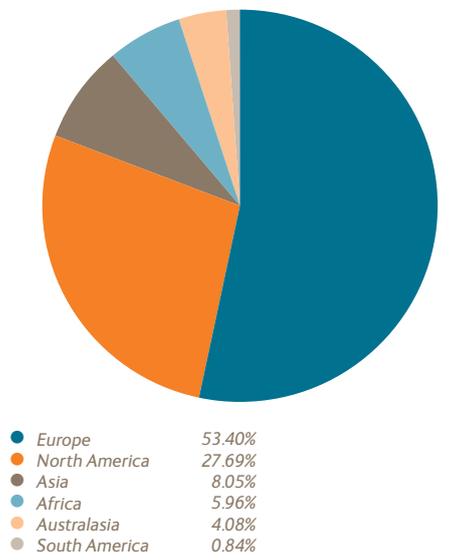


FIGURE 12 – INTERNATIONAL COLLABORATION ON INTRAMURALLY-SUPPORTED PUBLICATIONS



# SECTION NINE

Increasing business effectiveness

**Improvements in business effectiveness and operational performance are essential for us to ensure that the funding decisions made by the MRC are delivered effectively. We work in partnership with Research Councils UK (RCUK) to optimise efficiency gains and to release resources to support research and to contribute to Treasury targets for value for money savings.**

## Delivering efficiency gains

This year the MRC delivered efficiency savings worth £56.3 million against a target of £52.3m. We did this by reducing the proportion that we spend on administration; reprioritising programme spend; through more co-funding of research with industrial and other partners; and by increasing efficiency within MRC research units and institutes. These savings were delivered through:

- Re-prioritisation of funded programmes, (£23.3m).
- Proportional reduction of administration costs (£1.6m).
- Increased efficiency of our sponsored institutes, including procurement savings (£12.6m).
- Increases in joint-funding and partnerships (£18.9m).

We are planning further savings to continue in the next Comprehensive Spending Review (CSR) period, beginning 2008/09.

For the period of CSR2007 the research councils have collectively been set targets for savings and MRC is committed to working with Research Councils UK (RCUK) to determine and deliver its share of the total efficiency savings. Each research council has been given the same target of a reduction in the per cent of administrative costs to total programme expenditure (near cash, capital grants and capital) from 3.4 per cent baseline (2007/08) to 3.23 per cent for 2008/09, and to deliver collectively at least 3 per cent cashable savings a year on programme expenditure.

In its delivery plan, RCUK included plans to run a new cross-research council efficiency delivery programme to collectively deliver these savings. The MRC's target cashable savings for the terms of CSR2007 are shown in table 5 below. Further information on MRC efficiency targets can be found in the MRC's Delivery Plan which is available on our website ([www.mrc.ac.uk](http://www.mrc.ac.uk)).

**TABLE 5 – MRC TARGET CASHABLE SAVINGS**

|                  | Cumulative (£m) |         |         |
|------------------|-----------------|---------|---------|
|                  | 2008/09         | 2009/10 | 2010/11 |
| Cashable savings | 28.9            | 60.1    | 93.4    |

Building upon the progress made in recent years to establish its own Shared Services Centre (SSC) and in conjunction with the research council harmonisation agenda driven by the Department for Innovation, Universities and Skills (DIUS), the MRC has been actively involved in the RCUK SSC Implementation, a cross-council collaboration, which will establish an SSC in Swindon to serve all councils with shared corporate support services by the end of 2009.

This project proceeded to full business case approval in September 2007. The new SSC will be provided by RCUK SSC Ltd, a new cross-council organisation focused on providing leading edge support services, with the project being driven by a central RCUK project organisation combined with project and subject matter resources from each of the councils.

A contract, approved by the RCUK SSC Project Board in January, is in place with Fujitsu, the selected systems integrator, for the provision of an Oracle based solution. A decision on the grants solution is pending. A comprehensive change management, training and benefits realisation programme is being developed.

The project has progressed rapidly with some 60 MRC staff engaged in ensuring that the design meets the needs of the MRC. Final design approval is scheduled for June 2008. Strategic procurement services move to the RCUK SSC ahead of the other shared services, migrating in May 2008. The first council migration to shared services is scheduled for the autumn of 2008. MRC Finance, HR and operational procurement services are planned to migrate in summer 2009. Grants processing (including studentships and fellowships) will follow, currently planned for the end of 2009.

## Information systems

Our partnership with Logica has resulted in a number of new services including the SAP Human Resources and Payroll software modules, which are now used throughout the organisation. Electronic recruitment via the website is also now in place. Within the MRC Shared Service Centre, we installed a new Query Management System for staff and customers to track progress on problems and faults.

We piloted a new electronic training aid 'on demand' and are discussing with RCUK SSC Ltd whether this should be used for training staff on the new Oracle systems.

We launched the Research Data Warehouse (RDW), which supports portfolio analysis as a production system. During 2008, we will further enhance this system to support more detailed and sophisticated analyses.

All the service availability targets for Logica were met or exceeded during the year. As part of a continuous service improvement programme, we moved all systems to faster and more resilient servers, upgraded all Head Office network switches and installed new faster links to and from JANET, the MRC SSC and the Logica data centre.

Towards the end of 2007, we launched a review of personal data security. This exercise was

in part driven by recent incidents of personal data loss across government departments. Recommendations included the encryption of mobile electronic devices across the organisation.

## Risk management

As a non-departmental public body, the MRC is required to set a policy and framework for the management of risk, which is a system of internal control that supports our work. During 2007/08, we continued to develop our ability to handle risk and improve risk management processes. Enhancements included the implementation of risk management software, supported by a training programme, and workshops across the MRC looking at how risks are identified and managed. The Statement of Internal Control at page 78 provides more detail on risk management within the MRC.

## Audit

In addition to fulfilling its remit with respect to issues of corporate governance, the Audit Committee:

- Approved the rolling programme of compliance and systems audits performed by the Research Council's Internal Audit Service (RCIAS) and renewed the audit reports.
- Oversaw the continuing use of the Directors' Annual Statement of Internal Control (DASIC) across MRC units and institutes.
- Monitored major projects and reviewed reports from the MRC's management.
- Continues to monitor the risk-management practices within the MRC, in line with requirements of the Treasury.

## Environmental policy

The MRC is committed to continuous improvement of its environmental performance. All MRC establishments have developed

environmental policies, based on a central policy and adapted according for local circumstances, and reports on progress regularly.

As part of our work to achieve optimum sustainable performance, we educate, train and motivate our staff and contractors to work in an environmentally responsible way and to play a full part in developing new initiatives. We also aim to cooperate with other bodies in the public and private sectors to develop and promote environmentally responsible practices. We actively encourage continuing efforts to address the need to reduce the negative environmental impact of our premises by reducing power consumption wherever possible. These include using design methods for new and refurbished buildings and promoting sustainability. The overall aim being both to achieve the most environmentally-friendly and fit-for-purpose outcome, and to take account of the well-being of staff within the buildings.

Large scale projects planned during the next five years, such as the development of the UK Centre for Medical Research and Innovation (UKCMRI) in London and a new building for the Laboratory of Molecular Biology (LMB) in Cambridge, will have a particular focus on sustainability issues.

## Health, safety and security

In line with the Government's policy on health and safety performance within government-funded bodies, the MRC strives to be an exemplar of best practice. It remains competitively benchmarked in biosafety and biosecurity, personnel security and business continuity planning (BCP) as well as accident prevention.

BCP has been a large part of our work plan over the last year. Every MRC establishment has developed a continuity plan and exercised it at least once. These exercises were coordinated by the central health and safety function. To ensure greater unit self-reliance we have now trained unit representatives on how to write and

manage business continuity desk top exercises. Plans to audit unit BCPs over the coming year are well advanced.

Work has continued in conjunction with the Institute of Safety in Technology and Research, to establish a national standard framework for biological safety officer competencies. This initiative was welcomed in the 'Review on the Regulatory Framework for Handling Animal Pathogens', published by Department for Environment, Food and Rural Affairs (Defra) in December 2007.

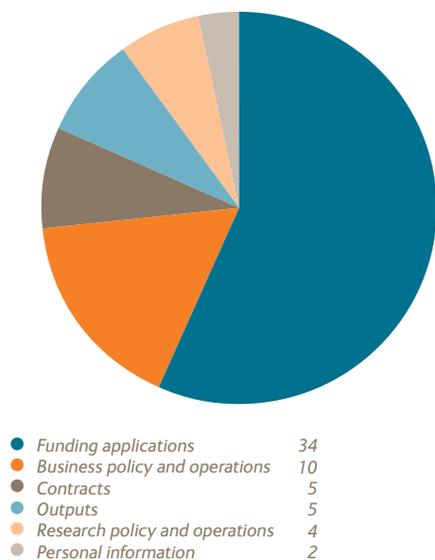
Representatives from the MRC Health and Safety Section participated in the drafting of the International Laboratory Biorisk Management Standard led by the European Committee for Standardisation (CEN). The MRC's intervention contributed significantly to the risk assessment section of the standard.

The MRC's overall accident rate remains at a level comparable with the academic research community. For the calendar year 2007, on average 1.06 per 1,000 MRC employees lost over three days due to accidents at work, compared with 2.06 for the UK universities and 1.57 for the UK research and development sector.

## Freedom of Information

Wherever possible we aim to make information about our work freely available, except where there is a good reason not to do so. In 2007/08 we received 60 requests under the Freedom of Information Act (FOIA). These requests covered a wide range of issues from information on pay scales to research outputs and publications. We received most requests from members of the public, followed by the charity sector and special interest groups. A summary of the requests we have received during 2007/08 is shown in figures 13 and 14 below. In most cases we were able to provide all, or part of the information requested and responded to 87 per cent of requests within 20 working days.

FIGURE 13 – FREEDOM OF INFORMATION REQUESTS 2007/08 – TYPE OF REQUEST

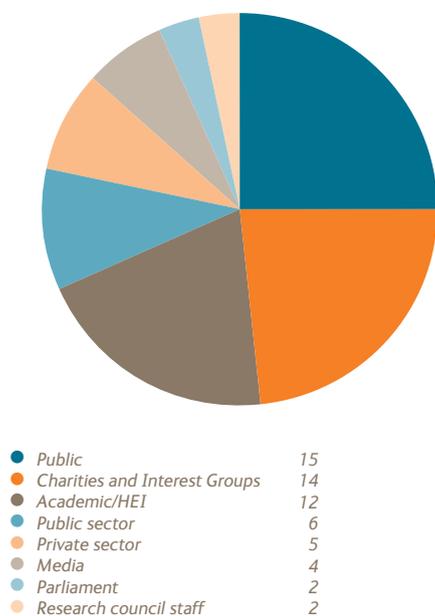


Questions received under FOIA, and in other correspondence, have helped us to refine the information we publish and 2008 will see the launch of an extension to our website providing information on research currently supported by the MRC. The new function will provide access to information on research we support in different scientific areas, and to individual institutions and research teams.

## Register of declared interests

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, groups 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.

FIGURE 14 – FREEDOM OF INFORMATION REQUESTS 2007/08 – REQUESTOR



Information on interests declared by Council and board members is published on the MRC website ([www.mrc.ac.uk/PolicyGuidance/PrinciplesofPublicLife/DeclarationsofInterest/index.htm](http://www.mrc.ac.uk/PolicyGuidance/PrinciplesofPublicLife/DeclarationsofInterest/index.htm)).

# MANAGEMENT COMMENTARY 2007/08

## THE MRC'S BUSINESS AND PRIORITIES

The MRC supports the discovery and exploratory development of fundamental research towards patient benefit. We fund research and training across the spectrum of basic and applied medical research in universities and hospitals, in our own units and institutes in the UK, and in our units in Africa. The MRC receives a grant from Parliament, through the Department for Innovation, Universities and Skills (DIUS), but is independent in deciding which research to fund.

### Research priorities and partnerships

Strong Government support, additional funding under the 2007 comprehensive spending review (CSR2007) and key partnerships with the National Institute for Health Research (NIHR) and the UK health departments are essential in allowing us to sustain existing research strengths and to increase and refine translational activities. Our strategic aims and priorities are developed in consultation with key stakeholders and our partnerships with NIHR and with the UK research councils have driven the planning process for the CSR2007. The final science and research budget allocations for 2008/09 to 2010/11 were formally published by DIUS in December 2007 and by the end of CSR2007 (2010/11) the MRC will receive £682 million as its yearly budget. This level of support will allow the MRC to maintain the strength and innovation of the fundamental sciences while increasing investment to speed up the translation of research into health benefits.

Throughout the year the MRC and NIHR have been working together to respond to the challenges set by Sir David Cooksey in his *Review of UK health research funding*, published in December 2006. Both organisations share a vision for research – from basic medical sciences to applied health research – in which we will

provide strong, well-targeted funding to develop the potential for new treatments, diagnostics and new measures to prevent disease and promote good health emerging from UK research.

We are also working with the other research councils to deliver six cross-council programmes designed to address the major research challenges of the next 10 to 20 years. Coordinated by Research Councils UK (RCUK), the ambitious programmes, many of which build on previous initiatives, will involve new ways of multidisciplinary working to address key challenges in ageing, energy, environmental change, global security, the digital economy and nanoscience. The MRC is leading the programme on ageing – lifelong health and wellbeing.

The MRC's Delivery Plan for 2008/09 to 2010/11, which outlines investment plans and priorities for the CSR2007 period in more detail, was published in December 2007 and is available on our website ([www.mrc.ac.uk](http://www.mrc.ac.uk)). The Delivery Plan will be refreshed annually to reflect changing priorities and progress in achieving objectives and milestones is reported quarterly against a scorecard, which is also published on the website. A major focus for the scorecard for 2008/09 is to set out, across the breadth of activities, how the MRC will achieve a step change in economic impact.

### Structural change

During 2007/08 we introduced major changes in governance and funding structures to facilitate strategy development and the delivery of MRC research priorities and joint programmes. A new Strategy Board has been established to develop strategic scientific planning, to advise the Chief Executive on the apportionment of budgets across the research boards and to approve awards from the new Strategic Research Fund. During 2008 the board is developing the MRC's future Vision and Strategic Plan.

Four thematic Overview Groups have also been established with cross-cutting remits across our

portfolio. The new groups – in global health, population sciences, training and careers and translational research – will contribute to strategy development, identify gaps and opportunities and ensure coordination of cross-board funding policies and initiatives. They will also oversee the implementation of the MRC's funding policies. Changes within the research boards have also been implemented with responsibilities and budgets redistributed across four, rather than five boards.

A new evaluation strategy was also approved, which provides a framework for how we can support research in the best way to create an excellent science base, and evidence of how far research can benefit health, quality of life and the economy. Over the next year, the strategy aims to develop evaluation methodology to better meet the MRC's needs, to strengthen the evaluation of research funding and policy decisions and improve the assessment of the impact of biomedical research.

### Information security

Towards the end of 2007 we launched a review of personal data security. This exercise was in part driven by recent incidents of personal data loss across government departments. Immediate actions included the encryption of mobile electronic devices across the organisation. Further recommendations will be considered and implemented during 2008/09.

No significant incidents relating to protected personal data were recorded by the MRC during 2007/08. Consequently no incidents relating to the loss of protected personal data were reported to the Information Commissioner's Office during 2007/08. The MRC does not hold a central record of incidents relating to protected personal data prior to 2007/08.

The MRC will continue to monitor and assess its information risks in order to identify and address any weaknesses and ensure continuous improvement of its systems.

## FINANCIAL RESULTS

A summary of the MRC's financial results for 2007/08 and the preceding two years is shown in the tables following. Table 6 shows our results using the accounting conventions required for reporting to central government. This form of accounting differs in a number of significant ways from that required for our formal audited accounts. A reconciliation between the two sets of accounts is shown at table 7.

Each year we receive a budgetary allocation from DIUS in the form of a Departmental Expenditure Limit (DEL). The DEL is the primary control in resource accounting and budgeting and is split into a number of categories with rules placing certain restrictions on the use of each type. The main subdivisions are Resource DEL and Capital DEL. Resource DEL is further divided into Near-Cash DEL and Non-Cash DEL; Near Cash DEL can be used for Non-Cash and Capital Expenditure, but other types of DEL cannot be used for Near-Cash Resource Expenditure.

In any one year we normally expect to spend our DEL allocation. However, some flexibility is allowed in practice, in the form of a carry forward of previous years' underspends. These underspends can be called upon to supplement our annual DEL through End of Year Flexibility (EYF), subject to agreement by DIUS and the Treasury in any given year. During 2007/08 the MRC's Commercial Fund was brought into the DEL framework and the MRC was instructed to repay £92m to the Government's Consolidated Fund. The remainder of surplus funds relating to the cash balance as at 31 March 2007 (£106.9m) was added to the MRC's stock of EYF. During the year, £120m cash was transferred to DIUS in respect of surplus cash balances not required by the MRC for its day-to-day cash management at year end. This sum will be available to the MRC from EYF during 2008/09. Future surpluses across the CSR2007 period will be subject to some special considerations regarding income cap; allowable surpluses relating to income from the MRC's commercial activities will form part of the normal EYF regime and subject to normal processes.

In 2007/08 the MRC delivered efficiency savings worth £56.3 million against a target of £52.3m. This was achieved by reducing costs for administration, reprioritising programme spend, increasing co-funding of research and by increasing efficiency within MRC research units and institutes.

## Major projects

### UK CENTRE FOR MEDICAL RESEARCH AND INNOVATION (UKCMRI)

In 2007 the MRC joined with Cancer Research UK (CRUK), the Wellcome Trust and UCL to form a consortium to set up a new joint research institute in Central London – the UK Centre for Medical Research and Innovation (UKCMRI).

During the year the consortium acquired the freehold on the site for the proposed institute, the cost to the MRC was £46.7m. Sale contracts were exchanged on 31 March 2008, with final completion on 14 June 2008. The MRC have recognised the purchase as an asset in the course of construction within tangible fixed assets. Design work on the new building will begin later in 2008 and it is anticipated that the new institute will be occupied in 2013/14.

### LABORATORY OF MOLECULAR BIOLOGY RELOCATION

The MRC will receive £67m, from DIUS, from the Large Facilities Capital Fund to support a new building for the Laboratory of Molecular Biology. The total project cost is expected to be £197 million. The University of Cambridge will also contribute at least £7.5m in return for lease of space to accommodate university researchers and the remainder will be provided by the MRC (including capital generated as a result of the commercialisation of discoveries made at LMB). Work on the construction of a new building for the LMB is due to start during 2008 and it is expected that the new building will be occupied by 2011/12.

### RCUK SHARED SERVICES PROJECT

The seven research councils, working together as RCUK have agreed to establish a Shared Services Centre (SSC), to be based in Swindon. The SSC will provide finance, grants, human resources, information systems, procurement and payroll operational services to each of the research councils and their institutes. The councils are setting up the SSC with the aim of reducing spending through sharing and standardising processes.

The SSC has been incorporated during the year as RCUK Shared Services Centre Ltd and is in the process of getting ready for the transfer of services. There is a phased implementation plan for transferring the council's services during 2008/09.

The Engineering and Physical Sciences Research Council (EPSRC) is acting as 'host' for the project and has contracted for the development and establishment of the SSC. The research councils have agreed to share these costs and the MRC's agreed share is 26.98 per cent. Those costs have been accounted for in the MRC's books as £4.235m as assets in the course of construction and £3.339m as expenses, of which £1.036m are provisions for further costs that will be incurred in future years, redundancy and system termination costs. The transition to the SSC is regarded as a business critical project and is referred to in our Statement of Internal Control.

## Review of the year

The MRC is required by DIUS to control its budgets within DEL under the Resource Accounting and Budgeting regime.

In 2007/08 we incurred £442.3m of Resource expenditure. Our underspend for the year, after adjusting for the transfer from the Commercial Fund, was £13.9m. Capital Expenditure charged to DEL at £76m was £13.8m greater than our Capital DEL of £62.2m. After adjusting for the addition of commercial fund surpluses this leaves a carry-forward underspend of £129.2m.

The majority of this money is earmarked for the new major builds of the LMB in Cambridge and the UKCMRI in London.

In 2007/08, income from commercial activities was included in DEL for the first time. Excluding the impact of the surplus generated by its inclusion, there is an underlying increase of 4.2 per cent in other activities. In addition, substantially more money has also been committed to new grants. The value of new awards to universities rose from £194m in 2005/06 to £209m in 2006/07 and to £233m in 2007/08. Over this period, we have also been able to maintain our support for scientists' training and for our own units and institutes.

#### Accounting for income and grant-in-aid

Income and expenditure is recognised in the Statement of Net Expenditure (SNE) on an accruals basis (i.e. when the recipient has fulfilled its obligations, such as carried out a period of research). Grant-in-aid income and external income of a collaborative nature is credited to reserves, to better reflect the financing of our activities.

The balance sheet at 31 March 2008 shows provisions for liabilities and charges of £13.5m. This reflects the inclusion of liabilities falling due in future years which, to the extent that they are not to be met from the MRC's other sources of income, may only be met by future grant-in-aid from DIUS. This is because, under the normal conventions applying to parliamentary control over income and expenditure, such grants may not be issued in advance of need.

Grant-in-aid for 2007/08, taking into account the amounts required to meet the MRC's liabilities falling due in that year, has already been included in the department's estimates for that year, which have been approved by Parliament.

The figures shown in the financial summary at table 6 are those after adjusting for the differences between statutory presentation and those scoring under DEL. Table 7 shows the reconciliation of the finance tables to the Annual Account.

**TABLE 6 – SUMMARY OF FINANCIAL RETURN FOR 2007/08**

| Resource  | Financial year | 2007/08   | 2006/07   | 2005/06   |
|---|----------------|-----------|-----------|-----------|
|   |                | £000      | £000      | £000      |
| External income   |                | (88,055)  | (74,328)  | (67,161)  |
| Income from commercial activities                               |                | (49,009)  | -         | -         |
| Total income  |                | (137,064) | (74,328)  | (67,161)  |
| Pay and operating costs   |                | 302,686   | 271,668   | 253,192   |
| Depreciation  |                | 19,744    | 18,964    | 17,274    |
| Amortisation of intangible fixed assets                         |                | 23,098    | -         | -         |
| Cost of capital   |                | 15,317    | 6,600     | 6,899     |
| Provision movement  |                | (3,012)   | (182)     | 7,940     |
| Research grants   |                | 242,340   | 243,711   | 195,464   |
| Capital grants to private sector                                |                | -         | -         | 29,877    |
| International subscriptions                                     |                | 11,015    | 11,305    | 9,884     |
| (Profit)/loss on disposal of fixed assets                       |                | -         | (780)     | 5,262     |
| Total expenditure   |                | 611,188   | 551,286   | 525,792   |
| Net income and expenditure                                      |                | 474,124   | 476,958   | 458,631   |
| Less Commercial Fund Non-Cash costs                             |                | (31,801)  | -         | -         |
| Adjusted net income and expenditure                             |                | 442,323   | 476,958   | 458,631   |
| DEL   |                | (490,040) | (418,720) | (444,236) |
| (Underspend)/overspend  |                | (47,717)  | 58,238    | 14,395    |
| Overspend/(underspend) brought forward                          |                | 1,704     | (57,190)  | (70,518)  |
| Transfer from Commercial Fund                                   |                | (14,000)  | -         | -         |
| Other adjustments   |                | 10,262    | 656       | (1,067)   |
| Transfer to capital   |                | 35,876    | -         | -         |
| (Underspend)/overspend carried forward –<br>Near-cash, Non-Cash |                | (13,875)  | 1,704     | (57,190)  |
| Near-Cash   |                | (13,055)  | 4,553     | (55,835)  |
| Non-Cash  |                | (820)     | (2,849)   | (1,355)   |
| <b>Capital</b>  |                |           |           |           |
| Direct capital  |                | 53,799    | 51,187    | 41,785    |
| Capital grants to the private sector                            |                | 22,186    | 20,451    | -         |
| Total expenditure   |                | 75,985    | 71,638    | 41,785    |
| Capital DEL   |                | (62,168)  | (85,071)  | (36,573)  |
| (Underspend)/overspend  |                | 13,817    | (13,433)  | 5,212     |
| Overspend/(underspend) brought forward                          |                | (13,433)  | (1,459)   | (4,902)   |
| Adjustment to brought forward                                   |                | (93,680)  | 1,459     | (1,769)   |
| Transfer from Near-Cash   |                | (35,876)  | -         | -         |
| (Underspend)/overspend carried forward                          |                | (129,172) | (13,433)  | (1,459)   |

**TABLE 7 – RECONCILIATION OF FINANCE TABLES TO THE ANNUAL ACCOUNT**

|   | NOTES | 2007/08<br>£000 |
|---|-------|-----------------|
| <i>External income</i>                          |       |                 |
| Contributions from other government departments | 3     | 23,603          |
| Contributions and grants from other bodies      | 4     | 47,076          |
| Other income                                    | 5     | 5,933           |
| Interest receivable                             | 6     | 11,693          |
| Amount payable to DIUS                          | 14    | (250)           |
| External income per finance table               |       | 88,055          |
| <i>Pay and operating costs</i>                  |       |                 |
| <b>Annual Account</b>                           |       |                 |
| Staff costs                                     | 7     | 169,468         |
| Less FRS17 current service costs                |       | (7,623)         |
| Plus decrease in provision                      | 21    | 836             |
| Plus release of provision                       | 21    | 2,585           |
| Other operating costs                           | 8     | 113,027         |
| Less contribution for licence fees              | 2     | (98)            |
| Commercial activities                           | SNE   | 24,491          |
| Pay and operating costs per finance table       |       | 302,686         |
| <i>Depreciation</i>                             |       |                 |
| Depreciation                                    | SNE   | 19,869          |
| Less release from donated asset reserve         | SNE   | (125)           |
| Depreciation per finance table                  |       | 19,744          |
| <i>Cost of capital</i>                          |       |                 |
| Cost of capital                                 | SNE   | 15,317          |
| Cost of capital per finance table               |       | 15,317          |
| <i>Provision movement</i>                       |       |                 |
| Amount provided in year                         | 21    | (836)           |
| Less amount expended in year                    | 21    | (2,585)         |
| Plus unwinding of the discount                  | 21    | 409             |
| Provision movement per finance table            |       | (3,012)         |

**TABLE 7 – RECONCILIATION OF FINANCE TABLES TO THE ANNUAL ACCOUNT (continued)**

|  | NOTES    | 2007/08<br>£000 |
|--|----------|-----------------|
| <i>Research grants</i>                                 |          |                 |
| <b>Annual Account</b>                                  |          |                 |
| Research grants  | 9        | 178,302         |
| Less capital grants to private sector                  |          | (20,822)        |
| Other research   | 10       | 27,272          |
| Postgraduate training awards                           | 11       | 57,588          |
| Research grants per finance table                      |          | 242,340         |
| <i>International subscriptions</i>                     |          |                 |
| <b>Annual Account</b>                                  |          |                 |
| International subscriptions                            | 12       | 12,379          |
| Less capital grants to private sector                  |          | (1,364)         |
| International subscriptions per finance table          |          | 11,015          |
| <i>Capital expenditure</i>                             |          |                 |
| <i>Direct capital</i>                                  |          |                 |
| Fixed asset additions per Annual Account               | 16       | 80,516          |
| Less donated asset                                     | 22       | (132)           |
| Less proceeds from sale of fixed assets                | Cashflow | (460)           |
| Less net proceeds from sale of intangible assets       | Cashflow | (20,069)        |
| Less proceeds from sale of investment                  | Cashflow | (296)           |
| Less capital accrual adjustment                        |          | (5,760)         |
| Direct capital per finance table                       |          | 53,799          |
| <i>Capital grants to private sector</i>                |          |                 |
| Capital grants included in research grants             |          | 20,822          |
| Capital grants included in International subscriptions |          | 1,364           |
| Capital grants to private sector per finance table     |          | 22,186          |

# REMUNERATION REPORT 2007/08

## REMUNERATION SUBCOMMITTEE (Unaudited Information)

The salaries of the directors of MRC units and institutes, and Head Office group directors are reviewed by the MRC Council Remuneration Subcommittee. The membership during 2007/08 was:

**Sir John Chisholm (Chairman)**  
**Professor Carol Dezateux (MRC Council member and Chairman of the Training and Career Development Board)**  
**Professor Herb Sewell (MRC Council member)**  
**Mr Nick Winterton (MRC Executive Director), by invitation for staff other than Head Office**

## REMUNERATION POLICY (Unaudited Information)

No formal pay scale exists for the MRC's senior staff (Band 1) beyond a stated minimum pay point set at £55,000 (2007/08 rate). Band 1 pay is based on the concept of 'personal pay' and is reviewed annually by the Remuneration Subcommittee.

In determining appropriate pay levels for Band 1 staff, the Remuneration Subcommittee pays reference to annual appraisal against annual or 3–5 year objectives; the scientific (or other) performance of a unit or group; the breadth of Band 1 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, 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.

All Band 1 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, which allows for a maximum 10 per cent annual increase in salary for exceptional employee contributions, paid either as a one-off bonus or consolidated base-pay component.

Band 1 scientific staff are appointed on open-ended contracts until normal retirement age, subject to quinquennial (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 MRC's Early Severance and 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 (formerly the Executive Board) and Council Members. A summary of the level of remuneration for the MRC's Management Board is shown in table 8; the average increase in Directors' total remuneration in 2007/08 was 5.14 percent. The levels of honoraria for MRC Council members is shown in table 9.

### CHIEF EXECUTIVE

Sir Leszek Borysiewicz was appointed as MRC Chief Executive during 2007/08 and took up this position on 1 October 2007. Professor Colin Blakemore's fixed-term appointment expired on 30 September 2007.

The performance management and remuneration arrangements for the Chief Executive are established and managed by the Department for Innovation, Universities and Skills (DIUS) 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.

**TABLE 8 – MANAGEMENT BOARD REMUNERATION (Audited Information)**

|   | Chief Executive                    | Chief Executive                     | Executive Director | Director of Research Management Group | Director of Research Management Group | Director of Corporate Affairs Group | Director of Human Resources Group | Director of Finance Group |
|---|------------------------------------|-------------------------------------|--------------------|---------------------------------------|---------------------------------------|-------------------------------------|-----------------------------------|---------------------------|
|   | Professor C Blakemore <sup>1</sup> | Sir Leszek Borysiewicz <sup>2</sup> | Mr NH Winterton    | Dr DR Dunstan <sup>3</sup>            | Dr D Mulkeen <sup>4</sup>             | Mrs JM Lee                          | Mrs F Green                       | Mr NW Watts               |
| Age   | 63                                 | 57                                  | 60                 | 65                                    | 44                                    | 59                                  | 45                                | 49                        |
| Salary, including performance related pay, from 1 April 2007 to 31 March 2008 | £96,734                            | £126,579                            | £132,415           | £92,752                               | £22,831                               | £95,559                             | £84,731                           | £101,832                  |
| Salary, including performance related pay, from 1 April 2006 to 31 March 2007 | £141,602                           | -                                   | £118,910           | £114,908                              | -                                     | £92,837                             | £86,415                           | £96,014                   |
| Real increase in pension at age 60 <sup>5</sup>                               | £0-5,000                           | £0-5,000                            | £0-5,000           | £0-5,000                              | £0-5,000                              | £0-5,000                            | £0-5,000                          | £0-5,000                  |
| Total accrued pension at age 60 at 31 March 2008 <sup>6</sup>                 | £5,001-10,000                      | £0-5,000                            | £55,001-60,000     | £45,001-50,000                        | £15,001-20,000                        | £35,001-40,000                      | £20,001-25,000                    | £0-5,000                  |
| Cash equivalent transfer value at 1 April 2007 <sup>7</sup>                   | £71,282                            | -                                   | £902,414           | £714,366                              | £214,792                              | £646,860                            | £282,438                          | £37,433                   |
| Cash equivalent transfer value at 31 March 2008                               | £87,042                            | £14,871                             | £984,404           | £859,544                              | £221,225                              | £675,346                            | £326,350                          | £53,427                   |
| Real increase in cash equivalent transfer value                               | £15,760                            | £14,871                             | £81,990            | £145,178                              | £6,433                                | £28,486                             | £43,912                           | £15,994                   |

<sup>1</sup> Professor Blakemore's appointment ended on 30 September 2007.

<sup>2</sup> Sir Leszek Borysiewicz's appointment as Chief Executive commenced on 1 October 2007.

<sup>3</sup> Dr Dunstan's appointment ended on 12 January 2008.

<sup>4</sup> Dr Mulkeen's appointment as Director of Research Management commenced on 2 January 2008.

<sup>5</sup> or at retirement age.

<sup>6</sup> details of the MRC pension scheme appear in note 7(d) of the Annual Account.

<sup>7</sup> or date of joining if later.

At the beginning of each year, the Director General for Science and Innovation (DGSI) and the Council Chairman agree with the Chief Executive a set of annual performance objectives for the year. In addition a set of appointment term objectives are agreed early in the appointment and are reviewed annually. At the end of the year the Chairman, the Chief Executive, and an independent Council Member write an assessment of performance over the year. The DGSI, with advice from colleagues, agrees the DIUS assessment of overall performance and specific achievements against objectives for annual and appointment term objectives.

A Remuneration Committee comprising the DGSI, the chairs of all the research councils and two independent members, then meet to review chief executives' performance and agree pay recommendations, taking into account the assessments and any comments in the papers. These recommendations are subject to ratification by the Permanent Secretary of DIUS.

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 Remuneration Committee may recommend a reduced bonus to be paid depending on the circumstances.

The chief executive is an ordinary member of the MRC's pension scheme. 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 Early Severance and Compensation Scheme.

### **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.

## **Council members** (Audited Information)

MRC Council members are appointed by the Science Minister, 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, and members may be re-appointed for one further four year term. During 2007/08 the Science Minister granted approval to extend the appointments of Professor Andrew McMichael and Professor Herb Sewell. A further extension was also granted to the appointment of Professor Sir John Savill on exceptional grounds.

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 DIUS; enhanced honoraria are paid to some members, such as board and Council subcommittee chairs, to reflect additional responsibilities. Details of amounts paid to each member during the year are shown in table 9 below;

TABLE 9 – COUNCIL HONORARIA 2007/08

| Name                           | Position/affiliation   | Emolument |
|--------------------------------|--|-----------|
| Sir John Chisholm <sup>1</sup> | Chairman   | £0        |
| Professor David Armstrong      | King's College London  | £8,795    |
| Mr Michael Brooks              | Financial Management Consultant                                | £8,645    |
| Professor Kay Davies           | University of Oxford<br>(appointment ended 29 December 2007)   | £4,795    |
| Professor Carol Dezateux       | University College London<br>(appointment ended 31 March 2008) | £6,490    |
| Dr Peter Fellner               | Vernalis, PLC<br>(appointment ended 31 July 2007)              | £2,137    |
| Professor Christopher Kennard  | Imperial College London  | £8,645    |
| Professor Andrew McMichael     | University of Oxford   | £8,645    |
| Dr Lefkos Middleton            | Imperial College London  | £4,888    |
| Professor Geneva Richardson    | King's College London<br>(appointment ended 29 February 2008)  | £6,490    |
| Professor Sir John Savill      | University of Edinburgh  | £6,490    |
| Professor Herb Sewell          | University of Nottingham                                       | £6,490    |

<sup>1</sup> Sir John Chisholm has chosen not to draw his honorarium. Sir John Chisholm's fixed term appointment as Chairman will end on 30 September 2010.

The following ex officio members did not receive an honorarium:

**Dr Harry Burns (Scottish Executive Health Department)**  
**Professor Sally Davies (Department of Health) (appointment ended 31 March 2008)**  
**Dr Michael McBride (Northern Ireland Department of Health, Social Services and Public Safety)**  
**Mr John Neilson (Observer for the Secretary of State for Innovation, Universities and Skills)**

## Declared Interests

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. Information on interests declared by Council and board members is 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. No declarations were made during 2007/08.

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L K Borysiewicz

Sir Leszek Borysiewicz  
Chief Executive and Accounting Officer  
Date: **11 July 2008**

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# ANNUAL ACCOUNTS 2007/08

Details of current activities are to be found in the Annual Report.

## FINANCIAL RESULTS FOR THE YEAR

- The statement of net expenditure records a net expenditure of £544.5 million (2006/07 = £540.9m).
- The parliamentary grant-in-aid totalled £424.9m (2006/07 = £503.5m).
- Total income amounted to £55.1m (2006/07 = £39.8m), staff costs totalled £169.5m (2006/07 = £164.6m), other operating costs excluding depreciation totalled £113m (2006/07 = £111.1m) and expenditure on research grants totalled £178.3m (2006/07 = £175.9m).
- Total asset (Fixed assets + Current assets) values decreased by £70.5m (2006/07 = £100.2m increase), while creditors increased by £63m (2006/07 = £37.6m).
- Reserves, excluding the general reserve, showed a net increase of £108.8m (2006/07 = £61.1m).
- General reserves decreased by £222m (2006/07 = £56.3m increase).
- Total government funds at 31 March 2008 stood at £510.7m (31 March 2007 = £623.9m) (Note 22).

- Amounts payable to the Department for Innovation, Universities and Skills during the year were £0.25m (2006/07 = £0.20m) (Note 14); and £212m (2006/07 = £0) (Note 22).

## CREDITOR PAYMENT POLICY

The MRC observes the Confederation of British Industry's Code of Practice. It adheres to the principles of the Prompt Payers Code and makes every effort to comply with the agreed terms of payment of creditors' invoices, endeavouring to settle invoices within 30 days of receiving them or earlier if supplier terms dictate. In 2007/08 the MRC paid 85 per cent (2006/07 = 77 per cent) of invoices within supplier terms. The Prompt Payers Code can be found at [www.payontime.co.uk](http://www.payontime.co.uk).

## AUDIT COMMITTEE

The Council has established the Audit Committee to monitor and advise it on appropriate standards for risk management, internal control, financial propriety and anti fraud policy and to review matters connected

with audit and the provision of internal controls assurance. The Chief Executive as the Accounting Officer has responsibility under the terms of the Council Management Statement and Financial Memorandum for the provision of adequate internal controls and will take into account the advice of the Audit Committee as appropriate. The Committee, chaired by Mr Michael Brooks (MRC Council member), meets four times a year to review internal and external audit matters and the MRC's accounts.

## AUDITORS

The MRC's accounts are audited by the Comptroller and Auditor General under the terms of paragraph 3(3) of Schedule 1 of the Science and Technology Act 1965. The audit fee for 2007/08 was £58k.

So far as the Accounting Officer is aware, there is no relevant audit information of which the MRC's auditors are unaware. The Accounting Officer has taken all the steps that he ought to have taken to make himself aware of any relevant audit information and to establish that MRC's auditors are aware of that information.

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L K Borysiewicz

Sir Leszek Borysiewicz  
Chief Executive and Accounting Officer  
Date: 11 July 2008

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## STATEMENT OF THE COUNCIL'S AND CHIEF EXECUTIVE'S RESPONSIBILITIES WITH RESPECT TO THE FINANCIAL STATEMENTS

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Under paragraph 3 of Schedule 1 to 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 Department for Innovation, Universities and Skills 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, recognised gains and losses 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 Department for Innovation, Universities and Skills, 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 Innovation, Universities and Skills has appointed the Chief Executive 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 Stationery Office)*.

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## STATEMENT OF INTERNAL CONTROL

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### 1. SCOPE OF RESPONSIBILITY

As Accounting Officer and Chief Executive, I have responsibility for maintaining a sound system of internal control that supports the achievement of MRC policies, aims and objectives, and safeguarding the public funds and departmental assets for which I am personally responsible, in accordance with the responsibility assigned to me in *Managing Public Money*.

The MRC has three bodies to support it in discharging its responsibilities relating to internal control:

- i. the MRC Executive Board
- ii. the Audit Committee
- iii. the Risk Management Committee.

## 2. THE PURPOSE OF THE SYSTEM OF INTERNAL CONTROL

The system of internal control is designed to manage risk to a reasonable level rather than to eliminate all risk of failure to achieve policies, aims and objectives; it can therefore only provide reasonable and not absolute assurance of the effectiveness. The system of internal control is based on an ongoing process designed to identify and prioritise the risks to the achievement of MRC policies, aims and objectives, to evaluate the likelihood of those risk being realised and the impact should they be realised, and to manage them efficiently, effectively and economically. The system of internal control has been in place for the year ended 31 March 2008 and up to the date of approval of the Annual Report and Accounts and accords with Treasury guidance.

## 3. CAPACITY TO HANDLE RISK

The capacity to handle risk has been increased this year with the introduction of risk management software in December 2007. This allows managers to have access to up-to-date risk registers for any part of the MRC quickly. The flexibility of the software ensures that it is easy to monitor risks and mitigating action.

### Executive Board

The Executive Board, comprising the Chief Executive and Head Office directors, is the executive body for the MRC, providing top-level leadership and guidance on Risk Management issues. The Executive Board regularly considers risk matters and reviews the Corporate Risk Register quarterly

## Intramural Operating Board

The Intramural Operating Board reviews all major projects including receiving a summary of the top risks for each project and a report on how well risk management is being applied within each project.

## Risk Management Committee

The Risk Management Committee reports to the Executive Board. It has continued to meet regularly to provide leadership and direction to support the embedding of risk management across the MRC.

## 4. THE RISK AND CONTROL FRAMEWORK

### The Council

The MRC's Council has a responsibility to ensure that high standards of corporate governance are observed at all times. The Council receives the Corporate Risk Register twice a year together with a report on the effectiveness of risk management. All papers presented to the Council include a section on the risks of the item to be discussed.

Improvements to the risk and control framework are ongoing. Work this year to further strengthen the risk management process has included:

- Introduction of the risk management software, the training for which revised the risk management process.

- Workshops with each region these focused on providing basic information on risk management processes within the MRC, identifying risks and determining how risk management could be improved.
- A review of all audit reports by the Risk Manager.
- Workshops with the senior management teams of the corporate directorates. These workshops have focussed on having a shared understanding of risk management in the MRC, identifying risks and establishing risk management processes within the directorates.
- Refining of the risk management approach within major projects.
- All unit contingency plans were exercised through 2007/08. The SSC is recognised as a potential single point of failure; their plan was exercised twice using different scenarios.
- Regional workshops to train unit staff on writing test scenarios and exercising their own plans took place in the first quarter of 2008.
- An audit of unit Business Continuity Plan implementation began in the first quarter 2008.

## 5. REVIEW OF EFFECTIVENESS

As Accounting Officer, I have responsibility for reviewing the effectiveness of the systems of internal control. My review of the effectiveness of the system of internal control is informed by the work of the internal auditors and the executive managers within the MRC who have responsibility for the development and maintenance of the internal control framework, and 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 the Executive Board, the Audit Committee and a plan to address weaknesses and ensure continuous improvement of the system is in place.

The Chief Executive holds regular stewardship reviews with directors of major business functions which include consideration of risk management as it relates to ongoing scientific and operational activity. Each unit and institute director submits an Annual Statement of Internal Control. The implementation of an appropriate follow-up action plan where significant risks or weak controls are highlighted is part of the effectiveness review.

In continuation of the benchmarking approach adopted in March 2007, the risk management assessment tool 'Risk Management Assessment Framework' was used in March 2008 to measure progress. The review showed that all areas had achieved a score of two or more, with four of the seven areas having improved in score since the previous assessment. This means we are achieving an acceptable level of risk management and that we are continuing to strive for further improvements. As part of the review process targets were set for each of the areas for 2008/09.

The Research Council UK (RCUK) Research Funding Assurance Programme (FAP) annual report conducted in conjunction with other research councils; provides regularity assurance on the funding of research projects at UK universities and research organisations. Fourteen FAP visits took during the year with a further five held over until 2008/09. Generally, there has been a satisfactory level of assurance obtained in the course of the visits although two universities have been assessed as below satisfactory with an assessment of partial assurance. However despite this partial assurance, work in progress ongoing with those universities indicates to RCUK that an overall assessment of satisfactory assurance can be reported for the 2007/08 financial year.

The MRC's internal audit is provided by the Research Councils Internal Audit Service (RCIAS) which operates to Government Internal Audit Standards. The work of the internal auditors is informed by an analysis of risk to which the MRC is exposed and annual internal audit plans are based on this analysis. The risk analysis and internal audit plans are endorsed

by the MRC Audit Committee and approved by me. The Head of Internal Audit's (HIA) annual report includes an independent opinion on the adequacy and effectiveness of the MRC's system of internal control.

A risk management work programme for 2008/09 has been approved by the Executive Board, which aims to build on the work of the last year.

## 6. CONTROL ISSUES

The HIA has given a positive reasonable assurance concerning the adequacy of the risk management, control and governance systems established by management. The HIA is satisfied that reviews carried out over the period of the strategy have confirmed a reasonable standard of internal control within the organisation.

Management have continued to improve control as investment in projects bring major systems and processes on line. Major projects are also progressing although there have been some concerns relating to the working of the MARS project board (for the renewal of the Laboratory of Molecular Biology), these have all been addressed. Improvements in financial reporting continue to be made enhancing the quality of information available to its staff for planning and decision making.

The Shared Service Centre (SSC) implementation project will deliver a single administrative support service for all UK Research Councils. Initially the SSC will provide HR, finance, procurement and IS services, however in the longer term it is also planned to add grants processing. This project is business critical for MRC as it fundamentally changes the way back-office services are provided, effectively through outsourcing them to the new SSC organisation. The project operates across all seven councils and is directed by a Project Board comprised of representatives of each council, the SSC itself and a number of

independent members; the board is chaired by the chair of the RCUK Executive Group. The principal risks for the project, and therefore for the seven councils, are the potential for cost and time overruns and benefits realisation, and these are a clear focus for the Project Board. In June 2008 there is an exercise in hand to revisit plans for shared services implementation that will result in delays in the previous timetable.

As a stakeholder in the project MRC has its own group who manages its participation and associated risks in the project. The high level risks and mitigation strategies have been regularly scrutinised by MRC's Executive Board and Intramural Operating Board. The MRC Council receives updates at each of its meetings. Governance arrangements are regularly monitored by MRC Audit Committee.

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L K Borysiewicz

Sir Leszek Borysiewicz  
Chief Executive and Accounting Officer  
Date: 11 July 2008

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## THE MEDICAL RESEARCH COUNCIL

## THE CERTIFICATE AND REPORT OF THE COMPTROLLER AND AUDITOR GENERAL TO THE HOUSES OF PARLIAMENT

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I certify that I have audited the financial statements of the Medical Research Council for the year ended 31 March 2008 under the Science and Technology Act 1965. These comprise the Statement of Net Expenditure, the Balance Sheet, the Cashflow Statement and Statement of Recognised Gains and Losses and the related notes. These financial statements have been prepared under the accounting policies set out within them. I have also audited the information in the Remuneration Report that is described in that report as having been audited.

## RESPECTIVE RESPONSIBILITIES OF THE COUNCIL, CHIEF EXECUTIVE AND AUDITOR

The MRC's Council and Chief Executive as Accounting Officer are responsible for preparing the Annual Report, the Remuneration Report and the financial statements in accordance with the Science and Technology Act 1965 and the Department for Innovation, Universities and Skills' directions made thereunder and for ensuring the regularity of financial

transactions. These responsibilities are set out in the Statement of Council's and Chief Executive's Responsibilities.

My responsibility is to audit the financial statement and the part of the Remuneration Report to be audited in accordance with relevant legal and regulatory requirements, and with International Standards on Auditing (UK and Ireland).

I report to you my opinion as to whether the financial statements give a true and fair view and whether the financial statements and the part of the Remuneration Report to be audited have been properly prepared in accordance with the Science and Technology Act 1965 and Department for Innovation, Universities and Skills' directions made thereunder. I report to you whether, in my opinion, information given within the Management Commentary included within the Annual Report, is consistent with the financial statements. I also report whether in all material respects the expenditure and income have been applied to the purposes intended by parliament and the financial transactions conform to the authorities which govern them.

In addition, I report to you if the Medical Research Council has not kept proper accounting records, if I have not received all the information and explanations I require for my audit, or if information specified by HM Treasury regarding remuneration and other transactions is not disclosed.

I review whether the Statement on Internal Control reflects the Medical Research Council's compliance with HM Treasury's guidance, and I report if it does not. I am not required to consider whether this statement covers all risks and controls, or form an opinion on the effectiveness of the Medical Research Council's corporate governance procedures or its risk and control procedures.

I read the other information contained in the Annual Report and consider whether it is consistent with the audited financial statements. I consider the implications for my report if I become aware of any apparent misstatements

or material inconsistencies with the financial statements. My responsibilities do not extend to any other information.

## BASIS OF AUDIT OPINIONS

I conducted my audit in accordance with International Standards on Auditing (UK and Ireland) issued by the Auditing Practices Board. My audit includes examination, on a test basis, of evidence relevant to the amounts, disclosures and regularity of financial transactions included in the financial statements and the part of the Remuneration Report to be audited. It also includes an assessment of the significant estimates and judgements made by the Council and Chief Executive in the preparation of the financial statements, and of whether the accounting policies are most appropriate to the Medical Research Council's circumstances, consistently applied and adequately disclosed.

I planned and performed my audit so as to obtain all the information and explanations which I considered necessary in order to provide me with sufficient evidence to give reasonable assurance that the financial statements and the part of the Remuneration Report to be audited are free from material misstatement, whether caused by fraud or error and that in all material respects the expenditure and income have been applied to the purposes intended by Parliament and the financial transactions conform to the authorities which govern them. In forming my opinion I also evaluated the overall adequacy of the presentation of information in the financial statements and the part of the Remuneration Report to be audited.

# OPINIONS

## Audit Opinions

In my opinion:

- the financial statements give a true and fair view, in accordance with the Science and Technology Act 1965 and directions made thereunder by the Secretary of State for the Department for Innovation, Universities and Skills, of the state of the Medical Research Council's affairs as at 31 March 2008 and of its net expenditure for the year then ended;
- the financial statements and the part of the Remuneration Report to be audited have been properly prepared in accordance with the Science and Technology Act 1965 directions made thereunder by the Secretary of State for the Department for Innovation, Universities and Skills; and
- information which comprises the Management Commentary included in the Annual Report is consistent with the financial statements.

## Audit Opinion on Regularity

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

## Report

I have no observations to make on these financial statements.

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T J Burr

T J Burr  
Comptroller and Auditor General  
Date: 15 July 2008

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National Audit Office  
151 Buckingham Palace Road  
London, SW1W 9SS

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# STATEMENT OF NET EXPENDITURE

## FOR THE YEAR ENDED 31 MARCH 2008

|  |              | 2007/08         | 2006/07         |
|--|--------------|-----------------|-----------------|
| <b>Expenditure</b>   | <b>Notes</b> | <b>£000</b>     | <b>£000</b>     |
| Staff costs  | 7            | 169,468         | 164,581         |
| Other operating costs  | 8            | 113,027         | 111,079         |
| Research grants  | 9            | 178,302         | 175,938         |
| Other research   | 10           | 27,272          | 36,048          |
| Postgraduate/training awards   | 11           | 57,588          | 52,176          |
| International subscriptions  | 12           | 12,379          | 11,305          |
| Commercial activities  | 13           | 24,491          | 17,185          |
| Amortisation of intangible fixed assets  | 15           | 23,098          | 10,315          |
| Depreciation of tangible fixed assets  | 16           | 19,869          | 19,079          |
| <b>Total operating expenditure</b>   |              | <b>625,494</b>  | <b>597,706</b>  |
| <b>Income</b>  |              |                 |                 |
| Release of deferred income on donated asset                                    | 23           | 125             | 115             |
| Commercial activities  | 13           | 49,009          | 33,978          |
| Other income   | 5            | 5,933           | 5,711           |
| <b>Total operating income</b>  |              | <b>(55,067)</b> | <b>(39,804)</b> |
| <b>Net operating expenditure</b>   |              | <b>570,427</b>  | <b>557,902</b>  |
| Interest receivable  | 6            | (11,693)        | (8,642)         |
| Notional cost of capital   | lj           | 15,317          | 16,097          |
| Amount payable to the Department for Innovation, Universities and Skills       | 14           | 250             | 201             |
| Other finance income   | 7e           | (19,179)        | (13,201)        |
| Unwinding of discount on provisions  | 21           | 409             | 243             |
| Loss/(Gain) on disposal of tangible fixed assets                               |              | 2,391           | (780)           |
| Gain on disposal of intangible fixed assets                                    |              | (13,151)        | -               |
| Gain on disposal of investments  | 17c          | (296)           | (10,934)        |
| <b>Net expenditure for the year</b>  |              | <b>544,475</b>  | <b>540,886</b>  |
| Reversal of notional cost of capital   |              | (15,317)        | (16,097)        |
| <b>Net expenditure for the year after reversal of notional cost of capital</b> |              | <b>529,158</b>  | <b>524,789</b>  |

The notes at pages 87 to 112 form part of these Accounts.

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# BALANCE SHEET

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## AS AT 31 MARCH 2008

|  |              | 2007/08          | 2006/07        |
|--|--------------|------------------|----------------|
|  |              | £000             | £000           |
| <b>Fixed assets</b>  | <b>Notes</b> |                  |                |
| Intangible assets  | 15           | 174,498          | 87,313         |
| Tangible assets  | 16           | 353,742          | 291,782        |
| Investments  | 17           | 1,446            | 2,038          |
|  |              | <b>529,686</b>   | <b>381,133</b> |
| <b>Current assets</b>  |              |                  |                |
| Stocks   | 18           | 2,351            | 1,787          |
| Debtors  | 19           | 40,555           | 40,136         |
| Cash at bank and in hand   |              | 35,543           | 255,574        |
|  |              | <b>78,449</b>    | <b>297,497</b> |
| Creditors: amounts falling due within one year                   | 20           | (201,694)        | (138,697)      |
| <b>Net current (liabilities)/assets</b>                          |              | <b>(123,245)</b> | <b>158,800</b> |
| <b>Total assets less current liabilities</b>                     |              | <b>406,441</b>   | <b>539,933</b> |
| Provisions for liabilities and charges                           | 21           | (13,539)         | (16,551)       |
| Net assets excluding pension asset                               |              | 392,902          | 523,382        |
| Pension asset  | 7e           | 117,808          | 100,488        |
| <b>Net assets</b>  |              | <b>510,710</b>   | <b>623,870</b> |
| <b>Capital and reserves</b>                                      |              |                  |                |
| Revaluation reserve  | 22           | 70,622           | 66,310         |
| Intellectual property reserve                                    | 22           | 174,498          | 87,313         |
| Donated asset reserve  | 22           | 760              | 753            |
|  |              | <b>245,880</b>   | <b>154,376</b> |
| Accumulated surplus on general reserve excluding pension reserve | 22           | 147,022          | 369,006        |
| Pension reserve  | 22           | 117,808          | 100,488        |
| Accumulated surplus on general reserve including pension reserve |              | 264,830          | 469,494        |
| <b>Government funds</b>  | 22           | <b>510,710</b>   | <b>623,870</b> |

The notes at pages 87 to 112 form part of these Accounts.

L K Borysiewicz

Sir Leszek Borysiewicz  
Chief Executive and Accounting Officer  
Date: 11 July 2008

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# CASH FLOW STATEMENT

## FOR THE YEAR ENDED 31 MARCH 2008

|   |       | 2007/08          | 2006/07         |
|---|-------|------------------|-----------------|
|   | Notes | £000             | £000            |
| <b>Net cash outflow from operating activities</b>                           | 23    | (497,906)        | (487,365)       |
| <b>Return on investments and servicing of finance</b>                       |       |                  |                 |
| Interest received   | 6     | 11,693           | 8,642           |
| Payments to the Department for Innovation, Universities and Skills          | 14    | (250)            | (201)           |
| <b>Net cash inflow from returns on investments and servicing of finance</b> |       | <u>11,443</u>    | <u>8,441</u>    |
| <b>Net cash outflow before capital expenditure and financial investment</b> |       | (486,463)        | (478,924)       |
| <b>Capital expenditure and financial investment</b>                         |       |                  |                 |
| Payments to acquire tangible fixed assets and investments                   |       | (38,218)         | (44,381)        |
| Receipts from sale of tangible fixed assets                                 |       | 460              | 831             |
| Net receipt from sale of intangible fixed assets                            |       | 20,070           | -               |
| Receipt from sale of investments  |       | 296              | 16,063          |
| <b>Net cash outflow from capital expenditure</b>                            |       | <u>(17,392)</u>  | <u>(27,487)</u> |
| <b>Net cash outflow before financing</b>                                    |       | (503,855)        | (506,411)       |
| <b>Financing</b>  |       |                  |                 |
| Grant-in-aid received   | 22    | 424,915          | 503,477         |
| Transfer to consolidated fund   |       | (212,000)        | -               |
| Other capital funding received  |       | 132              | 215             |
| Contributions from other government departments                             |       | 23,603           | 32,477          |
| Contribution and grants from other bodies                                   |       | 47,076           | 35,913          |
| Contribution for licence fees   |       | 98               | 98              |
| <b>Net cash inflow from financing</b>                                       |       | <u>283,824</u>   | <u>572,180</u>  |
| <b>(Decrease)/increase in cash</b>  | 24    | <u>(220,031)</u> | <u>65,769</u>   |

The notes at pages 87 to 112 form part of these Accounts.

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## STATEMENT OF RECOGNISED GAINS AND LOSSES

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### FOR THE YEAR ENDED 31 MARCH 2008

|   | 2007/08          | 2006/07          |
|---|------------------|------------------|
|   | £000             | £000             |
| Net expenditure for the year              | (544,475)        | (540,886)        |
| Gains on revaluation of fixed assets      | 126,535          | 24,361           |
| Actuarial gain in pension scheme          | 5,764            | 45,786           |
| <b>Total recognised loss for the year</b> | <b>(412,176)</b> | <b>(470,739)</b> |

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# NOTES TO THE ACCOUNTS

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## 1. ACCOUNTING POLICIES

### a. Basis of accounting

The accounts have been prepared in accordance with a direction given by the Department for Innovation, Universities and Skills, with the approval of HM Treasury, in pursuance of Section 2(2) of the Science and Technology Act 1965 and in accordance with the *Government's Financial Reporting Manual*.

The accounts have been prepared under the historical cost convention, modified to include the revaluation of tangible and intangible fixed assets and investments, and the valuation of stock to reflect current costs. Without limiting the information given, the accounts meet the accounting and disclosure requirements of the Companies Act 1985 and accounting standards issued or adopted by the Accounting Standards Board so far as these requirements are appropriate. The Accounts Direction exempts the MRC from the requirement to produce a note of historical cost profits, assets and losses.

### b. Tangible fixed assets and depreciation

Expenditure on fixed assets includes the purchase of land, buildings and equipment costing £3,000 or more. Tangible fixed assets are included at cost or at valuation. 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. (Buy-back lease arrangements are valued every five years only.) 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 or temporary deficit on revaluation is taken to a revaluation reserve. Any permanent impairments in value are charged to the Statement of Net Expenditure in the year in which they arise.

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 tangible fixed assets at rates calculated to write off each asset evenly to its residual value over its expected useful life, as follows:

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

A full year's depreciation is charged on all tangible fixed assets acquired during the financial year.

## c. Intangible fixed assets and amortisation

The values of patents, licences and royalties held by the MRC are capitalised as intangible fixed 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 fixed assets are amortised over the period these agreements are in force, including a full year's amortisation charge in the year of valuation. 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 temporary deficit on valuations following such reviews is taken to a revaluation reserve.

## d. 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 tangible fixed assets. 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.

## e. Grant-in-aid

Grant-in-aid for revenue purposes and for the purchase of fixed assets in general is credited to general reserve in the year in which it is received. Capital grant-in-aid, granted for a specific project(s), is credited to a government grant reserve and released to the Statement of Net Expenditure over the estimated operational lives of the related assets.

## f. Other income

Other income is shown net of trade discount, value added tax and other taxes. Contributions for licence fees, contributions from other government bodies and contributions and grants from other bodies (see note 2, 3 and 4) are treated as financing and credited to general reserve, in the same way as grant-in-aid referred to in 1e, grant-in-aid above.

## g. Investments

Listed investments are shown at market value. Unlisted investments are shown at cost. Any surplus or temporary deficit on revaluation is taken to a revaluation reserve. Any permanent impairment in value is charged to the Statement of Net Expenditure in the year in which it arises.

## h. Stocks

Livestock and consumable stores are included in the balance sheet at cost.

## i. Research and development

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

## j. Notional costs

In line with HM Treasury requirements, a notional interest charge is included in the accounts to reflect a charge for the use of capital in the business in the year, as the MRC has no specific interest bearing debt. In accordance with Treasury guidance, the calculation is based on a 3.5 per cent rate of return on average net assets employed. Notional cost of capital charged during the period of the Account was £15,317,000 (2006/07 = £16,097,000).

## k. Foreign currencies

Monetary assets and liabilities denominated in foreign currencies are translated at the rates of exchange ruling at the balance sheet date. Transactions in foreign currencies are recorded at the rate ruling at the time of the transaction. All exchange differences are taken to the Statement of Net Expenditure.

## l. Value added tax (VAT)

As the MRC is partially exempt for VAT purposes, all expenditure and fixed 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 Net Expenditure as negative expenditure.

## m. Pension costs

Employer superannuation costs are based on an actuarially derived calculation under Financial Reporting Standard No.17 (FRS 17). See note 7d.

## n. Early retirement costs

Compensation payments are provided for in the Statement of Net Expenditure. Obligations relating to those former members of staff aged 50 or over are provided for until their normal date of retirement.

Unwinding of discount: the provision for early retirement costs is discounted at 2.2 per cent. The unwinding of the discount has been charged to the Statement of Net Expenditure.

## o. Operating Leases

Operating lease charges are recognised in the Statement of Net Expenditure in the year to which they relate.

## 2. PARLIAMENTARY GRANT-IN-AID AND CONTRIBUTION TO LICENCE FEES

The grant-in-aid and contributions in respect of (Animal) Licence Fees of £98,000 (2006/07 = £98,000) are provided by the Department for Innovation, Universities and Skills (DIUS) for the financial year 2007/08. The parliamentary grant-in-aid for 2007/08 was £424,915,000. Grant-in-aid and animal licence fees received are now treated as financing and credited directly to reserve.

|   | 2007/08<br>£000 | 2006/07<br>£000 |
|---|-----------------|-----------------|
| Grant allocation received and credited to general reserve | 424,915         | 503,477         |

## 3. CONTRIBUTIONS FROM OTHER GOVERNMENT DEPARTMENTS

|  | 2007/08<br>£000 | 2006/07<br>£000 |
|--|-----------------|-----------------|
| Department of Health                               | 6,679           | 22,836          |
| Department for International Development           | 14,042          | 5,067           |
| Ministry of Defence                                | -               | 309             |
| NHS Executive                                      | 568             | 1,567           |
| Department for Innovation, Universities and Skills | 21              | -               |
| Foods Standards Agency                             | 694             | 1,145           |
| Scottish Government Health Directorates            | 357             | 443             |
| Other  | 1,242           | 1,110           |
| <b>Total</b>                                       | <b>23,603</b>   | <b>32,477</b>   |

## 4. CONTRIBUTIONS AND GRANTS FROM OTHER BODIES

|                                   | 2007/08<br>£000 | 2006/07<br>£000 |
|-----------------------------------|-----------------|-----------------|
| Other research councils           | 5,446           | 3,491           |
| Charities                         | 15,698          | 15,516          |
| Collaboration with industry       | 11,295          | 3,343           |
| European Commission               | 6,719           | 4,936           |
| World Health Organization         | 6               | 43              |
| Human Frontiers Science Program   | 219             | 234             |
| Health Authorities and NHS Trusts | 2,050           | 1,622           |
| Universities                      | 5,643           | 3,587           |
| Other sources                     | -               | 3,141           |
| <b>Total</b>                      | <b>47,076</b>   | <b>35,913</b>   |

## 5. OTHER INCOME

|                        | 2007/08<br>£000 | 2006/07<br>£000 |
|------------------------|-----------------|-----------------|
| Sales and other income | 5,933           | 5,711           |

The MRC's sales income is derived from laboratory and library services, as well as proceeds from sales of radioisotopes and other items.

## 6. INTEREST RECEIVABLE

|   | 2007/08<br>£000 | 2006/07<br>£000 |
|---|-----------------|-----------------|
| Interest earned on the MRC's Commercial Fund bank balances                  | 11,359          | 8,214           |
| Interest earned on the MRC's other Euro and other foreign currency accounts | 84              | 227             |
| Interest earned on the MRC's other Sterling bank balances                   | 250             | 201             |
| <b>Total</b>  | <b>11,693</b>   | <b>8,642</b>    |

Interest earned on the MRC's Commercial Fund bank balances was previously reported under income from commercial activities.

## 7. STAFF COSTS

|   | 2007/08<br>£000 | 2006/07<br>£000 |
|---|-----------------|-----------------|
| Employee costs (note 7b)  | 170,907         | 164,334         |
| Non-permanent staff   | 4,933           | 5,300           |
| Remuneration to the MRC's Council and committee members (note 7c) | 280             | 235             |
| Early retirement costs (note 21)                                  | 245             | 1,130           |
| <b>Gross staff costs</b>  | <b>176,365</b>  | <b>170,999</b>  |
| Less commercial activities (note 13)                              | (6,897)         | (6,418)         |
| <b>Staff costs for general activities</b>                         | <b>169,468</b>  | <b>164,581</b>  |

## 7a. Staff numbers<sup>1</sup>

The average number of employees during the year was made up as follows:

|                                   | 2007/08      | 2006/07      |
|-----------------------------------|--------------|--------------|
| Science                           | 1,288        | 1,258        |
| Research Project Support          | 1,002        | 1,054        |
| Administration                    | 617          | 553          |
| Technical Services <sup>2</sup>   | 632          | 607          |
| Locally Employed staff (overseas) | 1,224        | 1,127        |
| <b>Total</b>                      | <b>4,763</b> | <b>4,599</b> |

<sup>1</sup> Staff are shown on a full time equivalent basis.

<sup>2</sup> To achieve improved management information and to coincide with the introduction of the new human resources computing system, 160 staff (2006/07) previously classified as Infrastructure, were reclassified as Administration and Technical during 2007/08.

## 7b. Employee costs

|                               | 2007/08<br>£000 | 2006/07<br>£000 |
|-------------------------------|-----------------|-----------------|
| Salaries and wages            | 141,861         | 134,050         |
| Social security costs         | 10,645          | 10,462          |
| Other pension costs (note 7d) | 18,401          | 19,822          |
| <b>Total</b>                  | <b>170,907</b>  | <b>164,334</b>  |

## 7c. Remuneration to the MRC's Council and committee members

|                       | 2007/08<br>£000 | 2006/07<br>£000 |
|-----------------------|-----------------|-----------------|
| Fees and honoraria    | 274             | 230             |
| Social security costs | 6               | 5               |
| <b>Total</b>          | <b>280</b>      | <b>235</b>      |

## 7d. Other pension costs

|   | 2007/08<br>£000 | 2006/07<br>£000 |
|---|-----------------|-----------------|
| <b>Total pension costs</b>  |                 |                 |
| Current service costs (net of employee contributions relating to MRCPS) | 18,386          | 19,799          |
| Other schemes   | 15              | 23              |
| <b>Total</b>  | <b>18,401</b>   | <b>19,822</b>   |

## 7e. MRCPS

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 six per cent pensionable earnings in the principal section. In addition to the principal section, the supplementary benefits section exists to provide additional benefits in the event of ill-health retirement or death-in-service. It is solely funded by members' contributions.

The required MRCPS contribution rate is assessed every three years in accordance with advice of the Government Actuary; the present MRCPS employers' contribution rate is 11 per cent. The latest actuarial assessment of the MRCPS was at 31 December 2004<sup>1</sup> at which the market value of the assets of the MRCPS was £890m (2001 = £758m). The actuarial value of the assets was sufficient to cover 106 per cent of the benefits that had accrued to members after allowing for expected future increases in earnings. On a minimum funding requirement basis, the scheme is more than 120 per cent funded.

**FRS17:** the valuation used for FRS 17 disclosures has been based on the data for the most recent actuarial valuations as at 31 December 2004, updated to take account of the requirements of FRS 17 in order to assess the liabilities of the scheme at 31 March 2008. The mortality assumptions included within the figures are that male (female) members who retire at typical ages will live to approximately age 85 (88).

<sup>1</sup> Updated for December 2007 but results not yet available.

### Financial assumptions used to calculate scheme liabilities

|  | 2007/08 | 2006/07 | 2005/06 |
|--|---------|---------|---------|
|  | %       | %       | %       |
| Rate of increase on pensionable salaries | 5.20    | 5.00    | 4.60    |
| Rate of increase on pension payments     | 3.70    | 3.50    | 3.00    |
| Discount rate                            | 6.90    | 5.40    | 4.90    |
| Inflation rate                           | 3.70    | 3.50    | 3.00    |
| Expected return on equities              | 7.02    | 7.25    | 6.84    |
| Expected return on bonds                 | 4.52    | 4.63    | 4.23    |
| Expected return on overall fund          | 6.74    | 7.00    | 6.60    |

### Analysis of actuarial gain recognised in the statement of recognised gains and losses

|  | 2007/08      | 2006/07       | 2005/06       |
|--|--------------|---------------|---------------|
|  | %            | %             | %             |
| Actual return less expected return on pension scheme assets        | (123,698)    | 35,763        | 111,067       |
| Experience (losses) and gains arising on the scheme liabilities    | (9,065)      | (2,105)       | 3,448         |
| Changes in assumptions underlying the present value of liabilities | 138,527      | 12,128        | (96,298)      |
| Actuarial gain recognised in statement above                       | <b>5,764</b> | <b>45,786</b> | <b>18,217</b> |

### Analysis of actuarial gain expressed as a percentage of the scheme's assets and liabilities at the balance sheet date

|   | 2007/08 | 2006/07 | 2005/06 |
|---|---------|---------|---------|
|   | %       | %       | %       |
| Actual return less expected return on pension scheme assets     | (15.54) | 4.16    | 14.37   |
| Experience (losses) and gains arising on the scheme liabilities | (1.34)  | (0.28)  | 0.47    |
| Actuarial gain recognised in statement above                    | 0.85    | 6.03    | 2.51    |

### The assets and liabilities in the scheme

|                              | 2007/08<br>Market value<br>£000 | 2006/07<br>Market value<br>£000 |
|------------------------------|---------------------------------|---------------------------------|
| Assets                       |                                 |                                 |
| - Equities and property      | 706,634                         | 771,978                         |
| - Bonds and cash             | 89,378                          | 87,565                          |
|                              | <hr/> 796,012                   | <hr/> 859,543                   |
| Actuarial value of liability | (678,204)                       | (759,055)                       |
| Surplus in scheme            | <hr/> 117,808                   | <hr/> 100,488                   |

### The movements in the scheme surplus

|   | 2007/08<br>£000      | 2006/07<br>£000      |
|---|----------------------|----------------------|
| Surplus at beginning of year                            | 100,488              | 45,819               |
| Current service cost (including employee contributions) | (25,770)             | (25,637)             |
| Employee contributions                                  | 7,369                | 5,815                |
| Current service costs net of employee contributions     | (18,401)             | (19,822)             |
| Employer contributions                                  | 10,778               | 15,504               |
| Other finance income                                    | 19,179               | 13,201               |
| Actuarial gain  | 5,764                | 45,786               |
| <b>Surplus at end of year</b>                           | <hr/> <b>117,808</b> | <hr/> <b>100,488</b> |

### Other finance income

|  | 2007/08<br>£000     | 2006/07<br>£000     |
|--|---------------------|---------------------|
| Expected return on pension scheme assets | 60,168              | 51,003              |
| Interest on pension scheme liabilities   | (40,989)            | (37,802)            |
| <b>Net return</b>                        | <hr/> <b>19,179</b> | <hr/> <b>13,201</b> |

### Other schemes

The total superannuation contributions paid by the MRC in 2007/08 were £15,381 (2006/07 = £23,074). These amounts represent employers' contributions at 5 per cent for a small number of long-serving members of the National Health Service Superannuation scheme (NHSS).

The NHSS is a multi employer unfunded scheme, and the MRC is unable to identify its share of the underlying assets and liabilities on a consistent and reasonable basis and therefore, as required by FRS 17, accounts for the Scheme as if it were a defined contribution scheme. As a result, the amount charged to the Statement of Net Expenditure account represents the contributions payable to the scheme in respect of the accounting period.

## 8. OTHER OPERATING COSTS

|   | 2007/08        | 2006/07        |
|---|----------------|----------------|
|   | £000           | £000           |
| Rent and rates                                      | 5,288          | 5,174          |
| General maintenance, cleaning, heating and lighting | 9,656          | 9,851          |
| Maintenance of buildings                            | 9,308          | 7,593          |
| Office supplies, printing, and stationery           | 3,457          | 2,754          |
| Laboratory supplies                                 | 24,101         | 25,604         |
| Management consultancy and other professional fees  | 18,719         | 16,075         |
| Postage and telephone                               | 2,754          | 2,507          |
| Audit fee   | 58             | 61             |
| Travel, subsistence and hospitality                 | 6,989          | 7,718          |
| Computing   | 4,337          | 4,260          |
| Equipment servicing                                 | 4,827          | 4,267          |
| Minor equipment                                     | 2,369          | 3,006          |
| Miscellaneous                                       | 17,981         | 13,665         |
| Transport costs                                     | 646            | 680            |
| Exchange rate loss/(gains)                          | 285            | 1,123          |
| Bad debts (credit)/charge                           | (109)          | 81             |
| Scanning services                                   | 4,974          | 4,994          |
| Decommissioning (reversal)/costs (see note 21)      | (2,613)        | 1,666          |
| <b>Total</b>  | <b>113,027</b> | <b>111,079</b> |

## 9. RESEARCH GRANTS

|                             | 2007/08        | 2006/07        |
|-----------------------------|----------------|----------------|
|                             | £000           | £000           |
| Research Grants             | 135,054        | 111,218        |
| Centre Grants               | 8,528          | 6,606          |
| Collaboration Grants        | 8,544          | 14,696         |
| Discipline Hopping Awards   | 1,585          | 1,248          |
| Link Award                  | 121            | 387            |
| New Investigator Award      | 6,045          | 3,738          |
| Trial Grant                 | 14,517         | 11,433         |
| Hearing Screening Programme | (148)          | 14,320         |
| Other                       | 4,056          | 12,292         |
| <b>Total</b>                | <b>178,302</b> | <b>175,938</b> |

## 10. OTHER RESEARCH

|  | 2007/08<br>£000 | 2006/07<br>£000 |
|--|-----------------|-----------------|
| Contributions to special research programmes | 27,272          | 36,048          |

## 11. POSTGRADUATE/TRAINING AWARDS

|  | 2007/08<br>£000 | 2006/07<br>£000 |
|--|-----------------|-----------------|
| Research studentships/advanced course studentships | 25,021          | 23,602          |
| Post-doctoral fellowships                          | 32,567          | 28,574          |
| <b>Total</b>                                       | <b>57,588</b>   | <b>52,176</b>   |

## 12. INTERNATIONAL SUBSCRIPTIONS

|   | 2007/08<br>£000 | 2006/07<br>£000 |
|---|-----------------|-----------------|
| International Agency for Research on Cancer | 686             | 749             |
| European Molecular Biology Conference       | 1,626           | 1,457           |
| European Molecular Biology Laboratory       | 9,096           | 8,102           |
| Human Frontier Science Program              | 817             | 817             |
| European Science Foundation                 | 154             | 180             |
| <b>Total</b>                                | <b>12,379</b>   | <b>11,305</b>   |

## 13. COMMERCIAL ACTIVITIES

|                                | 2007/08<br>£000 | 2006/07<br>£000 |
|--------------------------------|-----------------|-----------------|
| Income during the year         | 49,009          | 33,978          |
| Interest income (note 6)       | 11,359          | 8,214           |
|                                | 60,368          | 42,192          |
| Expenditure during the year:   |                 |                 |
| Staff costs (note 7)           | 6,897           | 6,418           |
| Other expenditure              | 17,594          | 10,767          |
|                                | (24,491)        | (17,185)        |
| <b>Net income for the year</b> | <b>35,877</b>   | <b>25,007</b>   |

The MRC requires a financial return from successful commercial exploitation of original MRC research. Such income arises from royalties, equity stakes and other forms of receipts as a result of licensing agreements of MRC inventions and know-how.

Income and expenditure relating to commercial activities is credited and charged to the Statement of Net Expenditure, with its cumulative balance represented within the general reserve on the balance sheet.

## 14. AMOUNTS PAYABLE TO THE DEPARTMENT FOR INNOVATION UNIVERSITIES AND SKILLS

|  | 2007/08<br>£000 | 2006/07<br>£000 |
|--|-----------------|-----------------|
| Interest earned on the MRC's sterling bank balances (note 6)                 | 250             | 201             |
| <b>Surrendered to the Department for Innovation, Universities and Skills</b> | <b>250</b>      | <b>201</b>      |

Interest earned on the MRC's sterling bank balances, together with any underspend for licence fees payable under the Animal Licence Act 1986, are surrendered to the consolidated fund through the Department for Innovation, Universities and Skills.

## 15. INTANGIBLE FIXED ASSETS

Intangible fixed assets include patents and licences generated by MRC research.

|   | 2007/08<br>£000 |
|---|-----------------|
| <b>At valuations</b>                      |                 |
| Net book value as at 1 April 2007         | 87,313          |
| Additions                                 | 24,882          |
| Disposals                                 | (6,919)         |
| Revaluations                              | 92,320          |
| Charge for the year                       | (23,098)        |
| <b>Net book value as at 31 March 2008</b> | <b>174,498</b>  |

During the year the MRC received a one-off payment of £27million from Genentech in respect of a fully-paid licence relating to Intellectual Property Rights as they apply to certain monoclonal antibody therapeutic products.

## 16. TANGIBLE FIXED ASSETS

|                          | Land and<br>buildings <sup>1</sup><br>£000 | Assets under<br>construction <sup>2</sup><br>£000 | Equipment<br>and vehicles<br>£000 | Total<br>£000 |
|--------------------------|--|---|-----------------------------------|---------------|
| <b>Cost or valuation</b> |  |   |                                   |               |
| At 1 April 2007          | 361,245                                    | 52,356  | 179,357                           | 592,958       |
| Additions                | 3,851                                      | 65,009  | 11,656                            | 80,516        |
| Reclassification         | 6,727                                      | (11,317)  | 4,590                             | -             |
| Disposals                | (7,133)                                    | (814)   | (11,440)                          | (19,387)      |
| Revaluation              | 16,179                                     | -   | 4,761                             | 20,940        |
| At 31 March 2008         | 380,869                                    | 105,234   | 188,924                           | 675,027       |
| <b>Depreciation</b>      |  |   |                                   |               |
| At 1 April 2007          | 172,820                                    | -   | 128,356                           | 301,176       |
| Provided during the year | 7,073                                      | -   | 12,796                            | 19,869        |
| Disposals                | (420)                                      | -   | (10,356)                          | (10,776)      |
| Revaluation              | 6,906                                      | -   | 4,110                             | 11,016        |
| At 31 March 2008         | 186,379                                    | -   | 134,906                           | 321,285       |
| <b>Net book value</b>    |  |   |                                   |               |
| As at 31 March 2008      | 194,490                                    | 105,234   | 54,018                            | 353,742       |
| As at 1 April 2007       | 188,425                                    | 52,356  | 51,001                            | 291,782       |

|   | 2007/08<br>£000 | 2006/07<br>£000 |
|---|-----------------|-----------------|
| The net book value of land and buildings comprises: | 67,876          | 57,711          |
| Freehold  | 118,047         | 127,185         |
| Long leasehold                                      | 8,567           | 3,529           |
| Short leasehold                                     | <u>194,490</u>  | <u>188,425</u>  |

<sup>1</sup> Tangible fixed assets include £41,029,449 in respect of freehold land which is not depreciated.

<sup>2</sup> The seven UK Research Councils have agreed to establish a Shared Service Centre (SSC), to be based in Swindon. EPSRC is acting as 'host' for the SSC on behalf all councils and has contracted for the development and establishment of the SSC. £4.235m has been capitalised and included in Assets Under Construction as MRC's contribution towards capitalised systems expenditure.

Other assets included in Assets Under Construction are: £46.75m contribution towards the cost of the land for the UK Centre for Medical Research and Innovation; £36.1m for new animal facilities in London and Cambridge; £9.2m for the new building for the Laboratory of Molecular Biology; and £2.8m for our new clinical services building in London.

Land and buildings were valued using relevant indices to establish valuations at 31 March 2008 and in accordance with Statements of Asset Valuation Practice (SAVP) and Royal Institute of Chartered Surveyors (RICS) guidance notes.

The last professional revaluation of land and buildings in the UK was performed by Powis Hughes and Associates, Chartered Surveyors, at 1 December 2003. Professional revaluations of land and buildings at the MRC's Laboratories in The Gambia and Uganda were performed locally by Sphinx Associates, Chartered Quantity Surveyors in association with BB Barry Consultancy Service (Land Economist) at 31 October 2003 and BBL (U) Chartered Quantity Surveyors in December 2003, respectively.

## 17. FIXED ASSET INVESTMENTS

|                            | Joint ventures<br>£000 | Other investments<br>£000 | Total<br>£000 |
|----------------------------|------------------------|---------------------------|---------------|
| As at 1 April 2007         | -                      | 2,038                     | 2,038         |
| Additions                  | -                      | -                         | -             |
| Disposal                   | -                      | -                         | -             |
| Revaluation                | -                      | (592)                     | (592)         |
| <b>As at 31 March 2008</b> | <u>-</u>               | <u>1,446</u>              | <u>1,446</u>  |

### 17a. Subsidiary companies

#### MRC Technology

MRC Technology Ltd (MRCT) is a company limited by guarantee and a registered charity which was set up to provide a laboratory-base for project management of applied research funded by industrial partners and offer infrastructure to 'spin-out' companies. Since April 2000 it has also managed the exploitation of MRC intellectual property under a service agreement with the MRC.

MRCT is a separate legal entity that prepares its own accounts under a different format. Due to its charitable status, the risks and rewards of MRCT do not lie with the MRC, and the MRC cannot exercise control over its decisions. MRCT has therefore been excluded from consolidation.

For the year ended 31 March 2008 the accounts of MRCT revealed a loss for the year of £5,464 (2007 = £376,242 profit) and net assets of £10,734,363 (2007 = £10,675,918).

During the year ended 31 March 2008 the MRC provided goods and services to MRCT to a value of £5,426,832 (2006/07 = £5,851,062). These goods and services were costed on the same basis on which they would be provided between departments within the MRC. As at 31 March 2008, the MRC was owed £1,449,767 (2006/07 = £1,061,920) and owed nil to MRCT (2006/07 = £1,128,365).

## 17b. Joint Ventures

### Hammersmith Imanet Limited

The MRC holds 25 per cent of the ordinary shares of the company whose capital and reserves were valued at (£1,478,131) at 31 December 2007. The profit and loss account for the period then ended recorded a loss of £195,641 (2006/07 = £751,285 loss). Hammersmith Imanet Ltd was originally a joint venture with Amersham plc. In 2004, Amersham plc was acquired by the American firm General Electric (GE) and incorporated into the GE Healthcare business segment. The joint venture agreement provides for the provision of scanning services in order to support the PET imaging programmes of the MRC Clinical Sciences Centre. In consideration for this service the MRC agrees to pay £4.99m (VAT inclusive), per year, adjusted for inflation in future years, for a contract period 1 April 2006 to 31 March 2011. During the year to 31 March 2007 this amounted to £5,030,411 (2006/07 = £4,993,750).

The investment in Hammersmith Imanet Ltd is shown at nil to reflect the MRC's share of the company's net assets at 31 March 2008.

## 17c. Other investments

|                                 | Number of<br>shares held | Holding<br>% | Market value at<br>31 March 2008<br>£000 |
|---------------------------------|--------------------------|--------------|--|
| Quoted                          |                          |              |  |
| Ardana Ltd                      | 416,460                  | 0.75         | 64                                       |
| Galapagos NV                    | 59,919                   | 0.47         | 298                                      |
| Vectura (formerly Innovata plc) | 58,357                   | 0.04         | 27                                       |
| Natus Medical Inc               | 7,066                    | 0.04         | 65                                       |
| Sangamo Biosciences Inc         | 165,255                  | 0.54         | 845                                      |
| Topo Targets A/S                | 113,916                  | 0.28         | 125                                      |
| Vernalis plc                    | 310,392                  | 0.14         | 22                                       |
|                                 |                          |              | <hr/> 1,446 <hr/>                        |

At the close of business on 31 March 2008 the price per share of MRC's shareholdings listed on the London stock exchange, the AIM, the Nasdaq and the Danish Stock Exchange were as follows:

|                                      |          |
|--------------------------------------|----------|
| Ardana Ltd                           | 15.3p    |
| Galapagos NV                         | 498p     |
| Vectura (formerly Innovata plc)      | 46p      |
| Natus Medical Inc <sup>1</sup>       | \$18.15  |
| Sangamo Biosciences Inc <sup>1</sup> | \$10.16  |
| Topo Targets A/S <sup>2</sup>        | DKK10.30 |
| Vernalis plc                         | 6.95p    |

<sup>1</sup> The share prices of the two listed US companies, were converted at a rate of US \$1.9859 = £1.00

<sup>2</sup> The share price of the listed Danish company was converted at a rate of DKK 9.3700 = £1.00

| Private unquoted                | Number of shares held |
|---------------------------------|-----------------------|
| ASM Scientific Ltd              | 27,000                |
| Avidis S.A.                     | 594                   |
| CM Therapeutics Ltd             | 93,600                |
| D-Gen Ltd                       | 13,162                |
| Idectus Ltd                     | 6,400                 |
| Oxxon Therapeutics Ltd          | 10,332                |
| Rain Dance Technologies Inc     | 200,000               |
| Senexis Ltd                     | 10                    |
| Heptares Therapeutics Limited   | 24,571                |
| RCUK Shared Services Centre Ltd | 1                     |

These companies represent the MRC's interest in enterprises engaged in the commercial development of MRC inventions and know-how. These equity positions were received in return for company access to MRC intellectual property.

During the year, the MRC net-exercised its warrant for Amylin Pharmaceuticals Inc. Proceeds of £296k were realised and credited to the Statement of Net Expenditure.

## 18. STOCK

|                                 | 2007/08<br>£000 | 2006/07<br>£000 |
|---------------------------------|-----------------|-----------------|
| Consumable stores and livestock | 2,351           | 1,787           |

## 19. DEBTORS

|                               | 2007/08 |               | 2006/07 |               |
|-------------------------------|---------|---------------|---------|---------------|
|                               | £000    | £000          | £000    | £000          |
| Trade debtors                 | 9,731   |               | 6,519   |               |
| Less provisions for bad debts | (78)    |               | (199)   |               |
|                               |         | 9,653         |         | 6,320         |
| Other debtors                 |         | 1,302         |         | 394           |
| Accrued income                |         | 22,566        |         | 25,550        |
| Prepayments                   |         | 7,034         |         | 7,872         |
| <b>Total</b>                  |         | <b>40,555</b> |         | <b>40,136</b> |

### Intra-government balances

At the end of the year, the MRC had debtor balances with other government bodies totalling £2,154k (2006/07=£1,669k) comprising the following: Government Agencies: £1,349k (2006/07=£1,386k), Local Authorities: £69k (2006/07=£45k), NHS Trusts and Hospitals: £736k (2006/07=£238k).

## 20. CREDITORS: AMOUNTS FALLING DUE WITHIN ONE YEAR

|                              | 2007/08<br>£000 | 2006/07<br>£000 |
|------------------------------|-----------------|-----------------|
| Trade creditors              | 63,221          | 59,113          |
| Accruals                     | 114,817         | 58,589          |
| Taxation and social security | 3,322           | 3,156           |
| Income received in advance   | 14,645          | 15,424          |
| Others                       | 5,689           | 2,415           |
| <b>Total</b>                 | <b>201,694</b>  | <b>138,697</b>  |

### Intra-government balances

At the end of the year, the MRC had creditor balances with other government bodies totalling £94k (2006/07 = £1,116k) comprising the following: Government Agencies: £52k (2006/07 = £978k), Local Authorities: £1k (2006/07 = £2k), NHS Trusts and Hospitals: £41k (2006/07 = £136k).

## 21. PROVISIONS FOR LIABILITIES AND CHARGES

|                         | Early retirement<br>compensation scheme<br>£000 | Redundancy<br>costs<br>£000 | Other<br>costs<br>£000 | Total<br>provisions<br>£000 |
|-------------------------|---|-----------------------------|------------------------|-----------------------------|
| At 1 April 2007         | 9,909   | 1,050                       | 5,592                  | 16,551                      |
| Amount provided in year | 245   | 734                         | (1,815)                | (836)                       |
| Unwinding of discount   | 409   | -                           | -                      | 409                         |
| Amount expended in year | (2,585)   | -                           | -                      | (2,585)                     |
| <b>At 31 March 2008</b> | <b>7,978<sup>1</sup></b>                        | <b>1,784</b>                | <b>3,777</b>           | <b>13,539</b>               |

<sup>1</sup> This figure represents the MRC's liability for annual compensation payments up to the year 2021.

### Early retirement compensation scheme

There are two categories of early retirement: compulsory and flexible. Both are applicable to all members of staff but different terms apply depending on whether the staff member is under or over age 50. (For staff joining from April 2006 onwards, minimum retirement age is 55).

**Aged 50 or over:** Annual compensation payments are made, equivalent to enhanced pension benefits, from the date of early retirement to normal retirement date. In the case of compulsory retirement only, there is also a lump sum compensation payment of up to six months salary.

**Methods of early retirement:** Compulsory retirement is imposed where a redundancy situation is identified following either a management review of support services or quinquennial peer review of the science, and redeployment to other MRC work is not possible.

Flexible early retirement is voluntary and is available at the invitation of management on grounds of limited efficiency or structure.

### RCUK Shared Service Centre Costs

The UK research councils and RCUK Shared Services Centre Ltd are in the process of developing a Shared Service Centre to carry out the central functions of human resources, finance, procurement and information technology across the councils. As a result some research councils will incur redundancy costs, particularly where existing staff live a distance away from Swindon where the Centre will be situated. The research councils have collectively agreed that they will be jointly liable for all necessary redundancies. The councils have calculated their likely redundancy liabilities in order to make a 2007/08 provision. A funding allocation model was developed and agreed by all the research councils and this identified the proportion of SSC project spend and liability that each individual council would incur. The total provision for redundancies has been apportioned using this model. The table below shows, for each council, the amount that they need to provide for redundancies of their own staff in accordance with FRS 12 as determined at 31 March 2008. Some councils will incur a cost for terminating their existing systems, and these costs are also being shared between councils. The provision for all seven councils are then split and shared in accordance with an agreed predetermined ratio as detailed in the table below. Each council takes their agreed share of their own liability and then contributes or receives contributions from the other research councils to reach the provision which is recorded in their own balance sheet.

|  | AHRC<br>£000 | BBSRC<br>£000 | EPSRC<br>£000 | ESRC<br>£000 | MRC<br>£000  | NERC<br>£000 | STFC<br>£000 | TOTAL<br>£000 |
|--|--------------|---------------|---------------|--------------|--------------|--------------|--------------|---------------|
| Provision required for the council's own redundancies  | 68           | 152           | -             | -            | 999          | 1,620        | -            | 2,839         |
| System termination fee   | -            | -             | -             | -            | 1,000        | -            | -            | 1,000         |
| Total provision  | <b>68</b>    | <b>152</b>    | -             | -            | <b>1,999</b> | <b>1,620</b> | -            | <b>3,839</b>  |
| % of liability to be borne by the council  | 1.33%        | 20.54%        | 8.24%         | 1.83%        | 26.98%       | 20.54%       | 20.54%       | 100.00%       |
| Amount borne by the council  | (1)          | (31)          |               |              | (540)        | (333)        | 789          | (905)         |
| Contributions towards councils redundancy and system termination provision received from/ provided to other councils | (16)         | 668           | 316           | 70           | (423)        | (499)        |              | 905           |
| <b>Net provision required for each council</b>   | <b>51</b>    | <b>789</b>    | <b>316</b>    | <b>70</b>    | <b>1,036</b> | <b>788</b>   | <b>789</b>   | <b>3,839</b>  |

Further costs may be incurred in future years.

### Other costs

The provision for the decommissioning of a cyclotron and associated apparatus for the former MRC cyclotron unit at Hammersmith hospital was revised downwards during the year. The MRC propose to implement a new solution earlier and at a lesser cost than originally envisaged. £2,653k was written back during the year. There is also a new provision of £40k for the decommissioning costs for the disposal of High Activity Sealed sources that are currently being used in our unit in The Gambia.

Following negotiations with the University of Dundee (which houses the MRC Protein Phosphorylation Unit) over funding for overheads, a provision of £528k has been included to reflect 2007/08 costs.

## 22. CAPITAL AND RESERVES

|  | Revaluation<br>reserve | Intellectual<br>property<br>reserve | Donated<br>asset<br>reserve | Pension<br>reserve | General<br>reserve | Total<br>government<br>funds |
|--|------------------------|-------------------------------------|-----------------------------|--------------------|--------------------|------------------------------|
|  | £000                   | £000                                | £000                        | £000               | £000               | £000                         |
| At 1 April 2007  | 66,310                 | 87,313                              | 753                         | 100,488            | 369,006            | 623,870                      |
| Transfer to consolidated<br>fund <sup>1</sup>                  | -                      | -                                   | -                           | -                  | (212,000)          | (212,000)                    |
| Other capital funding<br>received                              | -                      | -                                   | 132                         | -                  | -                  | 132                          |
| Grant-in-aid financing<br>received in year (note 2)            | -                      | -                                   | -                           | -                  | 424,915            | 424,915                      |
| Contributions from other<br>government departments<br>(note 3) | -                      | -                                   | -                           | -                  | 23,603             | 23,603                       |
| Contributions and grants<br>from other bodies (note 4)         | -                      | -                                   | -                           | -                  | 47,076             | 47,076                       |
| Contribution for licence<br>fees (note 2)                      | -                      | -                                   | -                           | -                  | 98                 | 98                           |
| Released to Statement of<br>Net Expenditure                    | -                      | -                                   | (125)                       | -                  | -                  | (125)                        |
| Additions during year  | -                      | 24,882                              | -                           | -                  | -                  | 24,882                       |
| Revaluations during year                                       | 9,333                  | 92,320                              | -                           | -                  | -                  | 101,653                      |
| Actuarial gain in the<br>pension scheme                        | -                      | -                                   | -                           | 5,764              | -                  | 5,764                        |
| Transfer to general reserve<br>– depreciation                  | (4,807)                | (23,098)                            | -                           | -                  | 27,905             | -                            |
| Transfer to general reserve<br>– disposals                     | (214) <sup>2</sup>     | (6,919)                             | -                           | -                  | 7,133              | -                            |
| Transfer pension scheme  | -                      | -                                   | -                           | 11,556             | (11,556)           | -                            |
| Net Expenditure for the<br>year                                | -                      | -                                   | -                           | -                  | (544,475)          | (544,475)                    |
| Reversal of notional costs<br>of capital                       | -                      | -                                   | -                           | -                  | 15,317             | 15,317                       |
| <b>At 31 March 2008</b>  | <b>70,622</b>          | <b>174,498</b>                      | <b>760</b>                  | <b>117,808</b>     | <b>147,022</b>     | <b>510,710</b>               |

<sup>1</sup> During the year £92m was paid to Consolidated Fund; £120m added to EYF stock. In July 2007, DIUS notified the MRC that the Commercial Fund should be accounted for within the Government's Resource and Accounting Budget Framework, £92m of the £198.9m accumulated cash surplus should be paid into the Government Consolidated Fund and that this £92m would no longer be available for MRC's use. The remaining balance of £106.9m has been added to its stock of EYF. Drawdown of this EYF will be subject to the normal processes including approval from DIUS. Being covered by its EYF agreement, £120m excess cash was returned to DIUS as part of normal cash management.

<sup>2</sup> In respect of the revalued element of disposed fixed assets and investment in the year.

## 23. RECONCILIATION OF THE OPERATING DEFICIT TO NET CASH OUTFLOW FROM OPERATING ACTIVITIES

|   | 2007/08          | 2006/07          |
|---|------------------|------------------|
|   | £000             | £000             |
| Net operating expenditure                           | (570,427)        | (557,902)        |
| Depreciation charge                                 | 19,869           | 19,079           |
| Amortisation charge                                 | 23,098           | 10,315           |
| Other non-cash items – FRS 17 pension costs         | 7,623            | 4,319            |
| Unwinding of discount provisions                    | (409)            | (243)            |
| Release of deferred income                          | (125)            | (115)            |
| (Decrease) in provision for liabilities and charges | (3,012)          | (182)            |
| (Increase)/Decrease in stocks                       | (564)            | 219              |
| (Increase)/Decrease in debtors                      | (419)            | 6,591            |
| Increase in creditors                               | 26,460           | 30,554           |
| <b>Net cash outflow from operating activities</b>   | <b>(497,906)</b> | <b>(487,365)</b> |

## 24. RECONCILIATION OF MOVEMENT IN CASH TO MOVEMENT IN NET FUNDS

|                             | 2007/08       | 2006/07        |
|-----------------------------|---------------|----------------|
|                             | £000          | £000           |
| Net funds at 1 April        | 255,574       | 189,805        |
| (Decrease)/Increase in cash | (220,031)     | 65,769         |
| <b>Balance at 31 March</b>  | <b>35,543</b> | <b>255,574</b> |

## 25. CONTINGENT LIABILITIES

There were no contingent liabilities this year.

## 26. COMMITMENTS

### Capital

The MRC had estimated future commitments to capital expenditure, which had been contracted but not provided for at the balance sheet date of £116,000,000 (£61,000,000 at 31 March 2007).

## Research awards

|  | £000    |
|--|---------|
| Forward commitments on research awards to higher education institutes: |         |
| 2008-2009  | 195,706 |
| 2009-2010  | 142,735 |
| 2010-2011  | 78,688  |
| 2011-2012  | 33,049  |
| 2012-2016  | 11,117  |

## 27. RELATED PARTY TRANSACTIONS

The MRC is a non-departmental public body sponsored by the Department for Innovation, Universities and Skills (DIUS). For the purposes of *Financial Reporting Standard 8*, DIUS is regarded as a related party. During the year, the MRC has had various material transactions with DIUS and other bodies for which DIUS is regarded as the parent department; namely the Biotechnology and Biological Sciences Research Council, the Engineering and Physical Sciences Research Council and the Economic and Social Research Council.

The MRC 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. The MRC provided free resources to the charities in respect of administration, to the value of £92k. Two of the Trustees who manage the charities are nominated by the MRC.

See note 17 for transactions with subsidiary and joint venture undertakings. During the year, the following material transactions with the MRC's Council, board and committee members took place in respect of awards funded by the MRC.

| Name                        | Number of awards | Value (£) |
|-----------------------------|------------------|-----------|
| Professor D Altman          | 2                | 4,886,904 |
| Professor P W Andrews       | 1                | 1,418,632 |
| Professor D Balding         | 1                | 1,036,096 |
| Dr E Birney                 | 1                | 447,004   |
| Professor J Brazier         | 1                | 450,774   |
| Professor M Campbell        | 1                | 408,892   |
| Professor J Colyer          | 1                | 273,728   |
| Professor C Cooper          | 1                | 395,372   |
| Professor B Davis           | 1                | 293,680   |
| Professor K Davies          | 1                | 683,348   |
| Professor P Elliott         | 2                | 1,005,788 |
| Dr A Ferguson-Smith         | 1                | 604,960   |
| Professor C French-Constant | 1                | 824,796   |
| Professor J R Geddes        | 1                | 1,753,504 |
| Professor S H Gillespie     | 1                | 423,740   |
| Professor P Ghazal          | 2                | 1,145,136 |
| Professor G Graham          | 1                | 568,728   |
| Professor A M Gray          | 3                | 6,640,408 |

| Name                       | Number of awards | Value (£) |
|----------------------------|------------------|-----------|
| Professor R Gray           | 1                | 825,054   |
| Professor I Hall           | 1                | 348,224   |
| Professor G Hart           | 1                | 511,544   |
| Professor A V S Hill       | 2                | 1,623,896 |
| Professor S Hill           | 1                | 429,328   |
| Professor S Holgate        | 1                | 299,875   |
| Professor C Kielty         | 2                | 1,136,880 |
| Professor S W Lewis        | 1                | 727,960   |
| Professor P Little         | 1                | 1,331,134 |
| Professor D Lomas          | 1                | 1,572,500 |
| Professor I McInnes        | 1                | 568,728   |
| Professor A J McMichael    | 2                | 1,602,048 |
| Professor J Mottram        | 1                | 1,529,296 |
| Professor J Nicoll         | 1                | 149,388   |
| Professor B K Park         | 1                | 3,654,412 |
| Professor M Parmar         | 2                | 1,409,948 |
| Professor T J Peters       | 2                | 1,175,734 |
| Professor D J Price        | 1                | 569,136   |
| Professor T Robbins        | 2                | 1,636,856 |
| Professor S Rowland-Jones  | 2                | 1,145,136 |
| Professor P A G Sandercock | 1                | 276,652   |
| Professor J Savill         | 1                | 423,388   |
| Professor V Walsh          | 1                | 980,948   |
| Professor N Wareham        | 1                | 1,044,064 |
| Professor C Watts          | 1                | 2,272,116 |
| Professor H Whittle        | 1                | 533,692   |
| Professor J Whittaker      | 1                | 268,024   |

None of the above were involved in the approval of these awards. In addition, the MRC made the following aggregate awards to institutions where senior members of staff are also MRC Council, board and committee members.

| Related Party  | Institution   | Number of awards | Aggregate amount (£) |
|--|---|------------------|----------------------|
| Professor J Gribben<br>Professor N Lemoine                           | Barts and the London School of<br>Medicine and Dentistry/Queen Mary | 16               | 6,143,265            |
| Professor K Fox<br>Professor G W G Wilkinson<br>Professor J Williams | Cardiff University  | 10               | 4,673,739            |
| Professor J Elford   | City University   | 2                | 600,379              |

| Related Party  | Institution  | Number of awards | Aggregate amount (£) |
|--|--|------------------|----------------------|
| Professor C Ison   | Health Protection Agency                               | 2                | 669,969              |
| Professor D J Balding<br>Professor W S Barclay<br>Professor D Brooks<br>Professor M J Dallman<br>Professor A W Darzi<br>Professor P Elliot<br>Professor G Garnett<br>Professor F Gotch<br>Professor S Johnston<br>Professor C Kennard<br>Professor C Pusey<br>Professor M A Ritter<br>Professor G R Screaton<br>Professor G Smith<br>Professor M Wilkins | Imperial College of Science<br>Technology and Medicine | 30               | 11,645,169           |
| Professor D Barford<br>Professor P W J Rigby   | Institute of Cancer Research                           | 1                | 241,928              |
| Professor S Amiel<br>Professor D Armstrong<br>Professor P Doherty<br>Professor R Morris<br>Dr R Trembath<br>Professor M Yianneskis   | King's College London                                  | 22               | 7,795,096            |
| Dr S C Anderson<br>Professor J Cairns<br>Professor H Dockrell<br>Professor D Leon<br>Professor R Hayes<br>Professor K Mulholland<br>Dr M Petticrew<br>Professor K Wellings<br>Professor J Whittaker  | London School of Hygiene and<br>Tropical Medicine      | 9                | 6,431,208            |
| Professor G P Reynolds<br>Professor P Johnston   | Queen's University Belfast                             | 2                | 685,137              |
| Professor A M Thomson  | The School of Pharmacy,<br>University of London        | 1                | 354,195              |

| Related Party   | Institution                       | Number of awards | Aggregate amount (£) |
|---|-----------------------------------|------------------|----------------------|
| Professor M P Cranage   | St George's, University of London | 2                | 362,467              |
| Dr A J Bain<br>Professor A Bowling<br>Professor S Caddick<br>Professor A Copp<br>Professor M Fitzgerald<br>Professor S H Gillespie<br>Professor D Goldblatt<br>Professor G Hart<br>Professor D Jones<br>Professor M Newell<br>Professor A N Phillips<br>Professor R Raine<br>Professor W D Richardson<br>Professor C Sabin<br>Professor A H Schapria<br>Professor J Stephenson<br>Professor V Walsh | UCL                               | 43               | 24,816,003           |
| Professor M Campbell  | University of Aberdeen            | 5                | 2,098,824            |
| Professor E Jenkinson<br>Professor P Johnston<br>Professor R Lilford<br>Professor L E Macaskie<br>Professor L Piddock<br>Professor P M Stewart<br>Professor L S Young   | University of Birmingham          | 15               | 6,564,327            |
| Professor J M Tavaré<br>Professor M J Miles<br>Professor T Peters   | University of Bristol             | 21               | 14,812,102           |
| Professor M Brown<br>Dr J Clarke<br>Dr S Efstathiou<br>Dr A Ferguson-Smith<br>Professor C French-Constant<br>Professor J P Luzio<br>Professor S Sutton<br>Professor T Robbins   | University of Cambridge           | 33               | 21,336,326           |

| Related Party  | Institution               | Number of awards | Aggregate amount (£) |
|--|---------------------------|------------------|----------------------|
| Professor J J Belch<br>Professor M Chaplain<br>Professor C Watts   | University of Dundee      | 9                | 7,429,672            |
| Professor S Lindsay  | University of Durham      | 1                | 293,667              |
| Professor I M Harvey   | University of East Anglia | 2                | 425,691              |
| Professor D J Finnegan<br>Professor P Ghazal<br>Professor C Haslett<br>Professor G D Murray<br>Professor D J Price<br>Professor Sir John Savill  | University of Edinburgh   | 24               | 19,485,159           |
| Dr J M Cooper<br>Dr M Girolami<br>Professor G Graham<br>Professor H Leung<br>Professor I B McInnes<br>Professor J Pell   | University of Glasgow     | 6                | 3,229,038            |
| Professor P J Diggle   | University of Lancaster   | 1                | 283,025              |
| Professor D Bonthron<br>Dr J Colyer<br>Professor S Radford   | University of Leeds       | 11               | 3,514,973            |
| Professor P Burton<br>Professor D R Jones<br>Professor S Nahorski  | University of Leicester   | 6                | 2,207,563            |
| Professor A Jacoby<br>Professor B K Park<br>Professor T Walley   | University of Liverpool   | 5                | 5,958,776            |
| Professor G Dunn<br>Professor K Kadler<br>Professor C KIELTY<br>Professor S Lewis<br>Professor A North<br>Dr S Panzeri<br>Dr M Rattray<br>Professor N Rothwell<br>Professor S Sibbald<br>Professor A Silman<br>Professor C Streuli | University of Manchester  | 16               | 9,804,909            |

| Related Party   | Institution                          | Number of awards | Aggregate amount (£) |
|---|--------------------------------------|------------------|----------------------|
| Professor C P Day<br>Professor C Donaldson<br>Professor M P Eccles<br>Dr B Keavney<br>Professor H Inskip<br>Professor J C Mathers   | University of<br>Newcastle-upon-Tyne | 11               | 8,093,519            |
| Professor D Ala Aldeen<br>Professor S J Hill<br>Professor Y Mahida<br>Professor S J B Tendler<br>Professor J Thornton   | University of Nottingham             | 14               | 4,652,394            |
| Professor Sir Michael Brady<br>Dr A J Fairbanks<br>Professor J R Geddes<br>Professor A Hill<br>Professor E Y Jones<br>Professor M I McCarthy<br>Professor R E Phillips<br>Professor F Powrie<br>Professor E Slim<br>Professor H Watkins | University of Oxford                 | 46               | 44,351,229           |
| Professor D C Berry   | University of Reading                | 3                | 1,677,544            |
| Professor P Andrews<br>Professor D C Crossman<br>Professor R Eastell  | University of Sheffield              | 5                | 4,905,986            |
| Professor S T Holgate<br>Professor P Little   | University of Southampton            | 5                | 2,297,896            |
| Professor V Brown   | University of St Andrews             | 1                | 354,020              |
| Professor A Carr  | University of Sussex                 | 2                | 2,192,202            |
| Professor M A McCrae<br>Professor S Weich   | University of Warwick                | 5                | 3,839,419            |
| Professor N Cullum<br>Professor S E Gathercole<br>Professor I A Greer<br>Professor E Roman<br>Professor D Smith   | University of York                   | 3                | 2,581,085            |

## 28. FINANCIAL INSTRUMENTS

FRS 13, Derivatives and Other Financial Instruments, requires disclosure of the role which financial instruments have had during the period in creating or changing the risks a body faces in undertaking its activities. 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 much more limited role in creating or changing risk than would be typical of the listed companies to which FRS13 mainly applies. The MRC 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 MRC in undertaking its activities.

### **Liquidity risk**

The MRC'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 MRC is therefore not exposed to significant liquidity risks.

### **Interest rate risk**

The MRC is not exposed to any interest rate risk.

### **Foreign currency risk**

The MRC 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.

The MRC also holds certain balances in overseas bank accounts to help manage day-to-day business transactions of its overseas operations. During the year ended, the average monthly float levels were £1,008,000 (2006/07 = £950,000).

## 29. POST BALANCE SHEET EVENTS

FRS 21 Events after the balance sheet date requires the disclosure on the date on which the financial statements were "authorised for issue" and who gave that authorisation. The financial statements were authorised for issue on the 11 July 2008 by Sir Leszek Borysiewicz. There have been no events after the balance sheet date requiring an adjustment to the financial statements.

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