



MRC ANNUAL REPORT

AND ACCOUNTS **08/09**



Medical Research Council

Annual Report and Accounts 2008/09

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

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The Medical Research Council (MRC) is a publicly-funded organisation dedicated to improving human health. We support research across the entire spectrum of medical sciences, in universities and hospitals, in our own units and institutes in the UK, and in our units in Africa.

The heart of our mission is to improve human health through world-class medical research. To achieve this we support research across the biomedical spectrum, from fundamental laboratory-based science to clinical trials, and in all major disease areas. We work closely with key stakeholders and research funders in the UK and internationally to deliver our mission, giving a high priority to research that is likely to make a real difference to clinical practice and the health of the population. Our stakeholders include the UK health departments and other government departments and agencies, our six sister research councils, industry, and the academic and charity sectors.

Established in 1913 and incorporated by Royal Charter in 1920, the MRC's mission in the 21st century is to:

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

This Annual Report to Parliament describes our progress in meeting our aims and objectives between 1 April 2008 and 31 March 2009, highlights key awards and partnerships, and outlines our plans for the future.

We receive our core funding allocation from the Department for Innovation, Universities and Skills (DIUS)¹ in line with the Government's spending review cycle and receive additional funding from other partners to take forward collaborative projects and joint initiatives which increase the impact of our work and the public funding we receive. Our current allocation from DIUS was agreed under the 2007 Comprehensive Spending Review (CSR2007) and our plans for allocating these resources to deliver our mission are outlined in our Delivery Plan. Achievements and activities are reported annually in our Delivery Report. These and other MRC publications are available at www.mrc.ac.uk.

⁽¹⁾ The Department for Business, Innovation and Skills was created in June 2009. The new Department has taken on the responsibilities of the Department for Business, Enterprise and Regulatory Reform and DIUS.

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Foreword and Summary

“Maintaining the UK’s research excellence and the principles which govern scientific independence and enable some of our brightest minds to think the big ideas that will shape all of our lives in this new century.”

Lord Mandelson, First Secretary of State (June 2009)

Foreword

from the Chief Executive and Chairman

The annual report is an opportunity for reflection on the past year which has been a remarkable period of change both within the MRC and in the UK and global environment. It also allows us to look towards a challenging future which nonetheless offers many prospects for medical research, and in our drive to improve human health around the world.

The Office for the Strategic Coordination of Health Research (OSCHR) published its first progress report this year. OSCHR hit the ground running, being responsible for a successful bid to Treasury that will see total funds for health research rise to more than £1.7 billion p.a. by the end of the current CSR period.

The MRC and our main partners, the National Institute for Health Research (NIHR) are already delivering under OSCHR. Along with the Devolved Administrations we have developed a strategically coherent approach to publicly-funded health research in the UK, and improvements in the way that scientists can translate basic research. We have strategic coordination in key areas, clarity on agreed 'lead areas'; and have already launched a number of new programmes and calls, which you can read about in the following pages.

No one will be unaffected by the current global economic downturn. We have been greatly encouraged by the Government's decision to put science at the centre of Britain's future prosperity. It is a view shared by many that continued investment in science can not only sustain us through a downturn but also provide us with the footholds for our recovery in the future. The recent formation of the Department for Business, Innovation and Skills demonstrates the Government's commitment, and Peter Mandelson's first speech as Secretary of State emphasised the importance the Government places on science and research.

The study, *Medical Research 'What's it Worth?'*, sponsored by the MRC, the Academy of Medical Sciences and the Wellcome Trust this year found that a conservative estimate of the economic return from cardiovascular research was 39 per cent annually. Another figure less reported was that the lag between scientific development and economic impact averages 17 years. It is the MRC's responsibility to deliver constancy and confidence in research funding to enable scientists to pursue long-term science, whether basic or applied, and provide the tools to translate where necessary.

The 2009–2014 MRC Strategic Plan, *Research Changes Lives*, launched after the end of the reporting period for this annual report, reflects the scientific, healthcare and economic issues

that face us today. We have a world-class science base, an ageing population, and are in the midst of the biggest economic downturn for generations.

Research Changes Lives defines the MRC's distinctive role in contributing to faster and more effective ways for medical research to flourish, at all stages – from working to understand the fundamental science prior to having specific health questions in mind, to tackling some of the most pressing health issues facing society. In it we emphasise the impact that world-class research has on improving the health and wellbeing of society, and demonstrate our commitment to tackling the difficult questions. *Research Changes Lives* sets the path for delivering better health and wellbeing through developing prevention interventions, new treatments for diseases, producing well-founded policy guidance for research governance and ethics, and maintaining excellence in the basic research that underpins these activities.

Setting our science in the context of global challenges such as ageing, population growth and climate change, we will speed up the exploitation of the best ideas in medical science, from fundamental discovery science to innovative, preventive and therapeutic interventions in humans.

We will work with researchers across public and private sectors, with regulators and the breadth of users of MRC research to ensure that we can translate results into benefits for society as a whole.

We will use our experience, expertise and resources to encourage partnerships with the international community. Big questions – such as how to address health inequalities – need big science, and international partnerships will be necessary.

And for excellent science, we need excellent facilities, skilled people and technologies. We will strengthen the capacity and infrastructure of the UK research base so that the scientific community can respond to current and future grand challenges in medical research.

It's important too that we can measure our progress. We have developed a new approach to capturing the output of the research that we fund. This new approach will engage all researchers in receipt of MRC support in a shared effort to understand and analyse the impact of our funding.

These are difficult but worthwhile challenges; our objective is to improve the health and wellbeing of individuals and populations in the UK and beyond.

Summary

The MRC supports a strong and innovative medical research community providing leadership, strategic direction and resources to maintain and enhance fundamental medical science and to drive discovery translation. Government funding awarded under the 2007 Comprehensive Spending Review, together with partnerships with a wide range of stakeholders, enables the MRC to deliver our strategy.

The MRC in 2008/09

- Changes to governance and funding structures have been completed including the appointment of new Council members, new responsibilities for research board chairmen and revised board remits, and changes in executive management. Structures to support strategic development have been embedded and are playing a major role in developing long-term goals and in responding with agility to emerging opportunities.
- The MRC's new five-year strategic plan, *Research Changes Lives*, has been developed and sets out aims for the period 2009–2014. In supporting UK health research the MRC has worked with the National Institute for Health Research and the devolved administrations to define health research opportunities which will help shape the future of health research funding in the UK.
- To expand the evidence available to the MRC's Council and its subcommittees, a pilot survey of MRC grant-holders and unit staff was conducted. This will inform future work on collecting information on the output and outcomes from MRC funded research. In the calendar year 2008, a total of 1,388 publications were reported in PubMed where the first author was based at an MRC unit, institute or centre; an increase of around 4 per cent on 2007.

Delivering research

- £225.6m was awarded to fund 401 new awards which support fundamental research, address long-standing priorities, increase investments in emerging areas, boost translational research and ensure the UK provides a world-class environment for research.
- Priorities for 2008/09 included infections and immunity, virology, stem cell research, underpinning translational neuroscience, and initiatives aiming to increase impact through clinical and public health research. Research investments were also increased in areas of high disease burden such as respiratory, musculoskeletal and cardiovascular disease.
- The new Managed Programme is a key part of the MRC's translational research. New schemes within the programme

support the development of novel therapies, interventions and diagnostics, and the research tools needed for their development. The schemes have been designed to support projects targeted at areas of significant or unmet health need and involve a goal-oriented outcome driven approach.

Supporting people

- Over 4,000 staff are employed by the MRC in our units and institutes in the UK and in Africa. Training and capacity-building programmes also provide fundamental research training and aim to increase the number of scientists in key and evolving disciplines.
- Reward and remuneration systems for MRC staff that are responsive to market and performance, and that are cost-effective have continued to evolve. A new system for governance and appraisal for Directors has been implemented and a full audit of equality and diversity schemes has been completed.
- Support for training in basic science has been maintained and support for capacity building in strategic areas has been increased through targeted initiatives and partnerships with other funders. Research training awards for clinicians and for translational research have been increased.

Impact through partnership

- The MRC has continued to develop strategic partnerships and to work with other research funders across Government, the charity sector and industry to align strategy and priorities, and to fund joint research initiative and awards.
- The MRC Pharma Forum was launched to provide a platform for continuing and effective engagement between the MRC and industry, and to oversee strategic interaction with the pharmaceutical/biopharmaceutical sectors.
- MRC Technology (MRCT) has continued to engage actively with the industry and academic communities. Responding to the changing environment within healthcare industries, MRCT has realigned its strategy to focus on bridging gaps between academic research and industrial healthcare R&D. The MRCT Centre for Therapeutics Discovery was launched to extend the work of the Drug Discovery Group.

Public and stakeholder engagement

- Members of the MRC's Public Panel participated in a review of the decision-making process for grant applications. Members also participated in a workshop for Lifelong Health and Wellbeing collaborative network grants and contributed to the peer review and assessment of applications.
- The largest project ever conducted into public attitudes towards stem cell research, commissioned jointly by the MRC and the Biotechnology and Biological Sciences Research Council, was completed in the autumn of 2008. The project was supported by the Government's Sciencewise scheme.
- Support for science communication and media training for MRC scientists has been increased and we aim to provide communication training as an integral part of the skills development programme. During the year, 61 scientists received media training and a further 89 took part in science communication training.

Leading best practice

- The MRC played a key role in discussions around the new Human Fertilisation and Embryology Bill and has been working closely with partners to shape the development of the EU Directive on the protection of animals used for experimental and other scientific purposes in its passage through the European legislative process.
- A joint workshop with the Wellcome Trust brought together academic researchers and lawyers, industry, Government and regulators to discuss the regulation of research involving human participants.
- Efficiency savings worth £35.5m were delivered against a target of £28.5m. Savings were achieved by reducing administration costs, reprioritising programme spend, increased co-funding of research, and improving efficiency within MRC research units and institutes. Work towards the Research Councils UK Shared Services Centre has continued, the provision of services for the MRC is scheduled to go live in 2010.

Performance highlights

- £266.4m has been spent in supporting over 1,000 grants to researchers in universities, medical schools and research institutions, £67.9m has supported training awards for over 1,400 postgraduate students and almost 350 fellows.
- £354.6m has supported more than 500 programmes within the MRC's own research units and institutes. Processes to assess the large scale investments have been reviewed and new initiatives will be implemented.

The MRC in 2008/09



The MRC supports a strong and innovative medical research community providing leadership, strategic direction and resources to maintain and enhance fundamental medical science and to drive discovery translation. Our mission focuses on four main themes: generating and delivering knowledge, developing people, partnerships and public engagement, and developing infrastructure and capability.

The funding allocation for the 2007 Comprehensive Spending Review (CSR2007), which covers the period 2008/09 to 2010/11, is enabling the MRC to deliver our strategy to maintain the strength and innovation of fundamental medical science while increasing investment in research which helps to translate scientific and clinical discovery into improved healthcare, products and services. The MRC will receive £707.0m a year from the Department for Innovation, Universities and Skills (DIUS) by 2010/11.

Supporting UK health research

The MRC works in partnership with a wide range of stakeholders to support UK health research, aligning strategy and creating structures to deliver research.

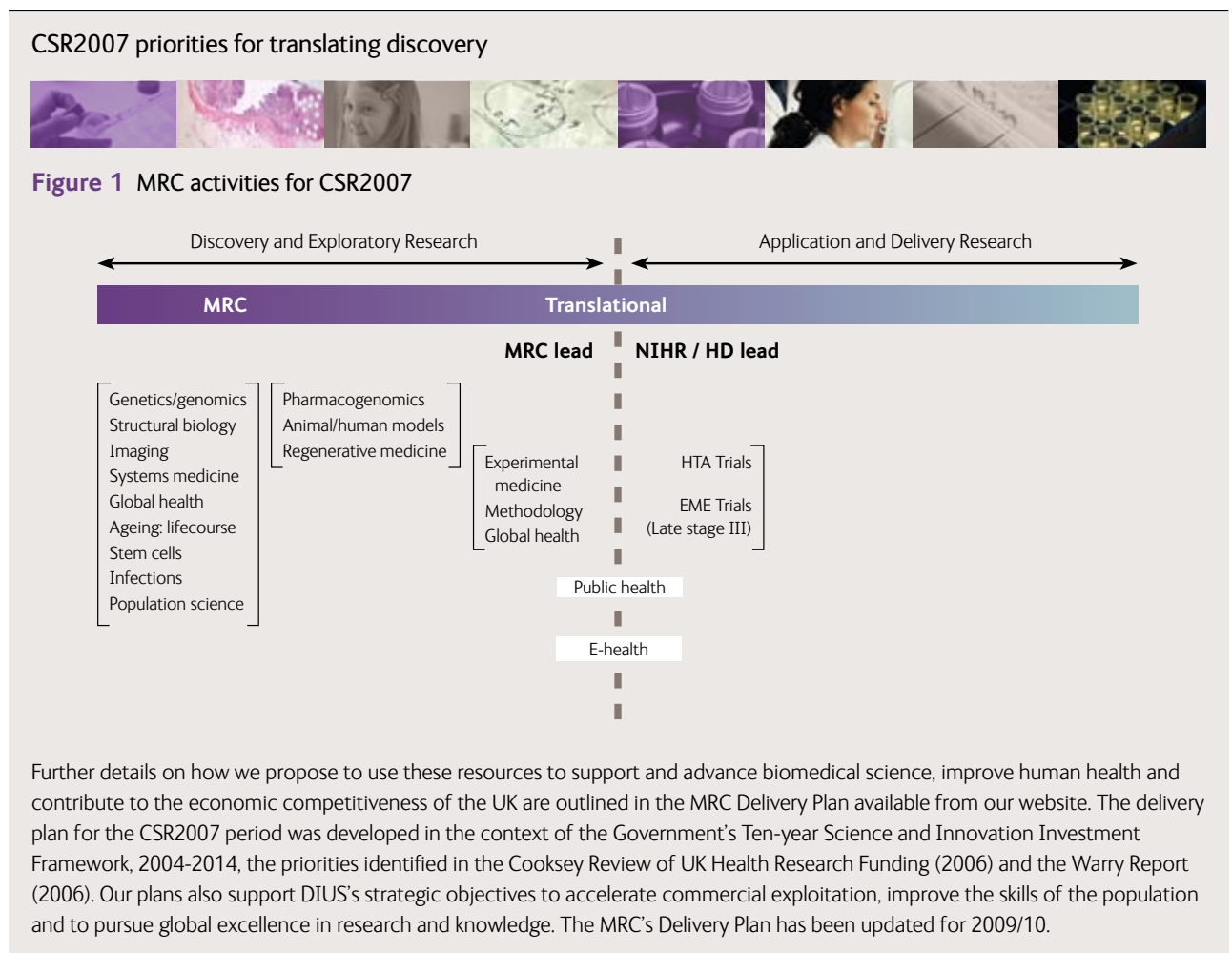
The MRC's Council directs and oversees corporate policy and scientific strategy, ensures the organisation is managed effectively, and makes major policy and spending decisions. Our

Council is supported by the Strategy Board, four research boards addressing major areas of our portfolio, and four thematic groups with cross-cutting remits relating to global health, population health sciences, training and careers and translational research. An overview of the MRC's governance structure is shown in Figure 2.

During 2008/09 the MRC completed the programme of change across governance and funding structures initiated last year as a response to the changing landscape of UK health research. Eight new Council members were appointed, extending the breadth of expertise available. The MRC's Strategy Board, and the thematic groups which support it, are now fully established and are playing a major role in developing long-term goals and in responding with agility to emerging opportunities. Changes to board structures have also been completed with research board chairs taking on a new executive role. New responsibilities include a greater level of scientific oversight for investments within board remits, a direct reporting relationship for MRC unit Directors, and greater levels of involvement in financial planning. There have also been changes within executive management structures which have extended the role of the MRC's Management Board, the principal executive decision making body, and refined the remit of the Operations Board.

The MRC's research priorities and our activities during 2008/09 to advance our mission are described in *Delivering research*.

This new framework ensures effective governance and division of responsibilities that enable the MRC to balance strategic



Further details on how we propose to use these resources to support and advance biomedical science, improve human health and contribute to the economic competitiveness of the UK are outlined in the MRC Delivery Plan available from our website. The delivery plan for the CSR2007 period was developed in the context of the Government's Ten-year Science and Innovation Investment Framework, 2004-2014, the priorities identified in the Cooksey Review of UK Health Research Funding (2006) and the Warry Report (2006). Our plans also support DIUS's strategic objectives to accelerate commercial exploitation, improve the skills of the population and to pursue global excellence in research and knowledge. The MRC's Delivery Plan has been updated for 2009/10.

direction with response-mode funding, while maintaining flexibility to respond quickly to new scientific developments and health needs (such as flu). The MRC is thus able to play a leadership role and is well-placed to engage partners to make effective and efficient use of resources. In particular, the MRC partnership with the National Institute for Health Research (NIHR) is central to this goal and builds on our mission to improve human health and advance economic competitiveness by supporting high-quality research. In responding to the challenges of the Cooksey Review we have continued to work closely with the Office for Strategic Coordination of Health Research (OSCHR), NIHR and the UK health departments to align our programmes and strategy to facilitate more efficient translation of health research into health and economic benefits within this new environment for UK health research. OSCHR's first progress report was published in November 2008. Further information on the objectives and impact of key partnerships can be found in *Increasing impact through partnership*, information on partnerships which inform the MRC's international policy can be found later in this section.

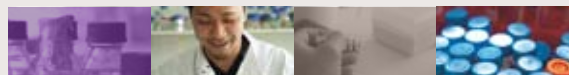
Figure 2 MRC governance and funding structures



Developing MRC strategy

Throughout 2008/09, the MRC has been engaging with our major stakeholder groups to review and evaluate our strategic direction and to define our distinctive role in supporting the discovery and exploratory development of fundamental research towards patient benefit. Our new five-year Strategic Plan, *Research Changes Lives*, sets out aims for the period 2009–2014 and the basis for supporting internationally-competitive science. It has four strategic aims, which are the flags that will direct the delivery of scientific excellence and provide the framework, concepts and priorities to develop future initiatives and activities. The MRC Strategy Board is responsible for developing, coordinating, evaluating and overseeing the implementation of the MRC's strategic direction and has led the development of the MRC's

The MRC's Council membership 2008/09



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

Sir John Chisholm, Chairman
 Professor Jeffrey Almond⁽¹⁾
Sanofi Pasteur, France
 Professor Michael Arthur⁽¹⁾
University of Leeds
 Mr Michael Brooks
Financial Management Consultant
 Dr Harry Burns
Chief Medical Officer for Scotland
 Dr Annette Doherty⁽¹⁾
Pfizer Global Research and Development, Sandwich
 Dr Richard Henderson⁽¹⁾
MRC Laboratory of Molecular Biology, Cambridge
 Professor Sally Macintyre⁽¹⁾
MRC Social and Public Health Sciences Unit, Glasgow
 Professor Sir Andrew McMichael
University of Oxford
 Ms Vivienne Parry⁽¹⁾
Writer and Broadcaster
 Lord Naren Patel⁽¹⁾
House of Lords
 Professor Michael Schneider⁽¹⁾
Imperial College London
 Professor Herb Sewell
University of Nottingham
 Mr John Neilson, Observer⁽²⁾
Department for Innovation, Universities and Skills

⁽¹⁾ appointed 1 October 2008

⁽²⁾ in June 2009 DIUS merged with the Department for Business, Enterprise and Regulatory Reform to create the Department for Business, Innovation and Skills.

Outgoing members

Professor David Armstrong⁽³⁾
King's College London
 Professor Christopher Kennard⁽³⁾
Imperial College London
 Dr Michael McBride⁽³⁾
Northern Ireland Department of Health, Social Services and Public Safety
 Dr Lefkos Middleton⁽³⁾
Imperial College London
 Professor Sir John Savill⁽⁴⁾
University of Edinburgh

⁽³⁾ appointment ended 31 August 2008

⁽⁴⁾ appointment ended 31 July 2008

new five-year Strategic Plan. The board, supported by the MRC's new Strategy Directorate, provides funding to support strategic initiatives that will ensure that the organisation is responsive to the current and future scientific landscape. In 2008/09, the board committed £38.0m to a range of new strategic initiatives including neurodegeneration and genomics.

Overview groups in global health, population health sciences, training and careers, and translational research have also contributed to strategy development, providing input into the strategic plan as well as specific proposals for strategic initiatives.

As part of the OSCHR agenda, the MRC has been leading on work with NIHR to define UK health research opportunities which will help shape the future of health research funding in the UK. Further information can be found at www.mrc.ac.uk/About/Strategy/Healthresearchopportunities. This work has contributed to the development of strategic aims and the agenda has also been used to inform Government thinking about realisable major goals in health research over the coming years.

Evaluating impact

There is compelling evidence that investment in medical research leads to significant improvements both in health and economic prosperity, and furthermore that research funded by the MRC itself has had major social and economic impact. A healthier population is more productive; people spend longer in the workforce, they invest more in their education and save more for a longer life. Multi-million-pound markets are created, supporting jobs and the continuing development of the UK science base to drive discovery further. Maximising this impact is a key element of our strategy, underpinning the case for investment in medical research.

A recent study commissioned by the MRC, the Academy of Medical Sciences and the Wellcome Trust has estimated the value of health gains arising from research funded by public and charitable research organisations in two specific research areas; cardiovascular disease and mental health. The study, *Medical Research 'What's it Worth?'*, published in November 2008, investigates health gain, net of the incremental cost of delivering treatments through the NHS. Between 1985 and 2005, the health gain specifically from interventions resulting from cardiovascular disease research alone totalled £53.0bn. By combining the value of health gains and spillover benefits we have estimated that for every £1 that public and charitable funders invested in cardiovascular disease research between 1975 and 1992, a stream of benefits was created equivalent to earning approximately 39p each year thereafter. The study was well-received and sets out some clear questions to inform the research agenda in this area. In partnership with other funders we are developing plans to expand the analysis into other disease areas, to examine the processes critical in leading to spillover benefits, and to look at the wider question of global benefit of UK research and development.

The MRC's new evaluation programme, which was launched during 2007/08, aims to improve the evidence base for strategy development, review and decision making, and to demonstrate the benefits to society and the economy from MRC investments in research and training. The programme will help us investigate how our strategy is making a difference, and to learn more about what leads to impact. Quantitative and qualitative measures of

progress, productivity and quality of research output will also be established. During 2008/09 we piloted an online survey of grantholders which aims to develop a new dataset that will expand the evidence available to our Council, Strategy Board, research boards and overview groups. During 2009/10 we will develop and implement a new system, based on the pilot, collecting information on the output and outcomes from MRC research, which researchers update on at least an annual basis. Once fully implemented, this system will reduce the burden on

Health impacts



The single medical intervention with greatest impact on health gain was found to be smoking cessation, which accounted for a third of the health gain for cardiovascular disease while the incremental healthcare costs of supporting smoking cessation was only 10 per cent of the spending required to deliver interventions for cardiovascular disease. The public health and policy advice provided by MRC research in this area, and the resultant shift in policy and public health, would only have been possible with public funding. The MRC funded research by Sir Richard Doll and Sir Austin Bradford Hill, first published in 1956, which showed that the death rate from lung cancer among heavy smokers is 20 times the rate in non-smokers, indicating beyond doubt that smoking causes lung cancer. In 2004, follow-up results demonstrated that the overall risks from smoking were even greater than originally anticipated, that on average smoking lowered life expectancy by 10 years, and that around half of those who smoked were killed by their habit. Research also showed that stopping smoking at ages 30, 40, 50 and 60 increased life expectancy by around 10, nine, six and three years, respectively. This work resulted in national public health campaigns and a dramatic reduction over the past 50 years in the number of people who smoke. According to 2000 data, 115,000 people a year die from smoking, half the number in the early 1970s when twice the number of people smoked as they do now.

As well as influencing behaviour, smoking research is also having an impact on public policy. There have been Government bans in England, Scotland, Wales and Northern Ireland on smoking in workplaces and public places after sustained exposure to passive smoking was also shown to be harmful; non-smokers who are exposed to second-hand smoke at home or at work increase their risk of developing lung cancer by up to 30 per cent. According to the Government's draft regulations, the England ban is estimated to bring in net benefits of up to £2.1bn a year, due to the large number of lives saved. The effect of the ban in Scotland was quantified in the first year after the smoking ban came into force. There was a 17 per cent fall in hospital admissions for heart attacks, which compares with an annual reduction in Scottish admissions for heart attack of 3 per cent per year in the decade before the ban.

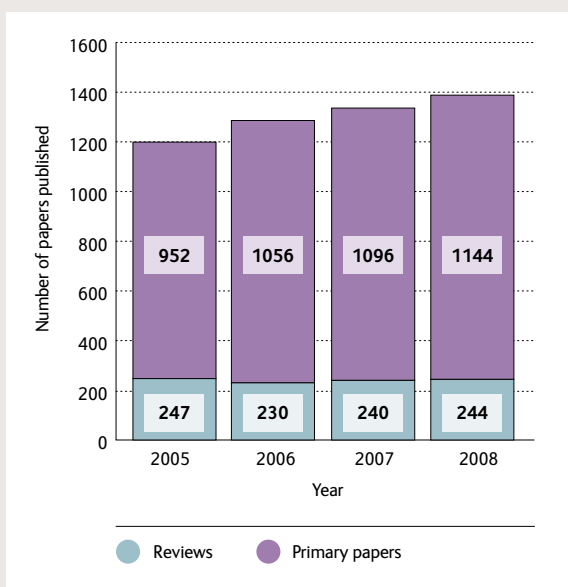
Research publications



There are several ways to measure the productivity and value of research. Those most frequently used by funders are the numbers of papers published by the scientists they fund, analyses of peer reviewed publications and citation rates. A recent study commissioned by DIUS showed that in 2007 the UK produced almost 9 per cent of world papers, ranking second in the G8 countries behind the US. The report, *International comparative performance of the UK research base (evidence, July 2008)*, looked at publications and citations in all subject areas. The study also found that the UK's share of the world citations had risen with UK papers accounting for around 12 per cent of world citations, again positioned second only to the US overall and in seven out of 10 subject areas including health and medically related papers, biological sciences and clinical sciences. For citations per paper the UK had 13 per cent of the most highly cited papers (the top 1 per cent) and was shown to have high impact across all subject areas, ahead of the US in health, biology and environment.

In the calendar year 2008, a total of 1,388 publications were reported in PubMed where the first author was based at an MRC unit, institute or centre; an increase of around 4 per cent on MRC papers reported in PubMed for 2007. As outlined above we are refining the way data on research outputs, including publications, is collected based on our pilot survey of grant holders. In future years, we expect to be able to publish more detailed data on the number of publications arising from research undertaken with MRC funding through grants and fellowships in addition to those from our own units and institutes.

Figure 3 MRC first author publications 2008



Source: PubMed (www.pubmed.gov)

the scientific community, replacing current final grant reporting and other *ad hoc* requests for information which are directed at researchers. The MRC is also leading a cross-council project to improve tracking of short and long term outcomes from research council grant funding.

An outline of how the MRC has been working with industry, medical research charities and other partners to maximise the impact of our translation strategy and of the research we support can be found later in this report.

Health is global

Investments in science and innovation across the world are changing the landscape of research. Accelerating progress in international health research is one of the four main aims of *Research Changes Lives*. During 2008/09 the MRC has continued to provide international leadership in partnerships which enhance the competitiveness of the UK knowledge and health base. We have funded global health research, which aims to address inequalities in health which arise particularly in developing countries, as well as initiatives to enable UK scientists to engage with the best minds, ideas and resources wherever they are located.

In September 2008 the Government launched its strategic document *Health is Global*. The strategy outlines the way that the UK Government will work with a number of partners to improve the health of the world's population. The document confirmed that within the single health research partnership with NIHR, the MRC will lead on global health research and will continue to support trials in global health. The new Global Health Group was established to support the development of an effective strategy for addressing research needs across the spectrum of global health issues. This includes developing policy for research that will address health inequalities in countries outside the G8 and Europe, taking into account the Department for International Development's (DFID) aim for research relevant to the health of the poorest people and addressing opportunities in both communicable and non-communicable diseases. The group will take account of other international developments in global health and undertake foresight analysis to help anticipate future opportunities.

Building on the grand challenge analysis of research needs to tackle chronic non-communicable diseases in developing countries, our Strategy Board allocated £6.0m to support a programme of work in this area and to help establish a new alliance of research funders committed to supporting the grand challenge objectives. Dr Mary Phillips has been seconded on a part-time basis from UCL to lead this new programme. It is anticipated that a call for proposals will be launched later this year, following a scoping workshop in Delhi. The research councils opened the latest in a series of international representational offices. The RCUK office in Delhi was opened in October 2008 and the launch event included a session on the impacts of globalisation on health at which the MRC's Chief Executive, Sir Leszek Borysiewicz, presented ideas for tackling major public health problems in non-communicable diseases. Ideas emerging from the first meeting of the Global Health Group have contributed to our new strategic plan, *Research Changes Lives*, which outlines the importance of close partnerships with other funders and agencies with an interest in health.

The MRC is pleased to report that, during 2008, DFID agreed to renew the concordat with the MRC at a much higher level of £45.0m over five years compared with £20.0m over five years in previous settlements.

The MRC has been raising its profile in Europe during 2008/09 and Sir Leszek was appointed as vice-president of the Heads of European Research Councils (Eurohorcs) and chair of the Expert Advisory Committee for Health for the Seventh European Framework Programme (FP7). Sir Leszek also leads a task force on intellectual property rights for Eurohorcs to discuss issues faced by European public research funders.

In July 2008, the European Commission launched a communication document on 'Joint Programming', a new mechanism whereby member states will agree shared research priorities and mechanisms for funding collaborative work. Sir Leszek attended a European Competitiveness Council meeting and, jointly with INSERM, presented views on priorities for joint programming on neurodegeneration to the Ministers present. The Council of Ministers subsequently endorsed the idea

that neurodegeneration would be the pilot project for Joint Programming and the MRC has been working closely with INSERM in France and DFG in Germany in the development of this initiative.

Sir Leszek established, and leads, a new cross-council group to develop UK strategy on Europe. The group is particularly concerned with ensuring that the UK is well-placed to influence the development of the next framework programme, FP8, and will also discuss engagement with the European Science Foundation and the future development of the European Research Council (ERC). In January 2009 Sir Leszek participated in two high-level meetings in Madrid and Lisbon on governance and development of the European Research Area.

The MRC continues to subscribe to the Human Frontier Science Program, the International Agency for Research on Cancer, and the European Molecular Biology Laboratory. These subscriptions allow UK biomedical scientists and in those other sectors to access resources and research funding opportunities offered by these organisations.

International research collaboration



During 2008/09 the MRC agreed to allocate £1.0m to a joint call with the Biomedical Research Council of the Singapore Agency for Science, Technology and Research (A*STAR). The call will focus on an interdisciplinary approach to tackling infectious diseases and will require collaboration between researchers in the UK and Singapore.

A call was launched in partnership with the Canadian Institute of Health Research (CIHR) to support the formation of Canadian/UK collaborations in the area of antibiotic resistance, building on the recommendations made at the Canada/UK workshop *Beating the Bugs*. The workshop was organised by the CIHR, the Institute of Infection and Immunity (III) and the MRC, and hosted by the Canadian High Commission in February 2008.

The MRC agreed to partner the Californian Institute of Regenerative Medicine in a joint call to progress preclinical stem cell research towards clinical testing. The proposal is for UK groups active in the preclinical domain to link up with Californian research teams to establish high quality, multidisciplinary, translational research programmes. £5.0m has been allocated to support UK researchers in this partnership.

A Science Bridges scheme was launched in partnership with the other UK research councils to support knowledge transfer and innovation between research collaborators in the UK and India, China and the US. £4.0m had been allocated to the MRC in the last spending review to support the science bridge scheme with China and the first awards were announced in February 2009.

To date, MRC scientists have participated in 108 FP7 proposals. By the end of this year 49 proposals had been successful, with decisions on some proposals yet to be taken. The MRC's FP7 success rate was 27 per cent for the first call for proposals, increasing significantly to 57 per cent for the second call. The total estimated income generated from all MRC participation so far amounts to 16.4m euros. Total income generated from the first two FP7 health calls is currently estimated at 6.7m euros.

The UK is the host country of the largest number of projects in all sectors of the 390 grants awarded by the ERC. It leads around 21 per cent of Advanced Grants (18 out of the 90 awards) and 19 per cent of Starting Grants overall. MRC applicants have a success rate of 44 per cent in ERC Starting Grants (four awards out of nine applications). Of the four Starting Grants awarded, three are at the MRC Laboratory of Molecular Biology (J Ule, J Chin, G Jefferis) and one at the MRC Cognition and Brain Sciences Unit (H Ehrsson). The total estimated income generated from MRC participation in the first round of ERC amounts to 5.7m euros.

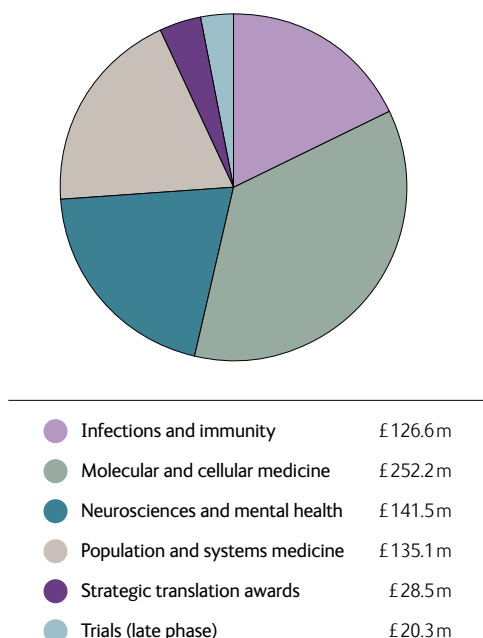
At 31 March 2008, the percentage of live MRC grants on which applicants had reported a planned overseas collaboration was 32 per cent. Around 48 per cent of research publications involving researchers within our own units and institutes were co-authored with overseas partners. Of the collaborations reported with overseas partners (for the 2007 calendar year) around 53 per cent were within Europe, 28 per cent in North America, 8 per cent in Asia, 6 per cent in Africa, 4 per cent in Australasia and just under 1 per cent in South America.

Delivering research



In 2008/09 the MRC provided research funding of £704.2m across the biomedical spectrum, supporting fundamental laboratory-based science to late-stage clinical trials, in all major disease areas. This support included research grants, programmes within MRC research units and institutes, infrastructure, resource projects, and training.

Figure 4 Estimated gross research expenditure by area



The MRC's *Delivery Plan* for 2008/09 to 2010/11 and our new strategic plan, *Research Changes Lives*, describe the MRC's intention to continue to support excellent research across the spectrum and to identify and address areas of strategic focus.

Research in translational medicine, which drives ideas from the laboratory into human studies, and in the population sciences play an important role in developing new ways of preventing, identifying and treating disease, and improving human health. The MRC's continued commitment to fundamental basic and clinical science is an essential part of this process, generating the knowledge that underpins translational research.

During 2008/09 the MRC committed £225.6m to 401 new awards supporting proposals submitted to the MRC's research boards and in response to targeted calls and initiatives. The following highlights show progress during 2008/09 in addressing long-standing priorities, increasing investment in emerging areas, boosting translational research and ensuring the UK provides a world-class environment for research.

Fundamental research highlights

During 2008/09 the MRC supported world-class, researcher-led proposals and highlighted priorities to strengthen key areas. Priorities for 2008/09 included infections and immunity, virology, stem cell research, underpinning translational neuroscience and initiatives aiming to increase impact through clinical and public health research. Research investments were increased in areas of high disease burden such as respiratory, musculoskeletal and cardiovascular disease by highlighting these areas.

Fundamental research drives discovery and innovations ripe for translation. For example, basic research into the mechanisms that protect cells from the lethal effects of DNA damage, supported by the MRC over many years using bacteria and yeast as model systems, is starting to feed through into applications in cancer. In 2008/09, support for the internationally-renowned MRC/University of Sussex Centre for Genome Damage and Stability was renewed and it is moving its work in new directions towards developing new cancer therapies. Similarly, funding was awarded to the MRC/ Cancer Research UK Gray Institute for Radiation Oncology and Biology for work on selective killing of human cancer cells by preventing DNA repair.

Public health and population science

The MRC continued to strengthen public health science with a range of initiatives to boost and coordinate research, and to capitalise on existing investment in resources and infrastructure.

Public health research achievements in 2008/09 include investment in data collections, a range of longitudinal population-based datasets, cohorts, biobanks, and clinical trials. Collaborative partnerships which align funders and policy-makers' strategies provide the cornerstone of activities in this area.

Almost 300,000 people, aged 40-69 from across the UK, have been recruited to UK Biobank providing a research resource to improve the prevention, diagnosis and treatment of a range of serious and life-threatening illnesses including cancer, heart diseases, diabetes, arthritis and forms of dementia. The MRC, the Wellcome Trust and other funders are considering proposals to extend the study to collect more detailed information on other lifestyle factors such as diet, fitness, bone density, and brain and heart function.

The UK has a unique and internationally-renowned collection of birth cohort studies spanning over 60 years. The MRC and the Economic and Social Research Council (ESRC) began an initiative in 2008/09 to establish a '2012 cohort' and new resources that will enable research across existing cohorts, and with counterparts in other countries. Proposals to establish the scientific leadership team for the new cohort will be invited in 2009/10.

The MRC leads the National Prevention Research Initiative (NPRI) on behalf of 16 funding partners including government departments, research councils and medical charities. The third NPRI call was announced in summer 2008 with up to £12.0m to support cross-disciplinary translational research aiming to reduce people's risk of developing major chronic diseases by influencing health behaviours. Awards will be made later in 2009.

Cross-research council programmes



These allow the research councils to align strategy in shared priority areas, support large-scale programmes and coordinate smaller-scale joint initiatives. For the current spending review period, six programmes were identified addressing some of the major research challenges for the next 10–20 years.

The MRC is leading the cross-research council programme on Lifelong Health and Wellbeing (LLHW) and is also the ageing lead for the OSCHR partners. The programme aims to target major determinants of healthy ageing over the life course that influence health and wellbeing in later life. By investigating influences of healthy ageing the initiative seeks to develop interventions to improve health and quality of life; inform policy, practices, technologies and services supporting independent living; and increase capacity and capability in ageing-relevant research.

In 2007/08 the MRC contributed £8.0m to the Centre for Cognitive Ageing and Cognitive Epidemiology in Edinburgh, the Centre for Brain Ageing and Vitality in Newcastle and the Crucible Centre at University College London (UCL). In 2008/09 the four UK health departments joined with the research councils for phase two of the LLHW initiative and ten new Collaborative Development Networks were funded in March 2009. The networks will support new multidisciplinary research teams in strategic partnership with stakeholders, with the aim of building a sustainable ageing research capability for the future. Further funding will be announced in 2009/10.

Including the MRC five of the seven UK research councils are involved in the LLHW programme; the Arts and Humanities Research Council (AHRC), the Biotechnology and Biological Sciences Research Council (BBSRC), the Engineering and Physical Sciences Research Council (EPSRC) and the Economic and Social Research Council (ESRC).

The MRC also participates in the Living With Environmental Change and the Digital Economy programmes. Opportunities relating to the medical and health area will also be supported within the remaining programmes on Global Threats to Security, Energy and Nanoscience. After highlighting nanotoxicology as a priority area, the MRC awarded £3.0m to five new grants.

In 2008, the MRC contributed £1.5m to a £10.0m call with the Wellcome Trust to maximise the use of electronic databases for health research. Together the MRC, EPSRC and ESRC funded four awards. With EPSRC, the MRC also funded a joint initiative, worth £2.3m, in information-driven healthcare.

The Research Capability Programme led by the Department of Health (DH) in England, and similar programmes in Scotland and Wales, will soon allow unparalleled access to electronic health records and other routinely collected health data. During 2008/09 the MRC and partners have developed a strategic framework to address issues such as research capability, capacity, data access, sharing and funding. During 2009/10 the MRC, with other funders, will begin implementing plans to strengthen health informatics research capability to ensure the UK exploits the increased availability of such data.

Virology and infections

The MRC has a strong background in virology and infection research. Recent activities in these areas aim to encourage applied research which builds on existing strengths.

The MRC leads the UK Clinical Research Collaboration Translation Infection Research Initiative. Up to £16.5m was committed by the seven partners to strengthen infection research in the UK by boosting capacity for translational research, and for applied research in clinical and public health contexts. Launched in 2008/09, the aim is to establish consortia of multidisciplinary research groups to address national research priorities in the field of microbiology and infectious diseases.

In June 2008, following the strategic review of virology research, the MRC launched a call for proposals for a new multidisciplinary centre of excellence in virology research that strengthens the engagement between basic virologists, and clinical and translational expertise. Funding decisions will be made during 2009/10.

Mental health and addiction

The MRC is leading the development of a UK research strategy for mental health and addiction, a public health priority identified and developed with partners in the Office for Strategic Coordination of Health Research (OSCHR). The strategy will continue to develop over the coming year.

During 2008/09 the MRC led a two-phase strategy to strengthen research in advance of the publication of the UK strategy, working with the government, ESRC and several charities. The aim is to increase co-ordination between researchers, build research capacity and support innovative and cross-disciplinary studies. The MRC has earmarked £6.0m for this area, and in 2008/09 £2.0m was awarded to nine studies spanning underpinning translational neurobiology on the causes of addiction, through to developing new treatments. A second call to address issues relating to substance and alcohol abuse will be launched in 2009/10.

The new MRC Centre in Neuropsychiatric Genetics and Genomics in Cardiff was funded this year which will apply genetics and genomics technologies to understand the causes of major psychiatric and neurodegenerative disorders.

Neurodegeneration

The MRC published the Strategic Review of neurodegeneration in 2008/09. The review recommended an increased effort in understanding the biological mechanisms underlying currently incurable neurodegenerative disorders with a view to developing new therapeutic approaches. With the Wellcome Trust, the MRC issued a £30.0m call for proposals to establish a number of major collaborative programmes; funding decisions will be in 2009/10.

The MRC has been a leading partner in developing European coordination. In January 2009 we convened a UK-French-German trilateral workshop to identify research opportunities and future priorities. In 2009/10 the MRC will work with DH to implement the research outcomes of the 2009 Dementia Research Summit.

The MRC has also developed a strategy, on behalf of UKCRC, to create an integrated national network of brain tissue banks coordinating existing banks, and ensuring access across the UK to high quality stored brain tissue and control material for scientific and clinical research purposes. These will be implemented in 2009/10.

Having identified critical needs, the MRC launched a £1.6m call for proposals which aims to build capacity in positron emission tomography (PET) neuroscience and enable new tracers to be worked up to a stage suitable for use in human experimental medicine, clinical trials or biomarker studies. Funding decisions will be in 2009/10.

Genetics and genomics

Rapid developments in sequencing technology offer major opportunities for research. The MRC has allocated £7.5m to develop centres of excellence in high-throughput sequencing in order to promote application of this new technology and access to the necessary technical and bioinformatics expertise. The MRC and BBSRC are also investing in research training and capacity development in the bioinformatics to manage and analyse the very large volumes of data involved.

Several awards were also made in epigenetics including to Cambridge University and the Babraham Institute for a dedicated high-throughput sequencing machine.

The mouse is an important model organism in many areas of medical research and the MRC has invested £2.3m in a project to sequence 16 common laboratory inbred strains and make the data available to researchers all over the world. These data will be a key resource to understand the function of different mammalian genes and their potential role in disease.

Nutrition

The MRC completed the Strategic Review of research in nutrition and energy balance during 2008/09. One outcome was a shift in focus of the MRC Dunn Human Nutrition Unit in Cambridge. Relunched as the MRC Mitochondrial Biology Unit, it will concentrate solely on the biology of mitochondria. Meanwhile the MRC is looking to strengthen partnerships with Cambridge University in research into the contribution of nutrition to health and disease.

An award of £12.0m for research on nutrition in Africa was made to Andrew Prentice at the London School of Hygiene and Tropical Medicine. The aim is to identify interventions required

in nutritionally deprived areas and countries. Further information on the MRC's support for global health research which address inequalities in health and international collaboration is covered earlier in this report.

Milstein Fund Awards

These are given to researchers demonstrating innovative but speculative ideas and approaches to medical research. In 2008 two awards were made to groups at the University of Dundee: Professor Angus Lamond received his award for research into the development of new technologies for the design of new drugs and cures for genetic disorders; and Professor Irwin McLean and Dr Paul Campbell's joint project received its award to develop a revolutionary new medical device to deliver new experimental gene therapies into the skin.

Focus on translation

Bringing the health impacts of fundamental research to people more quickly, by increasing the speed of progress from discovery into new clinical studies, is a major MRC focus. This also enhances knowledge of fundamental pathways in health and disease. The MRC's settlement for the current spending review included an additional £132.0m for translational research. Our translation strategy, launched last year, outlines plans for increasing investment and creating structures to deliver translational research. The MRC is working with its partners on new funding mechanisms for research, infrastructure and facilities. Achievements for 2008/09's priority areas are outlined below.

Discovery research and exploratory development

The MRC is enhancing its support for novel therapies, interventions and diagnostics, and the research tools needed for their development. We have established a new funding stream, the Translational Growth Budget, and an innovative new managed programme to drive forward translational opportunities.

These funding streams are complemented by initiatives targeted at identified bottlenecks in the pathways that lead from basic research discoveries to improvements in health complements. Over £25.0m was committed to calls for proposals which included the Joint Patient Research Cohort Initiative (£7.0m was awarded in partnership with the National Institute for Health Research (NIHR) and the health departments of Scotland and Wales), Models of Human Disease (£10.6m), and Biomarkers (£10.0m).

Over £16.0m was awarded to 14 universities to recruit research leaders to the UK, new investments in research infrastructure and staff to deliver translational programmes. An additional 25 fellowships were supported and 15 CASE studentship awards were made in partnership with industry. Over £5.5m was awarded to the MRC's own research units and institutes to support facilities to deliver translational research. These resources will be made available to the UK scientific community in partnership.

During 2008/09, £3.7m was awarded to develop the new MRC Centre for Drug Safety Science (CDSS) at the University

The managed programme



A key component of the MRC's translational research strategy are new funding streams supporting the development of novel therapies, interventions and diagnostics, and the research tools needed for their development.

This 'managed programme' comprises the preclinical Developmental Pathway Funding Scheme (DPFS) and the clinical Developmental Clinical Studies (DCS) scheme. The schemes have been designed to support projects targeted at areas of significant or unmet health need and involve a goal-oriented outcome driven approach. They have tailored assessment and review, and are actively managed throughout the assessment and prosecution of the research, including identifying future options.

The Devolved DPFS Portfolio scheme allows universities to make their own decisions about funding, allocating money from a central pot quickly to respond to the needs and progress of translational projects. Portfolios should allow more efficient and effective use of resources and infrastructure, ensure continuity of skills, create a better training environment and make the best use of project management and oversight systems. Five universities are involved in the 2009/10 pilot. If successful, the approach will be implemented during 2010.

Together these programmes represent a radical shift from traditional MRC grant funding. Addressing unmet health needs is goal-oriented rather than hypothesis-driven. It is planned that, by the end of 2010, these schemes will have funded between 60 and 70 active projects.

of Liverpool, with the Universities of Manchester and Leicester. The centre aims to develop a facility that will enable translational research in the identification, evaluation and understanding of the mechanisms of adverse drug reactions at the chemical, molecular, cellular and clinical levels.

The MRC also finalised plans for the new MRC Technology (MRCT) Centre for Therapeutics Discovery, a drug discovery resource bridging the gap between the output of basic academic research and the start point of industrial healthcare research and development. This national resource builds on the MRCT Drug Discovery Group's work and aims to maximise the opportunities for therapeutic discovery and development within the DPFS. Further information on MRCT is in *Increasing impact through partnership*.

Regenerative medicine and stem cells

In 2008, the MRC reviewed its strategy for regenerative medicine and stem cell research. The renewed strategy has three core aims: continued support for fundamental stem cell research and capacity building, enhanced links between basic and clinical researchers towards furthering the application of technologies, and targeted funding addressing barriers in translation. Significant progress has been made in 2008/09.

The MRC has funded three centres providing clinical-grade human embryonic stem cell lines to underpin the development of clinical applications for stem cell technology; allocated £3.0m to preclinical research; and renewed its investment in centres of excellence in Edinburgh and Cambridge.

The MRC Translational Stem Cell Research Committee has been established and has created a proactive partnership focused mechanism for promoting high-quality stem cell research with clear translational objectives. Two calls for proposals have been issued. The first call to address preclinical barriers that exists towards the therapeutic use of stem cells resulted in seven awards worth £2.7m. Funding decisions for the second call, to establish major collaborative programmes in disease or systems-based research, will be made in 2009/10.

With BBSRC £0.7m was awarded to 13 groups for platform grants to capitalise on the recent breakthrough in deriving human-induced pluripotent stem cells and provide a basis for increased future investment. £2.9m was awarded to three centres to derive up to 20 new human embryonic stem cell lines under Good Manufacturing Practice (GMP) standards over the next three years. GMP is the recognised standard for ensuring medicinal products are consistently produced and controlled. These will be the first clinical-grade lines available in the UK, and are likely to be the first lines worldwide that will be fully compliant with European Union regulations for use in early phase clinical studies; all lines will be deposited in the UK Stem Cell Bank and made available to the wider community.

Promoting international cooperation, the MRC partnered the Californian Institute of Regenerative Medicine in a major call for proposals to establish large collaborative teams focussed on specific diseases with a view to obtaining regulatory approval for phase one clinical studies of stem-cell based therapies within four years. Funding decisions will be in 2009/10. With the Foreign and Commonwealth Office the MRC has also supported exploratory workshops on stem cells and regenerative medicine involving researchers in the UK, California, Germany and Spain.

Methodology

The MRC's aim is to establish the UK as the world leader in methodology research, supporting translational medicine as well as other areas of joint OSCHR working such as public health and e-health.

The Methodology Research Programme was launched with an annual budget of £7.5m. The programme focuses on methods development research where the proposed outputs have benefits beyond a single case study, and its strategy is outlined in the MRC's delivery plans. During 2008/09, the programme issued three calls for investigator-led proposals. During 2008/09 the MRC led a project on methods development underpinning work and decision-making of the National Institute for Health and Clinical Excellence.

Establishing a national network of centres of excellence or 'hubs', is another central theme to the programme's strategy. The MRC awarded £16.0m to establish seven hubs in 2008/09. To help deliver the strategy's training aims, the MRC also launched a Methodology Research Fellowship.

Evaluation and clinical trials

During 2008/09 the MRC and NIHR continued to deliver coordinated support for evaluation and clinical trials. The MRC's major focus within this partnership is experimental medicine and early phase clinical trials. However we will also maintain investments in late stage trials, mainly through the newly launched Efficacy and Mechanism Evaluation programme, providing £15.0m a year for trials that are primarily 'science driven', and which often include integrated examination of phenotype, genotype or disease process.

The MRC will also continue to support global health trials such as the STRETCH trial examining the impact of decentralising antiretroviral treatment from doctors in hospitals to nurses in clinics, and whether treatment is expanded and mortality is reduced among enrolled patients waiting for highly-active retroviral treatment. The trial is also looking at impact on subsequent treatment.

Sustaining a world-class environment for medical research

The MRC is investing in world-class environments and facilities for the biomedical research community including a number of major projects aimed at developing new and existing world-class facilities.

The UK Centre for Medical Research and Innovation (UKCMRI) will bring together four of the world's leading biomedical research organisations: the MRC, Cancer Research UK, the Wellcome Trust and UCL. It will be a world-class medical research institute taking scientific discoveries from the laboratory bench to the hospital bed. During 2008/09 the planning committee continued to progress the institute's scientific vision with input from scientists and the industrial community.

At the world-renowned MRC Laboratory of Molecular Biology in Cambridge work began in 2008/09 on a £212.0m project to construct a new state-of-the-art laboratory including enhanced research infrastructure, equipment and neurobiology facilities, and increased effort in translating research.

The MRC worked with the University of Oxford in 2008/09 on a strategy to further develop translational research activities at the Weatherall Institute of Molecular Medicine building on its successes. Future plans aim to strengthen exchanges between basic and clinical science at the institute and in Oxford, and build links with the NIHR Oxford Biomedical Research Centre. Closer integration between MRC units and universities is one of the key objectives of our new Strategic Plan.

Since 2001, the MRC, with BBSRC and European Molecular Biology Laboratory, has owned and operated the BM14 protein crystallography beamline at the European Synchrotron Radiation Facility in Grenoble, to enhance the facilities available to the UK structural biology community while the new Diamond synchrotron was under construction. In 2008/09 the MRC agreed a phased transfer of ownership, thus allowing the MRC to recycle the resources while maintaining access to meet UK requirements.

The MRC renewed its commitment to the Mary Lyon Centre in 2008/09, appointing a new director and increasing resources. Two of the MRC's major research institutes also saw the appointment of new directors: Professor Amanda Fisher at the MRC Clinical Sciences Centre and Professor Jim Smith at the MRC National Institute for Medical Research.

- A summary of award rates for response mode schemes and the outcome of targeted calls for proposals considered during 2008/09 is in the *Performance highlights* section.
- Information on MRC-funded research programmes is on the MRC website at www.mrc.uk/researchportfolio

Supporting people



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. We employ more than 4,000 staff in our units and institutes in the UK and in Africa. Our training and capacity-building programmes provide fundamental research training and aim to increase the number of scientists in key and evolving disciplines.

Attracting first-rate people and maximising potential and performance

Our Human Resources (HR) Strategy aims to redefine and restructure the delivery of support for human resources within the MRC to maximise its capacity to support creative and innovative science in a contemporary employment environment. The aim of the HR Strategy is to equip HR staff throughout the MRC to better understand, respond to and support the individual components of the MRC's business, the programmes within MRC research units and institutes and wider MRC initiatives, and to improve working relationships with key external stakeholders and partners.

Equality and diversity

We are committed to eliminating unjustified discrimination, promoting equality of opportunity and good relations across all of our functions, and to achieving equality of treatment for all. Our aim is to ensure that all individuals have equal opportunities for employment and advancement on the basis of their skills, aptitudes and abilities.

Our policy is that there should be no discrimination, harassment, less favourable treatment or victimisation of any MRC staff, job applicant or funding applicant either directly or indirectly on the grounds of race, nationality or ethnic origin, gender, gender reassignment, marital or family status, disability, trade union membership or activity, sexual orientation, age, or religion, religious beliefs or philosophical beliefs.

A full audit of the equality and diversity programme has been completed and an Action Plan for future projects has been developed. An audit of Equality Schemes and Action Plans has also been completed and progress of the actions recorded. We are likely to adopt a 'Single Equality Scheme' following publication of the Equality Bill in 2009 which will impose an extended equality duty on the MRC in the areas of gender reassignment, age, sexual orientation and religion and belief.

Women in science and gender equality are priorities for the MRC and we have consolidated our work in these areas this year, integrating the work of the successful Women in Science Project Committee into the Gender Equality Scheme action plan to embed best practice across the organisation for all female employees.

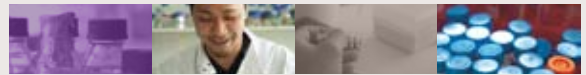
We investigated the membership of the Athena/Swan Charter and the CEO Charter; awards that signify that an organisation has good employment practice with regard to women in science and represent a robust and proactive way of implementing best practice across the MRC. We have reviewed the equalities

MRC HR activities during 2008/09 included:



- Continuing the evolution of reward and remuneration systems that are responsive to market and performance, and that are cost-effective.
- Working with the MRC's Management Board to implement a new system for intramural governance and appraisal of MRC Directors.
- Continued joint working on the Research Councils UK (RCUK) Shared Services Centre project. This has resulted in successfully transferring MRC staff across to the new organisation while maintaining the service to the MRC.
- The launch of 15 new and revised HR policies. Developed through a robust consultation process, these policies form part of the MRC's continued commitment to ensure policies are compliant with current employment legislation and fully aligned with business needs.
- Continued working and development of the formal relationship between MRC management and Trade Union Side (TUS).
- Work with Cancer Research UK, the Institute of Cancer Research (ICR), the Sanger Institute in Cambridge and the European Molecular Biology Laboratory in Heidelberg, Germany, to develop and run a Scientific Leadership Programme for Senior Investigator Scientists.
- Development of an induction booklet for new staff.
- The launch of the 'bite-size' programme of training events.
- The first MRC-wide employee survey was undertaken, including regional focus groups to understand how to engage better with MRC staff. Local action plans are being developed to take this work forward.

Equality and diversity projects for 2009/10



- Equalities schemes summary of progress (to be published on website)
- Audit of units
- Training and awareness raising
- Revision of equality schemes and actions
- Equality Impact Assessment project
- Implementation of the Equality Act
- Equal pay audit
- Investigation of joining Athena/Swan Charter and CEO Charter

and diversity awareness provision. Our revised approach is to implement a mixture of e-learning and face-to-face learning from April 2009 in order to reach as many employees as possible and to match their learning style preferences.

The Equality Bill is due to become law in 2009. It is likely to impose a new 'Equality Duty' on public bodies and will replace the current race, disability and gender duties. The new streamlined duty will cover not only those three areas, but also gender reassignment, age, sexual orientation and religion and belief. The duty is likely to have impact in terms of requiring a more systematic and evidence-based approach to all equality areas. Engaging with issues such as the impact of religion or sexual orientation will no longer be optional or a question of good practice but will require a more strategic and systematic approach. The Bill will also have implications in terms of procurement and Positive Action.

Sickness absence

The MRC monitors sickness absence on an ongoing basis in line with its sickness absence policy.

Table 1 MRC employees analysis
(for employees in post as at 31/12/08)

Gender		
Male	1,633	47.1%
Female	1,835	52.9%
Total	3,468	
Ethnicity		
BME ⁽¹⁾	386	11.1%
Non-BME	2,649	76.4%
Other Ethnic Group	217	6.3%
Not Disclosed	216	6.2%
Total	3,468	
Disability		
Declared disability	48	1.4%
No disability declared	3,420	98.6%
Total	3,468	

⁽¹⁾ BME (Black and Minority Ethnic) means groups 04 to 15 in MRC equalities monitoring form

Strengthening research capacity through training and development

The new MRC Training and Careers Group takes a broad, long-term perspective on strategic research skills shortages and on the development of the next generation of research leaders.

Its role is to:

- Develop the MRC's research training strategy in alignment with the MRC's delivery plan.
- Help strengthen the effectiveness of the MRC's investment in training.
- Contribute to evaluation of the impact of that investment.

The new group met in September 2008 and March 2009. In developing its priorities and workplan it benefited from the recent MRC Training Review (2007) and the experience of the training panels and research boards.

Table 2 Sickness absence 2008/09

Total number of staff as at 31 March 2009	3,434
Total days lost to sickness	12,569
Average working days lost	3.66

Table 3 Common causes for sickness absence 2008/09

Cause	Total number of days lost	%
Anxiety, stress, depression	854	7
Back problems	415	3
Cancer and tumours	508	4
Chest and respiratory	602	5
Cold, cough and flu	2,059	16
Ear, nose and throat	433	3
Gastrointestinal	1,213	10
Genitourinary	257	2
Headache and migraine	505	4
Injury, including fractures	701	6
Pregnancy related	286	2
Other musculoskeletal	466	4
Other known causes	3,511	28
Unknown cause	759	6

Supporting scientists throughout their careers

The MRC provides targeted training and development programmes which support biomedical scientists at key stages of their careers. Partnerships with other funders and key stakeholders enhance and extend these programmes to support both the needs of the researcher and the scientific research community.

Throughout the year the Office for Strategic Coordination of Health Research (OSCHR) has extended its work to coordinate UK health research strategy and has established a new work stream on human capital in December 2008, supported by a working group and led by the Department of Health.

The human capital working group will produce a preliminary analysis of strategic issues for the OSCHR board during 2009/10. The analysis will be supported by a 'map' of major investments by UK funders that directly target strategic skills and career needs in health research. The mapping will identify how these initiatives complement one another and where gaps and other challenges could be addressed by working together.

The MRC has continued to work with industry partners to improve understanding of their research skills needs. For instance, evidence put together by organisations such as the Association of the British Pharmaceutical Industry and Biosciences Federation

Research training partnerships



Jointly-funded fellowships provide an effective route to support capacity development in key areas. The MRC currently has agreements with a number of charities to support jointly-funded Clinical Research Training Fellowships (CRTF) and Clinician Scientist Fellowships. During 2008/09 the MRC supported joint awards in partnership with Kidney Research UK, the Multiple Sclerosis Society, and the Motor Neuron Disease Association.

The MRC and the Motor Neuron Disease Association made the first two MRC/MNDA Lady Edith Wolfson Clinical Research Fellowships to Dr Martin Turner at the University of Oxford and Sheffield-based researcher Dr Robin Highley. Dr Turner's project will look at the development of MND biomarkers. Dr Highley will look at the role of the protein TDP-43 in the death of motor neurons in MND.

In addition, agreements are also in place with the Juvenile Diabetes Research Foundation, Diabetes UK, Asthma UK, the British Lung Foundation and the Cystic Fibrosis Trust. During 2008/09 we agreed a joint fellowship scheme with the Stroke Association. Up to two CRTFs will be awarded jointly between the MRC and the Stroke Association for individuals wishing to pursue a career in clinical stroke research. The Stroke Association's research strategy aims to increase the UK funding base and capacity for clinical stroke research across the full stroke care pathway. We are also in the final stages of setting up another joint fellowship with the paediatric charity, Wellchild.

was valuable in informing the MRC of the capacity building initiatives this year.

Partnerships with charities and companies are reflected in the joint funding of initiatives such as the MRC Integrated Toxicology Training Partnership, the MRC Centre for Drug Safety Science, and individual CRTFs.

Training in basic science

The UK's competitive position in science internationally is underpinned by sustained investment in PhD training in basic science by a range of funders. The MRC's priority is to support outstanding individuals who are potential future research leaders, undertaking challenging medical research projects in excellent training environments.

The MRC's non-clinical PhD studentship investment is largely delivered through allocations to MRC centres, institutes and units and through block Doctoral Training Grants (DTG) to universities. The allocation of the DTG is determined by the organisation's success in competing for MRC research grants.

During the year, the MRC consulted universities and other research organisations on their experience of the DTG, which the MRC introduced in 2006/07. The review showed that recipients value the flexibility that the grant gives them in how they allocate studentships. While the review provided some assurance that universities' various allocation strategies were broadly in line with the MRC's objectives, the Training and Careers Group agreed that the MRC needed both to communicate its requirements more clearly and to work with the sector to improve reporting of how each organisation uses the grant. Principles of accountability were agreed by the Training and Careers Group in March 2009. The MRC will further consult research organisations during 2009 about how reporting can be more effective while minimising the administrative burden.

On the basis of their MRC research grant income, some 20 research organisations currently receive a DTG that funds fewer than three students a year; for several, only half a studentship. The MRC will change how these organisations access this funding. Each will be invited to compete for up to three studentships a year. The competition criteria will focus on the ability to attract outstanding students, the excellence of the training experience students can anticipate and the distinctive contribution to UK skills needs; for instance in interdisciplinary science and other areas of emerging need. Our consultation in 2008 showed most would welcome such an approach, not least because a larger DTG would enable organisations to strengthen training capacity strategically. They accepted that a consequence would be that fewer organisations would receive an allocation.

The MRC will work with the sector to implement these changes in 2009/10, in time for their summer 2010 intake of PhD students.

Increased investment in strategic skills capacity

The MRC stimulates capacity development through targeted studentship and fellowship competitions and support for research centres and initiatives with a strategic training component.

Competitions during 2008/09 focused on strategic research skills for early career stage researchers in areas including *in vivo*

science, stem cell science, biomedical imaging, mathematics and statistics, biostatistics, and population health sciences. A summary of awards, many of which were made in partnership with the other research councils and with professional bodies, can be found in *Increasing impact through partnership*. Other initiatives, such as the new Methodology Research Fellowship, are targeted at early postdoctoral scientists who are ready to become more independent as researchers, and who have the ambition to lead the development of new health research methods. Two examples of the fellowships funded this year include:

- Developing systematic methods to identify whether more research is needed on new treatments once the decision has been taken to adopt them for use in the NHS.
- Improving the reliability of safety studies of medicines by developing methods to analyse observational studies and better understand their statistical biases.

The MRC Centre for Drug Safety Science, launched in October 2008, includes provision for 17 new PhD studentships over five years in strategic areas. The training programme encompasses advanced chemical, biochemical, cell biology and pharmacogenetic methodologies. A complementary set of epidemiological and related skills, focused on individual and small-area environmental exposures, will be developed through the new MRC-Health Protection Agency Centre for Environment and Health.

During 2008/09, the MRC also extended the Integrative Toxicology Training Partnership, awarding three further PhDs thereby increasing the level of support to 23 studentships over the five years of the initiative. These complementary initiatives will add significantly to the cadre of UK researchers trained in the full range of toxicological approaches, from the molecular to the whole organism and populations.

Training for translational research

The MRC committed an additional £14.0m in 2008/09 to boost training for translational research. The funds were deployed to launch the new fellowships in methodology development and bioinformatics, and to support a new joint scheme with the Economic and Social Research Council and the National Institute for Health Research. The new scheme, the Economics of Health Fellowship, aims to bring economists into health research. In addition, the MRC increased the level of investment in existing schemes, such as the CRTF which allows clinicians to undertake PhD training. Fifty-five new awards were made in 2008/09, an increase from 50 in 2007/08. Of the 89 applications shortlisted over the two rounds of the competition, proposals with a significant exposure to translational research were more successful than those without.

Training and development of clinicians in research

The OSCHR Human Capital work stream will inform work in 2009/10 by the Training and Careers Group on how the MRC can best sustain excellence in training for clinicians at the various stages of their research careers within the broader, evolving context of changes to clinical career paths in the UK. Details of the MRC's increasing investment in clinical research training can be found in *Performance highlights*.

Building the community of MRC research trainees

During 2008/09, a number of MRC trainees told us that the MRC could do more to celebrate their success and to support networking within the community of MRC-funded students and fellows. We heard similar comments from members of our research boards and from representatives of organisations we consulted during the DTG review. Further consultation throughout 2009/10 will help to inform how the MRC can help to build a greater sense of community among MRC research trainees and help them to identify with MRC ambitions and achievements.

Translation in clinical research training



- 41 (46 per cent) of the 89 CRTF applications shortlisted included significant exposure to translational research.
- 31 (76 per cent) of the 41 candidates with a translational component to their proposals were offered a CRTF.
- 25 (52 per cent) of the 48 candidates without a significant translational component were offered a CRTF.

The following are two examples of CRTF projects with a strong translational component:

- The development and application of advanced brain-imaging techniques to improve selection of epilepsy patients for surgery and to improve surgical outcomes.
- The development of new statistical methods to improve understanding, diagnosis and clinical monitoring in patients with suspected tuberculosis.

Increasing impact through partnership



The MRC works in partnership with a wide range of stakeholders to support the UK's vibrant biomedical and health research community. Working with other research funders across governments, the charity sector and industry allow us to align strategy and research priorities and provides the framework to drive discovery towards improvements both in health and in economic prosperity.

This section also includes the report from MRC Technology (MRCT), the MRC's technology transfer company, which works to translate cutting-edge scientific discoveries into commercial products.

Strategic partnerships

The MRC's partnership with the National Institute for Health Research (NIHR) and the UK health departments is central to our mission to improve human health and advance economic competitiveness by supporting high-quality research. In responding to the challenges of the Cooksey Review we have continued to work closely with the Office for Strategic Coordination of Health Research (OSCHR), NIHR and the UK health departments to align our programmes and strategy to facilitate more efficient translation of health research into health and economic benefits within this new environment for UK health research.

The MRC is also working closely with the Technology Strategy Board (TSB) which was established in 2007 to drive innovation. During 2008/09 two priority areas for joint working were identified, regenerative medicine and stratified medicine. In the coming year work on regenerative medicine will build on existing support for research on stem cells, disease mechanisms, healing, and biomaterials. This will help TSB support development of industry research and development in these areas. In stratified medicine, the MRC, who leads this areas for OSCHR partners, and the TSB will work together to facilitate application of our increasing understanding of sub-types of disease. The issues will include clinical research resources, translational diagnostic and biomarker research, regulation, and economics. Further information can be found below under Partnership with industry.

Close working relationships with the other research councils represents a significant partnership and supports collective working through the strategic partnership of Research Councils UK and smaller-scale collaborative projects involving a number of councils. During 2008/09 the research councils have worked together to address major research priorities through cross-council programmes and to harmonise working practices to deliver greater efficiencies. Further information on these activities can be found in *Delivering research and Leading best practice*.

Partnership with the charity sector

The UK has a strong charitable sector which supports fundamental research in focused, often disease-specific areas. Our partnerships with medical research charities provide an effective mechanism to develop and strengthen areas of health-need that are of high priority and of mutual interest.

These partnerships, which often involve joint funding and which

Charity partnerships



Joint awards and initiatives supported by the MRC in partnership with UK charities included:

- The need of lung cancer patients for supportive and palliative care was targeted with a call for proposals, for which funds of £2.3m have been pledged by National Cancer Research Institute partners. Nine new awards were made in June 2008, in areas related to symptom-management with a focus on improving the patient experience, and the effectiveness of different service models for patients in follow-up.
- The MRC/Asthma UK Centre in allergic mechanisms of asthma was awarded funding for a further two years. Asthma UK provides funding directly to the centre via their own funding mechanisms and have been engaged during the review and decision-making process and were present at the board meeting when the funding decision was made.
- An MRC/British Heart Foundation Strategic Development Grant was awarded to Professor John Danesh in Cambridge to enable an efficient case-cohort study of genetic, biochemical and lifestyle factors in chronic heart disease involving 10,000 confirmed incident cases and 10,000 controls. The development of this resource as well as planned links with international studies will also enable future studies of further genetic, nutritional and biochemical factors.

Further efficiency will be achieved because EPIC-Heart will share more than 10,000 controls already identified through separate funding in EPIC-InterAct, a study of type 2 diabetes. Analyses of priority hypotheses for gene-lifestyle joint effects in coronary heart disease should yield findings that substantially advance understanding, assist in targeting interventions, and help to identify novel therapeutic targets. The creation of this resource will also enable many studies to investigate the interplay of genetic, biochemical and lifestyle factors on the incidence of coronary heart disease on a large scale.
- The MRC together with the Economic and Social Research Council recently invited bids to establish a limited number of national addiction research clusters to address themes that have been drawn up in consultation with a range of stakeholders. In the area of gambling, the Responsibility in Gambling Trust was a major stakeholder and has influenced the policy direction in this area.

Jointly funded fellowships also provide an effective route to support capacity development in key areas. During 2008/09 the MRC supported joint awards in partnership with Kidney Research UK, the Multiple Sclerosis Society, and the Motor Neuron Disease Association.

promote knowledge-sharing, provide a route to align strategy and coordinate effort, leading to more effective complementary working. Joint funding with charities for initiatives and individual awards add significantly to the research we alone can support, particularly in training and capacity building in under-represented disciplines and priority areas. Together public and charitable investment in research also provides spillover benefits to the private sector based in the UK, and therefore a return to the UK economy.

We continue to work in partnership with the trustees of the MRC's independently managed charity, the Medical Research Foundation. The public make bequests and donations to the charity to support MRC research. During 2008/09, 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 support 71 awards amounting to nearly £1.0m in expenditure on research within the MRC's remit.

Partnership with industry

Effective relationships with industry are essential in order to accelerate the translation of knowledge into practice. In 2008/09, the MRC has continued to work with partners across UK industry, building on links with individual companies and trade associations. The new MRC Pharma Forum, launched during 2008/09, consolidates these links, providing a platform for continuing and effective engagement between the MRC and industry and to oversee all aspects of strategic interaction with the pharmaceutical/biopharmaceutical sectors. The Forum, whose membership includes the TSB, the Association of the British Pharmaceutical Industry (ABPI) and the BioIndustry Association, is beginning to deliver real benefits to the MRC, securing powerful strategic and intellectual contributions to the development of our Strategic Plan, *Research Changes Lives*, through the identification of training needs across academia and industry.

The Forum has also contributed to our review of our Industry Showcase programme. There have been six showcase events since their inception in 2006. The showcases have proven popular, attracting a total of about 1,500 delegates and involving some 25 different companies. A total of £4.5m has been committed to new research collaborations arising out of the showcases and, following the latest event, the final commitment will probably be close to £6.0m. The Forum endorsed the achievements of the programme to date, and in the coming year will contribute to the development of a new model of academic/industry workshop, ensuring the programme continues to meet the evolving needs of industry and that it represents an effective use of resources.

The new programme, which will be launched during 2009/10, is expected to involve smaller, more directed meetings, aimed at building new partnerships between the UK's strong academic research base in immunology and inflammation and industry. This will include exploring the potential for disease stratification research. Further workshops in other disease areas will be informed by the experience in this workshop.

So far the forum has advised on the development of a new approach to funding academic-industry research partnerships: the MRC-Industry Collaboration Award (MICA) scheme. A key attribute of the new scheme, launched in January 2009, is its flexibility,

especially in the level and nature of the industry contribution.

Recent developments have contributed to a marked improvement in opportunities for academic-industry biomedical research collaborations. The MICA scheme represents our response to the changing industrial and economic climate and is particularly aimed at encouraging and supporting genuinely collaborative research projects between academic researchers and industry.

The MICA scheme allows UK companies of any size to participate and so may prove particularly attractive to small and medium-sized enterprises. We hope this scheme will prove catalytic in initiating many more new partnerships, particularly when compared with the MRC Open LINK scheme, which MICAs replace.

We have been working closely with TSB to ensure alignment between our research investments and the new TSB health sector strategy, due to be published later in 2009, and to identify value-adding collaborations. In the coming year, the MRC will work with the TSB to deliver our target of commitments in collaborative areas of £30.0m over the spending review period. This will mainly be achieved through strengthened support for translational research. The main areas we will work on with the TSB are in extending the developmental pathway schemes in order to enhance industry uptake by supporting linked industry translational R&D, regenerative medicine and stratified medicine. New partnerships will be built to encourage the development of new products and services relating to the challenge of ageing and lifelong health, while existing relationships with NIHR will support cooperation in areas including the infections innovation platform. There may also be scope for joint working in development of research resources and infrastructure and in increasing industry participation in centres of excellence, in cross-research council initiatives, and in training and capacity development.

Building collaboration



The 1bn euro Innovative Medicines Initiative (IMI) was launched in 2008. IMI is a novel European Union funding partnership with the major European pharmaceutical companies, focusing on pre-competitive research. Last year, the MRC, along with other partners, notably the Academy of Medical Sciences and ABPI, held a workshop to raise awareness of the opportunities for UK science. Following this event, the MRC made funds available for networking meetings. This support enabled academic groups to establish the new consortia that were called for under the initiative and underpinned a number of successful applications. The MRC will again provide support for networking meetings under the second IMI call which will be launched in 2009. We have also actively represented concerns that appropriate levels of overhead support be provided to successful applicants, so that UK universities are not disadvantaged relative to their competitors in the rest of Europe.

Report from 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 unit 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.

MRCT has continued to actively engage with the industry and academic communities in areas associated with healthcare. In response to the changing environment within healthcare industries MRCT has reviewed its strategy and realigned it to incorporate a greater emphasis on a translational role in bridging the gap between the output of basic academic research and the start point of industrial healthcare research and development activities. This includes the formation of the MRCT Centre for Therapeutics Discovery which replaces and extends the work of the Drug Discovery Group (DDG). The new centre will be able to engage with the broader academic community to provide translational resources to ensure that potential new healthcare solutions have the best chance of reaching the patient.

Technology transfer fund income

Licensing income receipts from all sources reached £66.4m (2007/08 £49.0m) during the year, bringing total cash generated since 1998 to £439.4m. There has been a further rise in revenues from the 'Winter 1' patent portfolio; antibody humanisation by CDR grafting. A summary of performance for the year ending 31 March 2009 is shown in table 4 below.

Table 4 MRCT performance

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
2008/09	20	38	54,980
Total			439,350

Patent portfolio

MRCT staff, trained scientists with a technology transfer or business background, provide advice and support to each MRC unit and institute on all aspects of IP matters. Some IP created by MRC research can be secured by applying to the relevant authorities for patent protection. The decision whether to file a patent or not is based on a range of technical, legal and commercial factors. As research is a highly competitive activity there can be conflict between rapid dissemination of information and the requirement to patent protect an invention.

In 2008/09 MRCT filed 20 new patent applications in the name of the MRC and 19 existing applications were granted in various territories. The MRC patent portfolio currently contains 130 that are managed by MRCT and a further 240 that are managed by third parties as part of licensing deals or collaborations. The total spend on patent filing and management was £1.3m.

Business development and licensing

The most significant licensing deal executed during 2008/09 was the sale of rights to a humanised antibody to Centocor Biopharma Inc., a subsidiary of Johnson & Johnson. The original mouse antibody came from the MRC Laboratory of Molecular Biology (LMB) in Cambridge and had shown efficacy in a mouse model of respiratory disease. The mouse antibody was humanised by MRCT's Therapeutic Antibody Group (TAG) who also generated additional IP. The final deal was one of the largest MRCT has ever carried out.

A licence was granted to a major optical company to commercialise the Optical Projection Tomography technology developed by the MRC Human Genetics Unit in Edinburgh. The MRC received an upfront payment and will receive royalties on sale of instruments when they are developed and sold.

The MRC spin-out company, Heptares Therapeutics Ltd, completed a major financing deal (approximately £20.0m over three years) in February 2009. The company has been incubated at MRCT's Mill Hill site. Due to anticipated expansion as a result of the investment, the company will move to a new site in Welwyn later in 2009.

Development Gap Fund

MRC technologies and inventions often have clear commercial potential but are too immature to attract industrial or investor partners. To facilitate and increase the commercial value of such projects the MRC established the Development Gap Fund (DGF). This pre-seed fund is managed by MRCT to assist the successful translation of good science into good business. Areas supported by DGF include:

- Proof-of-concept studies
- New company formation
- Drug target validation
- Commercial idea exploration

Based on the success of a scheme piloted 2000-2002, the MRC's Council approved further funding of £4.5m and £6.0m in 2003 and 2008 respectively. The first fund was committed by July 2008.

To date DGF has attracted submissions from all four of the MRC research boards equating to applications from 24 of the 31 MRC units and institutes across the UK.

A summary of proposals submitted to DGF from its inception and during 2008/09 is shown in tables 5 and 6.

Funded projects span computational chemistry to target validation in drug discovery, human volunteer proof-of-concept studies for products from nutritional supplements to medical diagnostic devices. Notable examples of the commercial development of translational projects include the spin-out company Heptares and the development of a medical device for the screening and surveillance of oesophageal cancer.

When used in combination with MRCT's proven track record of IP, business and project management, the DGF continues to be a powerful technology transfer tool with which to effectively translate MRC science into successful healthcare products.

Figure 5 Development Gap Fund timeline

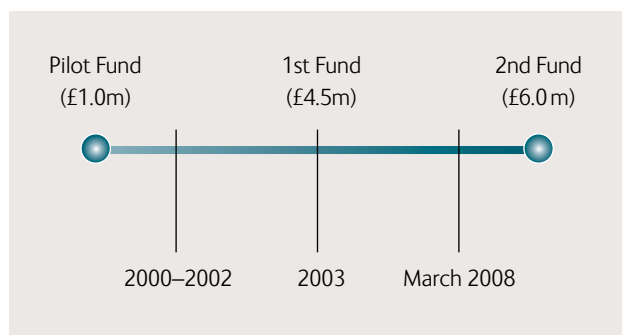


Table 5 Submissions to the DGF from the pilot scheme to March 2009

Submissions	124
MRC units/institutes represented	24
Projects funded	66
Total funds committed	£7.7m
Average project cost	£116.4k
Project duration (months)	3-54

Table 6 DGF submissions 2008/09

Submissions	28
Units represented	12
Projects funded	17
Total funds committed	£1.6m
Average project cost	£92.4k
Project duration (months)	5-24



**Heptares
Therapeutics**

Heptares Therapeutics Ltd (HTL) is a new drug discovery company founded in 2007 on technology arising from DGF-funded work. Along with Pfizer, a world-leading pharmaceutical company, DGF co-funded a four-year project employing four research scientists at the MRC Laboratory of Molecular Biology in Cambridge and, at a later stage, an entrepreneur in residence to aid the commercial development of technology arising from the project.

HTL aims to apply its validated proprietary technology to the design and development of novel molecules against members of one of the largest families of druggable targets. This unique approach is expected to radically improve the chances of finding drugs to previously intractable targets and will enable the development of safer and more selective therapeutic agents. HTL, initially 'incubated' at MRCT laboratories in London, has recently raised £21.0m of equity finance in a successful Series A private round from international venture capital firms. The latter, along with recent publications in international peer-reviewed journals including *Nature*, demonstrates how the world-renowned research of the MRC can be translated into commercial success in areas of unmet medical need.

Novel non-endoscopic immuno-cytology test for the detection of oesophageal cancer



Barrett's oesophagus (BE) is a precursor lesion for oesophageal adenocarcinoma. The majority of cases of BE are undiagnosed and therefore even efficacious chemoprevention measures and endoscopic treatments are unlikely to reduce the population mortality. Population screening for BE has therefore been advocated. The purpose of this study is to develop a novel non-endoscopic approach for the detection of BE applicable to primary care, which involves a capsule sponge cell-sampling device in combination with markers for cancer. Funding has resulted in the manufacture of a regulatory approved sampling sponge which is currently being successfully employed in a primary care study. A large well known diagnostics company is interested in the kit and is providing reagents free of charge for the primary care study.

Drug Discovery

Over the last 12 months the Drug Discovery Group (DDG) has been involved in several major projects.

In collaboration with Dr Andy McKenzie (MRC LMB, Cambridge), the TAG humanised an antibody for the treatment of asthma that was subsequently successfully partnered with a major US-based pharmaceutical company. This follows on from the successful partnering of our virology targeted antibody last year. TAG continues to work with a number of scientists across the MRC network on a range of diseases and has recently humanised other antibodies for prion disease and a second one for asthma.

Since the last report TAG has successfully completed the training project for two visiting scientists from a Japanese company. These scientists were supervised and taught in all procedures necessary to complete antibody humanisations for their own company and associates in Japan.

Following the successful completion of the humanisation of an anti-amyloid beta antibody on behalf of Intellect Neurosciences (USA), TAG agreed to investigate the binding characteristics of the humanised antibodies in more detail. Meanwhile, Intellect is in discussion with one or more large pharma companies about licensing the humanised antibody and related IP.

In addition, Elan/Biogen Idec announced worldwide sales of \$813.0m in 2008 for the TAG humanised antibody Tysabri[®], which is approved in more than 40 countries for the treatment of multiple sclerosis, as well as Crohn's disease in the US.

On the small molecule front, the DDG has made significant progress and, to date, three small molecule patents have been filed and further patents are planned in the near future. The group have now identified a potent, selective, drug-like series for the potential treatment of cancer and primary open angle glaucoma. A partnering package is currently being developed in response to expressions of interest from two pharmaceutical companies.

The DDG has also developed potent and very selective compounds for potential treatment of Parkinson's disease. The group is profiling these more widely, including in human-derived tissue as a prelude to a marketing campaign, assuming the data look interesting. Despite the early stage of this project we already have an expression of interest for a collaboration on the target from one pharmaceutical company.

In addition, DDG is currently working on hit-to-lead for targets in malaria and inflammation (with potential for relevance in various neurodegenerative diseases such as Alzheimer's disease). These projects are all in early-stage development, but nevertheless we already have sub-1 micrometre potency versus both targets and evident structure-activity relationship to move them forward. Projects in assay development and screening cover therapeutic areas including cancer, diabetes, hypertension and pre-term labour.

The group as a whole has developed a project progression process in tandem with the MRC's Developmental Pathway Funding Scheme. To this end, and has submitted four joint proposals with non-MRC principal investigators and has provided advice on a further five projects. It is clear that the split between MRC and non-MRC DDG projects is moving more towards a 50:50 split as opposed to predominantly MRC. We believe this is primarily due to promotional activities outside the MRC and to the impact of the DPFS.

To reflect the expanding role of the DDG and to provide the UK with a national drug discovery resource, MRCT and the MRC announced the formation of the MRCT Centre for Therapeutics Discovery on 2 April 2009. During 2009/10 and beyond the centre will build on the existing capabilities of the DDG.

Public and stakeholder engagement



In 2008/09, the MRC communication team concentrated its efforts on achieving the key strategic objectives of explaining the MRC's work, including specific areas of research; demonstrating the link between research and health; taking public and other perspectives into account; and providing our scientists with the skills and opportunities necessary to engage with non-specialist audiences.

Public involvement

The Public Panel, launched in 2007/08, continued to grow throughout the year. The panel is a network of individuals who provide a broad range of public views, experiences and expertise on different aspects of the MRC's work. Their input helps us identify and take account of public concerns over specific areas of research, and ensure that our work reflects public acceptability in biomedical research.

Lifelong Health and Wellbeing

For the first time, members of the Public Panel were involved in the reviewing and decision-making process for grant applications. We created a Public Perspective Group, drawn from the panel, to provide input to the cross-council Lifelong Health and Wellbeing Initiative, on which the MRC leads. Public Perspective Group members took part in a workshop to encourage networking between prospective applicants for the collaborative network grants, and contributed to the peer review and assessment of collaborative and network grant applications.

Other current and recently completed projects involving Public Panel members include:

- Patient Research Cohort Initiative ongoing monitoring and decision-making on funding;
- Commenting on MRC publications: *MRC research for lifelong health: Brain Science*;
- Motor Neuron Disease Research Oversight Committee, following development of a research strategy on motor neuron disease in 2007;
- Methodology Research Programme workshop on Patient Reported Outcomes: Identifying UK Research Priorities;
- Office for Strategic Coordination of Health Research (OSCHR) Translational Medicine Board.

Public consultation

The largest project ever conducted into public attitudes towards stem cell research, commissioned jointly by the MRC and the Biotechnology and Biological Sciences Research Council, was completed in the autumn of 2008. The findings were formally launched at an event at Westminster in December 2008.

The project was developed in response to the recommendations of the Pattison Report and supported by the Government's Sciencewise scheme (www.sciencewise-erc.org.uk). Its aims were to raise awareness among the public of both the challenges and opportunities associated with stem cell research, and to encourage dialogue between the research community and the public.

A series of public workshops was held throughout the UK focusing on different topics, such as sources of stem cells and applications of stem cell science. The findings illustrated that there is no unified view held by the public about stem cell research. The conclusions do suggest however, that there is widespread and conditional support among the public for stem cell research and therapies, but this support is related to the sources of stem cells, the purposes of the research and clinical risks of treatments. A full report on the project including the findings is available on our website.

Public engagement

Throughout 2008/09, we continued to use a wide range of communication channels to deliver messages about the MRC, its work and its achievements to the public and other stakeholders. These included online and print publications, the media, and face-to-face engagement at exhibitions and events. By making MRC researchers more accessible, explaining our science, and highlighting our achievements, we were able to demonstrate the link between MRC research and improved human health.

Public events

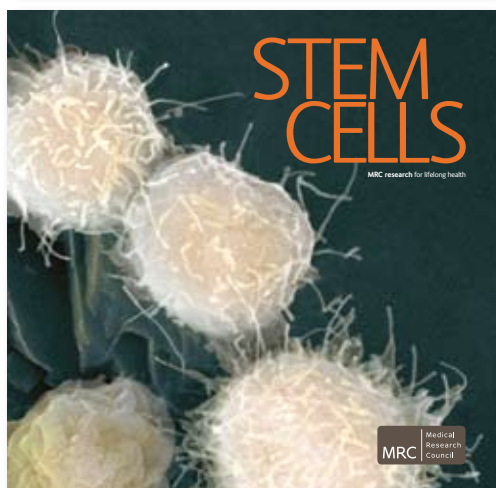
The quality and range of public engagement activities increased considerably during the year. The MRC organised five events at the inaugural Oxfordshire Science Festival; in Oxford we launched MRC science cafés, a forum to discuss topics such as pandemic flu and mouse models of human disease; and in Cambridge we organised discussion events on stem cells.

MRC-funded scientists took part in all the major public science festivals in the UK, which take place throughout the year. These included science festivals in Brighton, Cambridge, Edinburgh, Cheltenham and Liverpool, and a new high-profile event in London; the Big Bang Fair.

Working with the media

The MRC's profile in the national media remained high throughout the year. We secured widespread national coverage for many key MRC discoveries and achievements in 2008/09 including: the first mouse model of rhinovirus; changes in H5N1 structure uncovered which make it Tamiflu-resistant; health outcomes for extremely pre-term babies; stem cell self-sufficiency; new figures on HIV prevalence in gay men; a new method for delivering a malaria vaccine using the cold and pox viruses; the discovery of a key process that governs embryo implantation; and the virus-free creation of induced pluripotent stem cells.

For the second year we ran a well-attended conference for biomedical and science press officers, which ensured continuing good relationships and partnership working with colleagues across the research community.



Web communications

This year, the MRC corporate website provided the cornerstone of MRC communication activities with many of our stakeholder groups, particularly within the MRC and with the wider research community. The website offers flexibility and widespread accessibility, and is continually reviewed and updated to ensure content is fresh, relevant and up-to-date.

In early 2009, we launched a new section on the website, *Achievements and Impact*, which highlights MRC scientific achievements and MRC contributions to healthcare and other areas of society. The section draws on the achievements of MRC-funded scientists, both in our units and institutes and in universities, and highlights the impact of their work. We expect it to interest a wide and varied audience.

The podcast programme launched in 2007 continued to grow during the year and has attracted new visitors to the website, many of whom register to keep in touch with the MRC through RSS feeds.

Print communications

Demand for key print publications remains very high, particularly those which keep our stakeholders up to date on MRC policy development, such as the bi-monthly *MRC Network* magazine, and those focusing on new and controversial areas of science. In the course of the year, we published 24 new and revised publications.

The 2007/08 Annual Review *Medical research: benefiting people* was particularly well received by both scientists and non-specialist audiences. By using striking photography, which featured people who help with MRC research, and a clean, modern design, the review attracted both existing and new audiences, making it an effective tool for highlighting our achievements.

On behalf of all the members of UK Stem Cell Communications Coalition, the MRC edited and produced a new information pack, *Stem Cell Science in the UK: key facts about research, regulation and funders*, covering the science, ethics, regulation and future prospects for stem cell research. This complements a new MRC publication, *Stem Cells: MRC research for lifelong health*, which focuses on MRC research and approaches to the challenges surrounding this area of research.

Parliamentary engagement

Our work with parliamentarians increased considerably this year due to the leading role we played in providing scientific briefing for parliamentarians on the Human Fertilisation and Embryology (HFE) Bill, as it made its way through both Houses of Parliament.

This area of work is a key element of our remit, promoting the MRC as a valuable source of knowledge and expertise to inform legislation and policy-making, and facilitating an effective route for this information to reach relevant audiences and support the continuing need for evidence based policy and decision-making.

The Bill took a full year to become law, from first reading in November 2007 until Royal Assent in November 2008, during which time we contributed to and coordinated input across a large number of organisations to ensure briefing materials were delivered in a timely and targeted manner.

We maintained and developed our relationships with parliamentarians through the All Party Parliamentary Group on Medical Research, and through ongoing public affairs programmes at Westminster and Holyrood.

Supporting our scientists

We increased our support for our scientists this year in order to help them deliver messages about our research more effectively, and to increase our capacity for communication.

Science communication and media training

The rolling programme of science communication and media training, managed by our regional communication managers and the press office and delivered to MRC scientists across the UK, continues to be both well-attended and highly-rated.

Training is provided for scientists on the basis of need, for example in the run-up to the publication of an important paper or prior to a public science festival. Not only does this increase the relevance of training, it helps ensure that scientists have an opportunity to consolidate the training and embed the skills they developed during the course.

During the year, 61 scientists received media training and a further 89 took part in science communication training. In Cambridge, a bespoke public engagement coaching course was devised and introduced. Our aim is to embed a culture of public dialogue and stakeholder engagement in our organisation by making communication training an integral part of the skills development programme for our scientists.

Recognition and reward

This year we inaugurated the MRC – PEN event which brought together the worlds of literature and science in a forum where scientists and writers could share their work, promote relevant ideas and discuss themes relevant to science and the wider world. The event, in collaboration with English PEN, attracted good media coverage, much of which was in channels previously inaccessible to the MRC, providing us with access to new audiences.

PEN complements the annual Max Perutz Award competition which provides encouragement and recognition for outstanding communication among young MRC researchers and this year, for the first time, included a writing masterclass for shortlisted entrants.

Communicating with the MRC family

Throughout the year, we ran a series of human resources communications workshops for HR Leads and HR Business Partners across the MRC, to establish good practice and to trigger an impact locally in units and institutes whenever these practices are replicated. Internal communication needs are currently very high, with follow-up from the MRC Staff Survey on-going.

More recently, and in partnership with the other groups within the MRC, we are piloting a Team Briefing Initiative which will allow face-to-face dialogue between managers and staff in all areas of the organisation. The initiative will provide a mechanism for the effective and timely flow of information in many directions, informing and helping staff deal with change within the MRC in a way which will have a positive impact on staff engagement.

Leading best practice



The UK provides a world-class environment for biomedical research. The MRC is committed to enhancing this environment and plays a major role in setting standards for research and in leading policy change. We provide funding for resources and research infrastructure which deliver policy objectives and continue to improve the efficiency of our work to support science effectively.

Setting standards for research practice

The MRC aims to provide leadership in the governance of research ensuring that the research we support is conducted to the highest standard and that it respects the wishes and integrity of any patients and volunteers involved. We continue to work closely with key stakeholders nationally and internationally, with Government and Parliament, and with regulators and researchers to influence the development of legislation and policy relating to regulation.

During 2008/09 we played a key role in discussions around the new Human Fertilisation and Embryology Bill (now Act), working in partnership with the Association of Medical Research Charities, the Academy of Medical Sciences and the Wellcome Trust. We have also been working closely with partners to shape the development of the EU Directive on the protection of animals used for experimental and other scientific purposes in its passage through the European legislative process. The MRC's Chief Executive, Sir Leszek Borysiewicz, took up the appointment as vice-president of the Heads of European Research Councils (Eurohorcs) in January 2009. Sir Leszek has since led discussions with partners across Europe supporting the revision of the Directive which aims to improve harmonisation across the EU and to improve animal welfare. The issue has also been taken up by the European Science Foundation. The aim of these discussions has been to ensure that the Directive reflects current scientific developments and current best practice in animal welfare while ensuring that the competitiveness of European science is not compromised. There has been broad agreement that revisions should be proportionate and balanced in maintaining the highest animal standards whilst facilitating scientific progress and that any additional bureaucracy and costs should be kept as low as possible. More detail of the position taken by the UK Bioscience Sector, a consortium of organisations (including the MRC) coming from academia, industry, small and medium enterprises, charities and other research funders in the UK, is published on the MRC website.

Alongside our work to influence legislation, we also aim to shape the regulatory environment. In May 2008 we held a joint workshop with the Wellcome Trust to identify some of the issues associated with regulation which have concerned the biomedical research community. Bringing together representatives from academia, including biomedical researchers and lawyers, industry, Government, regulators and, overseas representatives, participants aimed to consider how research involving human participants may be simplified, using comparative experiences from other areas of regulation. The workshop concluded that regulation needs a multifaceted and considered approach. The difficult balances

between public benefit and participant-, patient- and consumer-risk, and competing demands of stakeholders, require that all those involved in legislation and regulation need to work together to ensure that regulation neither inhibits important research nor fails to protect those concerned. The full report of the workshop and a separate summary is on our website.

The MRC's Regulatory Support Centre (RSC) provides direct support to biomedical researchers in providing advice and developing resources to support the scientists we fund and the wider research community. The RSC addresses all aspects of research governance and regulation and works with regulators and the research community to share and develop practical tools in the complex area of research involving human participants, their tissues or data. During 2008/09, the RSC launched a new web-based tool kit on experimental medicine. The tool-kit provides guidance and resources for research investigators and managers, and ethics committees to assess the risks involved in experimental medicine studies and to devise risk-proportionate management and monitoring strategies. To support scientists within the MRC's own research units and institutes, the RSC also launched a forum for designated individuals named on Human Tissue Authority licences and for managers of MRC-funded tissue collections to share best practice and training.

Further information on our policies relating to good research practice and research integrity is on our website.

Extending the value of MRC funded research

Policy measures provide a means for the MRC to extend the value of the research we support. Increasing access to research findings and to datasets created and maintained by public funding helps to disseminate findings more quickly and can open up valuable resources for future research.

Increasing access to research findings

Open access is a way in which research papers are published so that they are freely accessible without having to pay any subscription fees to journals. An open access paper is available in full, and may be copied and repurposed for things like text-mining. The MRC strongly supports open access as it maximises the opportunities to make results of publicly-funded research rapidly available to other researchers, opinion-formers and any other interested parties.

Our Open Access Policy, which was introduced in 2006/07, mandates that all peer-reviewed primary research papers resulting from any MRC funding must be made available via open access within six months of initial publication. The policy came into force for all grant holders whose proposals were submitted after 1 October 2006, and for all MRC establishments for papers submitted for publication after 1 June 2007.

Over the last 12 months, the MRC has continued work on the implementation of open access: this has included working directly with publishers to secure suitable open access options (for example, University of Chicago Press, American Society of Nutrition, some SAGE publications), and this work will need to

UK PubMed Central



The MRC Open Access Policy mandates that the papers are deposited in the UK PubMed Central (UKPMC) repository. UKPMC has been developed by a consortium of eight funders including the MRC, the Wellcome Trust, British Heart Foundation, and National Institute for Health Research, in partnership with the British Library. The initial service was launched in 2007. During 2008 the funders group and partners have been working on a set of work packages to further develop the UK PubMed Central service over the next three years (2008-2011). These work packages aim to add functionality and increase the usability of the site and include:

- Enhancing information retrieval and knowledge discovery;
- Providing access to additional content;
- Developing the user interface;
- Grant reporting.

The funders have also begun initial discussions with European partners for a Europe-wide open access repository for biomedical research outputs. Further information can be found at <http://ukpmc.ac.uk>.

be continued by both authors and those at head office who are responsible for the policy. The National Institutes of Health (NIH) in the US introduced Public Access Policy at the start of 2008/09 which mandates open access publishing, and this is also helping to influence publishers.

During 2008, Research Councils UK (RCUK) commissioned an independent review of open access which looked at the current state of play and the transition from subscription to pay-to-publish models across academic disciplines, and aimed to assess the effect of open access on the quality, efficiency and impact of research outputs. The main outcome of the study was to recommend that all of the other UK research councils moved towards mandating open access in a similar way to the MRC.

Sharing publicly-funded research data

Policies to promote sharing and preservation of valuable research datasets created with MRC funding also reflect our priorities to extend the use and impact of work funded by the public. In recent years our work has focused on identifying the principal barriers to data sharing in population health research, and on developing MRC guidance for researchers, particularly on the governance of access to datasets. More detailed, pilot work on data sharing with the National Survey for Health and Development demonstrated that data management enhancements can enable faster and more accurate access to historic data. During 2008, our focus shifted to the development of governance and technical models for the various stages of a sharing transaction; from a potential new user requesting data, through assessment of that request, to data

being made available to the user. Ensuring that data transactions are robustly ethical and secure is central to this work.

Building on the experience of this pilot work, we launched a project to develop a research Data Support Service for population research cohorts more broadly. This project aims to enable new collaborative science to be generated by:

- Giving greater visibility to high value MRC datasets, through a web-based searchable directory of MRC-funded population studies.
- Working closely with creators and custodians of MRC datasets to develop, validate, implement and share new tools, practices and systems, so that they are able to share and preserve data effectively, ethically and efficiently.
- Harnessing innovation in bio- and health-informatics to enable researchers to integrate diverse data sources and types.
- Exploiting the emerging opportunities for science offered by funders' collaborative investments in cohort research, bioinformatics and e-health records research.

During 2008/09, the MRC has worked closely with the Science and Technology Facilities Council (STFC). Early in 2009 it was agreed that the STFC will lead a consortium to help deliver the Data Support Service project. The STFC's consortium partners include epidemiology and informatics experts from Oxford University and University College London. The consortium has begun work with a selection of MRC-funded teams to characterise any issues faced in implementing these policies. By summer 2009, the consortium will have identified priorities to be tackled with the teams collectively or individually over the next 18 months.

Effective business practice

Delivering efficiency gains

This year the MRC delivered efficiency savings worth £35.5m against a target of £28.5m. 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. The value of savings delivered through different strategies was:

- Reprioritisation of funded programmes generated savings of £10.8m.
- Proportional reduction of administration costs led to savings of £1.8m.
- Increased efficiency of our sponsored institutes, including procurement, generated savings of £16.7m.
- Increases in joint-funding and partnerships, generated savings of £6.2m.

We are planning further savings to continue for the remainder of the Comprehensive Spending Review (CSR) period. For the period of CSR2007 the research councils have collectively been set targets for savings and the MRC is committed to working with RCUK to determine and deliver our share of the total efficiency savings. Each research council has the same target of a reduction in the per cent of administrative costs to total programme

RCUK Shared Services Centre Ltd



Over the past year, in conjunction with the other research councils, the MRC has continued to be actively involved in the development of a cross-council collaboration to establish a Shared Services Centre (SSC) to serve all councils with shared corporate support services for human resources, payroll, finance and procurement. The RCUK SSC is a key element of the research council harmonisation programme agreed with the Department for Innovation, Universities and Skills under CSR2007. The RCUK SSC will provide the means for the MRC to capitalise further on the efficiencies gained by the development of the MRC SSC, which was established in 2006/07 to provide corporate services across the whole of the MRC estate, including head office and our 28 research units and three institutes.

During 2008/09, the research councils have continued to work with Fujitsu, the selected systems integrator, developing an Oracle-based solution to support the delivery of corporate services. The first implementation of shared services to the research councils from RCUK SSC Ltd was seen during 2008/09. The provision of services for the MRC is scheduled to go live in 2010. Significant project milestones during 2008/09 included:

- The TUPE transfer of 400 staff from the research councils to RCUK SSC Ltd in April 2008.
- The take-on of procurement services by the SSC in May 2008.
- The take-on of Information Technology and Communication services for the Swindon site by the SSC in June 2008.
- The launch of human resources services to two of the research councils and the RCUK SSC itself based on the Oracle platform in February 2009.
- Confirmation of the solution for the management of grant applications and funding.

Further rollout of human resources, payroll, finance and system-related procurement services across the research councils is planned for 2009/10, along with the development and implementation of the grants solution.

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. As part of the Government's 2009 Budget, additional savings of £106.0m in 2010/11 were allocated across the research councils. The MRC's adjusted target cashable savings for the term of CSR2007 are shown in table 7 below. Further information on our efficiency targets is in the Delivery Plan which is available on our website.

Information systems and security

Our successful partnership with Logica, who support the MRC's corporate IT needs, has now entered its fifth year with all service targets fully met or exceeded over the year.

The final phase of our major information and knowledge management project reached a successful conclusion in 2008/09. The project, which aimed to develop a package of tools to support the recording, analysis and reporting of MRC-funded research concluded with the rollout of a Research Data Warehouse reporting service and web publication of the research portfolio. The warehouse is a repository of corporate data that enables joint reports to be produced on the scientific and financial aspects of the research portfolio. The same data provide the basis for the functionality now available on our website making portfolio information publicly available and searchable. The MRC's research portfolio can be accessed at www.mrc.ac.uk/ResearchPortfolio.

There has been a lot of activity in the area of information security throughout the year, much of it resulting from the need to implement the recommendations of the Government's data handling review. This has included encrypting all portable devices such as laptops, formulating and implementing an incident handling policy, and designing and implementing a new document marking scheme that is consistent with that used by central government. All head office and MRC SSC staff have completed basic Information Security Awareness training and this course has now been incorporated as part of the induction process for new staff. In all of these areas we have worked closely with all of the other research councils to ensure a consistent approach.

The green agenda has been a focus during the year with a major programme of virtualisation initiated at our corporate data centre. This has resulted in a 25 per cent reduction in the number

Table 7 MRC target cashable savings

	Annual targets		
	Actuals 2008/09	Forecast 2009/10	→ 2010/11
<i>MRC Forecast Savings in £m</i>			
Reducing the proportion of research council expenditure attributable to administration costs	1.8	1.0	0.5
Demonstrating effective reprioritisation of programme spend	10.8	12.0	13.0
Increasing the efficiency of research council institutes	16.7	23.3	26.1
Growing the level of co-funding of research	6.2	8.0	9.0
Total forecast savings	35.5	44.3	48.6

of physical servers in use and a substantial reduction in electricity costs while also improving performance and enhancing resilience. At head office and at the MRC's SSC we have introduced an automated shutdown system that ensures all workstations are switched off at night, should they be inadvertently left on by staff. New services to enhance mobile working, from laptops and personal digital assistants, were also introduced during 2008/09, and wireless access to the internet for visitors using our head office, which provides a central London meeting room facility to all of the research councils, was enhanced. Following a pilot study we plan to introduce portable video conferencing during the next year.

Much programme activity has concentrated on supporting the overall MRC preparation for transition of corporate services to the new RCUK SSC as described above. During 2008/09 we have worked with Fujitsu to develop the Oracle-based systems to deliver services, supported the migration of Finance and HR data, and the definition of interfaces to MRC systems. Part of this effort has been to identify business areas that RCUK SSC Ltd will not address, and to specify how these business requirements will continue to be met post-transition.

Risk and audit management

As a non-departmental public body, the MRC is required to set a policy and framework for the management of risk and audit, so that the Chief Executive (also the Accounting Officer) can give assurance on the systems of internal control that support the achievement of the MRC's objectives. Building on improvements in recent years, we have continued our strong emphasis on risk management during 2008/09. Improvements introduced this year include the increasing use of risk data and reporting to aid decision making, the introduction of a formal accredited training programme for staff within our research units and institutes and within head office, and workshops for staff focusing on how risks are identified and managed.

We have also been working to increase the value added by audit activities by moving audit management into the risk management function, helping to coordinate activities across the two areas more effectively. During 2008/09 we established a process for greater analysis of audit results with regular reporting to senior management, we created a three-year audit programme, and also developed a more effective system for the follow-up of audit recommendations.

Further detailed information relating to risk and audit management is in the *Statement on Internal Control*.

Health, safety and security

In line with the Government's policy on health and safety performance, we continue to strive for the MRC to be an exemplar of best practice. Our strategy for health, safety and security is based on business needs and takes an holistic view of health and safety management with annual priority objectives agreed by the MRC's Council.

The MRC's own research units and institutes remain competitively benchmarked in biosafety and biosecurity, personnel security and business continuity planning as well as accident prevention. The overall number of accidents for 2008

remained level with the previous year. The calendar year 2008 saw total accident numbers of 162 compared to 160 for 2007. The rate calculated for RIDDOR reportable accidents and dangerous occurrences fell compared to the previous year to 0.88 per 1,000 employees (1.06 in 2007). This compared well to 1.14 per 1,000 employees for the research and development sector during 2007/08 and 2.46 for university employees (USHA statistics for 2008). During 2008 we undertook an audit of the research continuity plans within our research units and institutes. The audit examined a range of elements based on the new British Standard on business continuity, BS 25999. The results were analysed for trends and patterns to enable us to identify areas for particular improvement and they were fed back to units on a regional basis with encouragement to disseminate best practice and solutions to local problems that had been encountered.

During 2008/09, our senior staff have also contributed to a number of international projects on biosafety and biosecurity to disseminate best practice by presenting at a workshop of the Asia-Pacific Biosafety Association in April 2008 and providing training in biological safety in Japan, part-funded by the Japanese Health Sciences Foundation. Our staff also participated in Professor Willie Donachie's review of arrangements for the risk assessment and safe management of pathogen-handling procedures at the Institute for Animal Health (IAH) Pirbright and Compton Laboratories. This independent study was commissioned by the Biotechnology and Biological Sciences Research Council, which sponsors the IAH, in response to the Spratt review, led by Professor Brian Spratt and the Health and Safety Executive's investigation, led by Dr Paul Logan.

Environmental Policy

The MRC is committed to the continuous improvement of our environmental performance.

Sustainability issues are addressed in all projects involving the new buildings currently under design/construction. The new building for the MRC Laboratory of Molecular Biology has been designed with sustainability in mind, the building for the new UK Centre for Medical Research and Innovation (UKCMRI) will be designed to meet the BREEAM "excellent" standard, and the research complex building at Harwell currently under construction, which will be managed by the MRC, employs an "earth tube" solution to reduce energy demands and thus running costs.

During 2008/09 the MRC participated in the Office of Government Commerce benchmarking exercises for office buildings and are keen to be involved in the benchmarking of laboratory buildings when a workable method has been devised.

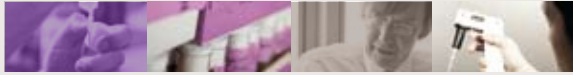
The MRC's environmental policy is currently being refreshed to bring it into line with the new sustainability challenges. Each of the MRC's units and institutes are also required to have a local environmental policy and action plan. The main focus of initiatives since the policy was first introduced in 1999 has been to reduce utilities costs wherever possible and promoting reduction of unnecessary or wasteful consumption.

Performance Highlights 2008/09



We support research across the biomedical spectrum from fundamental laboratory-based science to late-stage clinical trials in all major disease areas. New funding structures were introduced from 2008/09 to increase funding for translational research through targeted schemes supporting developmental research, methodology, training, stem cells and partnership working.

Funding summary



In 2008/09 the MRC's total gross research spend was £704.2m. These funds were spent on world-class medical research to improve human health and enhance the economic competitiveness of the UK. This supported:

- Over 1,000 grants to researchers in universities, medical schools and research institutes amounting to £266.4m.
- Over 500 programmes within the MRC's own research units and institutes amounting to £354.6m.
- Training awards for over 1,400 postgraduate students and 340 fellows, amounting to £67.9m.
- International subscriptions of £15.3m.

Grant funding

Over 1,900 applications were received during 2008/09 and 401 awards were made, committing £225.6m.

During 2008/09 all applications submitted to the MRC were acknowledged and applicants were provided with guidance on the timetable for consideration; 99 per cent of applications submitted were considered by the MRC's peer review process within 26 weeks of submission. Feedback was provided to 98 per cent of grant applicants within seven working days of a decision being made.

Capacity building and training

Around 486 fellowship applications were received during 2008/09 and 115 awards were made, committing over £54.0m.

Our training and career development schemes have provided opportunities to address skills needs in a number of strategic areas.

Figure 6 New grant commitment by financial year

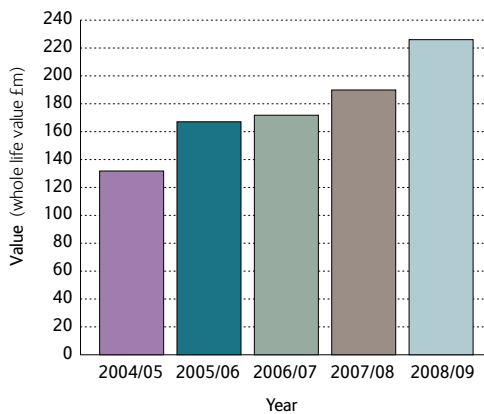


Figure 7 Success rate of internationally competitive grant applications

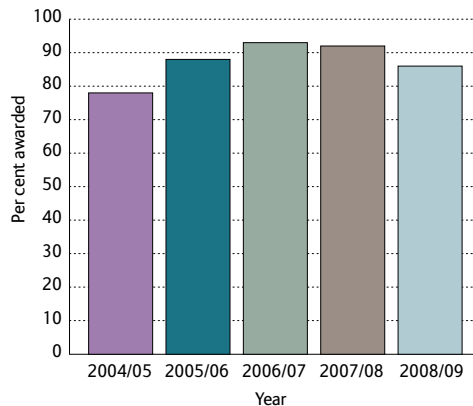


Figure 8 New fellowship commitment by financial year

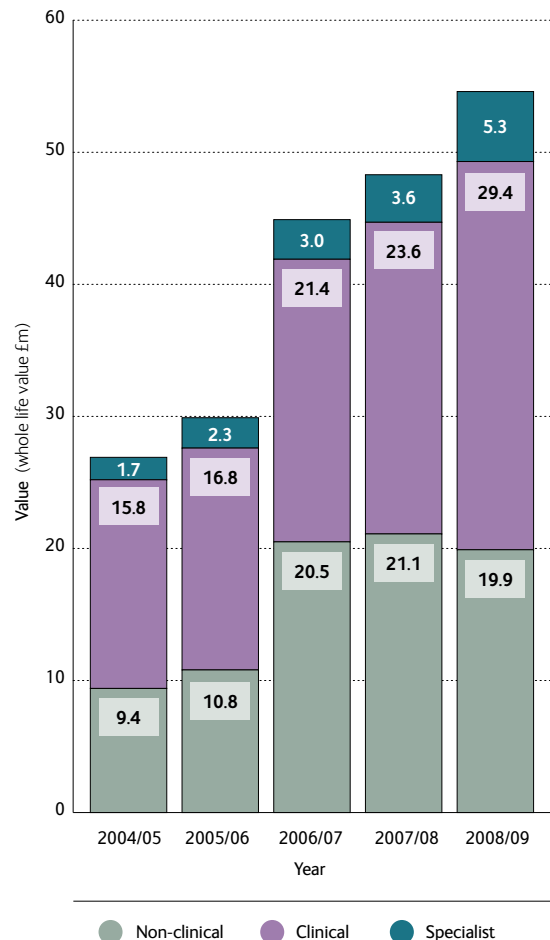


Table 8 Response mode applications and awards

Grant type	Number of applications	Number of awards	Amount awarded (whole life value) (£m)
Centre Grants ⁽¹⁾	5	4	9.7
Collaboration Grants	10	2	1.0
Discipline Hopping Awards	87	19	1.7
LINK Grants	2	1	0.4
New Investigator Research Grants	154	31	11.4
Research Grants	1,655	336	190.9
Trial Grants ⁽²⁾	11	7	10.5
Total	1,924	400	225.6

⁽¹⁾ renewals and invited full proposals only ⁽²⁾ full proposals after outline stage

Table 9 Targeted calls for proposals

Call	Number of applications	Number of awards	Amount awarded (whole life value £m)
Models of Disease ⁽¹⁾	218	20	10.6
Patient Research Cohort Initiative	80	13	7.3
Experimental Medicine 2	78	22	9.0
Biomarkers	175	19	10.2
Addiction Research Phase 1	39	9	2.0
Milstein Fund ⁽²⁾	64 (61)	9	3.8
Hubs for trials methodology research	18	7	17.4
High-throughput sequencing hubs	10	3	7.0
Industrial Collaborations			
Pilot Industrial Collaboration Awards (PICA)	27	13	3.3
Partnerships			
Lifelong Health and Wellbeing Networks	34	10	0.5
Translational			
Developmental Pathway Funding Scheme	15	4	2.7
UKCRC Translational Infection Research Initiative ⁽³⁾	3	2	10.1
Pre-Clinical Stem Cell Call	27	7	2.7
Translational Stem Cell Research Committee Clinical Grade Stem Cell Lines	7	3	2.9
Research Platforms for Induced Pluripotent Stem Cells ⁽⁴⁾	39	13	0.7
Total	834	154	90.2

⁽¹⁾ includes 30 applications which did not fit the remit so were declined immediately

⁽²⁾ the figure of 61 is total of applications taken to the Panel. Three applications were rejected due to remit.

⁽³⁾ £3.1m MRC, £3.5m NIHR, £3.0m the Wellcome Trust and £500k BBSRC

⁽⁴⁾ includes £200k from BBSRC

Table 10 Outcome of targeted calls for training proposals

Targeted disciplines and skills	Level of investment
Pre-doctoral and doctoral training	
<i>In vivo</i> (non-human) sciences Stem cell sciences Biomedical imaging Mathematics and statistics <i>(priorities identified by MRC research boards and industry, through ABPI and the Biosciences Federation)</i>	Advanced Course Masters places increased from 50 in 2007/08 to 58 a year for three years from 2008/09, including five <i>in vivo</i> awards supported by BBSRC. Capacity Building PhD Studentships increased from 50 in 2007/08 to 72 a year for two years, including 17 <i>in vivo</i> awards. The British Pharmacological Society has provided £46k to five institutions to supplement increased research costs associated with these awards.
Population health sciences	Ten new PhD studentships awarded for 2009 starters. Awards may cover a range of disciplines including epidemiology, statistics, health demography, medical sociology, health psychology, medical anthropology and human geography.
Specialist methods development in translational health research (Methodology Research Fellowships)	Three new PhD studentships awarded for 2009 starters. Awards may cover a range of disciplines including Health economics; biostatistics, bioinformatics, modelling, decision sciences, epidemiology, clinical trials, behavioural sciences, health psychology, qualitative methodologies and mixed methods, medical sociology and medical geography.
Post doctoral training	
Biostatistics	Three Career Development Awards to attract and retain biostatisticians in health research, supporting innovative methods development and application.
Bioinformatics	Five Biomedical Informatics Training Fellowships to support specialist multidisciplinary training.
Economics of Health	Four early postdoctoral fellowships to attract economists into health research. Awards are co-funded by the National Institute of Health Research and the Economic and Social Research Council (ESRC).
Interdisciplinary social and health research <i>(new themes for 2008/09 agreed with ESRC)</i>	Six early postdoctoral fellowships co-funded with ESRC. Awards are available for mental health and wellbeing aspects of global health research, addictions, disease prevention and health promotion, and understanding health behaviours.

Units, institutes and centres

The MRC's large-scale investment programme includes three major institutes, 26 research units in the UK and two in Africa, 27 centres and one joint initiative.

Figure 9 Large-scale research investments

We have developed a number of areas relating to the review of large scale investments during 2008/09. These will be implemented during 2009/10 and include:

- The development of a comprehensive code of conduct for reviews covering governance, code of conduct for peer review, roles and responsibilities, and consultation.
- Improving the identification of wider and strategic issues and ensuring terms of reference and approaches are adapted to allow the reviews to address these issues effectively and transparently.
- The development of core principles on decision making and consultation for issues considered outside of the review cycle, such as changes in scientific or management direction, unforeseen change of Director, or a major change in scientific strategy.

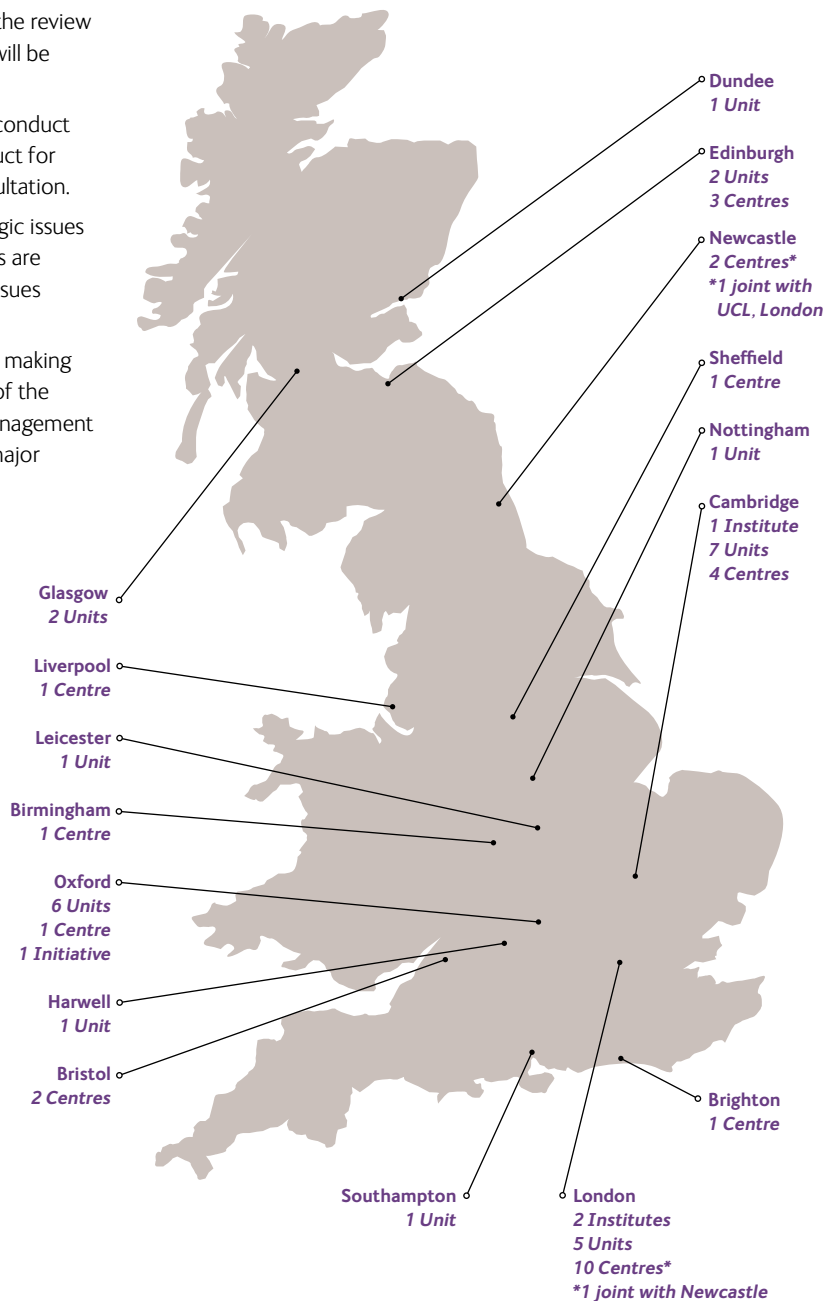


Table 11 2008/09 reviews of large-scale investments

	Number reviewed	New investments	Closed
MRC institutes	—	—	—
MRC research units	2	—	1
MRC/university centres and initiatives	4	3	—
Total	6	3	1

Inquiries, consultations and freedom of information

Our contributions to Parliamentary Select Committee Inquiries and consultations across government, and conducted by other bodies, provide opportunities for us to inform policy development across a broad range of issues relating to health, medical research and training. During 2008/09 we participated in 39 consultations and inquiries, either directly or in conjunction with the other research councils and funding bodies such as the Wellcome Trust.

Freedom of Information requests help the MRC to develop and refine the information we make available on our website and publications. During 2008/09 we received a broad range of requests from a variety of requestors. We responded to 95 per cent of requests within 20 working days.

Table 12 Submissions to consultations and inquiries

Body	2008/09 submissions
Government consultations	11
International bodies	4
Other bodies	10
Regulatory bodies	5
Select Committees	9
Total	39

Table 13 Freedom of information requests 2008/09 – type of request

Request category	Number of requests
Contracts	2
Corporate strategy, policy and governance	5
Funding applications – subject access requests	—
Outputs	3
Personal information	—
Research funding	26
Research strategy, policy and governance	11
Total	47

Table 14 Freedom of information requests 2008/09 – requestor

Requestor category	Number of requests
Academic/Higher Education	6
Charities and Interest Groups	5
Media	8
Parliament	2
Private sector	4
Public	18
Public sector	4
Research Council staff	—
Total	47

Management Commentary 2008/09



The MRC in 2008/09

The MRC's mission is to improve human health through world-class medical research. We support a strong and innovative medical research community and provide leadership, strategic direction and resources to maintain and enhance fundamental medical science and to drive discovery translation. Our mission focuses on four main themes: generating and delivering knowledge, developing people, partnerships and public engagement, and developing infrastructure and capability.

During 2008/09 the funding allocation received from the Department for Innovation, Universities and Skills (DIUS)¹ has enabled the MRC to deliver on our strategy to maintain the strength and innovation of fundamental research and increase investment in research which helps to translate scientific and clinical discovery into improved healthcare, products and services. Priorities for the current spending review period, 2008/09 – 2010/11, were developed in consultation with key stakeholders. Strategic partnerships with the National Institute for Health Research (NIHR), the devolved administrations, the UK research councils and other organisations across Government, the charity sector and industry play a significant part in ensuring MRC support is utilised most effectively to support UK health research.

The MRC has completed the programme of change across governance and funding structures initiated last year. Eight new Council members were appointed, extending the breadth of expertise available to the MRC. The MRC's Strategy Board, and the thematic groups which support it, have now been fully established and are playing a major role in developing long-term goals and in responding with agility to emerging opportunities. Changes to research board structures have also been completed, with the winding up of the Health Services and Public Health Research Board and with research board chairs taking on a new executive role. This new framework ensures effective governance and division of responsibilities that enable the MRC to balance strategic direction with response-mode funding, while maintaining flexibility to respond quickly to new scientific developments and health needs.

Throughout 2008/09, the MRC has been engaging with stakeholders to review and evaluate strategic direction and to define the MRC's distinctive role in supporting the discovery

⁽¹⁾ The Department for Business, Innovation and Skills (BIS) was created in June 2009. The new Department has taken on the responsibilities of the Department for Business, Enterprise and Regulatory Reform and DIUS.

and exploratory development of fundamental research towards patient benefit. We have developed our new five-year Strategic Plan, *Research Changes Lives*, which sets out aims for the period 2009–2014 and the basis for supporting internationally-competitive science. It has four strategic aims, which are the flags that will direct the delivery of scientific excellence and provide the framework, concepts and priorities to develop future initiatives and activities. In supporting the UK health research environment the MRC has also been leading on work with the NIHR to define research opportunities which will help shape the future of health research funding in the UK. This work has contributed to the development of strategic aims and the agenda has also been used to inform Government thinking about realisable major goals in health research over the coming years.

The MRC's *Delivery Plan* for 2008/09 to 2010/11 outlines investment plans and priorities for the CSR2007 period in detail. The plan is reviewed each year to reflect changing priorities, and the refreshed plan for 2009/10 to 2010/11 was published in April 2009. Progress in achieving objectives and milestones is reported against a scorecard. Additional information on the MRC's role in maintaining a healthy science and engineering base and in improving the exploitation of research is published in the Economic Impact Reporting Framework.

Details of major awards which reflect the MRC's priorities for 2008/09, information on success rates and the value of awards made are provided throughout the annual report. Information on individual research programmes supported by the MRC can be found in the newly launched on-line Research Portfolio at www.mrc.ac.uk/researchportfolio. The MRC's Annual Review also provides information on the broader impact of MRC research. The 2008/09 review, *A day of discovery*, offers an in depth look at achievements in a number of key priority areas.

All of the publications listed in this management commentary are available on the website at www.mrc.ac.uk.

Information assurance

During 2008/09, the MRC reported one incident relating to protected personal data to the Information Commissioner's Office (ICO). Further information is provided in table 15, a summary of other protected data related incidents is shown in table 16.

The incident, which occurred in February 2009, has been investigated by the ICO, and the MRC was found to have taken steps to minimise the risks to individuals effectively.

Table 15 Summary of protected personal data related incidents formally reported to the Information Commissioner's Office in 2008/09

Nature of incident	An error in configuration resulted in information stored on a web server being accessible to a search engine.
Nature of data involved	Documents which were accessible to the search engine contained personally identifiable information submitted in applications for research training positions at an MRC research institute.
Number of people potentially affected	172
Notification steps	The MRC worked with the search engine provider to ensure the data were removed from servers within 24 hours. Affected individuals, the ICO and DIUS were notified.

Table 16 Summary of other protected personal data related incidents in 2008/09

Incidents deemed by the Data Controller not to fall within the criteria for report to the Information Commissioner's Office but recorded centrally within the MRC are set out in the table below. Small, localised incidents are not recorded centrally and are not cited in these figures.

Category	Nature of incident	Total
I	Loss of inadequately protected electronic equipment, devices or paper documents from secured MRC premises.	1
II	Loss of inadequately protected electronic equipment, devices or paper documents from outside secured MRC premises.	NIL
III	Insecure disposal of inadequately protected electronic equipment, devices or paper documents.	NIL
IV	Unauthorised disclosure	NIL
V	Other	2

No complaints or concerns have been reported by those affected and the ICO concluded that no further action was necessary.

The MRC will continue to monitor and assess information risk in order to address any weaknesses and ensure continuous improvements in systems and processes.

During 2008/09, the MRC implemented new procedures on information assurance. A new e-learning tool was launched to raise awareness of information security issues, including measures which should be taken to ensure data is held and managed securely. Roll-out across the MRC's head office and Shared Services Centre involved around 400 staff. Discussions during 2009/10 will focus on delivering information security awareness training across the whole of the MRC.

Public information holder

The MRC does not sell public sector information. Therefore the MRC has no statement to make in relation to compliance with cost allocation and charging requirements as set out in guidance from HM Treasury and the Office of Public Sector Information.

Financial results

A summary of the MRC's financial results for 2008/09 and the preceding two years is shown in the tables below. Table 17 shows 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 18.

Each year we receive a budgetary allocation from DIUS in the form of a Departmental Expenditure Limit (DEL). The DEL is the primary mechanism 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 may be used for Non-Cash and Capital Expenditure, but other types of DEL may not 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 may be called upon to supplement our annual DEL through End of Year Flexibility (EYF), subject to agreement by the Department for Business, Innovation and Skills (BIS) and HM Treasury in any given year.

Major Projects

UK Centre for Medical Research and Innovation

In 2007 the MRC joined with Cancer Research UK, 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 programme was submitted for review to the HM Treasury's Major Projects Review Group (MPRG) and, subject to some minor comments (which have since been incorporated), was received positively. The full business case is being prepared for submission to BIS during 2010 to allow sufficient time for final authority to be granted prior to letting the contract. During the year, a new management structure for the programme was agreed by the Steering Group including the creation of a "Designate" executive team to better aid the decision-making process. The Construction Project Director has been appointed and is now in post. During the year, a further £5.2m was spent by the MRC on the project, bringing the total capital spend (including land) to £52.4m at 31 March 2009, recognised as an asset in the course of construction within tangible fixed assets.

Renewal of the Laboratory of Molecular Biology

The MRC Laboratory of Molecular Biology (LMB) in Cambridge is currently housed in a fifty-year-old building. The renewal project involves the construction of a replacement building to provide up to date, internationally competitive facilities for the LMB. During 2008/09, DIUS approved the £212.0m budget for the new building, including the award of £67.0m from the Large Facilities Capital Fund. 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 and will include capital generated as a result of the commercialisation of discoveries made at LMB. Work on the construction of the new building began in April 2009, and it is expected that the new building will be occupied during financial year 2012/13. Capital spend during 2008/09 amounted to £29.2m bringing the total capital spend to £38.4m, recognised as an asset in the course of construction within tangible fixed assets.

RCUK Shared Services Centre Ltd

The seven research councils, working together as Research Councils UK (RCUK), have agreed to establish a Shared Services Centre (SSC), to be based in Swindon. RCUK SSC Ltd 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, including more efficient procurement.

Over the past year, in conjunction with the other research councils, the MRC has continued to be actively involved in the development the SSC, a key element of the research council harmonisation programme agreed with DIUS for the current spending review period. RCUK SSC Ltd will provide the means for the MRC to capitalise further on the efficiencies gained by the development of the MRC SSC, which was established in 2006/07 to provide corporate services across the whole of the MRC estate, including head office and our 28 research units and three institutes (as at 31 March 2009).

During 2008/09, the research councils have continued to work with Fujitsu, the selected systems integrator, developing an Oracle-based solution to support the delivery of corporate services. The first implementation of shared services to the research councils from RCUK SSC Ltd was seen during 2008/09 with the provision of services to the research councils. The provision of services for the MRC is scheduled to go live in 2010. Significant project milestones during 2008/09 included:

- The TUPE (Transfer of Undertakings Protection of Employment) transfer of 400 staff from the research councils to RCUK SSC Ltd in April 2008.
- The take-on of procurement services by RCUK SSC Ltd in May 2008.
- The take-on of Information Technology and communications services for the Swindon site by the RCUK SSC Ltd in June 2008.
- The launch of human resources services to two of the research councils and the RCUK SSC Ltd itself, based on the Oracle platform in February 2009.
- Confirmation of the solution for the management of grant applications and funding.

Further roll-out of human resources, payroll, finance and system-related procurement services across the research councils are planned in 2009/10, along with the development and implementation of the grants solution.

The research councils have agreed to share the costs of establishing RCUK SSC Ltd and the MRC's agreed share is 26.98 per cent. Those costs have been accounted for in the MRC's books

as £10.2m for 2008/09; £5.9m (2007/08 £4.2m) as assets in the course of construction and £5.3m (2007/08 £3.3m) as expenses. The transition to the SSC is regarded as a business critical project and is referred to in our *Statement on Internal Control*.

Review of the year

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

2008/09 has been a very successful year, with net expenditure coming in very close to expectation. The Resource outturn of £553.0m was in line with February forecast (as reported to the MRC's Council in March 2009) of £556.6m. Capital expenditure of £99.9m was £2.5m more than that forecast in February 2009. In particular, £24.4m of expenditure on translational growth initiatives were delivered from a standing start. Resource underspend for the year, was £14.5m.

Capital expenditure charged to DEL at £99.9m was £30.8m greater than our Capital DEL of £69.1m. After adjusting for the addition of commercial fund surpluses this left a carry-forward underspend of £89.9m. The majority of this money is earmarked for the new major builds of the LMB in Cambridge and the UKCMRI in London.

Non cash costs include those costs associated with technology transfer income (amortisation and cost of capital) £27.9m.

Accounting for income and grant-in-aid

Income and expenditure are recognised in the Statement of Net Expenditure (SNE) on an accruals basis (ie 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.

Note 26 of the Annual Account show capital commitments of £217.0m (2007/08 £116.0m) and forward commitments on research awards to Higher Education Institutes of £573.0m.

These commitments fall due in future years which, to the extent that they are not to be met from the MRC's other resources of income, may only be met by future grant-in-aid from BIS. 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.

The balance sheet as at 31 March 2009 shows a pension liability of £15.0m. This is a measure of the deficit in the pension scheme as valued at balance sheet date under Financial Reporting Standard 17 – Retirement benefits. Full disclosure is given at Note 7 in the Annual Account.

Grant-in-aid for 2008/09, 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 17 are those after adjusting for the difference between statutory presentation and those scoring under DEL. Table 18 shows the reconciliation of the finance tables to the Annual Account.

Table 17 Summary of financial return for 2008/09

Resource	Financial Year	2008/09	2007/08	2006/07
		£000's	£000's	£000's
External Income		(80,102)	(88,055)	(74,328)
Income from Commercial Activities		(66,423)	(49,009)	—
Amount payable to DIUS		17,639	—	—
Total Income		(128,886)	(137,064)	(74,328)
Pay and Operating Costs		336,739	302,686	271,668
Depreciation		22,017	19,744	18,964
Amortisation of Intangible Fixed assets		21,561	23,098	—
Cost of Capital		14,429	15,317	6,600
Impairment of Tangible Fixed Asset		1,317	—	—
Provision movement		(3,657)	(3,012)	(182)
Unwinding of the discount		469	—	—
Research grants		301,580	242,340	243,711
International Subscriptions		15,316	11,015	11,305
(Profit) / Loss on Disposal of Fixed assets		—	—	(780)
Total Expenditure		709,771	611,188	551,286
Net Income & Expenditure		580,885	474,124	476,958
Less Commercial Fund Non-Cash costs		(27,889)	(31,801)	—
Adjusted net income and expenditure		552,996	442,323	476,958
DEL		(548,098)	(490,040)	(418,720)
(Underspend) / overspend		4,898	(47,717)	58,238
(Underspend) / overspend brought forward		(13,875)	1,704	(57,190)
Transfer from Commercial Fund		—	(14,000)	—
Other adjustments		(5,546)	10,262	656
Transfer to capital		—	35,876	—
(Underspend) / overspend carried forward –				
Near-Cash, Non-Cash		(14,522)	(13,875)	1,704
Near-Cash		(6,634)	(13,055)	4,553
Non-Cash		(7,888)	(820)	(2,849)
Capital				
	Financial Year	2008/09	2007/08	2006/07
		£000's	£000's	£000's
Direct Capital		67,133	53,799	51,187
Capital Grants to the private sector		32,734	22,186	20,451
Total Expenditure		99,867	75,985	71,638
Capital DEL		(69,110)	(62,168)	(85,071)
(Underspend) / overspend		30,757	13,817	(13,433)
(Underspend) / overspend brought forward		(129,172)	(13,433)	(1,459)
Adjustment to brought forward		8,538	(93,680)	1,459
Transfer from Near-Cash		—	(35,876)	—
(Underspend) / overspend carried forward		(89,877)	(129,172)	(13,433)

Table 18 Reconciliation of financial return to the Annual Account

	Notes	2008/09 £000's
External Income		
Contributions from other government departments	3	(16,242)
Contributions and grants from other bodies	4	(50,416)
Other Income	5	(12,972)
Interest Receivable	6	(472)
External Income per Finance Table		(80,102)
Pay and Operating Costs		
Annual Account		
Staff costs	7	166,668
Less FRS 17 current service costs		(826)
Less Increase in Provision	21	(298)
Plus Release of Provision	21	3,955
Other operating costs	8	135,893
Less Contribution for Licence Fees	Cashflow	(170)
Commercial Activities	SNE	31,517
Pay and operating costs per finance table		336,739
Depreciation		
Depreciation	SNE	22,168
Less Release from Donated Asset Reserve		(151)
Depreciation per finance table		22,017
Cost of capital		
Cost of Capital	SNE	14,429
Cost of Capital per finance table		14,429
Impairment of Tangible Fixed Asset		
Impairment of Tangible Fixed Asset	SNE	1,317
Cost of Capital per finance table		1,317
Provision Movement		
Amount provided in year	21	298
Less Amount expended in year	21	(3,955)
Provision movement per finance table		(3,657)
Research Grants		
Annual Account		
Research Grants	9	229,481
Less capital grants to private sector		(32,734)
Other Research	10	36,887
Postgraduate training awards	11	67,946
Research grants per finance table		301,580

2008/09

(continues)

Table 18 (continued) Reconciliation of financial return to the Annual Account

	Notes	£000's
International Subscriptions		
Annual Account		
International Subscriptions	12	15,316
International subscriptions per finance table		15,316
Capital Expenditure		
Direct Capital		
Fixed Asset additions per Annual Account	16	65,327
Less Donated Asset	22	(157)
Plus Investments	17	2,131
Less proceeds from sale of fixed Assets	Cashflow	(168)
Direct Capital per finance table		67,133
Capital Grants to private sector		
Capital grants included in Research Grants		32,734
Capital grants included in International Subscriptions		—
Capital Grants to private sector per finance table		32,734

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 £675.2m (2007/08 = £544.5m).
- The parliamentary grant-in-aid totalled £643.0m (2007/08 = £424.9m).
- Total income amounted to £79.5m (2007/08 = £55.1m), staff costs totalled £166.7m (2007/08 = £169.5m), other operating costs excluding depreciation totalled £135.9m (2007/08 = £113.0m) and expenditure on research grants totalled £229.5m (2007/08 = £178.3m).
- Total asset (Fixed assets + Current assets) values increased by £60.1m (2007/08 = £70.5m decrease), while creditors increased by £8.3m (2007/08 = £61.1m increase).
- Reserves, excluding the general reserve showed a net decrease of £146.8m (2007/08 = increase £108.8m).
- General reserves increased by £69.4m (2007/08 = £222.0m decrease).
- Total government funds at 31 March 2009 stood at £433.4m (31 March 2008 = £510.7m) (Note 22).
- Amounts payable to the Department for Innovation, Universities and Skills during the year were £17.6m (2007/08 = £0.3m) (Note 14); and £0m (2007/08 = £212.0m) (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 2008/09 the MRC paid 93 per cent (2007/08 = 85 per cent) of invoices within supplier terms. From November 2008, in response to prompt payment from Government Bodies Initiative, the MRC have moved to a target of paying all invoices within 10 days (70 per cent success rate.). The Prompt Payers Code can be found at www.payontime.co.uk.

Audit Committee

The MRC's 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 covering 2008/09 was £71,000 which represents £60,000 for the audit of the year end financial statements and £11,000 for the audit of the IFRS opening balance sheet at 31 March 2008.

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.

Sir Leszek Borysiewicz

Chief Executive and Accounting Officer
Date: 29 October 2009

Remuneration Report 2008/09



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 2008/09 was:

- Sir John Chisholm, Chairman;
- Sir Leszek Borysiewicz, MRC Chief Executive;
- Professor Carol Dezateux, University College London and former MRC Council member;
- Professor Herb Sewell, University of Nottingham and MRC Council member;

Mr Nick Winterton, MRC Executive Director until 23 January 2009 and Mr John Jeans, MRC Chief Operating Officer and Deputy Chief Executive from 5 January 2009, join the remuneration subcommittee by invitation for staff other than those within the MRC's 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 £55,550 (2008/09 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 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 and Council Members. A summary of the level of remuneration for the MRC's Management Board is shown in table 19; the average increase in Directors' total remuneration in 2008/09 was 3.1 per cent. The levels of honoraria for MRC Council members is shown in table 20.

Dr F Green left the position of MRC Director of Human Resources on 31 August 2008. A payment was made to Dr. Green in accordance with a compromise agreement, a condition of which was that the details should not be disclosed. The MRC subsequently appointed an Interim Human Resources Director (effective 12 January 2009) to undertake a review and advise on future needs in this area. Costs of services provided to date amount to £74,424.

At the beginning of each year, the Director General of Science and Research (DGSR) 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 DGSR, 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 DGSR, 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 the agreement of 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.

Table 19 Management Board remuneration (audited information)

	Chief Executive	Executive Director	Chief Operating Officer & Deputy Chief Executive	Director of Corporate Affairs	Director of Corporate Affairs (Acting)	Director of Finance Group	Director of Research Programmes	Director of Strategy	Director of Human Resources
	Sir Leszek Borysiewicz ⁽¹⁾	Mr NH Winterton ⁽²⁾	Mr J Jeans ⁽³⁾	Mrs JM Lee ⁽⁴⁾	Dr AC Peatfield ⁽⁵⁾	Mr NW Watts	Dr D Mulkeen	Dr W Ewart ⁽⁶⁾	Dr F Green
	58	61	60	60	56	50	45	56	45
Salary, including performance related pay, from 1 April 2008 to 31 March 2009	£264,262	£132,775	£35,906	£51,197	£34,084	£104,781	£89,824	£70,427	£60,509
Salary, including performance related pay, from 1 April 2007 to 31 March 2008	£126,579	£132,415	—	£95,559	—	£101,832	£22,831	—	£84,731
Real increase in pension at age 60 ⁽⁷⁾	£0–5,000	£0–5,000	£0–5,000	£0–5,000	£0–5,000	£0–5,000	£5,001–10,000	£0–5,000	£0–5,000
Total accrued pension at age 60 at 31 March 2009 ⁽⁸⁾	£0–5,000	£55,001–60,000	£0–5,000	£35,001–40,000	£20,001–25,000	£5,001–10,000	£20,001–25,000	£0–5,000	£20,001–25,000
Cash equivalent transfer value at 1 April 2008 ⁽⁹⁾	£14,871	£984,404	—	£675,346	£278,497	£53,427	£221,225	—	£326,350
Adjustment to transfer value at 1 April 2008 ⁽¹⁰⁾	£2,096	£42,803	—	£126,202	(£7,267)	£3,448	£230	—	(£5,692)
Adjusted cash equivalent transfer value	£16,967	£1,027,207	—	£801,548	£271,230	£56,875	£221,455	—	£320,658
Cash equivalent transfer value at 31 March 2009	£61,287	£1,100,938	£7,303	£825,845	£302,039	£75,966	£315,945	£13,343	£341,757
Real increase in cash equivalent transfer value	£44,320	£73,731	£7,303	£24,297	£30,809	£19,091	£94,490	£13,343	£21,139

⁽¹⁾ Sir Leszek's salary includes an NHS distinction award equivalent of £74,768; 2007/08 represents six months salary

⁽²⁾ Mr Winterton's appointment ended on 23 January 2009

⁽³⁾ Mr Jeans' appointment commenced on 5 January 2009

⁽⁴⁾ Mrs Lee's appointment ended on 31 October 2008

⁽⁵⁾ Dr Peatfield's appointment as Acting Director of Corporate Affairs commenced on 1 November 2008.

Dr Peatfield was formally appointed as Director of Corporate Affairs on 1 April 2009

⁽⁶⁾ Dr Ewart's appointment commenced on 11 August 2008

⁽⁷⁾ Or on retirement age

⁽⁸⁾ Details of the MRC Pension Scheme appear in note 7d of the Annual Account

⁽⁹⁾ Or date of joining if later

⁽¹⁰⁾ The scheme transfer value basis has changed with effect from 1 October 2008 when new Public Sector Transfer Club tables were published; 2007/08 balances have been adjusted accordingly.

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 Minister of State for Science and Innovation, 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 2008/09 the Minister appointed eight new Council members, commencing on 1 October 2008.

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 20 below.

Sir John Chisholm and Dr Annette Doherty have chosen not to draw their honorarium. Dr Richard Henderson, as a member of MRC-staff is not eligible to receive an honorarium.

The following *ex officio* members did not receive an honorarium:

- Dr Harry Burns, Chief Medical Officer for Scotland;
- Dr Michael McBride, Northern Ireland Department of Health, Social Services and Public Safety (appointment ended 31 August 2008);
- Mr John Neilson, Observer for the Secretary of State for the Department for Innovation, Universities and Skills.

Table 20 Council honoraria 2008/09

Name	Position/affiliation	Emolument
Sir John Chisholm	Chairman	£—
Professor Jeffrey Almond	Sanofi Pasteur, France (<i>appointment commenced 1 October 2008</i>)	£3,370
Professor David Armstrong	King's College London (<i>appointment ended 31 August 2008</i>)	£6,037
Professor Michael Arthur	University of Leeds (<i>appointment commenced 1 October 2008</i>)	£3,370
Mr Michael Brooks	Financial Management Consultant	£8,860
Dr Annette Doherty	Pfizer Global Research and Development, Sandwich (<i>appointment commenced 1 October 2008</i>)	£—
Dr Richard Henderson	MRC Laboratory of Molecular Biology, Cambridge (<i>appointment commenced 1 October 2008</i>)	£—
Professor Christopher Kennard	Imperial College London (<i>appointment ended 31 August 2008</i>)	£11,225
Professor Sally Macintyre	MRC Social and Public Health Sciences Unit, Glasgow (<i>appointment commenced 1 October 2008</i>)	£3,370
Professor Sir Andrew McMichael	University of Oxford	£7,745
Dr Lefkos Middleton	Imperial College London (<i>appointment ended 31 August 2008</i>)	£1,801
Ms Vivienne Parry	Writer and Broadcaster, London (<i>appointment commenced 1 October 2008</i>)	£3,370
Lord Naren Patel	House of Lords (<i>appointment commenced 1 October 2008</i>)	£3,370
Professor Sir John Savill	University of Edinburgh (<i>appointment ended 31 July 2008</i>)	£2,190
Professor Michael Schneider	Imperial College London (<i>appointment commenced 1 October 2008</i>)	£3,370
Professor Herb Sewell	University of Nottingham	£6,655

Declared interests

(unaudited information)

In common with others who serve the public, individuals working with the MRC observe the Seven Principles of Public Life as set out by the Committee on Standards in Public Life. Members of the MRC's Council, boards and subcommittees are required to declare any private, professional or commercial interests that might, or might be perceived to, conflict with the MRC's interests. 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 2008/09.

Sir Leszek Borysiewicz

Chief Executive and Accounting Officer

Date: 29 October 2009

Financial Statements

OL 3397-24-280

Statement of the Council and Chief Executive's responsibilities with respect to the financial statements

Under paragraph 3 of Schedule 1 of the Science and Technology Act 1965 the Council is required to prepare a statement of accounts for each financial year in the form and on the basis directed by the Department for Innovation, Universities and Skills (DIUS) 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 (DIUS), 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.

DIUS 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).

Statement on Internal Control

Scope of responsibility

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

I regularly discuss the significant risks to the MRC with DIUS. In addition the MRC has four bodies to support it in discharging its responsibilities relating to internal control:

- i. The MRC Management Board.
- ii. The MRC Operations Board.
- iii. The Council Audit Committee.
- iv. The Risk Management Committee.

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 effectiveness. The system of internal control is based on an ongoing process designed to identify and prioritise the risks to the achievement of departmental policies, aims and objectives, to evaluate the likelihood of those risks being realised and the impact should they be realised, and to manage them efficiently, effectively and economically. The system of internal control has been in place in the MRC for the year ended 31 March 2009 and up to the date of approval of the Annual Report and Accounts, and accords with Treasury guidance.

Capacity to handle risk

Leadership

Leadership on risk management is provided by senior managers across the MRC. Specific expertise is provided by the MRC's corporate Risk Management Team.

Staff training

There is a diverse programme of training available to all staff and managers across the MRC, this includes a certificate and diploma in management and specific courses aimed at key areas and skills.

Risk management training is integrated into the overall training programme and additional training sessions are arranged for specific groups as required. To increase the availability of expert advice across the organisation, a group of 10 managers have undertaken OGC accredited Management of Risk training. These managers have specific responsibility to act as risk champions for their areas.

The risk and control framework

The MRC's risk management policy is regularly reviewed and approved by Council. The policy is supported by a standard operating procedure for risk identification. All managers are responsible for ensuring that significant risks are identified, that appropriate mitigating action is implemented, and all information is recorded and risks and actions are updated in the MRC's risk management software. The software enables risks to be reviewed and monitored. Reports from the software are discussed at Management Board and other key management groups across the MRC.

During 2008/09, the responsibility for coordinating and leading the MRC internal audit process was transferred to the Head of Risk Management allowing for improved integration of Risk Management and Audit. The MRC now has an integrated approach to both disciplines.

Risk Management is embedded within the MRC by:

- All management reports to key meetings including Council and Management Board are required to include a section on risk.
- All projects have a risk register which is reviewed at every project board meeting.
- Regular regional risk management sessions are held to improve risk management processes within the region, including identifying risk themes.
- There is a formal process for following up audit recommendations to ensure they have been actioned. Progress is monitored by the Operations Board and the Council Audit Committee.
- Risk management is a regular agenda item at key meetings across the MRC.
- Annual risk workshops are held by senior management teams of the corporate directorates. These workshops have focused on having a shared understanding of risk management in the MRC, identifying risks and establishing risk management processes within the directorates.
- The Head of Risk Management regularly reviews the risk management approach within all major projects and provides assurance on the process with recommendations for improvement as appropriate.

Information risk

The management of information risks is integrated within the risk management process. The Chief Operating Officer/Deputy Chief Executive, is the MRC's Senior Information Risk Owner. Every MRC unit and institute undergoes an annual review of information security management systems. This process evaluates compliance to MRC standards in eleven areas, including management and policy, identification and authentication, personnel procedures and physical security. The MRC standards are based on industry standards.

The Corporate Information Security team manage an IT security forum which involves security representatives from each MRC unit and institute. Both Government and local policies and guidelines are discussed as well as ongoing issues and information risk is considered and included in all projects the MRC is undertaking. Access rights to corporate systems, as recorded in the Information Asset Register, are agreed and documented ensuring full audit capability.

In 2009/10, the MRC Information Security Policy will be updated, ratified and implemented across all MRC units and institutes. The Information Asset register will be completed and maintained for all non-corporate assets, ensuring that the MRC is continually improving its approach to information risk. Protected data related incidents are detailed in the Management Commentary.

Review of effectiveness

As Accounting Officer, I have responsibility for reviewing the effectiveness of the system of internal control. My review 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 Management Board, the Council Audit Committee and Risk Management Committee, and have developed plans to address weaknesses and ensure continuous improvement of the system is in place.

In 2007 the MRC adopted the "Risk Management Assessment Framework" – a risk management assessment tool – to benchmark the MRC's risk management activities and measure progress. The second review, in March 2009, showed that the MRC continues to make progress in embedding risk management across all seven areas measured by the tool. The Management Board set new targets for progress over the next two years.

MRC Management Board

The Management Board, comprising the Chief Executive, the Chief Operating Officer/Deputy Chief Executive, and head office directors, is the executive body for the MRC, providing top-level leadership and guidance on risk management issues. The Management Board regularly considers risk matters and reviews the Corporate Risk Register on a quarterly basis.

MRC Operations Board

The Operations 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. The board receives quarterly updates on main themes arising from audits together with progress on implementing action plans arising from audit reports.

Council Audit Committee

The Audit Committee is chaired by a member of Council; its membership includes two other Council members and a number of lay members. A report from each meeting is presented to the Council.

As part of its role in providing assurance on controls the committee:

- Agrees the annual audit programme.
- Reviews all audit reports.
- Monitors progress on implementing audit recommendations.
- Reviews the Corporate Risk Register.
- Received updates on all projects.
- Reviews results from the Directors Annual Statements on Internal Control.

Risk Management Committee

The Risk Management Committee reports to the Management Board. It provides leadership and direction to support the embedding of risk management across the MRC.

The Risk Management Team for the MRC comprises two risk management experts, who provide leadership, advice and support across the MRC. Expert professional groups such as Senior Finance Managers and HR Business Partners, are consulted to review risks and provide guidance on risks relevant to their area of expertise.

Institutes and units

The director of each MRC institute and unit is responsible for the management of risk for that establishment. Each unit and institute director is required to submit an Annual Statement of Internal Control which is then reviewed by the Operations Board and Council Audit Committee. Where significant risks or weaknesses in controls are highlighted these are included within the risk register and appropriate action plan identified.

Internal audit

The Research Councils' Internal Audit Service (RCIAS) provides the internal audit function for the MRC. They work closely with the MRC Risk Management Team to ensure that there is a robust audit programme focused on the appropriate risks and key control processes across the MRC.

The Research Councils 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. Twenty three FAP visits took during the year with a further two held over until 2009/10. Generally, there has been a satisfactory level of assurance obtained in the course of the visits and two universities have received substantial assurance. There were no visits which received partial assurance. The institutions re-visited during the year provided sufficient evidence of improvement. RCUK Assurance and the FAP Steering Group consider that the results obtained during the FAP visits offer sufficient assurance to provide an overall assessment of satisfactory assurance for the 2008/09 visit schedule. During the year, KPMG undertook a review of QAV (the Quality Assurance and Validation of TRAC) the process of assuring full economic costing (FEC) is being calculated and applied appropriately by HEIs. The conclusion was that although only a small number of institutions were sanctioned, a significant number of material issues were identified. The research councils are currently discussing the best way of taking these issues forward.

Control issues

The Head of Internal Audit (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 investments in projects bring major systems and processes on line. Three major projects are also progressing, although there have been some concerns:

1. RCUK Shared Services Centre Ltd.

The RCUK Shared Services Centre (SSC) implementation project will deliver a single administrative support service for all UK research councils. The new entity, RCUK SSC Ltd, will provide human resources, finance, procurement, grants processing and some IS services. This project is business critical for the MRC as it changes the way back-office services are provided, effectively through outsourcing them to the new SSC organisation. The project operates across all seven research councils and is directed by a project board comprised of representatives of each council, the new 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 delivery of services that meet quality requirements of councils, all of these being a clear focus for the project board.

As a stakeholder in the project, the MRC has its own governance structure led by a programme board, which manages its participation and associated risks in the project. The high-level risks and mitigation strategies have been regularly scrutinised by the MRC's Management Board and Operations Board. The Council receives updates at each of its meeting. Governance arrangements are regularly monitored by the MRC Audit Committee. In March 2009, RCIAAS conducted a first of four reviews of the MRC elements of the transition, reporting substantial assurance.

From 1 April 2009 the new Chief Executive of RCUK SSC Ltd took over responsibility for management of the project, incorporating both build and transition elements. Overall governance of these, however, continues to be through the RCUK SSC Project Board. The MRC is represented on the board, which is chaired by Professor Ian Diamond, Chief Executive of the Economic and Social Research Council and current RCUK chairman.

2. Renewal of the MRC Laboratory of Molecular Biology

The MRC Laboratory of Molecular Biology (LMB) in Cambridge is currently housed in a fifty-year-old building. The renewal project involves the construction of a replacement building to provide up to date, internationally competitive facilities for the LMB. There will also be space (approximately 9 per cent) for researchers from the University of Cambridge Clinical School, for which the University will make a contribution to the capital costs. The new building will be on a site adjacent to Addenbrooke's Hospital, about a third of a mile from the present building.

The project is managed by a project board (with a DIUS representative). The principal risks to the project are unexpected and unpredictable movements in the economy, which could put a strain on the contract price. These risks have been mitigated by the use of a maximum price contract. The high level risks and mitigation strategies have been regularly scrutinised by the Management Board and Operations Board. With the consent of HM Treasury the project has been approved by DIUS, who have contributed £67.0m to the scheme through the Large Facilities Capital Fund (LFCF). Governance arrangements are regularly monitored by the Council Audit Committee, their latest report in February 2009, provided substantial assurance. The scheme has successfully passed through three OGC Gateway reviews prior to the contract for the work being signed in March 2009. The building is due to be completed in 2012.

3. The UK Centre for Medical Research and Innovation

The project to develop the UK Centre for Medical Research and Innovation (UKCMRI) aims to establish a new, world class research centre in St Pancras.

The project is sponsored by a consortium involving the MRC, Cancer Research UK, the Wellcome Trust and UCL; the new centre will be operated by a Special Purpose Vehicle (SPV), probably set up by the consortium as a charity.

The project is overseen by a Steering Group comprising the heads of the four consortium partners and is managed by an executive management board, the Programme Delivery Committee, comprising the Chief Operating Officers, or equivalents. Internally, the project is shadowed by an MRC Monitoring Group, with senior representatives from head office and the National Institute for Medical Research. Progress is regularly reported to Council. The project management has been subject to two OGC Gateway reviews. After receiving one red review, the building project has since achieved an amber for the overall programme. The project is regularly monitored by the Council Audit Committee. Currently the project and its final outline Business Plan are being reviewed by HM Treasury's Major Projects Review Group; discussions with the Department for Business, Innovation and Skills over a financial contribution from the LFCF are ongoing. The high level risks and mitigation strategies have been regularly scrutinised by MRC's Management Board and Operations Board. The principal risks to the project are time and/or cost overrun and the possibility of the sponsors not being able to agree on the arrangements for the SPV.

4. Delegated Authority Audit

The MRC is taking a number of actions in response to RCIAS's Limited Assurance opinion in the area of Delegated Authority. New policies and procedures are being drawn up for entering into contracts and commitments for the provision of goods or services which will include a comprehensive scheme of delegation of authority with clear limits defined for Directors of MRC units and institutes and their staff.

5. Estates Audit

The MRC is taking a number of actions in response to the RCIAS's Limited Assurance opinion for the Estates Audit. The new position of Director of Major Projects has been created and a director appointed. The MRC's senior management team are working with RCUK SSC Ltd Procurement to agree a plan to renegotiate key contracts between the MRC and universities which house embedded units – a key recommendation from the audit.

6. Other

There were two other areas which caused concern. A number of compromise agreements¹ had been signed during the year without the formal approval of extra-contractual payments by DIUS as per the terms of our Financial Memorandum. Retrospective approval was subsequently granted by HM Treasury, and the MRC have agreed to commission an external review of its HR policies, processes and practices in relation to handling capability and redundancy issues. This will be taken forward in 2009/10.

An investigation into a potential fraud in one of the Units revealed no direct evidence of fraud, however weaknesses in the local purchasing policy exist. The policy will be reviewed in the light of local circumstances and thereafter the introduction of proper management control, monitoring and supervision.

Sir Leszek Borysiewicz

Chief Executive and Accounting Officer

Date: 29 October 2009

⁽¹⁾ A compromise agreement is a full and final binding legal agreement following a mutually agreed termination of employment. In return for an obligation on the employer to meet the conditions of the agreement, the employee agrees to make no further claim.

The Medical Research Council

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

I certify that I have audited the financial statements of the Medical Research Council for the year ended 31 March 2009 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 being 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, which includes the Remuneration Report and the financial statements, in accordance with the Science and Technology Act 1965 and the Secretary of State 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 the Council 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 Secretary of State for the Department for Innovation, Universities and Skills, directions made thereunder. I report to you whether, in my opinion, the information, which comprises the sections Leading best practice, Performance highlights and 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. This other information comprises the Foreword, the Summary, The MRC in 2008/09, Delivering research, Supporting people, Impact through partnership, Public and stakeholder engagement and the unaudited part of the Remuneration Report. I consider the implications for our 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 opinion

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 Accounting Officer 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 reports 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

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 2009 and of its net expenditure, recognised gains and losses and cash flows 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 and the Secretary of State for the Department for Innovation, Universities and Skills directions made thereunder; and
- information which comprises the sections *Leading best practice*, *Performance highlights* and *Management Commentary* included within the Annual Report, is consistent with the financial statements.

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.

Amyas CE Morse

Comptroller and Auditor General

Date: 9 November 2009

National Audit Office
151 Buckingham Palace Rd
London SW1W 9SP

Statement of Net Expenditure

For the year ended 31 March 2009

		2008/09	2007/08
	Notes	£000	£000
Expenditure			
Staff costs	7	166,668	169,468
Other operating costs	8	135,893	113,027
Research grants	9	229,481	178,302
Other research	10	36,887	27,272
Postgraduate/training awards	11	67,946	57,588
International subscriptions	12	15,316	12,379
Commercial activities	13	31,517	24,491
Amortisation of intangible fixed assets	15	21,561	23,098
Depreciation of tangible fixed assets	16	22,168	19,869
Impairment of tangible fixed assets	16	1,317	—
Total operating expenditure		728,754	625,494
Income			
Release of deferred income on donated asset	22	151	125
Commercial activities	13	66,423	49,009
Other income	5	12,972	5,933
Total operating income		(79,546)	(55,067)
Net operating expenditure		649,208	570,427
Interest receivable	6	(472)	(11,693)
Notional cost of capital	lj	14,429	15,317
Amount payable to the Department for Innovation, Universities and Skills	14	17,639	250
Other finance income	7e	(6,935)	(19,179)
Unwinding of discount on provisions	21	469	409
Loss on disposal of tangible fixed assets		879	2,391
Gain on disposal of intangible fixed assets		—	(13,151)
Gain on disposal of investments		—	(296)
Net expenditure for the year		675,217	544,475
Reversal of notional cost of capital	1j	(14,429)	(15,317)
Net expenditure for the year after reversal of notional cost of capital		660,788	529,158

All activities are continuing.

The notes at pages 73 to 95 form part of these Accounts.

Balance Sheet

As at 31 March 2009

		2008/09	2007/08
	Notes	£000	(Re-stated) £000
Fixed assets			
Intangible assets	15	170,729	174,498
Tangible assets	16	389,794	353,742
Investments	17	3,050	1,446
		563,573	529,686
Current assets			
Stocks	18	2,687	2,351
Debtors	19	61,145	40,555
Cash at bank and in hand		40,805	35,543
		104,637	78,449
Creditors: amounts falling due within one year	20	(213,750)	(203,901)
Net current liabilities		(109,113)	(125,452)
Total assets less current liabilities		454,460	404,234
Creditors: amounts falling due after one year	20	(4,196)	(5,771)
Provisions for liabilities and charges	21	(1,904)	(5,561)
Net assets excluding pension asset		448,360	392,902
Pension (liability) / asset	7e	(15,005)	117,808
Net assets		433,355	510,710
Capital and reserves			
Revaluation reserve	22	60,432	70,622
Intellectual property reserve	22	170,729	174,498
Donated asset reserve	22	766	760
		231,927	245,880
Accumulated surplus on general reserve excluding pension reserve	22	216,433	147,022
Pension reserve	22	(15,005)	117,808
Accumulated surplus on general reserve including pension reserve		201,428	264,830
Government funds	22	433,355	510,710

The notes at pages 73 to 95 form part of these Accounts.

Sir Leszek Borysiewicz

Chief Executive and Accounting Officer

Date: 29 October 2009

Cash Flow Statement

For the year ended 31 March 2009

	Notes	2008/09 £000	2007/08 £000
Net cash outflow from operating activities	23	(596,941)	(497,906)
Return on investments and servicing of finance			
Interest received	6	472	11,693
Payments to the Department for Innovation, Universities and Skills	14	(417)	(250)
Net cash inflow from returns on investments and servicing of finance		55	11,443
Net cash outflow before capital expenditure and financial investment		(596,886)	(486,463)
Capital expenditure and financial investment			
Payments to acquire tangible fixed assets and investments		(108,005)	(38,218)
Receipts from sale of tangible fixed assets		168	460
Net receipt from sale of intangible fixed assets		—	20,070
Receipt from sale of investments		—	296
Net cash outflow from capital expenditure		(107,837)	(17,392)
Net cash outflow before financing		(704,723)	(503,855)
Financing			
Grant-in-aid received	22	643,000	424,915
Transfer to consolidated fund		—	(212,000)
Other capital funding received		157	132
Contributions from other government departments		16,242	23,603
Contribution and grants from other bodies		50,416	47,076
Contribution for licence fees		170	98
Net cash inflow from financing		709,985	283,824
Increase/(decrease) in cash	24	5,262	(220,031)

The notes at pages 73 to 95 form part of these Accounts.

Statement of Recognised Gains and Losses

For the year ended 31 March 2009

	2008/09	2007/08
	£000	£000
(Loss) / gains on revaluation for fixed assets	(5,271)	9,333
Gains on the revaluation of intellectual property	17,792	117,202
Actuarial (loss) / gain in pension scheme	(138,922)	5,764
Recognised loss for the year	(126,401)	132,299

The notes at pages 73 to 95 form part of these Accounts.

Notes to the Accounts

1. Accounting policies

a. Basis of accounting

The accounts have been prepared in accordance with a direction given by the Department of Innovation, Universities and Skills (DIUS), 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. 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:

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

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 deficit on valuations following such reviews is taken to the intellectual property 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.

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 (2007/08 = 3.5 per cent). Notional cost of capital charged during the period was £14,429,000 (2007/08 = £15,317,000).

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 that Statement of Net Expenditure as a reduction of 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 recognised in the Statement of Net Expenditure. Obligations relating to those former members of staff aged 50 or over are accounted for as creditors until their normal date of retirement.

Unwinding of discount: the provision for early retirement costs is discounted at 3.2 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.

p. Provisions

Provisions have been made in accordance with FRS 12 for MRC redundancy, de-commissioning costs and system termination fees arising from the transition to the Shared Services Centre.

q. Derivatives and other financial instruments

Due to the non-trading nature of its activities and the way in which MRC is financed, MRC is not exposed to the degree of financial risk faced by non-public sector entities. Moreover, financial instruments play a much more limited role in creating or changing risk that would be typical of the listed companies to which FRS 25, 26 and 29 mainly apply. The MRC has very limited powers to borrow or invest surplus funds and financial assets and liabilities are generated by day to day operational activities and are not held to change the risks facing MRC in undertaking its activities.

Debtors and creditors which mature or become payable within 12 months from the balance sheet date have been omitted from the currency profile.

r. Grants payable

Research grants and fellowships are recognised in line with a schedule of pre-agreed payment profiles over the period of the grant duration and to the period which they relate. The final quarterly payment is withheld pending end of grant reconciliation.

2. Parliamentary grant-in-aid and contribution to licence fees

The grant-in-aid and contributions in respect of (Animal) Licence Fees of £170,000 (2007/08 = £98,000) are provided by DIUS for the financial year 2008/09. The parliamentary grant-in-aid for 2008/09 was £643,000,000. Grant-in-aid and animal licence fees received are now treated as financing and credited directly to reserves.

	2008/09	2007/08
	£000	£000
Grant allocation received and credited to general reserve	643,000	424,915

3. Contributions from other government departments

	2008/09	2007/08
	£000	£000
Department of Health	6,617	6,679
Department for International Development	6,281	14,042
NHS Executive	220	568
Department for Innovation, Universities and Skills	—	21
Foods Standards Agency	215	694
Scottish Government Health Directorates	546	357
Other	2,363	1,242
Total	16,242	23,603

4. Contributions and grants from other bodies

	2008/09	2007/08
	£000	£000
Other research councils	5,876	5,446
Charities	14,865	15,698
Collaboration with industry	11,914	11,295
European Commission	7,357	6,719
World Health Organization	19	6
Human Frontiers Science Program	152	219
Health Authorities and NHS Trusts	1,753	2,050
Universities	8,480	5,643
Total	50,416	47,076

5. Other income

	2008/09	2007/08
	£000	£000
Sales and other income	12,972	5,933

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

	2008/09	2007/08
	£000	£000
Interest earned on the MRC's Commercial Fund bank balances ⁽¹⁾	—	11,359
Interest earned on the MRC's other Euro and other foreign currency accounts	55	84
Interest earned on the MRC's other Sterling bank balances	417	250
Total	472	11,693

⁽¹⁾ The MRC's Commercial Fund is accounted for within the Government's Resource Budgeting and Accounting Framework and therefore forms part of the other Sterling bank balances. The excess balance of £212.0m was returned to DIUS in the previous financial year.

7. Staff costs

	2008/09	2007/08
	£000	£000
Employee costs (note 7b)	167,341	170,907
Non-permanent staff	6,749	4,933
Remuneration to the MRC's Council and committee members (note 7c)	526	280
Early retirement costs	(339)	245
Gross staff costs	174,277	176,365
Less commercial activities (note 13)	(7,609)	(6,897)
Staff costs for general activities	166,668	169,468

7a. Staff numbers ⁽¹⁾

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

	2008/09	2007/08
Science	1,286	1,288
Research project support	887	1,002
Administration ⁽²⁾	555	617
Technical services	627	632
Locally employed staff (overseas)	1,212	1,224
Total	4,567	4,763

⁽¹⁾ Staff are shown on a full time equivalent basis.

⁽²⁾ During the year 113 staff transferred employment from the MRC to the RCUK Shared Services Centre Ltd and were therefore excluded from the staff numbers. The staff were seconded back to the MRC and continued to provide normal services. The costs of the staff are reflected in note 7(b).

7b. Employee costs

	2008/09	2007/08
	£000	£000
Salaries and wages	143,164	141,861
Social security costs	12,254	10,645
Other pension costs (note 7d)	11,923	18,401
Total	167,341	170,907

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

	2008/09	2007/08
	£000	£000
Fees and honoraria	484	274
Social security costs	42	6
Total	526	280

7d. Other pension costs

	2008/09	2007/08
	£000	£000
Current service costs (net of employee contributions relating to MRCPS)	11,903	18,386
Other schemes	20	15
Total	11,923	18,401

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 assessment of the MRCPS was at 31 December 2007 at which the market value of the assets of the MRCPS was £869.2m (2004 = £890m). The actuarial value of the assets was sufficient to cover 121 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.

FRS 17: the valuation used for FRS 17 disclosures has been based on the data for the most recent actuarial valuations as at 31 December 2007, and updated to take account of the requirements of FRS 17 in order to assess the liabilities of the scheme at 31 March 2009. The mortality assumptions included within the figures are that male (female) members who retire at typical ages will live to approximately aged 86 (88).

Financial assumptions used to calculate scheme liabilities

	2008/09	2007/08	2006/07	2005/06	2004/05
	%	%	%	%	%
Rate of increase on pensionable salaries	4.50	5.20	5.00	4.60	4.30
Rate of increase on pension payments	3.00	3.70	3.50	3.00	2.80
Discount rate	6.70	6.90	5.40	4.90	5.40
Inflation rate	3.00	3.70	3.50	3.00	2.80
Expected return on equities	6.50	7.02	7.25	6.84	7.25
Expected return on bonds	4.00	4.52	4.63	4.23	4.63
Expected return on overall fund	6.17	6.74	7.00	6.60	6.90

Analysis of actuarial (loss)/gain recognised in the statement of recognised gains and losses

	2008/09	2007/08	2006/07	2005/06	2004/05
	£000	£000	£000	£000	£000
Actual return less expected return on pension scheme assets	(241,357)	(123,698)	35,763	111,067	13,226
Experience gains / (losses) arising on the scheme liabilities	55,596	(9,065)	(2,105)	3,448	5,988
Changes in assumptions underlying the present value of liabilities	46,839	138,527	12,128	(96,298)	(58,672)
Actuarial (loss)/gain recognised in statement above	(138,922)	5,764	45,786	18,217	(39,458)

Analysis of actuarial (loss)/gain expressed as a percentage of the scheme's assets and liabilities at the balance sheet date

	2008/09	2007/08	2006/07	2005/06	2004/05
	%	%	%	%	%
Actual return less expected return on pension scheme assets	(39.67)	(15.54)	4.16	14.37	2.14
Experience losses / (gains) arising on the scheme liabilities	8.92	(1.34)	(0.28)	0.47	1.00
Actuarial (loss) / gain recognised in statement above	(22.28)	0.85	6.03	2.51	6.61

The assets and liabilities in the scheme

	2008/09	2007/08
	Market value	Market value
	£000	£000
Assets		
– Equities and property	524,508	706,634
– Bonds and cash	83,878	89,378
	608,386	796,012
Actuarial value of liability	(623,391)	(678,204)
(Deficit)/surplus in scheme	(15,005)	117,808

The movements in the scheme surplus

	2008/09	2007/08
	£000	£000
Surplus at beginning of year	117,808	100,488
Current service cost (including employee contributions)	(19,277)	(25,770)
Employee contributions	7,354	7,369
Current service costs net of employee contributions	(11,923)	(18,401)
Employer contributions	11,097	10,778
Other finance income	6,935	19,179
Actuarial (loss)/gain	(138,922)	5,764
(Deficit) / surplus at end of year	(15,005)	117,808

Other finance income

	2008/09	2007/08
	£000	£000
Expected return on pension scheme assets	53,731	60,168
Interest on pension scheme liabilities	(46,796)	(40,989)
Net return	6,935	19,179

Other schemes

The total superannuation contributions paid to other schemes by the MRC in 2008/09 were £19,848 (2007/08 = £15,381). 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

	2008/09	2007/08
	£000	£000
Rent and rates	5,543	5,288
General maintenance, cleaning, heating and lighting	13,603	9,656
Maintenance of buildings	9,498	9,308
Office supplies, printing and stationery	3,287	3,457
Laboratory supplies	29,153	24,101
Management consultancy and other professional fees	16,433	15,639
RCUK activities	8,032	3,080
Postage and telephone	3,329	2,754
Audit fee	71	58
Travel, subsistence and hospitality	7,173	6,989
Computing	4,585	4,337
Equipment servicing	4,923	4,827
Minor equipment	3,078	2,369
Miscellaneous	22,487	17,981
Transport costs	671	646
Exchange rate (gains) / loss	(1,005)	285
Bad debts charge / (credit)	124	(109)
Scanning services	4,776	4,974
Decommissioning costs / (reversal)	132	(2,613)
Total	135,893	113,027

9. Research grants

	2008/09	2007/08
	£000	£000
Research Grants	165,139	135,054
Centre Grants	14,659	8,528
Collaboration Grants	18,401	8,544
Discipline Hopping Awards	1,126	1,585
Link Award	44	121
New Investigator Award	8,077	6,045
Trial Grant	14,532	14,517
Hearing Screening Programme	—	(148)
Other	7,503	4,056
Total	229,481	178,302

10. Other research

	2008/09	2007/08
	£000	£000
Contribution to special research programmes	36,887	27,272

11. Postgraduate/training awards

	2008/09	2007/08
	£000	£000
Research studentships / advanced course studentships	27,727	25,021
Post-doctoral fellowships	40,219	32,567
Total	67,946	57,588

12. International subscriptions

	2008/09	2007/08
	£000	£000
International Agency for Research on Cancer	746	686
European Molecular Biology Conference	1,967	1,626
European Molecular Biology Laboratory	11,506	9,096
Human Frontier Science Program	917	817
European Science Foundation	180	154
Total	15,316	12,379

13. Commercial activities

	2008/09	2007/08
	£000	£000
Income during the year	66,423	49,009
Interest income (note 6)	—	11,359
	66,423	60,368
Expenditure during the year:		
Staff costs (note 7)	7,609	6,897
Other expenditure	23,908	17,594
	(31,517)	(24,491)
Net income for the year	34,906	35,877

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

	2008/09	2007/08
	£000	£000
Interest earned on the MRC's sterling bank balances (note 6)	417	250
Excess income earned from commercial activities	17,222	—
Surrenderable to the Department for Innovation, Universities and Skills	17,639	250

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 DIUS. In July 2007 DIUS notified the MRC that income from commercial activities would be capped during the period of the comprehensive spending review (2008/09 – 2010/11) and for 2008/09 the cap was set at £49.2m. The MRC's Council regards the arrangement as a serious dis-incentivisation to scientists in advancing and disseminating knowledge and technology to improve the quality of life and economic competitiveness of the UK, a key part of our mission. The requirement to make good the payment is in active discussions between the Chairman, Chief Executive, Council and DIUS / HM Treasury.

15. Intangible fixed assets

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

	2008/09	2007/08
	£000	£000
At valuation		
Net book value as at 1 April	174,498	87,313
Additions	—	24,882
Disposals	—	(6,919)
Revaluation	17,792	92,320
Amortisation for the year	(21,561)	(23,098)
Net book value as at 31 March	170,729	174,498

16. Tangible fixed assets

	Land and buildings ⁽¹⁾	Assets under construction ⁽²⁾	Equipment and vehicles	Total
	£000	£000	£000	£000
Cost or valuation				
At 1 April 2008	380,869	105,234	188,924	675,027
Additions	5,065	41,362	18,900	65,327
Reclassification	31,783	(35,729)	3,946	—
Disposals	(695)	—	(8,240)	(8,935)
Impairment	(10,837)	—	—	(10,837)
Revaluation	68,926	—	6,467	75,393
At 31 March 2009	475,111	110,867	209,997	795,975
Depreciation				
At 1 April 2008	186,379	—	134,906	321,285
Provided during the year	8,142	—	14,026	22,168
Disposals	(281)	—	(7,606)	(7,887)
Revaluation	63,843	—	6,772	70,615
At 31 March 2009	258,083	—	148,098	406,181
Net Book value				
As at 31 March 2009	217,028	110,867	61,899	389,794
As at 1 April 2008	194,490	105,234	54,018	353,742

	2008/09	2007/08
	£000	£000
The net book value of land and buildings comprises:		
Freehold	71,170	67,876
Long leasehold	126,294	118,047
Short leasehold	19,564	8,567
	217,028	194,490

⁽¹⁾ Tangible fixed assets include £44,097,018 in respect of freehold land which is not depreciated.

⁽²⁾ The seven UK Research Councils have agreed to establish a Shared Services Centre (SSC), to be based in Swindon. EPSRC is acting as 'host' for the SSC on behalf of all councils and has contracted for the development and establishment of RCUK SSC Ltd. £10.2m 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: £52.4m contribution towards the cost of the UK Centre for Medical Research and Innovation; £8.7m for new animal facilities in London; £38.4m for the new building for the Laboratory of Molecular Biology.

During the year a professional revaluation of land and buildings in the UK was performed by Powis Hughes and Associates Chartered Surveyors, between October and 1 December 2008. Professional revaluations of land and buildings at the MRC's Laboratories in The Gambia were also undertaken by the same valuers. Land and buildings were valued in accordance with the Royal Institution of Chartered Surveyors Valuation Standards (6th Edition), the "Red Book" and are prepared either on Market Evidence or a Depreciated Replacement cost basis.

During the professional revaluation the value of some of our land and buildings were significantly lower than their carrying value leading to a reduction in book value of £10,836,670. £1,317,442 was recognised in the statement of net expenditure; the remainder, £9,519,228 relating solely to the National Temperance Hospital site which is held for resale in support of the UKCMRI project, and where the valuers consider that the fall in value will reverse in the medium term, was taken to the revaluation reserve and reported through the statement of recognised gains and losses.

17. Fixed asset investments

	Subsidiaries and joint ventures	Other investments	RCUK SSC Ltd	Total
	£000	£000	£000	£000
As at 1 April 2008	—	1,446	—	1,446
Additions	—	—	2,131	2,131
Revaluation	—	(527)	—	(527)
As at 31 March 2009	—	919	2,131	3,050

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 MRC, and the MRC cannot exercise control over its decisions. MRCT has therefore been excluded from consolidation.

For the year ended 31 March 2009 the accounts of MRCT revealed a surplus for the year of £9,214,731 (2007/08 = £2,036,211) and net assets of £24,319,572 (2007/08 = £12,722,863).

During the year ended 31 March 2009 the MRC provided goods and services to MRCT to a value of £5,438,704 (2007/08 = £5,426,832). 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 2009, the MRC was owed £1,232,350 (2007/08 = £1,449,767) and owed £100,821 to MRCT (2007/08 = nil).

17b. Joint Ventures

Hammersmith Imanet Limited

The MRC holds 25 per cent of the ordinary shares of the company whose deficits were valued at £1,941,000 at 31 December 2008. The profit and loss account for the period then ended recorded a loss of £469,000 (2007/08 = £195,641 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 £4,990,000 (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 2009, this amounted to £5,203,799 (2007/08 = £5,030,411).

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 2009.

UK Biobank Limited

UK Biobank Limited is a company limited by guarantee and is a registered charity. The MRC is one of the two members of the company, along with the Wellcome Trust. The MRC also has the right to appoint a director. As the company is a charity, the MRC is not able to exert any control and so the company is not consolidated in the MRC Accounts. UK Biobank Limited is a related party of the MRC. Grants payment by the MRC to UK Biobank Limited during 2008/09 were £6,554,165 (2007/08 £9,637,141). There were no outstanding balances to / from UK Biobank Limited at the end of the year, or the prior year.

UKCRM Limited

To deliver the proposed UK Centre for Medical Research and Innovation the MRC, in partnership with Cancer Research UK, UCL and the Wellcome Trust holds shares in UKCRM Limited. During the year the MRC made loan payments of £7,505,580 as part of its funding agreement with UKCRM and the other partners. As at 31 March 2009, the MRC was owed £7,505,580 and owed £117,247 to UKCRM.

17c. Other investments

	Number of shares held	Holding %	Market value at 31 March 2009 £000
Quoted			
Ardana Ltd ⁽¹⁾	416,460	—	—
Galapagos NV (Belgium)	59,919	0.47	334
Vectura (formerly Innovata plc)	58,357	0.04	32
Natus Medical Inc (USA)	7,066	0.04	40
Sangamo Biosciences Inc (USA)	165,255	0.54	470
Topo Targets A/S (Denmark)	113,916	0.28	34
Vernalis plc	310,392	0.14	9
Total			919

At the close of business on 31 March 2009 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 ⁽¹⁾	—
Galapagos NV ⁽²⁾	€6.25
Vectura (formerly Innovata plc)	54.5p
Natus Medical Inc ⁽³⁾	\$8.51
Sangamo biosciences Inc ⁽³⁾	\$4.23
Topo Targets A/S ⁽⁴⁾	DKK 2.49
Vernalis plc	3p

⁽¹⁾ Company went into Administration 30 June 2008

⁽²⁾ The share price of the listed Belgian Company was converted at a rate of Euros 1.1211 = £1.00.

⁽³⁾ The share prices of the two listed US companies, were converted at a rate of US \$1.4876 = £1.00.

⁽⁴⁾ The share price of the listed Danish company was converted at a rate of DKK 8.3501 = £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
Eductus Ltd	6,400
Oxxon Therapeutics Ltd	10,332
Rain Dance Technologies Inc	200,000
Senexis Ltd	10
Heptares Therapeutics Limited	609,577
RCUK Shared Services Centre Ltd A Shares	1
RCUK Shared Services Centre Ltd B Shares	2,131,420
UKCMRI Construction Limited	1

These shares relating to the companies above, with the exception of RCUK Shared Services Ltd and UKCMRI Construction Ltd, 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.

17d. RCUK Shared Services Centre Ltd (SSC)

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

During the year, the MRC added to its investment in RCUK Shared Services Centre Ltd through the acquisition of B shares. B shares convey ownership rights to the holder, including any distributions or proceeds from sale of the SSC. The seven research councils each acquired an A share, carrying a vote per share, in 2007/08. RCUK Shared Services Centre Ltd was incorporated on 1 August 2007 and has been operating a shared service centre, delivering services to the research councils, since May 2008. For the period ending 31 March 2009, the draft financial statements for the company shows a loss of £1.4m against a turnover of £25.8m. The balance sheet total is £6.5m represented by £7.9m share capital issued to the research councils and £1.4m retained loss.

During the year £2,131,420 B shares were issued to the MRC, for which £566,580 remains unpaid at 31 March 2009.

Shareholding in RCUK Shared Services Centre Ltd

	A shares	B shares	Total
	£	£	£
As 1 April 2008	1	—	1
Additions	—	2,131,420	2,131,420
At 31 March 2009	1	2,131,420	2,131,421

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 £10.2m (2007/08 £4.2m) as assets in the course of construction and £5.6m (2007/08 £3.3m) as expenses.

During the year to 31 March 2009, MRC purchased services to the value of £5.3m (2007/08 £2.3m) from RCUK Shared Services Centre Ltd (RCUK) and provided services to RCUK to a value of £3.1m (2007/08 £0m).

As at 31 March 2009, the MRC was owed £1.0m and owed £0.6m to RCUK.

18. Stock

	2008/09	2007/08
	£000	£000
Consumable stores and livestock	2,687	2,351

19. Debtors

	2008/09		2007/08	
	£000	£000	£000	£000
Trade debtors	15,546		9,731	
Less provisions for bad debts	(25)		(78)	
		15,521		9,653
Other debtors		1,145		1,302
Accrued income		32,540		22,566
Prepayments		11,939		7,034
Total		61,145		40,555

Intra-government balances

At the end of the year, the MRC had debtor balances with other government bodies totalling £1,768k (2007/08 = £2,154k) comprising the following: Government Agencies £795k (2007/08 = £1,349k), Local Authorities £0 (2007/08 = £69k), NHS Trusts and Hospitals £946k (2007/08 = £736k).

20. Creditors: amounts falling due within one year

	2008/09	2007/08
		(Re-stated)
	£000	£000
Due within 1 year		
Trade creditors	72,077	63,221
Accruals	84,369	114,817
Taxation and social security	4,049	3,322
Income received in advance	25,802	14,645
Early retirement compensation scheme	1,765	2,207
Others	25,688	5,689
Total	213,750	203,901
Due after 1 year		
Early retirement compensation scheme	4,196	5,771

Early retirement compensation scheme

The early retirement compensation scheme payments previously included within provisions are now re-classified as financial liabilities and included within creditors. The previous year's figures have therefore been re-stated to reflect this change.

Intra-government balances

At the end of the year, the MRC had creditor balances with other government bodies totalling £71k (2007/08 = £94k) comprising the following: Government Agencies £18k (2007/08 = £52k), NHS Trusts and Hospitals £2k (2007/08 = £41k), Local Authorities £51k (2007/08 = £1k).

21. Provisions for liabilities and charges

	Early retirement compensation scheme ⁽¹⁾	Redundancy costs	Other costs	Total provisions
	(Re-stated)			
	£000	£000	£000	£000
At 1 April 2008	—	1,784	3,777	5,561
Amount provided in year	—	298	—	298
Amount expended in year	—	(860)	(3,095)	(3,955)
At 31 March 2009	—	1,222	682	1,904

⁽¹⁾ Early retirement represents the MRC's liability for compensation payments up to the year 2021. The payments previously included within provisions are now re-classified as financial liabilities and included within creditors. The figures have therefore been re-stated to reflect this change.

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 2007 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.

Redundancy Costs

These include provisions for restructuring at the Clinical Sciences Centre in London £357k; RCUK Shared Services Centre Ltd £865k.

Other

These include provisions for the disposal of High Activity Sealed Sources being used in some Units, £479k; and to the RCUK Shared Services Centre Ltd £203k.

RCUK SSC Costs

The research councils and RCUK SSC Ltd are in the process of developing a Shared Services 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 SSC will be situated.

The research councils have collectively agreed that they will be jointly liable for necessary redundancies. The councils calculated their likely redundancy liabilities in order to make a 2007/08 provision which has been updated for movements during 2008/09. 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. The MRC will incur a cost for terminating their existing systems, and these costs are also being shared. It then notes the proportion of the total liability it will incur and the amount of provision that it represents. The bottom line shows the net provision that has been recorded in each council's accounts.

SSC redundancy cost and system termination provisions allocation

	AHRC	BBSRC	ESRC	EPSRC	MRC	NERC	STFC	Total
	£000	£000	£000	£000	£000	£000	£000	£000
Opening provision required for the council's own redundancies	68	152	—	—	999	1,620	—	2,839
Opening provision required for system termination fee	—	—	—	—	1,000	—	—	1,000
Opening total provision	68	152	—	—	1,999	1,620	—	3,839
Net movement in provisions	—	279	—	—	31	(711)	520	119
Requested total provision before sharing	68	431	—	—	2,030	909	520	3,958
% of liability to be borne by each council	1.33%	20.54%	1.83%	8.24%	26.98%	20.54%	20.54%	100%
Provision required to be borne by each council	53	813	72	326	1,068	813	813	3,958

22. Capital and reserves

	Revaluation reserve	Intellectual property reserve	Donated asset reserve	Pension reserve	General reserve	Total government funds
	£000	£000	£000	£000	£000	£000
At 1 April 2008	70,622	174,498	760	117,808	147,022	510,710
Other capital funding received	—	—	157	—	—	157
Grant-in-aid financing received in year (note 2)	—	—	—	—	643,000	643,000
Contributions from other government departments (note 3)	—	—	—	—	16,242	16,242
Contributions and grants from other bodies (note 4)	—	—	—	—	50,416	50,416
Contribution for licence fees (note 2)	—	—	—	—	170	170
Released to Statement of Net Expenditure	—	—	(151)	—	—	(151)
Revaluations during year	(5,271)	17,792	—	—	—	12,521
Actuarial loss in the pension scheme (note 7e)	—	—	—	(138,922)	—	(138,922)
Transfer to general reserve – depreciation	(4,906)	(21,561)	—	—	26,467	—
Transfer to general reserve – disposals ⁽¹⁾	(13)	—	—	—	13	—
Transfer pension scheme	—	—	—	6,109	(6,109)	—
Net expenditure for the year	—	—	—	—	(675,217)	(675,217)
Reversal of notional costs of capital	—	—	—	—	14,429	14,429
At 31 March 2009	60,432	170,729	766	(15,005)	216,433	433,355

⁽¹⁾ In respect of the revalued element of disposed fixed assets in the year.

23. Reconciliation of the operating deficit to net cash outflow from operating activities

	2008/09	2007/08
	£000	£000
Net operating expenditure	(649,208)	(570,427)
Depreciation charge	22,168	19,869
Amortisation charge	21,561	23,098
Impairment of fixed assets	1,317	—
Other non-cash items – FRS 17 pension costs	826	7,623
Unwinding of discount provisions	(469)	(409)
Release of deferred income	(151)	(125)
Decrease in provision for liabilities and charges	(3,657)	(3,012)
Increase in stocks	(336)	(564)
Increase in debtors	(20,590)	(419)
Increase in creditors	31,598	26,460
Net cash outflow from operating activities	(596,941)	(497,906)

24. Reconciliation of movement in cash to movement in net funds

	2008/09	2007/08
	£000	£000
Net funds at 1 April	35,543	255,574
Increase/(decrease) in cash	5,262	(220,031)
Balance at 31 March	40,805	35,543

25. Contingent liabilities

Cyclotron Disposal

As part of the programme to renovate the MRC Clinical Sciences Centre at Hammersmith Hospital the MRC is addressing the disposal of the original MRC Cyclotron Unit magnet. The 24-year old magnet, which contains low level radiation material, has been held securely and dose rates from it are negligible. An options appraisal on disposal will be conducted during 2009/10 and the MRC will consult with the Environment Agency on an appropriate disposal route.

At the present time it is not possible to measure these costs with sufficient reliability.

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 £217,058,385 (2007/08 = £116,000,000) comprising the following: MRC LMB £173,644,805, UKCMRI £10,100,000, minor capital £26,000,000, MRC Clinical Sciences Centre £2,000,000, and RCUK Shared Services Centre £4,613,580, the MRC Prion unit £700,000.

Research awards

Forward commitments on research awards to higher education institutes	£000
2009–2010	245,110
2010–2011	175,994
2011–2012	100,167
2012–2016	51,794

27. Related party transactions

The MRC is a non-departmental public body sponsored by 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, the Economic and Social Research Council and the RCUK Shared Services Centre Ltd.

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 £153k. 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.

Title & Name	Number of awards	Total value (£) awarded
Professor D Ala Aldeen	1	694,556
Professor D G Altman	1	329,664
Professor S M Anderton	1	1,530,188
Professor D Ashby	1	390,224
Professor M R Barer	1	417,724
Professor M G Belvisi	1	599,756
Professor G S Besra	1	211,124
Professor S J Bevan	1	264,900
Dr E Birney	1	2,300,008
Professor S Bloom	1	149,952
Professor J Breuer	1	502,384
Professor C Buckley	2	741,596
Professor J Cairns	1	965,960
Dr R Chopra	1	445,472
Professor Sir P Cohen	2	1,375,016
Professor J Danesh	1	573,780
Professor Dame K Davies	1	155,532
Professor C P Day	2	675,748
Professor J J Deekes	2	3,443,748
Professor C Drummond	1	557,882
Professor G Dunn	2	632,720
Professor P Elliott	1	8,982,876
Professor V Entwistle	1	237,680
Professor M Ferguson	1	390,536
Professor A C Ferguson-Smith	1	823,864
Professor C French-Constant	1	265,504
Professor S Gillespie	2	738,144
Professor G Goodwin	1	371,120
Professor F Gotch	1	968,120
Professor G J Graham	2	988,272
Professor A Gray	1	489,472
Professor R Gray	1	2,740,496
Professor J Gribben	1	445,472
Professor H M D Gurling	1	622,644
Dr T Hanke	1	1,315,680
Professor A Harris	1	758,144
Dr M Hickman	2	683,964
Professor S Hill	1	1,313,216
Professor M Hotopf	1	414,732
Professor S P Hunt	2	1,322,728
Professor J D Isaacs	1	149,944
Dr R Jalan	1	609,268
Professor P Johnson	1	2,740,496
Professor K Khaw	1	140,736

Title & Name	Number of awards	Total value (£) awarded
Professor C Kiely	1	1,245,888
Professor A Knox	1	842,700
Professor D A Lawlor	1	548,636
Professor A Lingford-Hughes	3	1,004,652
Professor S H Lovestone	1	709,832
Professor S Macintyre	1	254,292
Professor M Marsh	1	2,023,824
Professor I McInnes	3	1,562,384
Professor J McKeating	1	363,828
Professor A McMichael	1	951,040
Dr M Morgan	1	414,732
Professor G Murray	2	3,842,080
Professor D Nutt	4	1,497,808
Professor A D M E Osterhaus	1	897,700
Professor M K B Parmar	2	4,824,046
Professor T Peters	1	429,800
Professor R E Phillips	1	590,849
Professor L Piddock	1	1,430,328
Professor D J Price	2	1,376,136
Professor B Rima	1	897,700
Professor T W Robbins	1	228,112
Professor N J Rothwell	3	2,187,032
Professor I Sabroe	1	712,028
Professor P Sandercock	2	2,305,824
Professor G R Screaton	1	600,280
Professor J R Seckl	2	785,172
Professor D T Shima	1	348,032
Professor E Sim	1	211,124
Professor G L Smith	1	336,852
Professor D Stephens	1	246,808
Professor P M Stewart	2	964,544
Professor A Stitt	1	499,948
Dr A J Sutton	1	317,088
Professor A M Thomson	1	1,064,544
Professor S Thompson	2	2,139,152
Professor P Trayhurn	1	315,144
Dr V L Tybulewica	1	1,016,856
Dr A Vidal-Puig	1	1,000,036
Professor N Wareham	1	573,780
Professor J A Wedzicha	1	527,020
Mr I R White	1	1,773,192
Professor J Whittaker	2	747,592
Professor M Wilkins	1	332,804
Professor M Zambon	1	951,040

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.

Research organisation	Number of awards	Value (£)
Cancer Research UK	2	1,489,599
Professor P Parker		Professor D T Shima
Cardiff University	8	6,113,522
Professor A Clarke		Dr R Hills
Professor K Fox		Professor L A R Moore
		Professor J Williams
		Professor D Wynford Thomas
Imperial College London	43	29,995,189
Professor D Altmann		Professor M Feldman
Professor D Ashby		Professor F Gotch
Professor D J Balding		Dr R Gunn
Professor M G Belvisi		Professor C Kennard
Professor S Bloom		Professor J Lamb
Professor P Elliott		Professor L Middleton
Professor P Farrell		Professor C Pusey
		Professor M A Ritter
		Professor M D Schneider
		Professor G R Screaton
		Professor G L Smith
		Professor M Wilkins
Institute of Cancer Research	4	1,211,658
Professor D Barford		Professor P W J Rigby
King's College London	28	14,508,163
Professor D Armstrong		Professor A Grieve
Professor S J Bevan		Professor M Hotopf
Professor P Doherty		Professor P Jenner
Professor C Drummond		Professor A J Lax
		Professor S H Lovestone
		Dr R K Morris
		Professor L Poston
		Professor S Sacks
London School of Hygiene and Tropical Medicine	8	2,362,631
Professor J Cairns		Professor V Patel
Professor A Hall		Professor M Petticrew
Professor D A Leon		Professor J Whittaker
		Professor B Wren
Newcastle University	20	7,406,128
Professor C P Day		Professor J Goodship
Professor C Donaldson		Professor J D Isaacs
Professor M P Eccles		Professor E F S Kaner
		Dr D Lydall
		Professor S Marshall
		Professor J C Mathers
Queen Mary and Westfield College/LHMC/Barts	16	6,365,917
Professor J Breuer		Professor J Gribben
Professor M A Curtis		Professor N Lemoine
		Professor T MacDonald
		Professor R Playford
Queen's University Belfast	5	1,994,415
Dr G Fleming		Professor D J McCance
Professor P Johnson		Professor G P Reynolds
		Professor B Rima
		Professor A Stitt
School of Pharmacy, University of London	2	1,532,801
Professor A M Thomson		
St George's, University of London	2	906,344
Professor G Griffin		

Research organisation	Number of awards	Value (£)
The University of Manchester	19	10,278,467
Professor P Clayton	Professor I Kimber	Professor N J Rothwell
Professor J Davis	Professor S W Lewis	Professor I Stratford
Professor S Downes	Dr T W Millar	Professor C Streuli
Professor G Dunn	Professor A North	Dr X Yuan
Professor C Kiely	Dr M Rattray	
University of Aberdeen	7	2,209,509
Professor M Campbell	Professor R F Elliott	
University of Birmingham	19	11,151,524
Professor A Ahmed	Professor R Gray	Professor P Moss
Professor C Buckley	Professor E J Jenkinson	Professor L Piddock
Dr A Copello	Professor P Johnson	Dr G E Rainger
Professor R Ferner	Professor L E Macaskie	Professor C Sackley
Professor M P Frenneaux	Professor J McKeating	Professor P M Stewart
University of Bristol	15	6,786,196
Professor E A M Gale	Professor A Lingford-Hughes	Professor T Peters
Professor G Henderson	Professor P Martin	Dr S M Ring
Dr M Hickman	Professor D Nutt	Professor N Scolding
Professor D A Lawlor	Professor C Orchard	Professor D C Wraith
University of Cambridge	42	22,473,364
Dr J Ahringer	Professor A C Ferguson-Smith	Professor S O'Rahilly
Dr P Barker	Professor A R Green	Professor T W Robbins
Professor M Brown	Dr A E Hill	Professor B Sahakian
Professor C Caldas	Professor P B Jones	Professor S Sutton
Professor J Danesh	Professor K Khaw	Dr D Tannahill
Professor J Fawcett	Professor D A Lomas	Dr A Vidal-Puig
Dr S Efstathiou	Professor P Luzio	Dr A J Bain
University College London	70	44,305,111
Professor S Caddick	Dr R Jalan	Professor G Rees
Professor V Curran	Professor D T Jones	Professor W M C Rosenberg
Professor D Cutler	Professor D R Katz	Professor C A Sabin
Professor M Fitzgerald	Dr P Kellam	Professor A Schapira
Professor S Gillespie	Professor M Newell	Professor V Walsh
Professor H M D Gurling	Professor D Pillay	Professor J A Wedzicha
Professor G Hart	Professor C Power	
Professor S P Hunt	Professor R Raine	
University of Dundee	8	6,174,695
Professor D Balfour	Professor A H Fairlamb	Professor C Watts
Professor M Chaplain	Professor J Frearson	
Professor V Entwistle	Lord N B Patel	
University of East Anglia	3	1,501,746
Professor I Harvey	Professor D Russell	
Professor M Mugford	Dr L Shepstone	
University of Edinburgh	32	20,127,688
Professor S M Anderton	Professor G Murray	Professor M Shipston
Professor D J Finnegan	Professor D J Price	Dr P Warner
Professor C ffrench Constant	Professor J R Seckl	

Research organisation		Number of awards	Value (£)
University of Glasgow		7	2,380,313
Professor J Cooper	Professor I M Macrae	Professor J L Reid	
Dr M Girolami	Professor I McInnes	Professor S J Senn	
Professor G J Graham	Professor N McKeganey		
Professor H Leung	Professor J P Pell		
University of Hull		1	199,961
Professor A Venneri			
University of Leeds		9	3,483,510
Professor M J P Arthur	Professor J Colyer	Professor S Radford	
Professor D Bonthron	Dr H A Pearson		
University of Leicester		7	2,434,429
Professor M R Barer	Professor N J Brunskill	Dr A J Sutton	
University of Liverpool		11	7,764,459
Professor P Salmon	Professor T Walley		
Professor P Trayhurn	Professor P Weightman		
University of Nottingham		14	6,910,734
Professor D Ala Aldeen	Professor A Knox	Professor H F Sewell	
Professor I Hall	Professor J Lowe	Professor S J B Tandler	
Professor S Hill	Professor Y Mahida		
University of Oxford		42	22,130,323
Professor P Bolam	Professor J R Geddes	Professor X Lu	
Sir M Brady	Professor G Goodwin	Professor R E Phillips	
Professor Dame K Davies	Professor A Gray	Professor F Powrie	
Professor B Davis	Professor D Higgs	Professor E Sim	
Professor R Fitzpatrick	Professor E Y Jones	Professor I Tracy	
Professor C Garland	Professor C Kennard	Professor H Watkins	
University of Sheffield		12	5,664,738
Professor P Andrews	Professor J R Eiser	Professor P G Ince	
Professor J Brazier	Dr P S Grabowski	Professor J P Nicholl	
Professor D Crossman	Professor P Hellewell	Professor I Sabroe	
University of Southampton		6	2,039,583
Dr K Gerard	Professor P Little	Professor V H Perry	
Professor S Holgate	Professor J Nicholl	Professor R Peveler	
University of St Andrews		2	1,283,065
Professor V Brown			
University of Strathclyde		2	385,706
Dr D A Greenhaigh			
University of Sussex		6	6,266,844
Professor D Stephens			
University of Warwick		1	419,702
Professor N Stallard	Professor S R Welch		
University of York		5	1,255,657
Professor I A Greer	Professor P M Kaye		
Professor S E Gathercole	Professor D Smith		

28. Financial instruments

FRS 29, Financial Instruments : Disclosures, requires disclosure of the role which financial instruments have had during the period in creating or changing the risks the MRC faces in undertaking its activities. Specifically:

- (a) the significance of financial instruments affecting financial position and performance; and
- (b) the nature and extent of risks arising from financial instruments to which it is exposed. Because of the largely non-trading nature of its activities and the way it is financed, the MRC is not exposed to the degree of financial risk faced by businesses. Moreover, financial instruments play a limited role in creating or changing risk on its operational activities.

Liquidity risk

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

Foreign currency risk

The 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 end, the average monthly float levels were £1,016,000 (2007/08 = £1,008,000).

Foreign Currency Balances

Amount	As at 31 March 2009	As at 31 March 2008
USD(\$)	1,194,767	2,910,202
Euro (€)	3,565,898	8,885,396

A 5 per cent (10 per cent) ± movement in exchange rates would equate to £190,476, (£363,636), such events would have minimal impact on MRC's resources. In 2007/08 the corresponding amounts were £102,161 (£195,034).

Receivables and Creditor Risk

Financial assets and liabilities are held at fair value and changes in values are recognised in the Statement of Net Expenditure. 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. Of current outstanding trade debt less than 7 per cent is greater than 30 days old (2007/08 13%).

29. Post balance sheet events

FRS 21 events after the balance sheet requires the disclosure on the date on which the financial statements were authorised for issue and who gave that authorisation. The accounts were authorised for issue by the Accounting officer on the 9 November 2009. The financial statements do not reflect events after this date.

There are no Post Balance Sheet events between the balance sheet date and the 9 November 2009 the date when the Accounting Officer approved the accounts. The financial statements do not reflect events after this date.

On 5 June 2009, the Government announced the creation of a new Department for Business, Innovation and Skills (BIS) whose key role will be to build Britain's capabilities to compete in the global economy. The Department was created by merging the Department for Business Enterprise and Regularity Reform (BERR) and Department for Innovation Universities and Skills (DIUS). The sponsorship responsibility for MRC passed to BIS on that date. There is no reason to believe that the expected Government funding underlying MRC's going concern assertion will be affected by this change.

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