Priorities for medical research in the UK

**Sir Leszek Borysiewicz**  
Medical Research Council  
The Foundation for Science and Technology, 20 May 2009

**MRC mission**

- Encourage and support high-quality research with the aim of improving human health
- Produce skilled researchers
- Advance and disseminate knowledge and technology to improve the quality of life and economic competitiveness in the UK [and worldwide]
- Promote dialogue with the public about medical research
MRC funding

MRC operating expenditure - £625.4m in 07/08
- 300 new grants to researchers
  £236 million on grants and training awards in universities and medical schools
- £343 million for over 500 programmes in our research units and institutes
  over 2000 publications in peer-reviewed journals
- Licensing income receipts of £85.4 million through MRCT
  £384 million total cash generated since 1998

People
- Over 4000 people in our own units, institutes and centres
- £72.2 million on training and career development
  107 new fellowships, 450 new post-graduate students

The MRC journey: Basic science as the bedrock

- 28 Nobel prizes spread across the Nobel categories of Physiology or Medicine and Chemistry.

The MRC’s core offering:
- World-class basic biomedical research
- Interdisciplinary interface with the Research Councils
The MRC journey: Embracing translation

- What is it? - turning discoveries into clinical benefits, while maintaining the basic research that drives it

- MRC’s translational strategy:
  - builds on the MRC’s existing role in pushing forward basic knowledge to improve people’s health and wealth
  - strengthens the support and oversight of the translational processes

The MRC journey: Translational strategy

- Increasing the scale and pace of discovery from discovery through to first human use or commercialisation
- Strengthening R&D in areas where there are currently translational bottlenecks
- Fostering more flexible working with industry
- Enhancing the quality and scale of infrastructure for translational research
- Developing a strong, internationally unique, programme in research methodology
- Accelerating innovative interventions into late phase II & phase III clinical trials
- Enhancing skills and capacity underpinning these areas.
The MRC journey: Health Research Opportunities

- A Cooksey challenge
- 1: Health Departments review impact of disease
- 2: Meeting to identify scientific opportunities at Mar Hall
- Mar Hall group identified 10 key areas for maximum impact in public health
- Used to inform development of MRC strategic plan

www.mrc.ac.uk/about/strategy/healthresearchopportunities

The MRC journey: structural change
A new Strategic Plan for the MRC

- Consultation with over 500 stakeholders
- A non-prescriptive agenda
- Leading and influencing
- Partnership agenda

MRC Strategic Plan for 2009-2014

Hierarchical structure of plan

STRATEGIC AIM

OBJECTIVE

NOW

FUTURE

HOW?

OBJECTIVE

NOW

FUTURE

HOW?

OBJECTIVE

NOW

FUTURE

HOW?
Research changes lives

**Strategic Aim 1**
*Picking research that delivers:* Setting research priorities which are most likely to deliver ‘step changes’ in the potential for improved health outcomes

**Strategic Aim 2**
*Research to people:* Bringing the benefits from excellent research to all sections of society

**Strategic Aim 3**
*Going global:* Securing progress in international medical research

**Strategic Aim 4**
*Supporting our scientists:* Supporting and sustaining a robust and flourishing environment for world class medical research.

MRC Strategic Plan 2009-2014

**Strategic aim 1**
*Picking research that delivers:*
Setting research priorities which are most likely to deliver ‘step changes’ in the potential for improved health outcomes
Strategic aim 1

**Research priority theme 1:**

**Resilience, Repair and Replacement**

**Natural protection**
To explore built-in resilience to disease and degeneration, determining how such mechanisms might be used to produce new interventions for ameliorating disease processes.

**Tissue disease and degeneration**
To advance knowledge in the biology of ageing and degeneration of human tissue.

**Repair and replacement**
To translate the burgeoning knowledge in stem cell biology and other replacement and regeneration mechanisms into new treatment strategies.

**Mental health and wellbeing**
To explore the inter-relationship between mental wellbeing and resilience to disease processes.

Strategic aim 1

**Research priority theme 2:**

**Living a long and healthy life**

**Genetics and disease**
Using next generation genetics with more sophistication and lower cost, imaging, and biomarkers to:
- Understand genetic predispositions for disease, in the setting of ‘complex’ traits and in the modulation of simple ones
- Align the development and use of treatments with specific subtypes of disease

**Lifecourse**
To drive forward inter-disciplinary working in life-course research.

**Lifestyles affecting health**
Determining the most effective strategies for tackling lifestyles which are detrimental to health.

**Environment and health**
Exploring the impacts of changes in our environment on health and wellbeing.
Strategic aim 2

*Research to People:*

Bringing the benefits of excellent research to all sections of society

---

**Translation of research**

Ensuring translation of the research effort into health and commercial outcomes: new products, policies, procedures

**Regulation, ethics, governance and working with decision-makers**

To uphold and guide ethical research practice and the highest standards of research governance, to enhance the regulatory process by providing innovative approaches

**Communication**

Enhancing communication between scientists, policy makers, advocates and the public
Strategic aim 3

Going global: Securing progress in international medical research

Partnerships and agenda shaping
To provide international leaderships in partnerships which enhance the competitiveness of the UK knowledge and health base

Global health
To support global health research that addresses the inequalities in health which arise particularly in developing countries
MRC Strategic Plan 2009-2014

Strategic aim 4

Supporting scientists:

Sustaining a robust and flourishing environment for world-class medical research

Capacity
To strengthen research capacity through training and development

Use of population-based data
To fully exploit the complexity and benefits of population data, to maximise sharing and linkage of data and to develop data collection and storage

Research environment
Providing a world-class research environment
Measuring success

• A new approach to capturing output
• We will deliver a minimum of four major strategic evaluations a year
• We will work in partnership with universities to offer information needed to maximise the value of the support they receive from the MRC.

More information

www.mrc.ac.uk