Who are we?

The Medical Research Council (MRC) works to improve the health of people around the world and contribute to the UK economy by supporting excellent science and training the very best scientists. We invest in research on behalf of the UK tax payer. Our work ranges from laboratory research, for example on genes and molecules, right through to research in people, such as clinical trials and population studies. Our science is carried out in universities, hospitals and a network of our own research establishments across the UK and in Africa.

Throughout 2013 we’ll be celebrating our Centenary and acknowledging 100 years of life-changing MRC discoveries - from the finding that Vitamin D cures rickets to the invention of deep brain stimulation for Parkinson’s disease. We’ll also be looking forward to future medical advances.

Find out more at www.centenary.mrc.ac.uk

The MRC’s mission, as set out in our Royal Charter, 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.

How are we funded and governed?

Our Strategic Plan 2009 - 2014, Research Changes Lives, sets out our strategic research priorities and how we are delivering them. Our science is split into four broad areas of research, each overseen by a specialist board with its own budget. Scientists apply to the MRC for funding for their research and applications are reviewed by a panel of independent experts.

The MRC is a non-departmental public body funded through the government’s science and research budget. We are governed by a 14-member Council which directs our policy, science strategy and spending decisions and makes sure that the MRC is managed effectively and efficiently.

Find out more about us at www.mrc.ac.uk/aboutus and read our Strategic Plan at www.mrc.ac.uk/strategicplan
A century of discoveries

1916 • Sir Edward Mellanby discovered that rickets, a childhood bone disease, is caused by Vitamin D deficiency and could be treated with cod liver oil.

1933 • MRC scientists proved that flu is caused by a virus rather than a bacterium, after studying ferrets that had caught the illness.

1940s • During World War II MRC-supported work by Sir Ernst Chain and Lord Florey made large-scale production of penicillin possible for the first time, bringing it into use as an antibiotic drug.

1956 • Sir Richard Doll and Sir Austin Bradford Hill showed that heavy smokers were 20 times more likely to die of lung cancer than non-smokers, proving the link between smoking and lung cancer.

2000 • The first draft of the complete human genome sequence was published, under the direction of Sir John Sulston at the Cambridge Sanger Centre.

1991 • A nine-year-long MRC clinical trial showed that giving pregnant women supplements of folate reduces the risk of major birth defects of the brain and spine like spina bifida.

21st century • The Nobel Prize for Chemistry 2009 was awarded to Dr Venki Ramakrishnan of the MRC Laboratory of Molecular Biology for showing how ribosomes, the tiny protein-making factories inside cells, function at the atomic level.

• A major MRC study carried out in rural Africa showed that more HIV patients could be treated safely and effectively for no additional cost by focusing funding on anti-retroviral therapy (ART) rather than expensive blood tests.

• MRC-funded researchers in London developed a mobile phone support service to help people give up smoking. Txt2stop doubles quit rates and is now used by the NHS.

• New ways of treating viral infections like the common cold have been opened up by MRC Laboratory of Molecular Biology scientists, following their discovery that antibodies can attack viruses from inside our cells as well as outside.

To read about more of our scientists’ latest discoveries, take a look at the MRC Annual Review 2011/12 at www.mrc.ac.uk/annualreview11-12

Did you know?

MRC scientists have been immortalised on screen by famous actors Dominic West and Jeff Goldblum. West featured as Howard Florey in BBC 4’s Breaking the Mould, about the development of penicillin in the 1940s, and Goldblum played MRC scientist James Watson in Life Story, a film about the discovery of the structure of DNA.
A life changed: Lucas’s story

Lucas Macdonald from London took part in an MRC trial when he was a baby. The trial, led by scientists at the MRC Clinical Sciences Centre, tested a new cooling treatment to see if it could prevent brain damage in babies across the UK and Europe who had been starved of oxygen during birth.

Today Lucas is a healthy little boy. Overall results showed that cooling the body by three degrees centigrade reduced the likelihood of suffering brain damage by 57 per cent. These findings have now been adopted as an NHS guideline for treating all oxygen-deprived newborns.

Lucas’s mother Juliet says: “I couldn’t help feeling a tingle of pride when the trial results got sent through to us and I realised that we had helped to advance medical knowledge. It’s cool to be part of something that’s a success.”

You can listen to an interview with Lucas’s mother Juliet in the MRC Annual Review 2009/10 at www.mrc.ac.uk/sevenages

Did you know?
The MRC’s National Institute for Medical Research building in Mill Hill, North London, stood in as Arkham Asylum in the film Batman Begins.

Careers at the MRC

A career in science can be exciting, challenging and fulfilling. Medical research can be especially rewarding as the knowledge gained with each new discovery we make could save lives and improve health.

Dr Cari Free is a public health researcher at the London School of Hygiene and Tropical Medicine, and also works as a GP one day a week.

“I became a doctor because I always wanted to do something that helped people and I was good at science. I didn’t really plan to be a researcher, I just did what I was interested in at every step of the way and that then led me to research.”

One of Cari’s research interests is smoking – a major cause of heart attacks, stroke and lung cancer.

With MRC funding, she’s led research to develop an affordable mobile phone support programme to help smokers to give up, called Txt2Stop. In January 2012, the Department of Health launched the programme on the NHS and by October over 44,000 smokers had signed up.

Cari says: “We were delighted that Txt2Stop worked so well. Not only does it double quitting but it’s also cheap, so there’s a chance that it could be implemented across the world in countries like India and China where smoking is now an epidemic – that’s very exciting.”

Read more about Cari and her research at www.mrc.ac.uk/annualreview11-12

To find out more about what it’s like to work in research, take a look at some of our scientist profiles at www.mrc.ac.uk/AchievementsImpact/Profiles

You can also find detailed information on MRC research careers at www.mrc.ac.uk/ResearchTrainingCareers
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