

In this issue...

Clinical research strategy

New funding boosts MRC plans for clinical research
page 2

An ounce of prevention

UK initiative aimed at promoting healthier lifestyles to be managed by the MRC
page 3

Award schemes merger

Career Establishment Grant and New Investigator Award schemes to merge
page 5

Unit profile

The MRC Clinical Trials Unit, London
pages 6 & 7

Prematurity insights

Cutting-edge imaging and computing technology come together to give new insights into helping premature babies
page 9

Global health

Investment in medical research relevant to the developing world delivers major health benefits and is shaping the international agenda
pages 10 & 11

Plus...

MRC/Wellcome Trust summit, new faces, Board and Panel deadlines and vacancies, Research roundup, Events diary, MRC people and more...

University College London to partner MRC in NIMR renewal

The MRC's Council unanimously decided at its February meeting that University College London (UCL) should be its preferred partner for taking forward the renewal of the MRC National Institute for Medical Research (NIMR).

In October 2004 the Council confirmed that the NIMR should be renewed as a multi-disciplinary institute, focused on basic and translational research and based in the London area. In the following months, the MRC received proposals from UCL and King's College London (KCL), which the Council considered when it met in December and February. A sub-group of Council members also visited both KCL and UCL in January. Having debated the merits of the two proposals, the Council agreed that both were able to meet its vision for the NIMR. However, after further consideration of all the issues, including the financial implications, the Council unanimously concluded that the UCL proposal offered greater opportunities for world-class science, inter-disciplinary collaboration and translational research along with practical solutions to housing strategic facilities that could not be provided on the main site proposed by UCL.

The Council agreed that there was an urgent need for the NIMR to work closely with UCL and for the MRC

"We are confident that partnership with UCL offers a very exciting future for the renewed institute, which will enable it to make an even fuller contribution to translational research in the coming decades."

Colin Blakemore, MRC Chief Executive

to prepare the full science and business case for relocating the NIMR in partnership with UCL. A project group with members from MRC Head Office, UCL and the NIMR has been set up to oversee the preparation of the full case. The group will be responsible to Council through the Council Steering Committee on NIMR, for preparing the business plan. It is envisaged that the group will be supported by other work-stream groups with members drawn from all three parties, that will examine specific aspects of the science case, for example infections and immunity, and the business case, for example buildings and facilities. The project group will also provide MRC/UCL/NIMR input to the process for recruiting the new NIMR Director in anticipation of Sir John Skehel's retirement in 2006.

A progress report will be made to the MRC's Council in March, and it is anticipated that the Council will consider the full business plan in May.

Council opens its doors to the public

On 9 February it was science rather than sport that was making history at Manchester United Football Club at Old Trafford, Manchester. For that was the day and venue of the MRC's first open Council meeting, designed to give public and professional stakeholders an opportunity to input into key Council discussions and to observe how the Council conducts its business.

The event attracted more than 120 people, including members of the public, charity and health services professionals, science communication groups and scientists. After an introduction by MRC Chief Executive Colin Blakemore, the Research Board Chairs told attendees about their specific scientific areas, focusing on the key challenges of turning research into health benefits for patients. Professor Geneva Richardson, Chair of the MRC Ethics Committee, then spoke about a draft MRC



MRC Council members take questions from the floor.

position statement on research regulation and ethics. The draft had been posted on the event website and sent to attendees in advance to help them to consider what they might want to ask about this complex topic. Jane Gizbert,

Clinical research strategy takes shape

The new Science Budget allocation has given added momentum to work by the MRC and its partners to advance the clinical research agenda and speed the translation of research into improved healthcare.

The MRC *10-Year Vision* published in 2003 outlined a renewed commitment to clinical research. Since then, increased government investment and the creation of the UK Clinical Research Collaboration (UKCRC) and the MRC/Health Departments Joint Health Delivery Group (JHDG) – which we headlined in the Autumn/Winter 2004 issue – have given added impetus to our plans for this vital area of research. The UKCRC's partners, which include the MRC and other major UK clinical research stakeholders, have already begun to assemble the infrastructure and resources needed to enhance UK clinical research, and an overarching UK Clinical Research Network (UKCRN) has been set up to fund and coordinate research networks in specific disease areas. Meanwhile, the JHDG has been working on taking forward a delivery plan for publicly-funded health research.

Against this backdrop, the MRC's Council set up a Clinical Research Advisory Group (CRAG) in April 2004 to inform discussions on the MRC's role in the drive to boost UK clinical research and its position within the UKCRC. In February, the MRC's Council discussed initial proposals drawn up by CRAG with input from the MRC's research and training boards, Unit Directors and other groups involved in shaping MRC strategy. The final recommendations, which the Council will consider in March are likely to include:

CRAG membership

Prof Colin Blakemore
(Chair)
Dr David Armstrong
Prof John Bell
Prof Carol Dezateux
Prof Stephen Holgate
Prof Ann-Louise Kinmonth
Prof Andrew McMichael
Prof Alan North
Prof John Savill
Prof Paul Stewart
Prof Patrick Vallance
Prof Michael Wakelam

- Developing initiatives in clinical and translational research, experimental medicine and public health research, and extra funding for clinical trials.
- Increasing investment in clinical research training and research capacity.
- New clinical and translational research centres, and pursuing the idea of using "research translators" to drive forward the translation of research results into clinical practice.
- Stimulating research on vaccines and infections, and initiatives in global health.

The full details of the MRC clinical research strategy are to be published in its Delivery Plan in conjunction with the Office of Science and Technology's Science Budget allocations 2004/05 to 2007/08. Delivery Plans are a new performance management tool for the Research Councils

which will report how they will contribute to achieving the Government's objectives and how far they have been able to achieve short-, medium- and long-term targets. Taking UKCRC and JHDG agendas on board, the MRC's plan will explain how it will contribute to the Government's clinical research drive and implement its own vision and strategic priorities, to accelerate the pace at which MRC research helps to achieve national health and economic goals.

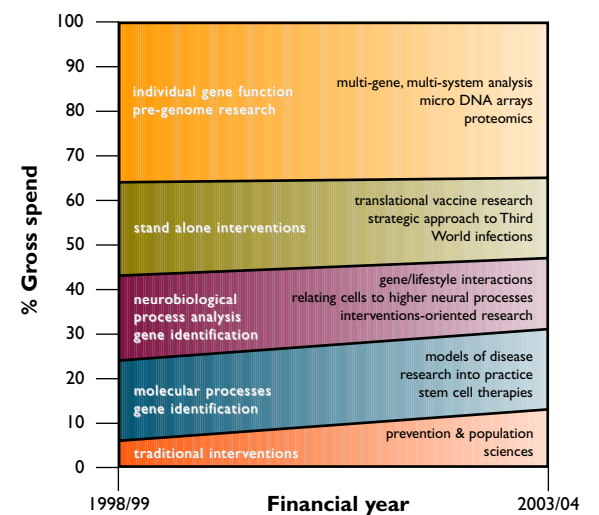
Strengthening clinical research

The MRC is well placed to play a leading part in the push to improve health. It has an outstanding tradition of public health research, strong research and training programmes in relevant areas of basic, translational and clinical research and good relationships with UKCRC and JHDG partners, the NHS and other key stakeholders. A shift in emphasis from basic science towards a more translational approach is already underway (see figure 1) and over the next decade we will build on these foundations as we focus more intensely on translating this knowledge into healthcare improvements. New money from the Spending Review 2004 (SR2004) Science Budget allocation announced in March will help to maintain the concerted effort to take forward the clinical research agenda. With around £90m extra over two years, the MRC will work with its UKCRC and JHDG partners to maximise the return on existing investments and get the best value from the new SR2004 money. We are going to deploy funds to kick-start clinical and public health research in 2005/06, and will spend an extra £62m a year on clinical research over the next three years.

"The resources we have been given will help us to take the clinical research agenda forward, focusing on translating understanding of the biological basis of disease into improved healthcare, products, prevention and services."

Colin Blakemore, MRC Chief Executive

Figure 1 –
Change in share of MRC spend: 1998/99 to 2003/04



- Genetics, molecules & development
- Infections & immunology
- Neuroscience & mental health
- Medical physiology & disease
- People, populations, health services research & public health

Analysis of MRC spending since 1998 shows that there has already been a fundamental shift in the type of research the MRC supports. Spending on research relating to people, populations and public health has risen significantly and clinical and public health research now amounts to some £127m – around a third of MRC funding.

MRC initiatives will encompass the full spectrum of clinical research, from work in laboratories and clinics to large-scale clinical trials, and will interface with our overall strategy including consolidating SR2002 programmes and new initiatives in other areas. Finding better treatments for patients is just one aspect of medical research. Improving public health is just as important and another major thrust will be research on social, behavioural and psychological influences on health, leading to new approaches to preventing illness and promoting wellbeing. In tailoring the MRC portfolio to meet these new priorities it will be important to balance progress on the clinical front with promoting the basic research that provides a wellspring of future improvements in healthcare and economic prosperity.

MRC to manage a major new prevention initiative

The MRC is managing a £12m multi-agency initiative to increase funding for research into disease prevention. Launched in October 2004, the National Prevention Research Initiative (NPRI) will initially focus on three major public health problems: cancer, diabetes and heart disease.

Despite the fact that preventable factors such as smoking, obesity, lack of exercise, overuse of alcohol and a poor diet are known significantly to increase people's risk of contracting many serious diseases, research into prevention receives only a fraction of the funding that is committed to research into treatment. The NPRI was brought together by the National Cancer Research Institute (NCRI) in response to its review of UK cancer research, which revealed that only two per cent of the funds disbursed by its member organisations were for prevention research.

The NPRI is funded and overseen by twelve organisations in the charitable and UK public sectors (see box). United by the aim of finding ways of helping people to adopt healthier lifestyles, the NPRI will fund research into measures designed to discourage smoking and alcohol misuse, and promote good diet and exercise. The Initiative closely mirrors government priorities set out in the Wanless Report (February 2004) and the November 2004 White Paper *Choosing Health*.

The MRC is managing the NPRI and administering awards on behalf of the funding partners. The response to the first NPRI call for applications was very encouraging. Around 250 outline proposals were submitted by the January 2005 deadline, and these are currently being considered by a dedicated NPRI scientific committee of national and international experts in disease prevention and lay members. The committee will meet in April to decide which applicants should be invited to submit full proposals.

For further details about the scheme visit www.mrc.ac.uk/funding-npri.

"It is clear we need to do more as a society to improve people's health. Having defeated many deadly infectious diseases, we now face the challenge of avoidable ill-health caused by poor diet, lack of exercise and smoking."

John Reid, Secretary of State for Health

NPRI membership*

British Heart Foundation
Cancer Research UK
Department of Health
Diabetes UK
Economic and Social Research Council
Food Standards Agency
Medical Research Council
Research and Development Office for the Northern Ireland
Health and Social Services
Chief Scientist Office, Scottish Executive Health Department
Welsh Assembly Government
World Cancer Research Fund

* The NPRI welcomes approaches from organisations that wish to join the consortium.

Historic summit strengthens MRC/Wellcome Trust ties

"There is much that the MRC and Wellcome Trust can do together to deliver shared goals. Continued partnership working is crucial to our success in healthcare research."

Colin Blakemore,
MRC Chief Executive

As the major public funders of UK biomedical research, the MRC and the Wellcome Trust share many common interests. High-level talks between the organisations' governing bodies on 3 December 2004 gave their members a chance to find out more about each others' work and plans for the future. The event was the first joint meeting of the MRC Council and the Wellcome Trust Board of Governors in modern times.

After hearing an introduction and strategic overviews from MRC Chief Executive Colin Blakemore and Wellcome Trust Director Mark Walport, the Governors, Council members and senior staff discussed recent national developments and future challenges and

opportunities in clinical research and training, public health research, and research ethics and regulation. The meeting was followed by a short reception in the new Wellcome Trust building at 215 Euston Road, London, which HM The Queen Elizabeth II had officially opened the previous day.



<< page 1

Head of MRC Corporate Communications, concluded the presentations with a summary of findings from a recent audit of stakeholders' perceptions of the MRC.

The day's programme was punctuated by question-and-answer sessions, with attendees' questions and comments submitted to the Council through a laptop computer network. Questions came thick and fast – more than 60 were logged in total. Many from scientists referred to grant award processes, while public queries included how the MRC prioritises its funding decisions, what plans it has to involve the public in research activities, and questions about research in specific disease areas.

Although many attendees had a scientific background, some had little or no knowledge of medical research and the MRC. The 'cabaret style' seating plan succeeded in bringing these differing perspectives together, stimulating many lively and illuminating discussions to complement the more formal Q & A sessions. The MRC's Chairman, Sir Anthony Cleaver, remarked, "Our first open meeting provided us with a very encouraging starting point. As a Council, we are committed to openness, transparency, and dialogue with our stakeholders. We will reflect on our experience in Manchester to ensure that our future public meetings are valuable for all those involved." For further information on the meeting, including a webcast of the event, visit www.mrc.ac.uk/public-open_meeting.

New faces

Welcome to Dr Irwin Nazareth, Professor Alastair Buchan and Mr Michael Brooks, who recently took up MRC posts.



Dr Irwin Nazareth has been appointed new Director of the MRC General Practice Research Framework (GPRF). Based at the MRC Centre in London, he will take forward an innovative plan to remodel this important national resource.

The GPRF is a network of more than 1,000 general practices throughout the UK that brings together researchers, GPs, nurses and patients to support large-scale studies including clinical trials, epidemiology and health services research. Dr Nazareth's chief concern is to modernise the GPRF to keep pace with rapid changes in the delivery of primary care and exciting

new clinical research opportunities. He will work with key stakeholders including researchers in the UK and abroad, public and patient groups and regional networks. Links with the UK Clinical Research Collaboration (UKCRC) and the Department of Health, which will be involved in developing a role for primary care within UKCRC, will be particularly important.

Dr Nazareth joins the GPRF from the chair of Primary Care and Population Sciences at the Royal Free and University College Medical School in London. He brings valuable experience of working with networks including the GPRF, the European General Practice Network and the North and Central London Consortium General Practice Research Network, and developing primary care research networks in India and Transkei, South Africa.



Professor Alastair Buchan has been awarded a Chair of Geratology at the University of Oxford through the MRC's strategic appointments scheme. Professor Buchan is an expert in stroke medicine and returns to the UK from the University of Calgary, Canada. He is one of the few clinical scientists in the field who have managed to develop basic and translational clinical research simultaneously. Professor Buchan runs an impressive programme of basic laboratory research into experimental models of stroke and its therapy, and is a world leader in the immediate assessment and management of stroke victims.

The strategic appointments scheme is intended to help internationally renowned scientists and clinicians based overseas to re-establish their programmes in the UK. Professor Buchan's appointment will greatly enhance Oxford's acclaimed strengths in stroke research and is an important recruitment for the UK as a whole.

Mr Michael Brooks has been appointed to the MRC's Council as a 'lay' member. He will join in April for a four-year term running until 31 March 2009. An experienced finance professional, Mr Brooks has a wealth of expertise gained during his career in the oil and gas industry, including 20 years in the Royal Dutch/Shell Group. Since leaving Shell, he has worked as a financial management consultant and interim manager, most recently as finance director of Trinity Energy Ltd, an exploration and production oil and gas company.

Recruits needed for home-based referee selection trial

Interested in working from home to help the MRC to select expert referees to peer review funding applications?

We are seeking recruits to a pilot scheme whereby successful candidates will be contracted to select reviewers for around 20 grant applications to one of the MRC's research boards: Health Services and Public Health, Infections and Immunity, Molecular and Cellular Medicine, Neurosciences and Mental Health, and Physiological Systems and Clinical Sciences.

Role requirements

A postgraduate qualification in a relevant scientific discipline and at least four years research experience. Knowledge of research management and the peer review process would be an advantage, as would a broad interest in biomedical research. The role also demands excellent written and verbal communication skills, a methodical approach and the ability to work both independently and as part of a team to meet deadlines.

Candidates need to be available to work throughout the referee selection period of April to August, to have broadband internet access and to be readily contactable through email and telephone.

How to apply

For informal enquiries contact Nathan Richardson nathan.richardson@headoffice.mrc.ac.uk, or to apply please send a full CV (including your daytime telephone number) and a covering letter explaining how you meet our criteria to hayley.manning@headoffice.mrc.ac.uk

The closing date for applications is **31 March**. Interviews will be conducted week beginning **4 April** and successful applicants will be trained for half a day during the following week.

Research Board and Panel recruitment 2005

During April and May we will be advertising for new members to serve from 1 April 2006 on the following Research Boards and Panels:

- Infections and Immunity Board
- Physiological Systems and Clinical Sciences Board
- Health Services and Public Health Research Board
- Molecular and Cellular Medicine Board
- Neurosciences and Mental Health Board
- Clinical and Non-clinical Training and Career Development Panels
- Special Training Fellowship in Health Services and Health of the Public Research Panel
- Bioinformatics Training and Career Development Panel
- New Investigator Awards Panel

Interested?

For further details, including a full list of vacancies and the application process, visit www.mrc.ac.uk or look out for our advertisement in *Research Fortnight*. The closing date for applications is **31 May 2005**.

Opportunities

The MRC offers support for talented individuals who want to develop research careers in the biomedical sciences, public health, and health services. We have a comprehensive range of personal award schemes each tailored to particular stages in clinical or non-clinical careers. For further details visit www.mrc.ac.uk

Board applications 2005

Infections and Immunity

Intention to apply	Full application	Board meeting*
18.3.05	15.4.05	5/6.10.05

Physiological Systems and Clinical Sciences

Intention to apply	Full application	Board meeting*
18.3.05	22.4.05	13/14.10.05

Neurosciences and Mental Health

Intention to apply	Full application	Board meeting*
18.3.05	6.5.05	19/20.10.05

Health Services and Public Health Research

Intention to apply	Full application	Board meeting*
18.3.05	20.5.05	16/17.11.05

Molecular and Cellular Medicine

Intention to apply	Full application	Board meeting*
18.3.05	13.5.05	10/11.11.05

* Normal decision point

Note: Start date for all awards is 1.4.06 or later

Trials Grant deadlines

We now have three deadlines a year for outlines/full applications. The 2005 deadlines for submission of proposals are **6 May**, **1 September** and **16 December**. For further information visit the Clinical Trials: Applications and Deadlines page – www.mrc.ac.uk/funding-trial_outline_application

Award closing dates 2005

Department of Health Clinician Scientist Award

Deadline	Interviews	Take up
13.5.05	31.10.05 & 1.11.05	tbc

Award schemes for early-career scientists to merge

At its February meeting, the MRC's Council approved plans to merge the MRC's Career Establishment Grant (CEG) and New Investigator Award (NIA) schemes.

The decision was prompted by the review of MRC support for early-career non-clinical scientists that we reported in the Autumn/Winter 2004 issue of *Network*, and which has since been completed. Proposed changes to existing forms of support were developed in response to feedback from questionnaires distributed to key stakeholder groups – including grant holders and higher education institutes (HEIs) – in a widespread consultation, and a workshop for grant holders held in November 2004 at the Barbican, London.

Canvassing opinion

More than 80 holders of CEGs, NIAs, Career Development Awards and Senior Non-clinical Fellowships attended the workshop, where they shared their thoughts about current MRC schemes and how funding should be structured in the future with members of the MRC's Training and Development Board and of the CEG/NIA award panel. There were lively discussions about how schemes should be targeted, the level and length of funding, commitment from HEIs and assessment of applications.

There was strong backing for continuing the MRC's existing fellowship schemes, with a focus on individual career development. The advantages that participants cited included prestige, customised training, protection from heavy teaching and administrative duties and the ability to spend time working abroad or in industry. There was also support for continuing a ring-fenced grants scheme for early career investigators, with assessment focused on their projects. These views, along with a number of suggested improvements, helped to shape the NIA/CEG merger. For a summary of questionnaire responses submitted as part of the consultation process, visit www.mrc.ac.uk/funding-nia_evaluation.

The new New Investigator Award

The merged CEG/NIA scheme will keep the New Investigator Award name, but with a number of changes to eligibility criteria and the support offered. The new scheme will support both clinical and non-clinical researchers as they begin to establish themselves as independent principal investigators. It is open to senior post docs or researchers at the start of their first academic appointment. The MRC has ear-marked funding in 2005 for at least 30 awards of up to £0.3m over a minimum of three years.

The deadline for application to the NIA Scheme is **27 May 2005**. Before submitting a full proposal, all potential applicants must submit an intention to apply by **29 April 2005**. For full details of the scheme, including the support offered and the eligibility criteria, visit www.mrc.ac.uk/funding-nia_2005.

Fellowships: the two fellowship schemes (Career Development Awards and Senior Non-Clinical Fellowships) will continue, but the Training and Career Development Board will review the details of the schemes in the light of the feedback from the consultation.

Deadline dates for submission of applications in 2005

For applications through the Research and Collaboration Grant schemes, applicants must complete an intention to apply before submitting a full proposal. Requirements and deadline dates for

intentions to apply can be found in the Application and Assessment Procedure pages for each scheme on the MRC website.

Full proposals must be

submitted by the deadline date for submission of applications for the appropriate Research Board (see above). Proposals are considered "submitted" when accepted by the MRC, **not**

when passed to your institution's administration authority. If you/your institution miss a deadline, your proposal will be considered at a later board meeting.

For full details of grant schemes and how to apply visit the current grant schemes pages of the website – www.mrc.ac.uk/funding-specific_schemes

Unit profile: the MRC Clinical Trials Unit

Modern medicine produces a stream of new approaches to healthcare. But no matter how promising these may seem for patients until they have been thoroughly tested. This is a global undertaking, and one to which the MRC Clinical Trials Unit is committed.

In 1948, Philip D'Arcy Hart, Director of the MRC Tuberculosis Research Unit, his deputy Marc Daniels and Austin Bradford-Hill, Director of the MRC Statistical Research Unit, published the results of an MRC trial assessing the effectiveness of a new tuberculosis treatment – the recently discovered antibiotic streptomycin. Their study was soon recognised as a milestone in trial design which set the standard for modern randomised controlled trials (RCTs). Under D'Arcy Hart and his successor Wallace Fox, the Unit branched into new areas, including lung cancer trials, and became the MRC Tuberculosis and Chest Diseases Unit (TCDU). After Fox retired in 1986, many TCDU staff joined the MRC HIV Trials Centre, and in 1991 the lung cancer team transferred to the MRC Cancer Trials Office in Cambridge, which had been

established in 1977 within the MRC Clinical Oncology and Radiotherapeutics Unit directed by Norman Bleehen. In 1998, the MRC integrated its cancer and HIV trials activities to create a new Clinical Trials Unit (CTU) in London, directed by Professor Janet Darbyshire.

The bulk of the CTU's work is designing, developing and running clinical trials to find better ways to prevent, diagnose, or treat major health problems, in particular cancer and HIV/AIDS. It also has a remit to expand into other areas that do not have a strong tradition of trials, for example arthritis, respiratory disease and blood transfusion. Increasingly, CTU trials are looking beyond whether a treatment is effective to see how it affects patients' quality of life. This is important where small improvements in survival come at the expense of unpleasant or toxic side effects, in end-of-life care and where quality of life is the only difference between treatments. In situations where trials are unethical or impractical, the CTU conducts observational and epidemiological studies to answer important clinical and public health questions. The Unit also evaluates worldwide data from other trials in systematic reviews and meta-analyses (see box). Assessing whether treatments are cost-effective is another important consideration, and the CTU collaborates in this area with the Centre for Health Economics at the University of York.

Team CTU

Teamwork is crucial to every aspect of the CTU's work. Its staff of over 100 includes epidemiologists, clinicians, public health specialists, statisticians and other scientists, health economists, trials and data managers, IT specialists and administrators. Furthermore, their success hinges on the cooperation of a wider external community: researchers, doctors and nurses, funding bodies, policymakers and most importantly patients and the public, without whom there could be no trials. The Unit is committed to patient involvement and participation in trials and has well-established relationships with cancer and HIV support networks. It also has close links with the MRC General Practice Research Framework, which is based at the same site.

While the Unit's core activities and many of its trials are MRC-funded, contributions to individual studies also come from the NHS, UK government departments, overseas governments, international agencies, charities, and the pharmaceutical industry. The Unit is becoming increasingly involved in collaborations with industry to develop new drugs in situations where, for example, very large trials are needed, or in uncommon diseases that are not viable commercial propositions. Industrial support, often in the form of free drugs, is also common in CTU trials of untried drug combinations or new uses for existing drugs. But most of the CTU's work is in areas of little or no interest to industry – for example, trials of generic drugs, surgery, radiotherapy and new technologies. All CTU trials retain scientific independence and are overseen by external data-monitoring committees.

Making progress against HIV/AIDS and cancer

The CTU has played an important role in advances in HIV/AIDS and cancer treatments, often through large collaborative studies with other organisations in the UK and abroad. Pivotal early trials showed that AIDS can be held at bay by using a cocktail of anti-viral



"Doctors and patients everywhere need reliable information to help them to decide on the best treatments. Our work is all about providing evidence that will prevent disease in healthy people and help patients to recover faster, live longer and enjoy life."

**Janet Darbyshire, Director,
MRC Clinical Trials Unit**

Trials terminology

Randomised controlled trials

Clinical trials establish whether or not new ways to prevent or treat health problems are safe and effective, usually by comparing them to the current standard approach. The best way to make these comparisons is through randomised controlled trials (RCTs). In an RCT, neither the people joining the trial nor the doctors know in advance which treatment participants will get, as this is decided by a process that involves the play of chance – randomisation. Assigning treatment in this way ensures a good mix of patients and that the groups have broadly similar characteristics. Consequently, the researchers can be more confident that any differences the trial finds are due to the treatment patients received, rather than intrinsic differences between patient groups.

New treatments must pass a rigorous series of tests before they can be licensed for use in patients – fewer than one in 10 ever reaches the healthcare system.

- Phase I – tests safety and side effects in small numbers of healthy volunteers.
- Phase II – tests safety and activity in larger numbers of people, usually patients.
- Phase III – compares new treatment versus standard treatment or, where none exists, with no treatment – commonly an inert placebo. Phase III trials often run for several years, enabling reliable assessment of both short- and long-term risks and benefits. Many involve thousands of patients, and they are increasingly carried out on an international basis.

Systematic review and meta-analysis

In systematic reviews, researchers identify, collate and if possible analyse information from all relevant trials of a particular treatment to get a better overall assessment of how well it works. This comprehensive assessment allows them to take into account both positive and negative results and draw objective conclusions based on all the available evidence. By pooling and analysing numerical data, they are able to examine the overall experiences of patients from many trials. This increases reliability and can reveal subtle effects that individual trials may have been too small to detect.

n, no one can be sure of the risks and benefits
 trials Unit makes a significant contribution.

drugs, and helped to refine multi-drug anti-retroviral therapy (ART). Later CTU studies showed that the advent of ART had dramatically reduced death rates in Europe, Australia and Canada, and halved the rate of progression to full-blown AIDS in UK children. However, most HIV-infected people live in societies that lack the resources and infrastructure to make ART widely available, which is why trials are under way in a number of poorer African countries including Uganda and Zimbabwe to explore ways of making ART more accessible to the patients who live there.

AIDS prevention is a rapidly expanding area of the Unit's work. A recent trial in Zambia showed that a cheap and widely available antibiotic wards off fatal infections in children with HIV-weakened immune systems, cutting AIDS-related deaths by nearly half. As a result, the World Health Organisation and UNICEF are updating their advice on effective medicines for children with HIV. The CTU is also actively involved in work to develop vaginal microbicide agents incorporated into products such as gels, foams, suppositories and sponges for use by women before intercourse to prevent the spread of HIV and other sexually transmitted diseases. Together with Imperial College London, the Unit is leading the Microbicide Development Programme, a partnership of UK and African academic institutions, non-governmental organisations and commercial partners.

Focusing on the most devastating cancers, CTU trials have demonstrated treatment benefits in operable oesophageal cancer, locally advanced bladder cancer and non-small cell lung cancer, and kidney cancer. Recently, data from a CTU trial of platinum-containing chemotherapy given immediately after surgery to women with early ovarian cancer showed that patients' chances of living another five years rose from 70 to 79 per cent. In parallel, international collaborations involving the collection and meta-analysis of data from thousands of patients have confirmed that chemotherapy improves survival in non-small cell lung cancer, invasive bladder cancer and high-grade glioma, and demonstrated harm from radiotherapy following lung cancer surgery in some patients.

Clinical Research Networks

Recent developments have placed the CTU at the heart of UK clinical research. In 2001, the Department of Health (DoH) selected a consortium involving the CTU and researchers at Leeds and York universities to coordinate the new National Cancer Research Network (NCRN), a major initiative to improve the speed, quality and integration of research, with the ultimate aim of improving



Community meeting, Masaka, Uganda: Microbicide Development Programme workers tell local people about the research and how they can take part.

patient care. Patient enrolment to cancer trials has already doubled. Building on the NCRN model, in 2004 the DoH set up the UK Clinical Research Network (UKCRN) to strengthen infrastructure and coordinate trials in other diseases as part of the new UK Clinical Research Collaboration (UKCRC). It will encompass existing cancer and mental health networks, and new ones in stroke, diabetes, Alzheimer's and medicines for children, with others to follow. The CTU is a partner in the consortium selected in January 2005 to coordinate the UKCRN, and Professors Janet Darbyshire and Peter Selby (originally Director of the NCRN) are its co-directors. As Professor Darbyshire told *Network*: "The UKCRC is the most important development in UK clinical research in recent years. I am delighted to be so closely involved, and that the CTU will play such a prominent role."

MRC Clinical Trials Unit Groups

HIV/AIDS

Professor Abdel Babiker / Professor Andrew Nunn

The HIV Group coordinates clinical trials and other studies in adults and children, both in the UK and in developed and developing countries abroad. These include European trials in children, and a pan-European observational study of the natural history of HIV infection. Although the group initially focused on testing new regimes using existing drugs to optimise treatment, it is increasingly looking at ways to prevent transmission, such as vaccines and microbicides.

Cancer

Professor Mahesh Parmar

The Cancer Group coordinates a significant proportion of UK cancer RCTs. It designs, runs and analyses national and international trials covering many solid tumour types, with the aim of reducing recurrence and toxicity and improving survival and quality of life. The group also works to advance clinical trials and meta-analysis methodology. It is developing ways to substantially accelerate progress by assessing several new therapies simultaneously in large internationally-coordinated, multi-arm, multi-stage trials.

Other diseases

Professor Andrew Nunn

A separate group conducts trials in disease areas where research is urgently needed, but where an infrastructure or a tradition of trials is lacking. UK collaborations include: Arthritis Research Campaign trials in arthritis and rheumatism; British Thoracic Society trials in respiratory disease; and developing trials in transfusion medicine with the National Blood Service. The group recently completed a trial of cannabis extract to treat multiple sclerosis in collaboration with Dr John Zajicek in Plymouth.

Meta analysis

Dr Lesley Stewart

The Meta-analysis Group generates evidence on important healthcare questions to provide reliable and up-to-date summaries of the effectiveness of particular interventions and guide clinical practice and future research. To do this, it sets up and leads international collaborations to collate and re-analyse individual patient data from relevant RCTs. The group is also responsible for other types of systematic review and related methodological research.

Find out more online
www.ctu.mrc.ac.uk

Research roundup

Breast cancer progress

MRC and Cancer Research UK scientists have made important progress towards understanding the function of BRCA2 – a gene implicated in up to half of all hereditary breast cancers. Its role in repairing DNA damage is well known, but researchers have been trying to find out how BRCA2 gene defects make people more susceptible to breast cancer, and to cancers of the ovary, pancreas and prostate. Research led by Professor Ashok Venkitaraman at the MRC Cancer Cell Unit, Cambridge, shows that BRCA2 is essential to the correct partitioning of chromosome pairs between daughter cells during the crucial final stage of cell division. BRCA2 malfunction causes cells to divide inaccurately and acquire the wrong number of chromosomes. This can disrupt the finely tuned checks and balances that prevent runaway cell division leading to cancer. "Our research shows that BRCA2 links cell division with proper chromosome separation," said Professor Venkitaraman, "Cancer cells frequently gain or lose chromosomes, and we've now found one way this could happen."

Science **306**: 876-879

Random attacks?

Heart attacks and strokes do not always strike out of the blue. Research funded by the British Heart Foundation, the Wellcome Trust and the MRC is the first to show that many occur shortly after a respiratory infection. In the largest study yet into a suspected link between infection-induced inflammation and cardiovascular disease, scientists led by Dr Liam Smeeth of the London School of Hygiene and Tropical Medicine examined medical records from more than 40,000 first-time stroke or heart attack victims. They found that during the week after contracting flu, pneumonia or bronchitis, patients' risk of having a stroke triples and they are five times more likely to suffer a heart attack. This post-infection danger period is short-lived, with the chances of having a stroke or heart attack falling back to normal over the next few weeks. The researchers also checked for heightened risk of cardiovascular events following vaccinations against flu and pneumonia, which cause less severe inflammation, but found no sign of this. Dr Smeeth said: "Our findings confirm the safety of these vaccines and strongly reinforce the message that people at risk should be vaccinated against flu."

NEJM **351**: 2611-2618

Bone disease linked to babies' nutrition

Research on osteoporosis at the MRC Epidemiology Resource Centre, Southampton, has graphically illustrated how health depends on the interplay between genetic and environmental influences. The work was led by Professor Cyrus Cooper, and centred on studies of the growth hormone GHI gene in 300 Hertfordshire men and women in their 70s and 80s. Aware that GHI is required for bone development and growth, his team compared the participants' GHI genes, growth hormone levels and bone densities. They also looked at detailed medical histories. They discovered that people with a common GHI gene variant have low growth hormone levels, weaker bones and faster bone loss. Importantly, the chances that these people would suffer from

osteoporosis were greater if they had been underweight as one year-olds. This suggests that poor growth in early life, for example due to lack of nourishment before birth or in infancy, affects growth hormone production and exacerbates the inherited predisposition to osteoporosis. Professor Cooper said: "Our findings suggest that the impact of an adverse genetic make-up might be minimised by improving the environment in the womb. Our challenge is to find out what diet and lifestyle habits mothers should adopt to reduce their children's chances of developing brittle bones."

J Clin Endocrinol Metab **89**: 4898-4903

Cold comfort

A study of winter deaths among the elderly suggests that poverty is not to blame. The death rate in Britain soars during winter, particularly among the elderly. This is largely due to cold weather, but there is uncertainty about how people's circumstances can make them more susceptible. To investigate, researchers led Dr Paul Wilkinson of the London School of Hygiene and Tropical Medicine looked at over 10,000 deaths in people aged 75 years or above. They focused on aspects of life thought to affect vulnerability to the cold such as social and economic deprivation, previous health, gender and home heating. The study revealed a 30 per cent increase in winter deaths in this age group, but surprisingly it found no evidence that this was linked to deprivation. In fact, the risk of winter death appears to be evenly distributed among the elderly, rather than being higher in disadvantaged groups. "Our findings have implications for current policies to address fuel poverty," said Dr Wilkinson, "They suggest that targeted relief alone may not reach all of those at risk, and that additional public health measures are needed to reduce Britain's burden of excess winter deaths."

BMJ **329**: 647-650

Stress causes asthma attacks in children

Children with asthma are more than four times as likely to have an attack immediately after a stressful experience, shows research by Dr Seija Sandberg of University College London. Having found that asthmatic children's chances of having an attack are greater in the weeks following a stressful event, Dr Sandberg set out to pinpoint the timing of stress-related attacks. In her study, 60 children aged six-13 who had been asthmatic for at least three years kept diaries recording asthma symptoms and "peak flow" measurements of breath strength. The children and their parents were interviewed regularly to find out about stressful events such as house moves, relationship problems, births, deaths and illnesses. The 18-month study showed that the children were nearly five times more likely to have an asthma attack within 48 hours of a stressful event. Intriguingly, Dr Sandberg also noticed that around six weeks after recovering from the first bout of asthma, children's risk of an attack doubled. "The immediate and delayed effects are probably due to different physiological processes," explained Dr Sandberg, "We know that stress induces long-term and short-term effects in animals and this may be the first evidence for a similar response in humans."

Thorax **59**: 1046-1051

New perspectives on prematurity

A pioneering marriage of imaging and computing is giving MRC scientists new insights into the health problems of premature babies and ways to solve them...

Medical advances are saving the lives of more and more premature babies who otherwise would not have survived. However, being born too early can cause a baby serious health problems. A premature baby's delicate brain is particularly susceptible to damage that can disrupt mental development and lead to impaired function in later life. For example, those born weighing less than around 1.5kg are up to 30 times more likely than full-term babies to develop cerebral palsy, caused by damage to brain regions that control movement. Scientists and doctors at the MRC Clinical Sciences Centre (CSC) and Imperial College London have joined forces to understand brain development in premature babies and find new ways to improve the prospects for these vulnerable infants. Led by David Edwards, Jo Hajnal, Mary Rutherford, Serena Counsell and Frances Cowan, and based at Hammersmith Hospital, the Neonatal Imaging Group offers a rare combination of expertise in imaging science, basic physics, and clinical paediatrics.

Magnetic resonance imaging (MRI)

MRI is an immensely flexible and powerful tool that has revolutionised biology and medicine by opening windows on the living brain and body. MRI scanners detect the effects of powerful magnetic fields on molecules inside the body to produce exquisitely detailed anatomical images. Non-invasive and harmless, MRI is routinely used to diagnose disease and monitor treatment.

Baby pictures

Magnetic resonance imaging (MRI) is central to much of the group's work. They have spearheaded advances in neonatal MRI, developing and installing the world's first MRI system designed specifically for premature babies in 1997. With the practical needs of their small and vulnerable subjects foremost in all their work, they sited the custom-built system within the hospital's neonatal intensive care unit, so that they could study even the smallest and sickest

newborns safely. "Having a baby in intensive care is a hugely stressful experience," senior radiographer Serena Counsell told *Network*, "We are immensely grateful for the trust of parents who allow their babies to join the programme. MRI has the great advantage of being non-invasive, and I think the parents appreciate this. And it's always nice when we can show a worried mother her baby's normal brain scan."

The brain images that the Neonatal Imaging Group have amassed, including unique images from extremely premature babies, have provided new insights into the underlying problems that these infants experience. Their research has revealed that many of the infants born before 30 weeks gestation show evidence of brain injury related to inflammation in the womb, and that many more have evidence of damage or abnormal development in diverse regions of the brain. The group's success has helped them

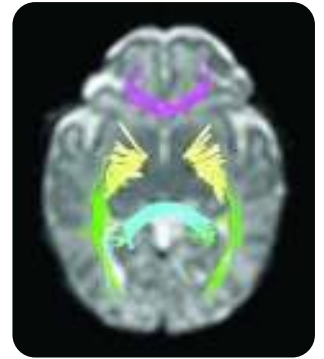
to secure funding for a powerful new MRI scanner in 2005. The upgraded facility will provide state-of-the-art capabilities, and will produce images of greatly superior quality and scientific richness.

Pushing the envelope

Recent advances in computer analysis and hardware are opening up new research areas for the group by enabling them to extract valuable and previously inaccessible data from their images. Comparing similarities and differences between groups of images can reveal differences in brain structure, and a wealth of other medical information. This has already been done in adults, but is extremely difficult in newborns because large changes due to their rapid brain growth can obscure underlying anomalies. Working with Daniel Rueckert, a computer scientist from Imperial College, the team has developed a software-based approach called deformation-based morphometry, which allows images from groups of subjects to be analysed together to reveal subtle differences between babies' brains. This combination of cutting-edge imaging, computing and clinical medicine is redefining the nature of the problems suffered by preterm babies and providing important new leads to understanding why they are prone to cerebral palsy and how this could be prevented.

Cool babies

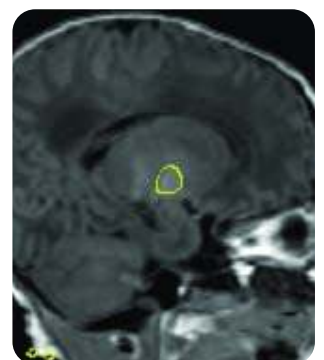
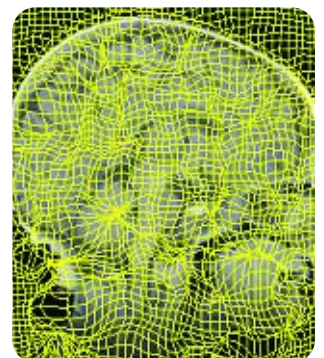
The group eagerly exploit emerging new MRI capabilities to extend the scope of their research, and have used the latest applications to measure brain and heart function in preterm infants, detect tissue abnormalities and make discoveries about lung disease and inflammatory bowel problems. They are also helping to find ways to reduce brain damage in babies starved of oxygen during birth – a devastating problem that can lead to cerebral palsy and death. Together with colleagues in other UK universities and overseas, they are testing the theory that simply reducing a baby's temperature might have a protective effect. Encouraging early trials published this January in *The Lancet* indicate that cooling babies by a couple of degrees can reduce the adverse consequences of a traumatic birth. The MRC is funding a further large trial to confirm the findings. "These studies highlight how multi-disciplinary research and inter-institutional collaboration can apply basic science to make a real difference for babies' lives," said David Edwards, "and the simplicity of the treatment is a bonus, making it potentially valuable in poor countries. This sort of research is what I feel we should be doing – harnessing the talents of scientists and clinicians to benefit babies anywhere in the world who have the misfortune to become ill and damaged even before they are born."



Brain images showing developing white matter tracts allow researchers to observe the effects of prematurity.

"Our research on brain development in preterm babies highlights the value of a truly multi-disciplinary approach to translating research into medicine."

Chris Higgins, Director, Clinical Sciences Centre



Computer analysis of brain images (top) can reveal unexpected abnormalities such as those outlined (bottom).

Find out more online

For further information about the CSC Neonatal Imaging Group, visit the Research Groups page at: www.csc.mrc.ac.uk

Sustained investment in global health

With global health high on the political agenda in 2005, MRC investment in research relevant to the developing world is reaping rewards and helping to shape international policy...

Infections such as HIV, tuberculosis and malaria affect millions of people worldwide, particularly in developing countries where they cause untold human misery and loss of quality life. There is increasing international awareness of the need for action to alleviate this suffering. In the UK alone, Gordon Brown's recent visit to Africa, Tony Blair's Commission for Africa and UK priorities for the presidency of G8 and the EU all reflect the concern that is felt about this global health challenge.

The MRC has a key part to play in work towards a solution. Ever since it first supported "tropical medicine" in the 1920s, it has remained at the forefront of progress to improve health in poorer nations. Our achievements in global health research are highly regarded by the research community, non-governmental organisations (NGOs) and policymakers alike, and have influenced national and international healthcare policy and practice around the world (see box on page 11). Today, we invest around £25m a year to support long-term programmes of basic and applied research at MRC Units in Uganda and The Gambia, and complementary studies in the UK.

Out of Africa

The MRC Laboratories in The Gambia have been a key centre for tropical medicine research for over half a century. Spread over five sites in The Gambia and a sixth in Guinea Bissau, the facilities for laboratory, field and clinical work run alongside a clinical service that treats around 60,000 people every year and supports the national health infrastructure. The MRC Uganda AIDS Research Unit was set up in 1998 by the UK and Ugandan governments to support the HIV/AIDS research programme of the Uganda Virus Research Institute. Research at the two Units encompasses genetics, virology and immunology, epidemiology and public health, clinical research and trials and social and behavioural studies. It has made invaluable contributions to improving health and saving lives in the developing world – most notably in sub-Saharan Africa in relation to malaria, HIV/AIDS, vaccination, and maternal and infant health.

Such success hinges on sustained in-country MRC commitment allied to close partnership with government agencies, research organisations and other NGOs, healthcare providers and local communities. All of which ensures that MRC research programmes are in step with regional, national and global priorities, that governments and communities facilitate and participate in research, and that scientific talent from the north is attracted to the field.

For example, the MRC programme on AIDS in Uganda involves the Ministry of Health, The AIDS Support Organisation – an NGO acclaimed for its pioneering support for HIV patients and their families, and other research institutions, local and foreign. The research has provided important insights into the natural history of HIV, how it spreads, what makes people vulnerable to infection and its links with sexually transmitted infections,



Colin Blakemore meets Gambian villagers involved in MRC malaria research.

The MRC's global health goals

- Understanding how infections and nutrition affect people and populations.
- Progress in prevention, diagnosis and treatment.
- Innovating public health approaches to achieve and protect health.
- Assessing how well new and existing health interventions work.
- Close collaboration with partners to translate research into policy and practice, and to share research agendas.
- MRC-funded research meets recognised standards of safety and ethics, scientific quality, relevance and value for money.
- Generating research capacity in partner countries.



The Uganda Virus Research Institute (right) and MRC Uganda Research Unit on AIDS (centre).

tuberculosis and other health problems. In Uganda and elsewhere, the findings have informed locally relevant, society-wide and effectively targeted disease-control and public health policies, reproductive health services and health-education measures.

Foreign exchange

As part of a year of global health activities, Dr Heiner Grosskurth, Director of the Uganda Unit, attended the December meeting of the MRC's Council, where he highlighted the urgent need for research to speed up the introduction of anti-retroviral therapy in Uganda. And in October, MRC Chief Executive Colin Blakemore visited The Gambia, where he received a warm welcome from communities participating in MRC field studies that he visited. "This was a wonderful opportunity to see our research in The Gambia at first hand and to thank the people and government personally for supporting our work," he told *Network*, "It also gave me the chance to talk about the global health challenges we face. I'm very much looking forward to making a similar visit to our Unit in Uganda later this year."

WHO's listening

The MRC's research overseas has influenced the policies of the World Health Organisation (WHO), UNICEF and other international agencies.

- Pioneering trials in The Gambia, showed that vaccinating children against *Haemophilus influenzae* type B (Hib) gives almost complete protection from diseases that kill millions of young people every year in developing countries, and that insecticide-treated bed nets protect children from life-threatening malaria. The WHO now recommends that the Hib vaccine should be included in routine infant immunisation programmes, and bed nets are integral to many national malaria control strategies and the WHO Malaria Intervention for Child Survival programme.
- WHO and UNICEF updated their advice on medicines for children following trials of the antibiotic cotrimoxazole in Zambia which nearly halved child AIDS deaths. In earlier trials in Uganda the drug slashed the adult death rate and it is now in routine use there. Other trials in Uganda have shown that anti-retroviral therapy could further reduce AIDS deaths in Africa.
- Eradicating trachoma by 2020 is a WHO priority. The bacterial infection causes 10-15 per cent of blindness worldwide and is especially common in poor regions of Africa and Asia. An MRC trial in Tanzania showed that a single dose of the antibiotic azithromycin checked the spread of trachoma among villagers for at least two years, and a project in The Gambia is improving sanitation to reduce the numbers of the flies that carry the disease.
- Diet and nutrition research in The Gambia showed that giving dietary supplements to pregnant women can help to reduce stillbirths and infant death. Other studies led to WHO advice that nursing mothers should breastfeed for at least six months, and showed that vitamin A supplements cut child deaths by a fifth, prompting UNICEF to recommend supplementation and many countries to adopt this health policy.

Events diary

Edinburgh International Science Festival

Scientists from the MRC Human Reproductive Sciences Unit (HRSU) are teaming up with the SCI-FUN Scottish Science & Technology Roadshow to showcase their work at the Edinburgh Science Festival this April. They have combined their own research interests with SCI-FUN's experience of bringing science to life for schoolchildren, to create *SCI-FUN and the Battle of the Sexes!* – an entertaining and informative series of shows and hands-on exhibits exploring gender differences and HRSU research.



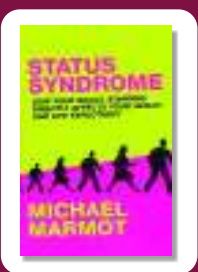
SCI-FUN Director Dorothy McMurrich (left) and HRSU PhD student Donna Dalgetty, with Professor Robert Millar.

The SCI-FUN team will run and organise the event with support from HRSU students and staff, and sponsorship from the MRC and HRSU spin-out company Ardana Biosciences. HRSU Director Professor Robert Millar welcomes the opportunity to share his Unit's work with the public. "I am especially keen to encourage our young researchers to make their science accessible to the wider community," he told *Network*, "Our involvement with SCI-FUN will help us to raise public awareness of science, and improve our scientists' communication skills."

SCI-Fun and the Battle of the Sexes! takes place from 2-10 April in the Hawthornden Court of the Royal Museum of Scotland, Chambers Street, Edinburgh. Admission is free.

More details about the Festival and SCI-FUN are available from www.sciencefestival.co.uk and www.scifun.ed.ac.uk. If you would like to find out more about the event, or if you are an MRC student or scientist and would like to get involved, please contact Donna Dalgetty – D.Dalgetty@hrsu.mrc.ac.uk.

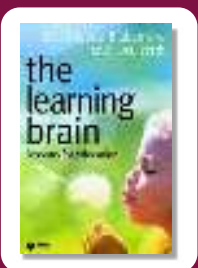
Infowatch



Status Syndrome: how your social standing directly affects your health and life expectancy

Professor Sir Michael Marmot's research into how people's social circumstances influence their health spans more than 30 years. His stark conclusion is that in societies all over the world, however wealthy or poor, people who lack control over their lives and opportunities for social engagement are more likely to become ill and die young. This eye-opening book exposes the causes and sets the agenda for shaping society to enable people to lead more fulfilling lives.

Michael Marmot, Bloomsbury, £12.99, ISBN 0 7475 7049 3



The Learning Brain: lessons for education

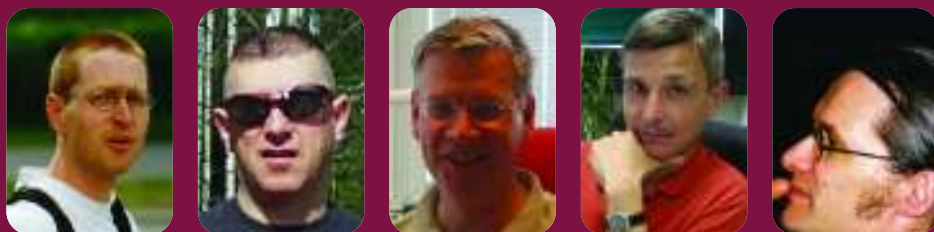
How does the brain learn? How does learning change throughout life? And what goes wrong in developmental disorders such as dyslexia and autism? These are just a few of the fascinating topics covered by two leading experts in this highly accessible exploration of the links between brain science and education. Exposing common myths, explaining recent findings and drawing out the implications for education at all ages, this book will appeal to a broad readership from nursery teachers to neuroscientists.

Sarah-Jayne Blakemore and Uta Frith, Blackwell, £50.00 hardback ISBN 1 4051 0622 0, £16.99 paperback ISBN 1 4051 2401 6

Blackwell Publishing is offering a 20 per cent discount on orders placed through its website before 31 May 2005.

Visit www.blackwellpublishing.com/1405124016 and enter the code BRAIN05 into the discount code box on the shopping cart webpage.

MRC people



Dr Ian Holt (pictured left) of the MRC Dunn Human Nutrition Unit in Cambridge is one of a group of collaborating scientists to win a €0.7m share of the 2004 Descartes Prize. The annual prize is awarded by the European Union to recognise and reward outstanding cross-border cooperation in pioneering research. Dr Holt and his co-winners (from left) – Professor Howy Jacobs (Finland), Professor Nils-Göran Larsson (Sweden), Dr Massimo Zeviani (Italy) and Dr Pierre Rustin (France), work together on the pan-European "Mitochondrial Biogenesis, Ageing and Disease" project. Their research focuses on mitochondria – the sub-cellular 'batteries' that power life – and in particular on mitochondrial genes. They have discovered that defects in mitochondrial genes and the systems that maintain them lie behind a growing list of human diseases, especially in energy-hungry tissues such as the brain, heart, muscles, eyes and ears. These include neurodegenerative diseases, diabetes, heart failure and deafness. Revealing the mitochondrial secrets of degenerative disease is the first step towards developing therapies, and Dr Rustin is already conducting the first drug trials aimed at combating mitochondrial disease.



The American Society of Hematology has awarded its Ham-Wasserman prize for 2004 to **Professor Doug Higgs**, Director of the MRC Molecular Haematology Unit, Oxford. The prize honours scientists from outside the US who have made a major contribution to the field of haematology – Professor Higgs' award being for his innovative research into gene regulation in blood cell formation. He began his research career in 1977 as an MRC Training Fellow, studying the blood disorder alpha thalassaemia. The research that he led was the first to show

that it is one of the most common human genetic disorders, and went on to uncover the detailed molecular genetics of the condition. It has provided one of the most comprehensively studied and best understood models of gene regulation in mammals, and translated into important practical improvements in the management of patients with thalassaemia. Professor Higgs told *Network*: "This is the most prestigious international prize in haematology and there have only been two previous UK winners. It's a great honour, recognising the work of the MRC Molecular Haematology Unit and the Department of Haematology in Oxford."



Professor Alan Hall, director of the MRC's Laboratory for Molecular Cell Biology and Cell Biology Unit, University College London, is one of the winners of the 2005 Louis-Jeantet Foundation Prize for Medicine. The prize is awarded to outstanding biomedical researchers in Europe, who receive funding to carry out new research and a personal prize. Professor Hall receives the award for pioneering work on the regulation of the protein skeleton of cells that is required for cell adhesion, orientation and movement. His discovery of

molecules that control both cell-cell adhesion and cell migration is important for understanding how cancer cells spread. Professor Hall said, "I am delighted to be awarded the Louis-Jeantet Prize. I intend to use it to further characterise the mechanisms involved in the regulation of cytoskeleton dynamics during tumour cell migration." The award ceremony takes place in Geneva on 22 April 2005.

Sir Michael Marmot, Professor of Epidemiology and Public Health at University College London (UCL), has won one of the four Balzan Foundation Prizes awarded each year for outstanding work in science and the humanities. The award recognises Professor Marmot's seminal contributions to epidemiology. For 30 years, his acclaimed "Whitehall" studies have monitored thousands of British civil servants to examine how people's long-term health is affected by their social standing. The work has revealed that people lower in the pecking order are more likely to suffer poor health and reduced life expectancy. Sir Michael told *Network*:



"My research has been an enjoyable and rewarding life-long task. It aims to lay the basis for action to reduce health inequalities in society and I hope that it will contribute to bringing us closer to achieving that goal. It's a great honour to receive this prize which celebrates the cultural importance of scholarship and learning." As half of the 1m Swiss franc prize must be used for research, preferably among younger scholars, he is making a sizable donation to support a range of initiatives for young researchers within UCL's new International Institute of Health, Well-being and Society.

Your feedback please

MRC Network is for anyone who has an interest in the work of the MRC, including scientists, doctors and health professionals involved in medical research, government departments and parliamentarians, and university staff and students. The aim is to provide a quick, easy-to-read summary of activities across the MRC, from research news through to funding, grant schemes and policy issues, with pointers to more in-depth information on websites and in other publications.

We hope you find *Network* interesting and informative, and are very keen to receive feedback from our readers. If you have any comments, including suggestions for new features that you would find useful, please let us know. Just email: newsletter@headoffice.mrc.ac.uk

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Medical Research Council
20 Park Crescent
London W1B 1AL
Tel: 020 7636 5422
Fax: 020 7436 6179