Once again a General Election provides an opportunity to debate the challenges and opportunities presented by recent biomedical and technological advances and our constantly expanding knowledge base in the medical sciences. Research from the human genome has the power to redefine fundamental concepts of medicine, health and preventive care. How is this to be achieved? In this pre-election issue of the Academy newsletter we have invited the leading health spokesmen from the three main political parties to set out their priorities for medical science and healthcare.

Fellows will be heartened to see the extent to which our busy agenda of recent years is reflected in each of the contributions. The Academy will continue to keep medical science at the forefront of debate. We believe passionately in the contribution scientists can make to the health and wealth of this country and the wider world. Moreover, the breadth of our Fellowship, and their wide experience, give us the ability to focus on the practical issues and offer rigorous independent advice.

The role of the Academy with Government and policymakers is several fold. Firstly, to create an awareness of the challenges which politicians need to address (reports of recent Academy work on policy issues are covered in the news round-up on page 5). Secondly, through our wide ranging and highly active Fellows, to be committed partners in delivering progress in every part of the UK’s medical research community. Thirdly, to take an informed long-term view that stretches beyond electoral horizons.
The Department of Health invests over £600 million per annum in medical research. The Government also invests over £400 million per annum through the Medical Research Council. This is only part of a much larger Government expenditure of £9 billion on research and development. Medical research is vital in developing new ways of treating and caring for patients and it underpins the Government’s objectives for health services, public health and social care.

Of the £600 million invested by the Department of Health, a large proportion is dedicated to providing the NHS costs of supporting research funded by other bodies such as the Research Councils and charities. Without the support of NHS facilities and staff, many of these projects could not take place. The Department also funds clinical research directly through the NHS Research & Development Programmes. And of course research is also needed to inform health policy, and this is co-ordinated and funded through the Policy Research Programme.

Over the next five years, the Department of Health will address a number of key priorities for science and innovation. They include increasing the capacity, infrastructure and funding of clinical research. These increases are vital to help the proper translation of scientific advances into patient care. Genetic technologies have also been highlighted and five new Genetic Knowledge Parks have now been set up across the UK. Other promising technologies such as stem cell research, that has the potential to lead to treatment for serious fatal diseases, are encouraged in the UK. Substantial funding and a structured regulatory system has helped make the UK an international hub for stem cell research.

The health service is already making great progress on treating illness, and we want to do the same on improving people’s health. We are currently commissioning public health research to help identify and implement cost-effective approaches to improving population health, disease prevention and reducing health inequalities. Work is also underway to ensure patients benefit more quickly from new healthcare products, by implementing the recommendations of the Healthcare Industries Task Force. Finally, we intend to ensure R&D funding gets to the right place and is not absorbed into other NHS funding streams, by establishing a transparent, sustainable, activity-based funding system where funding follows R&D activity.

The Government’s investment in medical research is underpinning the UK Clinical Research Collaboration activity to reshape the environment in which clinical research is conducted. Our aim is for even more effective and efficient translation of scientific advances into patient care.

For instance, new clinical research networks are being set-up and funded, and these networks will help increase the number of patients involved in clinical trials in important disease areas. This will increase our knowledge of disease and lead to better and quicker development of new ways of caring patients. The Mental Health clinical research network is already up and running, and the Medicines for Children, and Diabetes coordinating centres have been set-up and will be established in the near future. Networks for stroke and dementia are our next priority and these will follow soon.

Our other targets mean we are working to enhance the national capacity for experimental medicine, develop incentives for conducting research within the NHS, build up the research workforce and hence its knowledge base, and streamline R&D regulatory and governance processes.

The Government recognises the invaluable contribution that clinical academic staff make to research, teaching and patient care. We want to secure a strong academic base in medical and healthcare research to allow continuation of the unprecedented expansion of medical and dental education and to strengthen clinical research.

The Department of Health is addressing these issues relating to clinical academics through two current work streams. The first involves the Modernising Medical Careers and the UK Clinical Research Collaboration (UKCRC). They have created the Academic Careers Sub-Committee which has a clear goal of improving academic careers.

Secondly, The StLaR (Strategic Learning and Research Advisory Group for Health and Social Care) has been working on a Human Resources Plan Project for the workforce to support learning and research across health and social care. The project will develop a future vision for this workforce and set out an agreed HR Plan to help achieve it.

Medical research is vital in supporting the health of the UK population. The Department of Health is dedicated to providing the best possible environment for research to take place. We are speeding up the translation of research from laboratory to the clinic, supporting new research programmes, prioritising new technologies and ensuring a strong academic base in medical and healthcare research.
‘Clinical research in the UK needs more than freedom from unnecessary interference to succeed.’

The UK is a world leader in clinical research, with an international reputation for excellence. Over the last thirty years, however, the infrastructure on which this reputation has been founded has been undermined. The great leaps forward in molecular and cellular biology have not been consistently translated into improvements that directly benefit patients or prevent disease. Clinical research has not been able to keep pace with scientific progress.

The reasons for this erosion are manifold. Worldwide, the revolution in molecular medicine has attracted the brightest scientists and discouraged them from a career in applied clinical research. Other reasons are, however, specific to the UK. There is a distinct lack of training opportunities and a poorly-defined career structure for those individuals who wish to undertake careers as clinical investigators. The lifetime financial rewards of a career in clinical academia are not as great as the rewards available elsewhere. There is a lack of funding for medical research.

In the last few years changes to the professional environment in which our health services operate have underlined the need for an appropriate infrastructure to support research. The foundation of the National Institute for Clinical Excellence is both a cause and a symptom of a culture, which now demands evidence-based treatments, offered on nothing less than a thorough evaluation of patient populations.

At the same time, however, clinical research has become ever more tightly regulated. Much of this regulation has been necessary. Although the public have consistently demonstrated support for the use of animals in clinical experiments, and the use of human embryos for research, the scandal of Alder Hey has eroded public trust in the regulation of clinical research. Recent stories about the safety of certain drugs and the suppression of clinical trials data have further undermined faith in the system. Public confidence in clinical trials must be maintained if we expect patients to participate in them.

We must strike a balance between maintaining the confidence of patients engaged in clinical trials and in aiding a pharmaceutical industry which does so much to improve outcomes for patients. Recently, however, the balance in drafting regulations has tilted unduly towards reflecting the possible risks to patients, rather than the probable benefits. This over-precautionary approach to regulation manifested itself most obviously in the early versions of the Human Tissue Bill. Thankfully, the Government listened to our demands to amend the Bill to reflect the concerns of the medical research community, and the damage was minimised. Similar concerns have been expressed over the Clinical Trials Directive, and will probably surface again in discussions over regulations for paediatric medicine. We should always seek to caution ourselves against unjustified bureaucracy.

Clinical research in the UK needs more than freedom from unnecessary interference to succeed. A Conservative Government will therefore ensure that, during the next Parliament, we meet the objective of contributing 1.5% of NHS budgets to research. Money alone, however, will not be enough: the rate of improvement in the NHS in general over the last few years is ample evidence of this.

A future Conservative Government will move to place the UK in its rightful place at the forefront of worldwide research. First, we will put in place a rewarding career structure for clinical academics, necessary both to support our planned expansion in the medical workforce and to support clinical and, in particular, translational research. Second, our higher education reforms will enable universities to concentrate on quality, rather than quantity. That will enable more of the many talented young people seeking careers in medicine to do so. Third, our plans for a comprehensive system of standards of care will require major research work through NICE. Where possible, we will ensure parallel work in the licensing of new drugs and NICE evaluations. Fourth, we will give a clearer role to the Department of Health’s R&D Directorate to support clinical research. Fifth, we will not tolerate terrorism in relation to animal experiments. Finally, we will ensure that pharmaceutical industries operate in an environment in which they are encouraged to maintain their UK R&D base. We will not further multiply the excessive regulation. In implementing these policies, we will lay the foundations necessary to create a first-class clinical research infrastructure.

We have one huge advantage over other countries in aspiring to this place in the world research community: in our NHS, and its relationship with a large population database, the UK has access to a huge, untapped resource whose clinical research potential we have not yet realised. To use it effectively, we require a major degree of co-operation between the NHS and the Universities, the private sector, and other stakeholders.
’it is absolutely essential that we get the balance right between protecting a patient’s safety... and over burdening researchers with red tape’

Mr Paul Burstow MP

It was a Liberal, William Beveridge, whose ideas spurred the beginning of the National Health Service. The Liberal Democrats believe in the NHS and we want to ensure it is funded properly. We called for the extra investment that has gone in and we would sustain investment in the NHS in the future.

Funding is not the only issue, however, and we want to ensure that the money is spent wisely. It is crazy logic that there is so much central control from Whitehall over what happens in the NHS at a local level. The Liberal Democrats want to set the NHS, and particularly frontline professionals, free from Government interference. The NHS will never be free to meet individual patients’ needs as long as the Government pulls all the strings. Freeing the NHS from Government meddling will let staff get on with the job of treating patients. This will mean shorter waiting times, cleaner hospitals and more personal care. We will tackle the hidden waiting lists before people get a diagnosis. We will concentrate on keeping people healthy not just treating the sick, and cut unfair charges for example for eye and dental checks. We will commission an independent review of prescription charges to tackle the unfairness in the present system. We will provide free personal care when people most need it for as long as they need it.

Healthcare is not limited solely to the National Health Service. Medical scientists make a hugely valuable contribution to the health of people in this country and this work needs to be appreciated by politicians. We believe that the role for the Government in this area is to support the clinical research community with the investment and freedom to get on with the job.

It is in the public interest for clinical research to take place in this country, and it is absolutely essential that we get the balance right between protecting a patient’s safety and their right to consent and overburdening researchers with red tape. I have grave concerns about the increase in regulation facing research in this country. Obviously it is essential that we ensure patient safety is paramount but at the same time too much interference will unnecessarily hamper important clinical research and damage morale, thereby further endangering recruitment in this field.

My colleagues and I worked hard to ensure that the Human Tissue Act delivered a sensible solution during the passage of the Bill through the Houses of Parliament. We wanted to ensure that it met the concerns of patients and the public, but to also make sure that it did not place obstacles in the way of people practising pathology and pursuing clinical research in this country. It is right that we need regulation, but we must ensure that it is proportionate and does not impose too much bureaucracy. We need a climate that welcomes people into this area of research. We must make sure that they do not feel that they have to hide what they do. There is a crisis in recruitment in some of these disciplines and we hope that the Act will go some way towards dealing with that problem rather than making it worse.

There is also a role for Government in encouraging and supporting a healthy clinical research community. This needs to be tackled early on with the promotion of science in schools. The Liberal Democrats want to make sure that children are inspired to learn science in schools. We would fund secondary schools to provide high quality teacher training courses to ensure that every child learning science subjects would be taught by a teacher specialising in that subject. Teachers are professionals: they want, and deserve, professional development. Students deserve better than a teacher who’s just one page ahead in the textbook. By inspiring children to learn science we will seek to create the scientists of the future.

The Liberal Democrat priority in Government would be to make sure that at a national and European level, clinical researchers were supported with investment and protection from over-regulation to ensure the right environment for good quality research in the UK.
News Round-up

**Throughout 2004** the Academy was much preoccupied with the progress of the Human Tissue Bill through Parliament. A highly successful and effective partnership was formed between the Academy, the Association of Medical Research Charities, Cancer Research UK, the Medical Research Council and the Wellcome Trust to monitor debates and developments in both Houses and provide briefings when necessary.

**In December 2004** the Academy submitted written evidence to the House of Commons Science and Technology Select Committee inquiry into the Medical Research Council’s Review of the Future of the National Institute for Medical Research.

**Also in December**, the Academy, in partnership with the Department of Trade and Industry’s Foresight team, hosted a workshop on the Detection and Identification of Infectious Disease. A summary report of the workshop was published and a copy can be found on the Academy website.

**In the New Year**, the Academy was again busy dealing with public consultations, this time the Health Commission consultation on Assessment for Improvement, and the House of Commons Select Committee inquiry into the Government’s Public Health White Paper. A new alliance was formed between the Medical Research Council, Royal College of Physicians and Wellcome Trust to brief Parliamentarians on the Mental Capacity Bill. Currently the Academy is liaising with Lord Warner’s advisory group on Research Ethics Committees.

‘Calling Time’, the Academy’s report on the nation’s drinking habits and consequences for public health, was once again in the national news as the debate about the consumption of alcohol and in particular the proposal for 24 hour licensing, dominated the press and media in January. The Academy plans to continue its campaign to raise awareness of the health issues.

**In the autumn of last year**, the Academy was invited to respond to the House of Lords Science and Technology Select Committee inquiry into the ‘Scientific Aspects of Ageing’. Evidence was sought on how science and technology can help improve people’s prospects of healthy and active life expectancy, and whether Government policy is in place to achieve this. The Academy’s response was prepared by working group of Fellows, chaired by Professor Linda Partridge CBE FRS FRSE FMedSci. Following the submission, Professor Partridge presented oral evidence on behalf of the Academy at the Committee’s February meeting. The Academy’s response can be found at [www.acmedsci.ac.uk/p_2004ageing.pdf](http://www.acmedsci.ac.uk/p_2004ageing.pdf)

**On 23 March**, the Academy launched a new working group in partnership with the Royal Society, Medical Research Council and the Wellcome Trust, chaired by Sir David Weatherall, to investigate the use of non-human primates in biological and medical research. The call for evidence was initiated at a well-attended press conference. Further information on this study can be found at [www.nhpstudy.com](http://www.nhpstudy.com)

**Looking ahead**, three new Academy publications will be released in the next six months: a report from the working group looking at ‘Microbial Challenge Studies of Human Volunteers’, chaired by Professor Richard Moxon; a report from the working group chaired by Professor Bob Souhami on ‘The use of patient data in medical research’; and a FORUM report on ‘Safer medicines’. There will also be two-day symposium on 2-3 June 2005 on the topic ‘Valuing health research: assessing the benefits to society’. A summary report of the ‘Cancer biomarkers and imaging meeting’ held in October last year will be posted on the Academy website later this month.
Cancer research in the UK: areas of optimism and concern

On 7 March 2005, Professor Alex Markham FMedSci, Chief Executive of Cancer Research UK, delivered the third Annual Forum Lecture entitled: ‘Cancer research in the UK: areas of optimism and concern’. Professor Markham expressed concern that cancer is now the number one killer in the developed world, and noted that the survival rate from cancer in the UK is significantly lower than that of some other countries on the European continent. Some reasons for optimism were also highlighted: the NHS Cancer Plan, developed in 2000, has set out clear targets and many of these have already delivered; for example the UK’s annual spend on cancer has been increased by £0.5 billion per annum.

The establishment of a National Cancer Research Institute has resulted in several major projects receiving significant funding, and the National Cancer Research Network has been very successful in increasing the recruitment of patients into research programmes.

Professor Markham set out the goals for the work of Cancer Research UK: to achieve a substantial increase in funding over the next four years, and to expand on the success of its technology transfer arm, Cancer Research Technology. Professor Markham described the potentially damaging effects on research that could occur as a result of increased bureaucracy in the field of clinical trials, but noted that, with the appropriate research focus, some challenging goals could be achieved with tremendous benefit to patients.

The lecture was followed by a buffet and drinks reception, ending an enjoyable evening for Fellows and guests.
A meeting and networking event for participants of the National Clinician Scientist Scheme was hosted by the Mersey Deanery and the University of Liverpool on Friday 11 March. This first regional meeting was organised by two clinician scientists from Alder Hey, Mr Edwin Jesudason (Academy/Health Foundation Clinician Scientist) and Dr Calum Semple (Department of Health Clinician Scientist), and supported by the Academy of Medical Sciences.

The objective of the meeting was to review the first three years of the award scheme from the perspective of the individual clinician scientists. It was also a timely meeting in that it provided an opportunity for participants to scrutinise the recommendations of the draft report of the Academic Careers Sub-committee of Modernising Medical Careers and the UK Clinical Research Collaboration.

After a warm welcome from Calum Semple on behalf of the Clinician Scientists and Mary Manning for the Academy, the morning session got down to the business of reviewing the early achievements of the national scheme. Contributions from Professor Patrick Vallance, Chairman of the Academy’s Academic Careers Committee, Dr Jolyon Oxley, Academy Mentoring Adviser and Professor Roz Smyth, Brough Professor of Paediatric Medicine, University of Liverpool, focused attention on the difficulties faced by clinician scientists in training: the funding of such training, resistance from some clinical training committees, and problems with establishing progress through a clinical training pathway. Clinician Scientists were also concerned about tenure: they still felt more insecure about their future than their university and hospital colleagues.

New approaches to training were explored in the afternoon session with talks from clinician scientist Edwin Jesudason, Dr Liam O’Toole, Chief Executive of the UKCRC, and Dr Mark Walport, Director of the Wellcome Trust and Chairman of the joint MMC/UKCRC careers working group. Professor Bob Souhami of Cancer Research UK and Dr Frances Rawle of the Medical Research Council covered policy issues and priorities from the perspective of the funder.

Meeting participants concluded that, while it was still too early to determine whether the scheme would be successful in securing long-term funding and continuity in a research career, much had already been achieved by the individuals supported by the scheme. On a local level, it was noted that the universities and hospitals had not fully appreciated what a personal achievement it was to have been awarded a National Clinician Scientist post. For Supervisors and Heads of Departments, the scheme had presented a number of administrative issues: there had been no precedent and so it had not been clear what contract the university should issue to the awardee. Professor Smyth reported on the positive impact that the awards made to her department: following the appointment of two Clinician Scientists, the Department of Child Health in Liverpool had won a number of other major grants and achieved national recognition as a centre of excellence. It was agreed that strong local champions could significantly improve the general awareness of the National Scheme.

The Academy’s mentoring scheme was seen to be of considerable benefit to the majority of both mentors and mentees and clinician scientists particularly valued having access to ‘a listening ear’ that allowed them to discuss work-related or personal issues with someone outside their place of work. The Clinician Scientists expressed their willingness to take on a mentoring role themselves in order to provide support for the next generation of young researchers.

The Clinician Scientists found the meeting a valuable experience and agreed to hold another regional meeting at University College London in approximately eighteen months time.

Emma Bennett
Academic Careers Officer, Academy of Medical Sciences
www.academicmedicine.ac.uk
# Forthcoming events

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<tr>
<th>Event</th>
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<tr>
<td><strong>Evaluation Forum</strong></td>
<td>Valuing health research - assessing the benefits to society</td>
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<tr>
<td><strong>2 &amp; 3 June</strong></td>
<td>6-9 Carlton House Terrace, London</td>
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<td>By invitation only; places are limited and invitations will be sent out shortly.</td>
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<tr>
<td><strong>Admission Ceremony for New Fellows</strong></td>
<td>The ceremony will be held in the Wellcome Trust Lecture Theatre, 6-9 Carlton House Terrace. All Fellows welcome. Registration form available soon.</td>
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<tr>
<td><strong>Friday 24 June</strong></td>
<td>The ceremony will be held in the Wellcome Trust Lecture Theatre, 6-9 Carlton House Terrace. All Fellows welcome. Registration form available soon.</td>
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<tr>
<td><strong>The Raymond and Beverly Sackler Distinguished Lecture</strong></td>
<td>in the Medical Sciences</td>
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<td><strong>Monday 11 July</strong></td>
<td>Nobel laureate, Sir Aaron Klug OM FRS FMedSci will deliver the lecture, Towards Therapeutic Applications of Engineered Zinc Finger Proteins</td>
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<td>The lecture will be held in Lecture Theatre 2, Stopford Building (Medical School), The University of Manchester, Oxford Road, Manchester M13 9PL</td>
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<td></td>
<td>Registration details are on the Academy website.</td>
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<tr>
<td><strong>A seminar on Public trust and biomedical research</strong></td>
<td>at the Royal Society of Medicine</td>
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<tr>
<td><strong>Monday 18 July</strong></td>
<td>Organised by Academy of Medical Sciences, The Wellcome Trust and GSK R&amp;D Science policy. By invitation only; invitations will be sent out shortly.</td>
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<tr>
<td><strong>Annual lecture on International Health</strong></td>
<td>Thursday 3 November</td>
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<td></td>
<td>Sir Gustav Nossal AC CBE FRS will deliver the second in our series of lectures at Imperial College. Further details will be available nearer the time.</td>
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<tr>
<td><strong>Academy Annual Meeting</strong></td>
<td>Thursday 17 November</td>
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<td>The Annual meeting will take place in the afternoon at the Cruciform Lecture Theatre, University College London. All Welcome. Followed by:-</td>
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<tr>
<td><strong>Jean Shanks Lecture</strong></td>
<td>Thursday 17 November</td>
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<td></td>
<td>Professor Kim Nasmyth FRS will deliver the 2005 Jeans Shanks Lecture at the Cruciform Lecture Theatre, University College London. All Welcome.</td>
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<tr>
<td><strong>Academy Annual Dinner</strong></td>
<td>Thursday 17 November</td>
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<td>To be held in the King’s Library at the British Library, Euston Road. Dr Matt Ridley FMedSci has kindly agreed to be the after dinner speaker. Registration forms will be available shortly.</td>
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The independent Academy of Medical Sciences promotes advances in medical science and campaigns to ensure these are translated as quickly as possible into benefits for patients. The Academy’s eight hundred Fellows are the United Kingdom’s leading medical scientists from hospitals, academia, industry and public service. The Academy’s Officers are: Sir Keith Peters FRS FMedSci President; Sir John Skehel FRS FMedSci Vice-President; Sir Michael Rutter FRS FBA FMedSci Vice-President; Sir Colin Dollery FMedSci Treasurer; Professor Patrick Vallance FMedSci Registrar.