



The Academy of  
Medical Sciences

# Clinical academic medicine in jeopardy

Recommendations for change

June 2002

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- to promote the aims and ethos of medical sciences with particular emphasis on excellence in research and training
- to give national and international leadership in the medical sciences
- to promote the application of research to the practice of medicine and to the advancement of human health and welfare
- to act as an authoritative body to assess and advise on issues of medical science which are of public concern
- to enhance public understanding of the medical sciences and their impact on society

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# Clinical academic medicine in jeopardy

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## Recommendations for change

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# Executive Summary

At the very time that there are demanding challenges ahead, the increasing pressures on clinical academics and diminishing levels of support have made clinical academic medicine much less attractive as a career.

The Council of the Academy of Medical Sciences convened a working group in 2001 (*see Annex 1*) to inquire into the state of clinical academic medicine in the UK at the start of the 21<sup>st</sup> century; to outline the challenges currently faced and highlight the main issues; and to make recommendations for change that could be implemented without undue delay.

## Main findings

1 There are urgent issues to be addressed in terms of recruitment and retention of clinical academic staff if the current critical state of clinical academic medicine is to be reversed. This is essential not only to produce the next generation of doctors but also to maintain the translation of basic biological research into clinical practice in the UK.

2 Prolonged training, early financial disincentives, tensions between the responsibilities for teaching, research and clinical service, are all deterrents to pursuing a clinical academic career. There is a need to promote academic medicine and make it once more an attractive career.

## Recommendations

The working group focused on five main areas of concern and has made recommendations in each.

### *Securing more time for teaching*

1 A substantial number of new combined clinical and teaching NHS consultant posts should be created with an average of six sessions for clinical work and four sessions for teaching.

2 The appointees should have university contracts through the appropriate medical school and should be given appropriate administrative support by the university.

3 Funding arrangements for these posts should be decided locally within a nationally agreed framework.

### *Providing protected time for research*

4 The commitment to research in the clinical academic's university contract should be adhered to and time for research must be protected.

5 All university clinical departments should negotiate and agree with the relevant NHS Trusts their commitment to clinical service delivery through departmental agreements.

### *Enhancing recruitment and retention*

6 A model job plan for all clinical academics should be created, disseminated and adopted widely (*see Annex 2*).

7 Revalidation and appraisal must be conducted to take account of the varying work patterns and responsibilities of clinical academics while ensuring clinical quality and patient safety.

8 All university clinical departments should adopt annual joint appraisal by the university and the NHS.

9 The universities and funding organisations should take steps to improve the research infrastructure so as to provide well-founded research environments.

10 Action should be taken as soon as possible to abolish the six clinical session requirement for the payment of the full distinction award. The contribution that academics make to the NHS in terms of teaching and research into better clinical care should be taken fully into account.

11 The universities concerned and the Council of Heads of Medical Schools should monitor the effect of abolishing the monetary ceiling on private earnings for academic's personal gain on the amount of time that some academics spend away from their main university responsibilities. The clinical academic should deliver all the commitments as agreed in the job plan. If it is a problem, the impact of private practice should be discussed at appraisal.

### *Putting in place appropriate solutions for the different clinical specialties*

12 The continuing need to exercise their practical skills should be taken into account when assessing the research contribution of academics in the craft specialties.

13 Funding similar to that provided by The PPP Foundation for fellowships in surgery should be made available in the other craft specialties where particular problems exist.

14 Fora should be established with the participation of the appropriate medical royal colleges, specialty associations and relevant academic groups to develop

a range of solutions to promote the academic base of specialties such as anaesthetics, general practice, obstetrics and gynaecology, and radiology.

*Improving career progress and flexibility.*

15 Competence-based assessments for specialists in training should be introduced as soon as possible.

16 More appointments should be made under the clinician scientist scheme.

17 The Medical Research Council's Career Establishment Awards should be adopted by other funders.

18 Heads of departments should provide an environment in which newly appointed academics are protected from activities and responsibilities that impair their chances of concentrating on their research.

# 1. Academic medicine in jeopardy

1 At the very time that there are demanding challenges ahead, the increasing pressures on clinical academics as a result of their wide range of responsibilities and diminishing levels of support have eroded the satisfaction traditionally obtained from this career. Time for research and teaching is threatened by service commitments and younger doctors considering an academic career express concerns about the length of specialty training. There are complaints from senior staff about work overload. Clinical academic medicine is no longer attractive as a career.

2 These developments constitute serious barriers to recruitment. An important, recent report to the Council of Heads of Medical Schools shows the extent of the problem<sup>1</sup>.

Taking account of the fact that the vacancy figures returned by institutions almost certainly underestimate significantly the true vacancy rate, it seems likely that between 10% and 15% of professorial and senior lecturer posts, and some 20% of lecturer posts are vacant. The percentage of posts that are vacant is a cause for concern, particularly in the context of the rapid expansion of medical education. Independent advice obtained by CHMS suggests that an acceptable level of staff turnover is of the order of 5% to 7.5%. A rate of over 10% indicates a serious retention and recruitment problem.

3 The report also addresses the number of candidates applying for academic posts:

Although the survey did not ask for data on the numbers of applications for each advertised post, medical schools reported that the field of applicants was worryingly small for some professorial appointments. One institution said that in the last two years only a single candidate has been available for each of seven professorial appointments within the Medical School, and added: "It is unhealthy for the academic strength of British medicine to rely on single-candidate shortlists for advertised appointments. This illustrates the dearth of suitable candidates for senior academic clinical positions."

4 The Academy has deep concerns about the number of unfilled posts and the dangerously small size of the field when making some appointments. It also points out that some posts are automatically lost if it is considered that no suitable candidates are likely to apply. The CHMS report further shows that some specialties are more severely affected than others:

Around a half of the unfilled posts were vacant for more than six months. The specialty groups with the most unfilled posts were General Medicine and Surgery, but there were also significant numbers, for example, in Anaesthetics, Pathology and Psychiatry.

5 The Academy considers that the CHMS report is evidence of the serious situation facing clinical academic medicine. Concerted action by all the stakeholders is required to stimulate action by government, the universities, the medical royal colleges and other organisations. Failure to act quickly will lead to a further decline in academic medicine in the UK. This will lead to an increasing shortage of clinical research workers and clinical teachers at the very time when medical schools are expanding rapidly, when the need for all clinicians to participate effectively in continuing professional development has never been greater and when public expectation for uniformly higher standards and rapid developments in health care has never been stronger.

<sup>1</sup> *A survey of clinical academic staffing levels in UK medical and dental schools: a report by T Smith and P Sime to the Council of Heads of Medical Schools and Deans of UK Faculties of Medicine. November 2001*

## 2. Why clinical academic medicine is important

- 6 The main role of clinical academics is to teach undergraduate and postgraduate students and doctors, to pursue research, particularly patient-based research, and to inspire in others a culture of inquiry. Clinical academic practice also includes leadership and providing specialist clinical services.
- 7 In the 2000 Henry Cohen lecture Lord Turnberg, Academy of Medical Sciences' Vice-President, concluded:

I have no doubt that we will continue to need clinician scientists who can perform that vital integrative function between the basic sciences and clinical medicine. We divorce these at our peril. We need them to pose the clinical problems that require solutions and to undertake the relevant research. We need them to explain to patients and to the wider public what research is necessary and how it can be done; and for them to transcribe the results of research into clinical practice as expeditiously as possible. It seems to me that the exploding fields of molecular genetics following the publication of the draft human genome, and the new sciences of 'post genomics' and 'proteomics' will require more rather than less clinician scientists to transcribe and translate all of this into what are likely to be remarkable clinical benefits for our patients.

### Improving our understanding and treatment of disease

- 8 There are innumerable examples of major medical advances resulting from the activities of clinical academics. These include a better understanding of the origins and spread of infectious diseases; the early detection of inherited disorders; the development of new pharmaceutical compounds and vaccines; new imaging techniques; the development of cardiothoracic surgery, organ transplantation, and minimal access surgical procedures; improvements in the care of the critically ill and patients with cancer. The clinical academic is uniquely able to collaborate with laboratory-based medical scientists, to illuminate and interpret their work and to effect the safe translation of new research findings into clinical practice.
- 9 In his 1995 book *Science and the Quiet Art*<sup>2</sup> Sir David

Weatherall discusses what we might expect from basic medical research in the future (Chapter 9). He highlights the need for progress in diseases entirely of genetic origin and the 'intractable diseases of rich countries' such as diabetes, diseases of the heart and blood vessels, psychiatric disease, dementia, mental handicap, cancer and disease of joints and bones. He suggests that advances will occur in the area of diagnostics and therapeutics based largely on DNA technology. He concludes:

...molecular biology and genetics will dominate human biology and medicine... But it is also apparent... that many of their benefits for medical practice will not reach the clinic for a long time. Before these fields fulfil their potential, we may need to take a more holistic approach to human biology and try to understand how all the molecules we have discovered are orchestrated in an intact human being, or patient.

- 10 Clinical academics also advise government and industry on research and development needs in clinical medicine and on matters such as public health and the epidemiology of disease. They have a major role in the development and dissemination of evidence-based practice and in the creation and dissemination of guidelines and protocols. Importantly their work at the forefront of medical science acts as a constant reminder about the limitations and drawbacks of empirical clinical practice and traditional health care.

### Educating students and doctors

- 11 Clinical academics are heavily involved, with NHS colleagues, in organising and carrying out the teaching of undergraduate students. A recent expansion in the number of medical students will bring the annual intake to medical schools in England to nearly 6,000 by 2006<sup>3</sup>. Taken together with the previous expansion of 1,100 places allocated in 1999 and 2000, medical student intake will have risen by around 50 per cent since 1998. This rise has not been accompanied by a concomitant increase in the number of clinical academics.
- 12 Clinical academics also play a major role in the medical royal colleges and in postgraduate training

and continuing professional development of the some 100,000 practising doctors on the medical register. They will also have to be involved in consultant and GP appraisal and revalidation.

### Improving patient care

- 13 Clinical academics have a role in pursuing clinical excellence and leading clinical teams, especially in emerging and established specialties and sub specialties. They work at the interface between the traditional hospital specialties and between primary and secondary care. They are also well placed to educate and inform other health professionals and the public about the human implications of increasingly complex scientific findings, to assuage their fears and to obtain the resources to meet the increasing need for further research.
- 14 The NHS Plan<sup>4</sup> considers in some detail the needs and deployment of NHS staff. It calls for the appointment of 7,500 more consultants and 2,000

more GPs and the creation of 1000 more medical school places on top of the 1,100 already announced. Regrettably it says little or nothing about the scientific or technological investment that will be necessary to bring about future improvements in health and eradication of disease. The NHS Plan also fails to mention the contribution made by clinical academics to the clinical service and research and their role in educating the extra students and doctors. Indeed the only specific reference to them is in terms of special arrangements relating to pay (*para 8.25*). Despite this omission, the Academy considers that the full participation of clinical academics is required to deliver the objectives and targets in the NHS Plan. Furthermore expansion of the academic community must take place in parallel with the efforts to improve NHS services that are set out in the Plan.

*2 Weatherall D. Science and the Quiet Art: the role of medical research in health care. WW Norton and Co. 1995.*

*3 Higher Education Funding Council. Press release. 30 March 2001. Available at <http://www.hefce.ac.uk/news/hefce/2001/medical.htm>*

*4 Department of Health. The NHS Plan: a plan for investment; a plan for reform. 2000. Available at <http://www.doh.gov.uk/about/nhsplan/index.html>*

### 3. Immediate problems

15 This section reviews some of the immediate problems facing academic medicine. The recommendations in Section 4 of this report are designed to help remedy these serious difficulties.

#### Teaching time is under pressure

16 The need for more teaching time for medical students and doctors in training has never been greater but the increasing pressure on clinical staff time and the shortfall in available staff are threatening the education of the next generation of junior doctors and career grade staff.

17 A number of factors have increased the demand for teaching time:

- The increase in number of medical students and, before too long, the increase in number of junior doctors will require more teachers and more teaching time. Correspondence between the Academy and the heads of the new and enlarged medical schools shows that there is a further requirement for about 200-300 new academic posts.
- As the knowledge base in medicine becomes so much deeper, it is inevitable that clinicians will become more specialised, there will be more specialties and more teachers will be required.
- Clinical teaching has moved away from relying heavily on lectures attended by many students to the more labour-intensive small group (including bedside) teaching.
- The recent, more formal requirements of postgraduate training require more time from postgraduate teachers to undertake assessments, appraisals etc. as well as teaching and supervision.

18 At the same time as there is more demand for teaching time, existing teaching is under pressure:

- Universities via their academic departments remain responsible for ensuring that undergraduates are properly taught but there is a shortage of applicants for academic posts, particularly in the craft skills based specialties, and a significant number of posts remain unfilled.
- The RAE has had the effect of making research

the priority for many academic staff at the expense of teaching, which may not carry the same incentives for excellence nor increase the likelihood of promotion.

- Another effect of the RAE has been to encourage universities to convert clinical academic posts to non-clinical posts thereby further reducing the number of clinical teachers (particularly at the clinical lecturer grade).
- Traditionally much of the undergraduate and postgraduate clinical teaching is done by NHS staff (including GPs), many of whom hold honorary university appointments. Recent reports have shown a serious shortfall in the required number of consultant physicians<sup>5</sup> and consultant surgeons<sup>6</sup>.

19 Additionally, consultants and GPs have to spend more time on their clinical work and the related activities of clinical governance, Trust management, administration, etc. which prevents them devoting enough time to teaching.

#### The demands of service, teaching and research conflict

20 There is often a conflict between the demands of clinical service, research, administration and teaching and this has led to less job satisfaction for clinical academics. Most are committed to six sessions of NHS work per week, with five sessions for academic activities. A recent Royal College of Physicians' survey<sup>7</sup> showed, however, that academics in all 25 sub-specialties of internal medicine spend on average at least 40 hours per week on NHS service with up to 25 hours per week devoted to academic activities. In the craft specialties, such as surgery, this distribution of hours is likely to be even more directed to NHS service.

21 Were clinical academics' contract to be better enforced, on average, two academics would be needed to provide the same clinical service as one NHS counterpart because of their other commitments to research and teaching. But many departments do not have sufficient critical mass to deal with the pressure arising from increased

<sup>5</sup> The Royal College of Physicians of London. *Consultant Physicians Working for Patients*. 2nd edition. 2001.

<sup>6</sup> The Royal College of Surgeons of England. *The Surgical Workforce in the new NHS*. November 2001. Available at [www.rcseng.ac.uk](http://www.rcseng.ac.uk)

<sup>7</sup> The Royal College of Physicians of London. *Consultant Physicians Working for Patients*. 2nd edition. 2001.

service commitments and maintain an active research programme. The conflict is even harder to manage if the clinical academics also have acute clinical responsibilities because their clinical time has then to be divided between their specialty work and emergencies. The problems are compounded if they also provide tertiary specialty services, as many academic units do. Indeed over the years many new tertiary specialty services have been introduced by academic units. It is much easier in larger academic departments to make arrangements to lighten the clinical commitment for some individuals so that they can pursue their research.

### Research infrastructure is lacking

- 22 The funding formula operated by the funding councils, based on RAE results, has led to a weakening of the infrastructure that supports clinical academic staff to do their work. The formula encourages universities to employ academic staff, rather than to employ technicians, maintain laboratory facilities or purchase equipment. Universities adopt this policy because academic staff are assessed by the quality of publications contributed to RAE submissions, and the funding formula is related to the numbers of 'full time equivalents' of research staff declared. Investment in technicians, laboratory facilities and equipment is not measured or rewarded directly as part of the RAE and the consequential funding formula.
- 23 This imbalance is less of a problem in directly-funded research institutes. These are usually assessed individually by their funders by means of quinquennial visits and they achieve a better balance between research workers and research infrastructure.
- 24 The JIF initiative resulted in improvements in the physical infrastructure but did not address the lack of technical staff support or the virtual disappearance of the career grade technician. The problems facing non-clinical scientists and the advantages of close collaborative working between clinicians and basic scientists are addressed in another Academy report<sup>8</sup>.

*8 Academy of Medical Sciences. Non-Clinical Scientists on Short Term Contracts in Medical Research. 2002*

*9 Specialist Training Authority. Information sheet. Academic and Research Medicine Route for entry to the GMC specialist register. Revised May 2001.*

*10 Academy of Medical Sciences. Implementing the clinician scientist scheme. Annex 4. April 2002.*

*11 In the new proposed training scheme from the Royal College of Physicians it will be possible for career clinical academics to spend a minimum of 5 years including the SHO period. This is the minimum allowed by European law.*

### Combined specialty and research training is very long

- 25 The current specialty training arrangements present real problems for young clinical academics, summarised as follows:
  - To hold an NHS consultant contract or to be appointed as a specialist elsewhere in the European Union it is necessary to be on the Specialist Register. Although academics can apply to join the register via the academic and research route<sup>9</sup> without completing specialist training and obtaining a Certificate of Completion of Specialist Training (CCST) this route is rarely followed as it may limit their subsequent career opportunities.
  - The time necessary to complete training varies between specialties<sup>10</sup>. For example, it takes a minimum of four to six years in the medical specialties (where dual accreditation is common) to complete specialty training following award of the National Training Number (NTN)<sup>11</sup>. In surgery there is a minimum requirement for two years in basic surgical training followed by six years in higher surgical training. The clinician who also wishes to pursue an academic career faces a further three years in a junior research fellowship and a substantial period in an intermediate or senior fellowship. In internal medicine and surgery this will generally mean 10-14 years in training posts before an academic career post can be achieved.
- 26 The prospect of this very lengthy training is deeply unattractive to many young academic doctors and is a deterrent to recruitment, especially as the career satisfaction in a senior academic position is regarded as poor.

## 4. Solutions and recommendations for change

27 Particular attention is given in this report to the following areas where urgent action is required and can be taken.

- **securing more time for teaching**
- **providing protected time for research**
- **enhancing clinical academic recruitment and retention**
- **putting in place appropriate solutions for the different specialties**
- **improving career progress and flexibility.**

### Securing more time for teaching

28 There is a clear need for an increase in the number of academic staff overall. Meanwhile filling existing academic posts combined with the anticipated increase in NHS consultant numbers will be enormously beneficial in providing more teaching staff. However, increasing the number of available staff will not on its own be sufficient. Time for teaching has to be protected. The Academy endorses proposals that all NHS consultants who have teaching responsibilities (both undergraduate and postgraduate) should have protected time (fixed sessions or protected time during normal clinical work) to meet their obligations to teach. Giving a fixed session for teaching can have an enormous impact.

29 However the Academy considers that it is necessary to go further than this. Some consultants have already taken on formal educational responsibilities, for example as clinical and specialty tutors and associate deans, with a sessional allocation to carry out these duties. Many more have done so without a sessional allocation. Building on this tradition, and as part of the overall strategy to ensure the proper education of students and doctors, **the Academy recommends that a substantial number of new combined clinical and teaching posts are created with an average of six sessions for clinical work and four sessions for teaching.** The Academy suggests that about 600 such posts are needed (about two per NHS Hospital Trust outside the main teaching hospitals). As these consultants will provide six sessions of clinical work per week, they can be a component of the on-going consultant expansion. These posts may be best located in hospitals away from the main teaching centres where traditionally there have been few academic appointment and they

should be available in all clinical specialties. The Academy recognises that this recommendation may not immediately be seen to be in step with the government's efforts to channel as much resource as possible to direct patient care. Nevertheless, dedicated resources are needed to educate future generations of UK-educated doctors and help current practitioners (including those from abroad) develop their knowledge, skills and practice to deliver the best, evidence-based care that is needed in the UK.

30 Holders of these new teaching/clinical posts need not necessarily have undertaken lengthy research training but they should have experience in research as well as the appropriate skills in teaching and the required clinical expertise. They should be in contact with, and part of, an academic department so they are exposed to recent research developments even if they do not actively participate in research themselves. **The Academy therefore recommends that the appointees should have appointments with the university responsible for the local medical school and should be given appropriate administrative support by the university.**

31 Establishing these new posts will require considerable investment. The imaginative use of SIFT may provide some of the necessary funds. Extra resources from the centre may well be needed as part of the government's programme to implement the NHS Plan. **The Academy recommends that funding arrangements for these posts should be decided locally within a nationally agreed framework.**

### Protecting time for research

32 As the clinical and administrative pressures on the clinical academic increase, research programmes and teaching commitment suffer. Rotation of clinical and research responsibilities and 'specialisations' between members of the team, some in research, others in clinical service, are helpful measures to deal with this pressure. This can best occur if the clinical academic is a member of an adequately-sized team providing a clinical service. Amalgamation of small university departments may be needed to achieve this. **The Academy recommends that the commitment**

**to research in the individual's university and hospital contract is adhered to and time for research must be protected.**

- 33 The RAE has had a major impact on clinical academic research, not all for the better. However the Academy is pleased that the ratings for medical sciences showed an overall improvement in the 2001 RAE<sup>12</sup>. However this will not be followed by increased funding except to the departments with the highest (5\*) scores. The Academy feels that this is inappropriate and considers that there should be a commensurate increase in funding over a wider group of high scoring departments to support further improvement in standards.
- 34 The operation of the RAE has seemed in the past to disadvantage clinical academics and, although many problems have been dealt with, there are still some unfavourable aspects that require attention. There is anecdotal evidence particularly among clinical teachers that the premium given to research excellence has a negative effect on time available for teaching, and furthermore that applied research, as practised particularly in the craft specialties, has suffered.
- 35 The anomalous situation whereby research-active clinical academics, who also carry a large clinical or laboratory load, are treated by the RAE in the same way as full-time researchers will not be addressed until 2006. A different way of assessing the contribution of those who work part-time in research should be considered. The Academy suggests that a reduction in the quantity of their assessed output would be acceptable though not a reduction in its quality. It has to be accepted that part-time research may not always result in internationally competitive work. Different criteria will also have to be applied to the various specialties.

### Enhancing recruitment and retention

- 36 The CHMS data have clearly shown major problems in recruitment. If left unaddressed these problems are likely to worsen. The Academy's proposals focus on ways of achieving a managed balance between the clinical academic's different responsibilities and improving the research infrastructure, thereby improving job satisfaction.

#### *Departmental clinical contracts*

- 37 The Academy advocates a strategy based on

departmental plans, contracts and reviews. The strengths of this are considerable. They promote a team approach to research, teaching and clinical service delivery and allow flexibility for individuals to vary their activities according to need. Such arrangements should allow a department's clinical commitments to be met in full while protecting the individual academic's time for research and teaching. **The Academy therefore recommends that all university clinical departments should negotiate and agree with the relevant NHS Trusts their commitment to clinical service delivery through departmental contracts.** It will then be the responsibility of the head of department to manage the department's staff to fulfil the commitment to the NHS.

#### *Individual job plans and appraisal*

- 38 Clinical academics should be expected and supported to provide, the highest quality research, teaching and clinical service in their particular field of interest, even if it is a narrow one. Individual excellence over a very wide field is now rarely possible. Academics also often need to vary their commitments between research, teaching, and clinical work and at times it may be necessary for all an academic's time to be devoted to research.
- 39 Given the range and variation in clinical academics' work, **the Academy recommends that a model job plan for all clinical academics should be created, disseminated and adopted widely.** This should form the basis for individual job plans, which should be tailored to the academic's strengths and interests within the framework of the departmental agreements. A draft model academic job plan is at Annex 2.
- 40 So that the full range of a clinical academic's activities is properly taken into account **the Academy strongly supports the recommendation in the Follett report<sup>13</sup> that all university clinical departments should adopt annual joint appraisal by the university and the NHS.** These should be based on the individual academic's job plan, in the context of departmental service agreements. The underlying principle should be the creation of an appropriate balance between teaching, research and clinical work for each individual clinical academic.

<sup>12</sup> Available at [http://www.rae.ac.uk/Pubs/4\\_01/](http://www.rae.ac.uk/Pubs/4_01/)

<sup>13</sup> 'A review of Appraisal, Disciplinary and Reporting Arrangements for Senior NHS and University Staff with Academic and Clinical Duties'. A report to the Secretary of State for Education and Skills, by Professor Sir Brian Follett and Michael Paulson-Ellis. Department for Education and Skills. September 2001. Available at <http://www.dfes.gov.uk/follettreview/>

- 41 Although the Academy fully accepts that there is a need for appraisal and performance review of individual academics, it **recommends that these should be set firmly within the framework of departmental (or unit) contracts which should go hand-in-hand with the individual appraisals.**
- 42 Clinical academics will, however, have to fulfil the GMC's requirements for individual revalidation<sup>14</sup> and university and NHS appraisal schemes<sup>15</sup>. The Academy further recommends that revalidation and appraisal must be conducted to take account of the varying work patterns and responsibilities of clinical academics while maintaining clinical quality, competence and patient safety.
- 43 There are important issues to be tackled to help clinical academics whose research career has faltered. It is not acceptable for such academics just to move into other activities such as teaching without having the appropriate skills, or more clinical work without having maintained clinical competence. Equally, they are likely to have considerable experience and talents that should be put to best use. Joint annual university and NHS appraisal as recommended above should provide a mechanism to identify any problems at an early stage and to suggest suitable solutions in terms of career development for the individual by providing an enhanced clinical, teaching, administrative or other role.
- 44 Recent deliberations by HEFCE in its Transparency Review and in a review of HEI/medical charity funding arrangements have highlighted those problems and there are encouraging signs that government, in the Treasury's Cross Cutting Review, are taking this matter seriously. The Academy believes that solutions must lie in a joint response between government, the universities, the funding councils and the research charities and there are indications that a serious effort is being made to take such action.
- 45 Two further measures will help to strengthen the infrastructure needed for clinical academic research:
- Bringing clinical and non-clinical academics together as academic research groups across the traditional boundaries of academic departments in order to achieve the desirable critical mass of research staff e.g. hepatobiliary research to include hepatology, hepatobiliary surgery, radiology and pathology
  - Encouraging a proper career structure for the non-clinical scientist working within the clinical environment and where possible providing joint appointments with the appropriate basic science department<sup>16</sup>.

*Terms and conditions for clinical academics*

- 47 Because of the arrangements for making distinction awards, the Academy recognises that many academics eventually do as well financially as their NHS colleagues. Achieving this parity may, however, be delayed until towards the end of their careers. The pay differential with NHS colleagues at an earlier stage in a career may still be a disincentive to young doctors wanting to pursue an academic career, especially in the craft specialties where private practice is substantial. Excellence early on in a career should be recognised appropriately. **The Academy strongly endorses the suggestion that the six clinical session requirement for the payment of the full distinction award should be abolished. The contribution that academics make to the NHS in terms of teaching and research into better clinical care should be taken fully into account. The Academy recommends that**

*Strengthening the research infrastructure*

- 44 Universities have seen a progressive depletion of their infrastructure as failure to invest in their buildings and equipment has been manifest over many years. Joint infrastructure initiatives between the government and the Wellcome Trust have been valuable but are only short terms solutions and investment on a continuing basis, in the biomedical as in other disciplines, is essential. It has become obvious that the very large grant funding, especially from medical research charities, is proving stressful to higher education institutions (HEIs). They are increasingly unable to provide the infrastructure to support this research and charities themselves have been unwilling to support the idea of unspecified infrastructure percentage additions to their grants.

<sup>14</sup> General Medical Council. *Revalidating doctors*. 2000. Available at <http://www.gmc-uk.org/revalidation/index.html>

<sup>15</sup> NHS Executive Advance Letter (MD) 6/00 on consultant appraisal, available at <http://www.doh.gov.uk/consultantscontract.htm> and guidance on GP appraisal available at <http://www.doh.gov.uk/gpappraisal/index.htm>

<sup>16</sup> Academy of Medical Sciences. *Non-Clinical Scientists on Short Term Contracts in Medical Research*. February 2002.

**action should be taken as soon as possible to address this issue.**

- 48 The Academy notes that, to aid recruitment, some medical schools have abolished the monetary ceiling on private earnings for academic's personal gain, whether through private practice or consultancy work with industry, etc. The Academy is concerned that this may increase the amount of time that some academics will spend away from their main university responsibilities, thus eroding the time and commitment they can give to teaching and research. **The Academy recommends that the universities concerned and the Council of Heads of Medical Schools should monitor the effect of this development.** The clinical academic should deliver all the commitments as agreed in the job plan. The impact of private practice should, if it is a problem, be discussed at appraisal.

#### Putting in place appropriate solutions for the different specialties

- 49 The Academy recognises that the problems facing academics vary in the different specialties. Recommendations for change will need to reflect this. Academics who work in the craft specialties, such as surgery, have to exercise their practical skills continuously so that they can treat patients competently. This will inevitably limit the time they can spend in research. **The Academy recommends that these considerations should be taken into account when assessing the research contribution of academics in the craft specialties** (*see also para 34*)
- 50 The Academy welcomes the extra support that is being given to academic surgery through the Academy managed scheme, sponsored by The PPP Foundation<sup>17</sup>. **The Academy recommends that funding should be made available for similar schemes in the other specialties.**
- 51 Specialties such as anaesthetics, general practice, obstetrics and gynaecology, and radiology continue to face difficulties in developing and sustaining their research base. Departments often need to be of a critical mass to do this effectively. **The Academy recommends that fora should**

**be established with the participation of the appropriate medical royal college, specialty associations and relevant academic groups to develop a range of solutions to promote the academic base of these specialties.** The Academy should facilitate this initiative.

#### Improving career progress and flexibility

- 52 The Academy has urged in other reports that arrangements for specialty training for clinical academics should be kept as flexible as possible<sup>18, 19</sup>. It reiterates this advice.
- 53 The Academy supports efforts by the medical royal colleges to introduce competence-based assessments, which are a more sensitive measure of progress than 'time served', although the difficulty of devising and implementing them should not be underestimated. The Academy recommends that competence-based assessments for specialists in training should be introduced as soon as possible.
- 54 The Academy welcomes the steps taken by postgraduate deans to provide special support for clinical academics in training. It further recommends that more appointments are made under the clinician scientist scheme, appointed under the national standard. The terms of this scheme allow for individualised arrangements to be made for the completion of specialty and research training<sup>20</sup>.
- 55 The Academy also welcomes the Medical Research Council's Career Establishment Awards<sup>21</sup> as a very helpful initiative and recommends that this scheme be adopted by other funders.
- 56 The Academy is concerned about the pressures placed on newly appointed career grade academics, particularly in the shortage specialties where appointees may not have had the benefit of full research training. **The Academy recommends that heads of departments should provide an environment in which newly appointed academics are protected from activities and responsibilities that impair their chances of concentrating on their research. It recognises the difficulties inherent in implementing this unless the problems referred to earlier are corrected.**

<sup>17</sup> More details are on the Academy website at [http://www.acmedsci.ac.uk/f\\_resfel.htm](http://www.acmedsci.ac.uk/f_resfel.htm)

<sup>18</sup> Academy of Medical Sciences. *Academic Medical Bacteriology in the 21st Century*. July 2001.

<sup>19</sup> Academy of Medical Sciences. *Implementing the clinician scientist scheme*. 2002.

<sup>20</sup> Academy of Medical Sciences. *Implementing the clinician scientist scheme*. 2002.

<sup>21</sup> More details of this scheme can be found at [http://www.mrc.ac.uk/index/funding/funding-specific\\_schemes/](http://www.mrc.ac.uk/index/funding/funding-specific_schemes/)

## Annex 1: Academy working group

At its meeting in June 2001, the Council of the Academy of Medical Sciences reiterated that the Academy has a unique remit to promote, support and strengthen academic medicine. It set up a working group, chaired by Sir Peter Morris, to inquire into the state of clinical academic medicine at the start of the 21<sup>st</sup> century and to outline the challenges currently faced. The group was requested to highlight the main issues and make recommendations for change that could be implemented without undue delay.

### Membership of the group

The membership of the working group is as follows:

**Professor Sir Peter Morris (chair), FRS, PRCS, FMedSci**

**Professor Sir George Alberti, PRCP, FMedSci**

**Professor Christopher Higgins, FRSE, FMedSci**

**Professor Peter Lachmann, FRS, PMedSci**

**Professor Mark Walport, FMedSci**

with Mrs Mary Manning (the Academy's Executive Director) and Dr Jolyon Oxley MA, FRCP (secretary to the working group).

### Method of working

The Academy's working group met three times. The group felt that dentistry needed to be addressed as a

separate issue. In considering the future for clinical academic medicine, the group took into account the recent proposals by government and the universities to improve health care delivery and the education and management of health professionals. It also considered draft data from the Council of Heads of Medical Schools on clinical academic staffing levels in UK medical and dental schools<sup>22</sup> and noted the debate in the House of Lords on medical teaching and research on 21 November 2001<sup>23</sup>.

Members of the group have spoken informally to key figures in government, the universities, the NHS, the medical royal colleges and medical professional bodies. The group contacted senior representatives of five medical schools in the UK requesting data on clinical academic staff's responsibilities in terms of research, teaching and clinical duties and also contacted the heads of the new and enlarged medical schools to find out their requirement for new academic staff.

The group also took into account the reports from other Academy working groups, namely those on the tenure-track clinician scientist<sup>24,25</sup>, academic medical bacteriology<sup>26</sup> and the non-clinical scientist in medical research<sup>27</sup>.

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Professor Ian Lauder  
Professor Sam Leinster  
Professor John Tooke

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Professor William Doe

for providing the model clinical academic job plan in Annex 2.

Mr Mark Redhead

for providing data from the BMA's Medical Academic Staff Committee survey and for additional comments.

## Annex 2: a draft model clinical academic job plan<sup>28</sup>

Senior Lecturers, Readers and Professors who have honorary consultant contracts with NHS Trusts or Health Authorities should have clinical Job Plans structured as follows:

- 1 University-employed clinical academics will normally be awarded six honorary consultant sessions by the appropriate Trust/Health Authority.
- 2 The definition of a fixed session will be that used for NHS consultant posts, which includes operating lists, outpatient clinics, scheduled ward rounds, and procedural lists (e.g. endoscopy).
- 3 Clinical academics should normally have three fixed sessions (a maximum of four in special circumstances) within a six session honorary consultant contract.
- 4 Wherever practical two of the fixed sessions should be on the same day.
- 5 On-call commitments should reflect fixed clinical sessions on a 'pro-rata' basis.
- 6 University-employed clinical academics should give reasonable advance notice not only to the University Head of Department but also to the Medical Director regarding annual study leave where this involves clinical commitments. Appropriate clinical cover arrangements should be agreed for any period of absence.
- 7 All staff will take part in an annual appraisal process for Consultant staff, details of which will be agreed between the Trust and University. There will be a 12-monthly review of Job Plans by the Medical Director of the Trust or Health Authority and a representative of the Dean.
- 8 Academic staff with primarily non-patient based honorary contracts (e.g. Public Health) should, where appropriate, comply with the above recommendations.

### Footnotes

- a NHS administrative duties and national commitments to support NHS activities must be taken into account and, if substantial, result in an appropriate reduction in fixed sessions.
- b Where on-call commitments are onerous a reduction in fixed sessions is appropriate.
- c Clinical commitments should wherever possible take place in the hospital where the clinical academic is based.
- d In view of teaching and research demands, requirements of clinical governance, and the specialty clinical skills of the clinical academic, clinical expertise should be maximised to the benefit of the Trust. For these reasons non-specialist on-call and continuing care of patients by clinical academics should be reduced to a minimum.

*22 Later published as A survey of clinical academic staffing levels in UK medical and dental schools: a report by T Smith and P Sime to the Council of Heads of Medical Schools and Deans of UK Faculties of Medicine. November 2001.*

*23 Lords Hansard (21 Nov 2001) Col. 1182 available at <http://www.parliament.the-stationery-office.co.uk/pa/ld200102/ldhansrd/home>.*

*24 Academy of Medical Sciences. The tenure-track clinician scientist: a new career pathway to promote recruitment in clinical academic medicine. (The Savill report). March 2000. Available at <http://www.acmedsci.ac.uk/Clinic.pdf>*

*25 Academy of Medical Sciences. Implementing the clinician scientist scheme. Report of the Academy of Medical Sciences Academic Training Committee. March 2002.*

*26 Academy of Medical Sciences. Academic Medical Bacteriology in the 21st Century. July 2001.*

*27 Academy of Medical Sciences. Non-clinical scientists on short term contracts in medical research. 2002.*

*28 This is based on the current NHS contract. Negotiations over a new consultant contract are proceeding and are likely to be announced in the next few months. As considerable changes are expected, the above will need to be modified appreciably but the principles should still be relevant.*