

*Title page and summary*

**THE TENURE TRACK CLINICIAN  
SCIENTIST:  
A new career pathway to promote  
recruitment into clinical academic  
medicine**

**A report from the Academy of Medical Sciences**

**March 2000**

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The **Academy** of  
**Medical Sciences**

**THE TENURE-TRACK  
CLINICIAN SCIENTIST:  
A NEW CAREER PATHWAY TO  
PROMOTE RECRUITMENT INTO  
CLINICAL ACADEMIC MEDICINE**

*First edition: published on the Academy's web site  
[www.acmedsci.ac.uk](http://www.acmedsci.ac.uk)*

*4th March 2000*

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# 1. Executive Summary

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**1.1** Fully trained *clinical academics* are doctors qualified as specialists or general practitioners and employed by universities to undertake *research* into the prevention, diagnosis and treatment of disease, *teaching* of undergraduate medical students, and *clinical practice* which includes direct responsibility for patient care and training young doctors. Consequently, clinical academics play a crucial role in shaping both the present and the future of the National Health Service.

Recruitment to clinical academic medicine is at a crossroads. Not only is there persistent difficulty in recruiting clinical professors but there is also worrying evidence that pressures related to the research assessment exercise have contributed to a reduction in the stock of clinical lectureships, the traditional seedcorn of the discipline. Recently qualified doctors still show strong interest in obtaining externally-funded research training fellowships, the ideal start to a clinical academic career. However, there is a shortage of opportunities for protected postdoctoral research, and strong disincentives operating after completion of the first research fellowship in both generalist and specialist settings have been exacerbated recently by inadvertently rigid implementation of the specialist registrar (SpR) grade for higher training in hospital specialties.

**1.2** Three key ‘generic’ disincentives against an academic career have been identified in hospital-based specialties and general practice:

- (i) *a clear career structure is lacking* in academic medicine compared to a career in the NHS;
- (ii) *insufficient flexibility* for combination of post doctoral research training and clinical training is offered by current opportunities in the SpR and clinical lecturer grades; and
- (iii) *prolonged insecurity* results from the need for all clinical academics to undertake about five years of doctoral and postdoctoral research training and, in the case of specialists, up to five years of SpR training before a secure senior post is obtained.

**1.3** Three further practical difficulties impede the development of academic careers in particular clinical disciplines:

- (iv) *pressure to seek research training upon completion of general professional training* because of difficulties in some specialties in entering a ‘blocked’ SpR grade;
- (v) *limited research training opportunities or environments* in some disciplines; and
- (vi) *particular limitations on flexibility for certain groups of trainees*, especially those in disciplines requiring persistent patient contact or the development and maintenance of practical skills; those with domestic commitments; and those seeking to change clinical activity.

**1.4** The Academy’s proposals to address these disincentives and practical difficulties are as follows:

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## Recommendation 1

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The normal entry to a clinical academic career will be a ‘doctoral phase’ of training, which would nevertheless allow a smooth return to a NHS career if this were desired. The key element of this phase would be a three-year period of research training, typically obtained by competitive application for entry to a training fellowship scheme. In hospital specialties the optimal time for entry to such a programme is from a secure clinical training base as a specialist registrar of one to two years’ standing. However, some trainees will choose to undertake research earlier in their clinical training, or as part of a MB/PhD programme at medical school. To enable continuity in both research and clinical training in such circumstances, outstanding individuals in these latter two groups should have direct access to the second phase programmes proposed below, once general professional training has been completed.

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## Recommendation 2

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The Academy’s key recommendation is the immediate introduction of **50 clinician scientist posts** per year, additional to existing SpR and

clinical lecturer posts, through which to nurture a cadre of research-led clinical academics in both specialist and generalist medicine by providing opportunities for the equivalent of at least two years of protected postdoctoral research. These posts would offer an attractive, clear, flexible and secure second phase of training for doctors who have demonstrated outstanding potential for research during their first, doctoral period of research training.

This competitively-entered scheme would be open to specialists and generalists alike and would have three key features:

- (a) prospective planning of academic and clinical training needs, on a flexible *ad personam* basis, through a national clinical academic training co-ordination committee;
- (b) dedicated clinician scientist national training numbers for those in hospital specialties to allow postgraduate deans to construct flexible clinical training supernumerary to existing SpR rotations that would usually lead to award of a conventional broad-based certificate of completion of specialist training (CCST); and
- (c) ‘tenure track’ status in the host medical school, with the security of mutual expectation that there would normally be smooth transition to a senior academic post after about five years, or about seven years for the small number of intending specialists entering directly upon completion of general professional training.

**Funding** for about 25 posts per year is already available from external sources and a further about 25 posts per year could be readily achieved through redeployment of existing university and NHS budgets, although new funds would greatly strengthen the initiative.

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### Recommendation 3

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The Academy recommends the development of a **research training access scheme**: this would provide annually about 50 **research training access posts** for outstanding senior house officers (SHOs). These would offer doctors qualified for SpR training in ‘blocked’ specialties up to two years’ specialist training registrable against future

requirements (i.e. comparable to existing NHS-funded locum appointments for training [LATs]). The incorporation of up to 20% of time for preparation of research training fellowship applications under the sponsorship of an academic unit (which need not be in the chosen clinical specialty) would also address the additional disincentive of lack of research training environments in some disciplines.

Funding for this scheme could be made available through LAT opportunities arising from SpRs taking ‘time out’ for research, but redeployment of NHS salaries freed due to ‘lost NTN’s’ would strengthen the scheme. Moreover, given the importance of research-active doctors (whether employed by the NHS or universities) to the R&D function of the NHS, we suggest that the NHS R&D programme may also wish to contribute funds.

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### Recommendation 4

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The Academy recommends **limited earmarking of fellowships, links with strong centres and academic access schemes** in order to promote research training in some disciplines. These measures would enable the development of research capacity in disciplines that are currently in difficulties because of lack of academic critical mass, such as some of the surgical disciplines, obstetrics and gynaecology, and primary care. We suggest that disciplines lacking in research training environments should encourage their growth by ‘lending’ research trainees to strong centres before nurturing their further development in their discipline/medical school base. The research funding agencies might collaborate with the proposed national clinical academic training co-ordination committee to offer a pro-active ‘*placement advice service*’ to promote such mobility.

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### Recommendation 5

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The Academy recommends that there should be **as much flexibility as possible in the development of training programmes** to allow the conjoint development of research and clinical careers. This should apply particularly in those disciplines which require persistent patient contact and/or the development and maintenance of practical skills as an essential component of clinical training.

The Academy believes that there are three areas that require a flexible approach to allow the development of clinical academic careers. The first is the flexibility for clinician scientists to mix training in research and clinical medicine on an *ad personam* basis. The second is to enable trainees with domestic commitments to continue training during periods of heavy domestic commitments; many of whom will later change back to full time working. The third is to develop schemes to allow changes in clinical work patterns after entry to the specialist register.

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### Recommendation 6

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The Academy recommends that **clinical lectureships must be retained**. The Academy views the proposed clinician scientist scheme as an attractive addition to the range of career opportunities available to academically-minded young doctors and a means by which to foster future leaders in clinical research. However, we emphasise that existing clinical lectureships recognised for honorary SpR training offer an important career opportunity and should be retained; wholesale conversion of clinical lectureships to clinician scientist posts is not our intention.

However, clinical lectureships in hospital specialties are of little value to academic medicine if the job plan is essentially that of a specialist registrar. During its enquiry the Academy has come across encouraging examples of close collaboration between universities and postgraduate deaneries to construct SpR rotations that ensure periods of protected academic time for clinical lecturers with honorary SpR status.

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### Recommendation 7

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The Academy recommends **the need for improved clinical academic career track data**. The Academy strongly supports current efforts to improve data on the clinical academic workforce through implementation of comprehensive databases, such as those being developed by the Medical Research Council, the Wellcome Trust and the Department of Health (through AGMETS). However, the Academy stresses that remedial action to improve recruitment into academic medicine must not be delayed until such databases are in place and well validated.

- 1.5** The Academy concludes that clinical academic medicine can be made a more attractive career choice through relatively simple changes in the clarity, flexibility and security of training programmes.