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# Academic foundation programmes

## Introduction

Academic foundation programmes allow newly graduated doctors to experience work in the academic sphere alongside the core clinical training that the foundation programme provides. Having just completed such programmes, the authors outline why they were developed and what they involve. This article discusses some pros and cons and, for those who may consider applying, suggests some useful next steps.

## Context

In the early years of the new millennium, the clinical academic community found itself facing something of a crisis. Year on year, the number of doctors in academia was declining. From 2000 to 2003 numbers decreased by 14%, while over the same period the medical student population had increased by 28%. Posts at the highest levels were vacant – in 2003, 100 professorships were unfilled (Sike, 2004).

The Academy of Medical Sciences (2000) commissioned a report into the problem. This report outlined the disincentives faced by budding clinical academics, among them the lack of a clear career structure, the logistical difficulties and heavy workload associated with combining research and clinical training, and an uncertainty among clinical academic trainees regarding the availability of senior posts when they reached the end of their lengthy training.

At the highest echelons of clinical academia, there was sadness that young doctors were missing out on the variety and intellectual stimulation of incorporating research and teaching into their careers. There was also a realization that compromise in the quantity or quality of those who advance and teach medicine is to compromise the future of medicine in the UK. England's Chief Medical Officer's

annual report for 2003 reinforced calls for restorative action to be taken to preserve the 'precious national resource' of clinical academia (Donaldson, 2004).

A chief concern was to clarify the career structure, and to provide clearer opportunities for budding academics. The advent of Modernising Medical Careers (MMC) chiefly represented a restructuring of clinical training, but provided an opportunity to structure the academic career path alongside this. To this end, MMC and the newly created UK Clinical Research Collaboration (UKCRC) formed a working group under the chairmanship of the Wellcome Trust director, Dr Mark Walport.

The resulting paper (Academic Careers Sub-Committee of MMC and the UKCRC, 2005), commonly referred to as the Walport report, has become the defining document in the subsequent development of an 'integrated clinical academic pathway'. The first postgraduate step on this pathway is the academic foundation programme (Figure 1). The pathway depicted may be altered if changes are made to the MMC training structure as a result of the Tooke report (Tooke, 2008).

The academic foundation programme therefore offers the opportunity for early postgraduate exposure to academic medicine. Despite having been through medical school, new doctors may find themselves with little insight into the true work or life of an academic. Such programmes offer the opportunity for exploration without an over-excessive commitment.

The academic foundation programme is now entering its fourth year and is available in all foundation schools.

## Structure of the programme

Foundation schools have some latitude in determining the structure of their programmes, so there are some differences in what each deanery offers. The majority of programmes have their academic component entirely in the second foundation year (FY2), so the first year of the programme is virtually indistinguishable from the regular first foundation year (FY1). Trainees may be expected to attend an

**Dr Lindsay Banham** is Research Fellow, **Dr Daniel Beck** is Research Fellow and **Dr Paul Rutter** is Research Fellow in the Department of Health Sciences, University of York, York YO10 5DD

Correspondence to: Dr P Rutter

additional course on academic medicine in FY1 or to start thinking about a research area, but the core 4-month medical and surgical rotations are unaffected.

Academic work begins in earnest in the second year. Of the three 4-month specialty rotations, one will usually be designated as an academic block. Each deanery has developed its own preferred format for these 4 months. Some deaneries relieve trainees of all clinical duties during this period, aside from medical or surgical on-call commitments. Others require the academic FY2 to work for half of their week in a clinical job, usually in a specialty related to their research.

In addition, some deaneries make allowances for 1 day a week during the remaining two FY2 rotations to be devoted to academic interests. This may be subject to clinical commitments and require demonstrable academic activity on these days (attending a university course, for example).

During the academic block, trainees join a hospital or university research unit and take part in a research project that stands alone or that forms part of a larger piece of work. The nature of the work available and the degree of choice a trainee can exercise over this varies greatly with supervisor and with region. The authors would advise prospective trainees to investigate this closely before applying.

A supervisor will allocate you a project, or help you to choose a suitable question to research. The most important advice the authors would give is to choose a 'bite-size' research question that is clearly defined. This is likely to be your first or second experience conducting your own

research or joining in with a primary research team, and it is important that you choose something achievable within the time constraints. It is far better to complete a simple piece of work to a good standard than to half finish an over-ambitious project that may have little chance of subsequent completion.

Regardless of your chosen research area, you will have to learn a host of new skills; practical skill for lab-based research (some FY2s have become proficient at Western blot techniques); or learning and applying theoretical research techniques such as data extraction, critical appraisal and meta-analysis. While it is expected that a certain amount of learning will be done through private study, there may well be opportunities to sit in on postgraduate courses, and for this to be officially recognized with a qualification or certificate if the appropriate exams are passed.

### Highs and lows: some reflections

An academic foundation programme has its highs and lows. A key difference between 4 months in academia and, say, 4 months in a clinical post is that you have the opportunity to work to your own timetable. Obviously your supervisor will suggest a deadline for submission of work, but how you go about meeting that deadline is very much up to you. This flexibility characterizes the academic life, and may suit those who are consistent workers just as well as those who like to work in short bursts. Either way, good organizational skills and motivation are key to achieving a publication in a relatively short time.

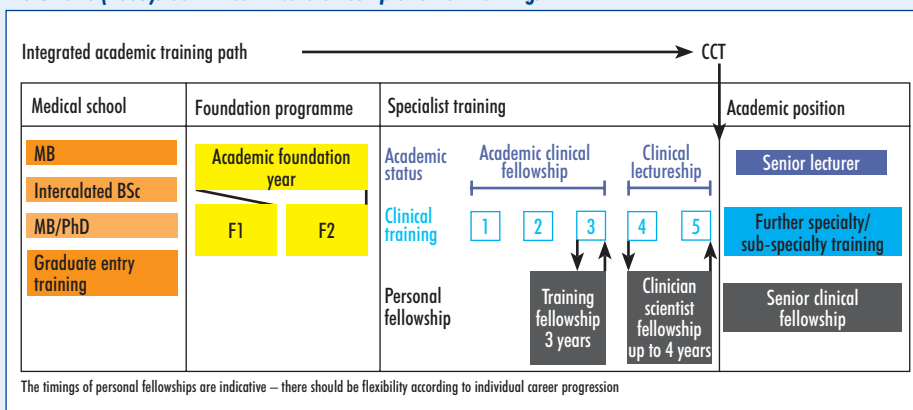
Getting your name in print is a big potential bonus for those who use their academic rotation wisely. Not only is any CV enhanced by a publication, but such a project provides an interesting point for discussion at interviews, and helps you stand out from the crowd. As an added plus point, the experience of choosing the right journal and submitting a paper successfully is a skill in itself, and any chance you get to watch and learn from the experts is worth its weight in gold.

Even if you do not choose an academic career in the long run, the contacts you make in academia may well stand you in good stead if you need non-clinical references or want to go for a research post in the future. On the flip side of this, academic departments can be difficult to break into, especially if you are not a proven researcher and a 'proper' PhD doctor. On the whole, however, people are friendly, and if you show a little humility they will enjoy sharing their expertise and giving advice.

Time spent on academic pursuits is time spent away from the clinical environment, and this has its pros and cons. Some senior clinicians, who are unfamiliar with the academic foundation programme, have argued that junior doctors need maximum experience at the 'coal face' of acute hospital medicine. The authors would argue that, while you might feel a little rusty after 4 months away, the chance to work with medics who have chosen to use their degree differently can expand your horizons a lot, and you will acquire a new set of less invasive, but no less important skills. For each of the authors, a broader range of career possibilities has become apparent.

Finally, after a year away from medical school, you may be ready to hit the books again. The authors were able to negotiate a day each week away from clinical duties throughout their FY2 year to attend MSc Health Sciences modules at their host university. Having dedicated time allocated to learning was invaluable, and allowed them to cover key research topics such as critical appraisal, medical statistics, and scientific writing that could then be applied to their own research. Academic foundation programmes are still in the development phase and supervisors may well be open to reasonable requests about what you would like to do.

**Figure 1. Integrated clinical academic training pathway. From Academic Careers Sub-Committee of MMC and the UKCRC (2005). CCT = Certificate of Completion of Training.**



### Is it for me?

Whether you've always thought about being a full-time academic and want to start developing your research ideas, you're someone who would like to find out more about combining a future clinical career with research or teaching, or you're keen to make yourself stand out from the crowd with research skills and a publication, an academic foundation programme is worth considering. The variety of programmes on offer is very wide, and it is important to research what is on offer before submitting applications and attending interviews.

Deanery websites may provide a starting point, but it is also worth trying to contact FY2s currently in post to find out the full story. Programme supervisors may not mind being approached by enthusiastic potential applicants. Most recruitment starts in the penultimate year of medical school, such that unsuccessful candidates can subsequently join the mainstream foundation programme recruitment process.

The application form contains questions testing your aptitude for academia, alongside the more standard clinically-orientated questions. Short-listed candidates will be invited for interview and a panel will be likely to explore your interest in research and teaching, and possibly your research ideas for your placement. In some deaneries, academic jobs have been available through clearing or as standalone FY2 posts, although this is not likely to be the case in years to come, as the academic programmes become more well-known and competitive.

A number of useful websites exist. For a guide to the practicalities and details of applying to an academic foundation programme, see the relevant pages of the national Foundation Programme website ([www.foundationprogramme.nhs.uk/pages/academic-programmes](http://www.foundationprogramme.nhs.uk/pages/academic-programmes)). Those considering applying may also wish to browse the 'Careers in Academic Medicine' pages of the Academy of Medical Sciences ([www.academicmedicine.ac.uk](http://www.academicmedicine.ac.uk)).

### KEY POINTS

- Academic foundation programmes were created as part of a response to a recruitment problem within clinical academia.
- They provide an early postgraduate experience of academia to interested trainees.
- The authors report a largely positive experience as trainees.
- There are a large variety of programmes on offer.
- It is important to choose a programme that suits the individual.
- Those interested should talk to trainees currently in-post and consult the websites referenced.

### Conclusions

The academic foundation programme is an option worthy of serious consideration by newly qualified doctors. It provides an opportunity to sample this exciting sphere without lengthy commitment, to develop broader skills and interests, and to gain exposure to wider possibilities than a purely clinical foundation programme might allow. It is not, however, an easy option – achievement is very dependent on individual effort and motivation. A large range of programmes are available, and those interested are encouraged to apply their research skills to finding the right one for them. **BJHM**

Figure 1 is reproduced by kind permission of the UK Clinical Research Collaboration.

Conflict of interest: Dr Banham, Dr Beck and Dr Rutter all undertook an academic foundation programme in the North Yorkshire and East Coast Foundation School.

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