

Ophthalmology research: lessons from the Academic Foundation Programme

BY ALEXANDER MEHTA

The author discusses practical lessons learned during eight months of ophthalmology research as a guide for candidates considering a research themed AFP post, with general tips for anyone undertaking research whilst balancing clinical duties.

Ophthalmology is already one of the most competitive specialties in medicine. For those interested in pursuing a research career alongside clinical responsibilities, gaining a place on the Academic Foundation Programme (AFP) with a focus on ophthalmology can be worth the intensive application process to secure one of only a handful of opportunities available. Research can be a welcome alternative to clinical placements and is useful in helping to build a future career through exposure to projects and people, as well as boosting your portfolio. As an academic trainee within the Northern Deanery, I had been fortunate to benefit from two academic rotations in ophthalmology. I have had a fantastic experience but admittedly, this type of training would not suit everybody. The practical lessons I have learned over the last two years will hopefully serve as a guide as to why the AFP may or may not be right for any prospective applicants.

The application process – an overview

The Rough Guide to the Academic Foundation Programme [1] from the UK Foundation Programme Office (UKFPO) provides a valuable introduction to the aims and types of AFP available, however, the application process, structure and style of placements vary significantly between deaneries. As you can only apply to two deaneries for an academic placement, the best source of information is either from the deanery or from one of their current AFP doctors. Broadly, the AFP application process has three main steps:

1. **Application form:** Each deanery has their own mark scheme and the majority of these are not completely transparent. If 'white space questions' are a part of the specific application, it is worth reviewing these answers thoroughly because a considered and personalised application can often win an interview.
2. **Job ranking:** Available jobs within each regional AFP will list defined rotations and hospital. These jobs need to be ranked in order of preference so it is important to decide which academic speciality and aligned rotations you would be willing to accept. As tempting as it may be, do not rank jobs that would not be acceptable if offered to you as you may penalise yourself in the cascading offers process [2].
3. **Interview:** AFP interviews are in two parts – clinical and academic – and often run by a panel of interviewers from different backgrounds. The clinical interview will assess applicants against the UKFPO 'Person Specification' [3] and can include questions on clinical scenarios, communication, competency, situational judgement, quality improvement and the duties of a doctor ('good medical practice' [4]). The academic interview can take the form of abstract appraisal

or a discussion of your research experience, aims and knowledge. Some deaneries publish a list of expected academic attributes [5].

Before applying – apply yourself!

A common misconception is that you must have multiple publications or a PhD to secure an AFP position. Whilst some deaneries value research experience or exam results highly, others want to give an opportunity to those with passion and curiosity. Finding the right fit is important – consider where, why, what, when and who.

Where: Choosing an AFP deanery is about much more than location. For example, deaneries offer varying amounts of dedicated academic time, some deaneries allow you to choose your research speciality and / or academic supervisor and some programmes include additional qualifications (e.g. PGCert in Medical Education). In some deaneries, the academic office will gladly put you in touch with a current trainee to discuss their experiences.

Why: Reasons for wanting to apply for the AFP should be considered for personal as well as interview purposes. Although having allocated academic time during foundation training can have many positive aspects, it reduces your clinical exposure and allows less time to meet your clinical requirements. Some research projects can be flexible in nature whereas some can be unpredictable and intense. Applicants should consider what they want from research time and whether those aims could be realistically met.

What: You will usually be assigned to one main project during an academic rotation. It may be possible for you to state a preference between wet lab (i.e. basic science) vs. dry lab (e.g. systematic review, clinical trial). Deaneries that allow you to choose your speciality of interest will have expected you to have spoken to potential supervisors before applying. For those who are particularly set on doing research in ophthalmology, aiming for a deanery that allows you to choose a speciality and supervisor will give you the highest chance of achieving this.

When: The timing of academic rotations varies between jobs and deaneries. One very important aspect to consider is the structure of the rotation – the majority of deaneries give you an allocated academic block of four months that will form one of your six foundation rotations. I particularly enjoyed the clinical break and flexibility of my academic blocks. However, a few deaneries allocate days of 'academic release' during normal clinical rotations. The advantage of this is that you maintain your clinical skills, experience six clinical rotations, and can enjoy a regular break from the wards, but the protection over this allocated time can vary and some find it difficult to focus on a major project when it is drawn out over a long period.

Who: Each AFP doctor is assigned an academic supervisor. Your main project is usually under their guidance, but different supervisors have very different approaches and your relationship and the research experience you gain via them can vary greatly. If a specific deanery does not allow you to choose your specialty of interest, this academic supervisor may already be pre-allocated based on the area of research attached to each job and this will be clear in the online information pack. It is therefore important to try and understand what level of input you are likely to receive from them based on research profiles, publication history or accounts from current trainees before ranking available jobs.

Welcome to academia!

For those who do manage to secure a place on the AFP, it can be a great experience, but it is important to manage your own expectations as well as those of others.

What to avoid:

- Don't expect everything to go to plan. As much as you try to prepare for your academic placement, there can be plenty of unexpected obstacles. Gaining approvals for ethics and protocols can take a long time and often feel bureaucratic. Not everyone understands or cares that you only have limited allocated academic time and projects can last much longer than four months when external parties are involved. It is also important to understand that a project may not produce any clinically interesting results that lead to the high-profile publication you were hoping for. Although publication is a common goal for AFP doctors, there is also much to learn from the entire process of conducting research.
- Don't say yes to everything. A few months can go by very quickly so limit your time to worthwhile endeavours. It can be very tempting when enthusiastic academics are keen to involve you in their projects. Each opportunity should provide you with a learning experience (e.g. clinical assessment or critical appraisal) so you may want to decline undertaking simple data collection for 10,000 patients no matter how agreeable the person asking is!
- Don't wait until you feel burnt out. Due to the fluctuating nature of academic projects, it is easy to feel overwhelmed at times, especially if your work continues into your clinical rotations. All doctors are good at coping with stress temporarily, but if you are over-burdened with deadlines it's time to move some of them and most academic supervisors would rather you did.

What to keep in mind:

- Your supervisor isn't just your project lead. Clinical academics are usually excellent sources of advice and can help you develop your interests outside of their project. This all connects back to what you are trying to get out of your AFP.
- You are affiliated to a university. This means you will have access to free resources such as journals, libraries, courses, funding and teaching opportunities that other foundation doctors don't.
- Academic medical research is not equivalent to clinical experience. This is especially true for ophthalmology. Use the flexible nature of the academic block to gain exposure to clinical ophthalmology.
- Remain open-minded. You may not be able to secure a post attached to ophthalmology, but research skills gained in any medical field will be useful in the future. Some supervisors (e.g. from public health or general practice) will try to help you link a project with your area of interest.
- Remember to enjoy it! Even if you decide that academia is not a long-term career path, there is no pressure to continue

afterwards. At a minimum, an academic block is just another training rotation – learn what you can and try to make the most of it.

My personal experience

I wanted to move to the North-East for many reasons including the friendly reputation of the region, the quality of training and the structure of the AFP offered. The Northern Foundation School encourage meeting potential academic supervisors before interview and that is how I managed to gain a fantastic mentor in David Steel, Professor of Retinal Surgery. My main project was to investigate the risk factors and outcomes relating to submacular haemorrhage secondary to neovascular age-related macular degeneration using data and imaging collected in the IVAN clinical trial. To further understand the image grading process and develop a new analysis plan and grading protocol, I spent time at the ophthalmic reading centre at Queen's University Belfast. Because I was affiliated with Newcastle University, I had open access to software, courses and one-to-one statistical advice and I was also able to get involved with teaching students. Joining the AFP was absolutely the right choice for me – it can be rare these days to be granted the time and support to explore an interest in detail, and I feel lucky to have had this experience. My favourite part has been gaining a better understanding of data analysis and I will be looking to expand on this in the future.

Conclusion

A place on the AFP with allocated time for ophthalmology research can be difficult to secure as only a few opportunities are available in the UK. However, for anyone with an interest in combining clinical and academic ophthalmology, it can be a fun, unique and rewarding part of foundation training if approached with the right preparation and attitude.

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(All links last accessed December 2020)

AUTHOR



Dr Alexander Mehta,

Institute of Genetic Medicine, Newcastle University, International Centre for Life, Newcastle-upon-Tyne, UK.