**Special skills in: Academic Research**

It is the inherent nature of doctors to have an inquisitive mind and to solve problems. As such, many of us find it interesting and rewarding when faced with the challenge of asking a relevant question, determining the best way to answer it, and to implement this thought process.

Doctors do not need to dedicate some years of their lives to pursue full time research (i.e.: with little or no clinical commitment). However, doing so allows one to focus on a particular area of interest and to develop new skills. This includes the process of conducting a clinical trial (‘clinical research’), obtaining patient samples to understand mechanisms of disease (‘translational research’), or conducting cell or animal research (‘basic science research’). Often, this is taken as time to complete a formal research degree (MD or PhD).

**What it involves**

The challenges to pursuing a full time postgraduate research degree include finding a suitable project that is in line with your clinical interests, identifying a suitable supervisor in a good research centre, and obtaining funding (for both a salary and consumables). Funding for postgraduate research (a ‘fellowship’) may be obtained from grant bodies (including the Wellcome Trust and the Medical Research Council). Smaller startup grants are a good way of getting pilot data to support a fellowship application. Occasionally, a teaching hospital may have funds to support a ‘clinical research fellow’ to conduct research as part of a higher degree. Often, there is a clinical commitment. This varies, but is often about 25% of one’s time.

For the most of us, ‘opportunistic research’ is more appealing. There are obvious time constraints to conducting research projects alongside our clinical job—particularly a busy on call rota, exams, and often just 6-12 months in a particular post. Obtaining research ethics to conduct a study (required even for observational studies) takes time, and is enough to put most people off. As such most trainees limit their efforts to audits or clinical evaluation exercises. Observational studies often require local research ethics committee approval, and therefore have a quicker turnaround. Occasionally, trainees are able to get involved in ongoing studies.

Alternatives include conducting meta-analyses, systematic reviews, and surveys. These often form the backbone to subsequent clinical trials. Research using simulation/manequins is also very relevant.

The rewards of medical research are both in the intellectual curiosity in as much as the ability to positively influence patient management.

**Advice for interested trainees**

1. Always speak to some one with a good track record in research. A lot of research idea may be relevant and interesting but may not be
achievable given the local expertise, time available, and funding constraints.

2. If considering a full time postgraduate research degree, identify a good supervisor in a good centre. The rest usually follows. Do not exclude someone outside intensive care as a supervisor (e.g. a geneticist or an immunologist).

3. Think about starting a project early- things always take longer than expected.

4. Always write up the research findings and present it as an abstract (at the very least).

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Useful Resources

FICM guidance on academic training in ICM