

Inspirational doctors, back pain and the MMJ

Were I ever to be asked who were my medicine ‘heroes’, three names would immediately come to mind.

Ibn al-Nafis (1213–88), against all Galenic teaching, described the circulation of blood through the lungs 400 years before Harvey wrote his *De Motu Cordis*; he was the author of 110 volumes of medical texts and based his studies on human dissection.

John of Arden (1307–92) was arguably the first ‘English surgeon’, and certainly one of the first surgeons to develop ‘cures’ (his most renowned for fistula-in-ano).

Barry Marshall (1951–date) is Professor of Microbiology at the University of Western Australia, and won the Nobel Prize for Medicine in 2005 for discovering the link between *Helicobacter pylori* and gastritis; on the way, testing Koch’s postulate on himself and proving his detractors wrong.

There have been many other great doctors over the centuries, but surely none who could be held to have questioned established practice, contemporary thinking and cultural taboos by the application of pure clinical scientific research in the way these three have.

Nowadays everyone is searching for the evidence base of diagnostics and patient management, and we would be shocked were our students not to understand the importance of evidence in developing medicine.

But whilst many of us practise evidence-based medicine, few are privileged to be permitted to *develop* that evidence base. A privilege it most certainly is, but it is also hard work. I have studied the pathology of discogenic back pain and the biology of the intervertebral disc for 30 years. Only after that time and working as part of a fabulous team including Professor Judith Hoyland, a gifted molecular pathologist, and Professor Brian Saunders, a radical innovator in nanobiomaterial chemical engineering, have we been able to come up with a new evidence-based treatment for patients with chronic back pain. This has been facilitated by working in a far-sighted university and with clinical colleagues who recognise the limitations of their existing practice.

The route into clinical research has never been more structured, with funding for ‘academic’ posts at foundation-, early-, mid- and late-career

level being made available through the National Institute for Health Research, universities, research councils and research charities. Even so, entering into and flourishing in a research career is not easy, and that is why there is a real shortage of clinical researchers in the UK. However, after 35 years as a clinician scientist I would recommend trying the intellectual freedom, the chance to meet great minds and the opportunity to make a difference to patients' lives.

So, supposing you are now thinking that research, as part of a wider clinical career, might be for you. How should you proceed? Well two big questions are asked by those considering a medical research career:

- How do I discover if I like the rigour of clinical research?
- How do I get into medical research?

Firstly, if you are reading this then you have started. You have enquired, and an enquiring – even overtly questioning – mind is a prerequisite. But you need a little (!) more than that.

You need to build your CV. There are few other medical schools that allow students the opportunities Manchester does to investigate research on their course and through sponsoring extracurricular societies. Take those opportunities; undertake an intercalating degree, and meet and nurture a relationship with the great clinical researchers in Manchester in your chosen area of medicine. Take every opportunity to do research, write it up, present it at meetings and meet more like-minded people.

You have to do the leg work, but there is loads of advice out there. What everyone worth listening to will tell you is to build your CV, prove that you are interested, publish and present your findings and listen to, and learn from, criticism.

It is impossible to think of a better way to 'cut your research teeth' than by submitting to the MMJ. You won't be successful all, or even most, of the time, but the feedback from peers and more senior colleagues will guide your future research and make you a better thinker and researcher.

The only advice I can add is be lucky, and remember the aphorism, 'The harder I work, the luckier I get'. Or, to translate to the here and now: support the MMJ and it will support you.

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