

Clinician scientists in training

The Medical Research Society, founded in 1930 by Sir Thomas Lewis, held regular research meetings for more than 80 years, but during its last decade the attraction of its multi specialty meetings waned while the single-specialty society meetings in the UK prospered. In October 2011 the Medical Research Society merged with the Academy of Medical Sciences, with the understanding that the tradition of multispecialty meetings attracting young research-active clinicians would continue. Since then, the Spring Meeting for Clinician Scientists in Training has become a highlight of the clinical academic calendar. Held at the Royal College of Physicians (RCP), the meeting offers young clinical scientists the opportunity to display their work (complete or in progress), to network, to (for a selected few) win prizes, to meet senior investigators, and (not to be underestimated in this competitive publish or perish era) to see their abstracts published in *The Lancet*. The meeting also provides a snapshot of what is going on in British clinical research laboratories, and the involvement of trainees in the sector.

The meeting is of course at the elite end of the research spectrum. Abstracts are invited from clinical trainees in recognised training programmes and then subject to selection; the odds are pretty reasonable with, in this year's meeting, about 100 abstracts being selected from over 160 submissions. 40% of the presenters acknowledge the Wellcome Trust for support; 20%, the Medical Research Council and the National Institute for Health Research (NIHR) about the same; other funders include the Academy of Medical Sciences itself, the British Heart Foundation and Cancer Research UK. London housed nearly half the trainee clinicians presenting, followed by Edinburgh and Cambridge, though there were presentations from virtually all UK universities.

A flavour of the science on show can be garnered from the subjects addressed by four of the prizewinners: intercontinental spread of multidrug-resistant *Salmonella enterica* tracked around the world by whole genome sequencing; linking the results of pre-entry TB screening in migrants to the UK with subsequent clinical disease after immigration; identification of a mutated gene responsible for delayed puberty by sequencing

studies in a large Finnish cohort, its relevance nailed by gene deletion in mice and zebra fish; and report of a new clinical subtype of Conn's syndrome appearing in pregnancy and its genetic basis (abstracts can be viewed at the following link: [www.thelancet.com/journals/lancet/issue/vol387nonull/PIIS0140-6736\(16\)X0009-8](http://www.thelancet.com/journals/lancet/issue/vol387nonull/PIIS0140-6736(16)X0009-8)). As that list clearly indicates, the underlying message of the meeting is that high-quality clinical science emerges from the application of advanced techniques to clinical problems in first-class laboratories.

The RCP's president noted, as she welcomed the participants to the meeting, that she thought the great majority of the presenters were probably future physicians. Nonetheless, one of the strengths of the meeting is the Academy's breadth of interest in all subjects medical, and the trainees come from all clinical disciplines, not only medicine and paediatrics, pathology, surgery and obstetrics; the fields of therapeutic immunology and oncology were particularly well represented. The commonality of scientific approaches – whether it be molecular genetics, stem cell science, magnetic resonance imaging or tissue engineering – which can be applied to many disparate clinical areas provides a bond that ensures the interest and participation of trainees from all disciplines, and marks this meeting out from the single-specialty society meetings.

The Academy of Medical Sciences is very clear that the meeting exists to encourage and nurture future clinical academics, and points out that 'there has never been a better time to embark on a career in academic medicine'.¹ Indeed the commitment of the major funding bodies mentioned earlier, and particularly the £1 billion extra that the NIHR now provides for health-related research, all support that contention, including notably the relatively clear if highly sought-after career track provided through NIHR clinical training fellowships and clinical lectureships. The importance of the latter in particular is that they offer the 'post-doctoral' research training required to be internationally competitive. Importantly, the Shape of Training report supported flexibility through the training pathway to support trainee academics.²

Few would argue with the provision of the strongest possible support to the cadre of clinician scientists in training. However,

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for the majority of physicians-in-training, and the majority of physicians, innovative science is a distant cry from the all-important business of providing as good a clinical service as can be achieved. On the one hand, it is reassuring that the Academy's meeting included some immediate 'coal-face' research – such as the effect of immediate administration of tranexamic acid to trauma victims, and the implications of weekend psychiatric hospital admissions for planning 7-day mental healthcare; and on the other it is appropriate that the RCP's Advanced Medicine course – also held in February – covered not only the cutting edge of clinical practice, but also topics such as the impact of genomics on discovering and diagnosing rare diseases, stem cell transplants and immunotherapy (www.rcplondon.ac.uk/events/advanced-medicine). Certainly all clinicians in training – not

only clinician scientists – must be aware of the potential of the 21st century revolution of the first sequencing of the human genome to dramatically alter clinical practice during their professional careers. When considering the potential rate of progress, it is worth remembering that the World Wide Web is only 26 years old! ■

References

- 1 Day C. The changing funding environment for clinical academics. *Lancet* 2016;387:S3–5.
- 2 Greenaway D. *Securing the future of excellent patient care*. Shape of Training, 2013.

Humphrey Hodgson

The Royal College of Physicians will shortly be seeking a new editor-in-chief for *Clinical Medicine* as Professor Humphrey Hodgson comes to the end of his term of office. Full details of the post and the application and appointment process will be published shortly, but those who wish to express an interest at this stage are requested to do so by e-mail to hannah.cole@rcplondon.ac.uk.