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## Reflections on paediatric research

Recently I attended a meeting at the College titled 'Turning the tide – increasing research to benefit children....' The meeting was chaired by Professor Neena Modi and brought together academics, College leadership, trainees, representatives of charities and individuals who work with the media and politicians. Many of the themes that emerged have been discussed before both in the UK and USA:

- ▶ The percentage of grants awarded to paediatricians by both government and charities is less than 10%;
- ▶ Few paediatricians are entering academic careers; and
- ▶ The lack of flexibility in training, and the limited number of role models, mentors and resources conspire to create an environment in which 'launching' a paediatric research career is very difficult.

What is the 'right' amount of research dollars that should be awarded to paediatricians? Many researchers who conduct child health research are not paediatricians, so perhaps the critical question is not whether paediatricians are doing well with respect to research support, although admittedly this is important for paediatrics to remain a rigorous academic discipline, but how many research dollars focus on child health. In most healthcare systems, children account for about 10% of healthcare costs. Perhaps that is a starting point for the discussion, but the ultimate amount will depend on the quality of research applications, funding priorities (countries that emphasise prevention should benefit child health investigators while those that champion treatment are likely to award investigators who focus on adults), and where the boundaries of medical research are drawn. Few children develop serious illness; the great morbidity for children is linked to poverty, lack of education and fractured families.

There was extensive discussion about the lack of flexibility in paediatric training and how that substantial hinders the ability of trainees to have experiences conducting research. There were two

presentations from young investigators. One emphasised her career commitment to research that grew out of a 2-month laboratory based experience in the USA, which was supported by a UK colleague who recognised her desire and need for research experience. She returned to the UK committed to a research career. The other paediatrician discussed his challenges in finding time, resources and mentors. Virtual all of the participants recognised that a perquisite to building the paediatric research enterprise will require great flexibility during training, additional resources to 'protect' trainee's time to learn about and/or conduct research, and a clearer path that can lead to continuous research funding.

There was little discussion about role models and mentors, which surprised me. Even if flexibility during the training years can be obtained and additional resources identified, unless young investigators find themselves in supportive environments that can help them early in their careers and educate them about how to negotiate the funding puzzle, the likelihood of success will be limited.

In reflecting on my own research career, and role as a mentor to numerous trainees and junior faculty, some lessons have emerged. First, research is not for everyone. Although ensuring that more trainees are exposed to research, the vast majority will prefer clinical care or teaching. At the meeting, there was extensive discussion about the need to involve more consultants in research. I am not sure this is necessary. Second, clinical research has become much more sophisticated in the last decade. Just as it is hard to imagine that someone can become a successful lab based investigator without a PhD, the same is now true for clinical researchers. Most clinical research training programmes in the USA require a master's level degree with an emphasis on study design, epidemiology and biostatistics. Lastly, it is critical that young investigators join a supportive environment. One of the wonderful aspects of the healthcare enterprise in the USA is the number and quality of academic health centres, many of which have substantial resources and large numbers of faculty engaged in both clinical and

laboratory investigation. More must be asked of the UK paediatric academic centres of excellence, although the College can help with creating the correct structure for training, it is the current group of academics involved in research who must champion careers in investigation and provide mentorship and opportunities for trainees.

## ADC this month

- ▶ I have known Harvey Marcovitch for over 10 years – he is a wise man, and was an excellent paediatrician and editor. This month he reflects on why paediatricians are negligent. He writes of his own experiences as well as critiques a paper from France, which describes their experience with paediatric malpractice. These papers are an important read for all of us. *See page 117.*
- ▶ Children born with sickle cell disease (SCD) currently live well into their fifth and sixth decade of life. However, it is now recognised that pulmonary hypertension in adults with SCD is associated with a 10-fold greater risk of death. Chaudry *et al*, describe pulmonary hypertension in 15 of 34 children (mean age ~14 years) with SS genotype. Should we intervene – that question is now the subject of a number of clinical trials in the USA. *See page 131.*
- ▶ Helping adolescents who attempt suicide depends upon improving adherence to follow-up. In an important randomised clinical trial from Ougrin and colleagues, the use of therapeutic assessment – a brief intervention based on cognitive analytic therapy – in a group of 70 newly referred adolescents with self-harm, significantly improved attendance at first follow-up and number of follow-up treatment sessions. *See page 148.*
- ▶ Investigators from Catholic University in Rome describe the use of lidocaine spray and intranasal midazolam (INM) in children. Their conclusion: 'the combined use of lidocaine spray and atomised INM appears to be safe and effective method to achieve short-term sedation....' Yet another pharmacologic concoction added to our cornucopia of sedation drugs. *See page 160.*