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# The NHS academic vision: training the physicians to deliver it

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The NHS represents a potentially world-class research resource. Realising this vision was the subject of Sir David Cooksey's 2006 report *Best research for best health: a new national health research strategy*.[1] The quality of the UK health research base and a national health service were identified as major attractions for research and development investment from the pharmaceutical and biotechnology industries and as forming a major part of the UK knowledge economy.

Significant opportunities to facilitate this national research agenda could be realised through the identification of stages in the research innovation pathway at which NHS clinicians could make an important contribution.[2] This would involve identifying opportunities for the convergence of clinical and research interests, and should reward collaboration between scientists and clinicians working in concert to address specific and focused questions of research need, channelling scarce funding through whichever organisation (university or NHS trust) is best placed to deliver success. Negotiation for contractual enhancements of the research portion of job plans at annual appraisal, and the growth of clinical academic units through newly emerging National Institute of Health Research (NIHR) funded initiatives (eg biomedical research units (BRUs) and centres (BRCs)) should assist in refining this process. Removing the obstacles to clinical research by lowering administrative and legislative barriers, or at least providing support for clinicians to overcome these, is of vital importance. Partnerships between clinical service (NHS) and university in, for example, BRUs, and compiling relevant metrics leading to the submission of translational research programmes have been shown to be successful in a number of environments. Developed fully, this should lead to the development of translational research proposals and a grant/publication portfolio that facilitates access to continued direct and indirect (eg flexibility and sustainability) funding. Employing a coordinated approach, the development of appointments combining clinical and academic commitments within disease-focused clinical academic groups or partnerships should also be facilitated by the emergence of academic health science centres (AHSCs).[3] The first five AHSCs were recognised in England in 2009, each with different structures and collaborative systems aimed at facilitating partnership between universities and the NHS. Joint research structures can do much to reduce the burden of administrative barriers to research; joint appraisal can enable audit of achievements to be marked and rewarded, especially where devolution of clinical and academic programmes has occurred, and international benchmarking is facilitated.

Exploring these aspirations for, and challenges to, NHS-based research prompted a one-day workshop held at the Royal College of Physicians (RCP) on 9 November 2009. Participants included representatives of the joint specialty committees of the RCP, of the Medical Research Council, Wellcome Trust and other research funding bodies; of the Academy of Medical Sciences, the NIHR and Medical Education England; and chief executive officers of NHS trusts with significant research agendas. The aims of the workshop were fourfold.

First, to identify the optimal means of combining effective clinical training with academic development in the different medical specialties. It was felt that national specialist societies represented within the RCP that have no formal academic structure should nominate representatives with significant responsibilities to enhance the research profile and involvement of NHS consultant staff working in their respective fields. The RCP could provide a leadership role for these representatives, developing a strategic plan to enhance the research mission of the physician body in accordance with the mission of the NIHR. The RCP should also, via the Joint Royal Colleges of Physicians Training Board (JRCPTB), ensure that relevant research competencies are recognised as an essential part of training for all physicians, that these are reinforced and refreshed via the consultant appraisal and revalidation processes now under development.

Second, to identify the optimal working environment that would enable research-active clinicians to contribute to delivery of the national research agenda. It was recommended that all deaneries should actively explore the development of 'academic schools', which might sever the current link between Certificate of Completion of Training date and completion of academic training, and which are working well in several regions. The RCP should consider creating associate regional advisers with specific responsibilities for academic training, and lead efforts to address the gender imbalance in medical academe, for example by supporting less-than-full-time working.

Third, the potential role of the research-active NHS physician in helping to deliver the national research agenda was explored. An exemplar job plan would be of great assistance and should be developed by the RCP in conjunction with relevant national bodies (eg the NIHR). It was felt that all doctors in training from foundation year 1 onwards (irrespective of specialty or

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discipline) should receive mandatory training in research methodology and governance; with a competency framework that the RCP and pharma could together define, possibly through the vehicle of the RCP Medicines Forum.

Fourth, to consider the career structure of the research physician. Tackling the future employment prospects for academic trainees was seen to be a priority. Thus, NHS trusts and university partnerships already developed (eg through AHSC, BRC, BRU etc) should with the RCP identify systems (eg clinical academic groupings) in which basic scientists, clinical scientists and clinicians could collaborate to fulfil service, research and teaching needs in optimal circumstances.

Additionally, the RCP should work with the Academy of Medical Sciences, the General Medical Council and other relevant bodies to protect the interests of research-active clinicians as the processes for revalidation emerge and are introduced. Clinicians in training for careers at the academic end of the spectrum of clinical practice must be allowed to develop their potential in parallel according to their individual career requirements and a mentoring system should be developed to facilitate this.

Finally, opportunities for clinician scientists to move sessions between clinical and academic activities (in either direction) as their career advances should be explored. This may involve closer liaison between NHS trusts and universities and would depend upon the maintenance of competencies.

In conclusion, academic medicine in the UK today stands at a crossroads. The danger that basic science and clinical practice will follow divergent paths is great. Forging a new route together will afford the maximum chance of realising the potential foreseen by Cooksey.

## References

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EDITORIALS

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# Variation in lung cancer outcomes in the UK and Europe

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Lung cancer is the most common cancer in the world with 1.3 million new cases diagnosed every year.[1] In the last 10 years its incidence in the UK has fallen by 11% reflecting reduced rates of smoking, predominantly among men, but the overall incidence remains high at over 39,000 cases of lung cancer in 2006. Lung cancer has an enormous impact on national mortality and currently accounts for 6% of all deaths and 22% of all deaths from cancer in the UK.[2–4]

Historically, lung cancer outcomes in the UK have not compared well to the rest of Europe. The European cancer registry-based study on survival and care of cancer patients (EUROCARE) project collects and analyses data from over 80 cancer registries across 23 European countries. The fourth report relating to adults diagnosed between 2000 and 2002 demonstrated a range of five-year survival from 9.72% in the UK and Ireland to 13.4% in central Europe.[5] A more recent study comparing lung cancer survival in England, Norway and Sweden between 2001 and 2004 also found that the age standardised five-year survival rates were lower in England at 6.5% for men and 8.4% for women compared to 11.3% and 15.9%, respectively, in Sweden.[6] There is no doubt that these results are a cause for concern, however, they should be interpreted with some caution. Ten of the countries involved in the EUROCARE report were represented by regional registries, which cover only a proportion of the overall population. For example, the registries in Italy were mainly located in the wealthier north of the country and so are unlikely to be representative of the country as whole. The Scandinavian cancer registries do cover the whole population, however, unlike the English registries, they do not all include cases identified by death certification alone which may lead to underreporting of more advanced disease.

Differences in the collection and presentation of data may account for some of the variation, but the consistency of international comparisons suggests that other factors are also at play. Surgical resection offers the only realistic chance of cure for lung cancer. Surgery is only possible for early stage disease in patients with sufficient cardiorespiratory reserve to cope with major lung resection surgery. Cancer registries do not currently include data on stage, performance status and comorbidities, so it has not been possible to carry out case-mix adjusted international

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