

## EDITORIALS



## Clinical academics' postdoctoral career development

Could be helped by mentoring, improving the work environment, and better access to funding

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Over the past 20 years commentators have warned of an impending crisis in academic medicine resulting from a failure to attract and retain medically qualified, clinical researchers.<sup>1,2</sup> In 2005, in response to these challenges, the UK government established an integrated academic training pathway to generate a "pipeline" of world class future clinical academics. This pathway, overseen by the National Institute for Health Research, encourages junior doctors with an interest in research to advance from an academic clinical fellowship, and after completion of a PhD, to clinical lectureship.<sup>3</sup> Each step along this path is competitively awarded and provides a formal structure in which trainees receive protected research time alongside their clinical training. However, whether this pathway boosts our supply of clinical academics has yet to be assessed.

Recent exit data for clinical PhD graduates from two of the largest funding bodies in the UK, the Wellcome Trust and Cancer Research UK, suggest that about a third progressed to a formal academic post, such as a clinical lectureship or clinician scientist fellowship (Cancer Research UK, personal communication, 2015).<sup>4</sup> Additionally, the British Heart Foundation conducted an internet search of its PhD graduates and found that only 40% of clinicians who had completed their PhD since 2000 were subsequently active in research (British Heart Foundation, personal communication, 2015). These data should motivate us to ensure that early career clinical academics are provided with a training environment that is as supportive as possible.

A new UK review of career paths and progression for clinical academics early in their careers has identified some of the barriers and enablers.<sup>5</sup> Although most research on postdoctoral clinical researchers is north American, this may also help us to understand their experiences. Four factors influence postdoctoral career progression within academic medicine: mentorship, work environment, access to funding, and intrinsic motivation. Doctors who experience supportive mentorship and positive role models tend to report greater career satisfaction and confidence.<sup>6</sup> Supportive mentors are those who protect and encourage their trainees' personal and career development and,

consequentially, promote both greater independence of thought within research and a desire to remain within clinical academia.<sup>7,8</sup>

Allied to mentoring, junior clinical academics express a desire to work in an environment that is inclusive, respectful, and attentive to their needs in an institution that is committed to their career progression.<sup>9,10</sup> Access to such an environment may, however, depend on attaining research funding and financial stability. Indeed, difficulties in acquiring research grants feature strongly in early career researchers' accounts. Those who experience financial pressure, such as debt, and are unable to obtain research funding may be unable to advance their academic careers.<sup>11</sup> Nevertheless, trainees' internal motivation and reasoning for becoming a researcher may influence their career path. Intrinsically motivated junior clinical academics who perceive research to be highly valuable pursue it even if career success is uncertain.<sup>12,13</sup> These junior academics find their role intellectually stimulating and discovery exciting.<sup>14</sup> When inevitably met with rejection from academic journals or sources of funding, they persevere in their careers and develop resilience.<sup>15</sup>

More substantive data are needed on the experiences of UK trainees, but the above evidence suggests three key actions that will create a more supportive environment. Firstly, research institutions should implement measures to help trainees feel welcome and supported. Such interventions may be aimed at improving mentorship by providing continuous support and training to mentors, but should not be solely restricted to this area. For example, training could include approaches for facilitating a work culture that is inclusive, inspiring, and focused on group goals. Secondly, UK universities and funding bodies should routinely collect data relating to trainees' career pathways, ensure that such data are widely shared and accessible to all who need them, and continuously improve methods of data collection. Decisions based on such data must also be transparent and understandable by all parties. Finally, including trainees in a collaborative dialogue with research institutions

and funding bodies could generate creative and inclusive approaches to supporting postdoctoral career progression.

The future of academic medicine depends on a continuous source of clinical researchers to undertake research and translate it into practice. The integrated academic training programme provides a platform for UK based clinicians to launch their clinical academic careers. We must strengthen our efforts to ensure that early career clinical researchers are supported and that the effectiveness of this platform is thoroughly assessed.

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