Clinical academics in training: Future-proofing UK Health Research

CATAC parallel session report, June 2023

The Academy of Medical Sciences

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All web references were accessed in August 2023.

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Introduction

Clinical academics - clinically qualified healthcare professionals who also pursue a career in research - hold a unique position in the UK's health research landscape and undertake a vital role in improving patient care. However, they face challenges in developing their dual careers between research and healthcare settings, particularly during training. These barriers threaten the future of the clinical academic workforce and we risk losing the benefits these individuals bring to the UK's health and wealth. Overcoming this requires holistic solutions and coordination across the health research sector.

The Academy of Medical Sciences' *Future-proofing UK Health Research: a people-centred, coordinated approach* report identifies several solutions to the issues facing clinical academics in the UK.[1] Following publication of the report in May 2023, the Academy held a discussion with delegates at its Clinical Academics in Training Annual Conference (CATAC) on 9 June 2023.

CATAC is a UK-wide, cross-specialty conference and participants of the discussion session included clinical academic trainees from a variety of disciplines, as well as representatives from medical research funders.

The session welcomed over 60 participants who chose one of four report themes and separated into groups to engage in facilitated discussions (facilitators and discussion themes provided in Annex 1). Each group was presented with themes and policy solutions identified in the *Future-proofing UK Health Research: a people-centred, coordinated approach* report and participants were invited to share their reflections and priorities for action (full list of discussion questions provided in Annex 2).

The participants' perspectives are summarised anonymously throughout this document. The Academy's ongoing conversations with stakeholders continue to influence the implementation of the report solutions and will inform future areas of focus for our work.

Clinical academic trainee priorities

Flexibility in training

The *Future-proofing UK Health Research: a people-centred, coordinated approach* report found that clinical academics' dual careers present significant opportunities for generating innovation and health improvement. However, meeting both clinical and academic training competencies can be demanding and requires flexibility in how competencies are demonstrated.

Discrepancies in how flexibility is embedded in competency demonstration exist between disciplines and specialties. Public health and paediatrics were cited as disciplines where flexibility had been embedded well, with participants suggesting that clinical competencies in these specialties had been written to target quality rather than numbers, and that when this flexibility was upheld by assessors, demonstrating competency was more efficient.

Participants considered the requirement for flexibility to extend to where and how competencies were assessed, particularly in some sub-specialties where travel is required. Supportive training programme directors and academic leads were regarded as significant enablers to flexibility, and cooperation between academic and clinical leads was considered to be vital.

Flexibility was also welcomed in relation to career pathways, with participants highlighting that re-entering clinical academia after a period away, pursuing academia later in a clinical career or changing research area were difficult and risky, making a clinical academic career less adaptable.

Clinical academic careers across all disciplines

As recommended in the *Future-proofing UK Health Research* report, participants emphasised the importance of better exposure to, and more opportunities for, research at every stage of training, particularly in disciplines and specialties with less defined clinical academic career paths or less established training programmes. The compounding effects of a lack of encouragement to engage in research and fewer role models were raised as challenging for nurses, midwives and allied health professionals (NMAHPs) and public health trainees, and left trainees in these disciplines with limited support networks to advise on overcoming career barriers.

For some disciplines, such as general practice and emergency medicine, a lack of established clinical academic career options presented barriers, and in midwifery, participants considered it to be particularly difficult to return to clinical practice following engagement in academic research.

While many public and charitable research funders actively encourage applications from clinical academics outside of medicine and dentistry, public health trainees reported that barriers to their eligibility persisted in some schemes.

Participants considered that to overcome these challenges, a coordinated approach between disciplines would be most effective, particularly for knowledge sharing from disciplines with more established career pathways. It was also suggested that funders had a role in ensuring that the eligibility requirements of their funding schemes were accessible to clinical academics from a range of disciplines.

Clinical academic career stability

Echoing a strong theme of the *Future-proofing UK Health Research* report, participants emphasised the importance of greater career stability for clinical academics.

For trainees, this priority was felt most acutely at the transition between research doctoral and post-doctoral career stages, and participants reiterated that the current balance of funding at this career stage was contributing to a lack of overall career stability for clinical academics. While this was highlighted as a challenge for all clinical academics, some participants expressed concern that imbalances were more pronounced for trainees in certain disciplines.

It was also highlighted that for clinical academics undertaking a PhD, the transition back to full time clinical duties whilst writing a thesis could be abrupt and difficult to manage. The inclusion of bridging funding in PhD awards to aid a more manageable transition was suggested, which is currently offered by some schemes and host institutions.

It was noted that while not all individuals follow the traditional career pathways (primarily present in medical and dental training), for some individuals, the feeling of failure that can occur if one does not secure a PhD fellowship can prevent them from pursuing research through other pathways.

Some participants raised concerns about pay-related disincentives for clinical academics, particularly during training, as well as competition from countries promising better pay and conditions for clinicians and university staff. It was suggested that employers and host institutions could embed flexibility in the academic and clinical balance of contracts to allow individuals more autonomy to shape their careers. Participants also suggested that universities could demonstrate their commitment to clinical academics through career development opportunities, which would help instil confidence in emerging research leaders with concerns about the security of their clinical academic careers in the future.

COVID-19 pandemic career impacts

Participants were broadly supportive of funders asking about the impacts of COVID-19 on an applicant's career and taking this into account when reviewing grant applications.[2] Some participants noted that they would 'always' need to explain why their PhD research topic had changed, or why their research had been delayed. It was suggested that funders ensured providing this information remained optional for applicants.

Cross-sector mobility

Participants reiterated challenges for clinical academics wishing to explore cross-sectoral mobility and engage with industry collaborators. Crucially, participants highlighted that opportunities to work in industry were not easily accessible to clinicians, particularly those at post-doctoral stage, with some participants noting difficulty building connections and accessing 'insider' information. Some felt that engaging with industry would delay their career and create additional pressure at an already challenging career stage, partly due to a lack of

obvious pathways for returning to clinical work after secondments or jobs in industrial sectors. A lack of training for navigating collaborations with industrial partners and a negative cultural perception of industry in academia also contributed to the barriers.

Participants considered that research must be recognised and embedded in the NHS and other healthcare settings in order to better utilise cross-sectoral opportunities. Greater coordination between NHS, academia and industry was highlighted as important for enabling flexibility in careers and maximising the portability of skills between sectors, a key theme of the *Future-proofing UK Health Research* report. It was noted that the benefits of cross-sectoral mobility for the NHS could be communicated to managers and decision makers to tackle perceptions of 'poaching' by industry. Mentoring was noted as particularly valuable for developing a more research-engaged NHS workforce, both in academic and industry settings.

Addressing issues of workload was highlighted as a priority by participants, as time was seen as a significant barrier to engaging in cross-sectoral careers. Participants also noted that there were already difficulties involved in cross-sectoral working between the NHS and academia which made balancing work within an additional setting, for example industry, less desirable. These challenges were considered to be particularly limiting for NMAHPs and public health professionals.

It was suggested that host institutions should support individuals through providing guidance (for example on contracts and intellectual property rights) to better enable clinical academics to engage in cross-sectoral careers, which aligns with the Academy's *Future-proofing UK Health Research* recommendations. Participants were also encouraged to contact industry professionals directly to explore opportunities and transferable skills, which could help demystify the sometimes-vague recruitment criteria.

Continuity and consistency between NHS and host institutions

Continuous employment rights are protected for medical, dental and NMAHP trainees in receipt of nationally competitive funding, allowing these individuals to move between jobs and sectors without losing sickness or maternity rights.[3,4] However, there was a perception amongst participants that adherence to the principles was dependent on the individual training programme director or academic lead, rather than being universally applied. In addition, it was suggested that these commitments should be applied to all trainees engaging with research alongside clinical work, not just those in receipt of nationally competitive funding. Participants suggested that further coordination between employer and NHS/host institution HR departments when developing clinical academic contracts would overcome some of these challenges, particularly for NMAHPs for whom securing honorary contracts was reported by participants to be less common.

Equity, diversity and inclusion

Participants recognised the underrepresentation of people with certain protected characteristics as a significant priority area, noting that senior academic staff do not represent the wider clinical workforce, let alone the patient population. Several participants expressed pessimism about improvements to representation going forward. Some considered the phrasing of 'evidence-based solutions' to tackle underrepresentation, as recommended in the Academy's *Future-proofing UK Health Research* report, to be non-comital, instead recommending that bolder solutions, such as diversity quotas, were required.

Team science and academic citizenship

Participants were enthusiastic about working in a more interdisciplinary or 'team science' fashion, however many highlighted a need to be realistic about what could be achieved when balancing other responsibilities such as clinical duties, supervision and grant writing. Some participants perceived that team scientists may be less competitive due to a lack of recognition for these roles and publishing fewer first author papers. However, others perceived team science approaches to be even more important for clinical academics who can have greater constraints on their time and may benefit from collaboration with skills specialists and other disciplines to achieve their research goals.

Alongside these time pressures, participants noted challenges in balancing the development of academic citizenship skills and experience. Participants expressed a desire for more clarity on what is expected of individuals, with some suggesting that academic citizenship metrics could be a useful way of understanding this. However, participants noted that metrics would need to be specific rather than open to bias, and that they would need to remain relevant and consistent over time.

Innovating for efficiency

Participants discussed several possible innovations to increase efficiency and reduce bureaucracy in funding processes, including the use of narrative CVs, 2-stage application processes and partial randomisation. The benefits and drawbacks of these innovations were explored, with participants' overarching priority being a more coordinated and streamlined approach to funding. Participants expressed a diversity of views about each innovation.

Narrative CVs were considered to be valuable only if the required content was broadly unified across funders. Participants felt that 2-stage application processes would not save time for researchers if accurate costings were required by either funder or host institution at the initial stage of application. Some participants welcomed the idea of application forms which allowed narrative or plain text rather than defined text boxes, to provide applicants with greater freedom to structure and write in their individual style. It was highlighted that providing guidance and defining essential components, but removing structural rigidity, would be appreciated by some applicants.

The Academy's *Future-proofing UK Health Research* report proposed partial randomisation above a certain quality threshold for small awards as a solution to reduce workload for researchers. In discussion, some participants considered that partial randomisation could also be an opportunity to increase diversity, for example by taking protected characteristics into account when randomising middle-scoring applications. However, others did not perceive randomising award processes to be appropriate for distribution of funding.

Participants considered the use of ORCID iD numbers to be an efficient way of simplifying the application process, however some noted that approaches which allowed applicants to detail

their contributions to publications were more meaningful. Some participants considered the burden of grant reporting and management, for example via Researchfish, to be overwhelming, particularly for those with multiple small awards.

Participants suggested the use of AI to innovate funding processes, for example utilising a coordinated funding matrix to view all of an individual's awarded grants in a single place.

Summary of themes

The overarching theme of the solutions shared by clinical academic trainees at CATAC 2023 was one of coordination – between sectors (NHS, academia and industry), disciplines within the NHS and other healthcare settings (medics, dentists, NMAHPs, etc) and research funding practices. This principle underpins all of the solutions proposed in the Academy's *Future-proofing UK Health Research: a people-centred, coordinated approach* report.

Many of the solutions identified in the *Future-proofing UK Health Research* report reflect the priorities of clinical academic trainees who participated in this workshop, particularly those aimed at:

- Embedding greater flexibility and stability in clinical academic training and careers.
- Increasing exposure to research during training across all disciplines.
- Ensuring the appropriate balance across pre- and postdoctoral funding opportunities for clinical academics.
- Establishing greater recognition of the value of clinical academics in higher education institutions.
- Enabling an NHS culture that is more conducive to healthcare professionals from all disciplines and specialties engaging in research.
- Establishing greater use and standardisation of secondments and joint appointments between academia, industry, NHS and other settings.
- Establishing greater standardisation of grant application requirements.
- Recognising the long-term impacts of the COVID-19 pandemic on research careers.

As well as echoing these solutions, participants suggested further actions that could address the issues raised in discussion groups. For example, participants felt that the equity, diversity and inclusion recommendations in the *Future-proofing UK Health Research* report should be more ambitious.

Participants were keen to ensure that the burden of future-proofing clinical academic careers did not fall entirely on individuals within the system, instead calling for greater coordination and embedding of solutions across the system as a whole. The actions suggested by participants were primarily considered to be the responsibility of employers, higher education institutions and funders.

References

1. https://acmedsci.ac.uk/file-download/23875189
2. https://acmedsci.ac.uk/policy/uk-policy/coronavirus/cross-funder-covid-19-statement
3. https://acmedsci.ac.uk/file-download/4126761
4. https://www.nihr.ac.uk/documents/uk-clinical-academic-training-for-nurses-midwives-and-other-professionals-allied-to-medicine-principles-and-obligations/27109

Annex 1: Discussion themes and facilitators

Facilitators

Professor Ruth Plummer MBE FMedSci – Training between higher education institutions and healthcare settings
Professor Tim Eisen FMedSci – Clinical academic career mobility: industry, NHS and higher education institutions
Dr Susie Candy – Future-proofing health research careers for everyone
Dr Tom Livermore - Coordination and leadership in health research funding

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Participants

Approximately 60 attendees at the 2023 Clinical Academics in Training Annual Conference chose to attend this session.

Annex 2: Prompt questions for participant discussion

Training between higher education institutions and healthcare settings

1. Are there any recommendations/solutions that have particularly stood out to you so far (either from the presentation or the themes discussed)?
2. Do you feel that the solutions offered in the Academy's report sufficiently cover what is needed to support clinical academics in all disciplines to develop their dual careers?
3. What would your priorities be for action in this area? Who is responsible?
4. In your clinical discipline, how do you think flexibility in training (competency-based training) can be better enacted?
5. Were you already aware of the Principles and Obligations documents? Would you feel comfortable using the documents if you became aware that they were not being implemented appropriately by your employer?
6. Are there any actions that you would take as an individual in light of these conversations? What support would you need to take these actions?

Clinical academic career mobility: industry, NHS and higher education institutions

1. Are there any recommendations/solutions that have particularly stood out to you so far (either from the presentation or the themes discussed)?
2. Do you feel that the solutions offered in the Academy's report sufficiently cover what is needed to support more cross-sectoral careers in health research?
3. What would your priorities be for action in this area? Who is responsible?
4. What are your perceptions of cross-sectoral careers or working with industry? Do you have any experience of this?
5. As clinical academics, do you perceive any additional challenges or opportunities to engaging with industrial sectors throughout your career?
6. What information or support would it be useful for you to have to embark on a more cross-sectoral career?
7. Are there any actions that you would take as an individual in light of these conversations? What support would you need to take these actions?

Future-proofing health research careers for everyone

1. Are there any recommendations/solutions that have particularly stood out to you so far (either from the presentation or the themes discussed)?
2. Do you feel that the solutions offered in the Academy's report sufficiently cover what is needed to support people with underrepresented protected characteristics to pursue and remain in clinical academic careers?
3. What would your priorities be for action in this area? Who is responsible?
4. What are your perceptions of working in interdisciplinary teams? Do you have any experience of 'team science'?
5. Do you think there are distinct barriers for clinical academics to engaging in team science/interdisciplinary research? What information or support would it be useful for you to have to overcome these?
6. Are there any actions that you would take as an individual in light of these conversations? What support would you need to take these actions?

Coordination and leadership in health research funding

1. Are there any recommendations/solutions that have particularly stood out to you so far (either from the presentation or the themes discussed)?
2. Do you feel that the solutions offered in the Academy's report sufficiently cover what is needed to support clinical academics to navigate the research funding landscape? In your clinical discipline, what solutions, innovations or tools would improve your experience of navigating this?
3. What would your priorities be for action in these areas? Who is responsible?
4. Have you been asked to describe the impacts of COVID-19 on your research and career in funding applications? Do you have any reflections on the value of this practice? Would you suggest any improvements?
5. Are there any actions that you would take as an individual in light of these conversations? What support would you need to take these actions

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