HOUSE OF LORDS

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The Rt Hon Steve Barclay MP
Secretary of State for Health and Social Care
Department of Health and Social Care
(By e-mail)

26 January 2023

Dear Steve Barclay,

Clinical academics in the NHS inquiry

We recently concluded an inquiry into clinical academics in the NHS. This letter sets out our findings as well as our conclusions and recommendations.

Our overarching conclusion is that, rather than an additional pressure on the resources of the NHS, engagement with research can help to mitigate workforce challenges and improve patient outcomes. However, the clinical research environment in the NHS is on a dangerous precipice and without urgent action we risk losing out on these benefits.

Clinical academics play a vital role in the NHS and the wider medical research community by sitting at the interface between academia and healthcare.[1] They bring insights from clinical work into research, helping to guide and focus research efforts, and they bring the latest medical techniques and understanding to the frontline of clinical care, such as genomic medicine leading to innovations in cancer treatment. These research insights and innovations can support the healthcare system by making it more efficient, which could help to address its current backlog.

Involvement with clinical trials and research brings industry funding into the NHS. Furthermore, engagement with research as part of a clinical career can aid in recruitment and retention of consultants and other medics. We heard extensive evidence about the crucial contribution that the clinical academic training programmes and expertise in the UK provide to the NHS. It is a world-leading asset for UK science and medicine which is increasingly under threat.

Given the current economic situation and the significant NHS backlog, it might be tempting to conclude that research is "nice to have" but should take a back seat to the urgent requirement for care. However, it is precisely through research and development of the type

[1] We use 'clinical academics' to refer to consultants who hold positions at a university. We use 'clinical researchers' to refer to other medical and allied health professionals, including but not limited to GPs, nurses, midwives and paramedics who engage in research, under a variety of different contractual or informal arrangements. We recognise the critical role of the wider research community within the NHS and whilst many of our recommendations are specific to consultant clinical academics, many apply to clinical researchers as well. Addressing the wider research culture within the NHS is of crucial importance, for clinical academics, clinical researchers and patients.

carried out by clinical academics that the NHS can become more effective. Clinical researchers often act as the drivers of change in their hospital trusts. Despite this, we heard concerning evidence that the future of clinical research, and the clinical academic workforce in particular, is under threat.

The value of a strong base of clinical academia, and of wider engagement with research in the NHS, was demonstrated during the COVID-19 pandemic. The RECOVERY trial was one of the largest of its kind, identifying four potential treatments for COVID-19 and saving countless lives with international impact. It demonstrated the unique capacity the UK has, combining the clinical research capacity in the NHS with academic expertise in the life sciences to change and save lives. But we heard evidence that the future of this clinical research capacity is now in jeopardy.

Our inquiry's findings echo concerns heard elsewhere: Professor Sir John Bell, Regius Professor of Medicine at the University of Oxford, in evidence to the House of Commons Science and Technology and Health and Social Care Committees, said that "our clinical research environment is much worse than it has ever been in my memory."[2] A report from the Association of the British Pharmaceutical Industry showed that the number of industry trials initiated in the UK declined by 41% in the four years from 2017 to 2021.[3] This has resulted in the UK's global ranking for Phase III industry trials declining from fourth in 2017 to tenth in 2021, jeopardising the long-term future of clinical research in the UK.

The headwinds to the career trajectory for clinical academics, who often lead these studies, are a part of the wider decline in clinical research in the NHS. The clinical academic workforce is set for decline as there are substantially fewer younger clinical academics to replace those who will retire in the next ten years.[4] Our inquiry sought to look into the causes of declining numbers of clinical academics and the worsening environment for clinical research more broadly in the NHS.[5]

We present our conclusions and recommendations below.

Clinical Academics

The UK's clinical research workforce represents a significant, often world-leading, research asset to the NHS and the life sciences sector with benefits for patients and the economy.

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[2] Oral evidence taken before the House of Commons Science and Technology Committee and Health and Social Care Committee, 30 November 2022 (Session 2022–23), Q 1524 (Prof Sir John Bell)

[3] Association of the British Pharmaceutical Industry, *NHS patients losing access to innovative treatments as UK industry clinical trials face collapse* (20 October 2022): https://www.abpi.org.uk/media/news/2022/october/nhs-patients-losing-access-to-innovative-treatments-as-uk-industry-clinical-trials-face-collapse/ [accessed 5 January 2023]

[4] Q 18 (Dr Katie Petty-Saphon MBE)

[5] According to a report from the Academy of Medical Sciences, clinical academics have declined from 7.5% of NHS medical consultants in 2004 to 4.2% of consultants in 2017. This has also constituted a small absolute decrease, from 2,436 in 2004 to 2,290 in 2017. (GP and consultant numbers have increased from 69,300 to 95,096 in the same time period.) They constitute only 0.4% of general practitioners, and less than 0.1% of the nursing, midwifery, and allied health professions. Only 42% of GP practices are active in research. The Academy of Medical Sciences, *Transforming Health through innovation: Integrating the NHS and academia* (January 2020): https://acmedsci.ac.uk/file-download/23932583 [accessed 5 January 2023]

However, a combination of specific career issues and general pressure on the NHS making clinical research difficult threatens the future of this workforce. Addressing both the specific concerns of clinical academics and the general culture of research in the NHS is necessary to safeguard clinical research for the future.

Career progression, pay and pensions for consultant clinical academics

As the Committee found in its recent inquiry into people and skills in STEM, there is an increasing precarity associated with academic careers, especially at the postdoctoral level. This is compounded for clinical academics because they have the option to stop pursuing research and insecure, short-term funding or contracts, and instead take on a full-time role as a consultant, with enhanced pay and job security. There is a substantial opportunity cost for continuing to pursue a research career alongside medical consultancy training, as consultant clinical academics qualify as full consultants and start being promoted on the pay scale later in life. It is not clear that, even for fully qualified consultant clinical academics, this pay disparity is addressed across the sector. This can contribute to a leaky pipeline for clinical academics in their early 30s, particularly women and those from economically disadvantaged backgrounds, for whom the security of a full-time job as a consultant may be more necessary.

1. The Government should urgently address inequalities in total remuneration that disincentivise clinical academia as a career path. It should work with universities, Governmental and non-Governmental research funders, and NHS trusts, to ensure that clinical academics are not financially disadvantaged by pursuing research compared to the earning potential of full-time clinicians.

2. Governmental research funders should help to address the career precarity of clinical academics at the postdoctoral level by offering more longer-term postdoctoral positions – for example, with five years of funding and the expectation of a permanent position.

There are additional concerns about pay and conditions for clinical academics. Clinical academics and GPs engaged in research cannot apply for local clinical excellence awards, although NHS consultants can. The problems highlighted with the tax arrangements for NHS pensions, which have already been criticised by the Commons Health and Social Care Committee for creating perverse incentives for consultants to retire early, are particularly acute for clinical academics.[6]

3. The recommendations by the Health and Social Care Committee on NHS consultant pensions and tax should be implemented at the earliest opportunity to remove the perverse incentives for early retirement.

4. Clinical academics and GPs engaged in research should be contractually able to apply for local clinical excellence awards.

Mentorship for clinical academic trainees

Our witnesses emphasised that it was important to have a clinical academic mentor working closely with younger clinical academics in order to help them navigate the career path. Yet

[6] Health and Social Care Committee, *Workforce: recruitment, training and retention in health and social care* (Third report, Session 2022–23, HC 115), paras 94–101

these mentors can be hard to find in some areas of the country and for some hospital trusts without a strong track record of producing clinical academics, as well as for women or people from minority backgrounds. There were also concerns that clinical researchers may not get significant support from their NHS colleagues, especially in areas without a track record of valuing research. Changing culture requires local examples to be promoted and supported.

5. The NHS should implement mentorship schemes in different regions, respecting equality, diversity and inclusion, to ensure that would-be clinical academics have examples to follow. More can be done to promote the value of clinical research to medical practitioners and to engage non-researchers with the research undertaken in their organisation, to engender a culture that values research.

Regional inequalities in clinical academia

There is a risk that, because of the competitive nature of academic funding, clinical research may end up concentrated in areas with established research centres, which can contribute to inequality of opportunity for clinical academics in different regions of the UK and regional health inequalities in patient outcomes.

6. The Government and its research funders of research should address these regional inequalities, for example through additional ring-fenced funding for clinical academia in certain regions, bursaries for clinical academics in less well-off areas, and/or hub-and-spoke models where established centres can support those in the surrounding region.

Research in the NHS

Safeguarding research time for NHS consultants

Despite research being one of the four pillars of advanced clinical practice,[7] and despite supporting professional activities (including research) in theory taking 25% of the time of any consultant under their contract,[8] in practice the time that consultants and clinical researchers devote to research is increasingly under pressure. We heard that, especially at a junior doctor or postdoctoral level, research time is not safeguarded when pressures on the service are intense. Supporting professional research activity is important for staff retention.

7. NHS trusts and hospitals must set out a plan as to how they will meet the statutory commitment to allow consultants to spend an average of 25% of their time on supporting professional activities on average. Universities, NHS hospital trusts, and funders of research should work together to align the incentives for clinicians and consultants to ensure that they can continue to engage with research alongside/as part of clinical practice.

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[7] National Health Service, *Multi-professional framework for advanced clinical practice in England* (2017): https://www.hee.nhs.uk/sites/default/files/documents/Multi-professional%20framework%20for%20advanced%20clinical%20practice%20in%20England.pdf [accessed 5 January 2023]

[8] NHS Employers, *Consultants: Guidance on supporting professional activities* (November 2007): https://www.nhsemployers.org/system/files/2021-06/consultants-guidance-supporting-prof-activities.pdf [accessed 5 January 2023]

Intercalated BSc degrees for medical students

There are concerns that fewer students are taking intercalated BSc degrees, which offer an initial exposure to research to students undergoing medical training. Almost all medical schools no longer mandate the BSc and funding opportunities for the degree may be more limited. This means that medical students are not always exposed to research early in their careers, which can limit later opportunities and could reduce the proportion who ultimately study for a PhD.

8. The Government should determine the factors behind the decline in intercalated BScs and review the role of the intercalated BSc in the training of clinical academics. They should ensure that medical schools expose trainee doctors to clinical research, even where the intercalated BSc is not mandated or offered.

Engagement with research in the NHS

Clinical academics who have formal contracts with universities are reasonably able to safeguard research time, but consultants less so. GPs and other health professionals find it even more difficult. An NHS that is engaged with research at all levels would alleviate many of the issues facing clinical academics and secure the pipeline of clinical research for the future. There are statutory obligations on the NHS to support research, but there is no system in place for measuring and certifying whether these obligations have been met. It was not always easy during the inquiry to identify who takes overall responsibility for research in the NHS, at regional or national levels.

9. Governmental funders of research, including the Medical Research Council and the National Institute for Health and Care Research, and frameworks for awarding academic funding such as the Research Excellence Framework should further incentivise research that engages with clinicians.

10. Governmental research funders should support initiatives such as pairing schemes which bring together clinicians with academic partners. They should ensure that applied clinical research is accessible to a wider range of healthcare professionals than just consultants and that funding for these projects is more easily obtained.

11. The Department for Health and Social Care should work with the NHS to identify specific metrics for research performance, which should be reported on annually by integrated care boards. These reports should be made to the Secretary of State under the overall supervision of the Chief Scientific Advisor for the DHSC.

We look forward to your response to the conclusions and recommendations set out in this letter by 26 March. We are copying this letter to Steve Brine MP, Chair of the House of Commons Health and Social Care Committee, and Rt. Hon. Greg Clark MP, Chair of the House of Commons Science and Technology Committee.

Yours sincerely,

Baroness Brown of Cambridge
Chair, House of Lords Science and Technology Committee

Appendix: Summary of evidence

Career progression, pay and pensions for consultant clinical academics

1. **As the Committee found in its recent inquiry into people and skills in STEM, there is an increasing career precarity to the structure of academic careers, especially at the postdoctoral level.** This precarity deters clinicians from pursuing research careers, and particularly impacts upon women and those in more economically insecure circumstances.

2. Dr Katie Petty-Saphon, Chief Executive of the Medical Schools Council, told us that "It really is about trying to resolve the difficulty at the postdoctoral phase at the moment. More than 50% of people doing PhDs are women but, afterwards, there is this big gap where it is really difficult to get a clinical lectureship." She recommended "more funding at that stage and … a more obvious way into the career".[9]

3. **This is compounded for clinical academics because they have the option to stop pursuing research and insecure, short-term funding or contracts, and take on a full-time role as a consultant, with enhanced pay and job security. There is a substantial opportunity cost for continuing to pursue a research career alongside medical consultancy training, as clinical academics qualify as full consultants and start being promoted on the pay scale later in life.**

4. Professor Rosalind Smyth, [former] Chair of the Medical Research Council Training and Careers Group, described the situation: "These are people who are aged between 30 and 40. They often have small children … They have a mortgage to pay, and they want to take the less risky route. The less risky route is staying in a defined pathway in the NHS where what you have to do is become a competent, safe specialist and not, in addition, address all the requirements that the university quite rightly places upon you."[10]

5. Dr Petty-Saphon explained that "The problem for the clinical academics is that the training is longer so, over their lifetime, it is possible that they will not earn as much as their NHS colleagues. There are all sorts of insecurities in the career pathway, but pay parity is essential."[11] We heard first-hand from Dr Jamilla Hussain, Consultant in Palliative medicine and Senior Research Fellow, Bradford Institute for Health Research, that "Not going straight into being a consultant has cost me over £100,000, given the way I have gone about doing my clinical academic training, having children and so on."[12] **This can contribute to a leaky pipeline for clinical academics in their early 30s, particularly women and those from economically disadvantaged backgrounds, for whom the security of a full-time job as a consultant may be more necessary.**

[9] Q 20 (Dr Katie Petty-Saphon MBE)
[10] Q 15 (Prof Rosalind Smyth CBE)
[11] Q 15 (Dr Katie Petty-Saphon MBE)
[12] Q 4 (Dr Jamilla Hussain)

6. Dr Petty-Saphon told us: "The pipeline is in terribly bad shape because the clinical academic workforce is ageing. There are 1,060 clinical academics who are aged 55 and over and only 750 who are in the 35-to-45 age group. We have 300 fewer academics to replace those who are going to retire in the next 10 years … This problem has been getting worse for the past 10 years and not enough has been done."[13] Professor Waljit Dhillo, Dean of the National Institute for Health and Care Research Academy, described this as one of the two most important issues facing clinical academics, noting that "It is the talent pipeline, as we have discussed, in terms of early research for all healthcare professionals and everybody having some opportunity to research. In the postdoctoral period, there is a need for increased funding so that people do not jump into an NHS consultant post or the equivalent."[14]

7. ***The Government should urgently address inequalities in total remuneration that disincentivise clinical academia as a career path. It should work with universities, Governmental and non-Governmental research funders, and NHS trusts, to ensure that clinical academics are not financially disadvantaged by pursuing research compared to the earning potential of full-time clinicians.***

8. ***Governmental research funders should help to address the career precarity of clinical academics at the postdoctoral level by offering more longer-term postdoctoral positions – for example, with five years of funding and the expectation of a permanent position.***

9. We described earlier in this letter the opportunity costs that arise due to the extended training time for clinical academics, which delays their qualification as a full consultant and progression up the pay-scale. Our inquiry identified additional costs for clinical academics, or benefits that they miss out on, which should be addressed.

10. Prof Dhillo noted that the pension issues which the Commons Health and Social Care Committee identified for consultants in the NHS are also detrimental to clinical academic careers.[15] There is a perverse incentive for clinical academics and consultants to retire earlier due to the tax arrangements relating to their pensions: "Dr Hussain, who … is a relatively new consultant, mentioned a tax bill that she is getting for a pension she may or may not take; it depends on the years you live after you retire. For pension reasons, the average age of a consultant retiring in the NHS is now 59. I have heard from colleagues that the average age at which a clinical academic should be retiring is about 55 for financial pension reasons."[16] He concluded: "The pension issue needs addressing really quickly to stop the senior workforce going."[17]

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[13] Q 18 (Dr Katie Petty-Saphon MBE)
[14] Q 20 (Prof Waljit Dhillo)
[15] "It is a national scandal that senior doctors are being forced to reduce their working contribution to the NHS or to leave it entirely because of NHS pension arrangements … the Government must act swiftly to establish an alternative scheme and prevent the early retirement of consultants from the NHS." Health and Social Care Committee, *Workforce: recruitment, training and retention in health and social care* (Third report, Session 2022–23, HC 115)
[16] Q 15 (Prof Waljit Dhillo)
[17] Q 20 (Prof Waljit Dhillo) – Dr Hussain describes her pension tax bill as "estimated to be between £20,000 and £25,000." Q 4 (Dr Jamilla Hussain)

11. Dr Petty-Saphon pointed out that some of the additional pay incentives which NHS employees can apply for are not open to clinical academics or allied health professionals undertaking research: "There was a change in the contractual arrangements in April, which meant that clinical academics do not have the contractual right to apply for local clinical excellence awards whereas NHS-employed consultants now do. It is even worse for GPs. Since [Primary Care Trusts] were dissolved a long time ago, NHS England has not got round to sorting out a contract that would allow academic GPs to apply for local clinical excellence awards."[18]

12. **There are specific concerns about pay and conditions for clinical academics. Clinical academics and GPs engaged in research cannot apply for local clinical excellence awards, although NHS consultants can. The problems highlighted with the tax arrangements for NHS pensions, which have already been criticised by the Commons Health and Social Care Committee for creating perverse incentives for consultants to retire early, are particularly acute for clinical academics.**[19]

13. ***The recommendations by the Health and Social Care Committee on NHS consultant pensions and tax should be implemented at the earliest opportunity to remove the perverse incentives for early retirement.***

14. ***Clinical academics and GPs engaged in research should be contractually able to apply for local clinical excellence awards.***

Mentorship for clinical academic trainees

15. As discussed above, clinical academia is not the most straightforward career path for a newly qualified consultant to undertake. Professor Paul Stewart, Emeritus Professor of Medicine at the University of Leeds and Vice-President (Clinical) at the Academy of Medical Sciences, described how the Clinical Academic Training Forum has developed resources to raise awareness of this career path, including "CATCH, which is a website that has all the resources for clinical academics aspiring to be in training … as a community we are signposting the benefits of this career to the next generation."[20]

16. Prof Smyth described mentoring as "building that confidence and reassurance, enabling people to take what they see as a much more demanding pathway than they would do otherwise"; she noted that funders were aware of the need for mentorship, but that "[it's about] targeting that funding where it is most needed for those individuals who feel isolated and vulnerable."[21]

17. Dr Hussain described the importance of role models, but noted that they can be difficult to find, especially for people from minority backgrounds or working in areas of the country with a less strong track record for clinical research. She noted: "People who come through, very early on, thinking they want to be clinical academics usually

[18] Q 15 (Dr Katie Petty-Saphon MBE)
[19] Health and Social Care Committee, *Workforce: recruitment, training and retention in health and social care* (Third report, Session 2022–23, HC 115), paras 94–101
[20] Q 4 (Prof Paul Stewart)
[21] Q 16 (Prof Rosalind Smyth CBE)

have someone behind them who might have introduced them to a clinical academic career, or they might have seen someone like them. For years, I have looked for a mentor from a similar background to me; I still have not found one. There is work to be done to support better representation so that we can have greater diversity."[22]

18. **Our witnesses emphasised that, beyond just raising awareness of the career as an option, it was important to have a clinical academic mentor working closely with younger clinical academics in order to help them navigate the challenges of the career path. Yet these mentors can be hard to find in some areas of the country and for some hospital trusts without a strong track record of clinical academics, as well as for women or people from minority backgrounds.**

19. Prof Smyth described the importance of changing the culture of the NHS to value research, stating that "we need to change that culture at every single level from the top down but also from the bottom up so that the middle managers in the NHS know that their bosses value this, that this is important and that there are certain lines that should not be crossed."[23]

20. **There were also concerns that clinical researchers may not get significant support from their NHS colleagues, especially in areas without a track record of valuing research. Changing culture requires local examples to be promoted and supported.**

21. ***The NHS should implement mentorship schemes in different regions, respecting equality, diversity and inclusion, to ensure that would-be clinical academics have examples to follow. More can be done to promote the value of clinical research to medical practitioners and to engage non-researchers with the research undertaken in their organisation, to engender a culture that values research.***

Regional inequalities in clinical academia

22. Angela Topping, Executive Committee Member of the NHS Research and Development Forum, described a "huge variability in where clinical academics undertake their practice. That is adding to the inequality of access to research."[24] Dr Hussain explained that while the "tension" in balancing clinical work and research is always present for clinical academics, it is particularly acute for institutions that don't have as strong a track record in research. She noted: "especially in places like Bradford, where we struggle to recruit and have poorer health outcomes … there is greater pressure for those of us who are trying to do research in institutes that are not large."[25] She noted that "A lot of the big institutes, such as Oxford, Cambridge and the London universities, have a lot of funding to do these big studies," while Bradford undertook a more supporting role.[26]

[22] Q 4 (Dr Jamilla Hussain)
[23] Q 19 (Prof Rosalind Smyth CBE)
[24] Q 23 (Angela Topping)
[25] Q 5 (Dr Jamilla Hussain)
[26] Q 2 (Dr Jamilla Hussain)

23. Dr Petty-Saphon noted that "There is no such thing as a wealthy medical school or trust … but clearly there are more established research centres that have resources and can support local people in trying to get things done. The problem is that, as one expands the places where people can train and do research, the smaller centres are inevitably not as well equipped as long established sites. Because the universities are competing for the same pot of money, the funders are naturally going to want their money to be spent most wisely so will probably try to go to the more established centres."[27]

24. Professor Lucy Chappell, CEO of the National Institute for Health and Care Research, described how there could potentially be a benefit in the institutions with a more established research base collaborating with healthcare providers in the wider region, noting that "It is essential that we look at joined-up regional schemes such as this to ask, 'How do we bring those from a Chelmsford base into Cambridge and vice versa?'". In addition, she pointed out that existing NHS structures provided a basis for this: "If you look at the NHS regions and the [integrated care board] footprints, again, we should be approaching this on a population basis, not a single site basis."[28] This approach was also supported by Dr Petty-Saphon, who noted that: "We need a positive strategy perhaps to ring-fence some money for the devolved regions or give benefit to a hub-and-spoke model where the established centres are actively encouraged and rewarded for working with communities elsewhere."[29]

25. **There is a risk that, because of the competitive nature of academic funding, clinical research may end up concentrated in areas with established research centres, which can contribute to inequality of opportunity for clinical academics in different regions of the UK and health inequalities for users of the health service in these regions.**

26. ***The Government and its research funders should address these regional inequalities, for example through additional ring-fenced funding for clinical academia in certain regions, bursaries for clinical academics in less well-off areas, and/or hub-and-spoke models where established centres can support those in the surrounding region.***

Research in the NHS

Safeguarding research time for NHS consultants

27. We received evidence throughout this inquiry which stressed that, in theory, the NHS should prioritise research, but in practice, pressures on the service mean it can fall short of these aims and statutory requirements. The Health and Care Act 2022 includes a duty on integrated care boards (ICBs) to "facilitate or otherwise promote"[30]

[27] Q 17 (Dr Katie Petty-Saphon MBE)
[28] Q 26 (Prof Lucy Chappell)
[29] Q 17 (Dr Katie Petty-Saphon MBE)
[30] Health and Care Act 2022, section 25

research, and NHS England and ICBs have the responsibility to report on research through joint forward plans and annual reports.[31] Prof Stewart told us that the NHS "has as one of its seven pillars research and innovation driving patient care", but that, "sadly, in its day-to-day operation, research and innovation play second fiddle to direct clinical care."[32]

28. Prof Dhillo drew a distinction between the clinical academics who have "some protected research time" and the full-time NHS consultants who have a "full-time job that is about 125% to 150% of hours, so actually there is no spare capacity." He noted that, although contractual job plans suggest that consultants can devote a substantial share of their time to Supporting Professional Activities (SPAs) including research, this is often not the case in practice. Prof Dhillo noted "we have moved from the recommendations when the job plans came in. If you divide a 40-hour week into ten, four-hour blocks, you are supposed to have 7.5 of those blocks dedicated purely to delivering care, with, for an NHS consultant, 2.5 for delivering research, teaching and continuing professional development. As that gets squeezed, you are telling your workforce that research and things other than service are not important."[33]

29. The Academy of Medical Sciences published a report in 2018 in which they set out an aspirational target for 20% of the healthcare workforce to be able to spend 20% of their time on research; Prof Stewart described this as the "sweet spot … that would not only dramatically change research culture across the NHS but deliver much-needed research capacity."[34] He also described how "introducing research into people's working job plan would dramatically impact on current issues such as job retention and recruitment."[35]

30. Professor Charlotte Summers, Interim Director of the Heart and Lung Research Institute and University Professor of Intensive Care Medicine at the University of Cambridge, said that because there are "rota gaps in the NHS for staffing of junior doctors in particular, in almost every speciality in every hospital … there is constant pressure for people to do more than their usual clinical amount." This disproportionately impacts clinicians engaged with research, because "Sometimes the academics are the first port of call because it is thought that they are not doing anything else, they are doing their research. That is very much an experience that has been shared with me repeatedly and increasingly over the last five years."[36]

31. **Despite research being one of the four pillars of advanced clinical practice,[37] and despite supporting professional activities (including research) in theory**

[31] Association of Medical Research Charities, *Ensuring clinical research is at the heart of care* (19 May 2022): https://www.amrc.org.uk/blog/ensuring-clinical-research-is-at-the-heart-of-care [accessed 5 January 2023]
[32] Q 10 (Prof Paul Stewart)
[33] Q 14, 19 (Prof Waljit Dhillo)
[34] Q 5 (Prof Paul Stewart)
[35] Q 7 (Prof Paul Stewart)
[36] Q 5 (Prof Charlotte Summers)
[37] National Health Service, *Multi-professional framework for advanced clinical practice in England* (2017): https://www.hee.nhs.uk/sites/default/files/documents/Multi-professional%20framework%20for%20advanced%20clinical%20practice%20in%20England.pdf [accessed 5 January 2023]

taking 25% of the time of any consultant under their contract,[38] in practice, the time that consultants and clinical researchers devote to research is increasingly under pressure. We heard that, especially at a junior doctor or postdoctoral level, research time is not safeguarded when pressures on the service are intense. Supporting professional research activity is important for staff retention.

32. ***NHS trusts and hospitals must set out a plan as to how they will meet the statutory commitment to allow consultants to spend an average of 25% of their time on supporting professional activities on average. Universities, NHS hospital trusts, and funders of research should work together to align the incentives for clinicians and consultants to ensure that they can continue to engage with research alongside/as part of clinical practice.***

Intercalated BSc degrees for medical students

33. One concern raised in our inquiry about the talent pipeline for clinical academics is that there are fewer mechanisms for medical students to get an initial exposure to research, which may influence them to become clinical researchers later on. The intercalated BSc degree is a programme option that gives medical students an option to do an additional year of research-intensive training in the middle of their ordinary medical studies.

34. Prof Dhillo explained that: "The reason there is a talent pipeline issue is that, over the past few years, there seems to be a reduction in the value of research for medical students, for example. I mentioned the intercalated BSc. … People are seeing the service pressures … and are then potentially being put off from doing a BSc, which would be their first taste of research."[39]

35. Prof Chappell noted that, while undertaking an intercalated BSc used to be much more common, fewer medical schools now mandate that students undertake one than ever before: "You heard about the intercalated BSc, which is mandated in four medical schools. We are concerned that the incentives to pursue a BSc are lower than ever before."[40]

36. **There are concerns that fewer students are taking intercalated BSc degrees, which offer an initial exposure to research to students undergoing medical training. Almost all medical schools no longer mandate the BSc, and funding opportunities for the degree may be more limited. This means that medical students are not always exposed to research early in their**

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[38] NHS Employers, *Consultants: Guidance on supporting professional activities* (November 2007): https://www.nhsemployers.org/system/files/2021-06/consultants-guidance-supporting-prof-activities.pdf [accessed 5 January 2023]

[39] Q 18 (Prof Waljit Dhillo)

[40] Q 24 (Prof Lucy Chappell)

careers, which can limit later opportunities and could reduce the proportion who ultimately study for a PhD.[41]

37. ***The Government should determine the factors behind the decline in intercalated BScs and review the role of the intercalated BSc in the training of clinical academics. They should ensure that medical schools expose trainee doctors to clinical research, even where the intercalated BSc is not mandated or offered.***

Engagement with research in the NHS

38. We heard from Lord Kakkar, Chair of the Office for the Strategic Coordination of Health Research, of "a decline in participation in industry-sponsored studies, with some 50,000 participants in 2017–18 down to just 28,000 in 2021–22."[42] We also heard that there were specific needs for GPs and other allied health professionals who are not full consultants, but who wanted to engage with research. The number of clinical academic GPs is a tiny proportion of the overall GP population. Prof Dhillo noted that "For most doctors, there is pay parity across the NHS and universities but, for allied health professionals, we need a career structure, which we do not have."[43]

39. Dr Petty-Saphon suggested that one means of increasing GP clinical academics, while also addressing regional inequalities in clinical research, might be to use budgets within the NHS "to embed academic GPs in primary care in disadvantaged areas … GP practices are small businesses, in a way, so if they did not have to pay for the academic GP but they were there as an extra pair of hands, had students there, [they] could try to influence the culture."[44]

40. Witnesses suggested that one way research engagement within the NHS could be improved was through the use of specific research and innovation metrics for integrated care boards. For example, Prof Stewart said: "A fundamental issue goes back to how Research & Innovation is represented across our trusts, their boards and at executive level. There is a much discussion and early work going on as to whether we should have [Care Quality Commission]-type research metrics at board level, which might at least create greater awareness of the importance of research and innovation across our NHS organisations."[45]

41. The Academy of Medical Sciences report, *Transforming health through innovation: Integrating the NHS and academia*, recommends that "NHS England and NHS Improvement and NIHR should work with relevant stakeholders from across the UK

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[41] Research into this topic is limited but has shown that graduates who undertake intercalated degrees are more likely to go onto careers in clinical medicine and that numbers have been declining as fewer universities mandate the intercalated degree. Many students cite a concern about going into more debt as a factor in not choosing the intercalated BSc. Jamie A. Nicholson, Jennifer Cleland, John Lemon and Helen F. Galley, 'Why medical students choose not to carry out an intercalated BSc: a questionnaire study', *BMC Medical Education*, vol. 10, Article number 25 (2010): https://bmcmededuc.biomedcentral.com/articles/10.1186/1472-6920-10-25 [accessed 5 January 2023]
[42] Q 34 (Lord Kakkar)
[43] Q 15 (Prof Waljit Dhillo)
[44] Q 17 (Dr Katie Petty-Saphon MBE)
[45] Q 10 (Prof Paul Stewart)

to co-develop a set of research metrics."[46] It recommends that there should be separate research metrics for primary care, public health practitioners, and GP practices as well as NHS Trusts and Integrated Care Boards as a whole.

42. **Clinical academics who have formal contracts with universities are reasonably able to safeguard research time, but consultants less so, and GPs and other health professionals find it even more difficult. An NHS that is engaged with research at all levels would alleviate many of the issues facing clinical academics and secure the pipeline of clinical research for the future. There are statutory obligations on the NHS to support research, but there is no system in place for measuring and certifying whether these obligations have been met. It was not always easy during the course of the inquiry to identify who takes overall responsibility for research in the NHS, at regional or national levels.**

43. ***Governmental funders of research, including the Medical Research Council and the National Institute for Health and Care Research, and frameworks for awarding academic funding such as the Research Excellence Framework should further incentivise research that engages with clinicians.***

44. ***Governmental research funders should support initiatives such as pairing schemes which bring together clinicians with academic partners. They should ensure that applied clinical research is accessible to a wider range of healthcare professionals than just consultants and that funding for these projects is more easily obtained.***

45. ***The Department for Health and Social Care should work with the NHS to identify specific metrics for research performance, which should be reported on annually by integrated care boards. These reports should be made to the Secretary of State under the overall supervision of the Chief Scientific Advisor for the DHSC.***

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[46] The Academy of Medical Sciences, *Transforming Health through innovation: Integrating the NHS and academia* (January 2020): https://acmedsci.ac.uk/file-download/23932583 [accessed 5 January 2023]