

Academy of Medical Sciences' submission to Autumn Budget 2025

The Academy of Medical Sciences is the independent, expert voice of biomedical and health research in the UK. We welcome the opportunity to provide a representation to the Autumn Budget 2025.

The UK Government's 10-Year Health Plan for England, Industrial Strategy and Life Sciences Sector Plan showed a strong ambition to unlock the potential of biomedical and health research, to save lives and power innovation and investment. These ambitions are supported by the £86 billion of research and development (R&D) funding announced at the June 2025 Spending Review. To solidify the growth potential of the life sciences and build an NHS fit for the future, we need to secure a funding environment that will encourage the world's best researchers, innovators and investors to work with our leading academic institutions, businesses and research organisations.

Key policy recommendations

- 1. Ensure the success of the Industrial Strategy and Life Sciences Sector Plan by investing in health research and the life sciences**
 - 1.1** Promote investment in the life sciences sector with an internationally competitive innovation environment.
 - 1.2** Invest in cross-sector partnerships to enhance health research and innovation.
 - 1.3** Maximise the effectiveness of longer-term R&D funding cycles to support life sciences collaboration and leverage investment.
 - 1.4** Work in partnership with the global research community, including through Horizon Europe 2028-2034.
 - 1.5** Work with research funders, industry, the NHS and universities to reverse the decline in clinical academics.
 - 1.6** Ensure the visa system is internationally competitive to attract and retain health research talent.
- 2. Support the delivery of the 10-Year Health Plan for England by investing in early-years healthcare, prevention and research**
 - 2.1** Prioritise coordinated investment in prevention, early intervention and reducing inequalities.
 - 2.2** Embed research in the NHS to improve health outcomes and boost innovation.
 - 2.3** Drive innovation by investing in a more developed evidence base on effective and safe utilisation of transformative technologies and data in the NHS.
- 3. Support the financial sustainability of health research in universities**

Invest in discovery science and reversing the real terms decline in QR funding, to ensure the UK university sector can sustainably drive advances in research.

1. Ensure the success of the Industrial Strategy and Life Sciences Sector Plan by investing in health research and the life sciences

We welcome the Government's ambitious goal to make the UK the leading life sciences economy in Europe by 2030, and the third most important globally by 2035. These include the ambitions to support world class R&D through investment in discovery sciences, better access to health data and greater strategic alignment of UK health and life sciences funders. It is important the package of reforms and investment for the life sciences come to fruition in this pivotal window of opportunity.

Encouraging private investment

Amid growing international competition, Government needs to support the life sciences sector with long-term planning and investment, so the UK can retain its historic lead, grow the economy and deliver for patients and the public.

1.1 Promote investment in the life sciences sector with an internationally competitive innovation environment

The UK life sciences sector is a major driver of employment and growth. However, there are signs the UK is losing out to international competition. Complexity of initiatives and processes, and the difficulty of accessing funding in a way that aligns with innovation, are major barriers to investment.

We have also heard concerns from our Fellows who work in industry that UK Government and NHS procurement is notoriously difficult to navigate, and the NHS struggles to adopt innovations, causing biotech and start-ups to set up operations outside of the UK. The move to streamline procurement in the 10-Year Health Plan for England will form an important part of the solution to this challenge.¹

Announcements such as the recent £50 million Life Sciences Transformational R&D Investment Fund (TRIF) pilot reflect a need, previously highlighted by the Academy, for dedicated funding to develop new life sciences R&D initiatives and ultimately attract more private investment to UK R&D. It was also encouraging to see an emphasis on Government co-investment with industry on shared priorities in the Life Sciences Sector Plan.

However, disinvestment from the global pharmaceutical industry still risks undermining the ambitious goal of the Government's Industrial Strategy to have the UK as the leading life sciences economy in Europe by 2030, and the third most important globally by 2035. This has serious implications for the UK research base, talent pipeline and economic competitiveness.

The life sciences industry, the NHS and academia are also deeply interdependent. Industry depends on the NHS for trials and adoption; the NHS depends on innovation to treat patients more effectively; universities depend on commercial research partnerships to translate discovery into practice. Therefore, weakness in one part undermines the whole system. Slow uptake of new medicines, volatile pricing frameworks and the steady loss of clinical trials diminish research capacity and ultimately reduces patients' access to healthcare and involvement in research. Aligning science, the NHS and industry in partnership is essential if the UK is to deliver better health and prosperity. We must restore the balance and build a stable, values-focused system that rewards innovation.

In previous representations to the Spending Review and Industrial Strategy, the Academy noted that the Government can support the growth of the UK's life sciences sector by:

¹ Academy of Medical Sciences (2025). *Academy of Medical Sciences response to Invest 2035: the UK's modern industrial strategy*. <https://acmedsci.ac.uk/file-download/96328974>

- Incentivising private investment with internationally competitive R&D tax incentives and evaluate the way R&D tax reliefs support innovative start-ups and scale-ups in priority growth sectors of the economy to better inform policy making.
- Incentivising private investment through public-private partnerships, co-investment schemes, and targeted tax incentives, structured to de-risk late-stage projects and enhance private sector returns.
- Maintaining a strong and proportionate regulatory and governance environment for clinical research, including through sufficient resourcing for the Medicines and Healthcare products Regulatory Agency (MHRA) and other relevant bodies.

The Academy's 'Future-proofing UK Health Research' report highlights how immigration policies directly impact the UK's research competitiveness.² As the Immigration White Paper reforms progress, we will continue to work constructively with Government to ensure changes are implemented in ways that sustain our research ecosystem and affirm that the UK remains a world-leading destination for scientific careers that power progress and economic growth.³

1.2 Invest in cross-sector partnerships to enhance health research and innovation

As identified in our Future-proofing UK Health Research report, cross-sector mobility boosts innovation, accelerates research and helps to tackle major challenges.⁴ It has also identified we have a 'fragmented research system, with an imbalance of national expectations of research with local research awareness, infrastructure and other pressures'. It is encouraging, therefore, to see ambitions such as strengthening local business environments and clusters across the UK, supporting collaboration between academia and industry, and establishing Health Innovation Zones. Additional place-based investment, such as UKRI's Strength in Places Fund (SIPF) will be central to promoting place-based research and innovation.

Successful implementation of the Government's life sciences and health strategies will also depend on effective cross-sector (and cross-departmental) coordination. There is a great opportunity in the implementation and join-up of these different strategies to incentivise and embed cross-sector working, including through targeted investment across professional organisations that oversee postgraduate training; higher education institutions; the NHS and public health organisations; and research funders.

With these important plans in place, we must not pull back ambitions for investment and should instead build momentum to capitalise on the life sciences sector as a driver of growth.

Sustainable funding for research

1.3 Maximise the effectiveness of longer-term R&D funding cycles to support life sciences collaboration and leverage investment

We were pleased to see the Government commit to developing longer-term funding cycles for key R&D activities in both the allocations of Phase 2 of the Spending Review, alongside an £86 billion four-year R&D budget, and in the 10-year budgets for R&D investment set out in the Industrial Strategy.⁵ This long-term, strategic approach to R&D is key to a thriving science

² Academy of Medical Sciences (2023). *Future-proofing UK Health Research: a people-centred, coordinated approach*. <https://acmedsci.ac.uk/file-download/23875189>

³ Academy of Medical Sciences (2025). *Academy responds to Immigration White Paper*. <https://acmedsci.ac.uk/more/news/academy-responds-to-immigration-white-paper>

⁴ Academy of Medical Sciences (2023). *Future-proofing UK Health Research: a people-centred, coordinated approach*. <https://acmedsci.ac.uk/file-download/23875189>

⁵ Academy of Medical Sciences (2025). *Academy of Medical Sciences submission to the Spending Review (Phase 2)*. <https://acmedsci.ac.uk/file-download/39025244>

base and economy and will help send a positive signal to collaborators and investors that the UK's R&D capacity is competitive and enduring.

We are particularly pleased to see the 10-year R&D funding criteria focus on attracting global talent, supporting partnerships and fostering international collaboration, which are essential for maintaining the UK's position as a world leader in medical science.

When applying the Government's guidance for awarding 10-year R&D funding, we recommend departments and arms-length organisations consider how the funding awarded will promote opportunities for collaboration and talent development across sectors, regions, and countries; support efforts to reduce unnecessary bureaucracy; and be accessible to R&D institutions across the whole of the UK, funded by a range of government departments.⁶

Investing in international partnerships

1.4 Work in partnership with the global research community, including through Horizon Europe 2028-2034

International collaboration is crucial for addressing the biggest challenges in the UK. It allows for scientific knowledge exchange and creates opportunities to advance research and innovation and can support growth. Government should ensure the research community can keep engaging with partners abroad to ultimately make the UK stronger.

Earmarking spend to associate to the next Horizon Europe will form a crucial part of this. Our continued engagement with Horizon Europe and Framework Programme 10 is essential for addressing global health challenges and maintaining our position at the forefront of curiosity-driven research and scientific discovery. Research is vital to tackling the key problems we face, from global challenges such as climate change to driving productivity growth and creating new jobs locally.

Our involvement in Horizon Europe and future programmes will make the UK stronger and is a big win for global research and innovation. In February 2024, the UK Academy of Medical Sciences (AMS) and the Federation of the European Academies of Medicine (FEAM) partnered to develop a vision on the design of the next EU Research & Innovation (R&I) Framework Programme. There was collective agreement that the introduction of public-private partnership research funding models, increased funding for calls addressing global health challenges, and aligning research efforts with real-world needs are substantial achievements of Horizon Europe so far.⁷

Additionally, the reduction of Official Development Assistance (ODA) spending to the equivalent of 0.3% of Gross National Income (GNI) by 2027 risks undermining the UK's credibility and influence on science and health internationally, in turn deterring investment and innovation. ODA-funded research partnerships are critical for tackling pandemics, antimicrobial resistance, climate impacts and other challenges that directly affect people in the UK and globally. While the Government has committed to returning spending on ODA to 0.7% of GNI in the right fiscal circumstances, clarity must be given on a return to this target as soon as possible.

Developing world-class talent

1.5 Work with research funders, industry, the NHS and universities to reverse the decline in clinical academics

⁶ *Ibid.*

⁷ Academy of Medical Sciences and Federation of European Academies of Medicine (2024). *Joint workshop on the design of the next European Union R&I Framework Programme*. <https://acmedsci.ac.uk/file-download/23839553>

The positive commitment in the 10-Year Health Plan for England to reverse the decline in clinical academics is built on a recognition that research must be embedded across all parts of the healthcare workforce to drive the continuous improvement needed for this transformation. Clinical research delivers better health through the discovery of new ways of preventing and treating illness and delivering care. Clinical research also plays a vital role in driving innovation and economic growth.

Investment in clinical academic careers is needed to help create more flexible career pathways for all professional groups, and to recruit and retain this unique research workforce. The reports commissioned by the Office for Strategic Coordination of Health Research (OSCHR) provide a set of deliverables to support these aims.⁸ The Academy has been working with funders to help create a more common and visible national clinical research career pathway, and is united with health leaders in efforts to create new clinical academic posts.^{9,10}

1.6 Ensure the visa system is internationally competitive to attract and retain health research talent

To unlock world-leading innovations and growth, UK R&D needs world-leading domestic and international talent. Ambitions to secure the benefits of international collaboration with scientists, innovators and entrepreneurs are a welcome step. However, UK visa costs are by far the most expensive of any leading scientific nation. This is blocking international talent from UK careers, with recent increases making this even more prohibitive.¹¹

The UK's global leadership in health and biomedical research relies on our ability to attract and retain exceptional international talent. We welcome the Immigration White Paper's recognition that global competition for research talent is increasing and its commitment to enhancing opportunities for researchers through targeted routes, including making the Global Talent visa simpler and easier to access. But cost is also important and needs to be addressed – our visa system is one of the most expensive in the world and will remain a major impediment to attracting the best people.

2. Support the delivery of the 10-Year Health Plan for England by investing in early-years healthcare, prevention and research.

2.1 Prioritise coordinated investment in prevention, early intervention and reducing inequalities.

The 10-Year Health Plan for England's focus on prevention – and the recognition that it begins with children and young people – aligns strongly with our evidence that the early years provide a crucial, cost-effective window to improve lifelong health outcomes and deliver significant economic returns.¹²

This evidence, referenced in advice to the Prime Minister from the Council for Science and Technology¹³, shows frontloading investment in the earliest years – including preconception

⁸ OSCHR task and finish groups (2025). *Clinical researchers in the UK: reversing the decline*.

<https://www.ukri.org/publications/clinical-researchers-in-the-uk-reversing-the-decline/>

⁹ Academy of Medical Sciences et al (2025). *Creating a common and visible national clinical research career pathway (Phase One)*. <https://www.catch.ac.uk/news/creating-a-national-clinical-research-career-pathway>

¹⁰ Academy of Medical Sciences (2025). *Creating new clinical academic posts to support the UK's health and economic growth*. https://acmedsci.ac.uk/creating-new-clinical-academic-posts-to-support-the-uks-health-and-economic-growth?utm_source=news+article&utm_medium=website&utm_campaign=ca+statement

¹¹ Royal Society (2024). *Summary of visa costs analysis 2024*. <https://royalsociety.org/-/media/policy/publications/2024/summary-of-visa-costsanalysis-2024.pdf>

¹² House of Commons Library (2024). *Economic update: Inactivity due to illness reaches record*.

<https://commonslibrary.parliament.uk/economicupdate-inactivity-due-to-illness-reaches-record/>

¹³ Council for Science and Technology (2025). *CST advice on improving the nation's health through primary prevention*.

and during pregnancy – delivers significant cost savings and lifelong benefits in reducing the risk of complex health issues.¹⁴

Inequalities lead to worse health outcomes, but other social causes relating to, for example employment, education, criminal justice, housing, transport, and local services are relevant to many Government departments.¹⁵ To deliver effectively on this welcome focus on prevention in the plan, it is important that investment is coordinated between other Government strategies (including the NHS 10 Year Workforce plan), all levels of Government, NHS, and research funders to support evidenced, cost-effective interventions and policies, and evaluate new interventions and policies. We also recommend further investment in research into improving health in the early years. This includes the causal pathways leading from exposures in early development to later health risks, and to identify effective interventions and policies, including for emerging threats to child health.

2.2 Embed research in the NHS to improve health outcomes and boost innovation

The commitment to make research ‘business-as-usual’ rather than a ‘nice to have’ represents an important shift in approach and is key to delivering the Government’s growth and NHS missions, the 10-Year Health Plan for England, and the Industrial Strategy.

The UK healthcare system has been a leader in clinical research for commercial and non-commercial actors, with a single healthcare provider with cradle-to-grave records for the population, an extremely developed health research infrastructure, and a committed clinical research workforce. Previous underinvestment has stretched the healthcare system to such an extent that research has been deprioritised. While this is manageable in the short term, this will be highly damaging in the medium term, if not corrected.

As set out in point 1.5, this is also why the support for clinical academics committed to in the 10-Year Health Plan for England is so important. Clinical academics are leaders in research-active NHS settings, which drive innovation to make the NHS more sustainable and deliver better health outcomes for patients.

Additional funding for the NIHR announced at the Spending Review Phase 2 was welcome and should be reflected in increased research activity in the NHS across all four nations. This support will be part of maximising the UK’s potential to emerge as a global leader in clinical research, including in experimental medicine approaches, at a time of immense change. While we see encouraging commitments in the 10-Year Health Plan for England to embed research throughout the NHS, we would like to see more detail on how the health service will be further supported in this vital mandate, particularly how Integrated Care Boards will be equipped and resourced to fulfil their research responsibilities during implementation of the plan.

2.3 Drive innovation by investing in a more developed evidence base on effective and safe utilisation of transformative technologies and data in the NHS.

As we noted in our consultation submission on the 10-Year Health Plan for England, an innovative NHS fit for the future requires the use of advanced technology and data at scale. A robust, evidence base is essential for the effective and safe utilisation of such transformative uses of data and technologies including AI, genomics, wearables and robotics.

<https://www.gov.uk/government/publications/letter-to-the-prime-minister-on-improving-the-nations-health-through-primary-prevention/cst-advice-on-improving-the-nations-health-through-primary-prevention>

¹⁴ Academy of Medical Sciences (2024). *Prioritising early childhood to promote the nation’s health, wellbeing and prosperity*. <https://acmedsci.ac.uk/file-download/96280233>

¹⁵ The King’s Fund (2025). *What are health inequalities?* <https://www.kingsfund.org.uk/insight-and-analysis/long-reads/what-are-health-inequalities>

However, a lack of real-world evidence on how these technologies perform across typical NHS patient populations, especially those with multiple long-term conditions, is a key challenge to their adoption. As with other types of health research, trials with narrow patient criteria also often fail to predict outcomes for complex cases, where results may differ significantly.

As it sets out the implementation phases of the 10-Year Health Plan for England, Government must therefore invest in rigorous research, including, individual and cluster randomised trials – that demonstrates the effectiveness (and cost-efficiency) of new technologies. Without these trials in the UK, policymakers and planners lack evidence to make decisions about costly, large-scale digital health interventions. Slow adoption of innovation and unfulfilled potential of patient data as a research resource are stalling clinical research and healthcare innovation.¹⁶

3. Support the financial sustainability of health research in universities.

Universities' health research activities are key to realising Government's Plan for Change, Industrial Strategy and 10-Year Health Plan for England, and these activities enable national and regional growth.

3.1 Invest in discovery science and reversing the real terms decline in QR funding, to ensure the UK university sector can sustainably drive advances in research.

UK universities' health research is high quality. For the Research Excellence Framework (REF) 2021, the quality of submissions to Main Panel A (medicine, health and life sciences) was judged, on average, to be 45% world-leading and 41% internationally excellent (FTE weighted).¹⁷ We were therefore pleased to see ambitions in the Industrial Strategy to support world-class R&D through public investment at scale in the discovery sciences. Discovery science is underpinned by quality-related (QR) funding, which provides institutions with the autonomy to deploy funding strategically – both to commit to long-term investments and to respond quickly to new challenges. However, in England, there has been a 16% drop in real-terms QR funding from 2010–11 to 2024–25.¹⁸

Left unaddressed, this could be seriously detrimental to universities' ability to conduct discovery research that can lead to healthcare breakthroughs. Only by reversing the real terms decline in QR funding, can we fully to support our world class universities and researchers to make the discoveries needed to improve health, and ensure our research translates to commercial success.

The Office for Students (OfS) has noted that, in 2023–24, UK higher education institutions had a deficit of more than £6 billion for research activities, with a full economic cost recovery rate of 66.6%.¹⁹ The OfS has also noted that many universities and colleges are taking steps to address financial risks, including cost reduction programmes.²⁰ As reforms emerge from the Post-16 Skills and Higher Education White Paper for England, we must ensure the funding environment supports universities to make strategic, informed decisions about their health research activities.

¹⁶ Academy of Medical Sciences (2025). *Academy of Medical Sciences response to NHS 10-Year Health Plan*. <https://acmedsci.ac.uk/file-download/16905516>

¹⁷ REF 2021. *Sector and main panel average results*. <https://2021.ref.ac.uk/results-analysis/sector-and-main-panel-average-results/index.html>

¹⁸ The Russell Group (2024). *Briefing – The impact of QR funding*. <https://www.russellgroup.ac.uk/policy/policy-briefings/impact-qr-funding>

¹⁹ Office for Students (2025) *Annual TRAC 2023-24*. <https://www.officeforstudents.org.uk/media/zntnyj2n/annual-trac-2023-24.pdf>

²⁰ Office for Students (2025). *Financial sustainability of higher education providers in England*. https://www.officeforstudents.org.uk/media/upycgog5/ofs-2025_26_1.pdf

The Academy is the independent, expert voice of biomedical and health research in the UK. Our Fellowship comprises the most influential scientists in the UK and worldwide, drawn from the NHS, academia, industry, and the public service. Our mission is to improve the health of people everywhere by creating an open and progressive research sector. We do this by working with patients and the public to influence policy and biomedical practice, strengthening UK biomedical and health research, supporting the next generation of researchers through funding and career development opportunities, and working with partners globally.

This response was prepared by Harry Chambers, Policy Manager, and Daniel Wake, Head of Science Base and Careers Policy. For further information, please contact

Daniel.wake@acmedsci.ac.uk.

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