The Academy of Medical Sciences' response to the Science, Innovation and Technology Committee's call for evidence on life sciences investment – Deadline 13 October 2025

Introduction

The Academy of Medical Sciences ('the Academy') is the independent, expert voice of biomedical and health research in the UK. The Academy's vision is good health for all supported by the best research and evidence. We welcome the opportunity to respond to this call for evidence on life sciences investment.

This response is complemented by our previous representations on the life sciences sector, including our submissions to the Industrial Strategy and the 10-Year Health Plan for England. In those submissions, and through our wider work on Future-proofing UK Health Research, we have signalled that the competitiveness of the life sciences sector requires a coordinated ecosystem across industry, academia and the NHS, which are interdependent.

In this call for evidence, we focus on the conditions that attract life sciences industry activity and investment.

The competitiveness of the UK's life sciences sector

The UK has one of the leading life sciences sectors. The UK life sciences industry is a major employer, driving skills, health innovations, export revenue and inward investment. However, the global race for science and innovation is fierce. Research from the Association of the British Pharmaceutical Industry (ABPI) has shown that:

- Since 2018, UK pharmaceutical R&D investment trails international trends. The OECD has published spending data on retail pharmaceuticals.
- In 2023, life sciences foreign direct investment was 58% below 2017 levels.
- Pharmaceutical companies are increasingly placing their trials in other countries (e.g. Spain and Australia), which is driven by consistently slow and variable study set-up timelines.
- High and unpredictable clawbacks on new medicines — more than 23% of UK sales — are acting as a tax on innovation.

If these issues are unaddressed, the UK's status is at risk, with patients waiting longer, and jobs and investment moving overseas. This is detriment to the Government's ambition for the UK to be the leading life sciences economy in Europe by 2030, and the third most important globally by 2035. The challenges are long-standing, however the UK now has the opportunity to act boldly and decisively to preserve our life sciences industry and its growth potential.

We need to ensure that industry remains within, and is attracted to, the UK. This means finding the NHS a world class partner for trials and adoption. As the population ages and

more multifactorial illnesses dominate demand, the NHS (and the UK) needs a stream of innovative medicines and devices to treat more patients more effectively and to enable innovative approaches to disease prevention. A decrease in the UK biomedical industry will undermine the NHS. Our universities develop world-leading biomedical and health talent and research, but this relies in part on commercial research partnerships, which provide investment and support translation.

Ultimately, slow uptake of new medicines, volatile pricing frameworks and the steady loss of clinical trials hurt patients, who are beginning to miss out on new treatments common elsewhere. Significantly, the increasing widespread failure to use gold standard medicines limits the UK's ability to test new experimental therapies. The UK needs a vibrant industrial sector to deliver better health and prosperity.

Barriers to inward investment and growth

The Academy has previously identified the following barriers to investment:

- **Lack of support for late-stage growth.** For growth of spin-out companies beyond early stages, the availability of late-stage and long-term capital is limiting innovation and expansion. We heard from Fellows that more financing could be accessed from the City of London, e.g. through unlocking pension funds through successful implementation of the 2025 Mansion House Accord.
- **Funding gaps which create a 'valley of death'**. Long-term, stable funding is a particular challenge in high-risk fields with lengthy timelines, such as drug discovery. For technologies such as quantum sensing technologies, support for vibrant small and medium enterprises (SMEs) in the UK to grow is particularly important. It was suggested that Government could incentivise 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.
- **Tax environment.** The UK's life sciences sector needs an internationally competitive tax and regulatory framework. R&D tax credits can be used to incentivise private investment and tax reliefs should be evaluated to support innovative start-ups and scale-ups. We have heard from our Fellows that a lower tax burden helps early non-profit making companies to employ skilled staff at the optimal numbers required for success.
- **Regulatory framework.** Lord O'Shaughnessy's report identified the need for regulatory reform. The timeline setup of trials in the UK is behind other countries. The Medicines and Healthcare products Regulatory Agency (MHRA) has begun a welcome change in seeing itself as an enabler and promoter of innovation in the UK, but more needs to be done in this space. We also strongly welcome the establishment of the Regulatory Innovation Office (RIO), which we hope will work with stakeholders to deliver a revolution in regulation. We are encouraged that one of RIO's priorities is medicines discovery.

Other barriers include:

- **Low uptake of new therapeutics**. The authorisation of new medicines for use in the NHS lags behind comparator nations. This arises from delays but also the formulas used by the National Institute for Health and Care Excellence (NICE).

Take up is also below expectations. A possible reason for this is the devolved financial controls where drug cost rather than drug value is being tensioned; The King's Fund notes that "in each integrated care board (ICB) area, there is usually an integrated medicines optimisation committee (IMOC) or equivalent arrangement to oversee medicines' use locally. These committees determine which medicines to include on local formularies based on factors such as the specific needs of their local population, and the cost-benefit of the new medicines compared with other treatments available locally".

- **Pricing**. The VPAG regime needs reforming to focus on value rather than price. The volatility of the current regime is disincentivising UK innovation. If the biomedical sector is to have a long-term future in the UK, the UK needs to accept that the sector needs to generate returns on its investment. When clawback rates on innovation medicines are uncompetitive, companies will often go elsewhere.
- **International tariffs and drug pricing**. The U.S. has a very high share of drugs revenue. It has a long-standing concern about other countries underpaying for the costs of innovation. Currently, there remains the risk of further tariffs being imposed, as the U.S. looks to reshore R&D development.

Improving implementation of innovations

Regulation

We need to ensure that regulation keeps pace with the speed of development of medicines, vaccines and emerging technologies. The Academy has previously identified several regulatory barriers, which, if resolved, can improve implementation of heath innovations.

- **Capacity**. Some of our Fellows have suggested that the capacity, rather than the design, of the regulatory system often poses barriers.
- **Dynamism**. Regulation must be sufficiently flexible to safeguard against potential harms without stifling progress and preventing the realisation of their potential. In rapidly developing industries, such as AI-based medical devices, where regulatory frameworks are still being developed, there is a need for bodies such as the MHRA to proactively interact with research communities and conduct internal horizon scanning to promptly identify gaps in the regulatory pathway. As noted above, we are pleased that the MHRA has recently set the ambition to be more agile and forward-thinking in its regulatory approach.
- **Consistency**. International regulatory harmonisation is essential for successful global collaboration and innovation. The UK has historically employed a science-led, risk proportionate approach to the regulation of research and innovation, which has successfully promoted better research in both the UK and EU. However, this must be balanced against the need for consistency, stability and clarity of regulatory frameworks for collaboration and the guidance of capital in investment decisions.
- **Data**. Efficient regulation of, access to, and linkage of, high quality and representative health datasets is essential for successful research, development and downstream deployment of new innovations. The development of a UK-wide, near real-time surveillance system for the safety, effectiveness and value of medicines and devices should be urgently prioritised. This capability would give the UK a competitive advantage internationally. Regulatory systems must be

proportionate in ensuring that mechanisms enable data access and linkage whilst upholding the duty of confidentiality and protecting right to privacy.
- **Procurement**. Procurement systems that chase short-term savings ignore wider value: healthier lives, avoided hospital admissions, economic growth, and resilience. The UK needs a stable, predictable framework that rewards value rather than volatility.

Clinical trials

The UK's current approach treats medicines as costs to be minimised. The UK spends just 9% of its health budget on medicines, compared with 14–20% in European peers. What seems fiscally responsible is a false economy. Patients miss out on treatments to keep them healthier and out of hospital, while the research infrastructure that delivers future breakthroughs relocates elsewhere.

As noted above, international regulatory harmonisation is vital for international clinical trial collaborations, reducing regulatory burdens, and the attractiveness of the UK as a place for investment in innovation. Attendees of a 2022 FORUM workshop raised this in the context of trials for treatment of rare and ultra-rare diseases.

The UK's clinical research challenges, which include recruitment to trials and NHS capacity, are also faced by non-commercial clinical trials. Solutions are needed to facilitate clinical research across the ecosystem if we are to realise the patient and economic benefits.

However, we welcome the recent Government commitments to clinical trials in the 10-Year Health Plan for England, including plans to streamline trial set-up times and enhance public access through the NHS App, which will accelerate the translation of cutting-edge treatments from laboratory to bedside. A clinical trials metric should be incorporated into the performance management framework of all NHS organisations.

The Life Sciences Sector Plan

The Academy was delighted to see the Government develop a dedicated Life Sciences Sector Plan. It includes promising ambitions such as cutting clinical trials times, strengthening health data infrastructure, and streamlining regulation and procurement.

Recognising that the NHS must become a thriving site of research is key to improving health and prosperity in the UK and driving health outcomes globally. The Plan's effectiveness will depend on sustained coordination across all sectors and funders, and engagement with patients and the public. Aligning science, the NHS and industry in partnership is essential if the UK is to deliver better health and prosperity.

Building on this plan, what is needed now is delivery of the following achievable steps that would quickly improve patient outcomes and strengthen the UK's competitive position:

- Faster adoption of proven, cost-effective innovation across the NHS.
- Predictable, stable investment and pricing frameworks that give industry confidence to launch and scale here.
- Stronger research and data capacity to restore the UK's competitive edge in clinical trials and make full use of our rich health datasets.

- Procurement that rewards resilience and sustainability, protecting supply and supporting high-quality, innovative manufacturing.

As a sector, we must restore the balance and build a stable, values-focused system that rewards innovation.

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