
Summary

- This submission reflects the key priorities of the medical research community in relation to the Higher Education and Research Bill. It is complemented by specific and detailed proposed amendments to the Bill prepared jointly by the four National Academies, which seek clarification on a number of areas of relevance across the research base.¹
- The Higher Education and Research Bill sets out changes to the research landscape, including the creation of a new research and innovation funding body, UK Research and Innovation (UKRI), as well as changes to the funding and regulation of higher education in England.
- The UK's medical research base delivers world-class performance at an unparalleled level of efficiency, demonstrating the strength of the funding system which underpins the sector. This system builds on an ecosystem of interconnected funding bodies, and balances competitive awards against block grants to institutions.
- The medical sciences would be best served by the subsidiary Councils under UKRI retaining separate, stable and substantial budgets, coupled with the autonomy to act in response to challenges and opportunities within the sector. The legislation governing UKRI should seek to balance authority within this new structure, to ensure that key roles within the Councils continue to attract high-calibre applicants, particularly at the most senior level.
- The delivery of dual-funding functions through a single organisation must be seen to provide tangible benefits to the sector, and avoid violating the fundamental purpose of separate funding streams. Appropriate mechanisms should be implemented to insulate these functions.
- Translating medical science discoveries into patient impacts requires a strong pipeline of research and innovation, and incorporating Innovate UK within UKRI must not disrupt its distinct, business focus. We would welcome further clarity on how the wording of the Bill can best support Innovate UK to retain this focus, and its deployment of new financial instruments.
- We welcome the proposal to design a robust framework for measuring teaching excellence, and support further development of key metrics (such as measures of student satisfaction) to address concerns around reliability, and increase confidence in the data produced.

Introduction

1. The Academy of Medical Sciences promotes advances in medical science, and supports efforts to see these advances translated into healthcare benefits for society. Our elected Fellowship includes the UK's foremost experts drawn from a broad and diverse range of research areas.
2. We welcome the opportunity to support Parliamentary scrutiny of the Higher Education and Research Bill, building on our prior engagement with the Green Paper, 'Fulfilling our potential: teaching excellence, social mobility and student choice'.² Our responses have been informed by the expertise of our Fellows, many of whom are recipients of Research Council funding, or have been directly involved in the operation of particular Councils. We would welcome further opportunities for dialogue on this legislation as it progresses.

¹ www.acmedsci.ac.uk/policy/policy-projects/submission-to-higher-education-reform-consultation/

² www.acmedsci.ac.uk/policy/policy-projects/submission-to-higher-education-reform-consultation/

An ecosystem of funders

3. UK medical research benefits from a uniquely balanced ecosystem of funding sources, which draws on public, private and philanthropic resources. In 2014 this included:
 - £3.9bn industry investment.³
 - £1.8bn public investment (through the National Institute for Health Research and the Medical Research Council).⁴
 - £1.3bn charitable investment.⁵
4. The 2015 Spending Review provided real-terms stability for the public contribution to this balance, and the deployment of Overseas Development Aid into research opens up new opportunities – mobilising UK research expertise to tackle challenges faced by developing nations, and lending greater global perspective to the UK community.
5. With funding now secured, it is essential that the machinery to efficiently disburse this resource, and deliver impact for society, is defined and operational. The Higher Education and Research Bill sets out substantial changes to the architecture of research funding within England, and the wider UK. Careful consideration must be given to how the elements of the ecosystem can best operate together to minimise disruption for researchers, and continue to deliver world-leading research impacts.

Underlying Principles

6. Measured across a broad range of metrics, the UK research base delivers world-class performance at an unparalleled level of efficiency.⁶ Within the medical sciences this generates both health and wealth benefits – with a quarter of the world’s top 100 prescription medicines developed in the UK, and the life sciences contributing more than £60bn to UK GDP annually.^{7,8} This success demonstrates the strength of the funding system which underpins the sector, and any changes to this landscape should seek to retain the principles and broad delivery mechanisms which have supported such high performance.
7. The UK model of research funding is unusual in providing a balanced mix of competitive awards (through Research Councils) and long-term support (through Quality-related Research allocations). This balance has successfully fostered a cluster of elite institutions in the UK and, crucially, supported a disproportionate number of high-performing institutions at all levels.⁹

Research Councils

8. The Bill proposes the creation of a new funding body – UK Research and Innovation – which would draw together the seven existing Research Councils, Innovate UK and the QR functions currently administered through the Higher Education Funding Council for England (HEFCE).

³ Business Enterprise Research and Development 20143, Office for National Statistics

⁴ Charities Investing in Research statement, Association of Medical Research Charities (September 2015)

⁵ *Ibid.*

⁶ International comparative performance of the UK research base (2013) BIS

⁷ United Kingdom Pharmaceuticals & Healthcare Report, Q1 2016, BMI Research.

⁸ Balance of Payments data (2015) Office for National Statistics.

⁹ See: QS World University Rankings, and Times Higher Education World University Rankings

This new architecture is designed to support greater interdisciplinary working between funding bodies, and strengthen the profile of UK research within Westminster and abroad.

9. The Academy recognises the need for, and benefits of, greater interdisciplinary coordination to tackle major societal challenges, a topic which has been a focus for the forthcoming Academy report on 'Health of the Public in 2040'.¹⁰ It is vital that the responsibilities of UKRI are carefully calibrated, to empower and facilitate researchers and Councils to work better together, without creating new sources of uncertainty and administrative burden.
10. We are concerned about the impact of the proposed changes on the autonomy of RCs and their CEOs, and we are seeking greater clarity on the relationship between UKRI and its subsidiary Councils through our proposed amendments with the other national Academies. It is vital that this restructuring does not diminish the calibre of applicants for senior positions within Councils, and Councils should retain separate, stable and substantial budgets, coupled with the autonomy to act in response to challenges and opportunities within their sector.

Dual-funding

11. The Academy welcomes the Bill's acknowledgment and protection of dual-funding, and we continue to believe that this system has served the community well by providing institutional allocations to deploy strategically alongside competitively-won RC, charitable and industry funding. However, we seek further clarification through our amendments, to ensure that sufficient protection is provided to this mechanism of funding, both now and in the future.
12. There remain questions around the co-location of dual-funding functions within UKRI, which were previously separated between RCs and HEFCE. Possible benefits from unification may include improved coordination between the deployment of capital and resource spending, and reduced administrative costs. However, this increased proximity must not encroach on the underlying principles of hypothecated dual-support.
13. A high level of transparency around this hypothecation is needed to support ongoing scrutiny, and it will be necessary to clarify the responsibility of Councils to fund UK-wide, versus the remit of Research England to perform QR functions across England alone. The amendments proposed by the Academies seek further details on the implications for devolved activities, and how the allocation methodologies will align with any new UK-wide structures.

Innovation

14. The translation of medical science discoveries into patient impacts requires a strong pipeline across the entirety of research and innovation. Innovate UK plays a key role in supporting the delivery end of this process, and is a particularly important resource for the network of small-and-medium enterprises that commercialise research.
15. The Bill proposes to transfer Innovate UK under the UKRI umbrella. We continue to have concerns around the ability of Innovate UK to retain its distinct, business focus, and would like further clarification on how this can be best supported in the Bill's wording. This process is further complicated by the introduction of new loan-based financial instruments to Innovate

¹⁰ www.acmedsci.ac.uk/policy/policy-projects/health-of-the-public-in-2040/

UK's portfolio, replacing a significant proportion of its existing grant-style funding. Consideration will need to be given to how the risk profiles of funding bodies will align with the wider investment landscape, to support cooperation within UKRI wherever possible.

Teaching Excellence Framework

16. We welcome the proposal to design a robust framework for measuring teaching excellence. This was a key recommendation of the 2010 Academy report, 'Redressing the balance: the status and valuation of teaching in academic careers in the biomedical sciences'.¹¹
17. In agreement with the White Paper's commitment to 'recognising the value of research led teaching through TEF', our Fellows emphasised the value of research-led teaching in the UK, as critical not only for the quality of our students, academics and HEIs, but also for the strength and sustainability of the UK's overall education and research base.
18. The White Paper accompanying the Bill sets out plans to use the National Student Survey (NSS) as a core metric for assessing teaching quality. Our 2010 report found widespread enthusiasm among leaders of the major UK biomedical centres to make use of student feedback when determining teaching quality and excellence, but also a lack of confidence in the current assessment mechanisms, including the NSS.
19. Due to these important concerns, we welcome the current review of the NSS and suggest that the system of student feedback is developed to ensure that both UK HEIs and students are confident about their responsibilities, and understand the importance of student feedback in the assessment of teaching excellence. Lessons may be derived from established and successful schemes in major US and Canadian institutions.

Concluding remarks

20. This Bill comes at a time of significant change across the sector, notably the impact on research of the UK's departure from the European Union, with which the Academy has been highly engaged.¹² It is vital that the primary legislation which establishes UKRI clearly sets out a roadmap for its responsibilities and remit, and fully utilise the expertise already present across the subsidiary bodies. If successfully accomplished, this offers the chance for greater coordination in tackling the major societal challenges and a stronger future for UK research.

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¹¹ Redressing the balance: the status and valuation of teaching in academic careers in the biomedical sciences (2010) Academy of Medical Sciences

¹² www.acmedsci.ac.uk/policy/policy-projects/research-and-the-european-union/