



House of Commons Science and Technology Select Committee - Managing IP and Technology Transfer Inquiry

Response by the Wellcome Trust

Key points

- There should be more long-term financial support for university translation, innovation and knowledge exchange activities, and the principal objective of a Technology Transfer Office (TTO) should be delivering benefits for society rather than generating short-term revenue.
- The UK needs a wide-ranging network of people with commercial and entrepreneurial expertise so that academics, TTOs and companies can access advice and develop ideas successfully.
- Translation should be rewarded and celebrated as part of research excellence, and it should be much easier for researchers to move between universities and companies.

Introduction

1. Wellcome is the UK's largest charity. Over the next five years, we plan to invest up to £5 billion in biomedical research and the medical humanities. Much of this will be spent in the UK as a direct result of both the excellence of the research base and the Government's commitment to science. A key part of our mission is working with researchers to transform great ideas, inventions and discoveries into treatments, products and interventions that improve health.

Consultation focus areas

Objectives of universities and TTOs

2. Given the importance of effective translation and innovation practices, universities should have a dedicated senior officer with responsibility for these functions. A recent report¹ also highlighted the essential role of university leadership in setting an institution's agenda in this area. Alongside this, the principal objective of a TTO should be delivering benefits for society rather than generating short-term revenue for universities. They should operate as a cost centre for venture philanthropy and report to the top of an institution.
3. We would like to see more long-term financial support for university translation, innovation and knowledge exchange activities. Increasing investment in TTOs would also help staff to pursue more innovative opportunities, enable them to better support patent costs, and give them the time to evaluate new propositions, develop strong IP and find appropriate commercial partners. It could also build capacity so that TTOs can facilitate access to project-specific advice and guidance, whether this includes commercial, regulatory, clinical, legal or marketing expertise.

Sharing of best practice in technology transfer

4. We are very supportive of efforts to share best practice in technology transfer, and more generally in translational and knowledge exchange — this is particularly important in smaller universities where a full-service TTO may not be sustainable. In these instances, it's critical that there are regional networks to facilitate the sharing of resources and best practice. A good example of this is SETsquared, a partnership between five universities to galvanise enterprise activities. PraxisUNICO, the association for knowledge exchange and commercialisation professionals, is also focused on facilitating connections and promoting best practice.

¹Professor T. McMillan et al. (2016) *University Knowledge Exchange (KE) Framework: good practice in technology transfer*
http://www.hefce.ac.uk/media/HEFCE.2014/Content/Pubs/Independentresearch/2016/University_KE_framework_Good_practice_in_technology_transfer/2016_ketech.pdf

5. To further facilitate collaboration and enhance the UK's translation system, it is important that different organisations' IP policies and practices are clear, simple and harmonised wherever possible to enable IP to be accessed more quickly and simply. Automated license access tools, for example e-Lucid, could also help to facilitate easy access to new technologies.

Funding arrangements for research commercialisation

6. As discussed in point 2, TTO funding should be focused on impact rather than revenue return. In addition to this, academics need more access to small amounts of concept funding to enable them to demonstrate that an innovative or high-risk idea has commercial potential. However, this should come with minimal strings and bureaucracy — securing a small amount of seed investment can often be more difficult than applying for a large-scale grant. As well as funding, academics working in this space should have access to a 'seasoned' network of people with industry or entrepreneurial expertise, who can give advice and guidance on the experiments that show if an innovative or high-risk idea has commercial potential.
7. Delivering the most effective public and private support to this country's research-intensive businesses is also vital. To enable innovative companies to take risks, they must have access to a variety of financial instruments that are fit for purpose including grants, investments and conventional debt finance. Historically, the UK has struggled to achieve a balance between these support mechanisms, and consequently, lending to SMEs remains subdued. Innovate UK should consider how to address this as they refresh some of their funding, and it is crucial that it retains its commercial focus as it moves under the UK Research and Innovation umbrella.
8. Traditional venture capital, typically backing ideas over the short-term and requiring a quick exit, is not particularly suited to bioscience with its long development and regulatory timeframes. However, it has been encouraging to see the establishment of new specialist long-term funds investing in the UK in recent years, such as the Woodford Patient Capital Trust. Syncona Partners also supports the creation of sustainable healthcare businesses over the long-term. The Government should further incentivise new forms of patient capital, from pension funds to private investors, possibly via tax breaks. This may also help to address concerns around the Alternative Investment Market (AIM) and its suitability for biotech. Currently, there is little appetite for technology companies, a lack of buyers and liquidity, and an absence of science-savvy brokers.

Access to commercialisation opportunities

9. Larger companies can often find it easier to access commercialisation opportunities because their resource, capacity and reach can enable their staff to seek out and form partnerships with academics and SMEs. To make this more equitable, we would like to see a UK-wide network that makes it easier for companies of all sizes — as well as academics and TTOs — to make connections and tap into commercial and entrepreneurial expertise.
10. R&D clusters and co-location of companies and academic institutes can accelerate innovation, facilitate collaboration, promote knowledge sharing and foster local economic growth. They help cross-sector partnerships to flourish and the close proximity of organisations gives people a degree of career flexibility. We're proud to support the Stevenage Bioscience Catalyst, but to work it needs all funding partners, including the Government, to provide long-term support.

Further action needed by universities, business leaders and the Government

11. We are concerned that current metrics for academic success focus on publications, paper citations and author positions, and this can disincentivise translation. Instead, funders and universities should celebrate, reward and recognise the range of behaviours that contribute to a flourishing research environment. This includes working with an industrial partner, establishing a company, consulting and creating IP.
12. There should be flexible career paths for researchers at all levels, where industrial and entrepreneurial experience is encouraged and incentivised, more re-entry support for those who wish to return to academia from industry, and other mechanisms that promote a 'revolving door' between universities and companies. All researchers, including those early in their careers, should have access to training to develop awareness of, and skills in, translation. This should include opportunities to spend time in industry.

13. The NHS has a critical role to play in supporting research and making new treatments widely available as quickly as possible. The Accelerated Access Review, coordinated by the Government's Office for Life Sciences and supported by Wellcome, aims to speed up access to transformative drugs, devices and diagnostics for NHS patients, and provide a stronger system of advice for innovators. Due to be published later this year, it will also look at the role of Academic Health Science Networks in promoting the adoption of innovations by bringing together academic and clinical expertise.

The Wellcome Trust is a global charitable foundation dedicated to improving health. We support bright minds in science, the humanities and the social sciences, as well as education, public engagement and the application of research to medicine. Our investment portfolio gives us the independence to support such transformative work as the sequencing and understanding of the human genome, research that established front-line drugs for malaria, and Wellcome Collection, our free venue for the incurably curious that explores medicine, life and art.