

## **Microbiology Society – Supplementary written evidence (LSI0131)**

*Letter from Professor Paul Kellam, Chair-Elect, Microbiology Society Policy Committee, following an evidence session on 16 January 2018.*

Thank you for the opportunity to discuss the Life Sciences Industrial Strategy on behalf of the Microbiology Society with your Committee on 16 January 2018. I am writing to clarify some of the information I provided at the session and to offer some additional information.

During the evidence session, I spoke about incentivising individuals in their career by allowing permeability of scientists from basic research to industrial research, and vice versa. This was a reference to comments made in a speech by Sir Paul Nurse, calling for 'permeability and fluidity, allowing the ready transfer of ideas, skills and people in all directions between the different sectors, research disciplines and various parts of the research endeavour.'<sup>1</sup>

To clarify my point regarding the UK's patent output, further to the data in the Life Sciences Strategy I referred to, I direct you to a recent report produced for the Department of Business, Energy and Industrial Strategy on International Comparative Performance of the UK Research Base<sup>2</sup>, highlighting how the UK is awarded approximately 2% of global patents annually, while UK research is cited in 9.1% of patent applications. This is compared to 19% of global patents awarded annually to the US, and 44.7% of US research cited in global patent applications.<sup>3</sup> These figures signal that, although the UK delivers high-quality research, we need to increase our ability to convert more of this research into commercially successful patents within the UK. To follow up your question as to whether we can learn from other countries, a major transformational change was achieved in commercialisation in the USA, following the enactment of the Patent and Trademark Law Amendments Act on 12 December 1980. This followed an analysis and debate on why US federal-funded research commercially licensed less than 5% of tens of thousands of patents. The UK has recently updated its analysis of why the nation underperforms in technology transfer and commercialisation with the House of Commons Science and Technology Committee report on Managing intellectual property and technology transfer.<sup>4</sup> The report summarises this as: 'successes in identifying the challenges associated with technology transfer have yet to be matched by progress in tackling the underlying problems. Instead, technology transfer has been dominated by an ongoing 'review culture' and an 'implementation deficit'. Reducing the House of Commons report into practise in combination with the collection of actions set out in the Life Sciences Industrial Strategy should help strengthen this, and the other outputs of UK life science.

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<sup>1</sup> <https://www.timeshighereducation.com/news/paul-nurse-research-relies-freedom-action-and-movement>

<sup>2</sup>

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/660855/uk-research-base-international-comparison-2016.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/660855/uk-research-base-international-comparison-2016.pdf)

<sup>3</sup> WIPO Statistics Database (December 2015)

<sup>4</sup> <https://publications.parliament.uk/pa/cm201617/cmselect/cmsctech/755/755.pdf>

Your final question asked if the Microbiology Society could have made a stronger representation about other aspects of life sciences at the time of the consultation of the Green Paper. The Society was not invited to participate in consultations specifically on the Life Sciences Industrial Strategy. However, we did contribute to the Royal Society of Biology's response<sup>5</sup> to the Industrial Strategy Green Paper and written evidence<sup>6</sup> submitted to your inquiry, which highlighted the broader definition and value of life sciences beyond biomedical science.

Additionally, I would like to bring the Microbiology Society's recently published report 'Unlocking the Microbiome' to the attention of your Committee, which makes recommendations to advance microbiome science, a rapidly developing area of life science research and innovation relevant to human health, agri-food, environment and industrial biotechnology.<sup>7</sup> This illustrates some of the potential opportunities from interdisciplinary bioscience.

The Microbiology Society was pleased to have had the opportunity to provide evidence to your Committee, and would be happy to provide more information on any of our points if required.

*29 January 2018*

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[https://www.rsb.org.uk/images/RSB\\_response\\_Life\\_Sciences\\_Industrial\\_Strategy\\_inquiry\\_submitted.pdf](https://www.rsb.org.uk/images/RSB_response_Life_Sciences_Industrial_Strategy_inquiry_submitted.pdf)

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<http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/science-and-technology-committee-lords/life-sciences-and-the-industrial-strategy/written/70487.html>

<sup>7</sup> <https://microbiologysociety.org/policy/microbiome-policy-project/unlocking-the-microbiome-report.html>