

Cynulliad Cenedlaethol Cymru | National Assembly for Wales

Y Pwyllgor Plant, Pobl Ifanc ac Addysg | Children, Young People and Education Committee

Ymchwiliad i Effaith Brexit ar Addysg Uwch ac Addysg Bellach: Cylch Gorchwyl | Inquiry on the Impact of Brexit on Higher and Further Education

IB-02

Ymateb gan: Cymdeithas Diwydiant Fferyllol Prydain (ABPI) yng Nghymru  
Response from: Association of the British Pharmaceutical Industry (ABPI) Cymru  
Wales

## Learner Outcomes and Employability

**Question 1: What are the potential challenges to learner success and employability post-Brexit, and what is and could be done to meet these?**

Universities and the life sciences industry have a long-standing relationship of working together to address skills gaps in the UK and there is a key role for industry to play in supporting young scientists in a way which adds to the incentives and choices post-18. ABPI has collected data on links between industry and academia since 2003. The most recent data reports that in 2017, ABPI member companies supported 704 undergraduate placements (a rise of 17% from 2015) and 563 sponsored PhD students (a rise of 2% from 2015).

The skills required in the biopharmaceutical industry to develop and deliver innovative medicines to patients are often very specific. More than a quarter of jobs in the industry are in highly skilled research and development (R&D) roles which mostly require STEM degrees.<sup>i</sup> The ABPI collects data on the skills gap in the biopharmaceutical sector regularly by surveying industry. The ABPI's 2015 Skills Survey of 59 life science organisations identified a number of critical skills gaps facing the sector.<sup>ii</sup> The most concerning gaps were in interdisciplinary areas involving mathematics and biology. The Survey also flagged up serious long-standing skills shortages, such as in translational medicine/clinical pharmacology, which requires complex understanding to bridge the gap between bench and bedside.<sup>iii</sup> EEA and non-EEA migrants help to fill these gaps. Despite there being an 18% increase in the number of STEM graduates in the UK between 2004 and 2014, a significant portion of this increase was due to an increased number of non-UK domiciled graduates. The number of UK domiciled STEM graduates increased by 14% while the number of non-UK EU domiciled STEM graduates increased by 72% and the number of non-EU domiciled STEM graduates increased by 51%.<sup>iv</sup>

It is crucial to the future success of the life sciences industry that the number and quality of STEM graduates who are able to work in the UK life science sector and academic science base continues to grow, and the Government's post Brexit approach to immigration must take this into account.

## Research and Innovation Funding and Collaboration

Question 6: What is currently being done, and what might be done to safeguard EU research collaborations and networks in preparation for and after Brexit?

Through cooperation spanning decades, European nations have created a world-leading location for research and innovation, including a world-class funding agency, the European Research Council (ERC), which has invested in unique research facilities, including CERN and the European Laboratory of Molecular Biology. The ABPI welcomed the UK Government's commitment to underwrite funding beyond the date the UK leaves the EU for Horizon 2020 projects approved while the UK is an EU member.<sup>v</sup> Subsequently, we welcomed the joint agreement with the EU Government that the UK will continue to participate in the Union programmes financed by the Multiannual Financial Framework (which includes Horizon 2020) until their closure.<sup>vi</sup>

However, the future beyond 2020 is uncertain. The UK/EU government joint report from December 2017 stated the UK "may wish to participate in some Union budgetary programmes of the new MFF post-2020 as a non-Member State". Access to EU R&D funding could be retained, for example, through the UK gaining "associate member" status for Horizon 2020's successor – Horizon Europe (as achieved by Switzerland and Israel for Horizon 2020). This would also allow UK-based academics to lead and participate in EU-wide collaborations.<sup>vii</sup> The UK will not be able to sign an association agreement for Horizon Europe until the programme has been legislated, probably in late 2020. Given that the Brexit transition period ends on 31 December 2020 and the new framework programme is due to begin the day afterwards, timing is clearly critical if a smooth transition to the new framework programme is to be ensured.

The UK should seek to negotiate an agreement with the EU that:

- Delivers a UK immigration system that is needs-based, straightforward and rapid;
- Agrees a reciprocal arrangement with the EU that facilitates ease of movement for scientists, researchers and highly-skilled workers, maintaining current systems;
- Guarantees the rights of scientists, researchers and highly-skilled EU citizens already in the UK, alongside securing the rights of UK citizens working and operating in the EU;
- Implements the recommendations set out in the Life Sciences Industrial Strategy at the earliest possible opportunity to address some of the skills gaps in the life science sector;
- Reaches an agreement to maintain access to Horizon 2020 and its successor;
- Seeks continued participation in the European Investment Bank and European Investment Fund, including shareholding, financial contributions and, as a result, a seat at the Board; and

- Honours all existing intellectual property protections and retaining a supportive environment for innovation in medicines.

It is important to note that losing the UK's important contribution to the EU research ecosystem could damage not only the UK but also Europe's attractiveness in a globally competitive environment.

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<sup>i</sup> Social Mobility Commission. Socio-Economic Diversity in Life Sciences and Investment Banking. July 2016.

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/549994/Socio-economic\\_diversity\\_in\\_life\\_sciences\\_and\\_investment\\_banking.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/549994/Socio-economic_diversity_in_life_sciences_and_investment_banking.pdf)

<sup>ii</sup> ABPI, "Bridging the skills gap in the biopharmaceutical industry: Maintaining the UK's leading position in life sciences" (November 2015)

[https://www.abpi.org.uk/media/1365/skills\\_gap\\_industry.pdf](https://www.abpi.org.uk/media/1365/skills_gap_industry.pdf)

<sup>iii</sup> ABPI. UK lacks the skills to research and develop the medicines of the future. November 2015.

<http://www.abpi.org.uk/media-centre/newsreleases/2015/Pages/111115.aspx>

<sup>iv</sup> The Gatsby Charitable Foundation, "Key Indicators in STEM education", (December 2014).

Available from: <http://www.gatsby.org.uk/uploads/education/reports/pdf/key-indicators-in-stem-education-gatsby.pdf>

<sup>v</sup> Pickard J, Neville S. UK ministers call for post-Brexit co-operation with EU on drugs [Internet].

Financial Times. 2017 [cited 2018 Jan 5]. Available from: <https://www.ft.com/content/e3e9ac6a-5f2d-11e7-8814-0ac7eb84e5f1>

<sup>vi</sup> HM Government. Future customs arrangements: A FUTURE PARTNERSHIP PAPER [Internet]. 2017. Available from:

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/637748/Future\\_customs\\_arrangements\\_-\\_a\\_future\\_partnership\\_paper.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/637748/Future_customs_arrangements_-_a_future_partnership_paper.pdf)

<sup>vii</sup> HM Government. Continuity in the availability of goods for the EU and the UK: POSITION PAPER [Internet]. 2017. Available from:

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/638958/Continuity\\_in\\_the\\_availability\\_of\\_goods\\_for\\_the\\_EU\\_and\\_the\\_UK\\_Position\\_Paper.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/638958/Continuity_in_the_availability_of_goods_for_the_EU_and_the_UK_Position_Paper.pdf)