

Written evidence submitted by the Royal Society of Biology

Royal Society of Biology

The Royal Society of Biology is a single unified voice for biology, representing a diverse membership of individuals, learned societies and other organisations. We are committed to ensuring that we provide Government and other policy makers, including funders of biological education and research, with a distinct point of access to authoritative, independent, and evidence-based opinion, representative of the widest range of bioscience disciplines.

The Society welcomes the House of Commons Education Select Committee consultation on the impact of exiting the European Union (EU) on higher education. We are pleased to offer these comments which have been informed by input from our members and member organisations from across the biological disciplines.

Executive Summary

- The freedom of movement of students and researchers is vital for maintaining scientific excellence within the UK. Freedom of movement facilitates international collaboration, which enables the UK to enjoy a world-leading reputation for carrying out cutting edge research, difficult to achieve at a national level. The UK must be able to recruit and hire the best researchers on an international scale to remain competitive. The Government should encourage a greater level and ease of movement among students and researchers that nurtures collaboration.
- Many EU students and staff bring new capabilities and skills that are not always readily available in the UK, contributing to the knowledge economy and skills shortages. It is essential that the UK Government provides assurances for existing EU students and staff working in the UK that they can continue to do so under current conditions. Protections should also be offered to the many UK researchers and students in other EU countries. To ensure that funding streams remain stable and UK universities remain competitive, tuition fees should not be dramatically increased for EU students.
- International and EU students bring in essential revenue for UK universities. A downward trend in EU applicants, coupled with restrictions on the freedom of movement of EU students entering the UK, would have an adverse impact on the financial stability of the Higher Education sector.
- A continued commitment to retaining EU funding mechanisms and associated collaboration must remain a priority. The UK gains significant benefits from EU funding opportunities, both in financial value and innovation value to researchers. Funding for UK research projects will also

be impacted if there are barriers to overseas students taking up research-based places at UK universities.

- Leaving the EU brings new opportunities for the Government to encourage international students to study in the UK and build relations with the international community outside of the UK. It is vital that the Government clearly outlines, and helps to promote the opportunities available to students wishing to train in the UK and the benefits of our world leading education system.

The likely impact of the UK exiting the EU on EU students studying in England

1. Following the Referendum result to leave the EU, there have been incidents and rhetoric that have done significant damage to the UK's reputation as an open and welcoming society. This has an influence beyond the EU and could have an impact on the UK's ability in general to recruit international researchers and students, and establish international collaborations. There is significant uncertainty for existing EU students, who are likely to feel increasingly alienated and discouraged from staying in the UK in the current environment. Equally, exiting the EU has the potential to discourage prospective EU students from deciding to apply to study in the UK.
2. It is paramount therefore that the Government clearly outlines, and helps to promote the opportunities available to students wishing to train in the UK and the benefits of our world leading education system.

What protections should be in place for existing EU students and staff

3. Science is a truly international endeavour and the free movement of students and researchers is vital to its success within the UK. Much of this scientific expertise can be found in the hubs that are our universities, where large quantities of cutting edge research (conducted by university staff and students) take place.¹
4. The UK currently benefits from the free movement of researchers within the European Union (and the wider European Economic Area), which facilitates and encourages interactions and collaboration. Working across the EU enables the sharing of knowledge, infrastructure and resources, allowing UK scientists to utilise essential facilities not otherwise available. The mobility of researchers within the EU allows the UK to recruit and hire the best researchers on an international scale, strengthening the UK's research base. If we are unable to do this then it is unlikely that the current levels of UK scientific research excellence can be maintained.²

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https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/523546/bis-16-265-success-as-a-knowledge-economy-web.pdf

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5. It is vital that the UK government provides assurances that researchers, scientists and students from other EU countries currently working and living in the UK can continue to do so under current conditions. When building our new relationship with the EU, the Government should seek to protect and strengthen the status and rights of the many UK researchers, academics, scientists and students working elsewhere in the EU. At present this group faces an uncertain future.³
6. While employers both in the UK and the rest of the EU are likely to work hard to ensure that the employment status of full-time employees are is not affected, there is acute uncertainty for early career researchers, many of whom are on fixed term contracts, or are in the process of applying for a permanent position. PhD students and post-doctoral researchers are essential to our science talent pipeline. Assurances must be put in place by the UK government to protect the long-term employment status of early career researchers working both within the UK and UK nationals working elsewhere in Europe.
7. The Government should put assurances in place for existing EU students and staff, that no additional visa requirements or other sanctions will be put in place. Equally, assurances should be offered to EU students studying in the UK, to ensure that there are no sudden changes to the funding support regulations and/or fee regimes. There is likely to be an even greater impact on EU students studying in Scottish universities, who do not currently pay tuition fees, this group face significant uncertainty around changing fee and visa requirements. Any changes to the current fee paying system for EU students should be signposted in advance so that future students can plan accordingly.

The future of the Erasmus+ programme following the withdrawal of the UK from the EU

8. The Erasmus programme facilitates collaboration between EU universities and our preferred outcome would be for the UK to continue to participate in this programme.
9. Withdrawing from the EU could reduce opportunities for UK students to undertake placement years in industry or in European universities, and reciprocal placement of EU students in the UK; eliminating a vital mechanism for collaboration in teaching and research. We urge the Government to consider how to ensure these opportunities are not lost for current and future

<http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/science-and-technology-committee-lords/relationship-between-eu-membership-and-the-effectiveness-of-uk-science/written/25296.pdf>

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<http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/science-and-technology-committee/leaving-the-eu-implications-and-opportunities-for-science-and-research/written/36017.pdf>

students and where possible strengthen the framework of support for programmes such as Erasmus.

Risks and opportunities for UK students

10. Some STEM courses, particularly at Masters level, have a significant proportion of enrolled EU and international students. Just over 10% of higher education students studying a biological sciences degree were from outside the UK in 2014/15 and approximately 16% of those studying a STEM course.⁴ The sustainability of these courses will be at risk if numbers drop and financial viability is reduced.⁵ This will reduce opportunities and limit choice for UK students and affects the future pipeline of properly educated and trained UK scientists.
11. Following the announcement that Britain will leave the EU there has been a decline in the strength of the pound. Any further weakening of the pound in the long term will have negative financial consequences for UK students studying abroad, as funding will not go as far. In certain instances this can lead to solvency issues and problems with meeting the financial requirements for visas. This impact is particularly a risk for postgraduate students and early career researchers on lower stipends and salaries, and is likely to discourage them from seeking valuable international experience and collaboration.⁶
12. Whilst the effect of the falling value of the pound on universities, on both teaching and research structures, must be mitigated there is also opportunity for the Government to attract international students to study in the UK. The weakening of the pound offers overseas students' greater purchasing power within the UK. A downturn in currency should be seen as an opportunity for the Government to encourage international students to study in the UK which, in turn, will assist with the financial stability of the sector.

How changes to freedom of movement rules may affect students and academics in English higher education institutions

13. The UK's higher education institutions possess a world-leading reputation for science and offer world-class teaching and cutting edge research.⁷ A significant proportion of UK academic staff are EU nationals. The 2014/15 HESA data indicate that approximately 16% of academic staff and 5.5% of non-academic staff at universities come from the EU.⁸ The maintenance of

⁴ <https://www.hesa.ac.uk/file/4082/download?token=40VVtbqY>

⁵ <http://www.universitiesuk.ac.uk/policy-and-analysis/reports/Documents/2015/patterns-and-trends-2015.pdf>

⁶ <http://www.britishecologicalsociety.org/brexit-science-unintended-consequences-international-collaborations/>

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https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/523546/bis-16-265-success-as-a-knowledge-economy-web.pdf

the UK's teaching excellence is likely to be hindered if the pool of accessible talent becomes smaller, as a result of restrictions to freedom of movement.

14. PhD students also make up a large proportion of the UK's research population, 14% of PhD students are non-UK nationals from the EU.⁹ Within research-intensive universities, the figure is higher (19%) when taking into account the number of EU students undertaking postgraduate research-based qualification.¹⁰ Barriers to overseas students taking up research-based places at UK universities will impact on UK research projects.

How to ensure UK universities remain competitive after the withdrawal of the UK from the EU

15. EU and international students bring in essential revenue for UK universities. The 125,000 EU students studying at UK universities during 2012-13 generated £2.27 billion for the UK economy.¹¹ International students at undergraduate and Masters level provide vital funding for the UK's higher education system, and contribute to the UK's economy as a whole.¹² The average fee for non-EU international undergraduates studying laboratory-based degrees in the 2013-14 academic year was £13,425. The average fee for a non-EU international postgraduate studying a laboratory-based degree in 2013-14 was £13,841. This provides considerably more revenue than the comparative fees for UK/EU undergraduate students (£8,610) and UK/EU postgraduate taught students (£5,948).¹³
16. The result of the Referendum has already had an impact on the number of EU students applying to UK universities. EU applicant numbers for higher education courses with an early October deadline were down by 9% (620 people) in the 2017 undergraduate cycle.¹⁴ A downward trend in EU applicants, coupled with restrictions on the freedom of movement of EU students entering the UK, would have an adverse impact on the financial stability of the sector. There has been a negative impact on non-EU student recruitment following changes in visa regulations affecting post-study employment of these students,¹⁵ this effect is likely to be mirrored for EU students if restrictions on freedom of movement are implemented. To ensure

⁸ Higher Education Statistics Agency <https://www.hesa.ac.uk/data-and-analysis/staff>

⁹ Higher Education Statistics Agency <https://www.hesa.ac.uk/data-and-analysis/publications/students-2014-15>

¹⁰ HESA data 2014/1:FPE HE students by nationality and basic level of study

¹¹ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/284500/environment-climate-change-documents-final-report.pdf

¹² https://www.rsb.org.uk/images/International_STEM_students_-_Society_of_Biology_response.pdf

¹³ <https://www.timeshighereducation.com/sites/default/files/Pictures/web/j/i/g/annual-tuition-fee-data-for-full-time-courses-at-uk-institutions-2013-2014-02.jpg>

¹⁴ <https://www.ucas.com/file/79421/download?token=VIDs8cCW>

¹⁵ <https://charteredabs.org/wp-content/uploads/2016/03/Chartered-ABS-International-Student-Recruitment-2016.pdf>

that funding streams remain stable and UK universities remain competitive, tuition fees should not be dramatically increased for EU students.

17. There could be a relative 'brain drain' if top-choice international appointees do not take up job offers in UK higher education institutions. Similarly, British academics may move overseas to a more open and collaborative system, compounding the brain drain problem. To remain competitive, UK universities must be able to continue to attract the best talent for research from across the EU.
18. One of the major barriers to the further growth and success of the UK's research base is a shortage of skills within the sector, particularly within highly skilled STEM areas, as well as a shortfall domestic STEM talent and Masters/PhD graduates working in research.¹⁶ EU students who stay to work in the UK, following graduation, act as a vital source of new skills for the market and fill STEM shortage areas, for example, 17% of academic workers in STEM are from the EU.¹⁷ The Government must ensure that protections are put in place to facilitate recruitment of UK trained EU students who want to work in STEM shortage sectors within the UK.

What the Government's priorities should be during negotiations for the UK to exit the EU with regard to students and staff at higher education institutions

19. There should be leave to remain for EU students and staff in the UK and the same should be negotiated for UK students and academics within the EU. A collaborative environment should continue to be facilitated, to support ease of movement and exchange of ideas, resources and training. The Government should encourage a greater level and ease of movement (including academics and students) that nurtures collaboration.
20. Retaining access to EU funding streams like Horizon 2020 would ensure that UK scientists are still able to participate in collaborative projects as they currently do. The recent guarantees around Horizon2020 award from the HM Treasury,¹⁸ beyond the UK's departure from the EU, are a welcome step. However, a continued commitment to retaining EU funding mechanisms and associated collaboration must remain a priority.

What steps the Government should take to mitigate any possible risks and take advantage of any opportunities

¹⁶https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/444048/High_level_STEM_skills_requirements_in_the_UK_labour_market_FINAL.pdf

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<http://www.sciencecampaign.org.uk/asset/F50CF4C1%2D93C7%2D4F38%2D89E55D6BDBB70ED6/>

¹⁸ <https://www.gov.uk/government/news/chancellor-philip-hammond-guarantees-eu-funding-beyond-date-uk-leaves-the-eu>

21. There is a high risk that restrictions on the freedom of movement, and the knock-on effects on collaboration and research, will impact on the UK's ability to attract the best international students, academics and researchers. Even if restrictions are not severe, the perception of additional barriers could also be detrimental to recruitment of the best talent. Perceptions around the accessibility and benefits of studying in the UK should be addressed, for example, through promotional programmes for prospective EU students.
22. Many postgraduate level programmes rely heavily on international cohorts, particularly taught Masters courses. In 2013-14 more than half of students undertaking full time graduate taught Masters courses were international students and of these 12% were students from the EU.¹⁹ A reduction in the number of international students participating on these courses could be detrimental for lecturers whose faculty role is dependent on the viability of these programmes.
23. Leaving the EU brings opportunities for the UK to build on relations with the international community beyond the EU. Closer relationships and collaborations could be developed with our commonwealth partners, for example, Canada, Australia and New Zealand. Previously this pool of talent has come second to employment from EU countries, however, with a less stringent approach to visa restrictions on these countries could help attract the best researchers and students, as well as building and strengthening collaborations.
24. University ratings that are based on research expertise could be in jeopardy if access to EU funding is lost and not replaced; and if access to collaborative environment is not maintained. The UK is one of the principal recipients of research funding in the EU.²⁰ The Government should take steps to ensure that the UK retains access to this funding.

November 2016

¹⁹ http://www.ucml.ac.uk/sites/default/files/pages/160/HE_in_England_2015.pdf

²⁰ <https://royalsociety.org/~media/policy/projects/eu-uk-funding/uk-membership-of-eu.pdf>