

## Leaving the EU: implications and opportunities for science and research

A reply on behalf of the Royal Society of Biology to the Science and Technology Select Committee of the House of Commons

## 22 August 2016

The Royal Society of Biology is a single unified voice, 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.

We are pleased to respond to this inquiry. A great deal is changing already in relation to the UK's relationship with the EU. The implications for science and research generally, and for the biosciences particularly, are just beginning to become apparent. Although some short term effects of the Referendum result are already being felt, it will be some time before there is either a clear picture or a settled view to be set out. We understand that the Committee is well aware of this and is proceeding with its inquiry both to gather evidence and stimulate thinking; we fully support this strategy and hope to be able to add information as and when our community can distil it. We provided evidence in relation to the relationship between the UK and EU in recent inquiries,<sup>1</sup> we believe that evidence remains relevant and provide these comments in addition.

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<sup>&</sup>lt;sup>1</sup> <u>https://www.rsb.org.uk/images/pdf/RSB\_response\_to\_ST\_EU\_reg\_of\_Life\_Sci\_inquiry\_March\_2016.pdf</u> and <u>https://www.rsb.org.uk/images/pdf/RSB\_response\_to\_HoL\_consultation\_on\_science\_and\_the\_EU\_FINAL\_-\_Copy.pdf</u> Charles Darwin House, 12 Roger Street, London WC1N 2JU\_Tel: +44 (0)20 7685 2550 <u>info@rsb.org.uk</u> www.rsb.org.uk



### Summary:

- We must create the best environment for science and research to flourish. Unarguably this will be in an international setting and therefore it is vital to have well-functioning relationships with the EU and the international community beyond.
- Collaboration is key to future success for the UK and for Europe, and all scientific nations require student and researcher movement. It is essential that the UK government provides assurance that researchers, scientists and students from other EU countries currently working and living in the UK can continue to do so under current conditions, and wins assurance that the rights of UK students and researchers living elsewhere in the EU are equally protected.
- The Referendum result is already having some impact on science and research. There is a mood of
  uncertainty around the future of programmes and relationships involving UK researchers within the
  science community in the UK and the EU. This is reducing confidence and deterring planning. The
  recent guarantees around Horizon2020 awards from HM Treasury<sup>2</sup> are a welcome step. They are a
  sign that Government recognises the long-term planning and trust-building aspects of research
  programmes. There is still a great deal to be done to build on this confidence boost across the EU, and
  to ensure continued benefit from other EU programmes.
- The full range of the EU's funding and training impacts on UK science should be considered when designing the new landscape. Framework Programmes, Horizon2020, ERC, Erasmus, Marie Skłodowska-Curie and Structural Funds all contribute different strengths and a new strategy will also need to be diverse if it is to be resilient. Remaining associated with Horizon 2020 and its successor Framework Programmes is essential to retain good collaboration with EU member states.
- To exit the EU a huge number of regulatory and legislative adjustments will be needed. It is crucial/essential that these are completed in a way that truly keeps the UK at the forefront of internationally successful research and innovation, and allows the UK to realise value from its successful innovation through trade.
- The Higher Education and Research Bill and the Stern Review are also influencing and altering the UK research landscape; issues relating to EU Exit will need to be considered in the light of these as well as the economic climate.

<sup>&</sup>lt;sup>2</sup> <u>https://www.gov.uk/government/news/chancellor-philip-hammond-guarantees-eu-funding-beyond-date-uk-leaves-the-eu;</u> <u>https://www.gov.uk/government/news/safeguarding-funding-for-research-and-innovation</u>



## **Detailed submission:**

What the effect of the various models available for the UK's future relationship with the EU will be on UK science and research, in terms of collaboration; free movement of researchers and students; access to funding; access to EU-funded research facilities, both in the UK and abroad; and intellectual property and commercialisation of research.

1. The uncertainty over the UK's future relationship with the EU, and future relationship with research funding mechanisms, is *already* having an impact on science and research. There is widespread concern that UK collaborators and applicants will be ineligible or disadvantaged and this runs the risk of being a self-fulfilling prophecy. Assurances from Government have had limited impact until now but the recent announcement from HM Treasury that it will guarantee all Horizon2020 and some structural and investment funds granted to UK applicants that run beyond UK EU Exit is real a step towards the significant and convincing measures needed. However, work is now required to disseminate this message among European researchers and to find ways to further protect and encourage important collaborations. There has also been concern that the UK may narrow its doors and have an unwelcoming atmosphere; this would also be damaging. Limitations could develop relevant to movement of goods and services as well as people.

### Collaboration

- 2. Retaining full association with Horizon 2020 and its successor Framework Programmes is essential if collaboration with EU member states is not to decline in the medium to long-term. To achieve this, freedom of movement for people would be needed; this raises complex political issues. Research on cancer,, mental health, imaging, neurodegenerative disease, tissue engineering, bioinformatics, and conservation among others will be heavily and negatively affected if the UK is unable to maintain involvement in centralized EU-wide initiatives. By their nature these research efforts require, for example, large patient pools, or distributed ecosystems, or infrastructure that is beyond the scope of any individual country. Many specialisms, for example endocrinology, cover rare diseases requiring a large population from which to draw viable study cohorts. Similarly, capacity to conduct studies on trans-national boundary infectious diseases (clinical and veterinary) is essential for research as well as disease control and public health. International collaboration and outlook is key.
- 3. A survey by the Biochemical Society ahead of the Referendum (receiving 376 responses) highlighted collaboration as a main theme with 87% feeling it was essential or very relevant. We have sought opinion on whether there will be new collaboration opportunities as a result of leaving the EU, and have not identified any. Capacity for collaborative research is highly dependent upon funds to support it, as well as on the ability to travel and work across research sites. These facilities need to be available over the long term to build confidence and establish networks on which collaborations are built. Leaving the EU will not create spare capacity for collaboration elsewhere



unless supporting funds are identified, ring-fenced and made available. If the UK wishes to increase global collaboration then it must increase the funding and support to make it possible, ideally encouraging collaborations both in Europe and further afield.

## Free movement of researchers and students

- 4. It is essential 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, it is also vital that the Government seeks to protect the status and rights of the many UK researchers, scientists and students working elsewhere in the EU. At present this group faces an uncertain future.
- 5. Researcher mobility in the EU also featured strongly in the Biochemical Society survey, as did access to funding. Almost 20% of respondents had been involved in an EU student exchange scheme such as Erasmus, either as a student or supervisor.<sup>3</sup> With regards to free movement of labour more generally, it was commented:

"Should the UK leave the EU, the mobility restrictions will impair the recruitment of top scientists, engineers, health professionals and technologists, which in turn would jeopardize the economic development of the country: a dreadful perspective considering that the future long-term sustainability of developed economies will depend greatly on boosting science-based knowledge, research and technological advancements in an ever-increasing competitive world."

We find this to be a widely-held view, and equally relevant to professionals with key niche skills. In addition, the ability to work or study for periods of time in other European countries (and vice versa) is valued and should be protected (e.g. <u>Erasmus</u>), as this offers researchers and students an invaluable opportunity to gain new knowledge and skills, as well as to build networks. As these exchanges are usually relatively short, new bureaucratic or visa barriers might make participation impractical. Finally, RSB members have also highlighted that immigration rights based on market comparative salary alone would be detrimental to recruitment of postdoctoral workers who are highly skilled but modestly paid.

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 not affected, there is acute uncertainty for early

<sup>&</sup>lt;sup>3</sup> For example one researcher at a major institution said:

<sup>&</sup>quot;My work has benefitted hugely from collaborations with EU countries outside the UK that has been fostered by EU funding. Open borders within the EU have enhanced my ability to recruit excellent scientists from across the EU, much improving the quality of researchers available to my lab compared with the EU alone." http://www.biochemistry.org/Sciencepolicy/ScienceandtheEU.aspx



career researchers, many of whom are on fixed term contracts, or are in the process of applying for a position. Personal experiences are important for the individual and influence the sector; a member of the British Ecological Society (BES) commented:

"People are the driving force behind research and already face job insecurity, pressure, juggling family, shifting goalposts and much more to do science and research; we must ensure a positive future not just for science, but for the people producing it, whether they are UK nationals in the UK or abroad, or EU nationals in the UK."

7. Communication is as important as policy in this regard. Negative messaging can have a detrimental effect on the attractiveness of the UK as a destination for researchers:

"If the current level of call-outs to 'go home' continues, then the societal impact on foreign colleagues will be significant and discourage movement to the UK, and encourage movement out of it."

8. In regard to EU students specifically, changes in their status will likely have consequences for their fee level and access to finance. Although this might be seen as a saving, it might well be a false economy as many areas of the HE sector are heavily reliant on a significant cohort of EU students and this might not continue<sup>4</sup>. On the other hand the current strength of the Euro relative to the Pound is an incentive but this also could change. International and European students provide significant input to local economies. The UK recoups resources expended in training some researchers (e.g. masters students) through receipt of fees, but the resource expended in training doctoral and postdoctoral researchers will be more difficult to recoup if increased immigration restrictions reduce the potential for the best of these researchers to remain in the UK workforce after their training or fixed term contracts come to an end.

#### Access to funding and facilities

- 9. UK scientists benefit from EU funds as both leaders and collaborators with important impact for the skills base.
- 10. Although it is possible that savings from the UK contribution to the EU could be reinvested in research in the UK, there is no guarantee that this will be the case, especially given the short term budget pressure facing the UK. It has been stressed in many contributions that the value of EU

<sup>&</sup>lt;sup>4</sup> Illustrative quotes: "If we have to charge EU students overseas fees, this will have a huge impact on the flow of talented undergraduate, masters' and doctoral students into the UK – for UGs, loss of access to the Student Loan Company will be a big issue. Presumably also PGT and PGR students will not be eligible for the £10K and £25K loans recently established for these students." and "Loss of EU students on PGT courses could mean that some courses are closed as student numbers may fall below the threshold for financial viability – this in turn will impact on the availability of highly skilled UK scientists to the workplace."



research funding goes well beyond its monetary value, by enabling collaboration, sharing of ideas and priority-setting, and because it often funds otherwise vulnerable research areas. For example, the highly successful European Research Council (ERC) provides much-needed responsive-mode funding for blue skies research, which is especially valuable for early career researchers. The majority of respondents (71%) to the Biochemical Society survey felt that EU funding is essential or very relevant to their research. EU funding mechanisms are recognised as complex. If the UK after Exit retained access to EU funding it would not be likely to have an opportunity to influence programme design. Even if the UK designed its own novel funding mechanism it would need to accommodate collaboration, and therefore be compatible with structures in other countries.

- 11. Retaining access to Horizon 2020 and its successors as an Associated Country would ensure that UK scientists are still able to participate in collaborative projects as they currently do. Other forms of association might severely limit the extent to which UK researchers can participate. However, although Associated Countries take part in the framework programme, scientific decision-making, strategy, budget, and funding priorities are decided by the European Commission and European Parliament. The UK will therefore need to consider how to employ indirect influence to shape decisions in these areas, or accept lack of influence.
- 12. EU funds, for example Marie Skłodowska-Curie fellowships, are particularly valuable to early career researchers in what is an intensely competitive funding environment.<sup>5</sup> In addition the international development support funds, for example through <u>EuropeAid</u>, have provided a mechanism for UK involvement with EU funded projects. There is uncertainty about what will happen in terms of DfID funding and how the UK will remain involved with EU development activities. At present there are many UK members of EU Delegations active around the world, their status post Exit will need to be clarified. Access to international scientific collaborations and research infrastructures, such as EMBO and ELIXIR, is not necessarily dependent on EU membership. However, arrangements in this area are complex and the EU often provides funding and fora to facilitate coordination (detailed in the Royal Society report).<sup>6</sup> The UK participation will have to be examined on a case by case basis as certain aspects may require careful negotiation. Securing Associated Membership of the EU framework programmes could allow the UK to maintain its seat in the European Strategy Forum on Research Infrastructures among other things.

Commercialisation of research

<sup>&</sup>lt;sup>5</sup> A member of the BES reported: "Countless UK researchers have launched their careers on Marie Curie fellowships, and brought their knowledge and experience back to the UK with them. We risk short-changing our early career scientists if we don't provide them with the same or equivalent access: I know lots of incredibly talented people who likely wouldn't be working in science now if they hadn't been given the opportunity of an EU fellowship."

<sup>&</sup>lt;sup>6</sup> https://royalsociety.org/~/media/policy/projects/eu-uk-funding/uk-membership-of-eu.pdf



- 13. Although exiting the EU was identified by a few as a potential opportunity for the UK to renegotiate favourable trade deals with other markets, the majority of industry respondents to the Biochemical Society survey stated that access to the common market had extended their potential for trade. At this stage it is difficult to predict a direct effect on commercialisation but there is concern that it will be more cumbersome. The UK's membership of the European Patent Organisation does not depend upon EU status.
- 14. Many plant breeding companies are global and taking investment decisions from outside the UK about whether to place breeding programmes in the UK, EU or elsewhere. The plant breeding timescale is long and this influences decision-making. The UK currently has a good precompetitive environment that is attractive. The British Society for Plant Breeders (BSPB) has spotted a major problem around how variety rights operate and generate royalty payments which could mean that rights owners would lose their income stream in the UK post Brexit if this is not addressed. This would be a crisis for the industry so steps need to be taken urgently to give companies confidence to continue investment in breeding in the UK. Governance of this area is by Defra, and we understand that the department is listening to community concerns, but action will be necessary.
- 15. Support for innovation and knowledge exchange is a high priority for members. The single trading area for medicines is an example of an incentive for development. Commercialisation can be as much in avoiding losses as producing directly profitable products. Access to data is an important aspect for issues like food security, the tracing of disease and contamination, and detection and tracing of adulterated and counterfeit products. From a science perspective mechanisms like the <u>Irish Universities Nutrition Alliance</u> were enabled by the EU environment and have been successful. Borders are relatively invisible in biology and so the capacity to conduct seamless study across them is important for success. The new data protection legislation could make it more difficult to share clinical trial data with partners if we are a non-EU country.

#### Regulations

- 16. It will be important to reduce complexity and burden when creating legislation, obviously without compromising standards. There is concern that it will be difficult to create the significant raft of new legislation needed with all the best efficiency refinements in place. In addition compliance with EU regulations will continue to be needed for trade and many other purposes.
- 17. An important consideration following the UK exit from the EU would be the regulations concerning the use of GMOs in agriculture and the status of genome editing. The current EU approval process is viewed by many scientists as burdensome and dissuading innovation. The UK might have an opportunity to develop its own regulations in this area. However, this would not necessarily lead to adoption or commercial growing of approved GMOs in the UK, because public, political and economic considerations must combine in this decision-making.



- 18. The position of the European Medicines Agency (EMA) headquarters in London, at the heart of the UK's involvement with the EU medicines regulation, and operation of the recent Clinical Trials Directive are seen as of pivotal importance. The EMA employs about 850 people and there is concern about the potential loss of institutional knowledge as well as jobs if it moves (many countries are keen to host it). The presence of the EMA here is an important deciding factor for many pharma companies in also being in the UK. Decrease of pharmaceutical industry presence would have a big impact in the UK overall and on the R&D landscape in particular; it is a key element of the concerns about regulation. Clinical trials are approved nationally (locally). The use of animals in research (which includes but is not exclusive to development of medicines) has been recently harmonised across the EU with the UK playing a leading role in development of Directive 2010/63/EU. This is fully transposed into UK law. Retaining harmonisation and continuing to promote standard development would be a significant advantage for collaboration.
- 19. The UK has signed and ratified important international conventions such as the <u>Convention on Biological Diversity (CBD)</u> and its Nagoya Protocol on Access to Genetic Resources and Benefits Sharing, as well as the Convention on International Trade in Endangered Species (CITES). These have been regulated under common agreed EU mechanisms. For instance the CITES convention lists over 35,000 species of animals and plants, and EU Commission Regulation 1320/2014, applies CITES regulation to the UK and provides the list species controlled by CITES in the EU and applies stricter regulation by agreement. EU regulations are in force across the 28 EU parties, giving a 28 vote block in any further negotiations under the conventions. On exiting the EU the UK would be technically an independent party needing to its own law to implement CITES. With regard to biodiversity, the EU Habitats Directive Council Directive 92/43/EEC enshrines the protection and monitoring for many UK species of plants and animals and this will also need to be replaced. Moving outside EU law will require new (or adapted) natural environment legal regulations to be put in place. This is a significant but important writing burden.

## What the science and research priorities for the UK Government should be in negotiating a new relationship with the EU?

20. For planning and negotiations the priority should be creating the best environment for science to flourish in the UK. There will remain a strong interaction between UK and Europe and it is in the UK's interest for there to be a vibrant science and research environment throughout. While much media commentary has focused narrowly on the risk to science funding posed by EU Exit, this is one facet of the overall need to create a collaborative, supportive environment to attract and retain the best scientists to the UK that has been the focus for most of our advisers. Certainly funding is a key consideration and the UK has been highly successful in relation to the mechanisms available, with a perceived 'net gain' overall, achieving well above per-capita expectation. For example, in



2014, the UK secured 15% of Horizon 2020 research and development funds, despite having less than 13% of the EU population. It is unlikely that EU members would negotiate a new system with net financial benefit to the UK as a predicted outcome, however the support for collaboration overall should make remaining in the funding mechanisms an objective, and emphasis on making the most of the European talent pool should make that attractive to all.

- 21. As well as advancing knowledge, the overall benefit of publicly funded science should include social benefit so the important contribution of projects under the structural fund mechanism will need to be carefully discussed. Because these funds were locally directed they often support science in less research-intensive institutions with pockets of excellence and established links to the local economy. For example, the European Regional Development Fund supported the development of the University of Exeter's Penryn Campus, including the Centre of Ecology and Conservation and the Environment and Sustainability Institute.
- 22. To continue to thrive the UK needs a multiplicity of funding approaches and involvement with the broadest talent pool. Effective international responses to global challenges, e.g. climate change, pandemic emergencies, etc. depend on effective international science collaboration and the free flow of people and ideas. These collaborations must not be compromised by the UK's exit from the EU.

# What science and technology-related legislation, regulations and projects will need to be reviewed in the run up to the UK leaving the EU?

- 23. Within the EU single market, there is an established framework for the free movement of research materials, especially biological materials (for example genetic strains of plants and animals, DNA and tissue samples), which benefits ecological, evolutionary and medical research. These regulations, and whether any import or export permits will be required in the future, will require review and clear resolution. Many research projects and collaborations are long-term and require regular movement of people and materials. Reassurance or pre-emptive planning will be necessary to ensure that contact and exchange can continue along necessary or planned schedules.
- 24. Some applied research projects are closely tied to practical management or conservation actions. For example, peatland restoration projects in the UK are strongly supported by <u>EU Life+ funding</u>. It is important that alternative funding sources are secured to continue supporting both practical conservation projects and the accompanying research.
- 25. Many EU regulations have been implemented by being written into UK law. These will not require immediate attention in the run up to exit. In order to be able to trade or collaborate with the EU, certain standards or systems may remain a necessity. As noted above some legislation relevant to



international agreements such as the Convention on Biological Diversity (including Access and Benefit Sharing); CITES (e.g. The UK Control of Trade in Endangered Species (Enforcement) Regulations (COTES) which creates offences in relation to the EU regulations); will need attention along with an extensive raft of other instruments. In each case specialist knowledge will be needed on the manner in which UK law is invoked and this may, in some cases, lighten the burden in terms of necessary alterations. From a policy perspective, decisions will need to be made in relation to whether continued harmonisation with the EU position, or specific alterations are necessary to inform the revisions. As by no means a complete list we note the Environmental Liabilities Directive (Environmental Damage (Prevention and Remediation) Regulations 2009); Clinical Trials Directive; General data Protection Regulation; medicinal products for human use; use of animals in research, etc.

26. Functional, compatible regulations and monitoring systems are essential, and preserving the capacity to partake in European projects and markets will be needed. This includes the ability of researchers and students to travel and undertake research for short periods of time (including international non-EU students to undertake short placements and skills development training), and for movement of research materials.

# The status of researchers, scientists and students working and studying in the UK when the UK leaves the EU, and what protections should be put in place for them.

- 27. It is essential that the UK government provides assurances that the researchers, scientists and students from other EU countries currently working and living in the UK will be granted full leave to remain under current expectations, including for their dependents. It is essential that projects and contracts already in place are not disrupted either by uncertainty or by unexpected revocation of visas. To ensure that all these individuals can continue their current programmes of study and work in the UK, government action will be required very soon. Reciprocal arrangements will be needed for UK researchers in the EU.
- 28. Staff with open-ended contracts on the expectation of leave to remain will need to be reassured of their and their families' rights. The excellence of UK science in the global community requires internationally competitive hiring to research and academic positions. Continued free movement of EU students at UK institutions and UK students at EU institutions would need to be guaranteed (in both directions), for short-term placements, one-year exchanges or sandwich placements. Sudden changes to the funding support regulations and/or fee regimes for EU students would be detrimental. Visa requirements for non-EU students– should this issue arise would not be recommended as a model for visa requirements for EU students. European movement rights of non-EU researchers and students needs to be addressed to preserve their ability to visit EU-based establishments or attend conferences. The future of the Erasmus programme must be addressed swiftly to minimize confusion.



# The opportunities that the UK's exit presents for research collaboration and market access with non-EU countries, and how these might compare with existing EU arrangements.

- 29. While it will remain important to retain and foster good collaboration with our near neighbours in Europe it will be important that the UK government addresses facilitating new arenas for international research collaboration beyond the EU. Closer relationships and collaboration could be developed with the United States, as the world's leading producer of research, as well as strengthening links with Canada, Australia and New Zealand. India and China have expanding science research and development communities and an increasing science output, and UK universities and institutes are already establishing strong bonds; this should continue. The relative economic growth of several African nations is helping to fuel increased investment in science that has huge potential to have impact in their developing economies and internationally. European nations and the EU will also want to collaborate with overseas partners and many have ties of common language and shared history on which to draw. Science is universal and collaborations with non-EU nations may well include partnerships with EU collaborators. The EU currently provides a 'one-stop-shop' for potential collaborators such as the US.
- 30. However, collaborations beyond Europe may require greater time and money than EU projects given logistic constraints such as travel costs. Geographical constraints may render these collaborations less desirable for researchers on a personal level given, for example, the additional costs and constraints of relocating to a different continent rather than within Europe, especially for early career researchers who are more likely to have young families to relocate without the security of a permanent contract. Should recent fluctuations and weakening of the pound continue then the conversion rate to other currencies may well become a factor in near-term decision-making. Evidence of these currency effects is already emerging, as scientists working abroad on non-EU collaborations, but funded in pound sterling, struggle with an effective rise in living costs, budgeting of experiments, or earning thresholds for visa purposes. Targeted investment will be needed to foster collaborations beyond the EU.

## What other measures the Government should undertake to keep UK science and research on a sound footing, with sufficient funding, after an EU exit?

31. The Government should ensure that there is no net loss of funding to UK science as a result of Exit. The current response is a step in this direction. The Government should negotiate to ensure access to EU-based central facilities is not curtailed; and so that levies on high-level equipment (or even consumables) do not make them unaffordable in current budgets (or provide budgetary adjustments). The Government should consult with the community to identify the key benefits



delivered by programmes at present, particularly when they cover gaps in UK provision or opportunity, and ensure that capacity is not lost, especially given the great success of the UK in securing EU funds.

- 32. As the future of scientific collaborations between the UK and the EU will be decided by negotiation it is important to recognise that both parties want to benefit. Diplomatic efforts will be required from both the Government and the research community to ensure that EU science counterparts see the value of promoting collaboration with the UK and remain open to a mutually beneficial settlement.
- **33.** The rhetoric around the Referendum and its outcome, and the sparse but highly visible episodes of xenophobia that have followed, have done damage to the UK's reputation as an open and welcoming society. This has an impact beyond the EU and could damage the UK's ability in general to recruit skilled migrants and establish international collaborations. We sincerely hope this is temporary and as limited as possible. Government help to take immediate action may be needed to restore reputation and behavioural norms and ensure that current and perspective students, researchers and other foreign nationals feel welcome.
- 34. There was a high degree of support within the science community for remaining within the EU and the result in favour of leaving demonstrated some difference in priorities from the population of a whole. It is important for the science community to understand and address societal need and to engage with expectation and positively embrace the democratic response. Taking steps to understand which public preferences are relevant to science, or are out of scope, is an important part of aiming to deliver public benefit from research as well as improved knowledge. Government as well as the community can seek to answer these questions.

The Royal Society of Biology is pleased for this report to be publicly available. For any queries, please contact the RSB Science Policy Team at The Royal Society of Biology, Charles Darwin House, 12 Roger Street, London, WC1N 2JU. Email: <a href="mailto:policy@rsb.org.uk">policy@rsb.org.uk</a>



#### Appendix: Member Organisations of the Royal Society of Biology

**Full Organisational Members** Academy for Healthcare Science Agriculture and Horticulture Development Board Amateur Entomologists' Society Anatomical Society Association for the Study of Animal Behaviour Association of Applied Biologists **Bat Conservation Trust Biochemical Society** British Andrology Society British Association for Lung Research British Association for Psychopharmacology British Crop Production Council British Ecological Society British Lichen Society British Microcirculation Society British Mycological Society British Neuroscience Association British Pharmacological Society British Phycological Society British Society for Cell Biology British Society for Developmental Biology British Society for Gene and Cell Therapy British Society for Immunology British Society for Matrix Biology British Society for Medical Mycology British Society for Nanomedicine British Society for Neuroendocrinology British Society for Parasitology British Society of Plant Breeders British Society for Plant Pathology British Society for Proteome Research British Society for Research on Ageing British Society of Animal Science British Society of Soil Science British Toxicology Society Daphne Jackson Trust Drug Metabolism Discussion Group The Field Studies Council Fondazione Guido Bernardini GARNet **Genetics Society** Heads of University Centres of Biomedical Science Institute of Animal Technology Laboratory Animal Science Association Linnean Society of London Marine Biological Association Microbiology Society MONOGRAM - Cereal and Grasses Research Community Network of Researchers on Horizontal Gene Transfer & Last Universal Cellular Ancestor Nutrition Society

Quekett Microscopical Club The Rosaceae Network Royal Microscopical Society Science and Plants for Schools Society for Applied Microbiology Society for Endocrinology Society for Experimental Biology Society for Reproduction and Fertility Society for the Study of Human Biology SCI Horticulture Group The Physiological Society **Tropical Agriculture Association** UK Environmental Mutagen Society UK-BRC - Brassica Research Community UK-SOL - Solanacea Research Community University Bioscience Managers' Association VEGIN – Vegetable Genetic Improvement Network Zoological Society of London **Supporting Organisational Members** Affinity Water Association of the British Pharmaceutical Industry (ABPI) Association of Medical Research Charities AstraZeneca BASIS Registration Ltd. Baver **BioIndustry Association** Biotechnology and Biological Sciences Research Council (BBSRC) British Science Association Envigo The Ethical Medicines Industry Group Fera Forest Products Research Institute Institute of Physics lpsen Medical Research Council (MRC) MedImmune Pfizer UK Plant Bioscience Limited (PBL) Porton Biopharma

Procter & Gamble

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