

27 April 2017

Dear Member

I am writing to you on behalf of the Royal Society of Biology, before Parliament is dissolved, to ask that if you stand as a Candidate in the Election you address the important challenge of **ensuring that UK science remains vibrant and strong.**

Science underpins much of the UK's current economic and social wealth and is vital to the future of the UK. It affects the lives of every constituent on a daily basis and the biosciences in particular have a critical role to play, from health to the environment. The Royal Society of Biology and its members are key sources of advice and we are keen to support the work of the next Parliament to ensure that UK science remains strong and relevant. We want Parliamentarians to have the evidence to make informed choices and we need a vibrant science research and education sector to enable this.

If you are re-elected I hope you will:

- ensure the UK has an excellent environment for science – with access to the best people, collaborations, investment, and regulations
- always consider the scientific evidence relevant to decisions

After the Election, on behalf of the science community, we will contact MPs with an invitation to Parliamentary Links Day. This year the theme of *Science and Global Opportunities* will offer a key engagement opportunity. UK science is global in relevance and draws upon global talent, the potential benefit of preserving these strengths is enormous.

Please contact me if you would like to discuss any aspect of our work.

Sincerely



Dr Mark Downs CSci FRSB, Chief Executive

Context

UK science is very successful.

UK science is highly productive and hugely respected internationally - it has continued to leverage inward investment on a lean public funding base. UK science delivers societal returns on R&D investment at twice or three times private returns - we must not risk this economically, socially and diplomatically important area of strength.

UK science is essential.

Science has unique capacities to support improved quality of life and economic growth, it delivers life-saving, problem-solving, business building, revenue generation and brings fulfilling employment and development opportunities, as well as helping us all to appreciate and make sense of the world. We need our vibrant science base to continue to develop cancer therapies, food and farming innovation, mental health initiatives, neonatal care, renewable energy options, waste management, antibiotic resistance strategies, environmental preservation and more, while being ready and able to deal with disease outbreaks and the destructive effects of environmental disasters.

UK science is global.

UK science addresses local and global challenges, it draws upon the work of ambitious scientists from across the world and draws in the pick of international talent to work here or collaborate from abroad. A full picture of the UK science workforce is not available but as an illustration 24% of employees in higher education (HE) institutions are international, the largest group (16%) are from the EU (non-UK). The movement of skilled and talented trainees and experts, for short or indefinite periods is vital for science progress here. The UK successfully wins European funding but we know that many grant holders here are non-national. Researchers are mobile and while talented researchers come to the UK because of the science environment, they often decide to leave because of social factors, and thus the UK's continuing strength depends upon social as much as funding policy. Current uncertainty about immigration status is deeply affecting many scientists.

UK science is facing uncertainty.

We are in a time of extraordinary change across issues that are fundamental to UK science's current success. The reorganisation of the publicly funded research, innovation and education landscape under the Higher Education and Research Bill, and the Brexit process combine to create an unprecedented climate of uncertainty that we must quickly address so that we do not suffer a potentially disastrous loss of ground and direction. The key short term vulnerabilities are around people and funds as well as regulation. Within the science community there is huge focus on the issues facing people who are working in and for UK science. Despite welcome attention to public science funding the UK still underinvests by comparison with EU and OECD averages; in looking ahead we must take into account the potential loss of our current net gain from EU research funds.

The importance of UK bioscience...

83% of Biological Science assessed in the Research Excellence Framework 2014 was judged as world-leading or internationally excellent.



The UK receives over £1bn annually from the EU in competitively-awarded R&D funding.

A quarter of the world's top 100 prescription medicines were discovered and developed in the UK.

Health and biomedical life sciences industry has a turnover of £51bn, employing 176,000 people.

17% of science academics at UK research institutions are from the EU (non-UK).

UK academic bioscience research led to 689 spin-out companies between 2002 and 2014.

The UK's environmental research is world-leading. A 2013 BIS report placed it first globally for research quality.

UK agri-tech sector contributes £10.4bn, and underpins the UK's £25bn food & drink manufacturing sector.



Public investment encourages private investment and for every £1 spent by the Government on R&D, private sector R&D output rises by 20p per year in perpetuity.

