The Royal Society of Biology: General Election Manifesto

We urgently call on all political parties to commit to:

- Invest in biosciences for a sustainable and prosperous future
- Promote STEM teaching, learning and expertise in schools, colleges, university, training and government

Who we are: The Royal Society of Biology is a single unified voice for biology: advising Government and influencing policy; advancing education and professional development; supporting our members, and engaging and encouraging public interest in the life sciences. The Society represents a diverse membership of individuals, learned societies and other organisations.

Individual members include practising scientists, students at all levels, professionals in academia, industry and education, and non-professionals with an interest in biology.

Understanding and innovation in the biological sciences underpin many essential aspects of society, from agriculture and sanitation to the latest medical advances. As a major contributor to the UK's economy and global competitiveness, we must ensure that we have a secure pipeline of expert biologists and a scientifically literate population to drive sustainable growth for the future and equip all citizens for modern life.

1. Invest in biosciences for a sustainable and prosperous future:

Research, development and innovation are key drivers of UK economic growth. Biology also lies at the heart of solutions to existential threats to our planet and human health, from food insecurity to future pandemics. The biosciences can support a fairer and more prosperous society by targeting investment to harness local talent, infrastructure and resources in under-funded areas of the country, which will further attract international talent and investment.

We want to see the next UK Government:

- Reaffirm the commitment to an annual public R&D budget of £22bn by 2026-27 and rising. Every £1 of public R&D investment generates £7 net benefit to the UK and leverages additional private investment of 200%.
- Foster international collaboration, and attract and retain international talent to help address global challenges. Protect Horizon Europe association and its dedicated funding. Fully engage the R&D workforce if it is necessary to develop an alternative.
- Invest in integrated solutions to the inter-linked global emergencies threatening the health of people and our planet. Responsibly expanding STEM R&D is vital to address climate

change, waste management, biodiversity loss and public health crises, and to ensure food security and safe air and water.
- Commit to evidence-based policymaking, using objective scientific expertise.
- Promote ethical innovation and safe, transparent adoption of sustainable new biotechnologies, including plant and animal breeding methods, through effective regulation and open dialogue with the public. Support agri-tech innovations that can contribute solutions to global challenges.
- Support the regulated use of animals in research, maintaining a focus on the 3Rs (reduction, replacement and refinement) and high animal welfare. Value and protect the safety of research staff and facilities operating within the UK's rigorous standards. Seek expert scientific advice on the development and adoption of non-animal alternatives and review of legislation and guidance.
- Invest in discovery research, balanced with applied and translational research. This is essential to deepen understanding of the natural world and help yield solutions to problems of the future, while capitalising on the responsible innovations of today.

2. Promote STEM teaching, learning and expertise in schools, colleges, university, training and government:

Excellence in science teaching is essential to ensure the UK produces world-class experts and innovators to solve society's big problems. To reduce the attrition of talented people from under-represented groups in the sciences, and to equip all citizens for life in the modern world, we must tackle inequalities in science education, training and career structures that create barriers to entry and progression.

We want to see the next UK Government:
- Support qualifications for the sciences that are fit for purpose, equitable and ensure parity of esteem between academic, technical and vocational pathways
- Place subject expertise and evidence at the heart of teaching and learning frameworks, policies, initiatives and future curriculum reform.
- Invest in primary and secondary teachers with an additional £44m over 3 years on top of existing spend, to develop and deliver an ambitious, systematic approach to subject-specific professional development and retraining in the sciences as part of a STEM education strategy.
- Commit long-term to the £20,000 initial teacher training bursary for biology specialists.
- Expand teacher training scholarship schemes to more subjects, including biology.
- Build up a strong cohort of scientifically-literate personnel in both the civil service and government with specialised portfolios, to provide sound, evidence-based advice for policymaking and adequate ministerial attention devoted to issues of vital importance for people and the planet.

January 2023

For further information, please contact: Susie Rabin, Associate Director of Parliamentary & Public Affairs, susie.rabin@rsb.org.uk or on 020 3925 5607

Registered Charity No. 277981, Incorporated by Royal Charter. Registered address: Royal Society of Biology, 1 Naoroji Street, London WC1X 0GB.