Society for Applied Microbiology commentary on the BBRSC strategy for UK biotechnology and biological sciences

October 2017

Introduction

This document details the Society for Applied Microbiology's (SfAM) response to the BBSRC's invitation to comment on a strategy for UK biotechnology and biological sciences. This document was drafted with input from members of the Society's Executive Committee and Sub-Committees. The comments within this document do not necessarily represent the stance of the Society and its members as a whole.

The comments below are set out according to the headings and question numbers put forward by the BBSRC.

People and talent

Q2: How well will this approach meet the skills needs of the research base and wider economy in the coming years? Are there other considerations?

- A focus on transferable skills is important, but to what extent will these be developed beyond traditional research roles and the funded work in particular? It is now commonplace for people to change jobs frequently, meaning that many researchers may end up working in non-traditional research settings or leaving research entirely. In this context, it might then be more valuable to focus on broader transferable and professional skills.
- Enabling researcher mobility is important, but caution should be taken so that 'encouragement' is not perceived as forced. Anecdotally, many researchers view being highly mobile as unattractive due to the impact on their personal lives. This in turn may contribute to them feeling forced to leave research.

Infrastructure

Q4: How could the UK take a more strategic approach to the provision and use of infrastructures that are required for bioscience research and innovation?

- Ensuring that there is a solid pipeline of specialists who can provide support for researchers making use of state-of-the-art instrumentation and facilities.
- Ensuring that researchers who make use of certain infrastructures are aware of best practice. An example of this would be the Nagoya Protocol, where researchers making use of genetic resources between countries (physical collections and potentially data repositories) ought to be aware of their due diligence obligations.
- A focus on accessibility and affordability is an important consideration, so that researchers can make use of facilities without significant cost or hindrance.

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Collaborations and partnerships

Q5: How might opportunities for collaboration and partnership change in coming years, and how can UK bioscience make the most of these?

- Placing an emphasis on increasing the number of partnerships will require a heightened effort to stimulate the creation of such links. This will require Research Councils, Learned and Professional Societies, Research institutions etc to work in concert.
- The impact of Brexit on international partnership may be hard to predict, but a flexible approach will be required to provide the highest level of certainty to the bioscience community in the face of a changing political landscape.

Pushing the frontiers of bioscience discovery

Q7: How can the UK foster an environment in which creative, curiosity-driven research can thrive and advance the frontiers of bioscience knowledge?

- Support for blue-skies, applied and translational research should be balanced. In particular, the current emphasis on demonstrating 'impact' should not result in a loss of funding for 'curiosity-driven' research which may be viewed as having lower impact or return on investment. Investing in the ideas of newer researchers is important, particularly as this group typically relies on short term contracts.
- Boosting links between researchers and those who ultimately use and benefit from research (i.e. those mentioned in the collaborations and partnerships section) will ensure that creative research is informed by specific needs.

Strategic challenges - building a more resilient, productive and secure future

Q8: Are these the right strategic challenges for UK bioscience to focus on? Are there others?

- I agree that these strategic challenges are still relevant to UK bioscience.
- Within Bioscience for health, emphasising a 'One Health' approach is important in the context of significant challenges such as antimicrobial resistance, where appropriate antimicrobial stewardship is important across human healthcare and veterinary medicine.

Q9: What do you see as the greatest opportunities for UK bioscience research and innovation to effect a step change in how these challenges are addressed?

- UK bioscience research presents a great opportunity to engage with the public, who ultimately fund the research, to demonstrate how investment in science has a positive impact on our lives, the nation's wellbeing and the economy. This in turn can help foster a more integrated approach toward addressing these challenges.

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About the Society for Applied Microbiology

The Society for Applied Microbiology (SfAM) is the oldest microbiology society in the UK, representing a global scientific community that is passionate about the application of microbiology for the benefit of the public. Our members work to address issues involving the environment, human and animal health, agriculture and industry.

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