Response from the British Nutrition Foundation to the BBSRC’s consultation on the new 5-year Strategic Plan 2010 – 2015.

The British Nutrition Foundation (BNF) is pleased to have the opportunity to respond to the BBSRC’s consultation on the new 5-year Strategic Plan 2010–2015. The British Nutrition Foundation (BNF) was established over 40 years ago and exists to deliver evidence-based information on food and nutrition in the context of health and lifestyle. BNF’s work is conducted and communicated through a unique blend of nutrition science, education and media activities; accurate interpretation of nutrition science is at the heart of all we do. BNF’s strong governance is broad based but weighted towards the academic community and we are honoured to have Her Royal Highness, The Princess Royal as our patron. BNF is a registered charity that attracts funding from a variety of sources, including contracts with the European Commission, national government departments and agencies; food producers and manufacturers, retailers and food service companies; grant providing bodies, trusts and other charities.

General Comments

The plans are ambitious and cover a number of crucial areas. The document is well constructed and clearly presented. One area that is less evident than we expected is research linked to food production, nutrition and health. Defra is no longer funding work in this area now that the FQI LINK programme has stopped. FSA does not focus on this area and it does not fall within the remit of MRC. However, we note that there is reference to optimising the nutritional quality of food on page 10 (food security) along with 9 other considerations.

Below are comments on the individual pages.

Page 6 - Overview: Strategic Plan 2010 - 2015

We have worked with stakeholders to identify a number of leading priorities and themes that we judge are essential to keep the UK a world-leader in bioscience, and have presented these as a proposed framework for our Strategic Plan 2010-2015.

Q. Is this an appropriate high-level framework for BBSRC’s strategy over the period 2010-2015? If not, please explain briefly your reasoning and what you would change.

We support the focus on responsive mode as this enables flexibility and the ability to support the ‘brightest stars’ emerging, in terms of both topics and individuals. We agree with the five enabling themes and the strategic priorities. Within the ‘outcomes and impact’, we were looking for reference to public health outcomes but perhaps this is embraced within ‘Quality of Life’.
Excellent research and excellent people have long been cornerstones of BBSRC’s strategy for the delivery of world class bioscience. We have outlined our plans to continue to attach a high priority to responsive mode funding, whilst also focusing more on areas where we can have the most impact.

Q. Given the possibility of future constraints in public funding, do you agree our strategy should be to focus more on areas where we can have the most impact?
Yes

Q. What criteria should be used to identify priority areas?
BBSRC should work with other funders in a cross disciplinary manner to ensure that all key areas are covered sufficiently and unnecessary overlap avoided. We welcome initiatives, such as that being led by Professor Beddington (Food Research Partnership), to establish a national research strategy in the context of wider EU and international issues.

Q. How can BBSRC best help to keep the UK internationally competitive in bioscience?
BBSRC should work with others to help ensure that the best people are attracted into science, starting at school, and that national capability is maintained in key areas, including diet and health, food security, and sustainable agriculture. There should be support for young researchers to keep them in the ‘science community’ and support for centres of excellence. BBSRC and other funders should consider working collaboratively to support the best research teams. Urgent work is needed to improve the profile of science in the media and in this context we are pleased to see the emphasis on partnerships although this could be expanded to include more proactive promotion of the findings of BBSRC-funded work placed in the context of existing knowledge. This might help limit some of the confusion that media portrayal of science often generates.

In consultation with stakeholders we have identified three high-level strategic priorities which are at the heart of BBSRC’s remit, and where there is significant potential for growth over the next 20 years. These are: Next generation bioenergy and biorenewables; Food Security; Bioscience for Health.

Q. Do you agree that these three strategic themes should be at the heart of BBSRC’s plans? If not, please explain your reasoning and alternative suggestions.
Yes

Under the strategic priority ‘Next generation bioenergy and biorenewables’, we have proposed a number of key research areas and additional considerations.

Q. Are these the most appropriate considerations and potential priorities? If not, please explain briefly your reasoning and what you would do differently?
We are not in any way expert in this area, but probably yes. This is definitely an area in which international collaboration should be sought.

Under the strategic priority ‘Food security’, we have proposed a number of key research areas and additional considerations.

Q. Are these the most appropriate considerations and potential priorities? If not, please explain briefly your reasoning and what you would do differently? How should we balance national and international research considerations?
The range covered seems appropriate. We welcome inclusion of ‘optimising the nutritional quality of food’ under this heading as the Defra LINK programme addressing this is no longer funding new work.

Under the strategic priority ‘Bioscience for health’, we have proposed a number of key research areas and additional considerations.

Q. Are these the most appropriate considerations and potential priorities? If not, explain briefly your reasoning and what you would do differently.
We agree fully with the first 5 bullets. But we were slightly surprised to see the heading for the second set of three bullets – the particular emphasis on underpinning the pharmaceutical and diagnostic industries -
when similar prominence does not seem to have been given to the food industry, despite its importance to the UK economy. But I agree with the three bullets under this heading *per se*.

We also agree that there is considerable scope for joint working/funding in this priority area and also for evidence-based public engagement on consistency issues. We recognise that BBSRC has had a longstanding commitment to funding research on both the ageing process and the role of diet as a modifier of development and health. We too have focussed our attention on these topics. Earlier this year BNF published a major review on this topic (a Task Force Report on *Healthy Ageing: The Role of Nutrition and Lifestyle* led by Professor John Mathers) and we have also convened a Task Force on *Nutrition and development: long and short term consequences for health*, led by Professor Tom Sanders, that is due to complete its work in 2010.

**Page 12 - Five enabling themes**

We have identified five underpinning enabling themes that will require particular focus and clear actions over and beyond this strategic planning period if we are to maximise the impact from BBSRC’s funding.

Q. Do you support these five themes? If not, please explain briefly your reasoning. How else can we support excellent bioscience and maximise impact? What would you do differently?

We support these.

**Page 13 - Integrative and systems biology**

BBSRC investments in research, training, infrastructure and resources for systems biology have helped the UK to become a major international force in this science and its applications, and we expect to maintain a high level of investment in systems biology in coming years. Under this enabling theme we have proposed a number of targets over the period 2010-2015 and beyond.

Q. Are the proposed targets appropriate and realistic? Are there any significant omissions? How can BBSRC best encourage wider adoption of systems approaches?

These targets seem reasonable.

**Page 14 - Exploiting ‘big data’**

As we enter an era of data intensive science, BBSRC in partnership with other stakeholders must work to extract knowledge and economic impact from the ‘data deluge. Under this enabling theme we have proposed a number of targets for the period 2010-2015 and beyond.

Q. Are the proposed targets appropriate and realistic? Are there any significant omissions? How can BBSRC help UK bioscience to better exploit ‘big data’?

All of the points seem relevant and we particularly support ‘building the skills base’.

**Page 15 - Tools, resources and facilities**

The development and use of tool, resources and facilities is at the heart of the UK’s world-class bioscience research. BBSRC intended to continue to support significant expansion in research infrastructures and technologies. Under this enabling theme we have proposed a number of targets for the period 2010-2015 and beyond.

Q. Are the proposed targets appropriate and realistic? What other tools, resources and facilities are required to underpin the UK’s world-class bioscience research base?

This section seems fine but we wonder whether it is worth specifically mentioning ‘biomarkers’ of nutrient intake, health and disease.

**Page 16 - Translation, innovation and skills: Supporting our scientists**

A supply of highly skilled researchers is vital to the strength of the science base, and to attracting knowledge-intensive industries and investment to the UK. Within this theme, we have outlined some of the ways in which we intend to support the development of our scientists.

Q. Achieving a culture change in the employment and development of postdoctoral researchers is crucial to maximising the impact of the public investment in their training. How can BBSRC best support this change?

This section includes some important points. The European Nutrition Leadership Programme may be a useful model in relation to the third bullet. In a general sense it is important to enhance the communication, media and ambassadorial skills of scientists.
Page 17 - Translation, innovation and skills: Skills and capability
Within this theme we have outlined our plans for supporting research skills and capability in all aspects of bioscience, for the benefit of all bioscience R&D intensive industries and the academic sector.

Q. How else should BBSRC be seeking to ensure a strong supply of the very highly skilled individuals needed in academia and for a knowledge-led economy?
As mentioned earlier, the ENLP model may be worth considering and more needs to be done about science communication and public engagement, continued efforts around developing ambassadors for science targeting young people (this is far more evident on the television these days for example). Within the EC-funded FP6 Networks of Excellence, exchanges have been encouraged and, within the one we are most familiar with (EuroFIR), have been successful although they were slow to gain pace.

Page 18 - Translation, innovation and skills: Engaging with industry
We recognise that our activities underpin a range of business sectors, each of which has different research and skills needs and patterns of interaction with researchers in academia. Within this theme we have described our intentions to increase the scale and breadth of our interaction with business, which include building on the success of the Research and Technology Club model.

Q. Are there other areas of industrially relevant research that would suit the club model? What new ways of engaging with industry should be explored?
It would be interesting to know the extent to which DRINC (and other clubs) has been evaluated. We suggest there is scope for more publicity and dissemination activity around the projects being funded by DRINC and the findings as they emerge, e.g. via workshops and summary articles in scientific journals (see response to page 19).

Page 19 - Translation, innovation and skills: Supporting knowledge exchange and translation
BBSRC has a responsibility to support the successful translation of ideas, knowledge, skills and technology arising from BBSRC funded research to practical applications. Within this theme we have described our intentions to increase support for Knowledge Exchange and Translation from BBSRC funded research.

Q. BBSRC has developed effective routes to understanding and supporting the needs of users. We also need to encourage user communities to work with the BBSRC to support knowledge transfer and translation. In what ways can user communities assist and support BBSRC in these areas?
The proposals in this section seem fine. Another suggestion would be articles in science related journals that reach diverse audiences including students of food and nutrition around the world, such as our journal Nutrition Bulletin. These articles pull together findings of BBSRC funded research in a user friendly manner and set them in the broader context of other research in this area to help dispel some of the confusion that can emerge when isolated pieces of new evidence are publicised in the popular media.

Page 20 - Translation, innovation and skills: The importance of culture change
BBSRC is already driving significant changes in culture across bioscience research in encouraging and recognising the impacts from this research. We intend to build on this, using recently established and new approaches, and in particular seeking to support all bioscience researchers in their understanding and delivery of impact.

Q. Working in partnership with universities and other bodies is vital in encouraging this culture change. How can BBSRC encourage universities to recognise and reward impact? How can we capture outputs and outcomes from their research?
Nothing to add.

Pages 21-22 - Partnerships
We have identified a wide range of partners with whom we will need to work closely to realise our ambitious plans. We also propose to review the interfaces with many key partners to identify mutual interests and better ways of working.

Q. How can we work better with our partners? Who else should we be working with?
It is good to see the emphasis on partnerships in this document. Public engagement is also very important, especially in the context of raising the profile and scientists in a general sense, and encouraging science as a rewarding and valuable career choice for school children and graduates.
Page 23 - Outcomes and Impact

Bioscience makes a significant contribution to our economy, informs Government policy and improves the quality of life for UK citizens. We have described some of the ways in which we intend to work with partners and stakeholders to improve our understanding of the impact of our research and thereby encourage, identify and demonstrate that impact.

Q. How else can BBSRC capture and demonstrate the impacts of the research and training we fund?
Nothing further to add.

I trust these comments will be of use and am happy to elaborate if anything is unclear.

Yours sincerely

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Director General, British Nutrition Foundation