COUNCIL

18 APRIL 2007

QUARTERLY REPORT

SUMMARY

The attached report covers BBSRC activities relevant to Science, KT and Industrial Collaboration, Policy, International, Training and Fellowships, and Science and Society. It covers the main developments in the period 1 January to 31 March 2007, plus significant forthcoming events. The Group within BBSRC taking the lead on particular issues is indicated in brackets after the text:

(CSG) Corporate Science Group
(HRG) Human Resources Group
(STG) Science and Technology Group

Action

Council is invited to NOTE the report.

Council Secretariat
May 2007
Responsive mode rounds

1. In November 2006, the Research Committees assessed a total of 336 applications submitted to the Autumn 2006 responsive mode round. Of these 85 were funded, giving an overall success rate of 25.3%. This includes ten New Investigator and two Industrial Partnership Award (IPA) applications.

2. A total of 357 applications were assessed at the Winter 2006 meetings held in February/March 2007. Funding levels have not yet been agreed but it is anticipated that the overall success rate will be close to 25%.

3. A total of 312 applications have been received for the Spring 2007 round and will be assessed at Committee meetings in May 2007.

Longer Larger (LoLa) applications

4. New closing dates for 2007 for LoLa applications have been published on the BBSRC website (see table below). These are no longer in line with responsive mode grant round closing dates.

<table>
<thead>
<tr>
<th>Outline closing date</th>
<th>Date of assessment meeting</th>
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<tbody>
<tr>
<td>10 January 2007</td>
<td>Feb/Mar 2007</td>
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<tr>
<td>14 March 2007</td>
<td>May 2007</td>
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<tr>
<td>11 July 2007</td>
<td>September 2007</td>
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<tr>
<td>19 September 2007</td>
<td>November 2007</td>
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<tr>
<td>5 December</td>
<td>February 2008</td>
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5. Of the 16 LoLa outlines considered at the Winter 2006 Committee meetings, three have been invited to submit full proposals.

6. A total of 13 outlines were received at the March 2007 closing date, to be assessed at Committee meetings in May 2007. One has since been withdrawn by the applicant.

Study Tours

7. The third in the Science and Technology Group’s organised series of study tours for university administrators was held in Polaris House on 22 January 2007. Study tours are a joint venture with the Association of Research Managers and Administrators (ARMA) and afford administrators from universities and BBSRC-sponsored institutes the opportunity to gain an understanding of how BBSRC operates. Additionally they help maintain and strengthen the existing relationships that BBSRC has within the universities and institutes and afford the opportunity to forge new links. A total of 58 delegates and BBSRC staff had an informative day listening to speakers covering topics such as the BBSRC peer review system, the work of the Corporate Science Group and the RCUK Assurance Group. There was also the opportunity during the day for networking and for delegates to raise questions of the speakers and to talk with BBSRC staff. Feed back from the day indicates that it was thought to be beneficial, enjoyable and informative; mirroring reports received about the previous BBSRC events of the same nature. (STG)

Review of Microbial Science Research

8. The Review report was published on the BBSRC website in January 2007. It can be found at: http://www.bbsrc.ac.uk/about/pub/reports/06_sept_microbialreview.html. (CSG)
Review of Mathematical Biology at the BBSRC-Sponsored Institutes

9. The Review of Mathematical Biology was published on the BBSRC website in March 2007. The report contained 15 recommendations for the institutes and BBSRC office. Following presentation of the report to Council in December 2006, it was agreed that Institute Directors should prepare Action Plans to show how individual institutes will implement the recommendations, to be submitted to Council in June 2007. The full report is at: http://www.bbsrc.ac.uk/about/pub/reports/0703_mathbiolreview.html. (CSG)

Review of IFR Science and Governance

10. The Review was initiated in December 2006. The Review Panel has met three times, including a two-day site visit to IFR to speak to staff and to hear an update on progress against the 2005 Visiting Group recommendations and the institute’s own Strategic Plan. The report is being developed and will be presented to Council in April 2007. (CSG)

Comprehensive Spending Review (CSR) 2007

11. BBSRC has held a number of bilateral meetings with OSI to present Council’s leading priorities for the next few years. This is a two-way process in which BBSRC is not only setting out the Council’s likely priorities, but also receiving feedback. This is likely to be a financially-tight settlement and necessitates a realistic and conservative approach to CSR.

12. Current thinking is that the new Delivery Plan will develop around messages such as (in no particular order):
   - by many measures UK Bioscience is a success story but with a need to keep investing to ensure it stays internationally competitive in the future;
   - BBSRC will continue to pursue predictive biology in line with the Ten-Year Vision;
   - BBSRC will invest further in Tools and Resources such as databases, collections, genetic libraries, computational tools and technology development;
   - it is important to secure BBSRC’s national research capacity in some key strategic areas of research, such as Animal Health and Welfare and Sustainable Agriculture and Land Use;
   - initiatives and/or capacity building would be of benefit in areas such as Bioenergy, Environment/Climate change (emerging diseases of plants and animals, new crops, sustainable land use, water) and Ageing research. There are significant opportunities to work across Research Councils through RCUK in these areas;
   - increasing the economic impact of research funding. BBSRC already has a good track record in this area;
   - seek to maintain the current volume of investigator-led research whilst acknowledging that uplift in the region of £40M (for BBSRC) will be required to achieve this at 80% FEC.

13. The above messages are known to play well with OSI and BBSRC will continue to work on the details. (CSG)

Selective Chemical Intervention in Biological Systems Initiative (SCIBS II)

14. The Panel for the second round of SCIBS met on 5/6 December 2006. A total of 44 projects were considered for peer review and 10 projects have been awarded. The total commitment for these applications is £5,812M, of which EPSRC contribution is £808,492 leaving a total cost to BBSRC of £5,003,054.

15. One of the key aims of the SCIBS Initiative was to support high quality science at the interface of biology and chemistry, and it does this by virtue of the need for input from chemists to develop the molecules required for the projects, as well as the need for
the biologists involved to understand the underlying chemistry of the interactions they are studying. Nine of the 10 projects recommended for support involve researchers in chemistry departments. The funded projects fall within the remits of the BCB, BMS, GDB and PMS Committees.

**Environment & Human Health (EHH)**

16. BBSRC has agreed to co-fund applications in the NERC-led initiative in EHH on a case-by-case basis. This initiative is also supported by Defra and the Environment Agency, as well as EPSRC, ESRC and MRC. Applications for EHH Networking Activities and EHH Discipline Hopping and Exploratory Awards have been reviewed and will be announced in mid-2007. (STG)

**Bioenergy Initiative**

17. BBSRC has issued a call for expressions of interest to establish the following activities intended to develop UK research capacity and promote high quality end-user relevant research in the area of bioenergy, within the remit of the BBSRC:
   - Research Centres
   - Programme grants with industrial collaboration
   - Research Networks

18. This is part of BBSRC’s contribution to an ongoing cross-Research Council focus on energy research. Activity supported under this initiative will be expected to take account of, be complementary to, and where appropriate integrated with other ongoing UK activity in the bioenergy area in the public and private sectors. Co-funding with other organisations will be explored in the light of expressions of interest received. The closing date for expressions of interest is 31 May 2007 and there will be a Town Meeting on 16 April 2007. (STG)

**BBSRC Collaborative Scheme for Systematics (CoSyst)**

19. A total of 48 applications (46 projects) were received for the Collaborative Scheme for Systematics Research. In excess of 80 organisations were involved in the applications with requests totalling £485k. The number of applications primarily relevant to BBSRC was slightly greater than those relevant to NERC. The assessment panel met on 20 February 2007. A total of 6 projects are likely to be funded at a cost of £70.8k.

**European Science Foundation Collaborative Research Programmes Scheme (EUROCORES)**

20. In response to the call under the EUROCORES in RNA Quality, a total of 12 outline proposals were submitted to the European Science Foundation (ESF). Following assessment by the ESF Review Panel, 5 projects (all of which involved UK partners) were selected to submit full proposals by 4 September 2007. The Panel reconvened in Brussels on 12 December 2006 to decide which proposals should be recommended for funding. Four proposals were considered to be outstanding and recommended for top priority funding; the fifth proposal was considered very good/excellent and recommended for funding as second priority. The total funding requested by the UK partners was £2.4M (under full economic costing). BBSRC earmarked up to £1M for this scheme, subject to quality.

21. The EUROCORES RNA Quality Management Committee met on the 16 January 2007 to agree in principle funding, subject to approval by the individual national funding bodies. Dr Chris St Pourçain represented BBSRC at this meeting. It was agreed that in principle all parts of the three top ranked proposals would be funded in full by the corresponding national funding agencies, subject to any necessary adjustments to be made by the relevant national funding bodies.
22. The BBSRC Executive Group approved funding in principle for the three top-ranked proposals at its meeting on 10 January 2007, subject to approval of the quality of these proposals, relative to those in Responsive Mode, by the GDB Committee.

23. The GDB Committee considered the five full proposals at its meeting on 26/27 February 2007 and recommended that BBSRC fund the UK partners involved in the three top-ranked proposals as approved in principle by the BBSRC Executive Group. The total funding for the UK partners in these three proposals was £1,187,604 (FEC).

Joint Bioinformatics & e-Science and Proteomics & Cell Function Grant holders’ Workshop

24. The annual workshop for grant holders under the Bioinformatics and e-Science and Proteomics and Cell Function initiatives was held as a joint event at Carden Park in Cheshire on 8/10 January 2007. It provided an opportunity for networking, facilitating the integration of the ‘tool developers’ with the ‘user community’.

25. A total of 127 participants attended, including the three international keynote speakers Professor Jack Greenblatt (University of Toronto), Professor Janet Thornton (EMBL-EBI) and Professor Albert Heck (Utrecht University). The delegates gave very positive feedback on both the content and organisation of the meeting.

ERASysBio – European Research Area for Systems Biology

26. ERASysBio is a transnational funding initiative to support the convergence of life sciences with information technology & systems science. ERASysBio brings together ministries and funding agencies in 12 countries to coordinate their national research programmes in Systems Biology and agree on a common four-year European research agenda with joint activities. ERASysBio partner countries are Germany (coordination), Austria, Belgium, Finland, France, Israel, Italy (Autonomous Province of Trento), Netherlands, Norway, Russia, Slovenia and the UK. Associate partner countries are Luxemburg, Spain and Switzerland, and are expected to join later.

27. The primary objective of ERASysBio is to set a European Research Agenda for Systems Biology for the period 2006-2008, outlining topics of common interest and potential for future collaboration. For this purpose, the workpackage leaders (UK, Germany and Netherlands) are organising the ERASysBio Strategy Conference, a coherent set of strategically oriented, high-level expert sessions, which are expected to lay the strategic foundations of joint and transnational activities in this area. The conference will take place on 27/28 March 2007 at St Anne’s College, Oxford. One hundred delegates from across Europe will attend the conference by invitation only. The final programme includes the following sessions: Scientific Vision, Standardisation and the Integration of the European Community (including sharing of data, models and infrastructures), Building Public-Private Partnerships, and Building the Skills Base.

28. In preparation for the ERASysBio Strategy Conference, the British and German partners jointly organised a meeting for experts from dedicated Systems Biology Centres as a first step towards facilitating institutional cooperation in Systems Biology. The Meeting of the European Systems Biology Centres took place on 7/8 March 2007 at Imperial College London. The primary aims of the meeting were: a) to identify areas for the development of joint strategies in the context of current and future experimental, computational, technological and socio-cultural challenges; b) to identify areas where collaborations between centres can be established; and c) to identify areas where interventions can be applied, indicating the vehicles/mechanisms to implement them (STG).
29. SysMO is a transnational initiative for the funding of research on Systems Biology in Micro-organisms. This pilot call is under the umbrella of activities of ERASysBio, and, as well as BBSRC, is financed by the Federal Ministry of Education and Research (BMBF), the Federal Ministry of Education, Science and Culture in Austria, the Netherlands Organisation for Scientific Research, the Research Council of Norway and Ministry of Education and Science in Spain. A total of 11 out of the 32 applications submitted to the 6 January 2006 deadline were recommended for funding. This is equivalent to a financial commitment across all partners of approximately €28M.

30. BBSRC and the other five funding organisations involved in SysMO have now announced all successful projects, with a start date between March and April 2007. BBSRC's total contribution to this initiative is £7.4M.

31. At the first SysMO Scientific Coordination Committee meeting, held on 16/17 November 2006 in Madrid, the SysMO Data Management was constituted with the aim of exploring mechanisms for a joint SysMO effort on data sharing strategies and data management. The Committee includes representatives from other SysMO projects. The Committee met on 10 January 2007 in Manchester and has now presented an interim report to the SysMO Office including key recommendations on SysMO data storage, data exchange and a data management strategy (STG).

32. All funding organisations involved in the first ERA-PG call have now agreed the funds and the projects are expected to start between March and May 2007.

33. BBSRC will be contributing to a second ERA-PG call expected to be launched at the end of 2007. In advance of this call there will be an integrated Plant Genomics forward look activity at the Plant GEMs meeting in Tenerife. This workshop aims to bring together the many related initiatives in the area for constructive discussions on the future of European and Global plant genomics research. (STG)

**Synthetic Biology**

34. The Engineering and Biological Systems (EBS) Committee secretariat, together with the BBSRC Working Group for Synthetic Biology held a workshop in this area on 8/9 February 2007. The event was attended by academic research leaders from various disciplines, including life sciences, chemistry, engineering, physics, social science and philosophy. Representatives from AHRC, EPSRC and the Royal Society for Chemistry were also present. Equal consideration was given to scientific and societal impact issues. The event was considered very useful, lively and informative, and a report of the event was submitted to the EBS Committee meeting in March 2006. The report will also be seen by other BBSRC Committees and Panels, and EPSRC's Societal Issues Panel in consideration of future support of this area.

**Nanotechnology**

35. BBSRC Officers attended several nanotechnology-related meetings in the last quarter, including the Nanotechnology Research Co-ordinators Group (NRCG), led by Defra and the Nanotechnology Issues Dialogue Group (NIDG), run by the DTI. Details of both groups' activities can be found on Defra/DTI websites.
Strategy Panels

36. Summaries of specific Strategy Panel activities can be found in the attached Annexes:
   • Healthy Organism Strategy Panel – Annex 1
   • Integrative & Systems Biology Strategy Panel – Annex 2
   • Sustainable Agriculture Strategy Panel – Annex 3
   • Tools & Resources Strategy Panel – Annex 4

KT AND INDUSTRIAL COLLABORATION

Increasing the Economic Impact of the Research Councils

37. The RCUK KT Economic Impact Group (KTEIG), chaired by Professor Philip Esler (Chief Executive, AHRC), has developed and published an Action Plan (http://www.rcuk.ac.uk/innovation/rolerc/eig.htm) which sets out how the Research Councils will take forward the Warry Report’s recommendations. Key activities include:
   • establishing a national forum to examine the KT process and barriers to innovation;
   • carrying out an economic impact study;
   • performing a single ‘user’ survey;
   • performing a review of current KT schemes with an analysis of possibilities for harmonisation or rebranding;
   • developing an RCUK portal as a one-stop-shop for accessing RC KT schemes. (CSG)

BBSRC Interaction and Impact Study

38. In response to the Warry Report, as described above, RCUK is taking forward a major study to describe the economic impact of Research Council investment. In addition, BBSRC has commissioned a separate and more focused study to investigate the interactions and impacts of the leading research centres funded by Council. The study will focus on the 10 university departments which collectively receive some 25% of BBSRC research grant funding. Following a tender exercise, People Science & Policy Ltd has been appointed as contractors for the study. (CSG)

Bioscience for Industry Strategy Panel


Technology Strategy

40. BBSRC is continuing to develop a Technology Strategy for the bioindustries that identifies areas where high quality research can significantly underpin the needs of UK industry over the next ten years. Further information is available on the BBSRC website: http://www.bbsrc.ac.uk/about/gov/panels/bi/docs/technology_strategy.pdf. A summary of progress against the priority areas is given in the following paragraphs. (CSG)

41. The Technology Strategy identified the need to invest further in bioprocessing research, where innovative new ideas may impinge on the ability of companies to more efficiently manufacture complex biopharmaceuticals. In July 2005 BBSRC launched a Bioprocessing Research Industry Club (BRIC) with support from BBSRC (£6M), EPSRC (£3M) and industry (£1M) and management support provided by bioProcessUK (funded by DTI). In response to the first call for proposals under the initiative, 9 projects were supported, totalling £5M. The scope of the second call for
proposals was discussed at a workshop held in September 2006 attended by potential applicants and representatives from the Industry Club members. The call was launched in October 2006 and 44 outline applications were received in December 2006. The Steering Group assessed the outlines on in February 2007 and 21 applicants have been invited to submit full applications. The first dissemination event was held on 26 January 2007 in London where grant holders discussed their research with the Steering Group and Industry Club Members. A meeting will be held in April to discuss bioprocessing in relation to stem cells as a potential theme for the third call. Further details can be found at:  
http://www.bbsrc.ac.uk/science/initiatives/bric/Welcome.html. (CSG)

42. BBSRC is partnering with EPSRC and DTI in a call for Collaborative R&D proposals in Technologies for the Development and Manufacture of Biopharmaceuticals under the national Technology Programme. An indicative £1M of BBSRC funding has been allocated to this theme to support projects where there is a significant high-quality academic component. A total of 29 outline applications were received by the January 2007 closing date. Further information can be found at:  

43. At its meeting in May 2006 the Bioscience for Industry Panel agreed to include Farm Animal Genomics and Genetics as a new priority under the Technology Strategy. To take this forward, £1.45M has been provided to encourage collaborative proposals as part of the Combating Endemic Diseases of Farmed Animals for Sustainability Initiative (CEDFAS). This funding is additional to the initiative’s core budget of £8.7M, but the extra money is available only for Industrial Partnership Awards (IPAs). Eight IPA applications were received to the August 2006 closing date. The meeting to assess applications to the CEDFAS initiative will be held on 22 March 2007. (CSG / STG)

44. The Technology Strategy has identified Diet and Health as an area where there is scope for BBSRC to engage with industry to jointly fund high quality research of relevance to the food industry. A draft proposal to develop an Industry Club has been developed in consultation with the food industry and other stakeholders. This proposal was discussed at a meeting with company representatives, held on 11 October 2006, where there was significant support for the Club. A follow-up meeting was held on 8 December 2006, where companies were asked to confirm their commitment to the Club by 31 January 2007. To date 13 companies have signed-up, giving an industry contribution of over £1M over five years. The expectation is to support an industrially-relevant research programme of up to £10M over five years, where EPSRC has also expressed an interest in supporting research proposals that fall within BBSRC’s remit. (CSG)

45. The Bioscience for Industry Strategy Panel has recognised the importance of promoting high quality industrially relevant research in the area Biorefineries to speed translation of ideas in this area to the market. The potential for encouraging academic/industrial interaction in this area, perhaps through the club mechanism, is being explored with the Bioscience for Business KTN. BBSRC will commit up to £4M for research in this area if industry commitment can be demonstrated through financial support to the initiative. This activity will run alongside the recently announced BBSRC Bioenergy Initiative. Further information can be found at:  
http://www.bbsrc.ac.uk/science/initiatives/bioenergy.html. (CSG)

Follow-on Fund

46. BBSRC, EPSRC and NERC launched the Follow-on Fund in November 2003 to help demonstrate the commercial potential of results arising from Research Council-funded research. The Follow-on Fund provides support to enable ideas to be brought to a stage where commercial opportunities can be secured. BBSRC’s commitment to the Follow-on Fund is £1.45M per annum, and BBSRC has made 41 awards to date.
BBSRC will operate three calls for the Fund in 2007, with the first call currently open for applications and with a closing date of 26 April 2007. In addition BBSRC is in the process of commissioning an external evaluation of the Follow-on Fund to highlight success stories and determine how well the Fund is meeting its aims. (CSG)

Biotechnology Young Entrepreneurs Scheme (YES)

47. Arrangements for the 2007 YES Competition are progressing well. Discussions are underway with UKTI and FCO to incorporate an ‘India YES’ into this year’s Competition. Developing plans are for teams from India to participate in the Edinburgh and Oxford regional workshops, with the best Indian team selected to showcase in the UK final in December 2007. In addition, building on the Yorkshire Forward model of a regional Bioscience YES Competition, discussions are underway with the Northwest Regional Development Agency with a view to delivering a similar activity in the North West. (CSG)

EVALUATION AND POLICY

House of Commons Science & Technology Committee Inquiry into Research Council Institutes (RCIs)

48. The Report on the House of Commons Science & Technology Committee Inquiry into Research Council Institutes (RCIs) was published on 22 March (http://www.publications.parliament.uk/pa/cm/cmsctech.htm). The report endorses the need for RCIs, as an important part of the research base, providing national capacity and facilities, and developing multidisciplinary research. In relation to BBSRC’s institutes, it comments at length on the relationship with Defra, recommending that the Department address the difficulties caused by its failure to agree on the RIPSS agenda. It also accepts that the governance of institutes need not be the same for all RCIs. The report considers the restructuring of institutes with particular reference to Roslin, NERC’s Centre for Ecology and Hydrology, and MRC’s National Institute for Medical Research, and in relation to Roslin endorses BBSRC’s decision to change and the selected option. Overall, the report concludes that OSI should take on a greater role in monitoring RCIs, in facilitating discussions between other Government Departments and RCIs, and have formal responsibility for intervening when Departments are not fulfilling the responsibilities under RIPSS. In the coming weeks BBSRC, alongside other Research Councils, will be considering a formal response. (CSG / FG)

Health of Disciplines

49. The Annual Report to the UK Research Base Funders’ Forum on the Health of Disciplines provides an overview of the supply of academic researchers and the demand from both the public and private sectors. The 2007 report was considered by the Funders’ Forum in January. BBSRC’s submission highlighted the current strengths of biosciences research as a whole in the UK and identify sub-disciplines (including whole animal physiology and veterinary research), where action may be required to sustain the research base, reported on demand from the private sector for bioscience research skills and set out BBSRC’s current and future plans for protecting the health the research base. The report will be published in due course. (CSG)

Institute Assessment

50. Reports from the 2005-06 Institute Assessment Exercise are available on the BBSRC website: http://www.bbsrc.ac.uk/about/pub/reports/06_feb_visitinggroups.html. Mechanisms for future institutes’ assessment will be developed in the light of changes in governance and changes to funding mechanisms. Early ideas were discussed by the Institute Strategic Committee in February 2007. (CSG)
Evaluation of BBSRC Research Grants

51. The Biochemistry and Cell Biology (BCB) Committee portfolio evaluation panel reported to Strategy Board in December 2006, and discussed by the BCB Committee in March 2007. The report, together with a brief response from BBSRC, will be placed on the BBSRC website in Spring 2007. (CSG)

52. The Genes and Developmental Biology (GDB) Committee portfolio evaluation panel was considered by Strategy Board in March 2007, and will be discussed further by the GDB Committee in the Summer, before being placed on the website. (CSG)

53. The review of the Agri-Food (AF) Committee portfolio is currently underway. The first meeting of the evaluation panel was held in March 2007 and the second is scheduled for late April, with a report to Strategy Board in September 2007. The Engineering and Biological Systems (EBS) Committee portfolio will be the next responsive mode area to be evaluated. (CSG)

54. A panel met in November 2006 to evaluate phases 3 and 4 of the Thematic Research Programme on the Biology of the Transmissible Spongiform Encephalopathies. The report has been drafted and will be considered by Strategy Board in June 2007. (CSG / STG)

55. Work has started on the evaluation of the two major initiatives on research into ageing: SAGE and ERA. Questionnaires, which will be circulated to award holders in the next few weeks, are being drafted, and an expert panel will be convened to consider the results. A report will be prepared by the Autumn. (CSG / STG)

Final Reports on Grants

56. In the light of RCUK’s recent consideration of the efficiency of peer review, the Research Councils are reviewing procedures for final reporting on grants. The aims of the review are to ensure that the Councils’ final research reporting processes are effective and efficient from both a Research Council and a research community perspective, and to investigate how Councils can best capture research outputs and outcomes, including but not exclusively economic impact, over time. Preliminary proposals are expected by the summer.

Performance Management Framework

57. BBSRC is required to report regularly to OSI and publicly, as part of the Performance Management Framework. Currently the following documents are available on the BBSRC website (http://www.bbsrc.ac.uk/about/pub/policy/delivery.html):
   - output matrices for 2005-06, with data and commentary;
   - the 2005-06 Delivery Report, reporting progress against the 2005-06 Delivery Plan;
   - BBSRC’s 2006-07 Scorecard;
   - the refreshed Delivery Plan, which highlights plans for 2006-07.

58. BBSRC provides quarterly reports to OSI against the scorecard targets and milestones. The 2006-07 Q4 return has been drafted and will be submitted in late March, and the 2006-07 Delivery Report will be submitted in June 2007. To cover 2007-08, a refreshed Delivery Plan and new Scorecard will be prepared and submitted in April 2007.

59. A working group has been set up by OSI and the RCUK Performance Evaluation Group (PEG) to review and refine the reporting elements of the Performance Management Framework. The group is considering, in particular, the output matrices and how they might develop in the light of changes to OSI’s Public Service
Agreement (PSA) targets following CSR2007, and how reporting against these matrices should complement reporting against the newly developing Economic Impact Framework. (CSG)

Open Access Archiving

60. RCUK’s position paper on access to research outputs was published at the end of June 2006 (http://www.rcuk.ac.uk/access/index.asp), setting out the principles of open access to which all Councils are committed, considering ‘author pays’ publishing and ‘self archiving’, and listing future activities planned by RCUK to develop open access options. These activities include: a workshop with Learned Societies on the implications of self archiving; further consultation with publishers regarding copyright and licensing; and a project to investigate the impact of author-pays publication and self-archiving on research publishing. They are being taken forward by the RCUK Research Outputs Group.

61. BBSRC’s position statement was published at the same time as the RCUK position paper (http://www.bbsrc.ac.uk/news/articles/28_june_research_access.html). BBSRC will require grant holders to deposit their publications in electronic repositories, where such a repository exists. This applies to all grant holders whose applications have been received since 1 October 2006.

62. As part of its commitment to facilitate the deposit of published outputs, BBSRC is one of the funders of UK PubMed Central (UKPMC: http://www.ukpmc.mimas.ac.uk/). Based on PubMed Central, UKPMC provides a stable, permanent and free-to-access online digital archive of full-text, peer-reviewed research publications. UKPMC was launched in January 2007; the initial phase mirrors the PMC database, and includes a manuscript submission system – UKMSS – to enable UK scientists to submit their research papers for inclusion in UKPMC. Current and recent holders of BBSRC research grants have access to the manuscript submission system. This allows them to deposit publications, should they decide that UKPMC is the most appropriate repository for their research. (CSG)

Information Management

63. The project to replace Oasis on the web with a more flexible system is under way. The new system will build on the internal management information system being developed to assist the Office in analysing and reporting on the research and training portfolio.

INTERNATIONAL

International Strategy

64. BBSRC reviewed and updated its International Strategy for the coming five to ten years, which was discussed at Council in February 2007. The aim is to ensure that the UK remains a world leader in the biosciences, and that academic research, industrial R&D and the UK economy benefit from the increasing scientific activity across the globe. Plans will be published in more detail shortly, with particular emphasis in four areas:

- Maintaining the UK as a Centre for World-Leading Bioscientists;
- Promoting Research Collaborations;
- Partnering of Facilities and Resources;
- Delivering on Global Responsibilities.

65. RCUK is also developing an International Strategy, which includes possible overseas representation of RCUK through Offices in Beijing and Washington DC.
International Relations Unit (IRU)

66. IRU has been working with the Foreign and Commonwealth Officer (FCO) and British Council in shaping their business plans and short-term strategies. BBSRC represented the Research Councils at FCO planning meetings to confirm the business plans for the network of science and innovation officers posted in British Embassies overseas. BBSRC was also active in working with the British Council in evaluating their international science programme and planning objectives of the future.

67. IRU will be representing the Research Councils at the FCO Conference of Science Officers from British Embassies across Europe, in Berlin at the end of March 2007.

European Union

68. UKRO and BBSRC continue to raise awareness of the opportunities available to the UK community from the new Seventh Framework Programme (FP7) including the European Research Council (ERC). The second calls for proposals under FP7 are now under development. All details are available on the UKRO website at: www.ukro.ac.uk

Brazil

69. BBSRC has been working with the FCO and OSI in launching the UK:Brazil Year of Science. Professor Sir David King will launch the programme in late March. BBSRC participation in the Year of Science is currently through Rothamsted Research.

TRAINING AND FELLOWSHIPS

Studentships and Fellowships Panel

70. The Studentships and Fellowships Panel meets on 29 March 2007, and therefore too late for details to be included in this report. The main items of discussion will be the shortlisting of candidates for BBSRC Fellowships, and preliminary discussions regarding the 2007 Quota Doctoral Training Grant competition.

RCUK Research Careers and Diversity Update

71. The RCUK Research Careers and Diversity Strategy was published in January 2007 on the RCUK website, along with a shorter ‘glossy’ version. Copies of the glossy are available from annabel.clifton@rcuk.ac.uk and the full version is available on the web at: http://www.rcuk.ac.uk/rescareer/strategy.htm

72. The RCUK Research Careers and Diversity Unit are leading a project to revise the 1996 Concordat for contract research staff. The aim is to develop it into a Code of Practice for career management of research staff in the HE sector to which all major UK funders will sign up. RCUK have published an outline of the code for consultation, and this is available at: http://www.rcuk.ac.uk/rescareer/rcdu/careermanagement.htm

73. A conference for RCUK Academic Fellows was hosted by Professor Mary Bownes, Chair Studentships and Fellowships Panel, in Birmingham on 8 January 2007. The conference gave Fellows the opportunity to network as well as to develop ideas for outreach work, and ask questions.
Postgraduate Research Experience Survey

74. The Higher Education Academy (HEA) have developed an online survey tool for institutions to use to survey their research students, and to compare their results with the overall compiled results from participating universities. Over 50 universities are planning to use the survey tool, and BBSRC promoted the project through its email training bulletin. RCUK has been involved in the design of the survey tool, and has particularly sought to ensure that students have an opportunity to comment on their broader skills training. The survey tool is now live and students are being invited to participate; the closing date will be in mid-May 2007. Further information can be found at: http://www.heacademy.ac.uk/pres.htm

75. Initial findings from the survey will be presented to the UKGrad conference on 12 September 2007, with a more detailed analysis being presented to the HEA conference in November.

Je-S Studentship Data Capture Project

76. BBSRC participated in a series of regional meetings in February to inform the community about the new Joint Electronic Systems (Je-S) approach to the collection of studentship data. The intention is to use Je-S to collect information on students funded from Doctoral Training Grants, and also for all future studentship competitions to be Je-S based. The meetings sought to target university administrators involved with studentships who may not have had previous experience of the Je-S system.

EXTERNAL RELATIONS

BBSRC Website Redevelopment

77. BBSRC is redeveloping its website and plans to launch a completely new site in Autumn 2007. Notice of this change will be displayed prominently on the current website nearer the time and the community will be updated through BBSRC publications and e-mail news alert. BBSRC also intends to publish a users’ guide to the new site.

Science in Society: Public Engagement and Dialogue

78. BBSRC and MRC have been jointly awarded a grant of £300k from Sciencewise (a DTI-funded programme on public engagement and dialogue) to run a national public discussion on stem cell science. Work has commenced on planning and commissioning of a contractor to conduct the dialogue.

79. BBSRC/MRC’s touring display on Stem Cell Science has been presented at Dundee, where an accompanying public discussion meeting attracted around 80 participants from a wide variety of interested sectors including churches, local community groups and local universities. Feedback was very positive and there was good local radio and newspaper coverage. The exhibition moved to the Cambridge Science Festival in March 2007 and will be at the Edinburgh International Science Festival in April.

80. The BBSRC/NERC touring exhibition on Biodiversity has been displayed at the Centre for Life at Newcastle, and moves to the W5 Science Centre in Belfast (April – August 2007). A small poster display on BBSRC-supported research relevant to tackling climate change, based on a recent BBSRC leaflet, will be presented by the John Innes Centre, Rothamsted Research and the Institute of Grassland and Environmental Research, at the Forum Civic Centre in Norwich (31 March-13 April 2007).
A total of seven bioscience projects were supported through the RCUK National Science Week Awards scheme, which evolved from an earlier BBSRC scheme. These included schools' science days at Babraham Institute, Warwick HRI and the University of Wales Aberystwyth, and science fairs at IGER North Wyke, and East Malling Research.

BBSRC-supported research on ageing muscle, at the Manchester Metropolitan University formed part of an RCUK display for National Science Week in the Outlet Retail Village, Swindon.

BBSRC contributed to a parliamentary event and stakeholder meeting on the use of animals in research, coordinated by the National Centre for the 3Rs.

Communication and Accountability

Over a hundred people attended BBSRC’s Open Meeting at the Lighthouse, Glasgow at the end of January 2007. Discussion was facilitated by broadcaster, Sue MacGregor, around the theme of research training. Speakers were: Professor Julia Goodfellow, BBSRC Chief Executive; Professor John Coggins, Vice-Principal of the University of Glasgow; Dr Barbara Blaney, Director of the Scottish BioIndustries Association; Professor Mary Bownes, Vice-Principal of the University of Edinburgh and Chair of BBSRC’s Studentships and Fellowships Panel; and Dr Ian Lyne, BBSRC Head of Postgraduate Training.

BBSRC’s £20M new initiative on Bioenergy was formally announced by the Secretary of State for Trade and Industry and BBSRC in March 2007. Media coverage was disappointing, around a dozen pieces appearing mainly online (e.g. Channel 4 News, Research Day and some specialist sites) with some regional newspapers, and overseas outlets through Reuters.

There was wide coverage for BBSRC’s response to the Spring Supplementary announcement in February of a £68M reduction in end-of-year flexibility across the Research Councils; including an interview with the Chief Executive on Radio 4’s Today programme and BBSRC quotes in the Guardian and the Daily Telegraph.

Among the BBSRC-science stories that attracted wide media coverage were: (i) transgenic technology to produce therapeutic proteins in hens’ eggs (Roslin Institute, Viragen Inc and Oxford Biomedica plc) and (ii) research at The University of Cambridge that shows that western scrub-jays are able to plan for future food shortages by caching food. This is thought to be the first known example of future planning in animals.

Action

The Council is invited to NOTE this Report.

Council Secretariat
May 2007
Joint Committee Priority Areas Developed by HOP

1. BBSRC is reviewing 12 applications that fit the new joint committee priority areas – six are relevant to ‘Ageing as a risk factor for Frailty and Loss of Homeostasis’, and six to ‘Developmental Origins of Optimal Health’.

Cross Council Activities in Mental Health

2. A second call for expressions of interest under the joint MRC-BBSRC highlight in the Neurobiological Basis of Mental Health and Behaviour was launched in March 2007. It is anticipated that full proposals will be invited to the BBSRC closing date of 30 October 2007, or the MRC closing date of 21 September 2007. Successful applications that cross the BBSRC/MRC remits will be funded jointly.

Activities in Ageing Research

3. **New Dynamics of Ageing (NDA):** The NDA Initiative is currently at the second stage where the Research Councils are commissioning Programme Grants with a budget of approximately £3M based on contributions from ESRC, EPSRC, MRC, BBSRC and AHRC. The Programme Grant Commissioning Panel met on 10 January 2007 to assess the 96 outlines received, of which 31 proposals were invited to submit full applications.

4. **Call for Centre Grant applications: ‘Lifelong Health and Wellbeing’:** As part of joint Council Initiative on Ageing (MRC, BBSRC, EPSRC and ESRC), MRC is currently inviting outline applications for Centre Grants in ‘Lifelong Health and Wellbeing’ (closing date 3 May 2007). BBSRC will contribute up to £2M to support applications with research topics that address its current priorities for ageing research. The call will concentrate on strengthening multidisciplinary and collaborative research into ‘Lifelong Health and Wellbeing’ within the UK. Detailed information is available on the MRC website. The call was formally announced at a workshop at the Royal Institute of British Architects, London on 13 March 2007.

BBSRC Activities in Tissue Engineering

5. Following the Expressions of Interest (EoI) phase of the Tissue Engineering Solutions for Replacement of Animal Experiments, 14 full proposals have been received by BBSRC and 25 have been received by NC3Rs. The BBSRC proposals will be considered by the Engineering and Biological Systems (EBS) Committee in May 2007, and the NC3Rs ones will be assessed in June.

Systems Biology: Implications for HOP

6. HOP was updated on BBSRC, UK and International progress in systems biology by the chair of the Integrative Systems Biology Panel (ISB) Strategy Panel, and heard a presentation on the use of this approach to model the human liver. It discussed BBSRC plans for integrating systems biology into the whole of the BBSRC portfolio and agreed this would be appropriate for many areas within the HOP remit.

Integrative Physiology Portfolio

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1 BBSRC priorities for ageing research can be found at: [http://www.bbsrc.ac.uk/science/initiatives/ageing.html](http://www.bbsrc.ac.uk/science/initiatives/ageing.html)

2 [http://www.mrc.ac.uk/ApplyingforaGrant/CallsForProposals/index.htm](http://www.mrc.ac.uk/ApplyingforaGrant/CallsForProposals/index.htm)
7. The Panel is conducting an analysis to look at BBSRC’s integrative animal physiology portfolio. This data will be used as background by the newly formed Physiology Working Group to help revise the Animal Sciences Committee (ASC) Genes to Physiology priority area. This is a joint activity between ASC, HOP and ISB.
REPORT FROM THE INTEGRATIVE & SYSTEMS BIOLOGY (ISB) STRATEGY PANEL

1. The ISB Panel, chaired by Professor David Fell (Oxford Brookes University), met on 16-17 January 2007 (STG).

2. Day 1 was devoted to the sifting of Expressions of Interest received to the Systems Approaches to Biological Research (SABR) and the Exploiting Systems Biology (ESB) LINK Initiatives. Day 2 was focussed on discussions working towards a Roadmap for Systems Biology within the UK (STG).

Third Round Funding in Systems Biology

3. The Systems Approaches to Biological Research (SABR) initiative is being jointly funded by BBSRC and EPSRC. A total budget of £30M is available (up to £25M from BBSRC and at least £5M from EPSRC). Of the 72 Expressions of Interest assessed by the Panel, 23 were selected to submit a full application. This represents a total request of £94M from the Research Councils. Full applications will be submitted by 11 April 2007 and assessment will take place at a panel meeting on 23-24 July 2007 (STG).

4. A budget of £2.5M is available from BBSRC for the Exploiting Systems Biology initiative. Of the three Expressions of Interest received, two were selected to submit a full application, representing a total request of £1.5M from BBSRC (CSG).

Training in Systems Biology

5. As part of the SABR scheme, up to 20 Priority Studentships are available. It is anticipated that 18 of the full SABR applications will request studentships (STG).

Strategy Development: National Activities

6. The Systems Biology Roadmap paper was discussed. The aim of this paper, a discussion document, was to work towards producing a Roadmap for Systems Biology which would cover at least the next five years. The paper considered a number of BBSRC aspirations that relate to the mechanisms for supporting research and training in systems biology (rather than the scientific subjects) and how future resources should be used to ensure the development of systems biology and studies in quantitative biology. The paper drew on the report of the University of Exeter meeting on the Vision for Systems Biology held in March 2006 and discussions held with staff responsible for the other BBSRC Strategy Panels (STG).

Strategy Development: International Activities

7. The Panel supported the expansion of the scientific remit of the joint ANR – BBSRC systems biology call. The call was announced in February 2007 and will cover the systems biology of animals, plants and micro-organisms across the hierarchy levels of molecules to organs. The closing date for applications is 12 April 2007 and these will be assessed at a panel meeting on 10/11 July 2007 (STG).
1. SAP met on 15 February 2007, when six new members were welcomed to the Panel. (The meeting scheduled for November 2006 had been cancelled.)

Initiatives

2. SAP noted the outcome of the Innovation in Crop Science - Exploitation of Genetics for Sustainability initiative, under which funding of £13.27M had been awarded for 18 projects, including four with significant co-funding from industry. A successful media briefing to publicise the initiative, organised in association with the Science Media Centre, had been held at the BBC in Birmingham in January. The Panel also noted changes to the themes and priorities of the Agri-Food, Genes and Developmental Biology, and Plant and Microbial Sciences Committees, made in the light of recommendations of BBSRC’s earlier crop science review relating to the provision of support for crop research in responsive mode. In addition, SAP approved the establishment of a working group to advise on the coordination of projects supported by the crop science initiative - and other, related activities - with the aim of optimising the benefits of the Council’s recent major investment in crop research.

3. SAP noted the progress of the joint BBSRC/DFID Sustainable Agriculture Research for International Development initiative. From 185 eligible outline proposals requesting total funding of over £100M (more than 17 times the £6M available), 31 full applications had been invited by an assessment panel for submission in March 2007.

4. SAP noted the delayed progress of the Combating Endemic Diseases of Farmed Animals for Sustainability initiative. A panel would meet to assess 49 applications in March 2007.

Future priorities and challenges

5. In the light of discussion at its previous meeting, SAP considered the potential benefits and challenges of integrating relevant elements of social science with biology in sustainable agriculture research. The Panel agreed that a paper should be prepared for Strategy Board containing recommendations for building on BBSRC’s investment in the cross-Council Rural Economy and Land Use programme.

6. SAP noted the launch of BBSRC’s call for expressions of interest for Capacity-building Awards in Bioenergy Research and discussed the scope of the proposed initiative. The Panel also discussed more generally the potential role of sustainable agriculture research in contributing to the mitigation of and adaptation to climate change, and agreed that a subgroup should be established to consider this further with a view to making recommendations to Strategy Board.

7. SAP revisited earlier discussions about the scope for applying the conceptual approaches of integrative and “systems biology” to complex biological systems relevant to sustainable agriculture and land use. The Panel undertook to consider this topic further in the light of additional comments and other developments.

8. SAP discussed the outcome of the review of BBSRC’s responsive-mode committee structure, in particular, the implications of the intention to reduce the number of committees by incorporating those areas of science covered by the Agri-Food Committee into the remits of other committees. The Panel also discussed the Council’s High-Level Food Research Strategy 2007-12, and approved a proposal for a BBSRC/NERC workshop on agri-ecology to consider the interface between the two Councils in this area.
9. SAP noted the report of the BBSRC Review of Microbial Science Research and the conclusions of a working group established by Strategy Board to advise further on the implementation of the review panel’s recommendations.

10. SAP received an update on the progress of a planned review of land-based facilities for agricultural and agri-environmental research, and one from the BBSRC/NERC Soils Research Advisory Committee, including the conclusions of its *Horizons in Soils Research* workshop.
REPORT OF THE TOOLS AND RESOURCES STRATEGY PANEL

Tools and Resources Programme

1. Current activities of the Panel include overseeing the £23.2M Tools and Resources Programme which was established in autumn 2005. The Programme comprises of three funding mechanisms detailed in paragraph 2-4 below. Other current activities of the Strategy Panel follow in paragraph 5-6.

Tools and Resources Development Fund

2. The Tools and Resources Development Fund (TRDF) is intended to support small or short-duration, pump priming technology / methods driven research and / or to bring together communities for collaborative purposes. This fund had an initial budget of £3-4M, with assessment of proposals via a ‘light touch fast track’ peer review, with applications are welcome at any time. Since the launch in October 2005 the fund has received 109 proposals with 23 currently going through the assessment process. To date, 40 proposals have been funded.

3. The budget for the TRDF has now been fully committed. The Fund has proved to be highly successful in pump-priming technology-oriented approaches across BBSRC’s remit and, in recognition of the Fund’s success and the high strategic relevance of tools and resources, the BBSRC Executive has agreed continuation during FY2007/08.

4. The extended Fund will require a modified administration procedure in order to match demand against available budgets. To allow BBSRC to implement this, the TRDF has been suspended for a short period. It is anticipated that the TRDF will re-open in late Spring/early Summer 2007. Significant changes to the fund’s scope or application process are not envisaged, but the assessment procedures and timescales are likely to be amended.

Technology Development Research Initiative

5. The second call for the Technology Development Research Initiative was launched in January 2007 with the closing date of 28 March 2007. This initiative, developed in partnership with EPSRS, aims to develop new technologies for the biological sciences and adapt technologies used in other disciplines to biology. Funds of up to £7.5M (approx) are available subject to the quality of the proposals received.

Bioinformatics and Biological Resources (BBR) Fund

6. The BBR Fund Assessment Panel met on 15-16 February 2007 to assess 69 Expressions of Interest submitted in response to the pilot BBR Fund call. The aim of the BBR fund is to support the establishment, maintenance, and enhancement of resources required by communities of bioscientists. Twenty four applicants have been invited to submit full proposals which will then undergo full peer review.

Research Equipment Initiative

7. BBSRC’s Research Equipment Initiative (REI) provides support for the purchase of mid-range multi-user equipment in order to contribute to physical research infrastructure within HEIs and BBSRC academic analogues. It also promotes sharing of equipment and partnership between departments, institutions, and external sponsors of research. The initiative was refreshed for 2006 in light of full economic costing and to keep the scheme timely. REI 2006 was launched in April with a closing date of 28 June 2006. A Panel met on 6/7 December 2006 to assess the 78
applications. The 35 successful proposals were announced at the beginning of February 2007.

**High Performance Computing - HECToR**

8. On 15 February 2007, EPSRC signed two contracts, worth £113M, to provide the next generation UK High End Computing service. NERC also has a major stake in this facility (equivalent to 25%). BBSRC has a smaller but significant stake in the region of 5% (TBC) which is reflective of anticipated increasing uptake of HPC facilities by bioscientists working in a wide range of areas, and BBSRC’s commitment to facilitate this growth.

9. HECToR (High End Computing Terascale Resource) will provide UK scientists with the means to undertake increasingly complex computational simulations across a range of scientific disciplines including climatology, earth sciences, chemistry, materials, fluid dynamics, atomic and molecular physics, plasma physics, and nanoscience. The service is expected to operate for six years and have an initial theoretical peak capability of 60 Tflop/s. Phase 1 of the service is expected to start in October 2007.

10. The contracts are with UoE HPCX Ltd. and NAG (Numerical Algorithms Group) Ltd. UoE HPCX Ltd. is a wholly-owned subsidiary of the University of Edinburgh. UoE HPCX Ltd. will contract and direct the hardware and service provision through sub-contracts to the University of Edinburgh, CCLRC, and Cray. The computer hardware will be provided by Cray and accommodated and managed by UoE HPCX Ltd. at the University of Edinburgh’s Advanced Computing Facility. NAG Ltd. will provide computational science and engineering support for users of the system.