



Heads of University Biosciences

HUBS Winter Meeting 2012

November 21st 2012

Wellcome Collection Conference Centre, London

Organised by Professor Peter Heathcote (Queen Mary, University of London), Professor Graeme Reid (University of Edinburgh) and Dr Eva Sharpe (Society of Biology).

10.00 – 10.20 Registration and Tea and Coffee

MORNING SESSION

10.20 – 11.00 **Professor Nancy Rothwell FSB**

President and Vice Chancellor of the University of Manchester and
Co-Chair of the Prime Minister's Council for Science and Technology

*The role of the Council for Science and Technology in Higher
Education Policy*

11.00 – 11.40 **Drs Astrid Wissenburg**

The Open University and member of the National Working Group on
Expanding Access to Published Research Findings

Transitioning to Open Access in the UK

11.40 - 12.20 **Dr Jeremy Pritchard**

Head of Education at the University of Birmingham School of
Biosciences and Chair of the Society of Biology's Education, Training
and Policy Committee

Tertiary Education – the challenges ahead

12.20 – 13:45 Lunch and networking

A Special Interest Group of the Society of Biology, Charles Darwin House, 12 Roger Street, London, WC1N 2JU
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AFTERNOON SESSION

13:45 – 14.45

Professor Ole Petersen

Director of the Cardiff University School of Biosciences
Chair of the Biological Sciences REF Sub-panel

*Assessing Research Excellence in Biology: Lessons from RAEs, REF
and ERC*

14.45 – 15.30

Dr Graeme Reid

Head of Research Funding, Department for Business, Innovation &
Skills

Topical Issues in Science and Research Funding

15.30 – 16.00

Tea and Coffee

Meeting Close

Professor Nancy Rothwell FSB

President and Vice Chancellor of the University of Manchester and Co-Chair of the Prime Minister's Council for Science and Technology

The role of the Council for Science and Technology in Higher Education Policy

Prof. Rothwell described the role of the Prime Minister's Council for Science and Technology, which was formed in 1993, and reconstituted in 2004 with a non-ministerial Chair. The secretariat is provided by the Government Office for Science, and the committee reports directly to the Prime Minister.

The remit of the committee is to advise the Prime Minister on the strategic policies and framework for:

- Sustaining and developing science, engineering and technology and mathematics (STEM) in the UK, and promoting international co-operation in STEM
- Fostering the practice and perception of STEM as an integral part of the culture of the UK
- Promoting excellence in STEM education
- More effective use of research and scientific advice in the development and delivery of policy and public services across Government
- Promoting STEM-based innovation in business and public services to promote sustainable development of the UK economy, health and quality of life of UK citizens, and global sustainable development

Nancy outlined the backgrounds of the 20 members. The committee offers independent, evidenced based reports, advising on strategic issues. Recent topics the committee have reported on include the NHS as a driver for growth, procurement as a driver for innovation, and international comparisons on the relationship between science and growth. Current topics the committee are working on include smart grids, industrial strategy, postgraduate medical training, STEM education in schools, and algorithms, data and modelling.

Nancy outlined how the committee functions; the committee often hosts dinners with guests to discuss issues in more detail, subgroups meet relevant ministers, and the committee briefs the PM face to face twice a year.

Nancy finished with advice on how to influence policy, by offering solutions rather than problems, and ensuring feedback is short, simple and evidenced based.

Group discussion

- Discussions focused on how the CST gathers evidence and advice on areas outside members' expertise, thoughts on immigration law, open access to publically funded

research, the balance between funding for different scientific topics and research concentration.

- The group discussed Government interest and investment in science and the conflict between short term and long term planning. A possible timeline for the next Comprehensive Spending Review was discussed, and how this would be affected by other topics such as the REF, teaching budget concerns, and the dual support system of funding.

Drs Astrid Wissenburg

The Open University and member of the National Working Group on Expanding Access to Published Research Findings

[Transitioning to Open Access in the UK](#)

Drs Wissenburg gave a brief history of the open access debate over the last two decades. The Government's transparency agenda will continue to grow, and publications are part of a larger debate, with the aim that openness will drive innovation and grow the economy.

The Finch group was established to recommend how to develop an effective and sustainable model for expanding access to the published findings of research. The group reported in June 2012 and Drs Wissenburg summarised the findings of the report:

- open access to publicly funded research is a good thing, for research, for innovation and growth, for transparency;
- open access has achieved a momentum that will continue, therefore we need to manage the transition in the UK
- pay to publish is a sustainable route to open access, self archiving as secondary, and extending licencing as a short term solution.

Drs Wissenburg outlined the recommendations in the report for funders, researchers, publishers and learned societies (see slides for full details).

After the Finch report, the Government accepted all the recommendations, Research Councils UK (RCUK) launched a new policy on open access, and HEFCE are developing requirements for open access in the Research Excellence Framework beyond 2014, the EU Commission announced new policies for publications and data under Horizon 2020 and DfID published a new open access policy.

RCUK produced a position statement in 2005 which set out four key principals around accessibility to publicly-funded research, rigorous quality assurance, efficient and cost-effective access mechanisms and long-term preservation and accessibility of outputs. Each Research Council also had an independent policy as well. There has been poor compliance

with this position statement, and lack of compliance monitoring, and [RCUK produced an updated policy in 2012](#).

The next steps in open access are for universities to develop their policies and practices around RC funded research and that of other funders, for learned societies to look at their journals and compliance with funder policies, and for academics to engage with both debates. The next big challenge will be open data.

Group discussion

- The group discussed the situation with open access globally, and how progress in the UK compares internationally.
- The group discussed the infrastructure needed for HEIs to put open access fully in place. The practicalities of moving toward this open access and open data were discussed, as well as funding for transitioning to open access.

Dr Jeremy Pritchard

Head of Education at the University of Birmingham School of Biosciences and Chair of the Society of Biology's Education, Training and Policy Committee

Tertiary Education – the challenges ahead

Dr Pritchard introduced the talks with a discussion of current challenges facing higher education at the moment including student fees and recruitment, student number controls and the ABB exemptions, Key Information Set (KIS) data, Research Excellence Framework (REF) performance and introduction targets and performance management, research concentration, research studentships, funding of post graduate taught (PGT) students, and immigration laws. He then went on to discuss these in more detail.

Jeremy began by focusing on student engagement, and the impact of fees, KIS data, and management targets driven by league tables. Jeremy moved on to cover academic careers, and described the three aspects of academic careers: research, teaching and administration and the balance of these areas in terms of time, value and promotion criteria. There are fewer agreed metric for excellence in teaching, but it can be demonstrated through student surveys, pedagogical research and teaching awards. Peer observation should move towards enhancing and disseminating good practice, rather than managing performance.

Students and employers want students to develop skills rather than knowledge, and this requires a change from didactic teaching. Research led teaching is key to achieve this, and a balance is needed between teaching focused staff and research focused teachers. Birmingham used to deliver standalone skills modules, but following student feedback, this has now been embedded throughout modules.

Curriculum development is driven by staff profiles and therefor research funding, but also popular subjects in order to retain student recruitment. There is often a mismatch between

student interests and research, and with increasing islands of research excellence, this model will become less sustainable.

Group discussion

- The group discussed how teaching can be valued, metrics to measure good teaching, and the role of peer assessment and external examining in this. Attendees shared best practice and suggestions in this area.

Professor Ole Petersen

Director of the Cardiff University School of Biosciences and Chair of the Biological Sciences REF Sub-panel

[*Assessing Research Excellence in Biology: Lessons from RAEs, REF and ERC*](#)

Prof Petersen began with an overview of why we need research assessment, and the current state of research assessment and funding. European Research Council (ERC) funding goes to 'high risk high gain ground breaking research'. The life sciences in the UK do very well out of ERC funding, as the country that received most ERC grants across 2008-2011. Particular biology topics are often signposted as priority areas for funding, for example synthetic biology was recently highlighted by the Chancellor of the Exchequer as one of eight areas that the scientific community of Britain should lead the world in.

In order to identify our strengths, research assessment is needed. Prof Petersen described the history of research assessment, and how peer judgement must be the primary assessment method for all subjects, rather than judging on research council grant and citation counts would distort the way we publish.

Prof Petersen summarised the different sections of the REF return and the timetable over the next two years (see slides for more information). He described the roles of the four main panels - which developed the criteria and methods, ensure adherence to the criteria and sign off the outcomes - and 36 subpanels – which contribute to the main panel discussion, assess the applications and recommend the outcomes – and the international members.

Prof Petersen reported on the discussions of the panel on co-authored outputs. Full details can be found in the accompanying slides. Citation data will be used by the main panel in borderline cases, but only in a positive way. The panel have no preference on the type of impact reported in the case studies, and will be viewing the terms very broadly. In assessing a case study, the panel will form an overall view about the impact's reach and significance taken as a whole, rather than assess each criterion separately.

In 2006, Prof Petersen wrote in Times Higher Education, "Real scientists know that the only way to assess a colleague's research performance is to read their papers, judging their importance, reliability and novelty. Which is exactly what the RAE does." This is also the major element in REF2014.

Group Discussion

Prof Petersen led an interactive discussion with the group on the REF which covered:

- the analysis of various statistics about the REF and how these would be viewed in future in league tables etc
- the use of citation data and how this will be considered in assessments
- how to produce evidence of impact
- the rules around multi authorship papers
- how the panels would maintain consistency and the role of international panel members
- how subjects which fall between two panels should be treated
- what counts towards the environment section
- attendees shared their experiences of the 2008 RAE.

Dr Graeme Reid

Head of Research Funding, Department for Business, Innovation & Skills (BIS)

Topical Issues in Science and Research Funding

Dr Reid outlined several topical issues in science funding: the economic context, the triennial review of the Research Councils, the comprehensive spending review (CSR) and capital investment, and challenges coming over the next few years.

Dr Reid began by putting science funding into the economic context. The current recession is as deep as the recession in 1930-34, and is lasting longer. This time, there is a recognition in Government of the economic impact of science through improving the performance of existing businesses, delivering highly skilled people to the labour market, improving public policy and public services, creating new businesses, and attracting R&D investment from global business. There is increased emphasis on a top quality science base to get global investments.

A current review of the public sector is looking at public bodies and whether they operate efficiently, whether they should exist, and if so, in what format. This includes all public bodies, and a review of the Research Councils will be launched in 2013. The first stage of the triennial review of the Research Councils establish whether they are needed and how many of them are needed, and the second stage will be to look at their control and oversight by BIS, and their governance by the councils. During Phase I of the review in January – March 2013 there will be the opportunity to input views and HUBS were encouraged to feed into the review process. Phase II (if it takes place) will follow in April – May 2013.

Dr Reid discussed the next spending review. With the 2010 CSR period finishing in March 2015, it is likely that there will be an interim arrangement with a rollover year until after the next election. However, there doesn't need to be a CSR to make spending decisions and there have been a significant number of announcements and investment in science since the

last CSR. The pattern of public spending has changed; after a large reduction in capital investment in 2010 there have been pulses of capital investment to things chosen by central government with input from the community.

Current challenges to science and research funding include international competition for people, funding and environment; long term stability of policies and funding; and priority setting.

Group discussions

- The group discussed how the projects which have received additional capital spending since CSR2010 were chosen to receive this additional funding, private investment in research, and the pros and cons of having non-scientists reviewing the Research Council review, and the process of the review.

Attendees

Name	Affiliation
Prof George Turner	Bangor University
Manisha Bolina	Bio one
James Lush	Biochemical Society
Ceri Margerison	British Ecological Society
Ruth Meyer	British Pharmacological Society
Dr Peter Watkins MSB	Cardiff Metropolitan University
Prof Ole Peterson	Cardiff University
Dr Graeme Reid	Department for Business, Innovation and Skills
Prof Gerry McKenna FSB	Heads of University Centres of Biomedical Science
Dr Alan Seddon MSB	Kingston University
Prof Yvonne Barnett FSB	Nottingham Trent University
Prof Peter Heathcote FSB	Queen Mary University of London
Prof Matthew Evans FSB	Queen Mary, University of London
Prof Alan Gange	Royal Holloway, University of London
Dr Susan Laird	Sheffield Hallam University
Prof Nicola Woodroffe	Sheffield Hallam University
Prof Mark Fielder	Society for Applied Microbiology
Dr Eva Sharpe MSB	Society of Biology
Dr Laura Bellingan FSB	Society of Biology
Prof Janey Henderson FSB	Teesside University
Dr Allan Sudlow	The British Library
Dr Astrid Wissenburg	The Open Univeristy
Dr Hilary MacQueen FSB	The Open University
Michelle Brook	The Physiological Society
Dr Arthur Nicholas	University of Bioscience Managers Association
Dr Jeremy Pritchard	University of Birmingham
Dr Anja Rott MSB	University of Brighton
Prof Antony D'Emanuele	University of Central Lancashire
Prof Andrew Lawrence	University of Chester
Prof Paul Lynch	University of Derby
Prof David Coates FSB	University of Dundee
Prof Dylan Edwards FSB	University of East Anglia
Dr Joanne Tocher FSB	University of East London

Prof Graeme Reid FSB	University of Edinburgh
Dr Maurice Gallagher	University of Edinburgh
Dr Dougie Clarke	University of Huddersfield
Prof Jon Scott FSB	University of Leicester
Prof Michael Begon	University of Liverpool
Prof Nancy Rothwell FSB	University of Manchester
Prof Martin Humphries FSB	University of Manchester
Dr Darren Mernagh FSB	University of Portsmouth
Prof Judith Smith FSB	University of Salford
David Owen	University of St Andrews
Prof Ian Kitchen FSB	University of Surrey
Prof Jane Lewis FSB	University of Westminster
Prof Taj Keshavarz	University of Westminster
Prof Deborah Smith FSB	University of York