

UK Centre for BIOSCIENCE

BIOSCIENCE BULLETIN

ISSUE 34

Supporting teaching
in higher education to
improve student learning
across the biosciences



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CELEBRATING SUCCESS: COMMUNITY, COLLABORATION AND CONTINUITY

Over the last 11 years the UK Centre for Bioscience has worked hard to build communities and sub-networks, to champion learning and teaching in the biosciences, to initiate, identify and promote the sharing of good practice and ultimately, to enhance student learning. We can all be justly proud of our achievements and the progress we have made. Given the changes taking place in higher education there is a need, not only to maintain, but to strengthen and widen our community to continue to share ideas, resources, successes and maybe even some failures – surely this is the best (the only?) way to meet the needs of all our students.

In this issue of the *Bulletin* we focus on some recent highlights and achievements, the strengths of our community and how to build on these for the future.

In the summer we had a chance to come together as a community and share ideas, experience and expertise at our inaugural Effective Learning in the Biosciences Conference, for an inspiring and enjoyable two days. The conference dinner provided a fitting setting in which to mark and celebrate the work of the 2011 finalists for Bioscience Teacher of the Year. We are thankful that our successful Bioscience Teacher of the Year Award (and the precursor Ed Wood Teaching Award) has enabled us to recognise and celebrate the dedication and excellence of some very worthy winners and finalists. We are delighted that with the support and commitment of the Society of Biology and Oxford University Press, there will continue to be a national award offered for bioscience teachers.

One of the key assets of our community is the network of 120+ Bioscience Reps. The annual Reps Fora which have taken place for a number of years epitomise the collegiality and partnership between the UK Centre for Bioscience and colleagues from a wide range of institutions. In his article (on pages 6 and 7) Jon Scott tells of the outcomes of important discussions about the future from this year's 24 hour event – read on to find out who pledged what and how you can engage and get involved in moving the community forwards. In terms of the future, we outline the Higher Education Academy's amended structure and plans for ongoing support for biological sciences learning and teaching within the STEM subject cluster (page 8).

Over the years the Centre has funded a wide range of teaching development and enhancement projects, and Tina Smith and colleagues report on their recent experience of designing and developing problem based learning tools to support bioscience students in getting to grips

with physical principles. We have had the privilege of working with a wide range of people to develop and compile publications and resources and Steve Maw highlights some recent additions to the extensive collection of publications and resources available from the Centre. These will continue to be available from the Higher Education Academy in due course.

This will be the Centre's final *Bioscience Bulletin*. On behalf of everyone at the UK Centre for Bioscience I want to thank you for your partnership and involvement in the last eleven years. We would have achieved far less without the enthusiastic support of numerous Bioscience Reps, Advisory Group members, and other groups and organisations, as well as the many colleagues, who have written for our publications, contributed images and developed resources, undertaken surveys or research, and participated in our events. I would also like to acknowledge, on behalf of the bioscience community, the contribution of Centre staff, both past and present. The Centre's remit has always been wide, and our achievements have depended on the commitment, professionalism and hard work of a relatively small team of staff, to deliver ambitious plans that have achieved important improvements and progress on a wide range of fronts. Thank you to each and every one of you, and best wishes for the future.

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EFFECTIVE LEARNING IN THE BIOSCIENCES 2011: EQUIPPING STUDENTS FOR THE 21ST CENTURY

EVENT

This very successful conference took place in Edinburgh on 30th June and 1st July and provided a platform to consider how we nurture and inspire all bioscience students to achieve their full potential. We were delighted that over 100 delegates from 8 countries were able to join us for the two day event.

We deliberately chose diverse but topical themes for the conference and we received a positive response for all the areas:

- Inspiring (1st year) learning;
- Active learning and learning by doing;
- Biologists working with others – interdisciplinary and multidisciplinary learning; and
- Students as partners and co-creators of learning.

Inspiring (1st year) learning attracted a great deal of interest and we were delighted that Dr Todd Zakrajsek was able to deliver the first keynote. Practising what he preached through the use of cards, balloons and genuine stage presence he showed us how to overcome apathy and create excitement in the classroom. The 'Active learning and learning by doing' theme inspired a range of interesting contributions that considered how we can deliver effective practical teaching as we face the double whammy of increasing student numbers and diminishing resources.

This is a period of remarkable change for the biosciences and emerging subjects



such as nanobiology and bioinformatics bring with them new opportunities to engage with colleagues from other disciplines. The spirit of collaboration is captured in the theme 'Biologists working with others – interdisciplinary & multidisciplinary learning' and extended to the final theme that involves students and academics working together to improve the student learning experience. Many academics work very hard to maintain the excellent standard of bioscience teaching and learning and they deserve reward and recognition. Given Professor Annette Cashmore's experience and expertise in this area we were pleased she was able to deliver the second keynote.

The two-day programme included a mix of keynote and plenary sessions, parallel sessions and workshops, and a poster session, and lots of opportunity for informal discussions. The Conference Proceedings containing all abstracts and copies of poster and oral presentations from the conference is available to download from the conference website at www.bioscience.heacademy.ac.uk/bioconf/index.aspx

Many of you will be aware the UK Centre for Bioscience will close at the end of 2011. This was, therefore, the first and last international bioscience teaching conference staged by the Centre. However, the gathering demonstrated the real strength and enthusiasm for bioscience education in UK universities (and beyond) and we hope you will continue to work closely with colleagues in the Higher Education Academy to ensure that events of this nature will continue into the future (see announcement of 2012 STEM Conference, page 11). And for those who were there – do you remember what you said you would do as a result of your attendance? Look out for your postcard which will be on its way back to you shortly!

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CENTRE PUBLICATIONS

Despite the turmoil of the Academy's restructure, staff at the Centre have been busy writing, editing and commissioning a range of hardcopy publications. Some are completely new endeavours, others are additions to our existing suite of resources, all are written with bioscience students or teachers in mind. This article highlights what's new for 2011.

Self- and Peer-Assessment: Guidance on Practice in the Biosciences (2nd edition)



The Teaching Bioscience Enhancing Learning Series has been extremely well received, with readers appreciating the balance between educational theory (first 3 chapters) and the practical, day-to-day reality described in the case studies. Written by Paul Orsmond, Self- and Peer-Assessment was the first in the series and a second edition of the book is now available. The book is written in a very readable style and contains new sections on the social elements of learning, variation theory and situated learning as well as an expanded consideration of self-assessment. Along with 9 new or updated case studies the book represents a good introduction not only to self- and peer-assessment but the whole area of assessment.

Resources for New Lecturers Pack



Not just for new lecturers, this pack is updated annually and is intended to introduce you to Centre activities, provide hints and tips for when you first start teaching, showcase recent developments in bioscience learning and teaching, and also includes details of a number of resources for learning and teaching. Of all the publications highlighted this gives the best overview of the range of topics the Centre covers.

Short Guides



No more than four sides our short guides do exactly as the name suggests and provide an introduction to various aspects of teaching and learning in the biosciences. This year there are four new guides for staff:

- Higher Education Careers
- Small Group Teaching
- Linking Teaching and Research
- Diversity and Inclusivity

There is also a guide written for students: Maths on your Bioscience Course. All the guides are available to download in pdf format (www.bioscience.heacademy.ac.uk/resources/shortguides.aspx). Hardcopies of the guides are also available but we restrict these to 50 copies per institution.

Graduates for the 21st Century resource pack



The resource has been developed by Joy Perkins and Centre staff to showcase the work of the Enhancement Themes initiative in Scotland. The pack provides background information on the Scottish Quality Enhancement Framework and highlights publications relevant to the whole of the UK around the Enhancement Themes of

- Assessment
- Employability
- Flexible Delivery
- Responding to Student Needs
- Research -Teaching Linkages: Enhancing Graduate Attributes
- The First Year: Engagement and Empowerment

Ethics Briefing



The UK Centre for Bioscience Briefings were born out of a realisation that the Centre holds a lot of information on various topics and there would be merit in locating these references and resources (both Centre or Bioscience-specific and more general) in a single document. The Assessment Briefing has proved very popular as this quote articulates "I liked the Bioscience Assessment Briefing because the editors put so much work into make it a fast, organised and targeted read that Bioscience teachers have no excuse for not giving it a go." The Ethics Briefing maintains that targeted pattern with an introduction to each topic followed by a range of resources. Topics covered include:

- Assessing Ethics
- Keeping up-to-date
- The Ethics of Being a Scientist
- Environmental Ethics

Working with International Students



Although couched in terms of working with international students this little guide is all about good teaching practice. The book deals with cultural diversity and common assumptions but the majority of the text is devoted to sharing practice from real-life situations and thus this is a very practical little book.

The Mathematics Landscape within UK Bioscience Education

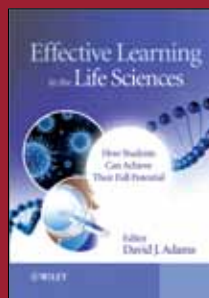
Student numeracy remains an area of concern.

Irrespective of university mission group or institutional selection procedure, most lecturers face the task of teaching cohorts of mixed ability: this may range from those with a grade C at GCSE to those with Further Maths A level. Added to the mix is a lack of staff knowledge as to what is actually contained within a school-level qualification (e.g. what can students with grade C at GCSE reasonably be expected to know?) and student expectations of the mathematical component of Bioscience Degrees are often far from reality. The Maths short guide mentioned in this article aims to re-orientate student expectations and the excellent publication 'Understanding the UK Mathematics Curriculum Pre-Higher Education' covers the content of the main mathematical (school) qualifications. The Mathematics Landscape reports on a survey of the mathematical content of bioscience undergraduate degree courses and also the findings of an investigation asking academic researchers whether they perceive there is a mathematical skills shortage in bioscience graduates. In doing so it captures and reports on practice to ensure all bioscience students have a basic mathematical understanding and approaches to ensure that those students who need it have the confidence and understanding to fully participate in quantitative and interdisciplinary research.



Effective Learning in the Life Sciences: How students can achieve their full potential

Edited by the Centre's former Director, Dr David J. Adams, and published in October 2011 by Wiley-Blackwell, this new book features chapters on bioethics, creativity, problem-solving, laboratory- and field- work, *in-vivo* work, research projects, maths and stats, e-learning, assessment and feedback, communication and bioenterprise. Many of the contributors are members of the UK bioscience learning and teaching community who have interacted closely with the Centre over the years. For further details or to order your copy, go to www.wiley.com/buy/978-0-470-66157-4



I think you will agree there are a wide range of topics covered in the above list, all relevant to current bioscience teaching. At the time of writing there are still hardcopies of all the Centre resources mentioned available; if you require hardcopy versions then please contact the Centre (heabioscience@leeds.ac.uk) before 7 December. Copies will be distributed on a first come, first served basis. In addition all the Centre resources are available to download as pdfs from the Centre's website

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CALL FOR PAPERS

Society of Experimental Biology/HEA Symposium

Researchers - Teachers - Learners: We're all in it together! Charles Darwin House, London, 27 – 29 March 2012. This Education Symposium run by the Society for Experimental Biology in association with the Higher Education Academy is aimed at anyone teaching higher education in the Biosciences. Themes will include: Learning as research, Peer learning and learning communities, Innovating assessment and feedback, Increasing engagement, Students as researchers, Postgraduates who teach, International education links, and Action research in biological sciences. The deadline for offers of papers is 16th January 2012. Full details at www.sebiology.org/meetings/EPASymposium/home.html

STEM Higher Education Conference 2012

The Science, Technology, Engineering and Mathematics (STEM) academic group of the Higher Education Academy has announced that its annual conference will be held at Imperial College London on 12 – 13 April, 2012.

The Biological Sciences will be well represented during this two-day conference. The call for papers will be advertised soon – look out for further details at www.heacademy.ac.uk/events

Please diarise these conference days: the new STEM team look forward to seeing you there!

FUNDING OPPORTUNITIES

TRAVEL BURSARIES

The HEA's new UK travel fund will enable staff and students in UK higher education to exchange and disseminate good practice in learning, teaching and assessment and engage with their peers. The funding may be used to help the applicant(s) attend conferences, network meetings and special interest groups that are being run in the UK. Bursaries are only open to academic/academic-related staff and students from HE providers subscribing to the HEA. Applications are invited from individuals or teams. Applicants must complete a written application form providing a case for funding and must provide formal approval from their institution. Successful applicants will be expected to provide a short account of how they used the funds and the impact that the event had in terms of helping to facilitate change within their department or institution within three months of the event/meeting. This is an open call running throughout the academic year 2011 – 12. Information on the HEA UK Travel Fund and the criteria against which applications will be judged can be found at www.heacademy.ac.uk/travel-fund

HOST A DISCIPLINE WORKSHOP OR SEMINAR

Through the HEA's discipline series, institutions are invited to apply for grants of £500 to host and deliver a workshop or seminar on teaching and learning in a discipline context. Workshops and seminars will be held throughout the 2011 –12 academic year. To be eligible to apply you must belong to a subscribing UK Higher Education Institute or a Further Education College delivering Higher Education. To be considered to take part in the series you need to submit a Discipline Proposal Form. Further details are available in the Discipline Call Document available at www.heacademy.ac.uk/seminar-series

WHATEVER NEXT? BIOSCIENCE REPS GIVE AI A GO

FEATURE

At the beginning of September the Bioscience Reps gathered in Birmingham for the annual Reps Forum. This is always a great occasion for exchanging ideas, comparing experiences, socialising and providing mutual support (not necessarily in that order). This Forum certainly delivered on all those fronts but it was also a meeting marked by great sadness as we were bidding farewell to the UK Centre for Bioscience that has supported us so well over the years.

We could not, however, allow ourselves to sink into despondency as we had to take the opportunity to think ahead to life beyond the Subject Centre. In that context we heard about the future of the Academy, and the nascent plans for supporting learning and teaching in the Biosciences, from 2012 onwards, from Janet De Wilde, the new head of STEM, and Nathan Pike, the Discipline Lead for Biological Sciences (see page 8).

As Reps, though, it was important for us to think carefully about what we really valued and how that could be sustained in the future. This was where AI came in – was it offering us artificial intelligence? Or perhaps the opportunity for reproducing the Forum by artificial insemination? Whilst both might have had something to offer, the AI in question, as led by Anne Tierney, was actually Appreciative Inquiry. We began the process in pairs, comparing our views about what we valued about the work of the Centre and, indeed, about ourselves. Based on those discussions, we then assembled as groups of 6 in order to compare notes and then extend the conversations to start the process of formulating an action plan and community pledges to take that plan forward.

To establish the framework for the core of the action plan, each group was required to draft what were called 'Provocative Propositions': statements that encapsulated our view of the critical features of what our network offers to the community of teaching staff.

"Continuity and Aspiration!"

"Bioscience gives you wings, refreshes the parts other networks can't reach, effective on your heaviest days. Because you're worth it."

"Driving the enhancement of Learning & Teaching through supporting like-minded colleagues and converting the non-believers."

"Continuation and development of a shared HE Bioscience teaching identity to enhance the quality and profile of Learning & Teaching across the UK and beyond"

"To foster innovation and enhancement in Learning & Teaching via a strong, valued and well-networked Bioscience community... because no-one else can."

It was clear that, although the phraseology varied somewhat, the underlying sentiments were very similar across the groups. Also similar were the seven emerging themes, identified by the groups, that they felt put the flesh on the bones of the Propositions:

- Genuine community of practice
- Supportive, sharing, collaborative, open
- Excellent source of expertise/knowledge
- Spreading good practice
- Helping new lecturers develop
- Enhancing the profile of Learning & Teaching
- Group therapy

At that point, we felt we had gone a long way down the road and deserved a rest and some sustenance, but the tight schedule Anne was working to meant that the discussions needed to continue. Not



only that, but the hardest parts were yet to come! The next stage required us to agree what was needed if the provocative statements and their associated emerging themes were to be enacted:

- Regular, Physical Meetings
- Annual Reps Forum
- Minimum of 2 Workshops/yr
- Biennial STEM conference
- Champions
- Maintaining an Active Network
- Maintained List of Contacts
- Expansion of the constituency
- Effective Communication
- Resources & Practical Support

Then came the crunch question: who will commit to implementing these actions? The requirements were written down and we were all asked to pledge to supporting one or more of them: and a simple scribbled name would not suffice as Stephen McClean, Julian Park and Jon Scott were let loose with flip-cams to record footage of these pledges being made. So, what did we come up with?

The Champions: they were all of us and we pledged to maintain the institutional profiles of learning and teaching, to support our colleagues in that endeavour and to act as a conduit for maintaining communication. To achieve those objectives, though, we also recognised that we would need to call on the HEA to help by facilitating the maintenance of the networks and their communication.

Plans for meetings: some activities are already scheduled, including the

workshops for PGRs who teach, which are led by Anne Tierney and Joy Perkins; and the Glasgow meeting, in October, on feedback, being organised by Steve Maw and Julian Park.

What about the future? Julian, Stephen and Jon pledged to organise a Reps Forum for September 2012. It was also proposed that there should be a Spring themed meeting, perhaps on the topic of Bioethics. Again, it was recognised that we would be calling on the HEA to support aspects of these activities, in particular to assist with the administration, with funding for the meetings themselves including a strong request for some travel grant funding to be made available since many colleagues do not have access to any travel funding from their own institutions.

In addition to the regular meetings for the Bioscience community, it was also felt it would be highly beneficial to have a biennial conference that included all the STEM groups as there is significant overlap in the interests in learning and teaching. It was agreed, though, that it would be essential to keep the costs of such an event low in order to make it possible for the maximum number of people to attend.

Resources: it is clearly recognised that the Subject Centre has led the way in developing a wide range of very valuable resources which need to be maintained and developed. These include the ImageBank, the Journal (which will continue to be edited by Mark Langan), all the materials on the website and the Bioscience Teacher of the Year Award.

The future of the Award appears to be safe, since Oxford University Press has committed to continue to support it and the Society of Biology has also agreed support (further details on page 12). The future of the website is less clear. At the moment the plan is that it will be archived and remain available in that format, as has been the case for the sites of the other Subject Centres. However, it must be recognised that unless it can be maintained as an active site, the resources will become dated and it will fall into disuse. Maintenance of the site and the development of new resources are, therefore, issues that need to be resolved quite quickly.

Practical Support and the Role of the

HEA: at the time of the Reps Forum, both Janet De Wilde and Nathan Pike had only been in post for a very short time and the level of support that might be available from the HEA for the activities of the Biosciences Network was unknown. In particular we would be looking for administrative and organisational support for the activities described above and would also be asking for financial support for events such as the meetings. We also recognised that we need to be proactive in a number of areas, in particular in developing our own proposals for project work and not just being reactive to specific calls; thinking strategically across institutions to work on grant applications and to engage actively with the HEA regarding the direction of the Academy's key themes for the coming years. We also need to engage actively with the Society of Biology.

So, as the Forum drew to a close, there was a positive note in terms of there being a road-map for us to follow to try to ensure that the ethos of the Subject Centre is maintained and that we can continue to support our community in enhancing teaching and promoting a high quality learning experience for all our students. The last words, though, came in the form of a review of the video clips of the pledges we had made: upright, sideways and interesting shots of shoes; no matter the artistic nature of the camera-work, it was the records of commitment that counted.

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HEA STEM – THE WAY OF THE FUTURE

The Higher Education Academy's work for disciplines falls under the category of Academic Practice Development; the other two categories of work being Teacher Excellence and Institutional Strategy and Change. The Academic Practice banner also incorporates activities such as teaching development grants, journals, HEA international scholarships, PhD programme and travel grants.

Within the Academic Practice area discipline support is coordinated via four subject clusters:

- STEM (includes the biological sciences)
- Health
- Social Science
- Arts and Humanities

The other disciplines within the STEM cluster are Maths, Stats and OR, Physical Sciences, Computer Sciences, Engineering, Built Environment, Geography, Earth and Environmental Sciences, and Psychology. Dr Janet De Wilde is the new Head of STEM and the new Discipline Lead for Biological Sciences is Dr Nathan Pike.

Planned support for HEA STEM includes:

- 80+ seminars per annum across STEM subjects (including 11 earmarked for biological sciences)
- 2 New to Teaching (NTT) 2 day events
- 4-5 Postgraduate teachers 1 day events
- STEM Learning and Teaching summit
- Community building

As Discipline Lead, Nathan Pike will work with the bioscience learning and teaching community to deliver a seminar programme (10+ events), to deliver NTT workshops, to develop resources and to engage academic associates. The key themes for these activities will be aligned with the Higher Education Academy's current themes of:

- Assessment and feedback
- Employability
- Internationalisation
- Flexible learning
- Retention and success
- Reward and recognition

Nathan will also be working to strengthen and build communities at subject level, to develop methods of communication and produce bulletins and to extend the reach of the community so that more people involved in teaching use HEA resources.

Ways in which you can be involved:

- As an academic associate
- Attending/hosting events
- Applying for grants, scholarships and/or studentships
- Communicating with the discipline lead and Higher Education Academy
- Suggesting topics to inform activities and priorities

Presentations about the HEA's work given at our Reps' Forum by Janet and Nathan are available to download from www.bioscience.heacademy.ac.uk/events/repforum11.aspx

KEEP IN TOUCH...

The **HEABio email** discussion list has been established to provide a forum for teaching practitioners in the Biological Sciences to engage and discuss learning and teaching matters with support from the Higher Education Academy. Please subscribe at the following address <https://www.jiscmail.ac.uk/cgi-bin/webadmin?SUBED1=HEABIO&A=1>

Once you have registered, you will be able to communicate with all subscribers by emailing heabio@jiscmail.ac.uk

CONTACTS

For further information about the HEA's support for biological sciences, see www.heacademy.ac.uk/disciplines/biological-sciences, or contact one of the following



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INTERACTIVE, ONLINE, PROBLEM-BASED LEARNING

A challenging aspect of teaching in Higher Education is to enable students to learn underpinning theory and apply that knowledge effectively to solve problems. Funded through the HEA UK Centre for Bioscience Departmental Teaching Enhancement Scheme we set about developing an interactive online learning resource that would engage students with the theory and application of physical science principles within the biosciences.

Resources were developed to teach physical science principles within the framework of real life bioscience problems. Students were introduced to a problem and associated learning aims, before negotiating a series of questions and reference material designed to build up their knowledge and understanding of the physical science principles necessary to formulate a complete answer to the overarching problem. The resources were constructed within the Moodle lesson tool and used a non-linear approach, directing students to hints pages if they answered a question incorrectly.

The resources were media rich including text, diagrams, photos, videos and hyperlinks to a glossary and applets allowing immediate access to supporting material. This ensured all students were provided with the essential information to solve the problems. For students wishing to extend their knowledge additional references were provided. A forum was linked to each resource to stimulate interaction amongst students.

Resources were developed in the first instance, for undergraduate and postgraduate biomechanics students and embedded within their academic programmes. Comments about the impact of the resource on students'

The feedback provided fed into further development of the resources. A notable aspect that needed improvement was the ability of the resource to develop problem-solving skills, particularly for the undergraduate students. To facilitate this Borromeo Ferri's (2006) theory of the modelling process was applied to the resources allowing a clearer, more meaningful path through them. The postgraduate students were least satisfied with the social networking element but revealed that they communicate through existing social networking channels. It is suggested that strategies to improve forum usage will be required with future cohorts. Analysis of student comments also allowed salient features causing frustration with the resource to be identified and amended. In this enhancement additional materials were included, such as audio files, interactive mathematical tools, a laboratory skills lesson and increased usage of web 2.0 technologies, such as RSS feeds and visual search engines, to promote further access to additional information. A hyperlinked contents page was also added to allow more flexible access and opportunities to recap material.

We have demonstrated that an online tool which maps to the curriculum and allows

interaction with a range of multimedia resources increases engagement and learning of theoretical physical. Plans are under way to develop further resources and make them accessible to the wider community through the University of Roehampton website.

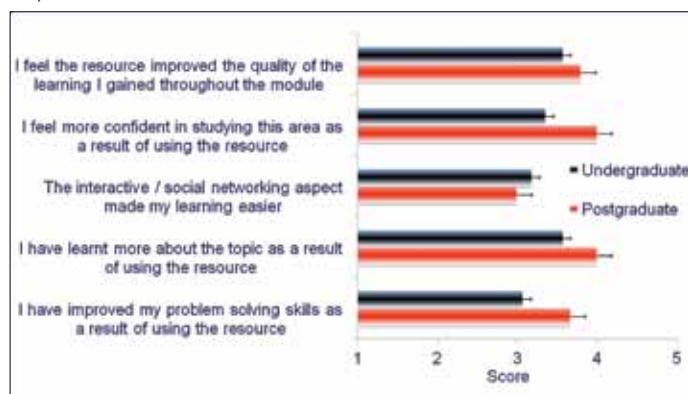


Figure 1: Mean scores from student questionnaires on items relating to effect on learning. The chart shows positive agreement

REFERENCE

Borromeo Ferri, R. (2006) Theoretical and empirical differentiations of phases in the modelling process. *Zentralblatt fur Didaktik der Mathematik* 38, 86 – 95

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CENTRE NEWS

Read on for updates on a number of publications and resources, what will become of content on the Centre's website, and more...

CENTRE WEBSITE AND IMAGEBANK – CONTINUITY OF ACCESS



Since news of the closure of the Centre many people have asked what is to become of the resources initiated and collated by the Centre. The good news is that our electronic resources will continue to be available for use by the bioscience learning and teaching community via the HEA's website (content will be added to the Resource Centre area). In addition, we anticipate creating an archive copy of our website, which will provide another means of access to our popular resources. A copy of ImageBank will be passed on to the HEA centrally, and wider access will be assured by establishment of ImageBank as a collection within JISC's MediaHub (hosted by EDINA at the University of Edinburgh). Look out for further updates on these plans and related developments in our regular e-bulletins and on our website at www.bioscience.heacademy.ac.uk/news/futurehea.aspx

Any questions or comments about transfer of resources may be directed to heabioscience@leeds.ac.uk

A - Z OF RESOURCES

Although not new for 2011 it is perhaps worth highlighting one very useful little link on the website – the 'A-Z of resources'. The Centre's website contains a wealth of information on numerous themes and topics and naturally we have a search box (top right of the header), however, as its name suggest this little link takes you to a page where you can browse alphabetically through those themes. And where to find this link? Well if you visit the home page, look at the left-hand, blue column then the A-Z of resources is the second link down. Alternatively, go direct to www.bioscience.heacademy.ac.uk/resources/az.aspx
Happy browsing!

BIOSCIENCE EDUCATION



- A bumper and engaging issue, Volume 17 of *Bioscience Education*, was published at the end of June, www.bioscience.heacademy.ac.uk/journal/vol17/
- Volume 18 of the journal will be a special issue: including selected papers from our Effective Learning in the Biosciences Conference earlier this summer, will be published formally in December 2011.
- Volume 19 will be managed by colleagues at the Higher Education Academy. A new email contact address for the journal will be established soon but in the meantime any enquiries and communication relating to the journal may still be sent to beej@leeds.ac.uk, and will be forwarded as appropriate.

ENGAGING IN...



The Engage suite of resources developed by colleagues from the University of Reading provide for both students and staff. See:

- Engage in Research (for students), www.engageinresearch
- Engage in Feedback (for staff), www.reading.ac.uk/engageinfeedback
- Engage in Assessment: A new online toolkit for staff
'Engage in Assessment' is a new evidence-based, open-access website developed by Dr Anne Crook at the University of Reading to support staff in all aspects of assessment practice. The website offers:
 - Open access practical support for staff from assessment design through to implementation;

- Evidence-based resources and troubleshooting tips covering a wide range of assessment-related topics;
- Searchable database of discipline-specific and generic resources;
- Video and audio clips of staff sharing their assessment experiences;
- Facilities to request and/or suggest a resource for the website.

The site will be launched in December 2011 at www.reading.ac.uk/engageinassessment

For further details please contact Dr Anne Crook a.c.crook@reading.ac.uk.

e'rbital OPEN EDUCATIONAL RESOURCES FOR BIOSCIENTISTS INVOLVED IN TEACHING AND LEARNING



This year long JISC-funded project was successfully completed in August 2011 and sought to discover key Open Educational Resources (OER) for a number of bioscience disciplines and to identify steps to promote them into sustainable re-use, boosted by contributions from members of the relevant community. The Centre commissioned a number of discipline consultants to undertake the task of resource discovery, review and comment. We also employed several learning technologists to help identify the issues associated with resource discovery and reuse. To access details of the 300+ resources reviewed and annotated by the project discipline consultants or to access the final project report please visit the project wiki, <http://heabiowiki.leeds.ac.uk/oerbital/>

CENTRE NEWS

BIOSCIENCE HORIZONS



The new style Bioscience Horizons is now accepting undergraduate research papers from any kind of research project conducted as an undergraduate and throughout the year. Please visit the journal website at <http://biohorizons.oxfordjournals.org/>, for further details.

RECENT EVENTS

We held a 1-day event on the discipline priority theme of Feedback at Glasgow University on the 20th October 2011. The event also marked the formal launch of the second edition of our Self- and Peer-Assessment Guide. A further two 'Introduction to Teaching in the Biosciences' events have also taken place already this term, at Cardiff University at the beginning of October and earlier this month at Anglia Ruskin University. Reports and presentations from these and other former Centre-organised events can be found at www.bioscience.heacademy.ac.uk/events/reports.aspx

Stephen Maw

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Academic Advisor

RECENTLY FUNDED PROJECTS

We are pleased to announce the following projects which received funding through the Centre's Departmental Grant Scheme in 2010-11:

- Sustainable literacy for the Biosciences (University of Leicester)
- Developing Support for Postgraduates who teach in two STEM subject areas (University of Glasgow)
- Developing a supportive framework for field courses through video-based resources (University of Gloucestershire)

BIOSCIENCE CHALLENGE

Anyone interested in an inter-university Bioscience quiz?

At Newcastle University School of Biomedical Sciences we've been running a scheme called Biomedicine Plus which aims to get students interested in bioscience "beyond the curriculum". As part of this we're hoping to establish a Bioscience quiz-night, in the form of a "University Challenge" style quiz (focussing on Bioscience topics), although we're also considering the possibility of other formats such as a pub-quiz, or "Who wants to be a Millionaire" (to take advantage of the interactive student response clickers).

It would be great if we could roll this out to make it an inter-university event and Dave Lewis at Leeds has already expressed an interest in working with me on this. If anyone else would be interested in joining us then please contact me at debbie.bevitt@ncl.ac.uk. This is very much in the planning stages and we may not get it up and running until 2012 – 13, but the more the merrier so do get in touch if you think you might like to be involved.



- University of Leeds Bioscience Education Research Group (University of Leeds)
- ROVER – Robotic Open Virtual Educational Resources (University of Leicester)
- The benefit of hind-sight: capturing post-graduation experiences to enhance graduate engagement and employability (University of Hull)
- Developing Peer 'Coaching Networks' (University of Exeter)
- Rewarding partial knowledge in negatively marked multiple choice tests in the life sciences: effect on performance, gender bias, student satisfaction and use as an evaluation tool for effectiveness of teaching (Swansea University)

Findings from these projects will be available in 2012. Reports from projects from all previous rounds of funding can be accessed via www.bioscience.heacademy.ac.uk/resources/projects/

CALL FOR ACADEMIC ASSOCIATES

The Higher Education Academy is building a community of Academic Associates to deliver and develop support for learning and teaching in higher education. If you would like to work on Academy-funded projects to enhance learning and teaching in the Biological Sciences, please register your interest in becoming an Academic Associate at www.heacademy.ac.uk/registerassociate/

Academic Associates will represent all levels of higher education. N.B. If you have a potential project in mind (and regardless of whether you've had time to formally register as a prospective Associate), Nathan and colleagues are eager to hear about it so please get in touch by email to nathan.pike@heacademy.ac.uk

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Compiling Editor: **Jackie Wilson**

To request copies of the *Bulletin* in an alternative format please contact the Centre. The *Bulletin* is printed on recycled paper.



BIOSCIENCE TEACHER OF THE YEAR

FEATURE

Congratulations to Jon Scott (University of Leicester) who beat colleagues from universities around the UK to be named winner of the 2011 Bioscience Teacher of the Year award, in a ceremony on 30 June at the Effective Learning in Biosciences Conference in Edinburgh. Jon said he felt "deeply honoured at having been named as the Bioscience Teacher of the Year for 2011, particularly at a time when learning and teaching in higher education are under the spotlight more than ever before. This award is also of real significance because it is made by the UK Centre for Bioscience and Oxford University Press, both being organisations that place the promotion of high quality education at the heart of their activities." Read on to find out more about the award and how you could be next year's winner.

BACKGROUND

The Bioscience Teacher of the Year Award has been developed from the UK Centre for Bioscience's Ed Wood Teaching Awards which were established in 2008/09 to provide an annual opportunity for bioscience academics to receive national recognition for their outstanding learning and teaching practices, and to identify and publicise the practice of bioscientists which has been proven to enhance the student learning experience. In 2010/11 the Centre was delighted to work in partnership with Oxford University Press to strengthen and raise the profile of teaching excellence in the biosciences. Following the announcement of the closure of the subject centres we sought alternative support for the Award and are pleased to announce that the Award will now be offered and managed by the Society of Biology with continued support from Oxford University Press.

AIMS OF THE AWARD

The aims of the award still reflect the Centre's original purpose for setting up the award and are:

- To provide national recognition and reward for excellence in teaching and supporting student learning in the biosciences for individuals in any of the UK home nations (England, Northern Ireland, Scotland and Wales)

- To raise the status of teaching in the biosciences as a scholarly activity
- To support individuals in reflecting upon and enhancing their professional practice in support of student learning
- To develop case studies of effective student learning and disseminate these nationally to enhance bioscience student learning experiences across the UK

ABOUT THE AWARD

The scheme rewards lecturers who:

- Excel at engaging, motivating and inspiring their students
- Go the extra mile to support their students' development as individuals
- Have influenced and enhanced students' achievements and colleagues' practices within and beyond their own institution

The winner will receive the Ed Wood Memorial Prize: £1,000 to spend as they wish and one year's subscription to an OUP journal. The remaining finalists will each receive a £150 prize for their case study. The Ed Wood Memorial Prize is named in honour of Professor Edward J. Wood, who established and became the first Director of the Learning and Teaching Support Network for Bioscience, now the UK Centre for Bioscience, who dedicated himself to the promotion of biochemistry and molecular biology education.

The competition is open to all employed bioscience teachers in the UK higher education system (including those

involved in higher education provision within further education) and individuals can be nominated either by self, peer or management nomination using the quick nomination form. Nominations should be received by the Society of Biology by noon on Friday 2nd December 2011.

For full details and for answers to any questions you may have, please refer to the Society of Biology's website (www.societyofbiology.org/education/hej/competition) or contact the Head of Education, Rachel Lambeth-Forsyth (rachelforsyth@societyofbiology.org).

All the best with your applications!

Stephen Maw

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Bioscience Teacher of the Year 2011 presentation made at the Effective Learning in the Biosciences Conference. Our photo shows from left to right, Jonathan Crowe (Oxford University Press), finalist Phil Langton (University of Bristol), winner Jon Scott (University of Leicester), highly commended finalist Carol Wakeford (University of Manchester) and Kevan Gartland (Glasgow Caledonian University and Chair of the Centre's Advisory Group).