

## **Ideas arising from the Bioscience Reps Fund discussion at the Reps Forum (in no particular order)**

Kay Yeoman - look at Learning and Teaching contracts - baseline survey; get feeling for promotion criteria; support individuals to diversify their portfolios – perhaps through a workshop; mentoring scheme; identify exemplars (those who have already achieved promotion); highlight NTF and Bio awards more; evaluate and disseminate (Jon Scott noted a lot of this would come through in the forthcoming report from the project he, Annette Cashmore and HEA are working on. [ Since the Forum an outline bid has been received from Kay Yeoman, Damian Parry, Julian Park and David Lewis]

Momna Hejmadi - joined up learning from year 1 to final year; create a resource like a condensed essay of all the concepts they have picked up through the years. Develop a resource for students on Integrated Learning.

Momna Hejmadi – Transition from Placements back to university – issues of work and academic environments – develop support package

Momna Hejmadi – Develop an online research skills training support package

This might involve:

- 1) setting up assignments (such as critiques of research papers, writing an abstract from a given set of data, writing a grant proposal etc)
- 2) Developing a ‘techniques’ database using audio/video inputs (modelled on the lines of [www.jove.com](http://www.jove.com) ) which could be used as a direct resource for all levels of students (those about to go on placement, while on placement, international students, and researchers)

Graham Scott - noted a bad experience with PGCert in an institution (which leads to becoming an Academy Fellow) implies the Academy is poor and therefore the SCs also – need to create a bridge from the PgCert to the discipline (to give relevance to PGCerts) and the Centre for Bioscience

Ian Kay - Peer assisted teaching; training students (Undergrads); repository of materials; specific to discipline e.g. physiology

Kay Hack - Facebook type interaction; resource exchange; online networking; tutor blog - responding to questions posed by users; interactive. Incorporate a ‘linked-in/ Amazon approach’ i.e. “if you like this ... you may also be interested in ... ” ([cj.hack@ulster.ac.uk](mailto:cj.hack@ulster.ac.uk))

Chris Baldwin - fund teaching development oriented student placements; increase interest of academics who don't work with the Centre; use as a hook to get engagement from the non-engaged

Anne Tierney - new lecturers' residential event; small ring-fenced project funding to follow from remaining £15,000

To allow ~20-30 new lecturers to interact with the Centre, a residential event can be held in which new lecturers and teachers can spend time thinking about teaching practice, talking to a few Reps and Centre staff, with a view to starting small projects funded by the Centre. These could be collaborations, either between new lecturers or with a more experienced mentor (Perhaps there could be a mentor scheme?). It is estimated that the event would cost around £5-6k, with the remaining funds being used to fund the small projects.

### Carol Wakeford - **From pedagogy to practice**

Development of an (online) interactive resource for (new) lecturers on:

- Educational policy (national, regional)
- Pedagogy and
- Practice (in their institution) and how they are integrated

Aims: To introduce (new) academics to a range of pedagogies, identify how these are translated into practice, and explore how these strategies marry with educational policy.

Outcomes:

- To become familiar with a variety of pedagogies, new and established
- To understand how practice (T & L) is, or should be, based on pedagogy
- To appreciate the challenges to established pedagogies by the use of new technologies
- To assess the association between educational policy and practice

### Overview

Academics, particularly those new to teaching in HE, are often overwhelmed by the educational literature and terminology, with which they must be conversant in order to undertake pedagogic research. This resource would be an interactive tool to help academics overcome the knowledge and terminology barriers between discipline-based and pedagogic research. It would provide information on established pedagogies (possibly from a historical perspective), giving examples, where appropriate (possibly as case studies), and on the changes in pedagogy in the face of new technologies. Interactivity would involve identification of current practice based on these pedagogies, and research into how these strategies fit with educational policy at the national and local level.

Budget: £10 K to include:

- £3 K for an educationalist to provide a summary of different pedagogies supported by case studies
- £5 K for a learning technologist to develop the tool
- £1-2 K for evaluation and dissemination

NB. This would not be a tool about how to do educational research, although it could accompany one.

Jon Scott – proposes the creation of an Association of Bioscience Lecturers; sign up to the group; 1/4ly communication with practically based teaching info (a.k.a Phil Race's style); more 'how to' than the Bulletin; send to all; learn about Centre Events; news items. Use push rather than pull methods to encourage engagement.

I would propose the creation of an Association of Bioscience Lecturers. The scheme could be operated at two levels: 1. People who sign up directly as members and 2. People who receive communications indirectly via their local Representative. In this way, almost everyone teaching in biosciences could be engaged at some level and those who signed up directly (becoming 'members') could also benefit by receiving the standard news email with direct invitations to the Centre events etc. and maybe a small freebie as an incentive.

The core of the communication would be a quarterly (?monthly) e-zine that was directly focused on practical aspects of teaching and learning in the biosciences, but which was also of a very different flavour to the more-theoretically oriented Bulletin . As such, I would perceive it having the following sections:

1. Brief news round-up relating to any significant issues affecting bioscience education. Sorts of topics might include (as today) - undergraduate recruitment and A levels vs Diplomas etc, teaching of evolution, local news of developments at different HEIs - e.g. new programmes/buildings etc.

2. Topical tips section - short, practical suggestions about two or three aspects of teaching, with links to more detail for those wanting to follow up.

3. Links to other sources of direct use - e.g. web-site of the month, image/animation of the month, specific articles in teaching journals such as Advances in Physiological Education etc.

4. Publicity re funding and events. And, of course, links to the Centre's own pages to flag activities.

Iain Coleman - look at other SC resources

Julian - get an HEA list of fellows by discipline

Sara (Exeter) - Tutor blog of what's good

Fergus Doherty (Nottingham) – Computer Simulations of experimental techniques – ‘virtual molecular biology lab’ – The simulations planned are:

- Gel electrophoresis of proteins (SDSPAGE – pilot versions already available)
- Isoelectric focusing (IEF)
- 2D protein gel electrophoresis (2DPAGE)
- Immunoblotting

- DNA and RNA extraction
- DNA and RNA purification
- Restriction digestion of DNA
- DNA cloning
- DNA (agarose) gel electrophoresis
- Northern and Southern blotting
- Polymerase chain reaction (PCR) funding used to support a java programmer

Comments from others on this idea: see TLTP 1&2 etc for similar work; Biochemical Soc. has free A-level equivalent resources; Phys Soc developing similar also.