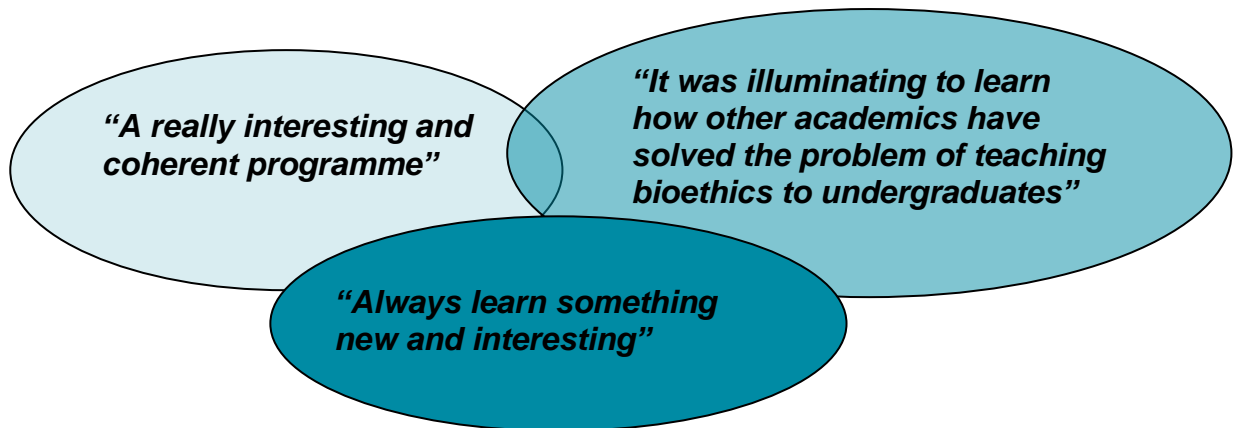


This event provided a further opportunity for colleagues to get together and discuss how best to prepare students to deal with the ethical issues associated with advances in the biosciences and other ethical dilemmas. The programme for the day focused partly on assessment and was aimed at teachers with some experience of the teaching of ethics, although, all individuals with an interest in the event were welcome to attend. As usual the format of the event included a mix of activities, presentations and opportunities for discussion.



Welcome and introduction to the day
John Bryant, University of Exeter

Plenary – The science and ethics of cybrids
Chris Willmott, University of Leicester

Cybrids are cytoplasmic hybrids – part human, part animal cells, for example an animal oocyte where the nucleus has been replaced with a human nucleus. Chris started off the day with an introduction to cybrids – what they are and why they are being developed. He discussed arguments for and against their development and some of the ethical issues involved with the development of cybrids as well as some of the technical problems in actually producing cybrid cells. Chris finished off his talk by discussing how teaching about cybrids could be used to encourage students to think about the ethical issues surrounding their generation and use.

You can’t assess ethics! (3 show and tell presentations)

Assessment in Bioethics Teaching
Roger Pearce, Newcastle University

What is assessed when assessing ethics? Roger discussed how, in a module titled ‘Social impact in biology’, students were assessed on their ethical reasoning skills, in both a seminar and exam setting. In the seminars students discussed a set topic in small groups and then wrote a summary of the topic. In the exam students answered two questions, one relating to material and issues covered during the module, the other not, with the aim of encouraging students to generate a reasoned and well structured argument.

Proforma-based assessment of ethics
Joyce Overfield, Manchester Metropolitan University

Joyce described how student feedback proformas had been used to support assessment of student’s ethical reviews of a published journal paper and a case study. Marking and feedback proformas were designed based on the learning outcomes, which supported the marking of the large student cohort and gave a



parity of assessment across tutors in several different disciplines. The feedback proformas also enabled rapid, clear feedback to improve student understanding and give a link back to the learning outcomes.



The benefits of multiple assessment approaches for a bioethics course **Caroline Bowsher, University of Manchester**

Using a variety of types of assessment within a module can enable students to develop different skills and encourage a variety of learning outcomes. Caroline outlined how students in a final year bioethics module were assessed through their performance in an extended essay, an exam and a debate-style presentation. Students proposed their own essay titles for the extended essay, giving them the opportunity to link their studies in other modules to the

bioethics module. Caroline also highlighted how students may feel uncomfortable expressing an opinion contrary to the lecturers.

Parallel sessions

Teaching Professional Ethics – the Ethics of a Scientist **Anna Smajdor, University of East Anglia**

Anna used the comments responding to an article on the BBC website to highlight concerns with the teaching of ethics, including arguing that it isn't science being taught, it is philosophy, worries over whose ethics would be taught and time restrictions in the curriculum. These comments were associated with the teaching of ethics in a school setting but could equally apply to higher education.

Anna discussed how ethics could be used to encourage debate and critical thinking, rather than fact regurgitation (although students need the facts before they can debate the ethics) and how students need an informed and justified opinion with regard to ethical issues, not just a gut feeling. This led onto discussion around how ethics can be subjective and relative and can potentially be influenced by whoever is teaching it, but that there is a difference between teaching ethics and teaching an ethical viewpoint.

Within the theme of "professional ethics" Anna led discussion around the use of unethically acquired data, for example from experiments conducted in concentration camps - should something discovered in an unethical fashion be ignored and the experiments re-done?



Going deeper into ethics

John Bryant, University of Exeter and Morven Shearer, University of St Andrews

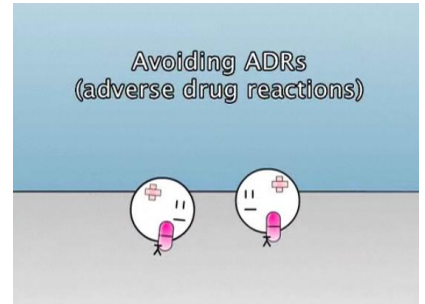
Bioscientists who have been teaching bioethics for a number of years have seen opportunities to use the subject in different ways. In this session John lead discussion around bioethics project work and argued that, if designed properly, bioethics is a suitable topic for final year projects in Biology. Discussion was varied and touched on consent, questionnaire design and the use of parametric and non-parametric data. Morven has used reflective essays with her final year students. Using actual examples, Morven lead discussion around student thinking, attitudes and self realisation. Clip from the essays revealed how student's not only changed their thinking, but realised they had done so as a result of the ethics course

Swapshops: sharing ideas and experience relating to student research projects in the biosciences/sciences

Chaired by John Bryant

- **Evaluation of Bioethics by Post Graduate Students at Glasgow University**, Christine Growney, University of Glasgow, provided an overview of a study into the level and type of prior knowledge of ethics amongst postgraduates in the School of Biological and Life Sciences. She shared findings of the bearing of age, origin or religious belief on the values of the students, student ratings for relevance, interest and need for ethics, students' opinions on the need for a code of practice for scientists, and the requirements for further sessions in ethics tailored to the students' needs.

- **Getting animated about bioethics**, Bonnie Green, GENIE CETL, University of Leicester, showcased an online video developed as an offshoot of the BioethicsBytes project to support ethics teaching. The video introduces the science and the ethics of pharmacogenetics, using both animations and talking heads and is freely available, along with associated learning materials such as activity sheets and case studies from www.le.ac.uk/ge/bioethics/video/pgx.html



- **Assessing Learning whilst Respecting Value Diversity in Bioethics: reflections on delivering a Bioethics module to a culturally diverse cohort of bioscience students**, Alya Khan, London Metropolitan University, described how getting students to give a debate-style presentation had enabled students with diverse backgrounds to discuss varying viewpoints, develop critical and analytical skills and learn from each other. She also noted that when students were drawing on their own personal experience they were less likely to plagiarise.
- **Integrated teaching of BIO-ETHICS**, Rhayza Maingon, Keele University, shared the experiences of setting-up a core module in Ethical Issues within the Life Sciences department at Keele University, including development of the learning outcomes and how assessment was undertaken. She highlighted some of the issues with setting up a module to run across several different degree programmes and how the effort put into the module by students related to whether they perceived it would be useful in later modules
- **Ethical dialogues based on case studies**, Morven Shearer, University of St Andrews, shared experiences of students scripting, undertaking and making video recordings of role plays as a means of exploring the issues associated with various ethical scenarios.



Reflections on the day **John Bryant, University of Exeter**

John closed the day with a summing up of some of the topics and areas discussed during the event.