

THE BASIC TENETS OF TEACHING ETHICS TO BIOSCIENCE STUDENTS

THE FIRST TENET: ETHICS MATTER IN THE BIOSCIENCES

WE NEED TO TEACH BIOSCIENCE students ethics because of the issues facing society. Genetic and fertility developments, xenotransplantation, new forms of contraception and questions of euthanasia and assisted suicide (helping people to die) put Bioscience and ethics in the frontline. At the same time in university and in the practice of the biosciences, high ethical reflection and standards are required. The scandal and aftermath of Alderhey and the crucial issues of consent, funding and ownership of research make it vital that bioscience students have a clear grasp of the ethical perspectives and concerns.

The first tenet in teaching ethics to bioscience students is that ethics matter whether we like it or not and is necessary for a career in the biosciences.

THE SECOND TENET: LEARNING ETHICAL DECISION MAKING

What is less straightforward is how and what we are actually trying to teach. Bioscience students are not philosophers, but they can be taught to think and reflect ethically. This means helping them develop basic skills in ethical decision making. Students need to be able to distinguish between moralities based on principles from those based on consequences. They need to grasp that we live in a largely utilitarian and relativistic world, where maximising happiness and the denial of absolute values is common place. They need to realise that there is considerable unhappiness with these traditional approaches to morality, and instead an emphasis on growing and being virtuous people is widely appreciated. That means asking and answering what it means to be a good bioscientist doing good work. This is not just a matter of high professional skills and

good quality research. It is also possessing the ability to act ethically and to be able to offer a moral justification for the work done and the way it is done.

Medicine and bioscience have stressed the importance of four fundamental principles. Bioscience students need to know and understand the principles of non-maleficence (do no harm), beneficence (do good), maximise autonomy (the freedom of the individual or community) and Justice (treating equal cases equally and unequal cases unequally).

The second tenet is to ensure that bioscience students have a clear grasp of the way that ethical debates are taking place and are able to reflect on their own values in light of the professional and communally accepted values.

When teaching ethics to bioscience students we must help them cope with the reality of living in a pluralist world where there is not one universally agreed and accepted answer. Morality is rarely black or white in the complexity of the issues produced by and facing bioscience. It may be helpful to suggest that they reflect on the extent to which there is some kind of natural law in the nature of things and people. Are there things that are universally good and things which are bad for all people? Interestingly, both a traditional Roman Catholic and an Evolutionary ethic point towards fundamental values in the natural realm. It is also important that students are helped to ask what it means to be human and what values we consider fundamental to humanity. This is not just important because of the debate over the use and status of animals but also because research involves people working often on people for the benefit of people. What then are the limits to such research and activity? We need to consider whether or not there is some common core of basic, 'rock-bottom' morality and what that means for bioscientific activity.

THE THIRD TENET: PREPARE FOR TOMORROW AS WELL AS TODAY

The danger is that we teach ethics as if Bioscience and ethics are static rather than developing. Students need to be aware not only of future developments in the biosciences but also that societal and professional changes will impact the practice of and demand for ethical bioscientific research. The law is becoming ever more intrusive in the regulation of the sciences. But is this ethical and how do we judge the validity of governmental control? The media constantly demand justification for action and clarification of the implications of research. Ethical justification is a crucial bulwark against the breakdown of public confidence and a retreat to law and expensive litigation.

As science advances, the moral bioscientist will recognise his or her responsibilities to society, conscience and the profession. Science does not happen in a vacuum and the international aspects of bioscientific research will require careful moral monitoring and assessment. So too will an understanding of the social implications of the biosciences. Modern movies picture a brave new world where biotechnology rules and intrudes on every aspect of human being. The students of today will be the leading bioscientists of tomorrow. They will shape not just the science, but the impact and application of the biosciences. Unless they have been well taught how to reflect and act ethically and how to think about brand new moral questions raised by new applications of bioscience, then the world will be a risky and dangerous place and science a new pariah. ■

Dr David Cook
Green College, Oxford
david.cook@green.oxford.ac.uk