

Professional and Research Ethics

Books and articles

Bryant, J.A., Baggott La Velle, L.M., and Searle J.F. (eds.) (2002) **Bioethics for Scientists**. John Wiley and Sons: Chichester, UK; ISBN 0 471 49532 8. *Suggested by Professor John Bryant, University of Exeter.*

Bulger R.E., Heitman, E. and Reiser, S.J. (eds.) (2002) **The Ethical Dimensions of the Biological and Health Sciences** 2nd Edition, Cambridge University Press: Cambridge.

Donaldson, L. and Downie, R. (2007) **Attitudes to the Uses of Animals in Higher Education: Has Anything Changed?** *Bioscience Education E-journal*, 10-6, available at www.bioscience.heacademy.ac.uk/journal/vol10/beej-10-6.aspx

Downie, R. and Clarkeburn, H. (2005) **Approaches to the Teaching of Bioethics and Professional Ethics in Undergraduate Courses**. *Bioscience Education E-journal*, 5-2, available at www.bioscience.heacademy.ac.uk/journal/vol5/beej-5-2.aspx

Shamoo, A. and Resnik, D. (2003) **Responsible Conduct of Research**. OUP: New York and Oxford; ISBN 0 19 514846 0. *Suggested by Professor John Bryant, University of Exeter.*

Volume 30 of **The Biochemist** (2008) was a special edition focussing on ethics: forgery, fakery and fraud in science. www.biochemist.org/bio/default.htm?VOL=30&ISSUE=6

Websites and online resources

Bad Science brings together all of Ben Goldacre's columns which consider a variety of aspects of being a scientist and scientific conduct, including public communication, use of statistics and reporting results. www.badscience.net/

A review of Bad Science, Ben Goldacre's book, is available from *Bioscience Education* www.bioscience.heacademy.ac.uk/journal/vol14/beej-14-r2.aspx

BEEP (Bioethics Education Project) is intended mainly for A-level students however there are useful sections and resources focussing on How Science Works (which considers, for example, the social pressures on scientists). www.beep.ac.uk

Ethics in Real Life is a series of freely available podcasts from the Open University covering topics such as "Codes of Ethics" and "Plagiarism and Copyright Law". <http://podcast.open.ac.uk/oulearn/arts-and-humanities/podcast-a181-ethics-real-life>

Inside the ethics committee, broadcast on Radio 4, focuses on medical ethics within the format of an expert panel discussing and coming to a decision on a real life case, enabling you to listen in to people thinking through ethical dilemmas. You can listen again to episodes going back to 2005. www.bbc.co.uk/radio4/science/ethicscommittee.shtml

Moral reasoning in scientific research was developed by the Poynter Centre at Indiana University and considers various scenarios within the scientific research environment, including the 'ownership' of research and reporting of data. Free to download in pdf format. <http://poynter.indiana.edu/mr/mr-main.shtml>

The **Nuffield Council on Bioethics** has information on various topics within research and professional ethics, including intellectual property, consent and incentives. www.nuffieldbioethics.org/explore-by-topic

The **Research Ethics Guidebook**, although aimed at social scientists, has information and resources to help consider the ethics of undertaking research on human subjects.

www.ethicsguidebook.ac.uk/

Scientists for Global Responsibility (SGR) “promotes ethical science, design and technology, based on the principles of openness, accountability, peace, social justice, and environmental sustainability” their website contains a variety of resources. www.sgr.org.uk/

What is Ethics in Research and Why is it Important? by David B. Resnik considers various aspects of research ethics and contains some short case studies of research ethics that could be used to prompt discussion. www.niehs.nih.gov/research/resources/bioethics/whatis.cfm

Ethical codes and research integrity

A Universal Ethical Code for Scientists (produced by DIUS) aims to: foster ethical research; encourage active reflection among scientists on the wider implications and impacts of their work, and; support constructive communication between scientists and the public on complex and challenging issues. www.bis.gov.uk/assets/bispartners/goscience/docs/u/universal-ethical-code-scientists.pdf

Research Councils produce guidance on good research practice, ethical conduct of research, documenting and publishing research, see, for example the Medical Research Council, www.mrc.ac.uk/Ourresearch/Ethicsresearchguidance/index.htm, and BBSRC www.bbsrc.ac.uk/publications/policy/good_scientific_practice.html

Groups and organisations

UK Research Integrity Office (UKRIO) is an independent body, hosted by Universities UK, which offers advice and guidance to universities and other research organisations, and also to individual researchers, on the conduct of research. www.ukrio.org/home/index.cfm

PEAK (Professional Ethics at Keele) provide training for research ethics committee members and offer training for researchers, research supervisors and research students. They also undertake research in a wide range of areas of applied and professional ethics. www.keele.ac.uk/ethics/