Some sources of information on ethical research conduct for scientists and engineers

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Suggestions for additional content are welcome

This is not a legal document, nor is it to be construed as legal advice

At present, there is no single site or source that covers all of the ethical dilemmas and laws that govern science and technology research. The US system is covered by a variety of rules that cover particular researchers, and subject areas, and agencies, and place responsibility on parties in a variety of ways. Other countries govern science and engineering using their own rules. And of course, different fields of study and different nations have different norms. What to do? In addition to following laws, researchers could consider the possible range of issues that the Office of Research Integrity in the Department of Health and Human Services raises for collaborations and other "responsible conduct in research issues." http://ori.hhs.gov/. They have many helpful materials here, including lists of questions that collaborators should ask each other. Science and engineering ethics are dynamic, and reflect not only changes in science, but changing legal and social contexts. The list here is thus designed to be a starting point to help you to locate relevant materials.

General Resources

- *Your professional association is likely to have personnel and resources specific to your field.
- *A useful general starting point for ethics in engineering, but with information that applies in most cases to sciences, can be found here: http://onlineethics.org/
- *The Poynter Center for the Study of Ethics and American Institutions has a variety of case studies and resources: http://poynter.indiana.edu/tre/index.shtml
- *The Vancouver Rules (Uniform Requirements for Manuscripts Submitted to Biomedical Journals) can be found here: http://www.icmje.org
- *The Common Rule, governing studies with Human Subjects, can be found here.

http://www.hhs.gov/ohrp/humansubjects/guidance/45cfr46.html

*The US federal agencies that adhere to **The Common Rule** can be found here:

http://www.hhs.gov/ohrp/humansubjects/commonrule/index.html

*Resources related to international research:

Reports from the 2010 "World Conferences in Research Integrity" http://www.wcri2010.org/

*Resources related to **Community-based and participatory research** can be found here:

http://depts.washington.edu/ccph/commbas.html

NSF Policy Resources

*NSF's conflicts of interest rules and guidelines can be found here:

http://www.nsf.gov/policies/conflicts.jsp

*NSF Responsible Conduct of Research rules and practices can be found here:

http://www.nsf.gov/bfa/dias/policy/rcr.jsp

*FAQs about **Responsible Conduct in Research** can be found here:

http://www.nsf.gov/pubs/policydocs/rcr/rcrfaqs.jsp

*NSF Implementation of the Common Rule (governing Human Subjects) is available at:

http://ecfr.gpoaccess.gov/cgi/t/text/text-

idx?c=ecfr&sid=bf82741062b65521a894ff5a97c2cd1a&tpl=/ecfrbrowse/Title45/45cfr690 main 02.tpl

*NSF Research Misconduct Regulation is available at:

http://ecfr.gpoaccess.gov/cgi/t/text/text-

idx?c=ecfr&sid=bf82741062b65521a894ff5a97c2cd1a&tpl=/ecfrbrowse/Title45/45cfr689 main 02.tpl

*NSF Office of International Science and Engineering provides information and policy about working with international partners:

http://www.nsf.gov/od/oise/intl-research-integrity.jsp

*NSF Proposals and Awards Policies and Procedures Guide provides RCR and other policy information:

http://www.nsf.gov/publications/pub_summ.jsp?ods_key=papp