Questions and Answers from the September 17th CUR- NCPRE webinar

JT = Julio Turrens

MCL = Michael C. Loui

CKG = C. K. Gunsalus

EA = Elizabeth Ambos

Q1: How do you locate articles in the literature that have ethical issues (e.g. conflict of interest, mentoring issues)?

A1: JT: I did answer this during the webinar. I use many sources. You may subscribe and receive daily updates to pick and choose from. Source include:

- Science
- Nature
- Total Eclipse (subscribe@fbresearch.org)
- The Scientist
  - Presidential Commission for the Study of Bioethical Issues (blog.Bioethics.gov)
- Science News
- The Washington Post
- The New York Times

Q2: How much time do you dedicate to formal RCR during a summer REU or similar program?

A2: JT: We have formal 1 hour meetings every week. Also, REU students have to participate in meetings for other UR students, so in the end REU students probably get 11 or 12 hours on RCR.

MCL: For the summer REU site that I directed, I led five or six sessions on ethics, each of 60 to 90 minutes, though my sessions also included professional ethics and computer ethics. For other summer REU sites, I typically led two 60-minute sessions each summer.

Q3: What are some applications in social sciences and humanities?

A3: MCL: For social sciences, RCR programs should include sessions on research with human subjects and informed consent. For the humanities, plagiarism is a common problem. The book "Research Ethics: Cases and Materials" edited by Robin Levin Penslar has sections specifically on social sciences and on humanities.

CKG: Other topics that can be important include, qualitative research methods, statistical techniques, community research, issues that arise when collaborating across disciplines and the codes of ethics of disciplinary societies. New technologies bring new questions and many social scientists and humanists are grappling with those as well. Ethics CORE (www.NationalEthicsCenter.org) has some discipline-specific pages collecting topics and providing ideas.
Q4: Have you ever created an online course to teach such RCR topics, with undergrads or grads?

A4: JT: No. Although you can use online course modules (CITI) for a portion of the training, many faculty and administrators prefer to add a component of face-to-face instruction. Both because it is requested by NIH, and because many instructors believe it to be more effective. I have not created an on-line course. You may access on line programs through CITI or Epigeum. Personally, I do not find CITI a very good source but my institution uses it. I prefer only face-to-face because I can have open discussions and reactions to specific problems.

MCL: Yes. Tina mentioned the sequence of two Teaching Responsible Conduct of Research courses that she taught with Ken Pimple of Indiana University to prepare grad students and postdocs to teach RCR. The courses are being delivered using Moodle through Ethics CORE.

Gary Comstock of North Carolina State University has run the open seminar in research ethics
http://www.openseminar.org/ethics/

Finally, there several noncredit online RCR programs with readings and short cases.

Q5: Do institutions require RCR for Undergraduate researchers?

A5: CKG: If a student is paid through research funding that requires RCR training, even undergraduates are covered by those requirements. If any student is participating in research, both as a matter of good practice and quality of education, providing some pertinent RCR seems in order.

Q6: For students doing summer research, how many sessions will qualify for NSF and NIH training?

A6: MCL: NSF does not currently prescribe the amount or content of RCR training.

Q7: Are there good resources to help educate faculty from disciplines that have not traditionally dealt with IRB (e.g. history)?

A7: MCL: Yes. NCPRE has many resources that can be helpful, and there are others listed on the slides associated with the presentation.

CKG: NCPRE has a partnership with Public Responsibility in Medicine and Research (PRIM&R), an organization for and of IRB professionals and our sites cross-link. You might also want to review some of their resources.

Q8: What are strategies for tracking and recruiting students who are not required to complete RCR or Conflict of Interest Training for compliance purposes?

A8: CKG: I'm not sure I fully understand what you're seeking with this one; if you would like to email me directly, I'd be happy to try to help more. Since so many of the formats for reporting compliance are in flux and we're in a stage where many institutions are trying different approaches, a good faith documentation effort is what I'd seek to demonstrate.

Q9: How do you use the CITI program, if you do?

A9: MCL: At Illinois, our IRB requires that investigators and students complete relevant CITI modules before IRB protocols can be approved.

Q10: Any suggested resources for faculty new to IRB responsibilities at Undergrad institutions?

A10: CKG: Again, I'd look on Ethics CORE and contact PRIM&R as starting places.
Q11: We are at a very small liberal arts college, and we don't have tremendous resources available to develop programs such as the ones you are talking about. Are the materials you have presented all available (with acknowledgement) for us to use?

A11: MCL/CKG: Yes, all materials on Ethics CORE (www.nationalethicscenter.org) are available free of charge under a Creative Commons license. We welcome your deposit of materials if you create any that you'd be willing to share with colleagues and the community, on the same terms.

Q12: I co-facilitate a 2-part workshop on research ethics for an REU program at a field biology station. We focus heavily on research ethics for field ecologists - do you think we do our students a disservice by not speaking about ethics a little more broadly (e.g. bioterrorism)?

A12: MCL: You should definitely tailor your research ethics program to the needs of your audience and the purpose of your program. We have focused on RCR because RCR topics are common to many disciplines and contexts, and they are in the NSF and NIH mandates.

CKG: The first thing is to find the students where they are, and if your students are interested in field ecology, then that's the natural starting place. My experience is that students are deeply interested in the larger ramifications of their work and there should be natural places to work other issues and topics into your conversations without carving out specific time or topics. Both Ethics CORE and my most recent book (The Young Professional's Survival Guide) have a broader view of some of the questions about thriving in the world of work that might provide you with interesting hooks for raising topics with students. It can also be very effective, as Julio and Michael mentioned, to pick up on items in the news and bring them up with students, asking their opinions and exploring the ethical ramifications. Bioterrorism is certainly a current topic and one that will likely be around for a while.

Q13: Where is the line between research misconduct (falsification, invention) and criminal misconduct -- as when industrial research yields false results e.g. tobacco, patent medicines, etc.?

A13: CKG: Broadly speaking, criminal misconduct involves financial misdeeds, forms of fraud and aggression/violence. Some forms of research misconduct have been found to rise to the level of fraud and thus bear criminal penalties.

Q14: Do you think RCR training is only important to students heading to research careers or is it a valuable experience for all students?

A14: MCL: Good question! As faculty, we always hope that students can apply their knowledge in new contexts. As we know from the learning sciences, however, this application of knowledge, technically called "transfer," is a difficult skill. Those who lead RCR sessions should set RCR principles in the broad context of students' general responsibilities as professionals. For example, many principles aim at improving the trustworthiness of professional work. RCR sessions should explore the general reasons for RCR principles, and they should develop skills such as anticipating consequences of different courses of action.

Q15: The challenge we have is actually finding a way to fit RCR training into the schedules of our undergraduate students. when their degree programs say they have no "room" in the curriculum.

A15: MCL: When I parachute into a classroom for sessions on engineering ethics or on RCR, I tell students that these sessions are the most important of their 1600 classroom hours as undergraduates. After graduation, they may never again solve a problem on electric circuits, but they will spend their entire lives as professionals. They should spend a couple hours thinking about their professional responsibilities. Faculty members who say there is "no room" are simply wrong. We all make choices about what to include or exclude from our courses. A few hours with professional ethics, including RCR can be more valuable than yet another fact, theory, principle, or method in the discipline.
Q16: When is the best “timing” for ethics education? How do you integrate ethics into academic courses?

A16: MCL: Ethical reasoning, like other skills such as writing, requires repeated practice with feedback. For research ethics, you should start when it's relevant to students' interests, presumably when they begin embarking on a research project. And then provide a thoughtfully planned series of lessons of increasing complexity, and with RCR topics that are matched to the stage of research. In academic courses, instructors can provide historical stories related to whatever the course topic is. For example, in computer science, when discussing software development or user interfaces, it's natural to study the Therac-25 disaster, in which deficiencies in the software and in the user interface led directly to three deaths. Stories of disasters capture students' attention, and they remind students about their professional responsibilities. I am sure you can think of stories for your own disciplines and experiences.

Q17: I'm developing our RCR program, and looking for suggestions regarding RCR program development with universities that serve special populations, e.g. Historically Black Colleges and Universities, Hispanic-serving Institutions, women's colleges, etc. Do you have any recommendations?

A17: MCL: Yes. Howard University requires all graduate students in terminal-degree programs to complete a two-day workshop. It offers the workshop twice each year.

Q18: To your knowledge, are there any regulations (federal or otherwise) that require undergraduate students to complete the CITI training as part of their application to conduct research with human subjects - specifically in social science research? Also, are there other courses you would recommend in addition to (or as a substitute for) CITI?

A18: JT: Not to my knowledge. Federal regulations are good at “not enforcing” the process but rather the outcome. They do not care about the details of how your IRB is run, but they will cut all the federal funding if the IRB makes a big mistake. Epigeum is expensive but seems to be quite good. I do not use it but I had a chance to visit their site. You may get a lot of free on line info through CORE and many other websites (ORI, ori.dhhs.gov) and build an on line program that answers your needs from there. I’d be more concerned with making it appropriate to the level of your audience. Some of the online programs are “one-size-fits-all” and therefore many students will “miss the point”.

Q19: Do you have a difficult time differentiating ethics and compliance, and how do you effectively balance the two?

A19: MCL: I like to distinguish between what is legal and what is moral. The Enron executives claimed that they had done nothing wrong because their actions were allowed by law. But what they did was fraudulent. Similarly, while we must honor the law and comply with regulations that have the force of law, ethics sometimes demands that we act in ways not required by law.

CKG: I often talk with students about compliance requirements setting a minimum floor for conduct, just as assuring that your actions are legal is a minimum floor. There are many circumstances in which ethics requires a higher standard of conduct—as does the privilege of being a professional.
Q20: Do you use an assessment tool to determine the effectiveness of RCR training?

A20: JT: Yes, we have different tools depending on the course. For the graduate course on RCR, students rank the topics we cover in every session in terms of the perceived value to them. This allows me to revamp topics that receive low rankings. Students also assess the quality of the readings and the presentations.

For REU students doing UR over the summer, they have an EXIT survey that addresses each topic being covered and asks them to suggest topics that they consider low priority and topics that they would like to cover in more detail. The rationale is that “low priority” indicates a need to revamp if I think it is an important topic.

MCL: Two ethical decision making instruments developed by Michael Mumford and his colleagues are available in Ethics CORE http://nationalethicscenter.org/resources/321 http://nationalethicscenter.org/resources/323 Mumford's group has developed instruments for other groups of academic disciplines too. In addition, I have used the Engineering and Science Issues Test (ESIT) developed by Jason Borenstein and his colleagues at Georgia Tech. I have also created my own case-analysis assessments.

Q21: How do you document informal face to face RCR training for NSF and NIH awards?

A21: MCL: My campus sends a simple template to principal investigators (PIs) annually to request information about the RCR training that each supported student has received. PIs submit electronically.

Q22: REU or other summer programs have a focused, discrete audience, but does anyone have experience expanding RCR Ed to fall and spring semesters? This is a much more diverse and larger group.

A22: JT: I teach a 1 semester hour RCR course for graduate students (GIS 501). This gives you plenty of time to cover all points (we meet for 60-90 minutes per session) plus gives me time to add other important topics such as “harassment in the workplace”, “Export control”, “regulations on perceived bioterrorism”, “Intellectual property”. In the past I also had a presentation on “Expert witnesses” but students did not see the value of that. I also add a session or two in an undergraduate course on bioethical issues.

Q23: How do you prevent students from becoming too cynical and negative about the research/academic culture?

A23: CKG: I find students in general to be idealistic and that focusing on how to succeed while still being a good person--and having examples in the environment to point to can be really helpful. Transparency and talking about why and how requirements evolved provide some context that can be helpful. It's also worth acknowledging that there are often hard choices to be made, and that sometimes, in the short term, it can appear that those cutting corners are succeeding. That doesn't change that each of us has deeply personal obligations to choose who we are and what we stand for. Some candor and willingness to talk about hard topics goes a long way.

Q24: Considering the IRB process (for social sciences in this instance), can you speak about the ethics of designing somewhat general or broad method descriptions in order to maximize flexibility regarding reiterative, inductive research practices?

A24: MCL: Yes, my students and I do this all the time in engineering education research projects. We frequently use qualitative research methods such as semi-structured interviews, where we cannot prescribe everything in advance. I see no problem if the actual research methods are consistent with the letter and spirit of our IRB applications. We do file amendments whenever we make major changes, such as adding a new source of data.
Q25: Is there an RCR listserv where people can share issues and situations and get the collective wisdom of the group?

A25: JT: Here is the URL to our website listing a few of these listservers
http://www.southalabama.edu/researchcompliance/listservs.html. If you log on ETHICS CORE, they have a list of several available forums http://nationalethicscenter.org/ysearch/?terms=forum. You may go directly to http://www.ethicshare.org/org and look for a group that sounds good for you although many of the groups are rather small.

MCL: The Association for Practical and Professional Ethics is developing a special interest section on research integrity ethics
http://appe.indiana.edu/programs-and-resources/special-interest-sections/rcrrec-and-research-ethics-special-interest-section/
I don't think it has a listserv yet.

Q26: Do you have formal programs to teach faculty?

A26: JT: CUR is considering development of specialized programs to assist faculty mentors (Train-the-trainer), in collaboration with existing groups/efforts. We (University of South Alabama) also have a program for faculty and post-docs that is run through the college of medicine.

Q27: How do you ensure that PI delivered RCR training fulfills the requirements? Approve in advance?

A27: JT: Since the current NSF requirements do not prescribe a format or content, we do not check.

Q28: With Business students they're not completing experiments on humans or animals but could very well be involved with proprietary and sensitive information from companies in terms of product or market development. A non disclosure agreement is typically the legal form of choice to cover this area in regards to people already working in the marketplace. However, the cognitive thought process of the average student does not comprehend the true reason for the NDA. Do you have experience in instilling this ethical topic in students keeping confidential information confident and not divulge it unknowingly after they leave the class or graduate?

A28: JT: There are several sites that address business ethics. I would start with Ethics CORE searching for business ethics http://nationalethicscenter.org/ysearch/?Terms=Business+Ethics. Other websites include https://www.ethicshare.org/publications/business%2520ethics?keys=Business%20Ethics&=search&sc=keyword with bibliography in business ethics. Specifically addressing your question, you may have them sign a confidentiality agreement and even make them understand that those are legally binding.

Q29: How much training and how formal should the training of our faculty mentors have? Much of the success of our class is based on it being reinforced in the real research setting.

A29: MCL: Alas, with regard to faculty, I have met the enemy, and they are us. Faculty mentors are always the weak link in RCR education. I can only suggest that you bring the faculty mentors together as panelists in front of your students after the students have received good RCR instruction. You should be prepared with leading questions. Students often pay attention when faculty members disagree..

Q30: Is there a way I can get some documentation from you that I participated in this Webinar?

A30: EA: Prior to the webinar, you should have received an email from CUR, confirming your registration for the webinar, and that may be sufficient for your documentation purposes. If it is not, please email Robin Howard at robin@cur.org, and for further clarification.