

Honors Collegium 101 F
Integrity in Research for Undergraduates
Spring Quarter, 2007
Fridays 2-3:50 pm in La Kretz 101

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Course Objectives: To teach about research integrity and to start a dialogue with students on important ethical issues that impact scientific investigation. For the first five weeks, the faculty will present lectures covering major issues in the field of research ethics and integrity. For the next four weeks, students will work together in small groups to present and lead discussions on ethical dilemmas. This course is not intended to be comprehensive but instead focuses on research integrity issues that impact a broad group of undergraduate researchers on the UCLA campus. The last four weeks in particular will be topical in nature, varying from year-to-year based on recent ethical events in the news.

Course is intended for: Juniors or seniors who are conducting funded research in a UCLA laboratory. The course is open to all majors.

Requirements for Obtaining Credit (2 units/ Pass Grade): Students are required to attend weekly sessions and to participate in in-class discussions. Grades will be based on participation in-class discussion (35%), one case presentation (35%), and one final writing assignment (30%).

Class Web Site: <http://www.lsic.ucla.edu/classes/spring07/>

Readings for all lectures are available at this site! Computers are available in Young South Science Learning Center and LSIC Lab, Life Sci. 2127.

General Web Sites on Research Ethics:

NIH Office of Research Integrity: <http://ori.hhs.gov>

“On Being a Scientist: Responsible Conduct in Research”: (Copy in Course Reader)
<http://www.nap.edu/readingroom/books/obas/>

Reading assignments: Readings for the class will be taken from primary literature, news paper articles, magazines and the following two books: See Course Reader.

- 1) Barker, K (1998) At the Bench: A Laboratory Navigator, Cold Spring Harbor Laboratory Press, Plainview, NY

- 2) Gilbert, SF, Tyler, AL, and Zackin, EJ (2005) *Bioethics and the New Embryology*, Sinauer Associates, Sunderland, MA

Presentations: Students in small groups will present recent cases involving research integrity. All students are required to read the background material on each case and to participate in class discussion. The students presenting the case will have 40 minutes to present all sides of the ethical dilemma. The remaining time will be used for class discussion. At the end of each class students will discuss what they believe is the most ethical outcome.

LECTURE SCHEDULE AND PRESENTATION ASSIGNMENTS

DATE	LECTURE TOPIC OR PRESENTATION	READING
Week 1 <i>April 6</i>	Lecture 1: The sanctity of data: Laboratory notebooks and data management	Chapt. 5, Barker (1998) <i>At the Bench</i> & <i>“On Being a Scientist”</i>
Week 2 <i>April 13</i>	Lecture 2: Parts of a paper and integrity in data presentation	<i>“On Being a Scientist”</i> & (Rossner and Yamada, 2004)
Week 3 <i>April 20</i>	Lecture 3: Use of animals in biomedical research	Chapt. 15, Gilbert, Tyler, and Zackin (2005) <i>Bioethics of Embryology</i>
Week 4 <i>April 27</i>	Lecture 4: Ethical dilemmas in stem cell therapy	Chapt. 9 & 10, Gilbert, Tyler, and Zackin (2005) <i>Bioethics of Embryology</i>
Week 5 <i>May 4</i>	Lecture 5: Mentoring, authorship, conflict of interest and peer review	<i>“On Being a Scientist”</i> and <i>“A Guide to Training and Mentoring in the Intramural Research Program at NIH”</i>
Week 6 <i>May 11</i>	Proposition 71, the California Institute for Regenerative Medicine: Should we legislate research topics and why is the money still in the bank?	http://www.igs.berkeley.edu/library/htProp71StemCell.html
Week 7 <i>May 18</i>	Dr. Hwang’s spectacular cloning results and unearthing the scientific fraud.	(Chong and Normile, 2006) (Hwang et al., 2005)
Week 8 <i>May 25</i>	The Ecstasy Scandal (or is it one?) – Lies and Fraud in Research	(Ricaurte et al., 2002; Ricaurte et al., 2003) (Holden, 2002; Holden, 2003)
Week 9 <i>June 1</i>	Piling on Merck for Vioxx – Should a flag be dropped? – Conflicts of interest	(Topol, 2004) (Juni et al, 2004)
Week10 <i>June 8</i>	In class writing assignment to evaluate the student’s ability to apply research integrity issues to everyday life in the lab	Review previous readings

Please note: this reading list is incomplete. A full list of readings will be posted on the class web site.