IDIS 232 and WOST 232  ETHICS AND REPRODUCTIVE BIOTECHNOLOGIES

Fall 2007

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Room 323
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Course description: This is an interdisciplinary course which addresses both the scientific and societal aspects of reproductive biotechnologies. The topics include biotechnologies associated with (a) pregnancy, birth and the newborn (b) infertility and assisted reproductive technologies and (c) diagnostic and treatment technologies associated with reproductive disease (including reproductive cancers). The course form is interactive using situational examples and discussion. There are two required papers and an involvement in a group presentation. In addition there are a mid-term and final exam. This course satisfies the Ul LinC graduation guideline.

Time:  Tuesday and Thursday 3b (10:20 - 11:30 AM)

Texts: BIOETHICS AND THE NEW EMBRYOLOGY by Scott F. Gilbert, Anna L. Tyler, and Emily J. Zackin, 2005 (main text)

ANGEL OF ASHLAND by Vincent Genovese, 2000

AS NATURE MADE HIM: THE BOY WHO WAS RAISED AS A GIRL by John Colapinto, 2000

<table>
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<tr>
<th>Date</th>
<th>Topic</th>
<th>Assignment</th>
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<tr>
<td>Aug 28</td>
<td>Early human development/birth</td>
<td>Gilbert Ch 1</td>
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<td></td>
<td>Who are Scott Gilbert and Lee Silver?</td>
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<td></td>
<td>What is ethics (individual and societal)?</td>
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<td>Aug 30</td>
<td>Philosophical, theological, and</td>
<td>Gilbert Ch 2</td>
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<td>scientific arguments for when life begins.</td>
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Week 1: Question When Does Human Life Begin?

Aug 28  Tue  Early human development/birth  Gilbert Ch 1
Aug 30  Thr  Philosophical, theological, and scientific arguments for when life begins.
Week 2: **Question** How Should Assisted Reproductive Technologies Be Regulated?
Sept 4 - Tue  Fertilization  Gilbert Ch 3
Sept 6 - Thr  ARTs: Safety and Ethical Issues  Gilbert Ch 4

**Week 3: Question** Should We Select the Sex of Our Children?
Sept 11 - Tue  Perinatal screening technologies  Gilbert Ch 5
Sept 13 - Thr  Arguments for/against sex selection  Gilbert Ch 6  Group 1

**Week 4: Should We Allow Humans to Be Cloned?**
Sept 18 - Tue  The Science of Cloning  Ch 7
  Animal cloning
  Human cloning
Sept 20 - Thr  Ethics and Policies of cloning  Ch 8  Group 2

**Week 5: Should Stem Cells Be Developed To Repair the Body?**
Sept 25 - Tue  Stem cell technology  Ch 9
Sept 27 - Thr  Stem cell ethical dilemmas  Ch 10  Group 3

**Week 6: Should We Modify the Human Genome?**
Oct 2 - Tue  Gene therapy/enhancement  Gilbert Ch 11, 12  “What is normal?”
Oct 4 - Thr  Importance of animal studies  Gilbert Ch 13, 14
  Classical ethical story: Tuskegee experiment

**Week 7: Spring Break and Midterm Exam**
Oct 9 - Tue  Fall break
Oct ii - Thr  MIDTERM EXAM  Gilbert’s book

**Week 8: New perspectives on old issue**
Oct 16 - Tue  *In utero* diagnosis and surgery
Oct 18 - Thr  Ethical issues related to surgical manipulation of sexual organs
  male/female circumcision  episiotomy/hysterectomy
  vasectomy/tubal ligation  intersexual surgery
Week 9:  **What is the priority reproductive issue for our planet?**

Oct 23  - Tue  Human population growth and birth control technologies  
Oct 25  - Thr  Ethical issues related to birth control technologies  Group 5

**Week 10:  Multiple dimensions of abortion**

Oct 30 - Tue  Abortion (philosophical views/positions) Assigned readings  
Nov 1   - Thr  Class discussion on **Angel of Ashland** and the DVD **Vera Drake**

**VERA DRAKE**  DVD is on reserve at the library. This is a multiple award winning video (2004) concerning a woman who was a wife, mother and societal criminal. It is a sensitive story about a woman who routinely performs abortions during a time when this was illegal. You may observe this video on a 24 hour check out basis or attend a scheduled “out of class” showing.

**Paper 1 due**  Focus on the ethical dilemmas of the book and the movie as they relate to individuals and to society. This paper should include reactions and reflections concerning the related medical biotechnology, legal rights, and other societal “spinoffs”.

**Week 11: How do sex hormones influence the mind and body?**

Nov 6   - Tue  Hormones/drugs related to sexuality, pregnancy and childbirth  
Nov 8   - Thr  Technologies related to hormonal imbalance or Group 6  
  manipulations: premenstrual syndrome, postpartum depression, endometriosis, fibroid tumors, etc

**Week 12: Why is hormone replacement (HRT) still considered to be an experiment in progress?**

Nov 13  - Tue  The dilemmas of menopause and HRT Woman’s Health Initiative Study  

Nov 15  - Thr  What types of ethical issues relate to menopausal Group 7  
  problems and their treatment?

**Week 13: Why are we concerned about sexually transmitted diseases?**

Nov 20  - Tue  HIV readings and discussion  
  -research/exploitation  
  -responsibility and confidentiality  
  -vaccine development HIV scenarios
Nov 22 - Thr  Thanksgiving

Week 14:  What causes cancers of the reproductive system?
Nov 27 - Tue  Ethical issues and concerns related to HPV vaccine (and possibly other vaccines)  Group 8
Nov 29 - Thr  Ethical issues related to diagnosis and treatment of reproductive cancers  Group 9

Paper 2 due  Focus on the ethical implications of a reproductive topic (biotechnology) of your choice. This paper MUST have internal references and a complete bibliography. Word of caution—be sure your topic is not too extensive and that you use resources in addition to “on-line” entries. Grade will be based on content, references, bibliography, and class sharing.

Week 15: What factors determine sexual identity and orientation?
Dec 4 - Tue  Ethical issues related to gender (sexual identity, orientation, and attraction)  Group 10
Dec 6 - Thr  Discussion of book AS NATURE MADE HIM: THE BOY WHO WAS RAISED AS A GIRL  Group 11
Share highlights of 2nd paper.

Final exam:  This exam will focus on the material covered since the mid-term and the book AS NATURE MADE HIM: THE BOY WHO WAS RAISED AS A GIRL

Grade

Based on the following:
1.  Class attendance and participation  200 pts
2.  Exam on Gilbert book  200 pts
3.  Class presentation  200 pts
   Class and self evaluations will assist in determining this grade.
4.  Paper 1- video and book (plus course information)  200 pts
5.  Paper 2 selected topic (or optional book)  200 pts
6.  Final exam  200 pts
Earned points/possible points = % grade
90-100 = A
80-89 = B
70-79 = C
60-69 = D
below = F

Contract option: You may also contract for additional work such as an optional additional book or other type of course-related involvement (pt value from 100 to 200 pts). (Note: The contract can be evaluated on a written or verbal format - to instructor or to class).

Possible Optional Contract Books

THE HUMAN CLONING DEBATE by Arthur Caplan and Glenn McGee (editors), 2006

TRANGENDER WARRIORS: Making History From Jon of Arc to Dennis Rodman by Leslie Feinberg, 1996 (Feinberg is a well-known author and speaker. The book is a comprehensive coverage of a challenging topic.) AP -$15.00

AFTER DOLLY: The Uses and Misuses of Human Cloning by Ian Wilmut and Roger Highfield, 2006 AP $17.00


BEYOND CHOICE: Reproductive Freedom in the 21st Century by Alexander Sanger 2005

THE PIVOT OF CIVILIZATION IN HISTORICAL PERSPECTIVE: The Birth Control Classic by Margaret Sanger and Michael Perry 2001

WHO OWNS LIFE by David Magnus, Arthur Caplan, and Glenn McGee 2002

GOD AND THE EMBRYO: Religious Voices on Stem Cells and Cloning by Brent Waters and Ronald Cole-Turner

BAD BLOOD: The Tuskegee Syphilis Experiment, revised ed by James H. Jones 1993

REMAKING EDEN by Lee M Silver, 1998
LIBERAL EUGENICS: In Defense of Human Enhancement by Nicholas Agar, 2004

REDESIGNING HUMANS: Our Inevitable Genetic Future by Gregory Stock. 2003

GUARANTEE THE SEX OF YOUR BABY: Choose a Girl or Boy Using Today’s
   99.9% Accurate Sex Selection Techniques by Robin Elise Weiss and
   Jeffrey Steinberg. 2006

CHALLENGING NATURE: The Clash of Science and Spirituality at the New
   Frontier of Life by Lee M. Silver, 2006