

Human Reproductive Technologies: Science, Ethics, and Society

Demography 24

- TIME: Wednesday, 4–5 pm
- LOCATION: Unit 3 (residence hall), 2400 Durant Avenue, Room A10
- PROFESSOR: John R. Wilmoth
- OFFICE HOURS: Wednesday, 9-11 am; 2232 Piedmont Ave., Rm. 204
- TELEPHONE: 510-642-9688
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- WEBSITE: <http://demog.berkeley.edu/~jrw/24>
- READER: A reader is available for purchase at Copy Central, 2560 Bancroft Ave.
- DESCRIPTION: Human reproductive technologies and practices have changed rapidly over the past 50 years, and further changes are anticipated in the 21st century. This seminar will examine such developments from both historical and futuristic perspectives. Topics will include birth control, in vitro fertilization, sperm banks, surrogate parenting, and cloning. The science of such techniques will be reviewed at a level appropriate for a general audience. The social and ethical implications of changing reproductive technologies will also be discussed.
- GRADING: The course is graded on a P/NP basis. Your grade for the semester will depend entirely on attendance and class participation. In short, you *must* attend class regularly, and you *must* participate in class discussions in order to pass the course. More than one absence could lead to a grade of NP. Likewise, inadequate preparation (i.e., evidence that you have not done the readings) will be noted every week and will count as the functional equivalent of not attending class.

CALENDAR AND READINGS

January 21 Introduction (no readings)

January 28 History and technology of birth control

D. Malcolm Potts. "History of birth control." In: P. Demeny and G. McNicoll (eds.), *Encyclopedia of Population*, New York: MacMillan Reference USA, 2001, pp. 93-98 (vol. 1).

James W. Knight and Joan C. Callahan. "Birth control techniques: An historical overview" (Chapter 1, pp. 1-26) and "Contemporary contraceptive technologies for women" (Chapter 5, pp. 103-148). *Preventing Birth: Contemporary Methods and Related Moral Controversies*, Salt Lake City: University of Utah Press, 1989.

February 4 Overview of human fertility and reproductive technologies

Sheldon J. Segal. "Modern methods of contraception." In: P. Demeny and G. McNicoll (eds.), *Encyclopedia of Population*, New York: MacMillan Reference USA, 2001, pp. 170-174 (vol. 1).

Course notes on human reproduction, fertilization, and assisted reproductive technologies.

Paola S. Timiras, "Physiology of Human Growth and Development" (MCB 135E), Fall 2003.

(Source: <http://mcb.berkeley.edu/courses/mcb135e>)

American Society for Reproductive Medicine. *Patient's Fact Sheet*. Topics: (1) Infertility, (2) Reproductive Aging in Women, (3) Sexual Dysfunction, (4) Smoking and Infertility, (5) Stress and Infertility, (6) Weight and Fertility, (7) Spinal Cord Injury, (8) Unexplained Infertility. (Source: <http://www.asrm.org>)

February 11 Technology of assisted reproduction

Luigi Mastroianni, Jr. "Reproductive technologies: Modern methods." In: P. Demeny and G. McNicoll (eds.), *Encyclopedia of Population*, New York: MacMillan Reference USA, 2001, pp. 849-852 (vol. 2).

Bernard M. Dickens. "Reproductive technologies: Ethical issues." In: P. Demeny and G. McNicoll (eds.), *Encyclopedia of Population*, New York: MacMillan Reference USA, 2001, pp. 852-854 (vol. 2).

American Society for Reproductive Medicine. *Patient's Fact Sheet*. Topics: (1) In Vitro Fertilization, (2) Intracytoplasmic Sperm Injection, (3) Risks of In Vitro Fertilization. (Source: <http://www.asrm.org>)

Society for Assisted Reproductive Technology (SART). *A Patient's Guide to Assisted Reproductive Technologies*. (Source: <http://www.sart.org>) [Skim for main ideas, and use as reference.]

February 18 Historical opposition to birth control

Angus McLaren. "Neo-Malthusianism and the fertility transition" (Chapter 6, pp. 178-214) and "The triumph of family planning" (Chapter 7, pp. 215-251). *A History of Contraception: From Antiquity to the Present Day*, Oxford, UK: Blackwell, 1990.

February 25 Social consequences of modern birth control

Claudia Goldin and Lawrence F. Katz. "On the pill: Changing the course of women's education." *Milken Institute Review*, Second Quarter 2001, pp. 12-21.

Chu Junhong. "Prenatal sex determination and sex-selective abortion in rural central China." *Population and Development Review* 27(2): 259-281, 2001.

March 3 Assisted reproduction as an industry

Robert H. Blank. "The changing context of human reproduction" (Chapter 1, pp. 1-22), "Human genetic and reproductive intervention" (Chapter 2, pp. 23-55), and "Applying these techniques: Commercialization of human reproduction" (Chapter 3, pp. 56-86). *Regulating Reproduction*, New York: Columbia University Press, 1990.

March 10 Ethical and policy issues involving sperm banks and egg donors

David Plotz. Part 1: "An introduction to the Seed project" (<http://slate.msn.com/id/100331/>), Part 12: "The Rise of the Smart Sperm Shopper" (<http://slate.msn.com/id/104633/>), and Part 13: "The 'Genius Babies' Grow Up" (<http://slate.msn.com/id/106575/>). *Slate*. [Read online: not included with course Reader.]

New York State Task Force on Life and the Law (Advisory Group on Assisted Reproductive Technologies). *Thinking of Becoming an Egg Donor?* October 2002. (Source: <http://www.health.state.ny.us/nysdoh/taskfcr/index.htm>)

March 17 Ethical and policy issues involving in vitro fertilization

American Society for Reproductive Medicine. *Patient's Fact Sheet*. Topics: (1) Complication of Multiple Gestation, (2) Challenges of Parenting Multiples, (3) Multiple Gestation and Multifetal Pregnancy Reduction, (4) Preimplantation Genetic Diagnosis, (5) Genetic Screening for Birth Defects. (Source: <http://www.asrm.org>)

Carl H. Coleman and Barbara A. DeBuono. "Developing public policy on assisted reproductive technologies: Reflections on the work of the New York State Task Force on Life and the Law." *Fertility and Sterility* 73(1): 21-3, 2000.

Nancy K. Reame. "Making babies in the 21st century: New strategies, old dilemmas." *Women's Health Issues* 10(3): 152-159, 2000.

March 24 No class (Spring break)

March 31 No class, or possibly a film (TBA)

April 7 Social context of surrogate parenting

Helena Ragoné. "Introduction" (pp. 1-11) and "Surrogate mother programs" (Chapter 1, pp. 13-49). *Surrogate Motherhood: Conception in the Heart*, Boulder, CO: Westview Press, 1994.

April 14 Ethical and policy issues in surrogate parenting

New York State Task Force on Life and the Law. "The social and ethical dimension of surrogate parenting" (Chapter 5, pp.71-96) and "Devising public policy on surrogate parenting" (Chapter 7, pp. 115-127). *Surrogate Parenting: Analysis and Recommendations for Public Policy*, 1988.

Marilyn Strathern. "Still giving nature a helping hand? Surrogacy: A debate about technology and society." *Journal of Molecular Biology* 319(4): 985-93, 2002.

April 21 Science of cloning

George E. Seidel, Jr. "Cloning mammals: methods, applications, and characteristics of cloned animals" (Chapter 1, pp. 17-36). In: B. MacKinnon (ed.), *Human Cloning: Science, Ethics, and Public Policy*, Urbana, IL: University of Illinois Press, 2000.

Elizabeth Pennisi and Gretchen Vogel. "Clones: A hard act to follow." *Science* 288: 1722-1727, 2000.

Rudolf Jaenisch and Ian Wilmut. "Don't clone humans!" *Science* 291: 2552, 2001.

April 28 Ethical and policy issues in human cloning

Gregory E. Pence. "Will cloning harm people?" (Chapter 11, pp. 115-127). In: G. E. Pence (ed.), *Flesh of My Flesh: The Ethics of Cloning Humans*, Lanham, MD: Rowman & Littlefield, 1998.

Jorge L. A. Garcia. "Human cloning: Never and why not" (Chapter 5, pp. 85-103). In: B. MacKinnon (ed.), *Human Cloning: Science, Ethics, and Public Policy*, Urbana, IL: University of Illinois Press, 2000.

R. Alta Charo. "Cloning and the ethics of public policy" (Chapter 6, pp. 107-113). In: B. MacKinnon (ed.), *Human Cloning: Science, Ethics, and Public Policy*, Urbana, IL: University of Illinois Press, 2000.

May 5 Visions of the future

Gattaca (movie, 112 min.), Columbia Pictures, 1997.