

# COLQ-34-01 The Politics of the New Genetics (2<sup>nd</sup> version)

Spring 07  
Octagon 201  
T-TH: 10-11:20

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Office Hours: Tu: 1-3pm; Wed: 10-noon; or by appointment

## COURSE DESCRIPTION

New genetic technologies, from cloning and stem cell research to the production of genetically modified foods and novel genetic therapies, are changing our political and legal landscape. They are transforming the meaning of life and the boundaries of the human, and thus also our ideas about politics. The seminar will analyze some of the political and social implications of new genetic knowledge and novel biotechnologies. We will treat the changes these bring about as an opportunity to discuss and revisit key political categories—citizenship, property, reproduction, sovereignty, etc.— which are directly affected by advances in the life sciences. Our readings will combine sociological and legal analysis of the new genetics with some classic and contemporary texts of political philosophy.

## EVALUATION

### Analytical Assignments (75%)

Students are expected to write **3 short analytical essays** (3-4 pages single-space) during the course, and **1 research paper** (around 8 pages) to be submitted by the last day of classes.

- The three short analytical essays will be responses to questions presented by the instructor; students must develop an argument related to the readings and discussions of the class.
- The topic for the final research paper is free. The essay must explore *in some depth* one or several themes addressed in class. It must include some *original research* – e.g. sources and materials beyond the course syllabus – and offer a reasoned and structured argument. The research paper is due the last week of classes (May 13), but a draft outline of the paper – including a working thesis, and tentative structure and some of the sources the student plans to use must be submitted by May 1. Each short essay will represent 15% of the final grade. The research paper will account for 30%.

### Attendance and Class Participation (25%)

This is a reading- and discussion-intensive class. Students are expected to attend all classes and *be prepared to discuss the readings*. Multiple absences or habitual lateness will lower your final grade. Regular, punctual, and *active* presence is absolutely essential.

### \*\*\* Statement of Academic Integrity \*\*\*

Please review the College's Statement of Intellectual Responsibility (<http://www.amherst.edu/~deanfac/policies/sir.html>), as well as the information on academic honesty and plagiarism (<http://www.amherst.edu/~dos/plagiarism/index.html>). In writing the analytical assignments it is essential that you reference your sources and attribute quotes and ideas to their authors. If in doubt about the applicability of these norms, please ask.

### AVAILABILITY OF READINGS

All the required readings will be made available through Library Reserve and (in some cases) Blackboard as well. Recommended readings will not be made available online – but most, if not all, of them are available through the regular Library catalogue. Students should contact the instructor if they run into difficulties obtaining any of these materials. No book purchases are required.

### SCHEDULE OF TOPICS AND READINGS

#### 1/30 Introduction & Organizational Meeting

#### 2/1 Controlling Heredity (I): breeding/controlling organisms

Michael Pollan, chapter 4 “Desire: Control / Plant: The Potato,” in *Botany of Desire: A Plant's Eye View of the World* (Random House, 2002), pp. 181-238.

#### 2/6 Controlling Heredity (II): eugenics

D. B. Paul, chapter 5 (“Eugenic Solutions”) and 7 (“From Eugenics to Human Genetics”), in *Controlling Human Heredity: 1865 to the Present* (Humanities Press, 1995).

Recommended: Image archive on the American Eugenics Movement (Cold Spring Harbor Laboratory): <http://www.eugenicsarchive.org/eugenics/>

#### 2/8 Controlling Heredity (III): prenatal genetic testing and “designer babies”

Leon Kass, “Perfect Babies: Parental Diagnosis and The Equal Right to Life” in *Towards a More Natural Science: Biology and Human Affairs* (Free Press, 1985), pp. 80-98.

A. Buchanan et al., Ch. 5 (“Why Not the Best?”), in *From Chance to Choice: Genetics and Justice* (Cambridge: Cambridge University Press, 2000), 156-203.

Recommended: T. Duster, Chapter 5 (“The Increasing Appropriation of Genetic Explanations”) and chapter 7 “Eugenics by the Back Door,” in Duster, *Backdoor to Eugenics* (2<sup>nd</sup> Ed). Routledge.

#### 2/13 Race and Contemporary Genetics

N. Rose, Chapter 6 (“Race in the Age of Genomic Medicine”) in *The Politics of Life Itself*. (Princeton University Press, 2006)

Duster T., "Enhanced: Race and Reification in Science," *Science*, 18 February 2005 307: 1050-1051

Recommended: Duster, T., "Buried Alive: The Concept of Race in Science" in Goodman, AH, Heath, D and Lindee, MS (Eds.) *Genetic Nature/Culture: Anthropology and Science beyond the Two-Culture Divide* (University of California Press, 2003).

D. Beeson, T. Duster, "African-American Perspectives on Genetic Testing," Ch. 7, in J. S. Alper, et al, *The Double-Edged Helix: Social Implications of Genetics in A Diverse Society* (Baltimore: Johns Hopkins University Press, 2002), 151-174.

## **2/15 Biopower**

M. Foucault, *The History of Sexuality, An Introduction*, Vol. 1 (New York: Vintage, 1990 [1976]), Part 5 ("Right of Death and Power Over Life"), pp. 133-160.

Recommended: Giorgio Agamben, *Homo Sacer, Sovereign Power and Bare Life* (Stanford University Press 1998).

## **2/20 Therapy or Enhancement? (I)**

N. Hawthorne, "The Birth-mark," in *Tales and Sketches* (The Library of America 1996), pp. 764-780.

S. Gilman, *Making the Body Beautiful: A Cultural History of Aesthetic Surgery*, Chapter 1 ("Judging by appearances") and chapter 3 ("The racial nose").

Recommended: E. Kaw, "Medicalization of racial features: Asian American Women and Cosmetic Surgery," *Medical Anthropology Quarterly*, New Series, Vol. 7, No. 1 (Mar., 1993), pp. 74-89.

## **2/22 Therapy or Enhancement? (II)**

Film: *The Sound and the Fury*

Required reading: M.J. Sandel, "The Case against Perfection," *Atlantic*, April 2004: 51-62.

Recommended: A. Waldschmidt "Against selection of human life – people with disabilities oppose genetic counselling," *Issues in Reproductive and Genetic Engineering* 5(2):155-67, 1992.

## **3/1 Therapy or Enhancement? (III): Our Neurochemical Selves [first short essay due]**

Farah, M. J., Illes, J., Cook-Deegan, et al, "Neurocognitive enhancement: what can we do and what should we do?" *Nature Reviews Neuroscience* 5 (2004), pp. 421-425.

Levy, A. "Pill Culture Pops," *New York Magazine* (June 9, 2003)  
([http://www.newyorkmetro.com/nymetro/news/features/n\\_8763/index.html](http://www.newyorkmetro.com/nymetro/news/features/n_8763/index.html))

## **3/6 The Political Economy of the Life Sciences: A Revolution?**

Martin Kenney, "Biotechnology and the Creation of a New Economic Space," in A. Thackray (ed.) *Private Science: Biotechnology and the Rise of the Molecular Sciences* (University of Pennsylvania Press, 1998)

Nightingale, P and P. Martin (2004) "The Myth of the Biotech Revolution," *TRENDS in Biotechnology*, Vol.22(11): 564-69.

### **3/8 Mapping Human Genomes (I)**

Leslie Roberts, "Controversial From the Start," *Science* 16 February 2001; Vol. 291. no. 5507, pp. 1182 – 1188.

Collins, Francis S., Michael Morgan, Aristides Patrinos, 2003: "The Human Genome Project: Lessons from Large-Scale Biology," *Science* Vol. 300, 5617: 286 – 290

J.M. Jeffords and T. Daschle, "Political Issues in the Genome Era," *Science* 16 February 2001: Vol. 291. no. 5507, pp. 1249 – 1251 (<http://www.sciencemag.org/cgi/content/full/291/5507/1249>)

Recommended:

R. Lewontin, "The Dream of the Human Genome," Chapter 5 in *It Ain't Necessarily So: The Dream of the Human Genome and Other Illusions* (New York: NY Review of Books, 2001), 133-186.

The US Human Genome Project pages on ethical, legal and social issues at: <http://www.ornl.gov/hgmis/elsi/elsi.html>

### **3/13 Mapping Human Genomes (II)**

Michael Specter, "Decoding Iceland" *New Yorker*, January 18, 1999.

Pálsson, G and Rabinow, P (1999) "Iceland: The Case of a National Human Genome Project," *Anthropology Today*, Vol.15(5):14-18.

### **3/15 Property (I): Class cancelled**

**3/20 – 3/22 SPRING RECESS**

### **3/27 Property (II): Appropriating Genes and Organisms**

John Locke, chapter 9 "On Property," in *Second Treatise on Government* (1690)

D. Kevles, "Diamond v. Chakrabarty and Beyond: The Political Economy of Patenting Life" in A. Thackray (ed.) *Private Science: Biotechnology and the Rise of the Molecular Sciences* (University of Pennsylvania Press, 1998)

### **3/29 The Politics of Cloning (I): The Shock of Dolly**

Leon Kass, "The Wisdom of Repugnance," *New Republic* Vol. 216 Issue 22 (June 2, 1997) [http://www.catholiceducation.org/articles/medical\\_ethics/me0006.html](http://www.catholiceducation.org/articles/medical_ethics/me0006.html)

Richard Dawkins, "What is Wrong with Cloning?," in M. Nussbaum (ed.) *Clones and Clones* (Norton 1998)

#### **4/3 The Politics of Cloning (II): Policy Responses**

National Bioethics Advisory Commission, Chapter 4 ("Ethical Considerations) of *Cloning Human Beings*, June 1997 (<http://www.georgetown.edu/research/nrcbl/nbac/pubs.html>)

The President's Council on Bioethics, Chapter 6 ("The Ethics of Cloning-for-Biomedical-Research) of *Human Cloning and Human Dignity*, July 2002. (<http://www.bioethics.gov/reports/cloningreport/research.html>)

#### **4/5 The Stem Cell Debate (I)**

President's Bush declaration on stem cell research (August 2001):  
<http://www.whitehouse.gov/news/releases/2001/08/20010809-2.html>

Isasi R., and Knoppers B.M., 2006. "Mind the Gap: Policy Approaches to Embryonic Stem Cell and Cloning Research in 50 Countries," *European Journal of Health Law*, Volume 13, Number 1, 2006, pp. 9-25(17)

Recommended: Scott, Christopher Thomas, *Stem Cell Now: A Brief Introduction to the Coming Medical Revolution* (Plume, 2005).

#### **4/10 The Stem Cell Debate (II): New Partisan Alignments? [second short essay due]**

William Saletan, "Mortal Combat: The Exploding Politics of Biotechnology"  
(<http://www.slate.com/id/2153380/>)

Materials on California's proposition & stem cell research as a political campaign issue.

#### **4/12 "Gene therapy" and the perils of experimentation**

F. Anderson, "Gene Therapy: The Best of Times, the Worst of Times," *Science* 28 April 2000: Vol. 288. no. 5466, pp. 627 - 629

J. Savulescu, "Harm, Ethics Committees and the Gene Therapy Death," *Journal of Medical Ethics*, Vol.27 (2001): 148-150.

Recommended: Somia, N and Verma, I (2000) "Gene Therapy: Trials and Tribulations," *Nature Reviews Genetics*, Vol.1(2):91-99.

#### **4/17 Genetically Modified Foods (I): Controlling the Seed**

Per Pinstrup-Andersen and Ebbe Schioler, *Seeds of Contention: World Hunger and the Global Controversy over GM Crops* (2001): Introduction, chapter 1, 4&5, 7.

#### **4/19 Genetically Modified Foods (II): Resistance**

Documentary film: *Harvest of Fear*

Recommended: J. Lassen, et al., "Testing times – the reception of Roundup Ready Soya in Europe," (Chapter 10) in M. Bauer and G. Gaskell (eds.), *Biotechnology: The Making of a Global Controversy* (Cambridge, 2002), 279-312.

#### **4/24 New Social Movements and Genetic Constituencies**

A. Stockdale and S. F. Terry, "Advocacy Groups and the New Genetics," Ch. 4, in J. S. Alper, et al., *The Double-Edged Helix: Social Implications of Genetics in A Diverse Society* (Baltimore: Johns Hopkins University Press, 2002), 80-101.

N. Rose, *The Politics of Life Itself* (Princeton: Princeton University Press, 2007), Chapter 5 ("Biological Citizens"), pp. 130-154.

Recommended: V. Rabeharisoa and M. Callon, "The involvement of patients in research activities supported by the French Muscular Dystrophy Association," in S. Jasanoff, ed., *States of Knowledge: The Co-Production of Science and Social Order* (London: Routledge, 2004), 234-253.

#### **4/26 Pharmacogenomics (I)**

*[third short essay due]*

R. Service, "Going From Genome to Pill" *Science* 24 June 2005 308: 1858-1860

R. Snedden, (2000) "The Challenge of Pharmacogenetics and Pharmacogenomics," *New Genetics and Society*, Vol.19(2):145-64

Recommended: Nuffield Council on Bioethics (2003) *Pharmacogenetics: Ethical Issues*: [http://www.nuffieldbioethics.org/fileLibrary/pdf/pharmacogenetics\\_report.pdf](http://www.nuffieldbioethics.org/fileLibrary/pdf/pharmacogenetics_report.pdf) (chapter 4 & 5).

#### **5/1 Privacy and Surveillance in the DNA era**

*[final paper outline due]*

B. Steinhardt, "Privacy and Forensic DNA Data Banks," in D. Lazer, ed., *DNA and the Criminal Justice System* (Cambridge: MIT Press, 2004), 173-196.

#### **5/3 War and the new biological**

M. Cooper, "Pre-empting Emergence: the Biological Turn in the War on Terror," *Theory Culture Society* 23 (4), 2006: 113-135

#### **5/8 Are we entering an era of Posthuman Politics?**

F. Fukuyama, *Our Posthuman Future: Consequences of the Biotechnology Revolution* (Farrar Straus & Giroux, 2002): Chapter 1 ("A Tale of Two Dystopias"), chapter 5 ("Genetic Engineering"), and chapter 12 ("Policies for the Future").

Aristotle, Book I of *Politics* (Oxford World's Classics).

#### **5/10 Genetics & Contemporary Art -- Course Review**

*[final paper due May 13]*