

**Brendan Matz**  
**History of Biology and Biotechnology, 1850-present**  
**Examiner: Prof. Daniel Kevles**  
**Final List 3/9/07**

**I) General Histories**

- Allen, Garland. *Life Science in the Twentieth Century*. New York: John Wiley & Sons, Inc., 1975.
- Coleman, William. *Biology in the Nineteenth Century: Problems of Form, Function, and Transformation*. Cambridge: Cambridge University Press, 1977.

**II) Evolutionary Theory: Its Origins and Reception in Britain and America**

- Bowler, Peter. *Evolution: The History of an Idea*. Berkeley: University of California Press, 1989.
- Box, Joan Fisher. *R.A. Fisher: The Life of a Scientist*. New York: Wiley, 1978.
- Browne, Janet. *Charles Darwin: Voyaging*. New York: Alfred A. Knopf, 1995.
- . *Charles Darwin: The Power of Place*. Princeton: Princeton University Press, 2002.
- Darwin, Charles. *On the Origin of Species*. (on-line)
- . *The Descent of Man*. (on-line)
- Hofstadter, Richard. *Social Darwinism in American Thought*. Boston: Beacon Press, 1955.
- Larson, Edward. *Summer for the Gods: The Scopes Trial and America's Continuing Debate over Science and Religion*. New York: Basic Books, 1997.
- Mayr, Ernst and Provine, William. *The Evolutionary Synthesis: Perspectives on the Unification of Biology*. Cambridge: Harvard University Press, 1980.
- Ospovat, Dov. *The Development of Darwin's Theory: Natural History, Natural Theology, and Natural Selection, 1838-1859*, Cambridge: Cambridge University Press, 1981.
- Richards, Robert. *Darwin and the Emergence of Evolutionary Theories of Mind and Behavior*. Chicago: University of Chicago Press, 1987.
- Secord, James. *Victorian Sensation: The Extraordinary Publication, Reception, and Secret Authorship of Vestiges of the Natural History of Creation*. Chicago: University of Chicago Press, 2000.
- Sulloway, Frank J. "Darwin's Conversion: The 'Beagle' Voyage and Its Aftermath". *Journal of the History of Biology*, 15 (1982): 325-396.
- . "Darwin and his Finches: The Evolution of a Legend". *Journal of the History of Biology*, 15 (1982): 1-53.

**III) Genetics and Plant and Animal Breeding in Germany, Britain, and America**

- Allen, Garland. *Thomas Hunt Morgan: The Man and His Science*. Princeton: Princeton University Press, 1978.
- Berg, Paul and Singer, Maxine. *George Beadle, an Uncommon Farmer: The Emergence of Genetics in the 20<sup>th</sup> Century*. Cold Spring Harbor: Cold Spring Harbor

- Laboratory Press, 2003.
- Bowler, Peter. *The Mendelian Revolution: The Emergence of Hereditarian Concepts in Modern Science and Society*. Baltimore: Johns Hopkins University Press, 1989.
- Bugos, Glenn and Kevles, Daniel. "Plants as Intellectual Property: American Practice, Law and Policy in World Context." *Osiris* 7, 1992, pp. 75-104.
- Correns, Carl. *Die Bestimmung und Vererbung des Geschlechtes*. Berlin: Gebrüder Borntraeger, 1907.
- Darwin, Charles. *Variation of Plants and Animals Under Domestication. With a Foreward by Harriet Ritvo*. Baltimore: Johns Hopkins University Press, 1998.
- Derry, Margaret. *Bred for Perfection: Shorthorn Cattle, Collies, and Arabian Horses since 1800*. Baltimore: Johns Hopkins University Press, 2003.
- Fitzgerald, Deborah. *The Business of Breeding: Hybrid Corn in Illinois, 1890-1940*. Ithaca: Cornell University Press, 1990.
- Harwood, Jonathan. *Styles of Scientific Thought: The German Genetics Community, 1900-1933*. Chicago: University of Chicago Press, 1993.
- Kloppenborg, Jack Ralph. *First the Seed: The Political Economy of Plant Biotechnology, 1492-2000*. Cambridge: Cambridge University Press, 1988.
- Kohler, Robert. *Lords of the Fly: Drosophila Genetics and the Experimental Life*. Chicago: University of Chicago Press, 1994.
- Olby, Robert. *Origins of Mendelism*. Chicago: The University of Chicago Press, 1985.
- Orel, Vitězslav. *Gregor Mendel: The First Geneticist*. Oxford: Oxford University Press, 1996.
- Rader, Karen. *Making Mice: Standardizing Animals for American Biomedical Research, 1900-1955*. Princeton: Princeton University Press, 2004.
- Rosenberg, Charles. *No Other Gods: On Science and American Social Thought*. Baltimore: Johns Hopkins University Press, 1976 (especially chapters 8-12).
- Sturtevant, Alfred. *A History of Genetics*. New York: Harper and Row, 1965.
- Wood, Roger and Orel, Vitězslav. *Genetic Prehistory in Selective Breeding: A Prelude to Mendel*. Oxford: Oxford University Press, 2001.

#### **IV) Eugenics in Germany, Britain, and America**

- Allen, Garland. "The Eugenics Record Office at Cold Spring Harbor, 1910-1940: An Essay in Institutional History," *Osiris*, 2d ser., 2 (1986): 225-64.
- Bock, Gisela. *Zwangssterilization im Nationalsozialismus: Studien zur Rassenpolitik und Frauenpolitik*. Opladen: Westdeutscher Verlag, 1986.
- Kevles, Daniel. *In the Name of Eugenics: Genetics and the Uses of Human Heredity*. Berkeley: University of California Press, 1985.
- Kline, Wendy. *Building a Better Race: Gender, Sexuality, and Eugenics from the Turn of the Century to the Baby Boom*. Berkeley: University of California Press, 2001.
- Kühl, Stefan. *The Nazi Connection: Eugenics, American Racism, and German National Socialism*. New York: Oxford University Press, 1994.
- Koonz, Claudia. *Mothers in the Fatherland: Women, the Family, and Nazi Politics*. New York: St. Martin's Press, 1987.
- Larson, Edward. *Sex, Race, and Science: Eugenics in the Deep South*. Baltimore: Johns Hopkins University Press, 1995.

- Paul, Diane. *Controlling Human Heredity: 1865 to the Present*. Atlantic Highlands: Humanities, 1995.
- Proctor, Robert N. *Racial Hygiene: Medicine Under the Nazis*. Cambridge: Harvard University Press, 1988.
- Reilly, Philip. *The Surgical Solution: A History of Involuntary Sterilization in the United States*. Baltimore: Johns Hopkins University Press, 1991.
- Rosen, Christine. *Preaching Eugenics: Religious Leaders and the American Eugenics Movement*. Oxford: Oxford University Press, 2004.
- Stern, Alexandra. *Eugenic Nation: Faults and Frontiers of Better Breeding in America*. Berkeley: University of California Press, 2005.
- Weindling, Paul. *Health, Race, and German Politics between National Unification and Nazism, 1870-1945*. Cambridge: Cambridge University Press, 1989.
- Weingart, Peter. "German Eugenics between Science and Politics." *Osiris*, 2d ser., 5 (1989): 60-282.
- Weiss, Sheila Faith. *Race Hygiene and National Efficiency: The Eugenics of Wilhelm Schallmayer*. Berkeley: University of California Press, 1987.

#### **V) Molecular Biology and Biotechnology in Britain and America**

- Bud, Robert. *The Uses of Life: A History of Biotechnology*. Cambridge: Cambridge University Press, 1993.
- Charles, Daniel. *Lords of the Harvest: Biotech, Big Money, and the Future of Food*. Cambridge: Perseus Publishing, 2001.
- Creager, Angela. *The Life of a Virus: Tobacco Mosaic Virus as an Experimental Model, 1930-1965*. Chicago: University of Chicago Press, 2001.
- de Chadarevian, Soroya. *Designs for life: Molecular Biology after World War II*. Cambridge: Cambridge University Press, 2002.
- Fredrickson, Donald S. *Recombinant DNA Controversy, A Memoir: Science, Politics, and the Public Interest, 1974-1981*. Washington, D.C.: ASM Press, 2001.
- Hall, Stephen. *Invisible Frontiers: The Race to Synthesize a Human Gene*. Oxford: Oxford University Press, 1987.
- Holmes, Frederic Lawrence. *Meselson, Stahl, and the Replication of DNA: A History of "the Most Beautiful Experiment in Biology"*. New Haven: Yale University Press, 2001.
- Keller, Evelyn Fox. *The Century of the Gene*. Cambridge: Harvard University Press, 2000.
- Kevles, Daniel. "Ananda Chakrabarty Wins a Patent: Biotechnology, Law and Society, 1972-1980." *Historical Studies in the Physical and Biological Sciences* 25, 1994, pp. 111-135.
- Krimsky, Sheldon. *Biotechnics and Society: The Rise of Industrial Genetics*. New York: Praeger, 1991.
- . *Genetic Alchemy: The Social History of the Recombinant DNA Controversy*. Cambridge: MIT Press, 1982.
- Maddox, Brenda. *Rosalind Franklin: The Dark Lady of DNA*. New York: Harper Collins, 2002.
- Morange, Michel. *A History of Molecular Biology*. Cambridge: Harvard University

- Press, 1998.
- Olby, Robert. *The Path to the Double Helix*. New York: Dover, 1994.
- Rabinow, Paul. *Making PCR: A Story of Biotechnology*. Chicago: University of Chicago Press, 1996.
- Rheinberger, Hans-Jörg. *Toward a History of Epistemic Things: Synthesizing Proteins in the Test Tube*. Stanford: Stanford University Press, 1997.
- Watson, James. *The Double Helix*. New York: Dover, 1994.
- Wright, Susan. *Molecular Politics: Developing American and British Regulatory Policy for Genetic Engineering, 1972-1982*. Chicago: University of Chicago Press, 1996.