DANIEL J. KEVLES CURRICULUM VITAE AND BIBLIOGRAPHY August 2016

CURRICULUM VITAE

b. Phila., Pa., March 2, 1939; m. 61; c. 2 Modern American History, History of Science. B. A. Physics, Princeton, 60, Woodrow Wilson Fel., 61-62, Nat. Sci. Found. Fel. 62-64, Ph.D. hist., 64: Nat. Sci. Found. Fel., Oxford, 60-61, Asst. to Eric F. Goldman, White House Staff, summer 64; asst. prof., hist., Caltech 64-68; assoc. prof. 68, prof. 78 - 86, J.O. and Juliette Koepfli Professor of the Humanities, 86 - 01, exec. officer for humanities, 78-81; chair of the Caltech faculty, 1995-97; Old. Dom. Fel. Caltech, 66- 67; visiting research fellow, Univ. of Sussex, 76; visiting prof., Univ. of Pennsylvania, spring 1979; DeCamp Professor, Princeton University, spring 1999; Visiting Prof. of History, Yale University, 2000-2001; Stanley Woodward Professor of History, 2001-2015, emeritus, 2015-; professor of humanities, 2007-- 2009; director of graduate studies, Program in History of Science and Medicine, 2002-5, 2009-10; chair, 2005-2008, spring 2012; Senior Research Scholar, Yale Law School, 2014-15; Fellow, Charles Warren Center, Harvard University, 1981-82; Fellow, Center for Advanced Study in the Behavioral Sciences, Stanford, CA, 1986 -87; Directeur d'Etudes, Ecoles des Hautes Etudes en Sciences Sociales, Paris, April 1991; Visiting Scholar, Columbia Law School, Fall 2011, Adjunct Professor, spring 2012, 2015-16;; Visiting Prof., Columbia University, spring 2013; spring 2016; Interdisciplinary Fellow, NYU Law School, 2015-17; NEH Senior Fellow, 1981-82; Guggenheim Fellow, 1983; Fellow, Cullman Center for Scholars and Writers, New York Public Library, 2008/9; Andrew W. Mellon Visiting Senior Scholar, Mertz Library, New York Botanical Gardens, Jan.-March 2015; Phi Beta Kappa; P.E.N.; Author's Guild; Orgn. Am. Hist.; American Hist. Assn.; Hist. Sci. Soc.; Am. Assn. for the Adv. of Science (Fellow); Am. Academy of Arts and Sciences; American Philosophical Society; International Academy of the History of Science; Society of American Historians (Council Member, 2012-); National Historical Society Book Prize, 1979; Page One Award, 1985; Watson Davis Prize, 1999; George Sarton Medal, History of Science Society, 2001.

Stanley Woodward Prof. of History Emeritus Yale University Email: <u>daniel.kevles@yale.edu</u>

Current Address and Phone Number 11 Fifth Avenue Apt. 11U New York, NY 10003

BIBLIOGRAPHY

Books

- Living Properties: Making Knowledge and Controlling Ownership in the History of Biology, coeditor with Jean-Paul Gaudilliere and Hans-Joerg Rheinberger (Preprint No. 382; Berlin: Max Planck Institute for History of Science, 2009);
- *Inventing America: A History of the United States*, coauthor with Alex Keyssar, Pauline Maier, and Merritt Roe Smith (New York: W.W. Norton, 2002; 2nd edition, revised and expanded, 2006);
- Le Scienze Biologiche e la Medicina, coedited with Gilberto Corbellini, in Storia della Scienza, Vol. VIII, director, Sandro Petruccioli (Rome: Istituto della Enciclopedia Italiana, 2004), pp. 659-953;
- *The Baltimore Case: A Trial of Politics, Science, and Character* (New York: W. W. Norton, 1998; paperback, 2000). Published in Italy (Giovanni Fioriti Editore). Watson Davis Prize, History of Science Society, 1999; finalist, <u>L. A.</u> <u>Times</u> Science Book Prize.
- The Code of Codes: Scientific and Social Issues in the Human Genome Project, coeditor with Leroy Hood (Cambridge: Harvard University Press, 1992; paperback, 1993); published in Germany (Artemis and Winkler, Spring 1994); Japan (Ague Shotu-Sha, 1997). Honorable Mention, American Medical Writers Association 1993 Medical Book Awards;

- In the Name of Eugenics: Genetics and the Uses of Human Heredity (Alfred A. Knopf, 1985; paperback, University of California Press, 1986; paperback with new preface, Harvard University Press, 1995). Also published in England (Penguin), Japan (Asahi), Spain (Editions Planeta), France (Presse Universitaire de France). Finalist, 1985 American Book Award, Non-Fiction. Page One Award for serial version in *The New Yorker*.
- *The Physicists: The History of a Scientific Community in Modern America* (Alfred A. Knopf, 1978). Paperback: (Vintage, 1979; Harvard University Press, 1987,1995). Also published in France (Paris: Anthropos, 1988). Received National Historical Society Book Prize in American History, 1979. 1980 American Book Award Finalist, History.

Articles, Essays, Essay Reviews

"What's Manifest in the History of Science: Reflections on The History Manifesto," Isis, 107(June 2016), 315-323;

"If You Could Design Your Baby's Genes, Would You?" *Politico*, Dec. 9, 2015, online: also, in a different version, in *Issues in Science and Technology* (National Academy of Sciences), Spring 2016, pp. 43-59;

"Inventing the World: 1845," Scientific American, Dec. 2015, pp. 40-52;

"Spy Among the Atoms," Times Literary Supplement, Oct. 23, 2015, pp.5, 7.

"Medicare, Medicaid, and Pharmaceuticals: The Price of Innovation," Health Affairs, Winter 2015;

"Reflections on the History of Eugenics: Past, Present, and Future," *HSNS: Historical Studies in the Natural Sciences*, 44(Dec. 2014), 521-530;

"The Nobel Prize in Chemistry: Life in Sharp Focus," The New Yorker.com, Oct. 10, 2014;

"Inventions, Yes; Nature, No: The Birth of the Products-of-Nature Doctrine from the American Colonies to the U.S. Courts," *Perspectives on Science*, 23(Oct. 2014), 1-22;

"Cross Era's Dark Secret Resurfaces: A Cautionary Comment," *New Haven Independent*, Sept. 24, 2014, @ <u>http://www.newhavenindependent.org/index.php/archives/entry/cross_eras_dark_secret_resurfaces/;</u>

"Eugenics: Historical Aspects," *Encyclopedia of Bioethics*, Ed. Bruce Jennings (4th ed.; Farmington Hills, MI: Macmillan Reference USA, 2014), Vol. 2, 1080-1086;

*"Why and How [We Write the History of Science]: Reflections in an Autobiographical Key," *Science in Context*, 26(Dec. 2013), 627-638;

*"A Primer of A, B, Seeds: Advertising, Branding, and Intellectual Property in an Emergent Industry," *UC Davis Law Review*, 47(Dec. 2013), 657-678;

*"The Genes You Can't Patent," New York Review of Books, Sept. 26, 2013, pp. 83-84;

"Oppenheimer's Patriotic Duty," a review of Ray Monk's biography of J. Robert Oppenheimer, *Times Literary Supplement*, April 19, 2013;

*"Can They Patent Your Genes?" New York Review of Books, March 7, 2013, pp. 24-29;

**Not "A Hundred Millionaires": Federal Science in the Civil War and the Gilded Age," Issues in Science and Technology,

Winter 2013; also available at: http://www.issues.org/29.2/Daniel.html;

*"Genes, Railroads, and Regulation: Intellectual Property and the Public Interest," in Mario Biagioli and Jessica Riskin, eds., *Nature Engaged: Science in Practice from the Renaissance to the Present* (New York: Palgrave MacMillan, 2012), pp. 147-162;

*"The Ten Best American Presidents," *Newsweek: Special Commemorative Issue*, Oct. 2012, pp. 26-28; Oct. 2012, pp. 26-28;

*"Bridges to Somewhere: It's Time America Makes Good Again on Its Belief in Public Works and Public Spirit," *The Daily Beast*, Sept. 1, 2012; available at: http://www.thedailybeast.com/articles/2012/09/01/it-s-time-america-makes-good-again-on-its-belief-in-public-works-and-public-spirit.html

"Cultivating Art and Property in American Fruits," Smithsonian Magazine, 42 (July/August 2011), 76-82;

From Eugenics to Patents: Genetics, Law, and Human Rights," Annals of Human Genetics, (2011) 75,326-333;

"New Blood, New Fruits: Protections for Breeders and Originators, 1789-1930," in Mario Biagioli, Peter Jaszi, and Martha Woodmansee, eds., *Making and Unmaking Intellectual Property: Creative Production in Legal and Cultural Perspective* (University of Chicago Press, 2011), pp. 253-268;

"Eden and Empire: The Mercantile Origins of American Colonial Husbandry," The Yale Review, 99 (Jan. 2011), 104-126;

"An American Passion Revealed," [essay review of Philip Pauly's *Fruits and Plain*], *The New York Review of Books*, May 13, 2010, pp. 53-55.;

"Heredity Produced," Historical Studies in the Natural Sciences, 39(No.4, 2009), 482-490 [an essay review];

"Eugenics, the Genome, and Human Rights," *Medicine Studies*, I(No. 2, 2009), 85-93 [an expanded version of the article with the same title below];

"Martyred by Monsters," [essay review of Peter Pringle, *The Murder of Nikolai Vavilov: The Story of Stalin's Persecution of One of the Great Scientists of the Twentieth Century* (2008)], *The New York Review of Books*, Oct. 9, 2008, pp. 21-23; reprinted as "Nikolai Vavilov, martry russe de la génétique," *La Recherche*, mars 2009, pp. 56-60;

"The Contested Earth: Science, Equity, and the Environment," Daedalus, (spring 2008), pp. 80-95;

"Fruit Nationalism: Horticulture in the United States From the Revolution to the First Centennial," in *Aurora Torealis: Studies in the History of Science and Ideas in Honor of Tore Frängsmyr*, eds. M. Beretta, K. Grandin & S. Lindqvist (Sagamore Beach, MA: Science History Publications/USA, 2008), pp. 129-146;

"Foreword," to Nathaniel Comfort, ed., *The Panda's Black Box: The Intelligent Design Controversy* (Johns Hopkins U. Press, 2007), pp. ix-xv;

"The Poor Man's Atomic Bomb," New York Review of Books, April 12, 2007, pp. 60-63;

"Howard Temin: Rebel of Evidence and Reason," in Oren Harman and Michael Dietrich, eds., *Rebels, Mavericks, and Heretics in Biology* (Yale U. Press, 2008), pp. 248-264;

"Protections, Privileges, and Patents: Intellectual Property in American Horticulture," *Proceedings of the American Philosophical Society*, 152(June 2008), 207-13.

"Patents, Protections, and Privileges: Intellectual Property Protection in Animals and Plants," Isis, June 2007, pp. 323-331;

"Genes, Disease, and Patents: Cash and Community in Biomedicine," in Caroline Hannaway, ed., Biomedicine in the

Twentieth Century: Practices, Policies, and Politics (Amsterdam: IOS Press, 2008), pp. 203-216;

- "Max Delbruck," Dictionary of Scientific Biography (forthcoming, 2008);
- "What's New About the Politics of Science?" Social Research, 73(Fall 2006);
- "The Blame Game," *The New Republic*, Oct. 17, 2005, pp. 35-41 [essay review of Kai Bird and Martin Sherwin, *American Prometheus: A Biography of J. Robert Oppenheimer*];
- "Dr. Atomic: An opera about the moral complexities of Hiroshima," *Slate*, Oct. 19, 2005 [essay review of John Adams and Peter Sellars' opera about J. Robert Oppenheimer]
- "Scientists, Arms, and the State: J. Robert Oppenheimer and the Twentieth Century," *Berkeley Papers in the History of Science* (Berkeley, CA: Office for the History of Science and Technology, 2005);
- "The Gene Wars," *The New Republic*, May 2&9, 2005, pp. 33-37 [essay review of Oren Harman, *The Man Who Invented the Chromosome*];
- "Albert Einstein: Relativity, War, and Fame," in *A Century of Books: Princeton University Press, 1905-2005* (Princeton Univ. Press, 2005), pp. 115-24; a different version published as "Einstein's Devils," *Times Literary Supplement*, May 13, 2005, pp. 3-4;
- "L'Affaire Baltimore: Politique, Justice, et Accusation de Fraude Scientifique," in *Dictionnaire de la Pensée Médicale,* sous la direction de Dominique Lecourt (Paris: PUF, 2004), 12-17;

"International Eugenics," in *Deadly Medicine: Creating the Master Race* (Washington, D.C.: U.S. Holocaust Museum, 2004), pp. 41-60;

- "SciTech: The Forces Are With Us," Chronicle of Higher Education, Aug. 1, 2003, pp. B11-12;
- "The Strange Case of J. Robert Oppenheimer," New York Review of Books, Dec. 4, 2003, pp. 37-42;

"Big Chill in Biotechnology," Technology Review (July 2003);

"His Master's Voice," New York Review of Books, April 10, 2003;

Foreword, Matthew Josephson, Edison: A Biography (New York: History Book Club, 2003);

"Ownership and Identity: The Drive to Manipulate DNA Has Changed the Economy and the Law," *The Scientist*, Jan. 13, 2003,

- "Eugenics, the Genome, and Human Rights," in Michael Yudell and Rob DeSalle, eds., *The Genomic Revolution: Unveling the Unity of Life* (Washington, D.C.: Jospeh Henry Press, with the American Museum of Natural History, 2002), 147-154;
- "Cloning Can't Be Stopped," Technology Review, 105(June 2002), 40-43;
- "The Advent of Animal Patents: Innovation and Controversy in the Engineeering And Ownership of Life," in Scott Newman and Max Rothschild, eds., *Intellectual Property Rights and Patenting in Animal Breeding and Genetics* (New York: CABI Publishing, 2002)
- "Principles, Property Rights, and Profits: Historical Reflections on University/Industry Tensions," Accountability in Research, 8(2001), 12-26.

"Patenting Human Genes: The Advent of Ethics in the Political Economy of Patent Law," coauthored with Ari Berkowitz, *Brooklyn Law Review*, 2002; a longer version in David Magnus, ed., *Who Owns Life*? (2002)

"Of Mice and Money: The Story of the World's First Animal Patent," Daedalus, spring, 2002

"The Battle over Biotechnology," in Alan Brinkley and James McPherson, eds., *Days of Destiny* (New York: Agincourt Press, 2001).

"The Historical Contingency of Bioethics," Princeton Journal of Bioethics, III(Spring 2000), 51-58.

"Obligations, Judgment, and Data: Reflections on the Baltimore Case," Gerd Folkers et al, eds., <u>Sternwarten-Buch:</u> Jahrbuch des Collegium Helveticum (Zurich: Haffmans Sachbuch Verlag, 1999), pp. 261-268.

"The Particle's Over," Times Higher Educational Supplement Millennium Magazine, Dec. 24/31 1999, pp. 32.35.

"Eugenics Then and Genetics Now – Avoiding the Pitfalls of the Past," in Mary Hager, ed., <u>The Implications of the New</u> <u>Genetics for Health Professional Education: Proceedings of a Conference</u> (New York: The Macy Foundation, 1999), pp. 187-204.

"What They Do and Don't Know About Cancer," New York Review of Books, Sept. 23, 1999, pp. 14-21.

"Eugenics and Human Rights," British Medical Journal, 319 (Aug. 14, 1999), pp. 435-438.

"Les Lecons de l'affaire Baltimore," La Recherche, Sept. 1999, pp. 66-72.

"Darwin in Dayton," New York Review of Books, Nov. 19, 1998, pp. 61-63.

"La Biologie des Boucs Émissaires," co-authored with Bettyann H. Kevles, La Recherche, July/August 1998, pp. 58-63.

"Science in Transition: Searching for a Role in the Post Cold War Era, "<u>USA Today</u> [magazine], 127 (Sept. 1998), 26-29.

"Galton's Ghost in the New Reproductive Machinery: Gender and Eugenics, Then and Now," to be published in proceedings of a conference, University of Dijon, 2006.

"*Diamond v. Chakrabarty and* Beyond: The Political Economy of Patenting Life," in Arnold Thackray, ed. <u>Private Science:</u> <u>Biotechnology and the Rise of the Molecular Sciences</u>, (Philadelphia: University of Pennsylvania Press, 1998), pp. 65-79.

"Eugenics in North America," in Robert A. Peel, ed., <u>Essays in the History of Eugenics</u>, (London: The Galton Institute, 1998), pp. 208-226.

"A Time for Audacity: What the Past Has to Teach the Present about Science and the Federal Government," in Harold Shapiro and William G. Bowen, eds., <u>Universities and their Leadership</u>, (Princeton, NJ: Princeton University Press, 1998), pp. 199-239.

"Golden Events," The New Republic, February 2, 1998, pp. 34-39.

With Ari Berkowitz, "Patenting Human Genes: The Advent of Ethics in the Political Economy of Patent Law", *Humanities Working Paper 165 (January 1998).*

"Grounds for Breeding," Times Literary Supplement, January 2, 1998, 3-4.

"Scapegoat Biology," co-authored with Bettyann H. Kevles, Discover, October 1997, pp. 58-62.

"Big Science and Big Politics in the United States: Reflections on the Death of the SSC and the Life of the Human Genome Project," *HSPS: Historical Studies in the Physical and Biological Sciences*, 27(Part 2; 1997), 269-298.

"Violence and the Genetics of Human Behavior: Historical Reflections," James Grisolia, ed., *Biology and Sociology of Violence* (The Netherlands: Elsevier Science, 1997).

"The Shape of Things That Came--And Didn't: And How They Illuminate What's to Come," in <u>Science Technology</u>, and the Global Society (1996 Sigma Xi Forum Proceedings: 1997), 21-31.

"From Eugenics to Genetic Manipulation," John Krige and Dominique Pestre, eds., *Science in the Twentieth Century* (Reading, England: Harwood Academic Publishers, 1997).

"Endangered Environmentalists," New York Review of Books, February 20, 1997, pp. 30-35.

"Eric F. Goldman," Patricia H. Marks, ed., *Luminaries: Princeton Faculty Remembered* (Princeton, NJ: Princeton University Press, 1996).

"The Assault on David Baltimore," The New Yorker, May 27,1996, pp. 94-109.

With Gerald L. Geison, "The Experimental Life Sciences in the Twentieth Century," in Arnold Thackray, ed. *Constructing Knowledge in the History of Science, Osiris*, 2nd series, 10 (1995), 97-121, 233-42.

"Genetics, Race, and IQ: Historical Reflections from Binet to The Bell Curve," Contention, 5 (Fall 1995), 3-18.

"The Crisis of Contemporary Science: The Changed Partnership," Woodrow Wilson Quarterly, XIX (Summer 1995), 41-52.

"Pursuing the Unpopular: A History of Courage, Viruses, and Cancer," in Robert B. Silvers, ed., *Hidden Histories of Science* (New York: A New York Review Book, 1995), pp. 69-112.

"The Death of the Superconducting Supercollider in the Life of American Physics," "Preface, 1995" in Daniel J. Kevles, *The Physicists: the History of a Scientific Community in Modern America* (Cambridge: Harvard University Press, 1995), pp. ix-xlii.

"The X Factor: The Battle over the Ramifications of a Gay Gene," The New Yorker, April 3,1995, pp. 85-90.

"Ananda Chakrabarty Wins a Patent: Biotechnology, Law, and Society, 1972-1980," HSPS: *Historical Studies in the Physical and Biological Sciences*, 25: 1 (1994), 111 -136.

"The American Greens," The New York Review of Books, October 6, 1994, pp. 35-40.

"Pax Atomica," The New Yorker, January 10,1994, pp. 84-88.

"Historical Foreword," to Harry Robin, *The Scientific Image: From the Cave to the Computer* (New York: Harry N. Abrams, 1992; Paperback: W.H. Freeman, 1993).

"Cold Facts," The New Yorker, August 2, 1993, pp. 79-82.

"Nuclear Power: An American Failure," Humanities Working Paper 155, June 1993.

"The Enemies Without and Within: Cancer and the History of the Laboratory Sciences," *Humanities Working Paper 154*, March 1993.

"Editorial: Biotechnology, Ethics, and Society," Biotechnology, March 1993, p. S11.

"Heisenberg's Uncertainties," The New Yorker, March 8, 1993, pp. 102-107.

"Can We Help Who [sic] We Love?" [on the biology of homosexuality], BUZZ, Jan./Feb. 1993, pp. 17-18.

"Renato Dulbecco and the New Animal Virology: Medicine, Methods, and Molecules," *Humanities Working Paper 151* (June 1992), Journal of the History of Biology, 26 (Fall 1993), pp. 409-442.

"Controlling the Genetic Arsenal," in *The Wilson Quarterly*, Spring 1992, pp. 68-76; also in other versions under varying titles: "Eugenics and the Human Genome Project: Is the Past Prologue?" *Contention*, 2 (Spring 1993), pp. 21 -38; in Mark Lappe, ed., *Justice and the Genome* (University of California Press, forthcoming); *Intersezioni: Rivista di storia delle idee*, XII (August, 1993); *Los Angeles Times Magazine*, Nov. 8,1992, pp. 28-33; *San Francisco Chronicle Sunday Magazine; National Forum*, Spring 1993.

"To be or not to be Big Science," Science et Vie, Dec.1992, pp. 150-156.

"Some Like It Hot," New York Review of Books, xxxix (March 26, 1992), 31 -39.

"La Tunique de Superman, " Les Cahiers de Science et Vie, Feb. 1992, 86-91.

"Plants as Intellectual Property: American Law, Policy, and Practice in World Context," co-authored with Glenn Bugos, *Osiris*, 2nd Series, Vll (1992), 119-48.

"Foundations, Universities, and Trends in the Physical and Biological Sciences, 1900-1991," *Daedalus*, p. 121 (Fall 1992), pp. 195-235.

"The Final Secret of the Universe'?" New York Review of Books, May 16, 1991, pp. 27-32.

"Vital Essences and Human Wholeness: The Social Readings of Biological Information," *Southern California Law Review*, 65 (Nov.1991), pp. 255-78.

"Begetting Big Science," New York Review of Books, Oct. 25, 1990, pp. 6-10.

"The Influence of Eugenics on Human Genetics," Human Genome Project: Ethics, (Bilbao: Foundation BBV, 1992), 365-76.

"Principles and Politics in Federal R&D Policy, 1945-1990: An Appreciation of the Bush Report," "Preface" to the 40th Anniversary Edition of Vannevar Bush, *Science the Endless Frontier* (National Science Foundation, 1990), pp. ix-xxv, reprinted in *Nonlinear Science Today*, 2 (No. 1, 1992), 14-24.

"Paradise Lost," [on global warming], New York Review of Books, XXXVI (Dec. 21,1989), 32-38.

"From Pathology to Policy" [science and ethics], *The Times Literary Supplement*, Sept. 29-Oct. 5, 1989, pp. 1060, 1070.

"Cold War and Hot Physics: Science, Security and the American State, 1945-56," *HSPS: Historical Studies in the Physical and Biological Sciences*, 20 (No. 2; 1990), pp. 239-264 [a melding of the two articles below].

"Cold War and Hot Physics: Reflections on Science, Security, and the Postwar American State," California Institute of Technology Humanities Working Paper No.135, Sept. 1988; *Proceedings of the International Conference on the Restructuring of the Physical Sciences, in Europe and the United States, 1945-1960*, eds., Michelangelo de Maria et al, (World Scientific, 1989), pp. 1 -30.

"K,S2: Korea, Science, and the State," in Peter Galison and Bruce Hevly, eds., Big Science: *The Growth of Large Scale Research* (Stanford University Press,1992), pp. 312-333.

With J. L. Heilbron, "Finding a Policy for Mapping and Sequencing the Human Genome: Lessons from the History of Particle Physics," *Minerva*, XXVI (Fall 1988), 299-314.

"Las Instituciones Cientificas Americanas, 1890-1930. La Organizacion del la Ciencia en una Cultura Practica y Pluralista," La Junta Para Amplicacion de Estudios e Investigaciones Científicas 80 Anos Despues, 1907- 1987: Simposio Intemacional, Madrid, 15-17 de deciembre de 1987, Jose Manuel Sanchez Ron, Coordinator, (2 vols; Madrid: Consejo de Investigaciones Científicas, 1988), 1, 209-228.

With J.L. Heilbron, "Science and Technology in U.S. History Textbooks: What's There-and What Ought to Be There," *Reviews in American History*, June 1988, pp.173-185; The History Teacher, 21 (Aug. 1988), 425-38; *Chronicle of Higher Education*, 2/15189.

"Becoming a Great Naturalist [on Darwin scholarship and the Darwin Correspondence, Vols. I and 11], *The New Yorker*, Dec. 7, 1987, pp. 171-190.

"Physics and National Power: 1870-1930," in Stanley Goldberg and Roger H. Stuewer, eds., *The Michelson Era in American Science*, 1870-1930 (AIP Conference Proceedings 179; NY: American Institute of Physics, 1988), 248-257.

"Julian Huxley and the Popularization of Science," in C. Kenneth Waters and Albert Van Helden, eds., *Julian Huxley: Biologist and Statesman of Science* (Houston: Rice University Press, 1992).

"R&D and The Arms Race: An Analytical Look," in E. Mendelsohn, M.R. Smith, and P. Weingart, eds., Science, Technology, and *The Military: Sociology of Science Yearbook*, Vol. XII (Dordrecht: Kluwer, 1988), 465-480.

"Unholy Alliance," The Sciences, Sept./Oct. 1986, pp. 25-30. Also published in a different version as "Genetic Progress and Religious Authority," in Kevin Byrne, ed., *Responsible Science* (Harper & Row, 1986).

"Annals of Eugenics--A Secular Faith," *The New Yorker*, Part 1, Oct. 8, 1984, pp. 51 -115; Part II, Oct 15, 1984, pp. 52-125; Part III, Oct. 22, 1984, pp. 92-151; Part IV, Oct. 29, 1984, pp. 51 -117. Recipient, Page One Award, N.Y. Newspaper Guild, for Excellence in Science Reporting, Magazines.

"The Jeffersonian Contradiction: Science, Technology, and American Attitudes," Progress, Nov.-Dec. 1983, pp. 8-9.

"Statistical Data and the History of Women: A Critique of Margaret Rossiter's *Women Scientists in America: Struggles and Strategies to 1940*, California Institute of Technology Humanities Working Paper 79 (March 1983), published in Isis.

"After Asilomar: The Politics of the Biotech Boom," The Sciences, 22 (October 1982), 32-34.

"The Professions of Science in America: Their Ambivalent History," California Institute of Technology Humanities Working Paper 67 (November 1981), published as "American Science," in *The Professions in American History*, ed., Nathan D. Hatch (Notre Dame, Ind: Notre Dame University Press, 1988).

"The British and American Genetics Communities, 1900-1930: A Quantitative Comparison," California Institute of Technology Social Science Working Paper 382 (May 1981).

"Genetics in the United States and Britain, 1890-1930: A Review with Speculations," Isis, 71 (1980), 441-455; also in Charles Webster, ed., *Biology, Medicine, and Society, 1840-1940*, (Cambridge University Press, 1982).

"The Sciences in America, Circa 1880," Science, 209 (July 4, 1980), 217-32 (with J. Sturchio and P. T. Carroll).

"Reply to David Joravsky," in "Science and Society: An Exchange," *New York Review of Books*, XXVI (Oct. 11, 1979), 48-49.

"The Health of Science," Harper's, August 1979, 26-31.

"Eugenics in the United States and Britain, 1890: A Comparative Analysis," Humanities Working Paper No. 19, December 1978, delivered at the AAAS meetings, Houston, Texas, January 5, 1979.

"Robert A. Millikan, " Scientific American, 240 (Jan. 1979), 142-151.

"Notes on the Politics of American Science," Science, Technology, and Human Values, No. 24 (June 1978), 40-44.

Entries in the *Dictionary of Scientific Biography* "Joseph S. Ames," I, 132-33; "Carl Barus," I, 490-91; "Dayton C. Miller," IX, 386-87; "Robert A. Millikan," XI, 395-400; "Henry A. Rowland," XI, 577-79; "Wallace Clement Ware Sabine," XI, 54.

"Physics, Physicists and the Revolt Against Science," Physics Today, 31 (February 1978), 23-30.

"The National Science Foundation and the Debate Over Postwar Research Policy, 1942-45: A Political Interpretation of *Science--The Endless Frontier*," Isis, 68 (March 1977), pp. 5-26.

"The Physics, Mathematics and Chemical Communities in the United States, 1870-1915: A Statistical Survey," California Institute of Technology Social Science Working Paper No. 136, March 1977.

"Physics, Mathematics, and Chemistry in the United States, 1870-1915: A Comparative Analysis," California Institute of Technology Social Science Working Paper No. 139, 1976, published in Alexandra Oleson and John Voss, eds., *Knowledge in American Society*, 1860-1920 (Johns Hopkins University Press, 1979), 139-172.

"The Physics, Mathematics and Chemical Communities in the United States, 1870-1915: A Preliminary Statistical Report," California Institute of Technology Social Science Working Paper No. 94, August 1975.

"Scientists, the Military, and the Control of Postwar Defense Research: The Case of the Research Board for National Security, 1944-46," *Technology and Culture*, 16 (Jan.1975), 20-47.

"Patent Policy, Technological Innovation and Government Contracts: A Selective Critique," co-authored with Dale Collins and John Ferejohn, California Institute of Technology Social Science Working Paper No. 56, 1974.

"FDR's Science Policy," Science, 183 (March 1, 1974), 798-800.

"The National Research Fund: A Case Study in the Industrial Support of Academic Science," co-authored with Lance E. Davis, *Minerva*, Xll (April 1974), 207-20.

"On the Moral Dilemmas of the American Chemist: Some Notes From History," in William Beranek, Jr., ed., *Science, Scientists and Society* (Bogden and Quigly, 1972), 3-17.

"Towards the Annus Mirabilis: Nuclear Physics Before 1932," The Physics Teacher, 10 (April 1972), 175-81.

"Federal Legislation for Engineering Experiment Stations: The Episode of World War One," *Technology and Culture*, 12 (April 1971), 182-89.

"Into Hostile Political Camps: The Reorganization of International Science in World War 1," *Isis*, 62 (Spring 1971), 47-60. Reprinted in Nathan Reingold, ed., *Science in America Since 1820* (N.Y.: Science History Publications; London: Dawson, 1976).

"On the Flaws of American Physics: A Social and Institutional Analysis," in George H. Daniels, ed., *Nineteenth-Century American Science* (Northwestern University Press, 1972), pp. 133-151.

"George Ellery Hale and the Role of a Central Scientific Institution in the United States," in Helen Wright, et al, eds., *The Legacy of George Ellery Hale* (MIT Press, 1972), 273-82.

"Flash and Sound in the AEF: The History of a Technical Service," Military Affairs, 33 (December 1969), 374-84.

"Robert A. Millikan: Spokesman for Science in the Twenties," Engineering and Science, 32 (April 1 969), 17-22.

"George Ellery Hale, the First World War, and the Advancement of Science in America," Isis, 59 (Winter 1968), 427-37. Reprinted in the Bobbs-Merrill Reprint Series in the History of Science. Reprinted in Nathan Reingold, ed., *Science in America Since 1820* (N.Y.: Science History Publications; London: Dawson, 1976).

"Testing the Army's Intelligence: Psychologists and the Military in the First World War," *Journal of American History*, LV (December 1968) 565-81.

"Science in the Gilded Age," The California Institute of Technology Quarterly, 8 (Fall 1966), 13-20.

MISCELLANEOUS PUBLICATIONS AND REPORTS

- "A Sesquicentennial History of the National Academy of Sciences: A Report Concerning Its Approach, Contents, and Shape and on Relevant Documentary Sources, especially in the Archives of the Academies," in collaboration with Peter Westwick, prepared for and submitted to the President of the National Academy of Sciences, November 30, 2011;
- "Il Progetto Genoma Umano," in *Storia della Scienza*, Vol. IX: *La Grande Scienza* (Rome: Istituto della Enciclopedia Italiana, 2004), 805-810;
- "Historical Reflections on Research in Human Behavioral Genetics," a report to the Committee on Genetics, Health, and Behavior of the Institute of Medicine, National Academy of Science, July 1997.
- With Diana Barkan, "On the Origins and Development of Modern Scientific Instruments," A Report Prepared for the Alfred P. Sloan Foundation, Nov. 30, 1994.
- "The Impact of University Patenting on the Dissemination and Use of Scientific Research: A Historical Sketch," Report to the United States Congress, Office of Technology Assessment, September 1993.

"Eugenics," in *Keywords*, eds., Evelyn Fox Keller and Elisabeth A. Lloyd (Cambridge: Harvard University Press, 1992), pp. 92-94.

- "Eugenics," in Encyclopedia of Bioethics, (Macmillan, 1992), pp. 92-94.
- With J.L. Heilbron, "Mapping and Sequencing the Human Genome: Considerations from the History of Particle Accelerators," Report to the U.S. Congress, Office of Technology Assessment, Oct. 1987.
- *Guide to the Microfilm Edition of the George Ellery Hale Papers*, California Institute of Technology and the Carnegie Institution of Washington, 1968.
- Ed., The Papers of George Ellery Hale, (100 reels; National Historical Publications Commission, 1 968).

Book reviews: in American Historical Review, Isis, Engineering and Science, Journal of American History, Science, Political Science Quarterly, 4S: Society for the Social Studies of Science Newsletter, Los Angeles Times, Chronicle of Higher Education, New York Times Book Review, The Sciences, Agricultural History, The New Republic, The New Yorker, Boston Globe, Technology Review, Journal of Economic History, Nature, Times Literary Supplement, London Review of Books, New York Review of Books, Bulletin of the History of Medicine, Washington Post Book World, American Scientist, Quarterly Review of Biology, Historical Studies in the Natural Sciences. Contributor: World Book Encyclopedia, The American Biographical Encyclopedia, Dictionary of American History.

Consultant and editor: R. Cargill Hall, Lunar Impact, A History of Project Ranger (NASA, 1977).

Adviser and Contributor, The Oxford Companion to United States History (2001)

Senior Consultant and Contributor, Oxford Companion to the History of Science (1999-2002)

WORK IN PROGRESS

Vital Properties: A History of Innovation and Ownership in the Stuff of Life, to be published by Alfred A. Knopf;

With Bettyann Kevles, Tomorrow: An American Place and Promise (to be published by Yale University Press);

With Ruth Schwartz Cowan and Peter Westwick, A Sesquicentennial History of the National Academy of Sciences;

The Contested Earth: From Walden Pond to Global Warming.

PROFESSIONAL ACTIVITIES

Advisory Board, Project on Citizen Science, University of Geneva (2014-2017); Consultant, National Academy of Sciences Sesquicentennial History Project, 2011-2013; Executive Board, Society of American Historians, 2011-Consultant, book project (Harry Evans, They Made America) and American Experience TV series based on the book (book published Oct. 2004; programs broadcast Nov. 2004); Member, Executive Committee, The Collected Papers of Albert Einstein, 2003-Panel on Restructuring Training in Journalism, Columbia School of Journalism, 2004; Advisory Committee, Sloan Foundation Book Program, 2004-; Advisory Board, National Nanotechnology Infrastructure Network, 2004; Panel on Intellectual Property, Genomics, and Proteomics, National Research Council, 2003-2005 Visiting Historian, Rockefeller University, 2002-4 Principal Investigator, Updated History of the Jet Propulsion Laboratory, 1999-2004 Consulting Editor, Books, American Scientist, 1999-2008; National Cancer Policy Board, 2001-2003 Panel on Science, Technology, and the Law, National Research Council, 2000-2006;. Fellowship Selection Committee, The Center for Scholars and Writers, New York Public Library, 1999-2000, 2005-. Advisory Council, National Institute of General Medical Sciences, 1998-2001. Chair, Selection Committee for History and Philosophy of Science, James S. McDonnell Centennial Fellowships, 1997-98. Visiting Committee, History of Science Department, Harvard University, 1995-2003 American Institute of Physics, Advisory Committee on the History of Physics, 1984-; chair, 1993-1994. Sarton Lecturer, American Association for the Advancement of Science, May 1985. Distinguished Lecturer, History of Science Society, 1992. Educational Advisory Board, Guggenheim Foundation, 1986--1994. Associate Editor, HSPS: Historical Studies in the Physical and Biological Sciences, 1986-. "Editorial Board," The American Experience in the Twentieth Century. History Advisory Committee, NASA, 1987-1989. Joanne Goodman Lecturer, The University of Western Ontario, October 1993. Visiting Committee, School of Historical Studies, Institute for Advanced Study, Princeton, 1993. Member, Visiting Committee, History of Science Department, Harvard University, 1994-1997. The Philip Maurice Deneke Lecturer, Oxford University, 1994. Advisory Board, "A Science Odyssey," WGBH Series, 1996-1998.

Magee Lecturer, Science and Human Values, University of Puget Sound, March 1997. History of Science Society.

President, West Coast Branch, 1978-1980, Council Member, 1989-90. Advisory Editor, Isis, 1981 -1983; 1991 -1993. Council member, 1980-1982. Committee on Publications, 1984-1988 (chair, 1988). Committee on Honors and Prizes, 2001- 2004 Nominating Committee, 2006-2008;

Advisory Committee on Scientific Autobiography, Sloan Foundation, 1980-1990.

Chairman, Advisory Council on the History of Science, Princeton University, 1982-1988; Member, Visiting Committee, History Department, 1988-1994.

US National Committee, International Union for the History and Philosophy of Science, 1983-1989. (Vice chair, 1988; chair, 1989).

Chairperson, Section L, AAAS, 1983-1985.

Principal Investigator, Project on the History of the Jet Propulsion Laboratory, 1974-1979.

GRANTS AND FELLOWSHIPS

Mellon Visiting Scholar, LuEsther Mertz Library, New York Botanical Garden, Jan-March 2015; Fellowship, Cullman Center for Scholars and Writers, NY Public Library, 2008-2009; Senior Scholars Award, National Science Foundation, 2008-2010; Sloan Foundation Grant, 1994-1998; National Science Foundation Grant, 1989-90 (jointly with Leroy Hood, for the lecture series on Ethical and Policy Issues Arising from the Human Genome Initiative). Mellon Foundation Grant, 1989-1993; 1993-1996; 1996-2001; 2001-2007; 2007-2012; National Science Foundation Grant, 1990-1992. Resident Fellow, Center for Advanced Study in the Behavioral Sciences, Stanford, CA, 1986-1987. Sloan Foundation Research Grant, 1985-87. Sloan Foundation Officer Grant, 1982-84. John Simon Guggenheim Foundation Fellow, 1983. National Endowment for the Humanities Senior Fellowship, 1981 -82. National Science Foundation Research Grant, 1978-80. American Council of Learned Societies, Grant-in-Aid, 1973. National Science Foundation Research Grant, 1973-74. National Science Foundation Research Grant, summer, 1965.

Yale Activities

Courses Taught

Science and Technology in the U.S. (from Franklin to Facebook), lecture course; The Engineering and Ownership of Life (graduate and law course) Reconstruction from the Right, the U.S. in the 1970s (graduate and law course) Genetics, Reproduction, and Society Science, Arms, and the State Nuclear America Introduction to the History of Science (graduate course) Science and Technology in the Twentieth Century (graduate course) Science and Technology in American Society (graduate course)

Administration

FAS Review Committee, 2009/2010; Co-director, with Frank Snowden, Mellon Syllabus Development Project, 2009 Tenure Appointments Committee, Social Sciences, 2006-7 Chair, Program in History of Medicine and Science, 2005-2008; Director of Graduate Studies, Program in History of Medicine and Science, 2002-2005; 2009-2010; Committee on Publications, Yale University Press, 2002-2011 Search Committee for Director, Yale University Press, 2002 Honorary Degrees Committee, 2002-2012; Environmental Studies Advisory Committee, 2001-2002; fall 2003; 2004-7; 2010-Chair, Advisory Committee to the Provost on History of Science and Medicine, 2001-2002 Subcommittee on Science Education, Committee on Yale College Education, 2001-2002 Provost's Ad Hoc Advisory Committee Science and National Security, 2003-Chair, History Dept. Search for a Historian of the Physical Sciences, 2001-2, 2003, 2009; Chair, History Dept., Graduate Admissions in U.S History, 2002. Health Studies Advisory Committee, 2005-7.

CALTECH ACTIVITIES

Courses Taught

H2	Introduction to American History
En 1x	Film and Fiction as Literature and History
H6	American Life and Thought
H115	Science, Weapons, and National Security
H152	The Era of Roosevelt and Truman
H153ab	America Since World War II
H157	Science in America
H156	Topics in the History of Science
H159	Topics in the History of Science and Society
H161	The Nuclear Weapons Issue: History and Politics

CALTECH, ADMINISTRATION AND COMMITTEES

Undergraduate Student Relations Committee Chairman, President's Advisory Committee on the Bookstore Advisory Committee on the Selection of the Provost (1969, 1979, 1982) Advisory Committee on the Selection of the Humanities Division, Chairman (1970, 1978) Academic Policies Committee Standing Committee on Special Laboratories Faculty Board (2 terms) Subcommittee on Sponsored Student Research Nominating Committee Patents Committee President's Fund Committee Executive Officer for Humanities (1978-81) Educational Computing Committee Faculty Committee on JPL Faculty Committee on Classified Research Academic Freedom and Tenure Committee, Vice Chair, (1987-1989) Vice Chairman of the Faculty (1989-91) Committee on Aims and Needs Chairman of the Faculty (1995-1997)

MISCELLANEOUS

Head, Caltech Program in Science, Ethics and Public Policy, Fall 1987-- June 2001.

Organizer of "Symposium on Women and Minority Groups in American Science and Engineering," held at Caltech, December 8,1971.

Advisor, Clean Air Car Project.

Co-organizer (with Leroy Hood), Seminar Series on Issues in Ethics and Policy Arising from the Human Genome Initiative, 1989-90.

August 2016