**SUSAN WRIGHT**

**CURRICULUM VITAE**

**OFFICE ADDRESS:**  Politics Department, University of California, Santa Cruz, 1156 High Street, Santa Cruz, CA 95060

**TELEPHONE/EMAIL:** 831-688-1716

**EDUCATION:** B.A. (Physics) Oxford University, 1961

M.S. (Physics) University of Michigan, 1963

Ph.D. (History of Science) Harvard University, 1975

**HONORS AND AWARDS:**

**Grants, Fellowships, and Awards:**

National Science Foundation Research Grant, 2011-2015

University of Michigan, IRWG, Scholarly Activities Grant, February 2008.

University of Michigan, IRWG, Gender Turns Fund, December 2006.

University of Michigan, IRWG, OVPR and co-sponsors, Grant for Conference, *Gender and Security: Bridging the Gulf between Theory and Practice,* August, 2006.

Princeton University, Research Contract, *The Biodefense Challenge: How Should the Life-Science Research Community Respond?* Supported by the Carnegie Corporation, 2003-2006

New England Biolabs Foundation Research Grant, 2003

Ford Foundation Research Grant, 1998-2000

## MacArthur Foundation Research Grant, 1997-2000

New England Biolabs Foundation Research Grant, 2000

Faculty Recognition Award, Rackham School of Graduate Studies, 1998

Research Grant, Office of the Vice President for Research, University of Michigan, 1998-2002

New England Biolabs Foundation Research Grant, 1996

American Institute of Indian Studies Research Grant, 1994

MacArthur Foundation, Research and Writing Fellowship, Program on Peace and International Cooperation, 1993

Faculty Recognition Award, Rackham School of Graduate Studies, 1993

University of Michigan Excellence in Education Award, 1993

Research Grant, Office of the Vice President for Research, University of Michigan, 1992.

Research Grant, Office of the Vice President for Research. University of Michigan, 1990.

National Science Foundation Scholars Award, 1985-86

National Science Foundation Research Grant, 1981-83

National Science Foundation Research Grant, 1979-81

Rockefeller Humanities Fellowship, 1979-80

**Fellowships a Awards During Graduate and Undergraduate Studies:**

Danforth Foundation Graduate Fellowship, History of Science, 1970-73

National National Science Foundation Graduate Fellowship, History of Science, 1968-70

University Fellowhip, History of Science, Harvard, 1967-68

Teaching Fellowship, History of Science, Harvard, 1965-66

Swedish Institute Fellowship in Theoretical Physics, 1963-64

Phi Beta Kappa, Physics, 1963

Teaching Fellowship in Physics, University of Michigan, 1961-63

State Scholarship in Physics, Oxford University, 1958-61

**APPOINTMENTS:**

Researcher, History of Science and International Relations, Politics Department, University of California, Santa Cruz, 2011-

Research Scientist Emerita, Institute for Research on Women and Gender, University of Michigan, 2006-

Associate Research Scientist, 1998-2002 and Research Scientist, 2002-2006, Institute for Research on Women and Gender, University of Michigan

Lecturer Emerita, History of Science, Residential College, University of Michigan, 2005-

Lecturer and Chair Science and Society Program, Residential College, University of Michigan, 1979-2005

Lecturer, Political Science, University of Michigan, 1991-1994

Visiting Professorial Fellow, University of Wollongong, New South Wales, Australia, February-July, 2007.

Consultant, History of Biotechnology, Princeton University, Woodrow Wilson School, Program on Science and Global Security, 2003-2006.

Senior Research Fellow, United Nations Institute for Disarmament Research, 1998-1999

al Scienc Visi Visiting Fellow, School of History and Philosophy of Science, The University of South Wales, Sydney, Australia, 1986

Project Director, Doctor of Arts Program in Humanities, University of Michigan, 1978-79

Tutor in History of Science, Harvard University, 1965-6

Research Associate, Commission on College Physics, University of Michigan, 1963-64

**BOOKS:**

*In Progress: Book on the roles of external policy advisors on biological warfare under the Clinton and Bush administrations*

*Biological Warfare and Disarmament: New Problems/New Perspectives* (Rowman & Littlefield, 2002). Coauthor and editor.

*Biological Warfare and Disarmament: New Problems/New Perspectives*, Indian edition (New Delhi: Vision Books, 2003).

*Molecular Politics: Developing American and British Regulatory Policy for Genetic Engineering, 1972-1982.* 600 pp. Chicago: The University of Chicago Press, 1994.

*Preventing a Biological Arms Race*, co-author and editor. Original essays on technical, political, legal, and historical dimensions of biological warfare and disarmament. 450 pp. Cambridge, Mass.: MIT Press, 1990.

**CURRENT RESEARCH:**

History of Counterbioterrorism Policy Under the Clinton and George W. Bush Administrations, 2011-

Policy dimensions of genome editing with CRISPR/cas9, 2015

**ARTICLES, BOOK CHAPTERS, REPORTS, 1978-2015:**

“Feminist Theory and Arms Control,” in Laura Sjoberg, ed., *Gender and International Security* (Routledge, 2010). 10,000 words

“Terrorists and Biological Weapons: Forging the Linkage in the Clinton Administration,” *Politics and the Life Sciences* (Jan/Feb) 2007. 35, 000 words.

“Reflections on the Disciplinary Gulf between the Natural and Social Sciences,” *Community Genetics* 9(3) (2006), 161-169.

“Taking Biodefense Too Far,” *Bulletin of the Atomic Scientists*, November/December 2004.

*Biological Warfare and Disarmament: New Problems/New Perspectives* (2002).

Book chapters:

“Introduction: In Search of a New Paradigm of Biological Disarmament”

“The Geopolitical Origins of the Biological Weapons Convention.”

“Secrecy in the Biotechnology Industry: Implications for the Biological Weapons Convention.” With David Wallace.

“Rethinking Biological Disarmament.” With Richard Falk.

“The Politics of Biological and Chemical Disarmament,” in Joseph Camilleri ed.,*Democratic Governance: An Imperative Within Reach* (London: Macmillan, 2003).

“DNA Technology: Asilomar Conference and ‘Moratorium on Use,” *Nature Encyclopedia on the Human Genome* (London: Macmillan Publishers, 2003), 187-191.

“U.S. Vetoes Verification,” *Bulletin of the Atomic Scientists* 58(2)

(March/April 2002).

“Double Langage et Guerre Bactériologique,” *Le Monde Diplomatique*, November 2001; reprinted in *Manière de Voir* (November 2001); English translation in *GeneWatch* 15(2) (March 2002), 3-5.

“The Recombinant DNA Controversy: The Director’s Tale,” (Book review) *Nature* 412 (26 July 2001), 378-39.

“Legitimating Genetic Engineering,” *Perspectives in Biology and Medicine* 44(2) (Spring, 2001), 235-247; short version in *Dissent* (Winter 2001), 62-68.

“Varieties of Secrets and Secret Varieties: Secrecy and the Biotechnology Industry,” with David Wallace. In Judith Reppy, ed., *Secrecy and Knowledge Production*, Cornell University Peace Studies Program, Occasional Paper #23 (October 1999); revised version, *Politics and the Life Sciences* 19(1) (March 2000), 45-57.

“The Hijacking of UNSCOM,” *Bulletin of the Atomic Scientists* 55 (3) (May/June 1999); reprinted in Micah Sifry and Christopher Cerf, *The Iraq War Reader: History, Documents, Opinions* (New York: Touchstone, 2003).

Co-editor, with Richard Falk, Symposium, “Responding to the Challenge of Biological Warfare — A Matter of Contending Paradigms of Thought and Action,” *Politics and the Life Sciences* 18(1), March 1999, 55 - 117.

"Coping with Dolly: Scenes from the National Bioethics Advisory Commission," *Politics and the Life Science* 16(2) (September 1997).

"Molecular Politics in a Global Economy," *Politics and the Life Sciences* (September 1996); reprinted in *Private Science*, ed. Arnold Thackray (University of Pennsylvania Press, 1998).

"Down on the Animal Pharm," *The Nation* (March 1996); reprinted in *Biomedical Ethics* (Greenhaven Press, 1998).

"Prospects for Biological Disarmament in the Pacific and Indian Ocean Regions," in *Arms Control in the Post-War World,* ed. Trevor Findlay (Canberra, Australia: Peace Research Centre, Australian National University, 1993).

"The Social Warp of Science: Writing the History of Genetic Engineering Policy," *Science, Technology, and Human Values* 18(1) (Winter 1993).

"Prospects for Biological Disarmament," *Transnational Law and Contemporary Problems* 2(2) (Fall 1992).

"Biowar Treaty in Danger," *Bulletin of the Atomic Scientists* 47 (September 1991).

"Responding to the problems of defensive biological warfare programs: beyond confidence-building and verification," in *Prevention of a Biological and Toxin Arms Race and the Responsibility of Scientists,* ed. E. Geissler (Berlin: Akademie-Verlag, 1991).

"Biotechnology and the Military," in *Agricultural Bioethics*. ed. D. Michael Warren (Ames, Iowa: Iowa State University Press. 1990).

Book chapters, *Preventing a Biological Arms Race* (1990)

"The Evolution of U.S. Biological Warfare Policy, 1945-1990."

"The Problem of Interpreting the U.S. Biological Defense Program," (senior author, with Stuart Ketcham, University of Michigan).

"Preventing a Biological Arms Race: New Initiatives." With Richard Falk, Princeton University.

"Reagan's Chemical and Biological Warfare Legacy," *Bulletin of the Atomic Scientists* 45 (January/February 1989).

"B-Waffenpolitik in den Vereinigten Staaten," in *Die Unsichtbaren*, ed. Manuel Kiper (Koln: Volksblatt Verlag, 1988).

"The Recombinant DNA Controversy Revisited," *The Borzoi College Reader*, 6th ed., Charles Muscatine and Marlene Griffith (New York: Knopf, 1988).

"The New Military Dimension of Biotechnology," *Metascience* 5 (1987).

"The Defense Department's Changing CB Policy," *Bulletin of the Atomic Scientists* 43 (January 1987).

"Recombinant DNA Technology and Its Social Transformation, 1972-1982," *Osiris* 2 (1986).

"Molecular Biology or Molecular Politics? The Construction of Scientific Consensus on the Hazards of Recombinant DNA Technology." *Social Studies of Science* 16 (1986).

"Die Sozialgeschichte der Kontroverse um die rekombinante DNS in den USA," in *Die ungeklarten Gefahrenpotentiale der Gentechnologie,* eds. R. Kollek and B. Tappeser (Munich: J. Schweitzer Verlag, 1986): 177-187.

"Genetic Engineering: Policy Making in Britain," *Science* 23 (5 December 1986). (Book review.)

"United States Military Policy and the New Biology," *Bulletin of the Atomic Scientists* 41 (May 1985); translated into German in *Frontal* (September 1986).

"Recombinant DNA Technology and Biological Warfare," *Bulletin of the Atomic Scientists* 39 (November 1983); 40 (February 1984). (With Robert L. Sinsheimer.)

"Recombinant DNA Technology: The Status of Hazards and Controls," *Environment* 24 (July/August 1982).

*Manipulating Life: Ethical Issues in Genetic Engineering*, Report of the World Council of Churches, Geneva 1982. (With Charles Birch et al.)

"Status of hazards and of international, state, and municipal controls for recombinant DNA technology," unpublished report for the Biotechnology Task Force, State of Michigan, (October 1981).

"Recombinant DNA: Dismantling Controls," *Environment* 22 (December 1980).

"Recombinant DNA Policy: Controlling Large-Scale Processing," *Environment* 22 (September 1980).

"Recombinant DNA Policy: From Prevention to Crisis Intervention," *Environment* 21 (November 1979).

"The Recombinant DNA Advisory Committee," *Environment* 21 (April 1979).

"The Problem with 'Designing our Descendants,'" *Environment* 20 (October 1978).

"DNA Decisions: The Charmed Circle of Participation," *Nature* 275 (October 12, 1978).

"Molecular Politics in Britain and the United States: The Development of Policy for Recombinant DNA Technology," *Southern California Law Review* 51 (September 1978).

"Setting Science Policy: The Case of Recombinant DNA," *Environment* 20 (May 1978); reprinted in *Science Today* (December 1978); translated into Japanese in *Sekai* (January 1979).

**LECTURES, 1990-2015**

***Invited lectures, 2015:***

“The 1975 Conference on Genetic Engineering at Asilomar, California: A Precedent for Future Policy Making?” University of Lisbon, Portugal, September, 2015

Participant, Round Table, “Risk, Regulation, and Reward: Asilomar at 40,” History of Science Society, Annual Meeting, San Francisco, November 2015

“The Politics of Counter-Bioterrorism: A Threat in Need of a Solution or a Solution in Need of a Threat? Department of Politics, University of California, Santa Cruz, October, 201“Synthetic Biology’s Military Foundation,” Center for Genetics and Society, Tarrytown Conference, July 21, 2012

“Terrorism,” Guest lecture, Politics 160, University of California, Santa Cruz, Winter Quarter, 2012.

“Appraising the Bioterrorism Threat,” Panel, “Terrorism and Public Health,” American Public Health Association Annual Meeting, Philadelphia, November 9, 2009.

“The Bioterrorism Issue: Implications for Biomedical Research,” University of Michigan Medical School, April 14, 2009.

“U.S. Counterbioterrorism Policy: (Re)examining the Past, Rethinking the Future,” International Studies Annual Convention, New York, February 17, 2009.

“US Counterbioterrorism Policy: Parallels with Iraq,” Center for Comparative and International Studies, ETH, Zurich, May 8, 2008.

“ How Arms Control’s Past Shapes Its Future,” Geneva Forum, Geneva, Switzerland, May 6, 2008.

“Feminist Theory and Arms Control,” Paper for Panel, *(Re)thinking Traditional Security: Small Arms, Nuclear Weapons and Power Transitions,”*  International Studies Convention, San Francisco, March 26-29, 2008.

“The Bioterrorism Bandwagon: Policy Implications and Metalevel Questions,”

Program on Peace Studies, Cornell University, October 25, 2007.

“The Bioterrorism Bandwagon: Parallels with Iraq,” Annual Meeting of the Association for Politics and the Life Sciences, Cincinnati, October 11, 2007.

“Forming the Bioterrorism Bandwagon: Implications for the Biological Sciences and Biological Disarmament,” lectures at the Australian National University, Canberra (March 29, 2007); Murdoch University, Perth (May 31, 2007); University of Wollongong (July 8, 2007).

“Countering ‘Bioterrorism’ Under the Clinton and Bush Administrations: Implications for the ‘South’.” International Studies Association Annual Meeting, San Diego, March 22, 2006.

Student Pugwash USA National Symposium, *Biology and Security*, Washington DC. “History of Biology and Security since the Completion of the Biological Weapons Convention.” Invited lecture, Washington DC, July 11, 2004.

University of California, Irvine. “The Biosciences Under the Bush Counterbioterrorism Regime,” Invited lecture, May 28, 2004.

Princeton University, Woodrow Wilson School, Program on Science and Global Security, Seminar, with Frank von Hippel and Jonathan Tucker on “The Policy Agenda”: “Four Contradictions of Counterbioterrorism Defense.” May 21, 2004

Canadian Institutes of Health Research, Institute of Genetics, Toronto. Conference, *Genomics, Genetics, and Society: Bridging the Disciplinary Divide,* Invited discussant on papers on “The Production of Scientific Knowledge,” Toronto, April 15-17, 2004.

Georgetown University, Washington D.C. Workshop, *Science, Technology, and International Affairs: Historical Perspectives*, “U.S. Biodefense Policy and its Implications for the Life Sciences,” March 27, 2004.

“Confronting the Threat of Biological Weapons,” 2003 Summer Faculty Institute on World Security Affairs, Five College Program in Peace and World Security Studies, Amherst, Massachusetts, June 10-13, 2003, keynote speaker.

# “Understanding the Persistence of the BW Problem,” Theme Panel, Reconstructing Knowledge of Biological Warfare and Disarmament, International Studies Association, Annual Convention, Portland, Oregon, February 27, 2003.

“Iraq and the Biological Weapons Problem,” Wayne State University, January 29, 2003; University of Michigan, January 11, 2003 (invited).

“ ‘W’ and BW: Reflections on the Biological Warfare Question,” Institute for Research on Women and Gender, University of Michigan, December 5, 2002.

“Intersections between the History of Science and Technology and Public Policy.” Round Table Discussion, Annual Meeting of the History of Science Society, Milwaukee, Wisconsin, invited, November 9, 2002.

“Reflections on the Biological Warfare Question.” Peace Studies Program and STS Program, Cornell University, invited, October 24, 2002.

“Global Perspectives on Bioterrorism,” Conference on “Bioterrorism:

“The Geopolitics of Historical Contexts, Long-Term Consequences,” Departments of History, Anthropology, and Social Medicine, University of California, San Francisco, invited, 8 May 2002 and Conference on Terrorism, University of Calgary, Canada, invited, May 3-4, 2002.

Biological Warfare and Disarmament,” Presentation to the delegates to the Fifth Review Conference of the 1972 Biological Weapons Convention, Palais des Nations, Geneva, 4 December 2001.

“The Biological Warfare Question,” Conference, *Is This Their Future?* College of Santa Fe, Santa Fe, New Mexico, 14-15 July 2001.

“Legitimating Genetic Engineering.” Given *in absentia*, Symposium on Science, Ethics and Society: The 25th Anniversary of the Asilomar Conference, Pacific Grove, California, 15-17 February 2000.

“Complexity, Ambiguity, Secrecy: The Problem of ‘Strengthening the Biological Weapons Convention.” United Nations Department for Disarmament Affairs, United Nations, New York, May 25, 1999.

Hague Appeal for Peace Civil Society Conference, Convenor, Panel on Biological Disarmament: The Agenda for the Next Century,” May 13, 1999.

“Three Problems of Biological Disarmament in Search of a New Paradigm.” Discussion paper, Conference on Identity, Security, and Global Society, John D. and Catherine T. MacArthur Foundation, Chicago, 18-20 November 1998.

Chair and Convenor, Conference on Biological Warfare and Disarmament: Problems, Perspectives, Possible Solutions, United Nations Institute for Disarmament Research, United Nations, Geneva, July 5-8, 1999.

“Varieties of Secrets and Secret Varieties: Secrecy and the Biotechnology Industry,” Conference on Secrecy, Peace Studies Program, Cornell University, April 17-19, 1998 and Conference on Biological Warfare and Disarmament: Problems, Perspectives, Possible Solutions, UN Institute for Disarmament Research, Geneva, July 5-8, 1998.

"Biotechnology, the Military, and Development," Science Studies Program, University of California, San Diego, March, 1997.

"The Biological Weapons Convention in the Post-Cold War Era: Interpreting North-South Confrontations," Panel on International Law

and the Management of Transnational Issues, International Studies Association, annual meeting, April 1996.

"The Politics of Genetic Engineering in the United States and the United Kingdom, 1972-1982." Science Studies Unit, Department of Sociology, University of Edinburgh, April 1995.

"Biotechnology in the Global Economy: From Initiation to Technology Transfer," National Institute of Science, Technology and Development Studies, Delhi, India; Indian Institute of Management, Bangalore, India; March 1995.

"Genetic Engineering Revisited," Residential College, University of Michigan, October 1994.

"Exploring the Boundary Between Politics and Science," Center for the Study of Social Transformations, University of Michigan, October 1994.

"Molecular Politics in a Global Economy," Stanford University; Board of History of Consciousness, UC Santa Cruz; Center for Social Change, UC Berkeley; February 1994.

"Molecular Politics in a Global Economy," Conference on the Biotechnology Industry and the Rise of Contemporary Molecular Biology, Beckman Center for the History of Chemistry, University of Pennsylvania, October 1993.

"Bringing Power Back Into the History of Science: A

Counterturn," panel on "The Character of Knowledge in the Post-Modern World," annual meeting of the History of Science Society, Washington, D.C., December 1992.

"The Future of Biological Disarmament," Invited paper for Conference on the Future of Arms Control and Disarmament, Canberra and Perth, Australia, June 25-30, 1992.

"Writing the History of Genetic Engineering Policy,"

Colloqium, Program in Science, Technology, and Society, MIT, Cambridge, Massachusetts, March 1992.

"The Social Warp of Science: Power, Discourse, and the Genetic Engineering Story," Invited paper for symposium: Language, Praxis, and Action: Historical, Sociological, and Political Dimensions of Genetic Engineering, Annual Meeting of the Society for Social Studies of Science, MIT, Cambridge, Massachusetts, November 1991.

"Proposals for the Third Review Conference on the Biological Weapons Convention," Briefing for Delegates to the Third Review Conference, Geneva, September 11, 1991, sponsored by the Federation of American Scientists, the Council for Responsible Genetics, and the Stockholm International Peace Research Institute.

"Recent Developments with Respect to Defensive Biological Warfare Research and Development," Seminar on Chemical and Biological Disarmament, Tokyo, Japan, July 5-8, 1991.

"The Spread of Biological and Toxin Weapons," Conference on Supply-Side Control of Arms Proliferation, Canadian Institute for International Peace and Security, Ottawa, Canada, June 18-21, 1991.

"Prospects for Chemical and Biological Disarmament," Workshop on Global Security, World Order Models Project, Institute for International Peace Studies, University of Notre Dame, Indiana, April 4-8, 1991.

"Biotechnology and Public Policy," University of California, Berkeley, February 1991.

"Ambiguous Military Research: The Responsibility of Scientists," New England Biolabs, Beverly, Massachusetts, October 10, 1990.

"Science and Social Responsibility: The Case of Biological Defense Research," Department of Biology, University of Massachusetts, Amherst, October 11, 1990.

"Prospects for Biological Disarmament in the 1990s,"

Five College Program in Peace and World Security Studies, Hampshire College, Amherst, October 11, 1990.

"The Formation of Policy for Genetic Engineering: Precedents for the Human Genome Project," Conference on the Human Genome Project, Harvard University, June 15, 1990.

"Approaches to Strengthening the Biological Weapons Convention in the 1990s," Forum on Prospects for Strengthening the 1972 Biological Weapons Convention, United Nations, New York, May 15, 1990.

"The Formation of Regulatory Policy for Genetic Engineering in the United States and Britain," Conference on Technological Choices: American and European Experiences," Indiana University, April 12-14, 1990.

"Science and Social Responsibility: The Case of Biological Warfare," Poynter Center, Indiana University, April 12, 1990.

**COURSES, CURRICULUM DEVELOPMENT, AND CONFERENCES:**

Courses:

Problems in the History of Technology, 1700-1970

Freedom, Technology and Society

Perspectives on High Technology\*

The Recombinant DNA Controversy

Technology and Work

War and Peace in the Nuclear Age (team-taught)

History of Biotechnology

Scientific Change

Philosophy of Science and Sociology of Knowledge\*

History and Politics of Chemical and Biological Warfare and Disarmament\*

Science and Politics\*

Problems in World Politics: New Paradigms of International Security\*

Exploring the Boundary Between Politics and Science\*

Current Issues in International Relations Theory and Practice\*

Social Dynamics of Science, Technology, and Medicine

The War On Iraq (team-taught)

\*Senior and/or graduate level

Curriculum Development:

Design of an interdisciplinary concentration, Science, Technology, and Society, aimed at integrating substantial training in science with studies in the social and cultural dimensions of science.

Lecture Series and Conferences

*Gender and Security: Bridging the Gulf Between Theory and Practice* (Institute for Research on Women and Gender, December 1, 2006). Speakers: Carol Cohn, Jennifer Klot, Ann Sisson Runyan, Laura Sjoberg, Sandra Whiteworth.

*Biological Warfare and Disarmament: Problems, Perspectives, Possible Solutions*, United Nations Institute for Disarmament Research, United Nations, Geneva, July 5-8, 1998.

*New Paradigms of Global Security*, University of Michigan, Winter Term, 1993. Speakers: Gita Sen (Centre for Development Studies, Trivandrum, India), Gunther Handl (Wayne State University Law School, Detroit, Michigan), Mark Levy (Department of Politics, Princeton University), Ann Tickner (College of the Holy Cross, Worcester, Massachusetts), and Richard Falk (Woodrow Wilson School, Princeton University