



HARVARD | BUSINESS | SCHOOL

CURRICULUM VITAE

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ARTHUR A. DAEMMRICH

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EMPLOYMENT

- 2007 – present **Harvard Business School**
Business, Government, and the International Economy Unit
Assistant Professor of Business Administration
- 2002 – 2007 **Chemical Heritage Foundation**
Director, Center for Contemporary History and Policy (2005-2007)
Policy Analyst (2002-2005)
Developed the Center's mission and base of support; led a staff of ten; and directed projects in science, technology, and health policy.
- 2004 – 2007 **University of Pennsylvania**
Department of History and Sociology of Science
Visiting Assistant Professor

EDUCATION

- 2002 Cornell University, Ithaca, NY
Ph.D., Science and Technology Studies
- 1996 Cornell University, Ithaca, NY
M.A., Science and Technology Studies
- 1991 University Of Pennsylvania, Philadelphia, PA
B.A., History and Sociology of Science; German Literature

PUBLICATIONS

Forthcoming and in Progress

A. Daemmrich and A. Iles, *Bodies at Risk: Chemicals, Testing, and Regulation in the United States and European Union* (book manuscript in preparation).

- A. Daemmrch, "U.S. Healthcare Reform and the Pharmaceutical Industry," *Pharmaceuticals Policy and Law* (forthcoming, 2012).
- A. Daemmrch and T. Bredgaard, "The Welfare State as an Investment Strategy: Denmark's Flexicurity Policies," in: A. Bardhan, D. Jaffee and C. Kroll (eds.), *The Oxford Handbook of Global Employment and Offshoring*, (Oxford: Oxford University Press, forthcoming 2012).
- A. Daemmrch, "Testing Standards as Regulatory Controls: 'Non-Inferiority' Trials and Dilemmas of Antibiotic Drug Development" (article in progress).
- A. Daemmrch, "Co-Innovation of Standards, Materials, and Markets: Bioplastics and Product Development in the Chemical Industry" (article in progress).
- A. Daemmrch, "International Harmonization of Pharmaceutical Regulation: Modularity and Interoperability in Drug Development" (article in progress).

Book

- A. Daemmrch, *Pharmacopolitics: Drug Regulation in the United States and Germany* (Chapel Hill: University of North Carolina Press, 2004).

Edited Volumes

- A. Daemmrch and J. Radin (editors), *Perspectives on Risk and Regulation: The FDA at 100* (Philadelphia: Chemical Heritage Press, 2007).
- A. Daemmrch, N.R. Gray, and L. Shaper (editors), *Reflections from the Frontiers, Explorations for the Future: Gordon Research Conferences, 1931-2006* (Philadelphia: Chemical Heritage Press, 2006).
- A. Daemmrch (editor), *R&D Meets M&A: Proceedings of the 2003 Conference on Innovation and Creativity in Chemical R&D* (Philadelphia: Chemical Heritage Press, 2004).

Peer-Reviewed Journal Articles

- A. Daemmrch, "Synthesis by Microbes or Chemists? Pharmaceutical Research and Manufacturing in the Antibiotic Era," *History and Technology* 25 (2009), 237-256.
- A. Daemmrch, "Risk Frameworks and Biomonitoring: Distributed Regulation of Synthetic Chemicals in Humans," *Environmental History* 13 (2008), 684-694.
- A. Daemmrch and L. Shaper, "The Gordon Research Conferences as Scientific Infrastructure," *Bulletin for the History of Chemistry* 33 (2008), 94-102.
- A. Daemmrch, "Pharmacovigilance and the Missing Denominator: The Changing Context of Pharmaceutical Risk Mitigation," *Pharmacy in History* 49 (2007), 61-75.
- A. Daemmrch, "Invisible Monuments and the Costs of Pharmaceutical Regulation: Twenty-Five Years of Drug Lag Debate," *Pharmacy in History* 45 (2003), 3-17.

A. Daemmrich, "A Tale of Two Experts: Thalidomide and Political Engagement in the United States and West Germany," *Social History of Medicine* 15 (2002), 137-158.

A. Daemmrich and G. Krücken, "Risk versus Risk: Tragic Choices in Drug Regulation in the United States and Germany," *Science as Culture* 9 (2000), 505-534.

A. Sagar, A. Daemmrich and M. Ashiya. 2000. "The Tragedy of the Commoners: Biotechnology and its Publics," *Nature Biotechnology* 18 (2000), 2-4.

A. Daemmrich, "The Evidence Does Not Speak for Itself: Expert Witnesses and the Organization of DNA Typing Companies," *Social Studies of Science* 28 (1998), 741-772.

Book Chapters

A. Daemmrich and J. Greene, "From Visible Harm to Relative Risk: Centralization and Fragmentation of Pharmacovigilance," in: E. Elhauge (ed.), *The Fragmentation of U.S. Health Care: Causes and Solutions* (Oxford: Oxford University Press, 2010), 301-322.

A. Daemmrich, "Where is the Pharmacy to the World? Pharmaceutical Industry Location and International Regulatory Variation," in: J.P. Gaudillière and V. Hess (eds.), *Ways of Regulating: Therapeutic Agents between Plants, Shops, and Consulting Rooms* (Berlin: MPIWG, 2008), 271-290.

A. Daemmrich, "The Evidence Does Not Speak for Itself: Expert Witnesses and the Organization of DNA Typing Companies," in: S. Silbey (ed.), *Law and Science I: Epistemological, Evidentiary, and Relational Engagements* (Hampshire: Ashgate, 2008), 367-398; reprinted from *Social Studies of Science* 28 (1998), 741-772.

A. Daemmrich, "BioRisk: Interleukin-2 from Laboratory to Market in the United States and Germany," in: T. Schlich and U. Tröhler (eds.), *The Risks of Medical Innovation: Risk Perception and Assessment in Historical Context* (London: Routledge, 2006), 242-261.

A. Daemmrich, "L'industria farmaceutica," in: S. Petruccioli (ed.), *Storia Della Scienza* (Rome: Istituto della Enciclopedia Italiana, 2004), v. 8, 869-874.

A. Daemmrich, "La tragédie de la thalidomide: affaires judiciaires et réponses législatives, 1959-1971," in: C. Bonah, É. Lepicard, and V. Roelcke (eds.), *La médecine expérimentale au tribunal* (Paris: Éditions des Archives Contemporaines, 2003), 291-318.

A. Daemmrich, "Regulatory Laws and Political Culture in the United States and Germany," in: J. Abraham and H.L. Smith (eds.), *Regulation of the Pharmaceutical Industry* (London: Palgrave MacMillan, 2003), 11-41.

A. Daemmrich, "Biotechnology, Competitiveness and the Regulatory State," in S. Silvia (ed.), *Reversal of Fortune? An Assessment of the German Biotechnology Sector* (Washington, D.C.: American Institute for Contemporary German Studies, 1999), 33-48.

A. Daemmrch, "Pharmaceutical Companies and Health Care Reform," in L. Baraff and N. Short (eds.), *Global Issues Guidebook* (Washington, D.C.: Pugwash, 1995), 403-407.

Harvard Business School Cases and Notes

A. Daemmrch and Aldo Musacchio, "Brazil: Leading the BRICs?" Harvard Business School case 711-024 (2011).

"Brazil: Leading the BRICs? (TN)" Harvard Business School teaching note 711-025 (2011).

A. Daemmrch, "Stalemate at the WTO: TRIPS, Agricultural Subsidies, and the Doha Round," Harvard Business School note 711-043 (2010).

A. Daemmrch and Elia Cameron, "U.S. Healthcare Reform: International Perspectives," Harvard Business School case 710-040 (2010).

"U.S. Healthcare Reform: Reaction to the Patient Protection and Affordable Care Act of 2010," Harvard Business School case 711-103 (2011).

"U.S. Healthcare Reform: International Perspectives (TN)" Harvard Business School teaching note 711-062 (2011).

A. Daemmrch, "International Lobbying and The Dow Chemical Company (A)" Harvard Business School case 710-027 (2009).

"International Lobbying and The Dow Chemical Company (B): Regulatory Reform in the USA?" Harvard Business School case 710-028 (2009).

"International Lobbying and the Dow Chemical Company (A) and (B) (TN)" Harvard Business School teaching note 711-061 (2011).

A. Daemmrch and Benjamin Kramarz, "Denmark: Globalization and the Welfare State," Harvard Business School case 709-015 (2009).

"Denmark: Globalization and the Welfare State (TN)" Harvard Business School teaching note 710-007 (2009).

A. Daemmrch, "Targanta Therapeutics: Hitting a Moving Target," Harvard Business School case 709-002 (2009).

"Targanta Therapeutics: Hitting a Moving Target (TN)" Harvard Business School teaching note 710-006 (2009).

A. Daemmrch, Forest L. Reinhardt, and Mary Louise Shelman, "Arcadia Biosciences: Seeds of Change," Harvard Business School case 709-019 (2008).

"Arcadia Biosciences: Seeds of Change (TN)" Harvard Business School teaching note 711-042 (2010).

A. Daemmrch, "A Managerial Perspective on Clinical Trials," Harvard Business School note 709-033 (2008).

Popular Press, Trade Journals, White Papers, and New Media

- A. Daemmrch, "The Evolving Basis for Legitimacy of the World Trade Organization: Dispute Settlement and the Rebalancing of Global Interests," Harvard Business School working paper, 12-041 (December 2011). <http://www.hbs.edu/research/pdf/12-041.pdf>
- A. Daemmrch, "Pharmaceutical Price Controls and Innovation Incentives: A Fifty-year U.S. Debate Coming to a Head?" *Medical Progress Today* (October 27, 2011). <http://www.medicalprogresstoday.com/spotlight/2011/10/pharmaceutical-price-controls-and-innovation-incentives-a-fifty-year-us-debate-coming-to-a-head.php>
- A. Daemmrch, "U.S. Healthcare Reform and the Pharmaceutical Industry," Harvard Business School working paper 12-015 (September 2011). <http://www.hbs.edu/research/pdf/12-015.pdf>
- A. Daemmrch, "Pharmaceutical Regulation in the United States and Europe," *Focus on Law Studies* 23 (Fall 2007), 8-11.
- S. Silverthorne, Q&A with Arthur Daemmrch, "The FDA: What Will the Next 100 Years Bring?" Harvard Business School working knowledge (24 September 2007), <http://hbswk.hbs.edu/item/5753.html>
- A. Daemmrch, interviewed on "Science and Society Internet Talk Radio" (14 June 2006), podcast: http://www.scienceandsociety.net/podcasts/archives/2006/06/dr_arthur_daemm.html
- A. Daemmrch and C. Mody, "Innovation Frontiers in Industrial Chemistry," Innovation White Paper Series, No. 1 (September 2005); No. 2 (September 2006). <http://www.chemheritage.org/research/policy-center/publications/innovation-day.aspx>
- A. Daemmrch and M.E. Bowden, "A Rising Drug Industry: Pharmaceuticals since 1870," *Chemical and Engineering News* (20 June 2005), 28-42.
- A. Daemmrch, "Rethinking Mergers and Acquisitions: How to Involve R&D in Company Growth," *Chemistry Business* (September 2004), 26-29.
- A. Daemmrch, "Science and Medicine in Court: Expert Testimony in the German Thalidomide Trial," *Chemical Heritage* 20 (Fall 2002), 12-13, 28-33.
- A. Daemmrch, A. Sagar, and M. Ashiya, "Biotechnology: Closed Agenda Stifles Debate," *The Boston Globe* (26 March 2000), E1-2.

Book Reviews

- Reviewed for *American Historical Review* 113 (2008), 1494-1495. N. Rasmussen, *On Speed: The Many Lives of Amphetamine* (New York: NYU Press, 2008).
- "Pharmaceutical Life Sentences." Review essay for *Chemical Heritage* 26 (2008), 40-41. J. Greene, *Prescribing by Numbers: Drugs and the Definition of Disease* (Baltimore: Johns Hopkins University Press, 2007).

Reviewed for *Social History of Medicine* 20 (2007), 612-613. S. Podolsky, *Pneumonia before Antibiotics: Therapeutic Evolution and Evaluation in Twentieth-Century America* (Baltimore: Johns Hopkins University Press, 2006).

Reviewed for *History and Technology* 21 (2005), 400-401. K. Granadin, N. Worbs, and S. Widmalm (eds.), *The Science – Industry Nexus: History, Policy, Implications* (Sagamore Beach: Science History Publications, 2004).

“Utopian Dreams and Regulatory Nightmares.” Review essay for *Science as Culture* 14 (2005), 87-91. J. Abraham and J. Sheppard, *The Therapeutic Nightmare: The Battle Over the World’s Most Controversial Sleeping Pill* (London: Earthscan Publications, 1999).

Reviewed for *Business History Review* 78 (2004), 770-72. R. Vagelos and L. Galambos, *Medicine, Science, and Merck* (New York: Cambridge University Press, 2004).

Reviewed for *Chemical Heritage* 18 (Winter 2000/2001), 26-27. C. Simon, *DDT: Kulturgeschichte einer Chemischen Verbindung* (Basel: Christoph Merian Verlag, 1999).

Reviewed for *ISIS*, 89 (1998), 120-121. W.D. Müller-Jahncke, C. Friedrich, *Geschichte der Arzneimitteltherapie* (Stuttgart: Deutscher Apotheker Verlag, 1996).

TEACHING EXPERIENCE

- 2009 - present **Harvard Business School, MBA Program**
Professor, ‘Business, Government, and the International Economy’
- 2008 - present **Harvard Business School, Executive Education**
Advanced Management Program (5/2010)
AgriBusiness Seminar (1/2009)
Global Strategic Management (6/2011)
Kaiser Permanente Executive Leadership Program (4/2011)
Leadership and Strategy in Pharmaceuticals and Biotech (6/2008, 7/2009,
4/2010, 4/2012)
Managing Healthcare Delivery (3/2010, 10/2010, 11/2011)
- 2004 - 2006 **University of Pennsylvania, Department of History and Sociology of Science**
Professor, ‘Science and the State’ (2006)
Professor, ‘Applied Methods and Public History’ (2004)
- 1999 **Harvard University, Environmental Science and Public Policy**
Teaching Fellow, ‘Environmental Politics’
- 1995 - 1997 **Cornell University, Department of Science & Technology Studies**
Teaching Assistant, ‘The Politics of Environmental Protection in America’ (1997)
Instructor, ‘Science on Stage: Dramatic Representations of Science, Technology
and Medicine’ (1996)

Teaching Assistant, 'Evolutionary Biology' (1995)
Teaching Assistant, 'Science in the American Polity, 1960-Now' (1995)

AWARDS, FELLOWSHIPS, AND GRANTS

- 2006 **Pew Charitable Trusts**
Grant to create and promote the use of a major oral history collection in contemporary biomedicine.
- 2006 **Edward Kremers Award**
Award given in recognition of *Pharmacopolitics* by the American Institute of the History of Pharmacy for the best book published in the previous two years.
- 2005 – 2007 **Eli Lilly & Co.**
Grant to conduct a series of in-depth oral history interviews with senior executives and develop case studies for leadership training.
- 2004 **Merck, Inc.**
Educational grant awarded for a project on “Intellectual Property and Drug Development.” Outcomes included a public symposium and a white paper.
- 2003 **American Chemistry Council**
Research grant awarded to support a project on the U.S. high-production volume testing program.
- 2001 – 2002 **Chemical Heritage Foundation**
Gordon Cain Fellow in Technology, Policy and Entrepreneurship
- 2000 – 2001 **Chemical Heritage Foundation**
Charles C. Price Fellow
- 1999 – 2000 **Harvard University, John F. Kennedy School of Government**
Fellow in the Science, Technology and Public Policy Program
- Summer 1998 **American Institute for Contemporary German Studies**
Interdisciplinary German Studies Summer Fellowship
- 1996 – 1997 **Social Science Research Council/Freie Universität Berlin**
Berlin Program for Advanced German and European Studies

CONFERENCES ORGANIZED

“Modern Medicines: New Perspectives in Pharmaceutical History.” Co-organized with Jeremy Greene, Harvard University; Dominique Tobbell, University of Minnesota; and Greg Higby, University of Wisconsin, Madison (conference site), 17-18 October 2008.

“Innovation Day: Warren G. Schlinger Symposium.” Annual conference with over 200 scientists and technology managers participating in three plenary and six breakout sessions. Lead organizer, 2004-2007.

“FDA Centennial, 1906–2006: The Past, Present, and Future of Regulating Food, Drugs, Nutritional Supplements, and Medical Devices.” Chemical Heritage Foundation, 16 May 2006.

“Intellectual Property and Drug Development: A Symposium and Panel Discussion on Pharmaceutical Policy and Politics.” Chemical Heritage Foundation, 13 May 2004.

“Partnering in Industrial Biotechnology: Opportunities at a Historic Turning Point.” Chemical Heritage Foundation, 11 September 2003.

“Innovation and Creativity in Chemical R&D.” Chemical Heritage Foundation, 29 April 2003.

“Risk and Safety in Medical Innovation.” Chemical Heritage Foundation, 20-22 March 2003.

“Industry and Governance: Changing Relations among Science-Based Corporations, Government, and the Public.” Chemical Heritage Foundation, 5-6 April 2002.

INVITED LECTURES (since 2005)

“Antibiotics, Non-inferiority Regulations, and the Future of the Clinical Trial,” McGill University, Biomedical Ethics Unit, 18 November 2011.

“Risk, Precaution, and the New Regulatory Environment,” Harvard Business School, MBA Reunion, 3 June 2011.

“The Market as a Testing Site,” Aspen Institute, Worldwide Policy Ideas Forum, St. Michaels, Maryland, 11 October 2010.

“Regulatory Inversion: Chemicals, Knowledge, and Testing in the United States and the European Union,” Harvard Business School, International Seminar, 10 December 2009.

“Drug Safety: A Historical and Business Perspective,” Harvard Medical School, Post-Approval Summit, 28 April 2009.

“Fermenting the Cure: Lessons from the Antibiotic Era,” Amyris Biotechnologies, Emeryville, 4 December 2008.

“Innovation, Standardization, and Degradation: Biodegradable Plastics in the Laboratory, on the Market, and in Compost,” University of California—Berkeley, Science, Technology and Society Center, 7 May 2008.

“Pharmacovigilantes: Changing Dynamics of the Pharmaceutical Post-Market Arena.” Seton Hall Law School, Newark, 15 November 2007.

“Trajectories for Risk and Regulation of Chemicals in the United States and Europe.” Ernst & Young Global Chemical Summit, Philadelphia, 22 May 2007.

“Seventy-Five Years of Scientific Change.” Gordon Research Conferences 75th Anniversary Celebration, Gibson Island, Maryland, 8 April 2006.

“International Harmonization of Drug Regulation: Historical Lessons and Prospects for the Future.” Keck Graduate Institute, 13 October 2005.

“Risk Transformation: A New Era for Chemicals Regulation in the United States and Europe?” London School of Economics–Center for Analysis of Risk and Regulation, 15 February 2005.

ACADEMIC CONFERENCE PRESENTATIONS (since 2005)

“Agricultural Subsidies, Econometric Models and the Brazil-USA WTO Cotton Dispute,” Society for Social Studies of Science, Cleveland, 2-5 November 2011.

“Regulation and the Biopharmaceutical Industry: A ‘Begriffsgeschichte’ of Non-inferiority and Dilemmas of Antibiotic Drug Development,” History of Science Society, Montreal, 4-7 November 2010.

“A Regulatory Inversion? Scientific Knowledge and Chemicals Testing in the United States and European Union,” Northeastern University workshop, *Multilevel Approaches to Environmental Regulation*, Boston, 21 May 2010.

“Carbon Markets and Green Biotech: Arcadian Visions and Varieties of Regulation,” Society for Social Studies of Science, Washington, D.C., 28-31 October 2009.

“Non-Inferiority: Antibiotics Testing, Regulation, and Markets in Historical Perspective,” American Chemical Society, Washington, D.C., 16-20 August 2009.

“Regulation in the Wake of Neo-liberalism,” Kennedy School of Government, Science and Democracy Network, 8th Meeting, Boston, 29 June-1 July 2009.

“Regulatory Targets and Antibiotic Drug Development: Emergence and Evolution of the Non-Inferiority Standard,” European Science Foundation Networking Program, *Circulation of Antibiotics: Journeys of Drug Standards*, Madrid, 16-18 June 2009.

“Regulatory Inversion: Comparing Chemical Health and Safety Testing in the United States and the European Union,” European Consortium for Political Research, *(Re)Regulation in the Wake of Neoliberalism*, Utrecht, 5-7 June 2008.

“Innovation and Degradation: Ecoflex at BASF, on the Market, and in the Compost.” Society for Social Studies of Science, Montreal, 11-13 October 2007.

“Body Burden/Biomonitoring at the Crossroads of Industry, NGOs, and Government.” American Society for Environmental History, Annual Meeting, Baton Rouge, 28 February-3 March 2007.

- “Innovation Cultures meet Regulatory Cultures: The Pharmaceutical Industry and National Competitiveness.” *Drug Trajectories V: Ways of Regulating*, Berlin, 30 November-2 December 2006.
- “Positioned as Central and Frontier: Gordon Research Conferences and Scientific Infrastructure.” Society for Social Studies of Science, Annual Meeting, Vancouver, 2-4 November 2006.
- “International Perspectives on Thalidomide.” FDA Science Forum, Washington, D.C., 17-19 April 2006.
- “Pharmacovigilance: Historical Perspective on Post-Market Data Collection.” Keck Graduate Institute, *The Past, Present and Future of Food and Drug Regulation: Commemorating the 100th Anniversary of the FDA*, Pomona, 13 April 2006.
- “Trajectories in Pharmaceutical R&D, Markets, and Regulation.” American Chemical Society, Annual Meeting, Atlanta, 26-30 March 2006.
- “International Harmonization of Drug Regulation: Historical Lessons and Future Prospects.” American Pharmacists Association, Annual Meeting, San Francisco, 17-21 March 2006.
- “Side Effects and Pharmacovigilance: The Market as a Testing Site.” American Association for the Advancement of Science, Annual Meeting, St. Louis, 16-20 February 2006.
- “Pharmaceutical Demand Realization.” History of Science Society / Society for the History of Technology, Annual Meeting, Minneapolis, 3-6 November 2005.
- “Harmonizing Drug Regulation: Embedding Policy and Politics in Safety and Efficacy Standards.” Oxford Brookes University, *Perspectives on 20th-century Pharmaceuticals*, Oxford, 14-17 July 2005.

PROFESSIONAL ACTIVITIES

Affiliations	Faculty Affiliate, Harvard University, Department of the History of Science Faculty Affiliate, Harvard University, Kennedy School of Government, Program on Science, Technology and Society
Committee	History of Science Society, Committee on Meetings and Programs
Advising	<i>Mateo Munoz</i> , Harvard University, History of Science, Ph.D. candidate; <i>Dominique Tobbell</i> , University of Pennsylvania, History and Sociology of Science, Ph.D. (completed May 2008)
Reviewer	National Academy of Sciences; MacArthur Foundation; <i>Minerva</i> , <i>Review of Policy Research</i> ; <i>Science and Public Policy</i> ; <i>Science, Technology, and Human Values</i> ; <i>Social History of Medicine</i> ; <i>Social Studies of Science</i>