

EXHIBIT 1

CURRICULUM VITAE

Fiona E. Murray

**MIT SLOAN SCHOOL OF MANAGEMENT
BEHAVIORAL AND POLICY SCIENCES, TECHNOLOGICAL INNOVATION
& ENTREPRENEURSHIP GROUP**

I. EDUCATION

Ph.D.	Applied Sciences	Harvard University	1996
A.M.	Applied Sciences	Harvard University	1992
M.A.	Chemistry	University of Oxford	1990
B.A.	Chemistry (1 st)	University of Oxford	1989

II. DOCTORAL THESIS

Environment and Technology in Investment Decision-Making

Submitted to the Division of Applied Sciences, Harvard University, April 1996.

III. PRINCIPAL FIELD(S) OF INTEREST

Institutional Perspectives on Innovation, Science-based Entrepreneurship, Innovation & Economic Growth, Economics of Technical Change, National Systems of Innovation, Technology Strategy – Commercialization.

IV. NAME AND RANK OF OTHER SLOAN FACULTY IN SAME FIELD

Eric von Hippel	Professor
Ed Roberts	Professor
Rebecca Henderson	Professor
Jim Utterback	Professor

V. NON-MIT EMPLOYMENT

Lecturer in Management of Science & Fellow of St. Catherine's College 7/96 – 6/00
Saïd Business School, **University of Oxford**

Research Associate, Harvard Project on Energy and Environment Division of Applied Sciences, Harvard University	9/95 – 7/96
Research Associate, Business Government & the International Economy Harvard Business School, Harvard University	6/94 – 8/96
Project Associate, Asia Technical Group Asian Development Bank	1/94 – 6/94
Teaching Fellow, Organic Chemistry, Department of Chemistry, Harvard University	1/92 – 8/95
Associate Scientist, Department of Water & Air United Nations Environment Program , Kenya	6/88 – 6/89

VI. HISTORY OF MIT APPOINTMENTS

Associate Professor Management of Technological Innovation & Entrepreneurship	7/06 – Pres.
Assistant Professor Management of Technological Innovation & Entrepreneurship	7/00- 6/2006
Affiliated Professor Harvard-MIT Division of Health Science & Technology	11/00 – Pres.
Visiting Assistant Professor Management of Technological Innovation & Entrepreneurship	9/99 – 6/00

VII. MIT ACTIVITIES

Member (2002-present), Faculty Committee for Biomedical Enterprise Program
(MBS-MS) Harvard-MIT Division of Health Science & Technology.

Chair (2001), Curriculum Development Committee for Biomedical Enterprise Program
(MBS-MS) Harvard-MIT Division of Health Science & Technology.

Co-Founder (2001/2001) Biomedical Enterprise Program, Joint MS-MBA Harvard-
MIT Division of Health Science & Technology & MIT Sloan School.

Speaker (2001, 2007), Annual Research & Development Directors Conference,
Massachusetts Institute of Technology Industrial Liaison Program.

VIII. GOVERNMENT SERVICE

NIH Science of Science Management	June – September 2008
NAS Center for Education Research on Future Skill Demands in Knowledge work	January – September 2007

IX. CONSULTING ACTIVITIES

Sanofi-Aventis/JDRF	Not-for-Profit relationship management Facilitator, Cambridge, MA
MIT Executive Education	Entrepreneurial Development Program Cambridge, MA
Carnegie-Bosch Institute	R&D Management Program Pittsburgh, PA
Yet2.com	Annual R&D Mangers Conference Boston, MA
Sharp European Research Laboratories	Program on Technology Strategy & Portfolio Management Oxford, UK
Rolls-Royce Research Laboratories	Program to assess University Links Program Various, UK

X. OTHER ACTIVITIES

None

XI. AWARDS, FELLOWSHIPS & GRANTS

AWARDS

Sarofim Family Career Development Professorship 2007-present.
Sloan School of Management, Massachusetts Institute of Technology

Class of 1922 Career Development Professorship 2003-2007.
Sloan School of Management, Massachusetts Institute of Technology

Michael M. Koerner '49 Career Development Professorship 2001-2003.
Sloan School of Management, Massachusetts Institute of Technology

Women in Science Award, Harvard-Radcliffe College 1993.

Rotary Club Scholar, Rotary Club of Great Britain, 1990-1992.

Merton College Chemistry Prize, University of Oxford, England, 1990.

Scholar in Chemistry, Merton College, University of Oxford, England, 1989.

FELLOWSHIPS

Sloan Industry Fellowship, Biotechnology 2005.

Awarded to one recipient each year by the Sloan Foundation

Taplin Award 2001.

For scholarship that contributes to our understanding of translational research.

Harvard-MIT Division of Health Sciences and Technology

Harvard University Graduate Fellowship 1990-1992.

Awarded by the Graduate School of Arts & Science, Harvard University

Fulbright Travel Fellowship 1990.

Awarded by the Fulbright Foundation, London, UK

GRANTS

National Science Foundation 2007. - Science of Science and Innovation Policy

Grant 2007. SCICIP Award #0738394 R01 Grant for “The Impact of Science Policy on the Rate and Direction of Scientific Discovery: Frontier Tools and Applications”

(coPI with Jeff Furman & Scott Stern) (\$398,655.00).

Provost Faculty Awards 2005. For Study of the Impact of Gene Patenting on

Scientific Commercial Progress,

Massachusetts Institute of Technology.

Cambridge-MIT Institute, Research Award 2004-2005. As part of the Biosciences

“Knowledge Integration Community” with Prof Lauffenberger and Prof. Griffith,

Massachusetts Institute of Technology.

DuPont-MIT Alliance, Research Award 2000-2004 (renewed). For

Commercialization of Science (co-PI with Professor Rebecca Henderson),

Massachusetts Institute of Technology.

Cambridge-MIT Institute, Course Development Award 2000-2004 (renewed). For

Biomedical Enterprise Education (co-PI with Dr. Steven Casper, Cambridge

University),

Massachusetts Institute of Technology.

XII. PROFESSIONAL MEMBERSHIP AND ACTIVITIES**MEMBERSHIPS**

American Sociological Association	Member since 2005
Academy of Management	Member since 1996
INFORMS	Member since 1994
American Chemical Society	Member since 1990

REVIEWER

Organization Science; Management Science; American Sociological Review, Research Policy; Review of Economics & Statistics; Economic Journal; Journal of Industrial Organization; National Science Foundation; Industrial & Corporate Change; R&D Management; Long Range Planning.

XIII. TEACHING

15.351 Managing the Innovation Process MBA Elective (required for E&I track)	MIT Sloan School of Management	2007- 1999 – 2000
15. 371/10.807 iTeams Cross campus commercialization elective	MIT Sloan School of Management	2009-
15.363 Strategic Decision Making in the Life Sciences MBA Elective	MIT Sloan School of Management/HST	2002 - 2006
15.398 Global Entrepreneurship MBA Elective	MIT Sloan School of Management	2002 - 2003
15.393 Technology Strategy for New Enterprises MBA Elective	MIT Sloan School of Management	2001 - 2003
Innovation & Commercialization MBA Required Course	University of Oxford, Saïd Business School	1996 – 1999
Science-based Business Plans MBA Required Course	University of Oxford, Saïd Business School	1996 - 1999
Introduction to Management – Undergraduate Required Course	University of Oxford, St. Catherine’s College	1996 - 1999

XIV. THESIS SUPERVISION

Doctoral Theses	Kenneth Huang	ESD	2006
Doctoral Theses in Progress	Heng (Alice) Xu Chuck Easley Michael Bikard Nada Hashmi	BPS-OSG BPS-TIE BPS – TIE BPS-TIE/OSG	2008 2009 2011 2012
Masters Theses	Sudhir Borgonha Sue Ostrokowski Kelley Liu Christopher Clay Albert Chin Andrew Pakula Andy Fujimoto Hwai-Loong Kong Ali Yeyinman Leora Schiff Kenneth Huang Andrew Collins Vishwantha Kanda Ibis Sanchez-Serrano Kenny Ching Chad Holland Hocking Chen Robert Mittendorff Eugene Chiu Jorge Conde Kollol Pal Benoit Elichabe Inder Singh Greg Daines Joseph Graham Dan Rippy Paul Scarce Patrick McGarvey	MOT MOT MOT MOT MOT MOT MOT SF MOT MBA TPP MOT TPP Fletcher TPP BEP BEP ESD BEP BEP SF MBA BEP SF SDM BEP SF BEP	2001 2001 2001 2001 2002 2002 2002 2002 2003 2003 2003 2003 2004 2004 2004 2005 2005 2005 2005 2006 2006 2006 2006 2007 2007 2007 2007 2007 2007 2008
Master Theses in Progress	Devin Fensterheim Adrian Diaz Ruth Restin	TPP LFM TPP	2009 2009 2010

XV. PUBLICATIONS

REFEREED JOURNAL ARTICLES

- F. Murray** (forthcoming). “The Oncomouse that Roared: Hybrid Exchange Strategies as a Source of Productive Tension At The Boundary Of Overlapping Institutions”. *American Journal of Sociology*.
- P. Aghion, M. Dewatripont, J. Kolev, **F. Murray** & S. Stern (2010). “The Public and Private Sectors in the Process of Innovation: Theory and Evidence from the Mouse Genetics Revolution”. *American Economic Review Papers and Proceedings* 2010.
- K. Huang & **F. Murray** (2009). “Does Patent Strategy Shape the Long-Run Supply of Public Knowledge: Evidence from Human Genetics.” *Academy of Management Journal*, 52(6). (Abridged version published in *Academy of Management 2008 Best Paper Proceedings*)
- S. Kaplan & **F. Murray** (2009). “Entrepreneurs, Institutions and the Construction of Value in Biotechnology.” *Research in the Sociology of Organizations*.
- F. Murray** & S. O’Mahony (2007). “Exploring the Foundations of Cumulative Innovation: Implications for Organization Science.” *Organization Science*, Vol. 18, pp. 1006-1021.
- F. Murray** & S. Stern (2007). “Do formal Intellectual Property Rights Hinder the Free Flow of Scientific Knowledge? *Journal of Economic Behavior and Organization*, Vol. 63:4, pp. 648-687.
- F. Murray** & L. Graham (2007). “Buying Science & Selling Science: Gender Stratification in Commercial Science.” *Industrial and Corporate Change Special Issue on Technology Transfer*, Vol. 16:4, pp. 657-689.
- F. Murray** (2007). “The Stem Cell Market: Patents & the Pursuit of Scientific Progress.” *New England Journal of Medicine*, Vol. 356:23, pp. 2341-2343.
- K. Jensen, C. Jinan, **F. Murray** (2007). A Simple Method to Improve Life Science Patent Searches using the Cyber infrastructure of the NIH. *First Monday*, Vol.12(6). URL: http://firstmonday.org/issues/issue12_6/jensen/index.html
- F. Murray** & D. Spar (2006). “China and Stem Cell Research: Bit-Player or Powerhouse?” *New England Journal of Medicine*, Vol. 355:12, pp. 1191-1194.
- W. Ding, **F. Murray** & T. Stuart (2006). “An Empirical Study of Gender Differences in Patenting among Academic Life Scientists.” *Science*, Vol. 313, pp. 665-667.
- M. G. Edwards, **F. Murray**, and R. Yu (2006). “Gold in the Ivory Tower: Equity Rewards of Out-Licensing.” *Nature Biotechnology*, Vol. 24(5), pp. 509-515.
- K. Jensen & **F. Murray** (2005). “The Intellectual Property Landscape of the Human Genome”. *Science*, Vol. 310, 14 October 2005, pp. 239-240.

- S. Casper & **F. Murray** (2005). "Careers and Clusters: Analyzing the Career Network Dynamics of biotechnology clusters." *Journal of Engineering Technology Management*, Special Issue on Networks, Vol. 22, pp. 51-74.
- F. Murray** (2004). "The Role of Academic Inventors in Entrepreneurial Firms: Sharing in the Laboratory Life." *Research Policy*, Vol. 33, Issue 4, pp. 643-659.
- L. Schiff & **F. Murray** (2004). "Biotechnology financing dilemmas and the role of special purpose entities." *Nature Biotechnology*, Vol. 22, (3) pp. 271-277.
- S. Kaplan, **F. Murray** and R. Henderson (2003). "Recognition & response to biotechnology by leading pharmaceuticals companies." *Industrial & Corporate Change*, Vol. 12 (4) pp. 203-233.
- M. Edwards, **F. Murray** & R. Yu (2003). "Value creation and sharing among universities, biotechnology and pharma." *Nature Biotechnology*, Vol. 21, No. 6 pp.618-624.
- F. Murray** (2002). "Innovation as co-evolution of scientific and technological networks: exploring tissue engineering". *Research Policy*, Vol. 31, Issues 8-9 pp: 1389-1403.
- F. Murray**, J. Landsberg, R.J.P. Williams, M. Esiri and F. Watt (1992). Elemental Analysis of Neurofibrillary tangles in Alzheimer's disease using proton-induced X-ray analysis. *Ciba Foundation Symposium*, No 169, pp. 201-216.

CHAPTERS IN REFEREED BOOKS

- F. Murray** (forthcoming). "Patenting Life: How the Oncomouse Patent Changed the Lives of Mice & Men" in Con/Texts of Invention: Creative Production in Legal and Cultural Perspective M. Biagioli, P. Jaszi, M. Woodmansee eds. Chicago University Press.
- F. Murray** & S. Stern (2007). "When Ideas are Not Free: The Impact of Patenting on Academic Science" in A. Jaffe, J. Lerner, and S. Stern, eds., Innovation Policy and the Economy, Vol. 7, pp. 33-69, MIT Press for the National Bureau of Economic Research.
- F. Murray** & S. Stern (2007). "The Impact of Patents on Scientific Research." Searle Annual Review of Regulation.
- S. Casper & **F. Murray** (2004). "Examining the marketplace for ideas: How local are Europe's biotechnology clusters?" Chapter 12 in Economic Dynamics of Modern Biotechnology McKelvey et al (eds). Cheltenham, UK: Edward Elgar Publishing.
- F. Murray** & M. Tripsas (2004). "The Exploratory Processes of Entrepreneurial Firms: The role of purposeful experimentation." In J.A.C. Baum & A.M. McGahan, *Business Strategy over the Industry Life Cycle: Advances in Strategic Management*, 21. Oxford UK: JAI/Elsevier.
- F. Murray** (2001). "Following Distinctive Paths of Knowledge: Strategies for Organizational Knowledge Building in Science-Based Firms." In *Knowledge Management*, Teece, D. & J. Nonaka (eds.) London UK: Sage Publications.

F. Murray and N. Worren (1999). "When Less Knowledge Leads to more Competence: Innovation Processes in Small Firms." In *Knowledge Management and Organizational Competence* Sanchez (ed.) Oxford UK: Oxford University Press.

F. Murray (1998). "Learning to Use Performance Measures to Transform the Development Process: the Evolution of Performance Criteria." *Performance Measurement – Theory and Practice* Neely, A. & D. Waggoner (eds.) Cambridge, UK: Centre for Business Performance.

ARTICLES IN REFEREED CONFERENCE PROCEEDINGS

F. Murray and H. Hsi (2007). "Knowledge Workers in Biotechnology: Occupational Structures, Careers and Skill Demands." **Prepared for** the *National Academies' Center for Education*, August 2007.

F. Murray (2001) "Innovation as Overlapping Scientific and Technological Trajectories: Exploring Tissue engineering" in Proceedings of the DRUID Nelson & Winter Meeting, June 2001.

S. Kaplan, **F. Murray** and R. Henderson (2001). "Recognition and Response to Biotechnology by Leading Pharmaceuticals Companies," in Proceedings of the DRUID Nelson & Winter Meeting, June 2001.

F. Murray and S. Dopson (1999). "Changing Medical Technology: Complexity or Chaos" *Nuffield Trust Discussion Paper*, in Nuffield Trust: A Policy Programme for Innovation in Global Health.

F. Murray (1999). "Scientific Knowledge and the Evolution of Supplier Networks: A Historical Case Study of the Pharmaceutical Industry." In the Proceedings of the 1999 European Operations Management Association Conference.

HBS CASES AND COURSE DEVELOPMENT MATERIALS

J. Enriques, **F. Murray**, and M. Kolesnik, "Acorda Therapeutics: Rebuilding the Spinal Cord," Harvard Business School Case Study N9-604-014.

F. Murray, C. Loo and R.H.K. Vietor, "China(C): Energy and the Environment," Harvard Business School Case Study N9-794-134.

F. Murray and R.H.K. Vietor. "Ocean Spray Cranberries: Environmental Risk Management", Harvard Business School Case Study N9-794-088.

F. Murray and R.H.K. Vietor. "Xerox: Design for the Environment", Harvard Business School Case Study N9-794-022.

WORKING PAPERS

- F. Murray**, P. Aghion, M. Dewatripont, J. Kolev & S. Stern (2008). “Of Mice and Growth: Examining the Effect of Openness on Innovation”. NBER Working Paper.
- J. Furman & **F. Murray** (2008). “Does Open Access Democratize Innovation? Examining the properties of innovation networks”. MIT Sloan Working Paper.
- J. Gans, **F. Murray** & S. Stern (2008). “Patents, Papers, Pairs & Secrets: Contracting Over the Disclosure of Scientific Knowledge”. MIT Sloan Working Paper.
- F. Murray** & S. Stern (2008). “Learning to Live with Patents: Assessing the Impact of Legal Institutional Change on the Life Science Community”. MIT Sloan Working Paper.
- W. Ding, **F. Murray** & T. Stuart (2007). “Commercial Science: A New Arena for Gender Differences in Scientific Careers.” MIT Sloan Working Paper.

XVI. INVITED ORAL PRESENTATIONS

MANAGEMENT- RELATED

- F Murray.** “Assessing the Impact of Legal Institutional Change on Innovation: An Empirical Perspectives on Legal Questions”. Presentation at the Intellectual Property Scholars Conference, Stanford Law School, August 2008.
- F Murray.** “Do Formal Access Institutions Democratize Innovation?” Presentation to the Fifth Open Innovation Conference, Harvard Business School, August 2008.
- K. Huang & F Murray.** “Golden Helix or Tangled Web: The Impact of Gene Patents on the Diffusion of Genetic Knowledge”. Presentation at the DRUID 25th Anniversary Conference on Innovation, Copenhagen, June 2008.
- F Murray & S. Stern** “Learning to Live with Patents: Assessing the Impact of Legal Institutional Change on a Knowledge Community”. Presentation at the DRUID 25th Anniversary Conference on Innovation, Copenhagen, June 2008.
- F Murray.** “Do Formal Access Institutions Democratize Innovation?” Presentation to the Second Annual Conference on Institutions and Innovation, University of Wisconsin , June 2008.
- F Murray & S. Stern.** “Learning to Live with Patents: Assessing the Impact of Legal Institutional Change on a Knowledge Community”. Presentation to the University of Berkeley, Williamson Seminar Series on Institutions & Innovation, April 2008.
- F Murray.** “Do Formal Access Institutions Democratize Innovation?” Presentation to the Stanford University, DRUID Conference on Open Innovation, Stanford University, April 2008.
- F. Murray.** “The Knowledge Complex: The nature and impact of institutions on scientific progress.” Annual Innovation Lecture Series, Queen’s University Belfast, December 2007.
- K. Huang & F Murray.** “Golden Helix or Tangled Web: The Impact of Gene Patents on the Diffusion of Genetic Knowledge”. Presentation to the MIT Sloan School TIE Seminar, November 2007.
- K. Huang & F Murray.** “Golden Helix or Tangled Web: The Impact of Gene Patents on the Diffusion of Genetic Knowledge”. Presentation to the Round Table on Engineering Entrepreneurship Research, Georgia Tech, November 2007.
- F Murray & S. Stern.** “Learning to Live with Patents: Assessing the Impact of Legal Institutional Change on a Knowledge Community”. Presentation to the University of Wisconsin Science-Technology Interdepartmental Seminar, November 2007.
- F Murray & S. Stern.** “Learning to Live with Patents: Assessing the Impact of Legal Institutional Change on a Knowledge Community”. Presentation to the University of North Carolina Greensboro Economics Seminar, November 2007.

- F. Murray.** “The Knowledge Complex: The nature and impact of institutions on scientific progress.” Keynote Presentation at the Annual Technology Transfer Society Meeting, Palm Desert, November 2007.
- S. Kaplan & F. Murray.** “Technology, Organizations and Institutions in the Construction of Economic Value: The Case of Biotechnology.” Presentation at the Society for the Social Studies of Science Annual Meeting, Montreal, November 2007.
- F. Murray.** “Stem Cells, Exchange and Institutions: Patents and the Pursuit of Scientific Progress.” Presentation at Harvard MGH Stem Cell Leadership Summit, October 2007.
- F. Murray.** “Cumulative Disadvantage in Entrepreneurial Science: A Qualitative Examination of the Emergence of Gender Stratification.” Presentation at Technology Review Panel on Women & Entrepreneurship, September 2006.
- F. Murray.** “Stem Cells, Exchange and Institutions: Patents and the Pursuit of Scientific Progress.” Presentation at Academy of Management, August 2007.
- F. Murray.** “Exchange Relationships and Cumulative Innovation: Standing on the Shoulders of the Oncomouse.” Presentation to MIT-Portugal Entrepreneurship Seminar, June 2007.
- F. Murray.** “Knowledge Workers in Biotechnology: Occupational Structures, Careers and Skill Demands”. Presentation to the National Academies’ Center for Education, May 2007.
- F. Murray.** “Exchange Relationships and Cumulative Innovation: Standing on the Shoulders of the Oncomouse.” Presentation to Boston University Strategy & Organization Seminar, October 2006.
- F. Murray.** “Stem Cell Market: Patents and the Pursuit of Scientific Progress.” Presentation to Harvard MGH Stem Cell Leadership Summit, National Academies, October 2006.
- F. Murray.** “Exchange Relationships and Cumulative Innovation: Standing on the Shoulders of the Oncomouse.” Presentation to University of North Carolina Chapel Hill Sociology Seminar, September 2006.
- F. Murray.** “Cumulative Disadvantage in Entrepreneurial Science: A Qualitative Examination of the Emergence of Gender Stratification.” Presentation at Academy of Management, August 2006.
- F. Murray.** “Does Formal Intellectual Property Impact the Market for Scientific Credit? Evidence from Patent-Paper Pairs” Presentation at Academy of Management, August 2006.

- F. Murray.** “Patent Landscape of the Human Genome: Implications for the Organization of Science” Presentation to MIT Sloan Conference on Open Innovation & Non-Profits, June 2006.
- F. Murray.** “Patent Landscape of the Human Genome” Presentation to MIT Sloan Alumni Conference, June 2006.
- F. Murray.** “Patent Landscape of the Human Genome” Presentation to BioIT World Annual Conference, April 2006.
- F. Murray.** “Does Formal Intellectual Property Impact the Market for Scientific Credit? Evidence from Patent-Paper Pairs” Presentation to Harvard Business School TOM Seminar, March 2006.
- F. Murray.** “Patent Landscape of the Human Genome” Presentation to Duke University Interdepartmental Seminar in Genomics & Genetics, March 2006.
- F. Murray.** “Patent Landscape of the Human Genome: Implications for Translational Medicine” Keynote Presentation to American Association of Biomedical Engineering Annual Conference, March 2006.
- F. Murray.** “Exchange Relationships and Cumulative Innovation: Standing on the Shoulders of the Oncomouse” Presentation to MIT Sloan School OSG Seminar, March 2006.
- F. Murray.** “Does Formal Intellectual Property Impact the Market for Scientific Credit? Evidence from Patent-Paper Pairs” Presentation to MIT Sloan School IWER Seminar, February 2006.
- F. Murray.** “Exchange Relationships and Cumulative Innovation: Standing on the Shoulders of the Oncomouse” Presentation to Brigham Young University Winter Conference, February 2006.
- F. Murray** and S. Stern. “Does Formal Intellectual Property Impact the Market for Scientific Credit? Evidence from Patent-Paper Pairs”. Presentation at the American Economic Association, Boston, January 2006.
- F. Murray.** “Exchange Relationships and Cumulative Innovation: Standing on the Shoulders of the Oncomouse” Presentation to the Intellectual Property Law Seminar, New York University Law School, January 2006.
- F. Murray.** “Exchange Relationships and Cumulative Innovation: Standing on the Shoulders of the Oncomouse” Presentation to the National Bureau of Economic Research Productivity Seminar, November 2005.
- F. Murray.** “A Longitudinal Examination of Gender Stratification in Entrepreneurial Science” Presentation to the MIT Sloan Organization Studies Group Seminar, October 2005.

- F. Murray.** “Exchange Relationships and Cumulative Innovation: Standing on the Shoulders of the Oncomouse” Presentation to the Wharton School of Management Entrepreneurship Seminar, October 2005.
- F. Murray.** “Exchange Relationships and Cumulative Innovation: Standing on the Shoulders of the Oncomouse” Presentation to the Harvard Business School Entrepreneurship Seminar, October 2005.
- F. Murray.** “Exchange Relationships and Cumulative Innovation: Standing on the Shoulders of the Oncomouse” Presentation at the University-Industry Knowledge Transfer Conference, Ecole Polytechnique Federale de Lausanne, October 2005.
- S. Casper and F. Murray.** “Exchange under conflicting institutional logics: commerce and science in the world of population genetics.” Presentation at the American Sociological Association, Economic Sociology Section, Philadelphia, August 2005.
- F. Murray.** “Standing on the Shoulders of the Oncomouse: The Institutional and Social Foundations of Cumulative Innovation.” Presentation at the Stanford Social Science and Technology Seminar, June 2005.
- F. Murray and Leigh Graham.** “Cumulative Disadvantage in Entrepreneurial Science: A Qualitative Examination of the Emergence of Gender Stratification.” Presentation at the European Group on Organization Studies Conference, Berlin June 2005.
- F. Murray and Leigh Graham.** “Cumulative Disadvantage in Entrepreneurial Science: A Qualitative Examination of the Emergence of Gender Stratification.” Presentation at the SASE Conference, Budapest June 2005.
- F. Murray and S. Stern.** “Do Formal Intellectual Property Rights Hinder the Free Flow of Scientific Knowledge? Evidence from Patent-Paper Pairs.” Presentation at the World Bank Conference on R&D and Economic Growth, Barcelona, June 2004.
- F. Murray.** “Standing on the Shoulders of the Oncomouse: The Institutional and Social Foundations of Cumulative Innovation.” Presentation at the University of Toronto, Bringing Science to Life Conference, May 2005.
- F. Murray and S. Stern.** “Do Formal Intellectual Property Rights Hinder the Free Flow of Scientific Knowledge? Evidence from Patent-Paper Pairs.” Presentation at Round Table of Engineering Entrepreneurship, Georgia Tech, Dec 2004.
- F. Murray and S. Stern.** “Do Formal Intellectual Property Rights Hinder the Free Flow of Scientific Knowledge? Evidence from Patent-Paper Pairs.” Presentation at NBER Productivity Meeting, Dec 2004.
- F. Murray.** “Intellectual Property and the Invisible College.” Presentation at MIT Economic Sociology Seminar, Dec 2004.

- F. Murray** and S. Stern. “Do Formal Intellectual Property Rights Hinder the Free Flow of Scientific Knowledge? Evidence from Patent-Paper Pairs.” Presentation at NBER Academic Entrepreneurship Conference, April 2004.
- F. Murray** and S. Stern. “Do Formal Intellectual Property Rights Hinder the Free Flow of Scientific Knowledge? Evidence from Patent-Paper Pairs.” Presentation at MIT Industrial Organization Seminar. November 2003.
- F. Murray** and S. Stern. “Do Formal Intellectual Property Rights Hinder the Free Flow of Scientific Knowledge? Evidence from Patent-Paper Pairs.” Presentation at NBER Conference on Academia & Science. November 2003.
- F. Murray.** “Scientific & Technical Communities in the Development of Scientific Capabilities: A UK, German & US comparison.” Presentation given to Georgia Tech School of Public Policy, Science Policy Seminar, March 2003.
- S. Casper and **F. Murray.** “Scientific & Technical Communities in the Development of Scientific Capabilities: The Case of Biotechnology.” Presentation given to Said Business School, Seminar in Management, January 2003.
- F. Murray.** “Marketplace for Ideas: Establishing a Successful Biotechnology Industry in the UK.” Presentation given to the Annual Summit on UK Competitiveness, Cambridge-MIT Institute, London, November 2002.
- M. D. Burton and **F. Murray.** “Bridging Networks: Radical Innovation as a Social Process.” Presentation given at the Academy of Management Annual Meeting in Denver CO, August 2002.
- S. Casper and **F. Murray.** "Construction of Markets for Genetic Ideas and Information." Presentation given at the Constructing Markets, Shaping Production Conference, Stockholm School of Economics, Sweden, July 2002.
- F. Murray.** “The Role of Scientists in the Commercialization of Tissue Engineering: Tacit Knowledge or Networks of Innovation”. Presentation given at the Second Georgia Tech Conference on Engineering Entrepreneurship, GIT, March 2002.
- F. Murray.** “Overlapping Communities of Innovation: the Role of Scientists.” Presentation given at the Wharton Technology Mini-Conference, Wharton School of Management, Upenn, February 2002.
- F. Murray.** “Successful Biomedical Collaboration: Meeting in the Marketplace for Ideas.” Presentation given to the Annual Meeting of the Centre for Medical Innovation & Technology, Massachusetts General Hospital, November 2001.
- F. Murray.** “Overlapping Communities of Innovation in the Commercialization of Science.” Presentation given at the Harvard Business School, Harvard University, November 2001
- F. Murray** and S. Kaplan. “The Evolution of Biotechnology: The Role of Social Evidence in Shaping a Technology Trajectory.” Presentation given at the Academy of Management Annual Meeting in Washington D. C., August 2001.

- F. Murray.** “Overlapping Communities of Innovation: the Role of Scientists.” Presentation given at the European Group on Organization Studies (EGOS) Lyon, France, July 2001.
- F. Murray.** “Innovation as Overlapping Scientific and Technological Trajectories.” Presentation given at the DRUID Conference in Honour of Nelson & Winter, Aarlborg, Denmark, June 2001.
- S. Kaplan, **F. Murray** and R. Henderson (2000). “Recognition and Response to Biotechnology by Leading Pharmaceuticals Companies.” Presentation given at the DRUID Conference in Honour of Nelson & Winter, Aarlborg, Denmark, June 2001.
- S. Kaplan, **F. Murray** and R. Henderson (2000) “Recognition and Response to Biotechnology by Leading Pharmaceuticals Companies.” Presentation given at the Strategic Management Society Conference in Vancouver, September 2001.
- F. Murray.** (1999). “The Evolution of Appropriability: Ideas Shaping and Shaped by Intellectual Property Law.” Presentation given at the Conference on Intellectual Property Law, Kobe, Japan, April 1999.
- F. Murray.** (1999). “The Evolution of Appropriability: Ideas Shaping and Shaped by Intellectual Property Law.” Presentation given at University of Venice, March 1999.
- F. Murray** (1999). “Scientific Knowledge and the Evolution of Supplier Networks: A Historical Case Study of the Pharmaceutical Industry.” Presentation given at the European Operations Management Association Conference, Venice Italy, March 1999.
- F. Murray** (1998). “Following Distinctive Paths of Knowledge: Strategies for Organizational Knowledge Building in Science-Based Firms.” Presentation given at the Berkeley Conference on Knowledge Management at the University of California, Berkeley, September 1998.
- C. Chapman and **F. Murray** (1998). “Boundaries and Boundary Spanning Processes.” Presentation given at the 5th International Product Development Management Conference, Lake Como, Italy, March 1998.

SCIENCE-RELATED

- F. Murray** and P. Rogers (1996). “An Integrated Assessment of Pollution Control Technology Options in China’s Electric Power Generating Industry.” Presentation given to the World Bank Asia Technical Department Environmental Seminar Series, April 1996.
- F. Murray** and P. Rogers (1995). “An Integrated Assessment of Pollution Control Technology Options in China’s Electric Power Generating Industry.” Presentation to the Conference of the Air and Waster Management Association, San Antonio, Texas, August 1995.
- F. Murray** (1994). “Measuring Corporate Progress Towards Pollution Prevention: Using Multi-objective Analysis to Integrate Environmental Goals,” a Northeast Waste Management Officials’ Association Pollution Prevention in Manufacturing Conference, Massachusetts Institute of Technology, Cambridge, MA, 1994.
- F. Murray** (1994). “Assessing the Technological Options for Managing Environmental Quality in China,” presentation given to Harvard University, Faculty Committee on Environment, Harvard College, 1994.
- F. Murray** (1994). “Energy and the Environment in China,” presented at the Workshop on Environmental Economics and Policy, Harvard Institute for International Development.