

Curriculum Vitae

Name:	REBECCA M. HENDERSON	Department:	BPS, Sloan School
Birth Date:	Oct 29, 1960	Place of Birth:	London
Citizenship:	British	Immigration status:	US Citizen

Education

Harvard University	Ph.D.	1983-1988
Doctorate in Business Economics. Thesis: <i>The Failure of Established Firms in the Face of Technological Change: A Study of Photolithographic Alignment Equipment.</i>		
Massachusetts Institute of Technology	S.B.	1978-1981
Mechanical Engineering.		

Academic Employment:

Eastman Kodak LFM Professor, MIT Sloan School,	1999-
Marvin Bower Visiting Professor, Harvard Business School	2002-2003
Tenured Associate Professor, MIT Sloan School,	1995-1999
Research Associate, National Bureau of Economic Research,	1995-
Thomas Henry Carroll Foundation Visiting Professor of Management, Harvard Business School.	1996-1997
Robert Noyce Associate Professor, MIT Sloan School,	1993-1995
Research Fellow, National Bureau of Economic Research,	1990-1995
Visiting Assistant Professor, Stanford Graduate School of Business,	1992-1993.
Assistant Professor, MIT Sloan School,	1988-1992

Non Academic Employment:

McKinsey and Company	Summer associate.	Summer 1986
Harvard University	Research assistant, K. Clark.	Summer 1985
General Electric	Analyst, strategic planning.	Summer 1984
McKinsey and Company	Analyst.	1981-1983

Honors and Awards:

Teacher of the Year	2001
Runner-up, Teacher of the Year	1990,1993,1995,1996, 1998,2000,2004,2009
ASQ Award for Scholarly Contribution	1996
Dively Award for best thesis proposal, Harvard.	1988
Alumnae Award, (outstanding female graduate) MIT.	1981
Elected to <i>Phi Beta Kappa</i>	1981

Boards and Advisory Panels

Boards

Idexx Laboratories	2003 -
The Ember Corporation, Cambridge MA	2001 -
The Whitehead Institute for Biomedical Research, Cambridge, MA.	1999 - 2006
Linbeck Construction Corporation, Houston Texas.	2000 - 2004

Advisory Panels

The Department of Social and Decision Sciences, Carneige Mellon	1995 – 1998
The Wharton School of Business, Management Department	1995 –
The Platform, Inc	2000 – 2001
3G	2001 – 2002

Anti-Trust Experience

Retained by the Department of Justice as an expert witness in connection with the remedies phase of the Microsoft trial. Summer 1999 – Spring 2000. Declaration available on line at: www.usdoj.gov/atr/cases/ms_remediespapers.htm

Editorial Responsibilities

Member, Editorial Board:

Administrative Science Quarterly	1994 – 2008
The Strategic Management Journal	1994 – 2002
Economics of Innovation and New Technology	1995 – 2006
Research Policy	1998 –
Management Science	2000 –
Strategic Organization	2001 – 2006
Organization Science	2002 –
Department Head, Strategy, <u>Management Science</u>	1995 – 2000

Publications

Journal Articles (Refereed).

"Knowledge Spillovers, Geographic Location, and the Productivity of Pharmaceutical Research," with Jeffrey Furman, Margaret K. Kyle and Iain Cockburn. Forthcoming, Annales d'Economie et de Statistique (Special Issue in memory of Zvi Griliches).

"Getting Big Too Fast: Strategic Dynamics with Increasing Returns and bounded rationality". Jointly with John Sterman, Eric Beinhocker and Lee Newman. Management Science, Vol. 53(4), April 2007, pp. 683-696.

"Platform owner Entry and Innovation in Complementary Markets: Evidence from Intel". Jointly with Annabelle Gawer. Journal of Economics and Management Strategy, Vol. 6(1), Spring 2007, pp. 1-34.

"The Innovator's Dilemma as a Problem of Organizational Competence" Journal of Product Innovation Management, 2006, Volume 23, pp5-11.

"Inertia and incentives: Bridging Organizational Economics and Organizational Theory" Joint with Sarah Kaplan. Organization Science, September-October 2005, Vol 16, No 5, pp509-521.

"Patent citations and the geography of knowledge spillovers: A reassessment: Comment" Joint with Adam Jaffe and Manuel Trajtenberg, American Economic Review, March 2005, 416-464

"Do Firms Change Capabilities by Hiring New People? A study of the Adoption of Science-based Drug Discovery" Joint with Nico Lacetera and Iain Cockburn. 2004. Advances in Strategic Management, 2004, vol. 21.

"Discontinuities and senior management: assessing the role of recognition in pharmaceutical firm response to biotechnology" Joint with Sarah Kaplan and Fiona Murray Industrial & Corporate Change 2003 Vol 12: pp 203-233.

"Putting Patents in Context: Exploring Knowledge Transfer from MIT" Joint with Ajay Agrawal. Management Science, Vol 28, No 1, 2002, pp 44-60. Reprinted in Advances in Strategic Management, Volume 26, "Economic institutions of strategy", Edited by J. Nickerson and B. Silverman, 2009.

"Scale and scope in drug development: unpacking the advantages of size in pharmaceutical research." Jointly with Iain Cockburn. Journal of Health Economics, 2001, Vol 20, p 1033-1057.

"Untangling the Origins of Competitive Advantage" Jointly with Iain Cockburn and Scott Stern, Strategic Management Journal, Fall 2000, Volume 21, 1123-1145. Reprinted in The SMS Blackwell Handbook of Organizational Capabilities: Emergence, Development and Change, C. Helfat, ed. Blackwell, 2003. Oxford, UK

"Absorptive Capacity, Coauthoring Behavior, and the Organization of Research in Drug Discovery" Jointly with Iain Cockburn. Journal of Industrial Economics, June 1998, Volume XLVI, No. 2. pp157-182.

"Universities as a Source of Commercial Technology: A Detailed Analysis of University Patenting, 1965-1988" Jointly with Adam Jaffe and Manuel Trajtenberg. Review of Economics and Statistics, Vol. 80, No. 1, February 1998 pp 119-127. Reprinted in Technological Entrepreneurship: Institutions and Agents Involved in Technology Transfer, Ed Don Sigel, Edward Elgar, 2005.

"The Perils of Excellence: Barriers to Effective Process Improvement in Product-Driven Firms" Jointly with Jesus del Alamo, Todd Becker, James Lawton, Peter Moran, Saul Shapiro and Dean Vlasak. Production and Operations Management, Vol. 7, No. 1, Spring 1998, pp 2-18.

"University versus Corporate Patents: A Window on the Basicness of Invention" Jointly with Adam Jaffe and Manuel Trajtenberg. Economics of Innovation and New Technology, 1997, Vol

5, No. 1, pp 19-50.

"Scale, Scope and Spillovers: The Determinants of Research Productivity in Drug Discovery." Jointly with Iain Cockburn. Rand Journal of Economics, Spring 1996, 27(1), pp. 32-59.

"Measuring Competence? Exploring firm effects in drug discovery." Jointly with Iain Cockburn. Strategic Management Journal, Volume 15, pp 63-84, Special issue Winter 1994.

"The Evolution of Integrative Capability: Innovation in Cardiovascular Drug Discovery" Industrial and Corporate Change, Vol 3, No. 3, Winter 1994 pp 607-630.

"Racing to Invest? The Dynamics of Competition in Ethical Drug Discovery." Jointly with Iain Cockburn. Journal of Economics and Business Strategy, Volume 3, No. 3, Fall 1994, 481-519.

"Of Life Cycles Real and Imaginary: The Unexpectedly Long Old Age of Optical Lithography" Research Policy, 1995, Vol. 24, pp 631-643.

"Geographic Localization of Knowledge Spillovers as Evidenced by Patent Citations." Joint with Adam Jaffe and Manuel Trajtenberg. Quarterly Journal of Economics, August 1993, Vol. 434, pp 578-598. Reprinted in Recent Developments in Growth Theory, Daron Acemoglu Editor, Elgar, Cheltenham UK, Fall 2004.

"Underinvestment and Incompetence as Responses to Radical Innovation: Evidence from the Photolithographic Industry." Rand Journal of Economics. Vol.24, No.2, Summer 1993

"A Process Control Methodology Applied to Manufacturing GaAs MMICs. (Jointly with Peter Moran, Scott Elliott, Neil Wylie and Jesus del Alamo.) IEEE Transactions on Semiconductor Manufacturing, November 1991, Vol.4., No.4

"Manufacturing Costs for Advanced Composites Aerospace Parts." With C. Shipp and T. Gutowski. SAMPE, (Society for the Advancement of Material and Process Engineering.) Vol. 27, No. 3, May/June 1991.

"Architectural Innovation: The Reconfiguration of Existing Product Technologies and The Failure of Established Firms." With Kim Clark, March 1990, Administrative Science Quarterly, Vol 35, p9-30. Reprinted in The Management of Innovation, John Storey Ed, Elgar, London, 2004, in Managing Strategic Innovation and Change, M.Tushman and P. Anderson Eds, Oxford University Press, 2004, and in Strategic Management of Technology and Innovation, Robert Burgelman, Clayton Christensen and Steven Wheelwright, Eds, Oxford University Press, 2004. Translated into Chinese for inclusion in an ASQ sponsored collection of "best papers" in 2005.

Journal Articles (Non-refereed).

"Drug Industry mergers Won't Necessarily Benefit R&D" Research Technology Management July –August 2000, Vol 43 No 4. P 10 – 11.

"The Interactions of Organizational and Competitive Influences on Strategy and Performance." With Will Mitchell, Summer 1997, Strategic Management Journal Vol 18, Summer special issue, pp5-14.

"Managing Innovation in the Information Age" Harvard Business Review, January-February 1994, 100-106. Reprinted in Seeing Differently, J.S. Brown, Ed., Harvard Business School Press, Boston MA, 1997 and in The Product Development Challenge, Kim B. Clark and Steven C. Wheelwright, Eds, Harvard Business School Press, Boston MA, 1995.

"Breaking the Chains of Embedded Knowledge: Architectural Innovation as a Source of Competitive Advantage." Design Management Journal, Vol.2, No.3, Summer 1991

Chapters in Edited Volumes.

"Strategic Advantage and the Dynamics of Organizational Competence". Chapter 17 in S. Chowdhury, Next Generation Business Handbook: New Strategies from Tomorrow's Thought Leaders, 2004 by John Wiley & Sons, New Jersey, pp. 294-312.

"Publicly funded science and the productivity of the pharmaceutical industry" with Iain Cockburn, Chapter 1 in Innovation Policy and the Economy, Number 1, 2000, National Bureau of Economic Research, Adam Jaffe, Josh Lerner and Scott Stern, editors, The MIT Press, Cambridge MA.

"Luck," "Leadership" and "Strategy". Economics Meets Sociology, Volume 17 in Advances in Strategic Management, Edited by Joel A.C. Baum and Frank Dobbin, pp 285-290, 2000 by Jai Press Inc, Stamford Connecticut

"Measuring Competence? Exploring Firm Effects in Drug Discovery" Jointly with Iain Cockburn. Chapter 6 in The Nature and Dynamics of Organizational Capabilities, Edited by Giovanni Dosi, Richard R. Nelson and Sidney G. Winter, 2000 by Oxford University Press, Oxford, UK.

"The Economics of Drug Discovery" Jointly with Iain Cockburn, Chapter 5 in Pharmaceutical Innovation, edited by Ralph Landau, Basil Achilladelis and Alexander Scriabine, Chemical Heritage Press, Philadelphia PA 1999, pp 308-331.

"Pharmaceuticals and Biotechnology" Jointly with Iain Cockburn, Luigi Orsenigo and Gary Pisano. Chapter 13 in US Industry in 2000: Studies in Competitive Performance. David Mowery, Editor. Board on Science, Technology and Economic Policy, National Research Council. National Academy Press. Washington, DC, 1999.

"The Pharmaceutical Industry and the Revolution in Molecular Biology: Interactions Among Scientific, Institutional and Organizational Change." Jointly with Luigi Orsenigo and Gary Pisano. Chapter 7 in The Sources of Industrial Leadership, Cambridge University Press, David Mowery and Richard Nelson, Editors, Cambridge University Press, 1999, pp 267-311.

"On the Dynamics of Forecasting in Technologically Complex Environments: The Unexpectedly Long Old Age of Optical Lithography" In Technological Innovation: Oversights and Foresights, Raghu Garud, Pravenn Nayyar and Zur Shapira, Editors, Cambridge University Press, New York, 1997.

"Trends in University Patenting 1965-1992," (Jointly with Adam Jaffe and Manuel Trajtenberg.) Forthcoming in the Center for Economic Policy Research conference volume: University Goals, Institutional Mechanisms and the "Industrial Transferability" of Research.

"The Determinants of Research Productivity in Ethical Drug Discovery." (Jointly with Iain Cockburn) In The American Enterprise Institute Conference Volume: Competitive Strategies in the Pharmaceutical Industry, Robert B Helms, Ed. Washington DC, 1996.

"Maintaining Leadership across Product Generations: The Case of Canon in Photolithographic Alignment Equipment" in Managing Product Development, Toshihiro Nishiguchi, Ed. Oxford University Press, 1996. (This book was awarded the 1996 Shingo Prize for Excellence in Manufacturing research.)

"Technological Change and The Management of Architectural Knowledge." In Transforming Organizations, Edited by T. Kochan and M. Useem. Oxford University Press, Oxford, U.K., 1992. Reprinted in Organizational Learning, edited by Michael D. Cohen and Lee S. Sproull, Sage Publications Inc, CA, 1996.

Conference Proceedings.

"Public-private interaction in pharmaceutical research" (Jointly with Iain Cockburn) in the Proceedings of the National Academy of Sciences 93/23 (November 12, 1996) p.12725-12730

"Controlling Variability of Sub-micron Gate Lithography in a GaAs MMIC Manufacturing Environment." (Jointly with Peter Moran, Jesus del Alamo, Neil Wylie and Scott Elliott.) Presented at the SEMI Advanced Semiconductor Manufacturing Conference, pp136a-g. September 1990, Danvers, MA.

"Workload Regulating Wafer Release in a GaAs Fab Facility." International Semiconductor Manufacturing Science Symposium, May 1990, San Francisco, CA. (Jointly with James Lawton, Al Drake, Lawrence Wein, Ron Whitney, and Dick Zuanich.)

Working Papers.

"Balancing Incentives: The Tension between Basic and Applied Research" Jointly with Iain Cockburn and Scott Stern.

"Schumpeterian competition within computing markets and organizational diseconomies of scope". Joint with Tim Bresnahan and Shane Greenstein.

"The Tyranny of Quarterly Earnings: Why do Firms eat their seed corn, and when does it matter?" Joint with Nelson Repenning

"What do Managers do (to build competitive advantage)? The Development of Relational Contracts and the Origins of Organizational Capability" Joint with Robert Gibbons

"Stuck! Doing new things in old organizations" Joint with Nelson Repenning

Teaching Materials

HBS Cases (Available from HBS Press)

“Kodak and the Digital revolution” Jointly with G. Gavetti, S. Giorgi. November 2004, #705448

“D-Wave Systems: Building a Quantum Computer” Jointly with A. MacCormack and A. Agrawal, April 2004, #604073

“Nokia and MIT’s Project Oxygen” Jointly with D. Yoffie, January 2004, #704474

“Mercury Computer Systems: The evolution from integrated technology to open standards” Jointly with Nancy Confrey, August 2003, #704424

“Ember Corporation: Developing the Next Ubiquitous Network Standard” Jointly with Nancy Confrey, February 2003, #703448

“Corning Inc: Technology Strategy in 2003” November 2002, #703440

MIT Cases (Available at <https://mitsloan.mit.edu/mstir>)

“Nike Considered: Getting Traction on Sustainability” Jointly with C. Reavis, R. Locke, and C. Lyddy, December 2008

“Corning Inc: The Growth and Strategy Council”, Jointly with C. Reavis, April 2008

“Gridlogix”, Jointly with C. Reavis and N. Hofmeister, March 2008

“Eli Lilly: Recreating Drug Discovery for the 21st century” Jointly with C. Reavis, March 2008

“Eli Lilly’s Project Resilience: Anticipating the future of the pharmaceutical industry” July 2007

“Sun Power: Focused on the future of the solar power industry” Jointly with J. Conkling and S. Roberts, July 2007

“Ventures in Salt: Compass Minerals International” Jointly with J. Sterman and R. Nanda, January 2005