

# STAN NEIL FINKELSTEIN, M.D.

Date of Birth: November 7, 1949  
Citizenship: U.S.  
Marital Status: Married, one child

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Lincoln, MA 01773  
(781) 259-3181

## EDUCATION:

|                                       |                           |      |
|---------------------------------------|---------------------------|------|
| Massachusetts Institute of Technology | S.B. Chemical Engineering | 1971 |
| Massachusetts Institute of Technology | S.M. Chemical Engineering | 1971 |
| Harvard Medical School                | M.D.                      | 1975 |

**PRINCIPAL FIELD OF INTEREST:** Health Policy and Management

**SPECIFIC INTEREST:** Effectiveness of Health Care Practice and Technology

## POSITIONS AT M.I.T.:

|   |  |           |
|---|--|-----------|
| Senior Research Scientist, Engineering Systems Division & Harvard-M.I.T. Division of Health Sciences and Technology |  | 2005-     |
| Senior Research Scientist, Sloan School of Management   |  | 1995-2005 |
| Co-Director, Program on the Pharmaceutical Industry (POPI)  |  | 1991-     |
| Senior Lecturer in Health Policy and Management, Sloan School and Whitaker College                                  |  | 1985-94   |
| Harvard-M.I.T. Division of Health Sciences and Technology, Faculty Member   |  | 1983-     |
| J.W. Kieckhefer Associate Professor in Technological Assessment in Health Care                                      |  | 1983-84   |
| Director, Laboratory for Health Care Studies, Whitaker College  |  | 1982-91   |
| Associate Professor of Health Management, Sloan School  |  | 1982-85   |
| Assistant Professor of Health Management, Sloan School  |  | 1977-82   |
| Post-doctoral Fellow (Health Management/Sloan School)   |  | 1977-78   |
| Post-doctoral Fellow (School of Humanities & Social Science)  |  | 1976-77   |
| Lecturer (Health Policy/Political Science)  |  | 1976-77   |
| Research Associate (Health Policy/Political Science)  |  | 1975-76   |

## OTHER ACADEMIC APPOINTMENTS:

|   |   |         |
|---|---|---------|
| Harvard Medical School, MD/MBA Program              | Director                                      | 2005-   |
| Harvard Medical School, Dept. of Health Care Policy | Senior Lecturer                               | 2003-   |
| Harvard Medical School                              | Chair, M.D./M.B.A. Task Force                 | 2002-04 |
| New York State Center for Assessing Health Service  | Medical Consultant                            | 1985-88 |
| Harvard School of Dental Medicine                   | Faculty Preceptor in Dental Services Research | 1983-89 |
| National Bureau of Economic Research                | Research Associate                            | 1982-84 |
| Stanford University Graduate School of Business     | Visiting Faculty Member (Spring)              | 1982    |
| University Health Policy Consortium                 | Center Associate                              | 1978-84 |
| Massachusetts General Hospital                      | Clinical Fellow (part time)                   | 1975-80 |

**OTHER ACADEMIC APPOINTMENTS (continued):**

|   |  |         |
|---|--|---------|
| Boston Veterans Administration Hospital | Physician at the Health Care Management Center | 1977-78 |
| National Institutes of Health           | Biomedical Research Staff (Summer)             | 1968-74 |

**SELECTED CONSULTING ENGAGEMENTS:**

|   |         |
|---|---------|
| Physicians' Academy for Clinical and Management Excellence                    | 2005-06 |
| Millennium Pharmaceuticals, Inc.  | 2001    |
| Cyberonics, Inc.  | 2001    |
| Thomson Medstat   | 2000-   |
| Amgen, Inc.   | 1997-02 |
| Pfizer, Inc.  | 1993-01 |
| Analysis Group, Senior Academic Advisor                                       | 1993-99 |
| Charles River Associates  | 1991-93 |
| Sprout Venture Group of Donaldson, Lufkin and Jenrette Securities Corporation | 1990-93 |
| Raytheon Company New Products Center  | 1989-90 |
| Permobil AB Sweden  | 1985-90 |
| New York State Center for Assessing Health Services                           | 1985-88 |
| National Institutes of Health, Office of the Director                         | 1983-87 |
| Mystic Valley Mental Health Center  | 1982-83 |
| Electronics for Medicine/Honeywell, Inc.                                      | 1981    |
| Zentralsparkasse and Kommerzbank - Vienna                                     | 1980    |
| National Heart, Lung, and Blood Institute - Bethesda, MD                      | 1979-82 |
| General Electric Company - Information Center Programs                        | 1979    |
| Iranian National Blood Transfusion Service - Tehran                           | 1978-79 |
| Cooper Medical Center - Camden, NJ  | 1978    |
| American Blood Commission - Data Center Task Force - Washington, DC           | 1976    |
| Consumers' Research Magazine  | 1976    |
| Veterans Administration Central Office - Washington, DC                       | 1976    |

**MIT DEPARTMENT AND INSTITUTE COMMITTEES:**

|   |         |
|---|---------|
| Harvard-MIT Health Sciences & Technology, M.D. Admissions Committee | 2003-   |
| Biomedical Enterprise Program (HST/Sloan School) Steering Committee | 2001-   |
| Harvard-MIT Health Sciences & Technology, M.D. Curriculum Committee | 1999-05 |
| Sloan School Ph.D. Committee  | 1983-87 |
| Medical Administrative Board  | 1983-85 |
| Premedical Advisory Council   | 1982-98 |
| Sloan School Undergraduate Committee and Faculty Advisor            | 1980-88 |
| Medical Advisory Board, (Co-Chairman, 1983-85)                      | 1980-85 |
| Freshman Advisory Board   | 1975-77 |
| Committee on Education Policy                                       | 1972-74 |
| Committee on the Use of Humans as Experimental Subjects             | 1970-71 |

**GOVERNMENT AND PUBLIC SERVICE:**

|  |         |
|--|---------|
| U.S. Pharmacopeia International Health Committee   | 2005-   |
| U.S. Pharmacopeia Medicare Model Guidelines Committee  | 2004-05 |
| U.S. Pharmacopeia Therapeutic Decision-Making Panel Member   | 2000-05 |
| U.S. Pharmacopeia Drug Utilization Review Panel Member   | 1995-00 |
| Board of Health, Lexington, MA   | 1986-93 |
| Town Meeting Member, Lexington, MA   | 1986-91 |
| Health Care Financing Administration Research Grant Review Panel   | 1983-88 |
| National Oversight Committee on Medical Applications of Research, Office of the Director,<br>National Institutes of Health | 1983-87 |
| Town of Lexington, Massachusetts; Human Services Advisory<br>Committee Member (Co-chairman, 1985-86)                       | 1981-86 |
| National Heart, Lung, and Blood Institute of the National Institutes of Health,<br>Consultant to the Director              | 1979-82 |

**EDITORIAL BOARDS:**

|                          |      |
|--------------------------|------|
| Biotechnology Healthcare | 2004 |
| Pharmaceutical Discovery | 2001 |

**AWARDS AND CERTIFICATIONS:**

|  |         |
|--|---------|
| J.W. Kieckhefer Chair in Technological Assessment in Health Care | 1983-84 |
| Diplomate of the National Board of Medical Examiners             | 1976-   |
| Licensed to practice medicine in Massachusetts                   | 1976-   |
| Mellon Post-doctoral Fellow at M.I.T.                            | 1976-77 |
| NIH Predoctoral Research Fellowship in Bioengineering            | 1970-71 |

**PUBLICATION LIST:**▪ **BOOKS AND MONOGRAPHS:**

Innovation in Medical Technology (with S.S. Blume), Special Issue of Research Policy 14(4), 1985.

The American Blood Supply (with A.W. Drake and H.M. Sapolsky), M.I.T. Press, 1982.

Biomedical Innovation (with E.B. Roberts, R.I. Levy, J. Moskowitz, and E.J. Sondik), M.I.T. Press, 1981.

**PUBLICATION LIST (continued):****• ARTICLES AND WORKING PAPERS:**

**“Economic Evaluation of Bayesian Model To Predict Late Phase Success Of New Molecular Drug Entities”**, (with Asher D. Schachter, Marco F. Ramoni, Gianluca Baio and Thomas G. Roberts), *forthcoming in Value in Health*, 2007.

**“The U.S. Pharmacopeia And Model Guidelines For Medicare Part D. Formularies”**, (with other members of Medicare Model Guidelines Expert Committee), *Annals of Internal Medicine*, 145:448-453, September 2006.

**“A Framework To Evaluate The Economic Impact Of Pharmacogenomics”**, (with Sarah C. Stallings, Daniel Huse, William H. Crown, Whitney P. Witt, Jon Maguire, Arthur J. Hiller, Anthony J. Sinskey and Geoffrey S. Ginsburg), *Pharmacogenomics*, 7(6):853-862, July 2006.

**“Off Label Prescribing Among Office-Based Physicians”**, (with David C. Radley and Randall S. Stafford), *Archives of Internal Medicine*, 166(9):1021-1026, May 2006.

**“A Cure for Multiple Sclerosis in Our Lifetime?”**, (with Anthony J. Sinskey and Scott M. Cooper), *Pharmaceutical Discovery*, 5(6):40-43, August 2005.

**“An Economic Framework for Evaluating Personalized Medicine”**, (with Sarah C. Stallings, Anthony J. Sinskey, Whitney P. Whitt, William H. Crown, Jon Maguire, Daniel Huse, Arthur J. Hiller and Geoffrey S. Ginsburg), MIT Program on the Pharmaceutical Industry (POPI) Working Paper No. 64-03, Revised May 2005.

**“The Consequences of Limiting Stem Cell Research: Health and Economic Considerations”**, (with Anthony J. Sinskey and Scott M. Cooper), *Pharmaceutical Discovery*, May 2005.

**“The Economic Burden of Anemia in Cancer Patients Receiving Chemotherapy”**, (with Gary H. Lyman, Ernst R. Berndt, Joel D. Kallich, M. Haim Erder, William H. Crown, Stacey R. Long, Howard Lee and Xeu Song). *Value in Health*, 8(2):149-156, March 2005.

**“Performance Decrements Resulting From Illness in the Workplace: The Effect of Headaches”**, (with Glenn S. Pransky, Ernst R. Berndt, S. Verma and Ashwini Agrawal). *Journal of Occupational & Environmental Medicine*, 47(1):34-40, January 2005.

**“Biobanks: Will They Help Promote the Genomics Revolution?”** (with Anthony J. Sinskey and Scott M. Cooper), *Pharmaceutical Discovery*, November/December 2004.

**“Benefit Plan Design and Prescription Drug Utilization Among Asthmatics: Do Patient Copayments Matter?”**, (with William H. Crown, Ernst R. Berndt, Onur Baser, Whitney P. Witt, Jonathan Maguire and Kenan Haver). *Frontiers in Health Policy, National Bureau of Economic Research (NBER)*, Vol. 7, pp. 95-127, November 2004.

**PUBLICATION LIST** (*continued*):

**“Trends in the Risks and Benefits to Patients with Cancer Participating in Phase I Clinical Trials”**, (with Thomas G. Roberts, Bernardo H. Goulart, Lee Squitieri, Sarah C. Stallings, Elkan F. Halpern, Bruce A. Chabner, G. Scott Gazelle and Jeffrey W. Clark), Journal of the American Medical Association, Vol. 292, pp. 2130-2140, November 2004.

**“The Use of Disease-Modifying New Drugs for Multiple Sclerosis Treatment in Private-Sector Health Plans”**, (with Ronald J. Ozminkowski, William D. Marder, Kevin Hawkins, S. Wang, Sarah C. Stallings, Anthony J. Sinskey and David J. Wierz), Clinical Therapeutics, 26(8):1341-1354, August 2004.

**“Costs of Antidepressant Medications Associated with Inadequate Treatment”**, (with Jeffrey B. Weilburg, Randall S. Stafford, Kathleen M. O’Leary and James B. Meigs), The American Journal of Managed Care, 10(6):357-365, June 2004.

**“Medical Imaging in Drug Discovery, Part III”**, (with Anthony J. Sinskey and Scott M. Cooper), PharmaGenomics, June 2004

**“Medical Imaging in Drug Discovery, Part II”**, (with Anthony J. Sinskey and Scott M. Cooper), PharmaGenomics, May 2004

**“Medical Imaging in Drug Discovery, Part I”**, (with Anthony J. Sinskey and Scott M. Cooper), PharmaGenomics, March/April 2004.

**“Prescriber Intent, Off-Label Usage, and Early Discontinuation of Antidepressants: A Retrospective Physician Survey and Data Analysis”**, (with Jay M. Pomerantz, Ernst R. Berndt, Amy W. Poret, Leon E. Walker, Robert C. Alber, Vidya Kadiyam, Mitali Das and Thomas H. Ebert), The Journal of Clinical Psychiatry, 65(3):395-404, March 2004.

**“The Cost Consequences of Treatment-Resistant Depression”**, (with James M. Russell, Kevin Hawkins, Ronald J. Ozminkowski, Lucinda Orsini, William H. Crown, Sean Kennedy, Ernst R. Berndt and A. John Rush), Journal of Clinical Psychiatry. 65(3):341-347, March 2004.

**“Impact of Clinical Trial Results on National Trends in  $\alpha$ -Blocker Prescribing, 1996 - 2002”**, (with Randall S. Stafford, Curt D. Furberg, Iain M. Cockburn, Tseday Alehegn and Jun Ma), The Journal of the American Medical Association (JAMA), 291(1):54-62, January 2004.

**“The Question of Compliance”**, (with Anthony J. Sinskey and Scott M. Cooper), PharmaGenomics, January 2004.

**“National Trends in Treatment for Diabetes Mellitus”**, (with Niraj L. Sehgal and Randall S. Stafford), MIT Program on the Pharmaceutical Industry (POPI) Working Paper No. 66-04, 2004.

**“See you in December?”**, (with Anthony J. Sinskey and Scott M. Cooper), PharmaGenomics, October 2003.

**“Getting Personal with Pain”**, (with Anthony J. Sinskey and Scott M. Cooper), PharmaGenomics, July/August 2003.

**PUBLICATION LIST (continued):**

**“A Statistical Analysis of the Magnitude and Composition of Drug Promotion in the United States in 1998”**, (with Jun Ma, Randall S. Stafford and Iain M. Cockburn), Clinical Therapeutics, 25(5):1503-1517, May 2003.

**“National Trends in Asthma Visits and Asthma Pharmacotherapy, 1978 - 2002”**, (with Randall S. Stafford, Jun Ma, Kenan E. Haver and Iain M. Cockburn), The Journal of Allergy and Clinical Immunology, 111(4):729-735, April 2003.

**“A Public/Private Partnership for Dual Use Antibiotics”**, (with Anthony J. Sinskey and Scott M. Cooper), PharmaGenomics, March/April 2003.

**“Comparison of Objective and Subjective Measures of Work Performances: An In Depth Analysis Measuring Reports”**, (with Glenn Pransky, Ernst R. Berndt, Margaret K. Kyle, Joan Mackell and Daniel Tortorice), 2003.

**“Getting to Rational Drug Design – At Last”**, (with Anthony J. Sinskey and Scott M. Cooper), PharmaGenomics, November/December 2002.

**“The Impact of Treatment-Resistant Depression on Health Care Utilization and Costs”**, (with William H. Crown, Ernst R. Berndt, Davina C. Y. Ling, Amy W. Poret, A. John Rush and James M. Russell), The Journal of Clinical Psychiatry, 63(11):963-971, November 2002.

**“The Coming Paradigm Shift in Pharmaceuticals”**, (with Anthony J. Sinskey and Scott M. Cooper), PharmaGenomics, September/October 2002.

**“Healthcare Expenditures in Patients Treated with Venlafaxine or Selective Serotonin Reuptake Inhibitors for Depression and Anxiety”**, (with George J. Wan, William H. Crown, Ernst R. Berndt and Davina C. Y. Ling), International Journal of Clinical Practice, 56(6):434-439, July/August 2002.

**“The Promise of Protein Microarrays”**, (with Anthony J. Sinskey and Scott M. Cooper), PharmaGenomics, July/August 2002.

**“Integrating the Science and Technology Revolutions”**, (with Anthony J. Sinskey and Scott M. Cooper), PharmaGenomics, May/June 2002.

**“Asthma in the Family: Determining Family-Level Medical Services Use and Healthcare Expenditures”**, (with Whitney P. Witt, William H. Crown, Jon Maguire and Ernst R. Berndt), 2002.

**“Is There An Economic Rationale For Personalized Medicine?”**, (with Sarah C. Stallings, Anthony J. Sinskey, William H. Crown, Whitney P. Witt and Jon Maguire), 2002.

**“Pharmacy Benefit Plan Design, Prescription Drug Utilization and Healthcare Use Among Asthmatics”**, (with Ernst R. Berndt, William H. Crown, Whitney P. Witt and Jon Maguire), 2002.

**“National Patterns of Medication Treatment for Depression, 1987-2000”**, (with Randall S. Stafford and Ellen A. MacDonald), Primary Care Companion, The Journal of Clinical Psychiatry, 3(6):232-235, 2001/02.

**PUBLICATION LIST (continued):**

**“Technological Innovation in Pharmaceuticals”**, (with Sarah C. Stallings, Robert H. Rubin, Thomas J. Allen, Charles M. Cooney and Anthony J. Sinskey), Pharmaceutical Discovery and Development, Technology/Industry Overviews, pp. 12-16, 2001/02.

**“Cost Effectiveness of Nefazodone, Cognitive Behavioral Analysis System of Psychotherapy and Their Combination for the Treatment of Chronic Forms of Major Depression”**, (with Ernst R. Berndt, William H. Crown, Davina C. Y. Ling, Martin B. Keller, et. al.), September 2001.

**“Treatment Costs of Venlafaxine or Selecting Serotonin Reuptake Inhibitors for Depression and Anxiety”**, (with G.J. Wan, William H. Crown, Ernst R. Berndt and Davina C. Y. Ling), Managed Care Interface, 15(6):24-30, June 2002.

**“Economic Implications of a Section 271 Prescription Drug Discount Card for the Prescription Advantage Program in Massachusetts”**, (with Roy J. Epstein), Discussion Paper, August 2001.

**“The Contributions of Science and Technology in Advancing Society’s Needs through Drug Development”**, (with Sarah C. Stallings, Robert H. Rubin, Thomas J. Allen, Charles M. Cooney and Anthony J. Sinskey), MIT Program on the Pharmaceutical Industry (POPI) Working Paper No. 58-01, February 2001.

**“The HOPE Plan and the Section 271 Discount Drug Purchase Program for Massachusetts: An Economic Analysis”**, (with Roy J. Epstein and Ernst R. Berndt), January 2001.

**“Lost Work Productivity and Absenteeism Among Parents of Children with Asthma”**, (with Iain M. Cockburn, Howard L. Bailit, Jason C. Verner, Kenan E. Haver and Ernst R. Berndt), MIT Program on the Pharmaceutical Industry (POPI) Working Paper No. 57-00, November 2000.

**“The Long Shadow of Patent Expiration: Do Rx to OTC Switches Provide an Affiliate?”**, (with Ernst R. Berndt, Davina C. Y. Ling and Margaret K. Kyle), September 2000.

**“Health Care Use and At-Work Productivity Among Employees with Mental Disorders”**, (with Ernst R. Berndt, Howard L. Bailit, Martin B. Keller and Jason C. Verner), Health Affairs, 19(4):224-256, July/August 2000.

**“Lost Human Capital from Early-Onset Chronic Depression”**, (with Ernst R. Berndt, Lorrin M. Koran, Alan J. Gelenberg, Susan G. Kornstein, Ivan M. Miller, Michael E. Thase, George A. Trapp and Martin B. Keller), American Journal of Psychiatry, 157(6):940-947, June 2000.

**“Cost-Effectiveness, Quality-Adjusted Life Years, and Supportive Care: Recombinant Human Erythropoietin as Treatment of Cancer-Associated Anemia”**, (with Pierre-Yves Cremieux, Ernst R. Berndt, Jeffrey Crawford and Mitchell B. Slavin), Pharmacoeconomics, 16(5 pt 1):459-472, November 1999.

**“Loss of Work Productivity Due to Illness and Medical Treatment”**, (with Iain M. Cockburn, Howard L. Bailit and Ernst R. Berndt), Journal of Occupational and Environmental Medicine, 41(11):948-953, November 1999.

**PUBLICATION LIST (continued):**

**"The Economic Burden of Anxiety Disorders in the 1990s"**, (with Paul E. Greenberg, Tamar Sisitsky, Ronald C. Kessler, Ernst R. Berndt, Jonathan R. T. Davidson, James C. Ballenger and Abby J. Fyer), Journal of Clinical Psychiatry, 60(7):427-435, July 1999.

**"Workplace Performance Effects from Chronic Depression and its Treatment"**, (with Ernst R. Berndt, Paul E. Greenberg, Robert H. Howland, Alison Keith, A. John Rush, James M. Russell and Martin B. Keller), Journal of Health Economics, Vol. 17(5):511-535, October 1998.

**"Workplace Illness: Calculating Return on Investment from Reducing Workplace Illness"**, (with Paul E. Greenberg, Ernst R. Berndt, A.M. Baker and James M. Russell), Drug Benefit Trends, pp. 44-47, March 1998.

**"Comment: Cost Comparison of Recombinant Human Erythropoietin and Blood Transfusion in Cancer Chemotherapy-Induced Anemia"**, (with S.L. Huber and Paul E. Greenberg), The Annals of Pharmacotherapy, 31(9):1094-1095, September 1997.

**"Illness and Productivity: Objective Workplace Evidence"**, (with Ernst R. Berndt, Paul E. Greenberg, Alison I. Keith and Howard L. Bailit), MIT Program on the Pharmaceutical Industry (POPI) Working Paper No. 42-97, May 1997.

**"The Opportunity Cost of Chronic Illness in the Workplace: Mapping the Landscape"**, (with Ernst R. Berndt, M. Moore, Paul E. Greenberg and Alison Keith), MIT Program on the Pharmaceutical Industry (POPI) Working Paper No. 40-97, March 1997.

**"Work Function as a Benchmark of Clinical Response to Antidepressant Medication"**, (with Paul E. Greenberg, Ernst R. Berndt and Jason C. Verner), January 1997.

**"Economies of Scale in the Pharmaceutical Industry"**, (with Peter Temin and Bart Clarysse), MIT Program on the Pharmaceutical Industry (POPI) Working Paper No. 26-96, February 1996.

**"Economics of Depression: A Summary and Review"**, (with Ernst R. Berndt and Paul E. Greenberg), *NDMDA Paper*, January 1996.

**"Improvement in Subjective Work Performance After Treatment of Chronic Depression: Some Preliminary Results"**, (with Ernst R. Berndt, Paul E. Greenberg, Rod A. Parsley, James M. Russell, Martin B. Keller and the Chronic Depression Study Group), Psychopharmacology Bulletin, 32(1):33-40, Spring 1996.

**"Calculating the Workplace Cost of Chronic Disease"**, (with Paul E. Greenberg and Ernst R. Berndt), Business & Health: Medical Economics, Business and Health, 13(9):27-28, 30, September 1995.

**"The Economic Consequences of Illness in the Workplace"**, (with Paul E. Greenberg and Ernst R. Berndt) Sloan Management Review, pp. 26-38, Summer 1995.

**"Innovation in Cardiac Imaging"**, (with Gregory K. Bell and Kevin Neels), In *Medical Innovation at the Crossroads*, Institute of Medicine Vol. V, National Academy Press, 1995.



**PUBLICATION LIST (continued):**

**"How Much Does Depression Cost Society?"**, (with Paul E. Greenberg), The Harvard Mental Health Letter, 11(4), October 1994.

**"Medical Cost Savings from Pentoxifylline Therapy in Chronic Occlusive Arterial Disease"**, (with Kevin Neels and Chester Douglass), PharmacoEconomics, 5(2):130-140, February 1994.

**"Depression: A Neglected Major Illness"**, (with Paul E. Greenberg, Laura E. Stiglin and Ernst R. Berndt), The Journal of Clinical Psychiatry, 54(11):419-424, November 1993.

**"The Economic Burden of Depression in 1990"**, (with Ernst R. Berndt, Paul E. Greenberg and Laura E. Stiglin), The Journal of Clinical Psychiatry, 54(11):405-418, November 1993.

**"Comparative Accuracy of Single Photon Emission Computed Tomography and Planar Stress Thallium Imaging in the Diagnosis of Coronary Artery Disease: A Meta Analysis"**, (with Kevin Neels, Kenneth McKusick, Stephen Carter and Sandra Black), 1993.

**"Price Controls and the Competitiveness of Pharmaceutical Firms: A Preliminary Look at the Experience of Five Countries"**, (with P.G. Bittinger), MIT Program on the Pharmaceutical Industry (POPI) Working Paper No. 8-93, 1993.

**"Price Indexes for Anti-Hypertensive Drugs that Incorporate Quality Change: A Progress Report on a Feasibility Study"**, (with Ernst R. Berndt), MIT Program on the Pharmaceutical Industry (POPI) Working Paper No. 6-92, 1992.

**"The Relationship Between Experience and Outcome in Heart Transplantation"**, (with G.L. Laffel, Arnold I. Barnett and M.P. Kaye), New England Journal of Medicine, 327:1220-1225, 1992.

**"Use of Hedonic Methods for Anti-Hypertensive Drugs: Progress Report on a Feasibility Study"**, (with Ernst R. Berndt), 1992.

**"Able: The Future of Mechanical Aids"**, (with H. Lowell), Exceptional Parent, 19:22-27, 1989.

**"Assessing Technology for Rehabilitation--Three Cases and Three Countries"**, (with J. Hutton and J. Persson), International Journal of Technology Assessment in Health Care, 3(3):375-385, 1987.

**"Scientific Evidence and the Abandonment of Medical Technology: A Study of Eight Drugs"**, Research Policy, 14:225-33, 1985.

**"The Process of Evaluating Medical Technologies for Third-Party Coverage"**, (with K.A. Isaacson and J.J. Frishkopf), Journal of Health Care Technology, 1(2):89-102, Fall 1984.

**"A Model of Decision-Making for Emerging Medical Technology"**, (with J.B. Homer and E.J. Sondik), R&D Management 14:175-91, 1984.

**"The Need to Assess the Impact of Technology Assessment"**, (with Peter Temin), Sloan School of Management Working Paper, No. 1355-82, 1982.

**PUBLICATION LIST** (*continued*):

"A Two-Stage Model for the Control of Epidemic Influenza", (with Charles N. Smart, Andrew M. Gralla and Cecilia R. d'Oliveira), Management Science, 27(7):834-846, July 1981.

"Projecting the Impact of the 1976 Medical Device Amendments on Innovation in Clinical Chemistry Analyzers", (with Eric von Hippel), Journal of Technology, Transfer 5:1-9, 1981.

"Technological Change and Clinical Laboratory Utilization", Medical Care 18(10):1048-1056, October 1980.

"An Approach to Studying the Cost-Behavior of Changing Utilization of a Hospital Laboratory", Human Pathology, 11(5):435-439, September 1980.

"Cost-Benefit Analysis of Rubella Screening", (with M.E. Farber), New England Journal of Medicine, 301(4):218, July 1979.

"A Cost-Benefit Analysis of a Mandatory Premarital Rubella-Antibody Screening Program", (with M.E. Farber), New England Journal of Medicine, 300(15):856-859, April 1979.

"Controlling Post-Transfusion Hepatitis: A Proposal to Publicize Hepatitis Rates on Transfusion Facilities", (with H.M. Sapolsky), American Journal of Law and Medicine, 5(1):1-9, Spring 1979.

"Analysis of Innovation in Automated Clinical Chemistry Analyzers", (with Eric von Hippel), Science and Public Policy, 6:24-37, 1979.

Review of "The Market for Human Blood", (by D.E. Hough), in Social Science and Medicine, January 1979.

"Normal Intelligence in Two Children with Carpenter Syndrome", (with J.L. Frias, A.H. Felman, A.L. Rosenbloom, W.F. Hoyt and B.D. Hall), American Journal of Medical Genetics, 2(2):191-199, 1978.

"Blood Policy Revisited – A New Look at "The Gift Relationship", (with H.M. Sapolsky), The Public Interest, 46:15-17, Winter 1977.

"Blood Pressure Measurement Devices", Consumer Research, 60:7-10, 1977.

▪ *CHAPTERS IN EDITED VOLUMES:*

"Considerations in the Economic Assessment of the Value of Molecular Profiling", (with Sarah C. Stallings and Anthony J. Sinskey), Chapter 16, pp. 263-274. In M. E. Burczynski & J. C. Rockett, Surrogate Tissue Analysis, Genomic, Proteomic, and Metabolomic Approaches, CRC Press, Taylor & Francis Group, Boca Raton, 2006.

▪ **CHAPTERS IN EDITED VOLUME (continued):**

**"Depression in the Workplace: An Economic Perspective"**, (with Paul E. Greenberg, Ronald C. Kessler, Tara L. Nells and Ernst R. Berndt), Chapter 16 in J. P. Feighner and W. F. Boyers in Selective Serotonin Re-uptake Inhibitors: Advances in Basic Research and Clinical Practice, Second Edition, Edited by J.P. Feighner and W.F. Boyer, John Wiley & Sons Ltd., pp. 327-363, 1996.

**"Categories of Medical Technology"**, (with H.P. Brehm and R.M. Mullner), Health Care, Technology, and the Competitive Environment, Praeger, 1989.

**"The Consequences of False Positive and False Negative Error in Medical Diagnosis"**, (with M.M. Kristein), Clinics in Laboratory Medicine, 2(4):779-787, December 1982.

**"Biomedical Innovation: The Challenge and the Process"**, in E.B. Roberts, et al., Biomedical Innovation, M.I.T. Press, 1981.

**"Clinical Trials and Established Medical Practices: Two Examples"**, (with S.B. Schectman, E.J. Sondik and D. Gilbert) in E.B. Roberts, et al., Biomedical Innovation, M.I.T. Press, 1981.

**"Diversity as a Contributor to Innovative Performance by Academic Physicians"**, in E.B. Roberts, et al., Biomedical Innovation, M.I.T. Press, 1981.

**"Reducing the Use of the Clinical Laboratory: How Much Can be Saved?"**, in E.S. Benson and P.F. Griner, Clinical Decision Making and Laboratory Use, University of Minnesota Press, 1981.

**"Hepatitis Risk from Whole Blood and Blood Component Transfusion"**, (with S.E. Bodily, J. Dienstag, A.W. Drake, C.E. Huggins and R.C. Persons), 1980.

**"Technology Transfer by Academic Physicians"**, in H. Vuori, et al., Research on Health Research, The Academy of Finland, 1980.

**"Projecting the Impact of a Radical New Health Technology"**, (with E. Sondik, J. Homer and A.J. Kleinmann), Systems Science in Health Care, Pergamon Press, 1980.

**"Technological Change and Laboratory Test Volume"**, in E.S. Benson and M. Rubin, The Logic and Economics of Clinical Laboratory Use, Elsevier, New York, 1978.

## SUBJECTS TAUGHT:

|           |   |         |
|-----------|---|---------|
| IN 750M.3 | Patient-Doctor III Management Section (Harvard Medical School)  | 2005-   |
| HC 706.0  | Introduction to Health Care Management  | 2003-   |
| 15.149    | Special Studies in Health Management  | 2000    |
| 15.15S    | Special Summer Session Technology Driving Change in Drug Discovery, Development and The Business of Pharmaceuticals | 2000    |
| SOC700.00 | Harvard Medical School - Business and Medicine  | 1995-02 |
| 15.06S    | Special Summer Session on Pharmaceutical / Biotechnology Industry   | 1992-98 |

**SUBJECTS TAUGHT (continued):**

|            |  |                           |
|------------|--|---------------------------|
| 15.138     | Seminar on Management of Pharmaceutical and Biotechnology Industry   | 1991-95                   |
| 15.136J    | Principles and Practice of Drug Development  | 1995- Present             |
| 15.031     | Quantitative Approaches to Economic and Management Policy  | 1979-83                   |
| 15.144     | Analytical Methods for Health Policy Management  | 1978-84                   |
| 15.141J    | Medical Outcomes Assessment and Pharmacoeconomics<br>currently entitled, Economics of the Health Care Industries | 1975-90; 1994-00<br>2001- |
| 15.121/122 | Seminar in Health Management   | 1975-83                   |

**PARTICIPATION IN FACULTY SEMINARS AND SYMPOSIA:**

|   |         |
|---|---------|
| MIT Security Studies Seminar on Biosecurity   | 2005-   |
| POPI Symposium: The Future of the Pharmaceutical Industry Symposium:<br>Addressing 21 <sup>st</sup> Century GMPs: Merging New and Existing Technology with Process<br>Automation to Deliver Science Based Manufacturing | 2005    |
| The 2005 Executive Summit on Corporate Risk   | 2005    |
| POPI Symposium on the Future of the Pharmaceutical Industry: Pharmacogenomics,<br>Drug Development and the Cost of Healthcare   | 2003    |
| POPI Symposium on the Future of the Pharmaceutical Industry: Integrating New Drug<br>Discovery & Development Technology with Complex Biological Systems Research  | 2001    |
| POPI Symposium on Technology Driving Change in Drug Discovery, Development<br>and the Business of Pharmaceuticals   | 2000    |
| POPI Symposium on the Future of the Pharmaceutical Industry: How New & Emerging<br>Technologies Are Revolutionizing Drug Development, Discovery, Manufacturing<br>& Evaluation  | 1999    |
| POPI Symposium on the Future of the Pharmaceutical Industry: Technology Driving<br>Change in Drug Discovery, Development, Manufacturing and the Business of<br>Pharmaceuticals  | 1997    |
| POPI Symposium on the Pharmaceutical Industry in the Twenty-First Century   | 1995    |
| Harvard-MIT Clinical Investigator Training Program Seminars   | 1995-   |
| POPI Symposium on Economics of Pharmaceutical: A Global Perspective   | 1993    |
| POPI Symposium on the Future of the Pharmaceutical Industry   | 1991    |
| Whitaker College Health Policy and Management Seminar   | 1981-90 |
| Boston Seminar on Medical Decision Making   | 1977-82 |
| Seminar Series of Boston University Health Policy Institute   | 1976-77 |
| Seminar on Health Management, M.I.T.  | 1975-87 |
| Technology Studies Seminar, M.I.T.  | 1975    |
| Comparative Health Systems Seminar  | 1974-77 |
| Faculty Seminar on Health Practices, Harvard School of Public Health  | 1974-76 |
| Seminar on Implementation of Federal Legislation in Social Programs, Joint Center for<br>Urban Studies, M.I.T. and Harvard  | 1974-75 |