ROBERT SAMUEL LANGER

Curriculum Vitae

EDUCATION

1974 Sc.D., Chemical Engineering, MIT

1970 B.S. (with distinction) Chemical Engineering, Cornell University

AWARDS

- 2018 Alpha Omega Dental Fraternity Achievement Medal Award
- 2018 Inducted into Hall of Fame, Advanced Materials
- 2018 Honorary Doctorate, Université Laval, Canada
- 2018 Leadership Award for Historic Scientific Advancement (American Chemical Society)
- 2018 Honorary Doctorate, University of Limerick, Ireland
- 2018 Honorary Doctorate, University of Illinois
- 2017 Named Number 1 Translational Researcher in the World (Nature Biotechnology)
- 2017 Kabiller Prize in Nanoscience and Nanomedicine
- 2017 Honorary Doctorate, National Institute of Astrophysics, Optics and Electronics, Mexico
- 2017 Memorial Sloan Kettering Medal for Outstanding Contributions to Biomedical Research
- 2017 Honorary Degree, Gerstner Graduate School, Memorial Sloan Kettering Cancer Center
- 2017 Tetelman Fellow, Yale University
- 2016 Honorary Degree, Karolinska Institutet, Sweden
- 2016 Honorary Degree, Hong Kong University of Science and Technology, Hong Kong
- 2016 Raymond and Beverly Sackler Award for Sustained National Leadership (Research!America)
- 2016 Benjamin Franklin Medal in Life Science (Franklin Institute)
- 2016 Irving Weinstein Foundation Distinguished Lecture Award (American Association for Cancer Research)
- 2016 Honorary Degree, Carnegie Mellon University
- 2016 European Inventor Award, Non-European Countries (European Patent Office)
- 2015 Queen Elizabeth Prize for Engineering
- 2015 Hoover Medal (American Society of Mechanical Engineers)
- 2015 Scheele Award (Swedish Pharmaceutical Society)
- 2015 Kazemi Award for Research Excellence in Biomedicine
- 2015 Honorary Degree, University of Maryland
- 2015 Honorary Degree, Hanyang University (South Korea)
- 2015 Honorary Degree, University of New South Wales (Australia)
- 2015 Cornell Entrepreneur of the Year
- 2014 Kyoto Prize in Advanced Technology
- 2014 Breakthrough Prize in Life Sciences
- 2014 Biotechnology Heritage Award (Chemical Heritage Foundation)
- 2014 Chemical Pioneer Award (American Institute of Chemists)
- 2014 Honorary Degree, Drexel University
- 2014 Honorary Degree, University of Western Ontario (Canada)
- 2014 ETH Zurich Chemical Engineering Medal
- 2014 Elected a Foreign Corresponding Member of the Austrian Academy of Sciences
- 2014 Mack Memorial Award (Ohio State University)
- 2013 Wolf Prize in Chemistry (Wolf Foundation)
- 2013 United States National Medal of Technology and Innovation (for 2011)
- 2013 RUSNANOPRIZE International Prize in Nanotechnology
- 2013 Fellow, American Association for the Advancement of Science
- 2013 Distinguished Investigator Award (American College of Clinical Pharmacology)
- 2013 Honorary Fellow Award (American College of Clinical Pharmacology)
- 2013 Honorary Degree, Boston University
- 2013 Honorary Degree, Tel Aviv University
- 2013 Honorary Degree, Ben Gurion University
- 2013 Julio Palmaz Award for Innovation in Healthcare and the Biosciences (BioMed SA)
- 2013 Industrial Research Institute Medal

2013	IEEE Medal for Innovations in Healthcare Technology
2013	Founders Award (Society of Biomaterials)
2013	MDEA Lifetime Achievement Award
2012	Scientist of the Year (R&D Magazine)
2012	Elected to National Academy of Inventors (Charter Fellow)
2012	Priestley Medal (American Chemical Society)
2012	Perkin Medal (Chemical Heritage Foundation)
2012	Terumo International Prize (Japan)
2012	Wilhelm Exner Medal (Austria)
2012	Fellow, American Institute of Chemical Engineers
2012	Feodor Lynen Award (Nature Biotechnology)
2012	Economist Innovation Award for Bioscience
2011	Warren Alpert Foundation Prize (Warren Alpert Foundation/Harvard Medical School)
2011	Walker Prize (Boston Museum of Science)
2011	Apple Award (American Spinal Injury Association/Shepherd Center/Thomas Land Publishers Inc.)
2011	Honorary Degree, Bates College
2011	Frontier of Science Award (Society of Cosmetic Chemists)
2011	Fellow (American Chemical Society)
2011	Elected International Fellow (Royal Academy of Engineering)
2010	Founders Award (National Academy of Engineering)
2010	Honorary Degree, Rensselaer Polytechnic Institute
2010 2010	
2010	Honorary Degree, Willamette University Robert Flectcher Award (Thayer School of Engineering, Dartmouth College)
2010	EMBS Academic Career Achievement Award (IEEE Engineering in Medicine and Biology Society)
2010	Elected to the Controlled Release Society College of Fellows
2010	Founding POLY Fellow (Division of Polymer Chemistry, American Chemical Society)
2009 2009	Honorary Degree, Harvard University
2009	University of California at San Francisco Medal
	Honorary Degree, Mount Sinai School of Medicine
2009	Distinguished Chemist Award (New England Institute of Chemists)
2009	Biomedical Research Leaders Award (Massachusetts Society for Medical Research)
2008	Millennium Technology Prize Max Planck Research Award
2008	Prince of Asturias Award for Technical and Scientific Research
2008	
2008	Elected Foreign Academic Member (Royal Academy of Pharmacy of Spain)
2008	Founders Award (American Institute for Chemical Engineers)
2008	Innovation in Health and Technology Award (Boston History and Innovation Collaborative)
2008	Acta Biomaterialia Gold Medal (Acta Materialia)
2008	Named one of the 100 Top Chemical Engineers of the 20 th Century (AIChE)
2007	United States National Medal of Science (for 2006)
2007	Chemistry of Materials Award (American Chemical Society)
2007	Herman F. Mark Award (American Chemical Society, Polymer Chemistry Division)
2007	Honorary Degree, Yale University
2007	Wenig Memorial Award for Outstanding Achievement in Drug Delivery
2007	First Prize of Scientific Award (BMW Group)
2007	Elected to the Biotechnology Hall of Fame
2006	Elected to the National Inventors Hall of Fame
2006	Honorary Degree, Northwestern University
2006	Honorary Degree/Commencement Address, Albany Medical College
2006	Bailey Award (American Institute of Chemical Engineers)
2005	Von Hippel Award (Materials Research Society)
2005	Albany Medical Center Prize in Medicine and Biomedical Research
2005	Dan David Prize (Materials Science)
2005	Honorary Degree, Uppsala University
2005	Honorary Degree/Commencement Address, Pennsylvania State University

2005 Honorary Degree, University of Nottingham 2005 Lifetime Achievement Award (Society for In Vitro Biology) 2005 Rainer Hoffmann Product through Science Award (Controlled Release Society) Technology Innovation and Development Award (Society of Biomaterials) 2005 2005 Washington Award (Western Society of Engineers) 2004 Charles F. Kettering Prize (General Motors Cancer Research Foundation) 2004 Nelson Taylor Award (Pennsylvania State University) 2003 Heinz Award for Technology, Economy and Employment 2003 Harvey Prize in Science and Technology and Human Health 2003 John Fritz Medal (American Association of Engineering Societies) 2003 Elected to the Academy of Achievement (Golden Plate Award) 2003 Honorary Degree, University of Liverpool, England 2002 Dickson Prize for Science (Carnegie Mellon University) 2002 Charles Stark Draper Award (National Academy of Engineering) 2002 Othmer Gold Medal (Chemical Heritage Foundation) Nagai Innovation Award (Controlled Release Society) 2002 Honorary Degree, Hebrew University of Jerusalem 2002 2002 Herman Schwan Award (University of Pennsylvania) 2001 Harrison Howe Award (American Chemical Society) 2000 Honorary Degree, Catholic University of Louvain, Belgium Glaxo Wellcome International Achievement Award (Royal Pharmaceutical Society of Great Britain) 2000 2000 Millennial Pharmaceutical Scientist Award (Millennial World Congress of Pharmaceutical Sciences) First Pierre Galletti Award (American Institute of Medicine & Biological Engineering) 2000 2000 Wallace Carothers Award (American Chemical Society, Delaware Section) 1999 American Chemical Society Award in Polymer Chemistry Esselen Award (American Chemical Society, Northeast Section) 1999 1999 Ebert Prize (American Pharmaceutical Association) G.N. Lewis Medal (University of California at Berkeley) 1999 1998 Outstanding Pharmaceutical Paper Award (Controlled Release Society) 1998 Lemelson-MIT Prize for Invention and Innovation 1998 The Nagai Foundation Tokyo International Prize 1997 Killian Faculty Achievement Award (MIT) Wiley Medal (U.S. Food and Drug Administration) 1997 1997 Honorary Degree, Technion - Israel 1996 Canada Gairdner International Award (Canada Gairdner Foundation) 1996 Honorary Degree, Eidgenossische Technische Hochschule-ETH, Switzerland 1996 William Walker Award (American Institute of Chemical Engineers) 1996 Society of Plastics Engineers International Award Ebert Prize (American Pharmaceutical Association) 1996 Elected a Fellow of Biomaterials Science and Engineering 1996 1996 Avis Distinguished Visiting Professor (University of Tennessee) International John W. Hyatt Service to Mankind Award (Society of Plastics Engineers) 1995 1995 Ebert Prize (American Pharmaceutical Association) 1995 Elected a Fellow (American Association of Pharmaceutical Scientists) 1995 PEL Associates Award (PEL Associates, Groton, Connecticut) 1994 Elected to the American Academy of Arts and Sciences 1994 Elected a Fellow, Society of Biomaterials Distinguished Pharmac. Scientist Award (Highest Honor of the Amer. Assoc. of Pharm. Scient.) 1993 1992 Elected to the National Academy of Sciences 1992 Elected to the National Academy of Engineering 1992 American Chemical Society Award for Applied Polymer Science (Phillips Award) 1992 Elected a Founding Fellow, American Institute of Medical and Biological Engineering 1992 Outstanding Pharmaceutical Paper Award (Controlled Release Society) 1992 Perlman Memorial Award (American Chemical Society, Biochemical Technology Division) 1991 Organon Teknika Award (European Society for Artificial Organs)

- 1991 Charles M.A. Stine Award in Materials Science and Eng. (American Institute of Chemical Engineers)
- 1990 Professional Progress Award (American Institute of Chemical Engineers)
- 1990 Clemson Award for Basic Research (Society for Biomaterials)
- 1990 Outstanding Pharmaceutical Paper Award (Controlled Release Society)
- 1989 Elected to the National Academy of Medicine
- 1989 Creative Polymer Chemistry Award (American Chemical Society, Polymer Division)
- 1989 Outstanding patent in Massachusetts and one of the twenty outstanding patents in the U.S. (Intellectual Property Owners, Inc.)
- 1989 Founders Award for Outstanding Research (Controlled Release Society)
- 1988 Elected to the Gordon Conference Research Council
- 1988 Elected Chairman, Gordon Conference on Drug Carriers in Biology and Medicine
- 1986 Food, Pharmaceutical and Bioengineering Award (American Institute of Chemical Engineers)
- 1983 Outstanding Paper, Institute of Electrical and Electronic Engineering
- 1982 Paper Listed as One of the Outstanding Papers of the Year, CHEMTECH
- 1982 Recipient of the first Dorothy W. Poitras Chair, MIT
- 1982 Outstanding Teacher Award, MIT Graduate Student Council

NAMED LECTURES

- 2018 Suslick-Sessler Lecture in Materials Chemistry, University of Illinois
- 2018 Henry Louis Smith Lecturer (Davidson College)
- 2017 Tetelman Lecturer (Yale University)
- 2017 Stetson Lecturer (University of Vermont Larner College of Medicine)
- 2017 Deloitte Endowed Lecturer (Dana-Farber Cancer Institute)
- 2017 Alfred Stracher Memorial Lecturer (SUNY Downstate Medical Center)
- 2017 Bernal Distinguished Lecturer (University of Limerick)
- 2017 Commencement Address (Gerstner Graduate School, Memorial Sloan Kettering Cancer Center)
- 2017 Anderson Distinguished Lecturer (University of Virginia School of Medicine)
- 2016 Inaugural Distinguished Lecturer in Bioengineering (University of California Berkeley)
- 2016 AACR-Irving Weinstein Foundation Award Distinguished Lecturer (American Association for Cancer Research)
- 2016 Inaugural Frank and Grace Yin Distinguished Lecturer (Washington University)
- 2016 Hunt Lecturer (Wound Healing Society Foundation)
- 2015 Robert E. Gross Lecturer (American Pediatric Surgical Association 46th Annual Meeting)
- 2015 Ørsted Lecturer (University of Copenhagen)
- 2015 Eli Ruckenstein Lecturer (University at Buffalo, State University of New York)
- 2015 Baker Symposium Lecturer (Cornell University)
- 2015 Lerner Lecturer (Cleveland Clinic)
- 2015 Barre Lecturer (University of Montreal)
- 2015 Amundson Lecturer (University of Houston)
- 2015 Irving Shain Lecturer (University of Wisconsin Madison)
- 2014 Lindahl Lecturer (Napa Pain Institute)
- 2014 Pittcon Lecturer/Analytical Seminar Series (University of Pittsburgh)
- 2014 Novartis/Drug Discovery Institute Lecturer (University of California San Diego)
- 2014 Commencement Address (University of Western Ontario)
- 2014 Commencement Address (Drexel University)
- 2014 Darsh Wasan Lecturer (Illinois Institute of Technology)
- 2014 52nd Robbins Lecture Series Lecturer (Pomona College)
- 2014 George S. Hammond Lecturer (Bates College)
- 2014 Edward Mack, J. Memorial Award Lecturer (Ohio State University)
- 2013 Axalta Lecturer (University of Pennsylvania)
- 2013 Inaugural Thomas H. Chilton Lecturer (DuPont Central Research and Development)
- 2013 BC^2 Annual Lecturer (Wellesley College)
- 2013 Warren L. McCabe Lecturer (North Carolina State University)
- 2013 Commencement Address (Boston University School of Engineering)
- 2013 Lucas Lecturer (Colorado School of Mines)
- 2013 Reed Izatt and James Christensen Lecturer (Brigham Young University)

2013 Prof. Dame Julia Polak Inaugural Lecturer (Imperial College) 2012 Gladstone Distinguished Lecturer (Gladstone Institutes/University of California-San Francisco) 2012 Eliahu Caspi Memorial Lecturer (University of Massachusetts Medical School) Kavli Foundation Innovation in Chemistry Lecturer (American Chemical Society) 2012 2011 Commencement Address (Johns Hopkins Business School) 2011 Commencement Address (University of California Berkeley School of Chemistry) Commencement Address (Bates College) 2011 2011 Class Day Speech (EPFL, Switzerland) Kroc Lectureship (Joslin Diabetes Center) 2011 2011 Knight Lectureships (University of Akron) 2011 Bullard Lectureship (Uniformed Services University) 2011 Dean's Lecturer (University of Maryland) 2010 Herman S. Bloch Memorial Lecture (University of Chicago) Investiture Lecturer (Thayer School of Engineering, Dartmouth College) 2010 2010 Judah M. Folkman Lecturer (Children's Hospital, Boston) Allan S. Hoffman Lecturer (University of Washington) 2010 Storer Life Sciences Lecturer (University of California, Davis) 2010 2010 Dohlman Visiting Professorship Lecturer (Massachusetts Eye and Ear Institute) 2009 Cecil Brown Lecturer (American Chemical Society) Melvin L. Samuels Lecturer (University of Texas MD Anderson Cancer Center) 2009 Isadore Rosenberg Lecturer (Metrowest Medical Center) 2008 2008 Invitrogen Lecturer (University of California, San Diego) Rohm and Hass Lecturer (University of California Berkeley) 2008 2007 Findling Lecturer (Mayo Clinic) W.M. Keck Distinguished Lecturer (Lehigh University) 2007 Alexander Rich Lecturer (Massachusetts Institute of Technology) 2007 2007 William Shucart Lecturer (Tufts University) Ford Lecturer (Case Western University) 2007 2006 Commencement Address (Albany Medical College) Distinguished Lecturer (University of Pennsylvania School of Medicine) 2006 2006 Weiss Lecturer (Northeastern University) Commencement Address (Northwestern University) 2006 Hodgins Lectureship (McMaster University) 2005 John and Donna Hall Lectureship (Vanderbilt University) 2005 2005 Keewaunee Lecturer (Duke University) Gavel Clinical Research Lecturer (The Forsyth Institute) 2005 2005 Talamo Lecturer (Harvard Medical School) 2005 Commencement Address (Uppsala University) Commencement Address (Pennsylvania State University) 2005 Commencement Address (University of Nottingham) 2005 Presidential Lecturer (University of Texas Health Science Center, San Antonio) 2004 2004 Pirkey Lectureship in Chemical Engineering (University of Texas, Austin) 2004 Evans Memorial Award Lectureship (Ohio State University) Benjamin Zweifach Distinguished Lecturer (City College of New York) 2004 Nelson Leonard Lecturer (University of Illinois) 2004 2004 Donald Katz Lecturer (University of Michigan) Founders Lecturer (University of Wisconsin) 2003 2003 Rohm and Hass Lecturer (Stanford University) 2003 Tripathy Endowed Memorial Lecture (University of Massachusetts, Lowell) Skinner Memorial Lecture (Northwestern University) 2003 2003 Maurice and Yetta Glicksman Lecturer (Brown University) FMC Lecturer (Princeton University) 2003 Seymour J. Kreshover Lecturer (National Institutes of Health) 2003 2003 Whitaker Lecturer (American Society of Artificial Organs) Feigenbaum - Levine Lecturer (Beth Israel Hospital at Harvard Medical School) 2002

2002 Distinguished Lecturer (University of Louisville) 2002 Institute Lecturer (American Institute of Chemical Engineers) 2001 Ullyot Lecturer (Chemical Heritage Foundation) 2001 Clapp Lecturer (Brown University) 2001 Julian Smith Lecturer (Cornell University) 2001 Mason Lecturer (Stanford University) 2001 Distinguished Lecturer (Carnegie Mellon) 2000 Herman Beerman Lecturer (Society for Investigative Dermatology) 2000 Millennial Lecturer (University of Liverpool) 2000 Bayer Lecturer (University of Pittsburgh) 2000 Bayer Stein Honorary Lecture (University of Massachusetts at Amherst) William G. Lowrie Lectureship (The Ohio State University) 2000 2000 Frank T. Gucker Lecturer (Indiana University) First Patten Distinguished Lectureship (University of Colorado at Boulder) 2000 Beckman Lecturer (University of Illinois at Urbana) 1999 1999 Reilly Lecturership (Notre Dame University) Wagner Lectureship (University of Michigan) 1998 Ewing Halsell Foundation Lectureship (University of Texas Health Center, San Antonio) 1998 1998 Robert R. Linton Distinguished Lecture; New England Society for Vascular Surgery 1998 Marcus Memorial Lecturer (Washington University, St. Louis) 1998 Joseph Stokes, Jr. Lectureship (University of Pennsylvania) 1997 William J. Rashkind Memorial Lecture (American Heart Association) 1997 Rohm and Haas Lecturer in Materials Chemistry (University of North Carolina) 1996 The Berkeley Lecturer (University of California, Berkeley) 1995 Distinguished Medical Scientist Lecturer (Ohio State University) 1995 Lacy Lecturer (California Institute of Technology 1995 Ralph Peck Memorial Lecturer (Illinois Institute of Technology) 1994 Whitaker Distinguished Lecturer (Biomedical Engineering Society) 1994 Miles Lecturer (Cornell University) 1994 Feigenbaum Memorial Lecturer (Beth Israel Hospital, Harvard Medical School) 1993 Kurt Wohl Memorial Lecturer (University of Delaware) 1993 Priestley Lecturer (Penn State University) 1992 Kelly Distinguished Lecturer (Purdue University) 1992 Miles Distinguished Lecturer (University of Pittsburgh) 1991 Louis W. Busse Lecturer (University of Wisconsin) 1991 Sidney Riegelman Lecturer (University of California, San Francisco) 1991 Ashton-Cary Lecturer (Georgia Institute of Technology) 1991 Sandoz-Dorsey Lecturer (Ohio State University) Walter F. Enz Lecturer (University of Kansas) 1989 Robert Rushmer Lecturer (University of Washington, Seattle) 1988 1st Presidential Lecturer, Controlled Release Society (Basel, Switzerland) 1988 1987 Biomedical Research Council Lecturer (University of Michigan) 1986 Elmer L. Linseth Lecturer (Case Western Reserve University) 1983 Merck, Sharpe and Dohme Lecturer (University of Puerto Rico)

EMPLOYMENT

- 7/09-present
 2/05-6/09
 7/88-1/05
 7/88-1/05
 7/99-present
 7/99-present
 7/99-present
 7/90-present
 7/90-present
- 7/85-6/88 Professor of Biochemical Engineering, MIT, Department of Applied Biological Sciences, Whitaker College of Health Sciences, Technology, and Management, and the Harvard-MIT Division of Health Sciences and Technology

7/81-6/85	Associate Professor of Biochemical Engineering, MIT, Department of Nutrition and Food Sciences and the
	Whitaker College of Health Sciences Technology, and Management, and the Harvard-MIT Division of
	Health Sciences and Technology
7/78-6/81	Assistant Professor of Nutritional Biochemistry, MIT, Department of Nutrition and Food Sciences
7/77-6/78	Assistant Professor of Nutritional Biochemistry, MIT (Visiting), Department of Nutrition & Food Sciences
7/74-present	Research Associate, Children's Hospital Medical Center, Harvard Med. School, Boston, MA
9/72-6/74	Research Assistant, MIT
9/72-8/73	Chairman, Math and Science Departments, The Group School, Cambridge, MA

PROFESSIONAL AND ACADEMIC ORGANIZATIONS

Controlled Release Society (Elected President, 1991-1992) (Elected to Board of Governors, 1981-1985; Chairman, Regulatory Affairs Committee, 1985-1989).

Biomedical Engineering Society (Elected to the Board of Directors, 1991-1994)

American Institute of Chemical Engineers (Food, Pharmaceutical and Bioengineering Division)

American Chemical Society (Polymer Division)

American Society of Artificial Internal Organs (Program Committee 1984-1987; Membership Committee (1991-93) International Society of Artificial Internal Organs

Scientific Advisory Board, Department of Chemical Engineering, Georgia Institute of Technology (1992-2000) Society for Biomaterials (Elected a Fellow, 1994)

American Association of Pharmaceutical Scientists (Elected a Fellow, 1995)

American Institute of Medical and Biological Engineers (Elected Founding Fellow, 1992; Elected Chair, College of Fellows, 1995)

The Science Board, the United States Food and Drug Administration (FDA) (highest Advisory Board of the FDA), 1995--2002 (Chair from 1999 -- 2002)

Scientific Advisory Board, Schepens Eye Institute, Harvard Medical School (1995-1998)

Board of Scientific Counselors, National Institutes of Health Center for Research Resources (1996-2001)

Scientific Advisory Board, Division of Chemistry and Chemical Engineering, California Institute of Technology (1999-)

Scientific Advisory Board, Department of Chemical Engineering, Princeton University (1999-)

Board of Overseers, Othmer Research Institute, Brooklyn Polytechnic Institute (2001-)

Board of Directors, McGovern Institute, Massachusetts Institute of Technology (2001-)

Board of Directors, Whitehead Institute (2003-)

Chair, Killian Award Committee (2004)

World Economic Forum, Technology Pioneers Selection Committee (2010-)

COURSES TAUGHT

20.002U	(1977 - 1988)	Laboratory in Applied Biology
20.835	(1979 - 1988)	Pharmacological Engineering
20.11G	(1979 - 1988)	Analytical Practices in Biochemistry
HST 110	(1979 - 1981)	Renal Pathophysiology
20.113	(1987 - 1988)	Problems in Biotechnology
10.02J	(1989 -)	Biotechnology and Engineering
10.361	(1989 -)	Integrated Chemical Engineering
10.13	(1989 -1991)	Thermodynamics
10.984	(1990 -)	Biomedical Applications of Chemical Engineering
10.26	(1992 -)	Senior Chemical Engineering Project Laboratory

MIT ACTIVITIES

1972-73, 80-	Board of Trustees, MIT Community Service Fund
1972-74	Committee on Preprofessional Advising and Education, MIT
1972-74	Steering Committee, Urban Action, MIT
1977-85	Freshman Advisor
1978-	Undergraduate Advisor
1980-	Premedical Advisory Council, MIT
1977-80	Seminar Committee, Department of Applied Biological Sciences, MIT
1978-80	Asinari Committee, MIT

1979-88	Undergraduate Affairs Committee, Department of Applied Biological Sciences, MIT (Chairman, 1981-1985)
1980-84	MIT-Wellesley Upward Bound Joint Steering Committee
1981-82, 84-85	Financial Aid Committee, Department of Applied Biological Sciences, MIT
1981-86	Admissions Committee, Harvard-MIT Division of Health Sciences and Technology
1983-87	Curriculum Committee, Dept. of Applied Biological Sciences (Chairman, 1985-1987)
1983-87	Radiation Committee, MIT
1983-97	Sea Grant Committee, MIT (Chairman, 1993-1997)
1985-87	Admissions Committee, Harvard MD-POD Program
1986-92	Admissions Committee, MIT Medical Engineering-Medical Physics Program
1986-	Harvard-MIT Joint Committee on Health Sciences and Technology
1988	Search Committee for Department Head, Department of Chemical Engineering
1988-1992	Admissions Committee, Department of Chemical Engineering
1989-1991	Undergraduate Committee, Department of Chemical Engineering
1991-1993	Seminar Chairman, Department of Chemical Engineering
1993-	Board of Advisors, MIT Industrial Summer Session Program
1994-1995	Selection Committee for Co-Director of Harvard-MIT HST Program
2000-	Harvard MIT Division of Health Sciences and Technology Advisory Council
2013-	Karl Taylor Compton Lecture Series Committee

EDITORIAL BOARDS

1983-2002	Biomaterials- Editor
1987-	Biomaterials, Artificial Cells, and Immobilization Technology (Associate Editor, 1991-)
1983-92	Selective Cancer Therapeutics (Cancer Drug Delivery)
1983	Methods of Enzymology-Drug Delivery Systems
1984-98	Journal of Controlled Release
1985-	Biomedical Polymers
1986-	Advanced Drug Delivery Systems
1987-	Drug Design and Delivery
1990-	Marine Biotechnology
1991-94	Chemistry of Materials
1991 -	Cell Transplantation
1991 -	Polymers for Advanced Technologies
1991 -	Drug Targeting and Delivery
1992-	International Journal of Drug Targeting
1992-	Journal of Bioactive and Compatible Polymers
1994-98	Cancer Biotherapy and Radiopharmaceuticals
1994-	Journal of Pharmaceutical Science
1995-	Tissue Engineering
1995-	Encyclopedia of Controlled Drug Delivery
1996-	Birkhauser: Synthetic Biodegradable Polymer Scaffolds
1996-98	Chemical and Engineering News
1997-99/2008	Proceedings of the National Academy of Sciences
1997-	Annual Reviews of Biomedical Engineering
1997-	Biomedical Microdevices
1998-	Diabetes Technology and Therapeutics
1999-	Journal of Polymer Science, Polymer Chemistry
1999-	Pharmaceutical Science
1999-	Regenerative Medicine
1999-	Methods of Tissue Engineering
1999-	Angewandte Chemie
2000-	European Journal of Pharmaceutical Sciences
2002-	Journal of Investigative Dermatology-Associate Editor
2004-	Mechanics and Chemistry of Biosystems
2006-	Journal of Biopharmaceutics and Biotechnology

2006-	Bioconjugate Chemistry
2006-	Biomacromolecules
2007-	Nano Letters
2008-	Molecular Therapy
2009-	Science Translational Medicine (Scientific Advisory Board)
2015-	Regenerative Therapy
2016-	Technology and Innovation, Journal of the National Academy of Inventors
2016-	Oncogene
2017-	Journal of Design and Science