



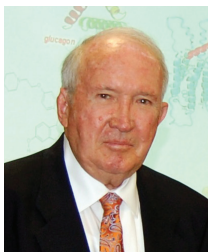
ROBERT M. MAHONEY is President and Chief Executive Officer of Belmont Savings Bank.

Mahoney received his M.B.A. from Columbia Business School in 1971. He is a 1970 graduate of the University of Massachusetts, where he earned a Bachelor of

Science degree in Chemistry. He received the 1996 Distinguished Alumnus Award from the University of Massachusetts, and the 2006 Columbia University School of Business Leadership Award. He is the recipient of the 2009 Henry L. Shattuck Boston City Champion Award and the 2011 USS Constitution Museum's Charles Francis Adams Award for public service.

In February 2014, Mahoney was named the "most-admired CEO of a small or mid-sized company in Massachusetts" by the Boston Business Journal. The award follows the bank's significant recent success, doubling its assets in the past three years, surpassing one billion dollars, and opening three new in-store branches. In addition the bank created the Belmont Savings Bank Foundation, which has become a financial partner to many local non-profit groups, institutions, and schools operating within the communities where the bank operates. Since its inception two years ago, the Foundation has donated over \$150,000 to local organizations.

Mahoney has held several community leadership positions in Massachusetts. He is Past Chairman of the United Way Board of Directors and Executive Committee, and serves on the University of Massachusetts Amherst Foundation board. He is also a cofounder of Community Gems, a collaboration of non-profit agencies that work together with community partners to meet the diverse needs of Greater Boston's youth and families. He is a board member of the Sitel Corporation, a \$1.5B worldwide customer-service firm in Nashville and International Data Group, a \$3B technology media and research group based in Boston. Mahoney also sits on the Archdiocese of Boston Finance Council and chairs the Council's Finance and Real Estate Steering Committee.

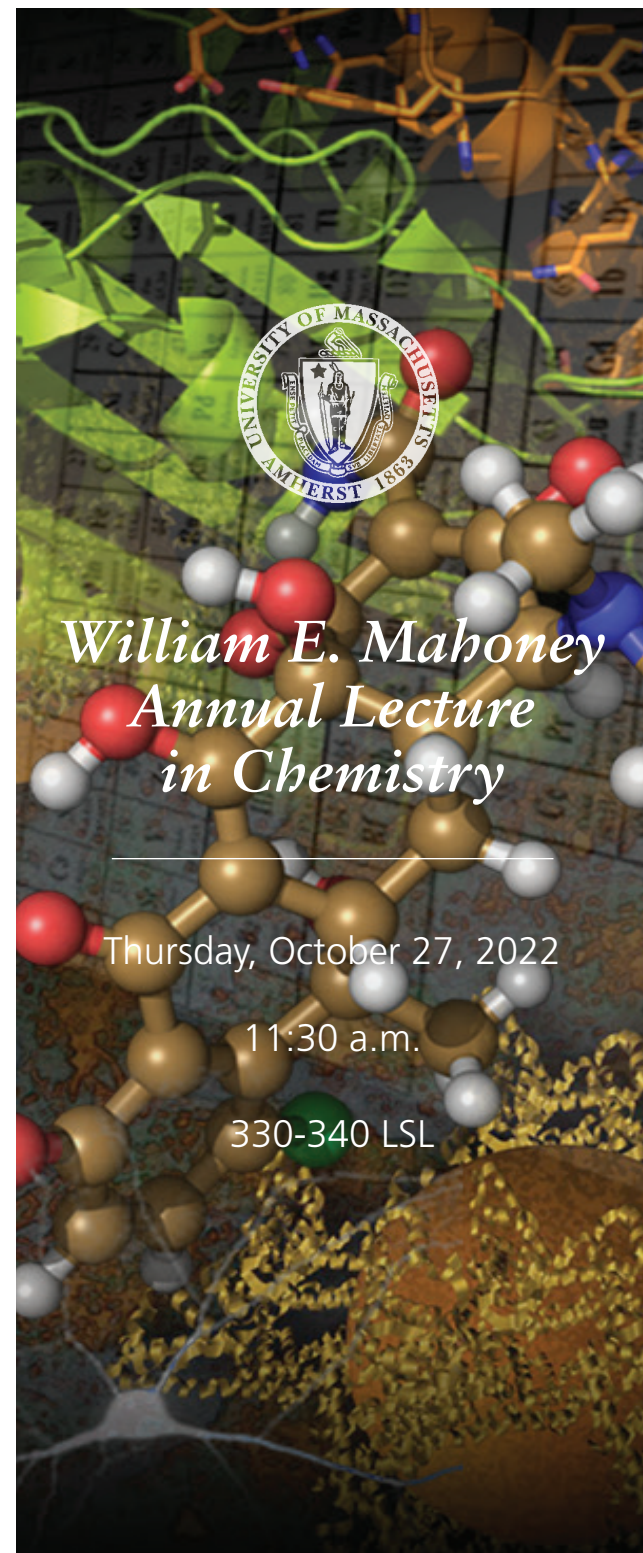


WILLIAM E. MAHONEY is a 1955 alumnus of the Department of Chemistry at the University of Massachusetts, Amherst. Professor Mahoney was Vice Chairman and Chief Operating Officer, as well as Chairman of the Executive Committee of the Board of Directors, of Witco Corporation (now Chemtura Corporation), a Fortune 500 manufacturer of specialty chemical and petroleum products.

After retiring from Witco in 1996, Professor Mahoney diverted his energies to developing the next generation of leadership in science and industry. Professor Mahoney was a longtime adjunct faculty member in the UMass Chemistry Department. He taught a highly successful seminar series entitled "The Business of Science: Contemporary Practices" for several years. Through this seminar series, students were introduced to topics in the management of science and technology by speakers from the business management communities. Professor Mahoney also chaired the Natural Sciences and Mathematics Advisory Council. In recognition of his distinguished achievements, the University of Massachusetts conferred to him the Chancellor's Medal in 1996. In 2006 he received the Distinguished Achievement Award. This award honors individuals for exceptional achievements in a chosen profession, demonstrated leadership, and exemplary accomplishments that merit special recognition by the campus. Professor Mahoney has served as director on several corporate boards, and was until recently the director of Harbor Acquisition Corporation. Currently, Professor Mahoney serves on a non-profit board.

Previous Mahoney Speakers

Professor R. Graham Cooks, 2020-2021
Professor George R. Church, 2019-2020
Professor Jack W. Szostak, 2018-2019
Professor Joanne Stubbe, 2017-2018
Professor Stuart Schreiber, 2016-2017
Professor Prashant Kamat, 2015-2016
Professor Paul Alivisatos, 2014-2015
Professor Peter Schultz, 2013-2014
Professor Richard DiMarchi, 2012-2013
Professor Hagan Bayley, 2011-2012
Professor Harry Gray, 2010-2011
Chancellor Marye Anne Fox, 2009-2010
Dr. Patricia Dehmer, 2008-2009
Professor Roald Hoffmann, 2007-2008
Dr. Ioannis Miaoulis, 2006-2007
Dr. Madeleine Jacobs, 2005-2006
Professor Richard Zare, 2004-2005
Professor Lawrence Krauss, 2003-2004
Professor Bassam Shakashiri, 2002-2003
Professor Dudley Herschbach, 2001-2002
Dr. Henry Lee, 2000-2001



Protein-Glycan Interactions in Immunity

LAURA KIESSLING

Department of Chemistry
MIT



Laura Kiessling earned a BS in Chemistry from the Massachusetts Institute of Technology and a Ph.D. in Organic Chemistry from Yale University. After two years at the California Institute of Technology as an American Cancer Society Postdoctoral Fellow, she joined the faculty of the University of Wisconsin, Madison in 1991. In 2017, she returned to MIT as the Novartis Professor of Chemistry and Member of the Broad Institute. Her interdisciplinary research interests have advanced our understanding of cell surface recognition processes, especially those involving protein-glycan interactions. Laura is a Fellow of the American Association for the Advancement of Science, and a Member of the American Academy of Microbiology, and National Academy of Sciences. She was the founding Editor-In-Chief of *ACS Chemical Biology*. Her honors and awards include a MacArthur Foundation Fellowship, a Guggenheim Fellowship, the ACS Gibbs Medal, the Tetrahedron Prize, and the Centenary Prize from the Royal Society of Chemistry.

ABSTRACT

Blueprints for agents regulating immune responses (vaccines or tolerizing agents) are needed. The design-principles have been elusive because many immune system receptors can transmit signals that lead to either immunity or tolerance; therefore, we lack a molecular understanding. Our group is interested in how cell surface glycans of foreign cells (pathogens, cancer cells) influence immune responses and how such information can be co-opted to combat disease. To this end, we are generating small molecules and polymers as chemical probes to elucidate the different combinations of signals that give rise to tolerance or immunity. To this end, we found that glycan conjugates can give rise to potent signals that result in anti-cancer immunity. This seminar will discuss the relevant design features of these conjugates and the mechanisms underlying their activity against tumors.