To friends of UMass:

It is an honor for me to serve as the interim president of the University of Massachusetts. One of the key messages that I want to communicate during my term is this: UMass has a unique dual mission to provide high quality, accessible higher education to the citizens of Massachusetts and to serve as a catalyst for science and technology-based economic development in every region of the Commonwealth.

As state policymakers debate the elements of a new S&T-based economic development strategy, UMass stands ready to be the state’s leading university partner. At our five campuses, we educate some 60,000 students annually, preparing them to participate in the life and economy of the state. Members of our faculty now conduct $300 million in research every year, ranking us third in the state and first in most of its regions. Our technology commercialization office generates over $20 million in licensing income annually, ranking us 17th among all U.S. universities.

UMass Medical School is the anchor of a biotech research park in Worcester. We operate incubators in Fall River and Lowell, and we have plans for another in New Bedford. UMass has led an IT education collaborative in Boston and is a co-partner in a unique biomedical R&D initiative in Springfield.

UMass S&T Serving the Commonwealth

We do all this for the Commonwealth. With state and private support, along with expanded alliances with industry and private research institutions, we are prepared to do much more.

Our ability to contribute to a state S&T-based economic strategy is indicated by a series of recent successes. With the aid of a $5 million state matching grant and support from companies such as Raytheon, UMass Amherst has just been awarded a $40 million Engineering Research Center from the NSF. UMass Worcester has been named the lead on a $16 million Center for Human Immunity and Bio-defense from the NIH, and UMass Dartmouth (in collaboration with Tufts) has secured an $8 million National Botulinum Center from the NIH. UMass Lowell, as part of a team led by Northeastern, recently made it to the finals of an NSF competition for a Nanomanufacturing Center, and UMass Boston has just announced plans for a new Center for Environment, Health, Science and Technology.

All of this is occurring at a time when the Governor, House Speaker, and Senate President are promoting important ideas and proposals in S&T development that will spur economic growth across the Commonwealth.

With support from our friends at the State House, our allies in the high technology sector, and our collaborators in private research institutions, there is no doubt that UMass will emerge as a leading-edge technological university for the Commonwealth.

Sincerely,

Jack Wilson, President
UMass Amherst Chosen to Lead Engineering Research Center

UMass Amherst has achieved a distinct honor in being selected as the lead institution for a new Engineering Research Center (ERC) sponsored by the National Science Foundation (NSF). UMass will work in partnership with scientists and engineers from the University of Oklahoma, Colorado State University, and the University of Puerto Rico. Corporate partners include Raytheon, IBM, and M/ACom. Along with federal and state government agencies, the partnership will create the Center for Collaborative Adaptive Sensing of the Atmosphere. CASA will address the observation and prediction of weather and our response to weather events, an issue that affects between 10 and 30 percent of the U.S. gross national product. The ERC will bring significant investment to the Commonwealth; total funding (including NSF, university, industry, and state contributions for the first five years) is estimated at roughly $40 million.

Contact: Brenda Philips, Managing Director, CASA (413) 577-2213 bphilips@ecs.umass.edu

UMass Medical School Awarded $16 Million for Biodefense Center

UMass Medical School has received a $16 million grant, funded by the NIH’s National Institute of Allergy and Infectious Diseases, for a research center on human immunity and biodefense. The center is one of only five in the nation selected to seek a better understanding of the human immune response to potential agents of bioterror and to initiate rapid development of countermeasures, such as vaccines and therapies. This effort is being led by Francis Ennis, professor of medicine and director of the Center for Infectious Disease Vaccine Research at UMass. Dr. Ennis has served as a member of the NIH Blue Ribbon Panel on Bioterrorism.

Contact: Peter Hilton, Executive Director, SEPRI (413) 545-0399 pdhilton@admin.umass.edu

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UMass Dartmouth Chosen for National Botulinum Center

UMass Dartmouth has been selected by the NIH to be a national research center site dedicated to discovering detection tools and treatments for botulism poisoning, one of our most dangerous bioterrorism threats. UMass Dartmouth will receive roughly half of a $17 million award made jointly to the university and the Tufts University School of Veterinary Medicine to develop a National Botulinum Center at the two institutions. Creation of this center is recognition of the groundbreaking science of Dr. Bal Ram Singh, who has been studying botulism at UMass for a decade. His efforts have also resulted in a recent $750,000 grant from NIH as part of the Harvard University–led New England Center on Biodefense and Emerging Infectious Diseases, and a $1.1 million award by the United States Army for research related to botulism.

Contact: Paul Vigeant, Assistant Chancellor for Economic Development (508) 999-9143 pvigeant@umassd.edu

UMass Amherst Launches Homeland Security Institute

UMass Amherst recently established the Security, Emergency Preparedness, and Response Institute (SEPRI) to provide integrated intelligent security and response solutions and training to first responders and critical asset management agencies. SEPRI brings together diverse capabilities of UMass Amherst with those of its partners to protect against natural or terrorism-related disasters. Partners include medical schools, hospitals, other universities, federal laboratories, state agencies, small businesses, and Fortune 100 technology, service, and training firms. Its programs — grounded in biochemistry, information technology, socio-psychology, and engineering — seek to detect the causes of actual or potential disasters; communicate expeditiously and effectively with victims, responders, and the general public; and respond appropriately to mitigate consequences and reduce loss of life.

Contact: Frank Ennis, Director, Center for Infectious Disease Vaccine Research (508) 856-4182 Francis.Ennis@umassmed.edu
Environment Is Focus for New UMass Boston Center

UMass Boston Chancellor Jo Ann Gora recently announced the creation of a new Center for Environmental Health, Science, and Technology, a cornerstone of the campus’s science and technology advancement strategy. The center will bring together 75 faculty doing environment-related work with Massachusetts industry and government to focus on health disparities, bio/ecoinformatics, green chemistry, environmental and ocean science, and geographic information systems/technology. The campus is recruiting faculty leadership in these areas, most recently welcoming Dean of Science Dr. Kenneth Sebens and Chemistry Department Chair Dr. Stuart Licht. Work in environmental areas already represents nearly half of the Boston campus’s new sponsored research.

Contact: Paul Fonteyn, Provost, UMass Boston (617) 287-5603 paul.fonteyn@umb.edu

Mass Bio Labs Joining Fight Against SARS

Massachusetts Biologics Laboratories (MBL), part of the UMass Medical School, has partnered with the biopharmaceutical company Medarex to work on development of a treatment for severe acute respiratory syndrome (SARS). MBL, in operation for more than 100 years, currently serves as the only publicly operated, FDA-licensed vaccine and biologics manufacturing facility in the country. Working together with Medarex and UMass Medical School, MBL will develop a monoclonal antibody to combat SARS. MBL Director Donna Ambrosino announced the collaboration during spring groundbreaking ceremonies for a new $80 million, 80,000-square-foot facility on the grounds of the old Boston State Hospital in Mattapan.

Contact: Jeanne Leszczynski, Deputy Director, Massachusetts Biologics Laboratories (617) 983-6400 jeanne.leszczynski@umassmed.edu

Antenna Research at Amherst Supports Homeland Security

UMass Amherst, in partnership with Hanscom Air Force Base, will share $5 million for research on the development of advanced antenna technology related to national defense, homeland security, wireless communications, and air traffic control. This federal funding, secured by U.S. Representative John Olver as part of the House Defense Appropriations Bill, will create the new Center of Excellence in Advanced Sensor and Communications Antennas at UMass Amherst. The center will work in partnership with Hanscom to promote antenna technology advancements and applications, while educating a workforce in advanced antennas and sensor systems.

Contact: Daniel Schaubert, Professor, Electrical and Computer Engineering (413) 545-2530 schaubert@ecs.umass.edu

UMass System Co-sponsors S&T Road Map Study with Mass Insight

UMass has joined the Mass High Tech Council, the Boston Foundation, Raytheon, the Mass Technology Collaborative, and Mass Health and Educational Facilities Authority in co-sponsoring Mass Insight’s Science and Technology Road Map and Strategic Alliances Study. Conducted by Battelle Memorial Institute, the study will provide state, university, and business leaders with a road map for S&T investments and targeted opportunities for strategic alliances among universities and businesses. UMass President Jack Wilson and Vice President for Economic Development Tom Chmura serve on the study’s working group.

Contact: Tom Chmura, Vice President for Economic Development (617) 287-7021 tchmura@umassp.edu
“Massachusetts has long been a world leader in cutting-edge technology. This new state-of-the-art education and training system at UMass Boston will further add to this claim as it trains our country’s brightest and most promising future IT professionals.”

U.S. SENATOR EDWARD M. KENNEDY

UMass Boston Wins NSF Grant for BATEC
Boston Area Advanced Technological Education Connections (BATEC), a partnership among UMass Boston, three community colleges, and secondary schools in the Boston metropolitan area, recently unveiled plans for a regional information technology education system funded by a newly awarded $3 million grant from the National Science Foundation. This partnership will develop and promote a coordinated, self-sustaining, regional information technology system that will link with industry. BATEC and its industry partners will create courses and pathways to attract diverse student populations to IT careers, provide them with cutting-edge training, and supply a skilled IT workforce to the Commonwealth and the nation. The launch of the BATEC initiative was announced formally at an event hosted by The Boston Foundation and attended by U.S. Senator Edward M. Kennedy, who joined community and industry leaders to support the initiative.

Contact: Deborah Boisvert, Director, BATEC (617) 287-7295, deborah.boisvert@umb.edu

Amherst Professor Wins National Distance Learning Award
The United States Distance Learning Association recently presented its annual Excellence in Distance Teaching Award to James Theroux, Ph.D., Flavin Professor of Entrepreneurship at the UMass Amherst Isenberg School of Management. Theroux was recognized for his Real-Time Case Study, an innovative approach to the case-study method of business education that he developed for an online entrepreneurship course in the fall of 2001. Students were able to follow the case company’s activities in real time, thanks to a full-time case writer within the company. Using Web documents, e-mail, video and phone conferences, online chat, and threaded discussions, students communicated with the company and with one another. According to current UMass President and former UMassOnline CEO Jack Wilson: “The Real-Time Case Study leverages Internet technologies to ‘supercharge’ the case method, transforming the student-professor relationship into a problem-solving relationship.”

Contact: Barbara MacAulay, Chief Academic Officer, UMassOnline (617) 287-5623 bmacaulay@umassonline.net

EiMC Co-sponsors Conference with EMC on Engineering Pipeline
Over 200 business executives and education leaders gathered last spring at EMC Headquarters in Hopkinton to address the state’s growing shortage of students interested in math, science, and engineering. The conference, Fueling the Pipeline: Attracting and Educating Math and Science Students, was spearheaded by EMC Corporation and the Engineering in Mass Collaborative (EiMC.) EiMC is a UMass Lowell-based collaboration of leaders from businesses, schools, and higher-education institutions focused on meeting the Commonwealth’s growing need for a workforce skilled in math, science, engineering, and technology. Featured speakers included EiMC founder Krishna Vedula and local industry representatives from Raytheon, Fidelity, Analog Devices, and EMC, as well as speakers from the U.S. Department of Education and Council of LaRaza. Governor Romney opened the conference, reinforcing the need for state, industry, and academic collaboration to address this critical issue. Attendees were encouraged to strengthen their roles in bolstering the math and science pipeline, with several recommendations outlined in a report released at the conference (available online at www.emc.com/pdf/news/se_report.pdf).

Contact: Kathleen Phalen, Corporate Relations Manager, UMass President’s Office (617) 287-7195, kphalen@umassp.edu
Lowell Wins HUD Partnership Award
UMass Lowell was named one of nine schools in the nation demonstrating “the most highly institutionalized approach to outreach and community partnerships overall” by the U.S. Department of Housing and Urban Development (HUD.) The accolade was based largely on the achievements of the university in the City Scholars program, developed by the Center for Family, Work, and Community. Through this program, the university provides annual funding for 10 faculty members to support urban revitalization through innovations in curriculum, community-based outreach, or outreach and technical assistance. Scholars have come from many disciplines, including English, health and clinical sciences, business, engineering, and psychology.

Contact: Lou Petrovic, Director of External Funding, Technology Transfer, and Partnering (978) 934-2577 Louis_Petrovic@uml.edu

Western Mass RTC Initiative Making Progress
The Regional Technology Alliance (RTA), funded for the past three years by a National Science Foundation Partnership for Innovation grant, has spawned the new Regional Technology Corporation (RTC.) The RTA was a UMass Amherst–led effort to develop a regional technology strategy for cluster development. It brought together UMass faculty, other academics, and local businesses in various forums to network and identify commercialization opportunities for public/private investment. The new RTC has been created specifically to increase the number of technology-based businesses in western Massachusetts. Led by a cadre of local business leaders, the RTC will continue RTA initiatives, including its three technology clusters in IT, biosciences, and advanced materials and manufacturing. The RTC is a regional technology partner for the Amherst campus and an affiliate of the Economic Development Council of Western Massachusetts. Its Web site at www.rtacentral.org has become a central information source for technology news and events in the Pioneer Valley.

Contact: Humera Fasihuddin, Vice President, RTC (413) 755-1330 humera@rtacentral.com

UMass Dartmouth ATMC Promotes South Coast Business
UMass Dartmouth is leveraging university technology and resources to promote regional economic development in the South Coast region through the Advanced Technology & Manufacturing Center (ATMC) located in Fall River, Massachusetts. As a focal point for industry and university collaboration, the ATMC offers research and partnering labs, conference space, and a technology venture center. Its incubator space is currently occupied by seven different start-ups for technologies in fields ranging from microelectronics to software development. The ATMC was recently chosen by Avant Immunotherapeutics, a Needham-based firm that manufactures vaccines, as the site for Avant’s pilot manufacturing facility. Scheduled to open in 2004, Avant will develop manufacturing processes to demonstrate the commercial viability of the results of its research.

Contact: Tom Curry, Director, ATMC (508) 910-9800, tcurry@umassd.edu

“Support for the University of Massachusetts is the most important investment the state can make in promoting regional economic development.”

WILLIAM GUENTHER PRESIDENT, MASS INSIGHT
UMass Sets New Record for Technology Licensing in FY03

Final reports for FY03 show another record-breaking year for UMass in new inventions and technology commercialization. Faculty at the university’s five campuses produced an all-time high of 194 invention disclosures. Staff at the University’s Office of Commercial Ventures and Intellectual Property (CVIP) filed a record-breaking 123 patent applications and successfully negotiated 42 licenses. This activity garnered $20.3 million in gross licensing income. This represents a 33 percent increase over the $14.9 million earned in FY02 and a nearly 70-fold increase over the $300,000 in FY95, the year preceding the formation of CVIP.

Contact: William Rosenberg, Executive Director, CVIP (617) 287-7186 wrosenberg@email.umassp.edu

UMass Ranked in Top 20 of U.S. Universities in Technology Licensing

According to the latest national comparative data released by the Association of University Technology Managers (AUTM), the University of Massachusetts ranked 17th among all U.S. universities in technology licensing income, earning $12.1 million in FY01. This represents a substantial improvement over its ranking of 21st in FY00. With 20 percent growth in FY02 and 36 percent growth in FY03, the university is hopeful of improving its national ranking even further as future AUTM reports are released. UMass has joined MIT, Harvard, and Tufts as Massachusetts-based institutions that rank in the top 20 most active licensing programs nationwide.

Contact: William Rosenberg, Executive Director, CVIP (617) 287-7186 wrosenberg@email.umassp.edu

RNAi Technology Leads to New Licenses and a Start-up Company in Worcester

In 2002, Science magazine named RNA interference (gene silencing), jointly discovered at UMass Medical Center in Worcester and the Carnegie Institution in Washington, DC, the “number one scientific breakthrough of the year.” This work has been led by Drs. Craig Mello, Phil Zamore, Tariq Rana, and the world’s largest team of RNAi researchers, at UMass Worcester. Since the announcement, Worcester CVIP has been actively licensing this path-breaking technology to important biotech companies such as SIRNA and CytRx and not-for-profit institutions around the world. The licenses have already produced more than $10 million for the university in FY04 and resulted in the start-up of Araios, a new biotechnology company in Massachusetts. This firm will focus on the development of drugs for obesity and type II diabetes. It is expected to locate in the Worcester area to benefit from the proximity to UMass scientists.

Contact: Chester Bisbee, Director, Worcester CVIP (508) 856-5012 chester.bisbee@umassmed.edu
Supporting the State’s Regional Economic Development Planning Efforts
UMass Donahue Institute staff and UMass faculty members from the Amherst, Boston, Dartmouth, and Lowell campuses are providing critical analytical and research support to the six “regional competitiveness councils” recently established by the Governor and the Massachusetts Department of Business and Technology. Composed of local private- and public-sector leaders and key economic development stakeholders, these councils are designed to provide state economic development officials with the information they will need to set clear economic development policy priorities for each region and to support local efforts to promote and attract new investment and create high-skill, high-wage jobs across the Commonwealth.

Contact: Michael Goodman, Director of Economic and Public Policy Research, UMass Donahue Institute (617) 287-7040 mgoodman@donahue.umassp.edu

Understanding the Emerging Renewable Energy Industry
A comprehensive study of the renewable energy industry in Massachusetts was recently completed. Developed for the Massachusetts Renewable Energy Trust by the UMass Boston Environmental Business and Technology Center, the study was prepared by UMass Boston Professors David Levy and David Terkla, with research and analytical support from the UMass Donahue Institute. The report contains a comprehensive economic profile of the renewable energy industry in Massachusetts and New England; assesses the outlook for the renewable energy industry and its subsectors through analysis of its strengths, weaknesses, and opportunities; and identifies the business assistance needs of the region’s renewable energy firms.

Contact: William Brah, Director, Environmental Business and Technology Center (617) 287-7723 William.Brah@umb.edu

Tracking the Status of the Telecommunications Industry in Massachusetts
In partnership with the Massachusetts Telecommunications Council, the UMass Economic Project has completed an in-depth study of the state’s telecommunications industry. In addition to providing a comprehensive economic profile, the research identified and analyzed key issues confronting telecommunications firms in Massachusetts. Results were presented at the council’s annual meeting in September. This is the third time the Massachusetts Telecommunications Council has turned to UMass for industry analysis and insight.

Contact: John Ciccarelli, Assistant to the Chancellor for Economic Development (617) 287-7893, John.Ciccarelli@umb.edu

UMass and MassINC Address the Massachusetts “Brain Drain”
In partnership with the Massachusetts Institute for a New Commonwealth, the UMass Economic Project is undertaking an in-depth study of patterns of in- and out-migration in Massachusetts and commuting in the state. Tentatively titled Plugging the Brain Drain: Keys to Retaining a Skilled Workforce in Massachusetts, this study will explore the economic development implications of these trends. It will be authored by UMass Amherst Professor Robert Nakosteen, with extensive research and analytical support from the UMass Donahue Institute’s Economic and Public Policy Research Unit. Two policy briefs based on the study will be jointly released this fall.

Contact: Michael Goodman, Director of Economic and Public Policy Research, UMass Donahue Institute (617) 287-7040 mgoodman@donahue.umassp.edu

Future of the Financial Services Industry Study Released by UMass Boston
College of Management faculty members at UMass Boston, with research and analytical support from the UMass Donahue Institute, developed Down but Not Out: The Future of the Financial Services Industry. The comprehensive study was presented at the Boston Stock Exchange on October 8, with results discussed by a panel of distinguished financial services executives from Greater Boston. The report found that while the industry’s fortune is temporarily down, its future is bullish, and both Boston and the Commonwealth overall will continue to benefit from its strengths. Keynote speaker Dr. Roger W. Ferguson, Vice Chairman of the Board of Governors of the Federal Reserve System, commented on the report while addressing the issue from a national perspective.

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