Mark and Elisia Saab Are Leading University Donors

UMass Lowell’s new $80 million Emerging Technologies and Innovation Center has been named in tribute to distinguished alumnus Mark Saab ’81 and his wife, Elisia. The naming recognizes the Saabs for a new multimillion-dollar commitment, which will make them the largest individual donors to the University. The Mark and Elisia Saab Emerging Technologies and Innovation Center name was unveiled by Chancellor Marty Meehan at a dedication ceremony on Dec. 8.

“The Saabs’ generous support of the University enhances the work of faculty researchers and industry partners, opening up new worlds of discovery for our students,” Meehan said. “The Mark and Elisia Saab Emerging Technologies and Innovation Center is now a part of the couple’s legacy. This state-of-the-art building exemplifies the University’s role as a pioneer and international leader in education and manufacturing technology. We are tremendously grateful to the Saabs for their commitment to UMass Lowell and their vision for its future.”

“I have always felt strongly about giving back to UMass Lowell and being involved in the plastics engineering program,” said Mark Saab. “I’m grateful for the specialized education that has led to my success and I want to help today’s students discover the path to their own futures.”

The gift from the Saabs will help equip the center and endow its research and development initiatives. The Center is a dynamic hub for cutting-edge advances in nanotechnology, nanomedicine, molecular biology, plastics engineering and optics, furthering fields such as life sciences, energy, national security, environmental protection and more.

The donation anchors the more than $10 million in private donations the science and technology center has received to date—the largest amount of private funds raised in University history for a single project.

A portion of the Saabs’ gift will also endow a fellowship in Portuguese studies at the University. Mark Saab graduated from UMass Lowell in 1981 with a degree in plastics engineering. He is president of Advanced Polymers Inc., of Salem, N.H., a manufacturing company he co-founded with Elisia Saab that produces products and components for the medical device industry. The couple lives in Lowell.

Over the last 18 months, UMass Lowell has named three academic buildings and one of its schools in honor of alumnus benefactors and their spouses, in recognition of their commitment to the University. In addition to the Mark and Elisia Saab Emerging Technologies and Innovation Center, those are Perry Hall, in honor of alumnus Barry Perry ’68 and his wife, Janice; the Manning School of Business, for Rob Manning ’84, ’11H and Donna Manning ’85, ’91, ’11H and the forthcoming Pulichino Tong Business Building, for alumnus John Pulichino ’67 and his wife, Joy Tong.
Landmark Obesity Study Uncovers Risks for Low-Wage Workers

**UMass Lowell, MassCOSH Experts Collaborate on Important New Research**

A new study looks at the obesity health risks of low-wage workers toiling in heavy labor. The study, “Obesity/Overweight and the Role of Working Conditions,” was released by UMass Lowell, MassCOSH (Massachusetts Coalition for Occupational Safety and Health) and the Boston Workers Alliance.

Eighty-seven low-wage workers from Boston, Lawrence and Lynn contributed to the study through focus groups and in-depth interviews. Though their occupations differed—from janitorial to human service to construction—their experiences were surprisingly similar. Some of the findings include:

- Having a physically demanding job often resulted in illnesses and/or injuries, influencing workers’ ability to participate in physical activity outside of the job.
- High demands in the workplace led some workers to feel stressed and consume more high-calorie foods, such as candy and soda.
- Many workers reported having inadequate time to eat during their working hours, making it difficult to eat healthy food.
- Many workplaces are inadequate in providing workers with the appropriate amount of equipment and space to eat meals, influencing workers’ diets.

“This report shows what an important impact the conditions of a person’s workplace can have on their health,” said Assoc. Prof. Nicole Champagne of the Department of Community Health and Sustainability, who co-authored the study. “When we only look at individual behaviors, such as diet and exercise habits, we are missing a big piece of the puzzle.”

The researchers suggest that employers allow sufficient time for breaks and meals, provide clean space with functional equipment for eating, and plan physical workloads that avoid excessive fatigue and risk of injury.

**Raytheon, UMass Lowell Sign Agreement to Explore Middle East Educational Partnership**

**Kuwaiti University and UMass Lowell Would Offer Dual Degrees**

Raytheon Co. and UMass Lowell have joined forces to explore a first-of-its-kind educational partnership in Kuwait.

Executives from Raytheon’s Integrated Defense Systems business and UMass Lowell leaders recently signed a memorandum of understanding with leaders from Gulf University for Science and Technology (GUST) of Kuwait. It is the first step in what is hoped will become a partnership through which Raytheon and the University would establish undergraduate and master’s-level degree programs at GUST’s campus. Kuwaiti students could earn UMass Lowell and GUST degrees through programs overseen and taught by UMass Lowell administrators and faculty.

Academic programs are likely to include sciences, engineering and business and will emphasize experiential learning, technological development and entrepreneurship. The goal is to help the Middle Eastern nation diversify its oil-focused economy.

As one of the top 200 universities in the world, UMass Lowell is eligible to establish academic programs in Kuwait under that nation’s laws. This agreement is the latest in UMass Lowell’s efforts to expand its international presence. Since 2009, the University has established more than 95 international partnerships with educational institutions in 40 nations.

Shown signing the agreement are, from left, Stephen Murphy, vice president of contracts for Raytheon Integrated Defense Systems; Sanjay Kapoor, Raytheon vice president of Integrated Air and Missile Defense; GUST President Shuaib Shuaib; and UMass Lowell Chancellor Marty Meehan. Looking on are Marcellette Williams, UMass senior vice president for academic and student affairs and international relations; Abdul-Rahman S. Al-Muhailan, chairman of GUST’s board of trustees; and UMass Lowell Provost Ahmed Abdelal.

**UMass Lowell Gives Classroom Awards to Computer Science Teachers**

**Tablets, Robots Will Benefit Middle, High School Students**

Eighteen teachers from 20 middle schools and high schools in New England recently received awards from UMass Lowell as part of the University’s Computer Science K–12 Community Partnership Program and STEM (Science, Technology, Engineering and Math) outreach.

The program offers professional development workshops for teachers as well as robotics-related activities for students.

“In addition to providing valuable teacher development and networking opportunities, Professors Fred Martin and Holly Yanco try to provide equipment support,” says program manager Phyllis Procter. “Teachers not only learn new technologies at the workshops, but are also given an opportunity to apply for a grant, to take the technology back to the classroom.”

This year’s CS4HS (Computer Science for High School) classroom awards, consisting of Lenovo tablets and Finch programmable mini robots worth more than $16,000, went to schools in North Reading, Needham, Marlborough, Tyngsboro, North Attleboro, Worcester, Lowell, Lawrence, Sudbury, Fairhaven, Marblehead and Enfield, Conn.

This year’s STREAM classroom awards, consisting of Lego Mindstorm and Arbotics kits worth nearly $15,000, were given to schools in Boston, Walpole, Marlborough, Chelmsford, Lawrence, Cranston, R.I., and Fairfield, Conn.
UMass Lowell, University of Ulster Forge Research Partnership

**Med Device Collaboration to Help Move Products to Market**

UMass Lowell and Northern Ireland’s University of Ulster have forged a new research partnership to advance international collaboration in the fast-growing fields of medical device technologies, innovation and health care.

According to a recent article in Medical Device + Diagnostic Industry magazine, the medical device industry is a driver of the country’s economic growth, currently employing more than 400,000 people directly and 2 million indirectly. Its exports doubled between 1998 and 2008, to $33 billion annually.

UMass Lowell, along with UMass Worcester, operates the Massachusetts Medical Device Development Center (M2D2), which provides entrepreneurs with expertise in plastics engineering, medical testing and business management.

The University of Ulster operates a similar center in Northern Ireland. Together, the partner institutions will work with successful medical device companies to create a system of best practices to help speed the process of getting new products from the idea stage to the market.

“Fostering international relationships with key allies is critical in positionning Massachusetts at the forefront of cutting-edge scientific research and business development,” says Chancellor Marty Meehan.

The agreement will expand opportunities in burgeoning fields in medical science such as nanomedicine, biotechnology and biomedical engineering. It will also foster cooperative graduate education, research and training programs at the two learning institutions that will result in joint publications, faculty and student exchanges and study-abroad opportunities.

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**UMass Lowell Wins Governor’s ‘Leading by Example’ Award**

**University Honored for Environmental, Clean Energy Achievements**

Citing the University’s outstanding energy and environmental leadership, the state recently presented UMass Lowell with a Leading by Example award.

The award notes that UMass Lowell “is the first New England college or university to achieve Green Guard certification, aimed at protecting human health and improving quality of life by enhancing indoor air quality and reducing exposure to chemicals and other pollutants.”

“Leading by Example is a prestigious award that recognizes our multifaceted energy conservation program,” says Thomas Dreyer, associate vice chancellor for facilities management. “We have three great reasons to conserve: It is a good business decision, it is a great example for our students and it meets the strategic goals of the Governor and our University.”

Sustainable practices at UMass Lowell include:

- Committing to a Climate Action Plan that calls for carbon neutrality by 2050.
- Replacing two North Campus boilers with more energy-efficient units and converting a third one from fuel oil to cleaner natural gas, reducing greenhouse gas emissions by more than 4,000 metric tons of carbon dioxide equivalent annually.
- Increasing the solid waste recycling rate on campus by more than 376 percent, from 97 tons in 2008 to 462 tons in 2011.
- Installing solar photovoltaic arrays on the roofs of Costello Gym, Bourgeois Hall, Dugan Hall and Leitch Hall with a combined output of 250 kilowatts, reducing greenhouse gas emissions by 115 metric tons of carbon dioxide equivalent annually.
- Installing more than 100 real-time, building-level energy meters on campus to track electricity, gas and steam usage and identify opportunities for increasing efficiency.
- Incorporating green building principles as the University continues to grow.
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Representatives from UMass Lowell were on hand to receive the Governor’s Leading by Example award during a State House ceremony on Beacon Hill in October.

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**Scientists Harness the Power of Photosynthesis**

**Team Aims to Store Solar Energy**

Photosynthesis, the process by which plants, algae and many forms of bacteria use energy from sunlight to convert carbon dioxide and water into organic compounds while releasing oxygen as byproduct, could be the key to helping alleviate the world’s energy needs, decrease its dependence on fossil fuels and address environmental concerns such as the high concentrations of carbon dioxide in the atmosphere.

A team of researchers at UMass Lowell is now able to replicate photosynthesis in the laboratory, with the goal of someday storing solar energy on a commercial scale. The team’s work is funded with a three-year grant from the National Science Foundation worth nearly $417,000.

“Sunlight is a renewable and environment-friendly energy source that could potentially become the ultimate global energy solution,” says physics Assoc. Prof. Mengyan Shen, head of the University’s Laboratory for Nanoscience and Laser Applications and the principal investigator for the project.
Visit Raises $100,000 for Student Scholarships

Many of the more than 3,000 fans who packed the Tsongas Center at UMass Lowell Dec. 7 knew well the legacy of literary icon Stephen King. "Carrie," "The Stand," "Misery," "The Green Mile," and dozens more are staples in the diet of modern literature.

But what some may not have known until his daylong visit to UMass Lowell was the Maine-based writer’s generosity. Not only did he sign every book presented to him, mug for every photo and chat with a slew of anxious fans, his visit raised more than $100,000 for the Stephen and Tabitha King Scholarship Fund, which will benefit UMass Lowell’s English students. King donated his speaker’s fee to the cause.

The 90-plus minutes of King, the inaugural event in the Chancellor’s Speakers Series, kicked off with a lively, humorous and sometimes poignant interview conducted by Andre Dubus III—UMass Lowell English professor and best-selling author—and ended with several questions for King from the crowd.

It was a rare college date for King, 65, who has sold 350 million copies of more than 50 novels, which often traffic in fright and end up on the silver screen. What scares him?


King left his Maine home at 8 a.m., and by 1 p.m., was in the Paul Tsongas Boardroom at the University’s Inn & Conference Center, signing 100 copies of his “11/2/63” and swapping jokes with Dubus.

Then, for an hour, King gave a master class for nearly 150 English students gathered at the hotel.

The student session was followed by a faculty reception and a crowd half as big. King honored every request, signing each book and fielding every question.

Among the projects King discussed during his visit are a “Carrie” film remake, a 13-year musical project he is producing with John Mellencamp (the star-studded soundtrack is due in March) and a 2013 sequel to “The Shining,” called “Dr. Sleep.”

“I do some colleges,” King had said in a phone interview with reporters two weeks earlier. “But I don’t do a lot of stuff because, frankly... it’s kind of scary. I’m a writer, I’m not a performer. And when I get out in front of a bunch of people, I get a little nervous and a little self-conscious. It’s strange to think that so many people actually want to come out and see, you know, somebody who isn’t Justin Beiber.”

King couldn’t resist one final nudge toward the darkness at the end of his appearance at the Tsongas Center. He reminded folks that 7 percent of people leave their cars unlocked. “I’m not suggesting there’s a maniac out there... I’m just suggesting you might check your back seat.”