Biologist Kamaljit Bawa Recognized on Global Stage

Kamaljit Bawa, distinguished professor of biology at the University of Massachusetts Boston and faculty fellow at the Center for Governance and Sustainability, received two notable honors on April 17, 2012.

Bawa received the Royal Norwegian Society of Science and Letters’ first Gunnerus Sustainability Award, the first major international award for work on sustainability. Bawa received the Gunnerus Gold Medal and the award of 1 Million NOK (U.S. $190,000) during a ceremony in Trondheim, Norway.

On the same day, Bawa was elected to the American Academy of Arts and Sciences. Founded in 1780, the academy is a prestigious, independent policy research center that conducts multidisciplinary studies of complex and emerging problems in the science, social policy, and humanities fields. Bawa was elected in the public affairs and journalism category, along with U.S. Secretary of State Hillary Rodham Clinton. “I am overwhelmed. This is indeed a great honor. One dreams of getting such recognition, but really does not expect much in reality, as there are a very large number of people out there doing extraordinary work,” Bawa said.

Bawa is most noted for his pioneering research on population biology in rainforest areas. His wide span of work includes groundbreaking biological discoveries made in Central America, the Western Ghats, and the Himalayas in India. He is particularly interested in developing conservation practices aimed at reducing poverty.

Bawa is the founder and president of Ashoka Trust for Research in Ecology and the Environment (ATREE), a leading interdisciplinary research think tank in Asia. In January 2011, a University of Pennsylvania study ranked ATREE nineteenth among environmental think tanks in the world. Three years ago, Bawa co-founded the Centre for Interdisciplinary Studies in the Environment and Development (CISED), which later merged with ATREE. He joined the UMass Boston biology department in 1974.

“UMass Boston has been a home ever since I joined the university. I am deeply appreciative of the support I have received from my colleagues and the administration. I am proud that we have a world-class institution,” Bawa said.

About the Gunnerus Sustainability Award

Starting in 2012 and given every two years, the Gunnerus award is the first major international prize for outstanding scientific work that promotes sustainable development globally. It is named after the Royal Norwegian Society of Sciences and Letters’ (DKNVS) founder, Bishop Johan Ernst Gunnerus (1718-1773), and is the result of a collaboration between DKNVS, Sparebank1 SMN, and the society Technoport.
University Hosts First Global Conference on Oceans, Climate, and Security

Attendees at the first Global Conference on Oceans, Climate and Security (GC ’12) say more education about climate change is needed, the private sector needs to be involved in the conversation, and lessons could be learned from the military.

The three-day conference, hosted by UMass Boston’s Collaborative Institute for Oceans, Climate and Security (CIOCS) in late May of 2012, looked at the conditions that are likely to be produced by climate change, how these conditions will affect coastal and ocean ecosystems and communities, and how they may affect human and national security interests.

Mark Spaulding, president of the Ocean Foundation and a member of the CIOCS advisory board, said at the closing session that the mindset on security needs to include food security and community security from natural disasters.

“Most of us find climate change an overwhelming problem to deal with. I think we have to figure out how to condition the public view. People are not prepared for this conversation,” Spaulding said.

CIOCS will develop a paper that identifies specific opportunities for collaborators to work on coastal adaption issues. They will also work with government officials to help define contributions that CIOCS can make to the continued global discussion on climate change and security. Center and conference director Robbin Peach said there is the potential for the conference to become a recurring event.

Conference Highlights Disaster Concerns

Jeffrey Masters describes being in the eye of a hurricane as being in a kind of prism, surrounded by white walls. The director of meteorology for Weather Underground, Inc., Masters shared his experience as a hurricane hunter during Hurricane Hugo and his predictions for 12 weather disasters that could happen in the next 30 years.

Hurricanes and floods dominate Masters’ top-12 list of potential weather disasters that he believes have at least a 10 percent chance of occurring, but Masters says he is most concerned with droughts; he says there is a 50 percent chance of a drought in the U.S. in the next 30 years.

“It’s going to be very expensive when Las Vegas runs out of water,” Masters said.

At the opening session of the conference, Margaret Davidson, director of the NOAA Coastal Services Center, spoke about how extreme weather events represent a trend. She said that, in recent years we have seen a greater distribution of what she calls “cascading disasters” where the impact gets worse as time goes on, such as Hurricane Katrina, the Haiti Earthquake, and last year’s tsunami in Japan. “They had planned for a tsunami water level of 18 feet and it was more like 30 to 40 feet,” Davidson said.

Saying that 87 percent of what Americans consume comes through a port, Davidson talked about the importance to the economy and the population to create partnerships to integrate climate information and planning tools, to understand cultural perceptions and values, and to use tools and training to incentivize policy changes.

“I’ve long been a fan of UMass Boston because this is what you do,” Davidson said.

Commander Tony Miller, the director of the U.S. Navy Task Force on Climate Change, talked about concerns over the destruction of wetlands, which protect the coastlands from erosion, as well as melting in the Arctic because ice dampens the effect of high seas. He says the task force is commissioning a sea level rise study.

Steve Fetter, the assistant director of the White House Office of Science and Technology Policy, spoke about “ocean surprises” and how the release of undersea methane could cause rapid warming: “Methane from beneath the Arctic Ocean is reaching the atmosphere; it is critical to know if this is accelerating.”

Janot Mendler de Suarez, who serves on CIOCS’ Council of Advisors and was a facilitator for the “Gaming and Communication to Address Impacts and Adaptation” session, said bringing science and policy leaders together presents potential for action.

“I think it’s great. I think we’re bringing together the right mix of people,” she said.

Christopher Smith, a 2010 alumnus who received his master’s degree in international relations and did his capstone project on climate change, said he looked forward to the opportunity to hear ideas he hasn’t heard before: “It definitely says a lot about the university being a center for this type of thinking.”
Massachusetts Governor Deval Patrick presented Secretary of the Navy Ray Mabus with the Collaborative Institute for Oceans, Climate and Security’s Energy & Environmental Safety Award. The award was presented at the Global Conference on Oceans, Climate and Security (GC ’12) at UMass Boston last May.

The U.S. Department of Defense (DoD) is the nation’s largest energy user, and the U.S. Navy is the largest energy user among the DoD units, ahead of the U.S. Army, U.S. Marine Corps, and U.S. Air Force. Under Secretary Mabus’ leadership, the navy is on track to sail the “Great Green Fleet” in 2016 and use alternative energy sources for half its energy needs by 2020.

“Secretary Mabus has set an ambitious agenda,” Governor Patrick said in introducing Mabus. “He knows we need to shape our future, and not leave it all to chance.”

“The navy has been at the forefront of energy innovation nearly all of its history. We went from sail to coal, coal to oil, and pioneered nuclear energy. We’re doing it to be better war fighters, but it has some great side effects. It makes us better stewards of the environment, makes us better stewards of the ocean. It makes us more secure as a nation,” Mabus said.

Because the navy consumes so much of the oil in the United States, Mabus said when the price of oil goes up a dollar it equates to $30 million in drill costs for the navy.

“We can never drill our way out of this problem, even if we could get all the fuel that we needed,” he said.

Mabus said when the navy launched its first hybrid ship (part gas-turbine-electric and part diesel-electric) in 2009, it saved $2 million in fuel costs just on its maiden voyage. Over the ship’s lifetime, it will save a quarter of a billion dollars— in 2009 dollars—he said.

The navy’s other goals include building partnerships with environmental organizations and working on marine mammal protection.

“We are from the ocean. We operate on it. One thing we have to do is be better stewards of it. We will continue to do our part to protect the oceans that we are on, under, and over,” Mabus said.

Military and civilian policy makers, scientists, and thought leaders from many disciplines took part in the dialogue and outcomes-driven conference. CIOCS, which sponsored the conference, is a public-private “think tank” located at UMass Boston that aims to work with key influencers and decision-makers to strengthen the understanding of the human and national security implications of changing oceans and climates, and to inform policy decisions through the application of sound scientific research and technology, demonstrated through place-based pilot projects.

About Ray Mabus

Prior to joining the Obama Administration, Mabus served in a variety of top posts in government and the private sector. In 1987, Mabus was elected governor of Mississippi. As the youngest governor of Mississippi in more than 100 years at the time of his election, he stressed education and job creation. He passed B.E.S.T. (Better Education for Success Tomorrow), one of the most comprehensive education reform programs in America, and was named one of Fortune magazine’s top ten education governors.

He was appointed ambassador to the Kingdom of Saudi Arabia for the Clinton Administration in 1994. During his tenure as ambassador, a crisis with Iraq was successfully averted and Saudi Arabia officially abandoned the boycott of United States businesses that trade with Israel.

He also was chairman and CEO of Foamex, a large manufacturing company, which he led out of bankruptcy in less than nine months while paying all creditors in full and saving equity. Prior to becoming Governor, he was elected state auditor of Mississippi and served as an officer in the U.S. Navy aboard the cruiser USS Little Rock.

In June 2010, President Obama asked Secretary Mabus to prepare a long-term recovery plan for the Gulf of Mexico in the aftermath of the Deepwater Horizon oil spill. After extensive travel and many meetings, his report “America’s Gulf Coast: A Long-Term Recovery Plan After the Deepwater Horizon Oil Spill” was released in September 2010. The report was met with broad bi-partisan support.
Four Extraordinary Faculty Earn Chancellor’s Awards

A sociology professor who forges strong ties between her classroom and the community. An accomplished scholar of Renaissance literature. A widely read author and analyst of American pop culture. An administrator and professor who created the most competitive doctoral program on campus. Four exceptional UMass Boston faculty members were honored at commencement on June 1st, with the annual Chancellor’s Awards for Distinguished Teaching, Scholarship, and Service.

**Professor Stephanie Hartwell**, director of the master of applied sociology graduate program, earned the award for Distinguished Teaching. She said she was surprised to receive the honor.

“I know people noticed my research, but I always thought that sort of overshadowed what I tried to do in the classroom,” said Hartwell, who joined the UMass Boston faculty in 1997. “But I bring a lot of what I do in my research into the classroom, and try to be creative with it.”

Last year, Hartwell’s master’s students conducted a yearlong evaluation of the Louis D. Brown Peace Institute, a Boston nonprofit that helps survivors of homicide victims cope with their grief and navigate the legal system. Her students received hands-on experience with a respected organization, and they praised Hartwell’s mentoring throughout the sensitive process.

**Professor John Tobin**, who teaches English at UMass Boston, takes pride in serving as a commencement marshal and mace-bearer each year, leading the procession of distinguished guests to the stage. This year, Tobin set down his mace in order to receive the Chancellor’s Award for Distinguished Scholarship.

Tobin is an oft-cited authority on Renaissance literature, including the works of Shakespeare, Spenser, Milton, and George Herbert. He devoted his early career to uncovering previously unknown influences in the Bard’s work: His monograph Shakespeare's Favorite Novel is a study of the North African classical writer Apuleius and his influence on Shakespeare and other well-known Renaissance writers. Tobin’s volume explored a new, exciting source for Shakespeare’s work that had not been seriously considered but is now widely accepted.

Over the past 20 years, Tobin’s contributions to Shakespearean scholarship have been wide-ranging. He has edited the second and third editions of The Riverside Shakespeare: Evans Shakespeare Edition (that includes all of his poems and plays), Hamlet: Evans Shakespeare Edition, and a forthcoming edition of King John for Britain’s prestigious The Arden Shakespeare.

**Associate Professor Scott Maisano**, an English department colleague, praises Tobin for his accessibility: “Just as Professor Tobin begins his overview of Shakespeare’s life by telling us that ‘Shakespeare was a genius, but he was no unreachable ivory-tower poet,’ I have often reassured my undergraduate and graduate students that ‘Tobin is a genius, but he is no unreachable, ivory-tower academic.’”

**Professor Rachel Rubin** was also honored with the Distinguished Scholarship Award for her study of the connections among differing threads of popular culture.

Rubin, who directs the American studies graduate program, has written, edited, or coedited seven volumes and dozens of journal articles, all of which consider seemingly disparate themes in pop culture but reveal how they are interconnected.

Her research topics range from Jewish gangsters to Renaissance fair attendees. “I’m very interested in the way people use culture to make sense of their lives,” Rubin said. While her students today might not discuss the changing nature of masculinity over drinks at a bar, Rubin explains, they might watch a movie about the mob that addresses the same themes.

“Taken together, I believe that Professor Rachel Rubin’s sophisticated studies of popular music and working people’s identities represent a major scholarly breakthrough in our effort to understand [how] social class works in American life,” says history Professor James Green.

**Professor Joan Liem**, who received the Distinguished Service award, has worked for UMass Boston for 40 years as a faculty member, as head of the clinical psychology doctoral program that she helped found, and as dean of graduate studies. Of all her contributions, she said, “I feel the most passionate about and feel the proudest of” the doctoral program. This course of study is UMass Boston’s most competitive, drawing hundreds of applications each year for just eight to ten spots.

“I wrote the proposal and took [it] through governance and implemented the program and then admitted the first students. That was 22 years ago. We’ve now produced over 100 PhDs who are out in the world doing wonderful work,” Liem said.

The program trains students to serve and study socioeconomically and culturally diverse populations. Many graduates continue Liem’s model of service by working with these underserved groups.
“Anything that has scared me—I’ve wanted to do it,” says Stephanie Hartwell, professor of sociology, of her academic research path.

Hartwell, the graduate director of the Master’s Program in Applied Sociology, has dedicated her research to analyzing and interacting with people who are dually diagnosed with mental health conditions and substance abuse.

Committed to social justice work, Hartwell recently completed a research study that worked across multiple state agencies, including the state’s Department of Corrections, Department of Health, and Department of Mental Health.

The longitudinal study involves collecting data on people who transition from prison systems to the community, and it relies heavily on the collaboration and interaction with state agencies. “There’s a lot of legwork to create and maintain these collaborations with the agencies,” Hartwell said. “I need their permission to access those data.”

Although budgetary concerns plague most institutions and agencies in the U.S. right now, Hartwell is quick to point out how “wonderful and ambitious Massachusetts is in helping with rehabilitation and transition.”

Funded by the National Institutes of Health, Hartwell and her team are finishing analysis on this project and the forthcoming article will be published in the journal Evaluation and Program Planning. The article is titled, “Harmonizing Databases? Using a Quasi-Experimental Design to Evaluate a Public Mental Health Re-entry Program.”

Like many UMass Boston faculty and staff, Hartwell has her hands on multiple projects that, in her case, are all grant-funded. At the forefront of her projects, all conducted concurrently, are MISSION Direct Vet: Jail Diversion Trauma and Recovery and MISSION-Re-entry and Peer Support.

In its fourth year, the MISSION Direct Vet project follows and analyzes veterans transitioning from their military service to status as civilians. “It’s an interesting project—being able to see the kind of things that veterans struggle with in their transition from combat theater to the community,” she said.

As the co-principal investigator and the lead evaluator of the MISSION-Re-entry and Peer Support program, Hartwell works with the Bureau of Justice, which assists in the transition of medium- and high-risk female offenders who struggle with substance abuse and mental health conditions.

Hartwell spends most of her time building programs, which she funds through program-grant money, but her main objective and goal she says, is to, “put social justice work ahead of money.” In doing so, she is able to build programs, then offset the cost by applying for larger grants, a delicate maneuvering when budget cuts are becoming all the more commonplace.

And Hartwell’s dedication extends further than her commitment to social justice programs: “I insist that graduate students get paid for the work that they do because the students are fantastic to work with,” she says.

Hartwell worked with 4-7 graduate students personally over the course of the 2011-2012 academic year, although she advises all of them in their progression throughout the program, which “throws our students into the deep end,” she says. “We want to get them out into the social world, get them out of their comfort zones.”

Because of this approach, Hartwell says that the program receives several requests for graduate students to do evaluation work around the city of Boston. The MA program is unique in this regard since it is the only master’s program in applied sociology in the Boston area.

Hartwell only teaches one class a semester due to the many projects she leads, but that didn’t stop the sociology department from nominating her for the annual Chancellor’s Award for Distinguished Teaching. Hartwell was honored, along with three other faculty members, at UMass Boston’s 2012 commencement ceremony. “It was a surprise,” she said. “It was very flattering. I’m very honored by my department but I’m very honored by my students. I really thought I was going to cry. It was such an emotional event. It means a tremendous amount.”

A faculty member since 1997 and working as a full professor since 2010, Hartwell speaks with conviction that UMass Boston is her home. “This is the best place in the world to teach sociology,” she says. “The sociology department is fantastic. I hope it comes through how much I love and appreciate the students. I’m proud to work at a place so committed to public service and social justice. I’m a builder. I like to build stuff.”

- **Publications (highlights):**
  - 25 peer-reviewed journal articles
  - 10 book chapters
  - 2 edited books
- **Adjunct Associate Research Professor, Department of Psychiatry, UMass Medical School**
- **Research Consultant, Division of Forensic Services, Massachusetts Department of Mental Health**
- **$1.3M in grant funds**
That would be a battery that allows a vehicle to travel up to 300 miles between charges, virtually eliminating the need for a gasoline-fueled internal combustion engine, replies Deyang Qu.

The challenge is to create the chemistry to pack that much energy into a battery of practical size and weight. And Qu and his research group—considered one of the leading groups in the world in this area—are on the case. Their specific focus: perfecting the lithium air battery.

What makes this type of battery so appealing to industry? Qu explains: “If you look at the periodic table for two elements you can combine to give maximum energy from a chemical standpoint, they are metallic lithium and oxygen.” The beauty of this system, he says, is its low weight, since oxygen is obtained from the surrounding air. And the enormous amount of energy the system can produce between charges is good news for automakers.

Success in developing a lithium air battery for practical use, however, remains elusive for researchers throughout the world. One problem is figuring out how to harness the oxygen while blocking out the moisture in the air, since lithium reacts violently to water. Another obstacle: the low number of times a lithium air battery can be recharged. Qu’s group has achieved 100 recharges. That’s well beyond what other researchers have done, but not yet financially viable for consumer use.

Powering vehicles is just one aspect of Qu’s pursuit to turn chemical energy into electricity. Another is the development of specialized energy storage and supply systems—fuel cells and supercapacitors—to power technology for military use or space missions. He regularly visits the Office of Naval Research, a major funder of his work, to stay abreast of changing needs.

To support troops in Afghanistan, his group developed a fuel cell that would function well in the cold, but as that operation winds down, new military challenges will start to emerge. “You have to understand the needs of the customer,” he says. “Then you look and see what you can contribute—what you’re good at and also interested in.”

Qu’s first experience with electrochemistry was in elementary school when he saw a demonstration of a water-activated battery similar to those used in an airplane’s black box. “The guy put the battery into the middle of a fish tank, it lit up, and all the fish in the tank swam to it. That was amazing,” he recalls. He earned his BS in chemistry from Wuhan University in China, and in 1993 his PhD from the University of Ottawa in Canada. That same year, he won the Electrochemical Society’s Student Research Award in the Battery Division.

After about a dozen years in industrial research and development, Qu joined the UMass Boston faculty in 2005 and has been closely involved with the university’s pioneering PhD Program in Green Chemistry. He has particularly enjoyed seeing UMass Boston transform itself into an urban research university while maintaining its traditional teaching mission.

He also appreciates working with a large urban student population that includes students from underrepresented ethnic groups. To serve students well, he states, “you have to do cutting-edge research to give them the opportunity to explore the world.” This means including undergraduates as well as graduate students and post-doctoral fellows in his laboratory, and they all rise to the challenge.

Qu’s immediate goals are to keep growing his group and to continue his work to develop longer and stronger energy storage systems. “From a military standpoint, our work can improve our troops’ ability to defend this country,” he says. “Also, if we can be at all successful in reducing our dependency on fossil fuels, cutting greenhouse gases, and contributing to conserving the earth’s limited energy resources, then we will have done a service to humankind.”

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**Faculty Profile: Deyang Qu, Associate Professor of Chemistry**

**What would it take to produce a fully electric vehicle that will reduce our dependency on fossil fuels?**

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**Deyang Qu**

- **4 patents**
- **35 journal articles published**

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**A fully electric vehicle available in the near future?**

Faculty Profile: Deyang Qu, Associate Professor of Chemistry

What would it take to produce a fully electric vehicle that will reduce our dependency on fossil fuels?
Faculty Profile: Paul Tucker, Distinguished Professor of Art

Growing up just outside New York City, Paul Tucker was never, in his words, “dragged around” to art museums.

It was an art history course at Williams College in the late 1960s that set him on the path to being the world’s leading authority on Claude Monet. He entered Williams planning to be a history scholar like his grandfather. Then he took a class taught by one of the college’s luminous art history professors and everything changed. An “absolutely spectacular” summer study-abroad program in Florence made him say to himself: “This is what I want to do.”

As a senior, Tucker was drawn to Monet’s work at the Sterling and Francine Clark Art Institute in Williamstown. He always ended the tours he gave there with Monet’s Rouen Cathedral, the Façade in Sunlight, one of a series of 30 views, and dreamt of reuniting 20 of the paintings never seen together since Monet exhibited them in 1895. In 1990 he came close as the guest curator for “Monet in the 90s” when he reunited 11 of the canvases, more than had ever been seen together since 1895. The series paintings were exhibited at the Boston Museum of Fine Arts (MFA) and other venues.

As a graduate student at Yale, where he earned his PhD in 1979, Tucker studied under art history scholar and Monet enthusiast Robert L. Herbert, a pioneer in developing the social history of art. Tucker’s dissertation focused on Argenteuil, the Paris suburb where Monet lived and painted during the 1870s. Poring over archival material he describes as “an historical and sociological goldmine,” he created a fresh narrative underlying Monet’s artistic choices in his Argenteuil paintings. This multilayered approach to the study of art, integrating history and biography, is a hallmark of his career as a teacher and scholar.

Tucker’s career at UMass Boston, which began in 1978, is studded with academic awards and honors, including three Chancellor’s Awards: one for Distinguished Service and two for Distinguished Scholarship. A prolific writer, he has authored numerous books, book chapters, articles, and museum catalog entries. He is in demand as a guest curator by artists, museum directors, and gallery owners worldwide, most recently for a Monet exhibition at the New York Botanical Garden that includes rarely seen paintings and re-creations of aspects of Monet’s flower and water gardens.

Artists from the 20th century, a period Tucker teaches at UMass Boston, and one he is keenly interested in, are an important part of his work. He was invited, for example, to curate exhibitions of—and write about—modern artists such as David Smith, whom he describes as “arguably the best American sculptor of the 20th century,” and Kenneth Noland, many of whose paintings are in the MFA’s collection. He modestly calls those invitations “leaps of faith, as people foolishly embraced me” despite his never having previously written about those two major artists.

Tucker is also the driving force behind Arts on the Point, UMass Boston’s internationally acclaimed collection of public sculpture. This unprecedented project grew out of Tucker’s desire to take advantage of the university’s spectacular Columbia Point location. He used his clout in the art world to obtain works on loan, then raised the funds to move and install them on campus. But when asked about his greatest legacy to the university, Arts on the Point is not his answer; instead he cites the thousands of students he has taught at UMass Boston, whose lives, he hopes, “have been altered, worldviews opened, hearts enlivened, and ways of understanding the world expanded.”

Now on sabbatical to finish his college textbook Never Neutral. Modern Art: Courbet to Pollock, Tucker remains energized by his artistic pursuits. In his recent visit to the studio of William Tucker (no relation), whose sculptures are well represented in Arts on the Point, the sculptor revealed to him four elegant, minimalist works from the 1970s, leading to a two-and-a-half-hour “invigorating, exciting, revealing, and fulfilling” discussion. It is moments like those, says Tucker, that make him feel part of a continuously evolving universe—with him as the astronomer, daily discovering new constellations.

- **11 books published and guest curator of 8 major exhibitions**
- **The Paul Hayes Tucker Distinguished Professor of Art, a Chair established in his name by two Boston patrons of the arts, Barbara Lee and Ellen Poss**
- **Hailed by Time Magazine as one of America’s foremost authorities on Claude Monet and Impressionism**
- **Recipient of the Yale Press Governor’s Award for the best book published by an author under 40; and grants from the American Council of Learned Societies as well as from the Florence Gould Arts Foundation**

A photo of one of Monet’s gardens at Giverny.
Hannigan to Chair International Consortium for Advancement of Hydrologic Sciences

Professor of Environmental, Earth, and Ocean Sciences Robyn Hannigan has been elected chair-elect of the Board of Directors of the Consortium of Universities for the Advancement of Hydrologic Sciences, Inc. (CUAHSI). She will assume full chair duties in January 2013.

Founded in 2001, the CUAHSI is a 501(c)3 research organization representing more than 130 U.S. universities and international water science-related organizations. “I am, obviously, very honored by my election to this position which will enhance our collective national and international environmental research and educational impact,” said Hannigan.

The chair-elect is one of three officers of the 15-member board responsible for managing all board activities and working with the hydrologic sciences community and funding agencies to advance hydrologic science, research, education, and practice. The CUAHSI receives support from the National Science Foundation to develop infrastructure and services for the advancement of water science in the U.S.

Hannigan is also chair of the Department of Environmental, Earth and Ocean Sciences at UMass Boston.

Fawcett Receives Honorary Doctorate from the Université Laval

Jacqueline Fawcett, PhD, RN, FAAN, professor and chair of the Department of Nursing at the College of Nursing and Health Sciences, recently received an honorary doctoral degree from Université Laval in Quebec, Canada. Fawcett’s many years as a leader in the field of nursing and mentor to numerous students made her a deserving recipient of such notable recognition.

Press release from Université Laval:
Considered by many leaders in the field of nursing as a master, Jacqueline Fawcett is one of the most prolific meta-theoreticians of her generation. Professor Fawcett’s scientific output is impressive: more than 300 lectures and conferences, 175 scientific articles, 80 chapters, and a dozen books translated into several languages. Many of her publications have received awards and have had a major influence on the development of nursing knowledge over the past 20 years. Her work is acclaimed throughout the world.

Her research has, among other things, focused on the advancement of knowledge using conceptual approaches specific to nursing, in particular Callista Roy’s Adaptation Model. She has supervised more than thirty doctoral students. In addition to her intellectual influences are the qualities of an outstanding teacher who is greatly appreciated by her students.

Throughout her prolific career, Fawcett has been sought after to give conferences or mentor and lead training sessions, including one at Université Laval in 1995. Many personal qualities explain this strong demand including her exceptional gifts as a speaker, her intellectual rigor, and critical thinking. In short, her career is truly remarkable and she is a real role model and source of inspiration to all nurses. It is for this reason that Université Laval is proud to bestow on her this honorary doctoral degree.

Biologist Revell Receives Jasper Loftus-Hills Young Investigator Award

The American Society of Naturalists has chosen Assistant Professor of Biology Liam Revell to receive the Jasper Loftus-Hills Young Investigator Award.

The American Society of Naturalists publishes *American Naturalist*, which is known as the premiere journal in evolutionary biology. Past winners of this award are among the most accomplished people in the field.

Revell received the award on July 9 at the 1st Joint Congress on Evolutionary Biology in Ottawa, Canada.

Revell has studied evolutionary ecology, empirical and theoretical genetics, computational biology, behavior, and natural selection. His research has taken him to the Dominican Republic and Puerto Rico. In his research lab, he is currently studying the evolutionary ecology of lizards.

The Jasper Loftus-Hills Young Investigators Award was established in 1984 to recognize outstanding and promising work. Applicants must be graduate students in their final year or have received their doctorate less than three years prior to the application deadline. Jasper Loftus-Hills (1946-1974) was an Australian biologist who had published 16 articles in the three years after receiving his degree. He was killed by a hit-and-run driver while tape recording frog calls along a Texas highway.
Mulready-Shick Joins National League for Nursing’s Group of Inductees

The College of Nursing and Health Sciences at UMass Boston is pleased to announce that JoAnn Mulready-Shick will be inducted into the National League for Nursing’s (NLN) Academy of Nursing Education, with the credential of “fellow” on September 21, 2012 in Anaheim, California at the NLN Education Summit. Mulready-Shick will join the academy’s 117 fellows representing nursing schools and programs throughout the United States.

The NLN established the Academy of Nursing Education in 2007 to foster excellence in nursing education by recognizing and capitalizing on the wisdom of nurse educators who have made sustained and significant contributions to nursing education. Fellows provide visionary leadership in nursing education and in the Academy of Nursing Education and support the NLN’s vision to promote standards of excellence in nursing education that will increase the number of graduates from all types of nursing programs. Fellows serve as important role models and resources for new educators and for those who aspire to become nurse educators.

“We are proud to recognize the vision, talent, wisdom, and experience of the 2012 fellows, whose accomplishments will be aptly and publicly reflected by their ANEF credential,” said NLN CEO Beverly Malone, PhD, RN, FAAN. “I look forward to formally welcoming them into the academy’s ranks at the induction ceremony in Anaheim this fall and to working with them in the years ahead to prepare the next generation of nurses to advance the nation’s health.”

Fellows are lauded for innovative teaching and/or learning strategies, nursing education research, faculty development, academic leadership, promotion of public policy that advances nursing education, and/or collaborative educational, practice or community partnerships.

Mulready-Shick will be recognized for her substantial contributions to the science of nursing education as one of a small cadre of faculty with a well-established funding program for research in nursing education. Equally important, she consistently uses her research findings to improve the quality of nursing education, teacher preparation, and faculty development nationally.

The fellowships have been awarded by the NLN Board of Governors, the oversight body of the Academy of Nursing Education.

Miller Named as Fellow of Gerontological Society of America

McCormack Graduate School’s Edward Miller was recently named a fellow of the Gerontological Society of America (GSA), the nation’s largest interdisciplinary organization devoted to the field of aging. The status of fellow is an acknowledgement of Miller’s outstanding and continuing work in gerontology “research, teaching, administration, public service, practice, and notable participation within the organization.”

Miller, an associate professor of gerontology and fellow at UMass Boston’s Gerontology Institute, earned his PhD in political science and health service organization and policy at the University of Michigan. His fields of expertise include aging and long-term care, telemedicine and e-health, intergovernmental relations, program implementation and evaluation, and Medicaid.

“It is an honor to be named a GSA fellow,” says Miller. “My affiliation with GSA has provided me with an important means of staying connected with the broader gerontological community. I look forward to continued involvement with the organization for many years to come.”

Miller was selected for the Social Research, Policy, and Practice Section, one of GSA’s four membership sections.

All 38 new fellows chosen in 2012 will be recognized during the society’s 65th Annual Scientific Meeting to be held in San Diego this fall.

PhD Student Earns Award at Massachusetts Gerontology Association Conference

UMass Boston gerontology PhD student Maria Frances Devine won second place honors at the Massachusetts Gerontology Association’s annual conference for her paper “Marital Status and Retirement Satisfaction: Does gender matter?” The conference was held at the Heller School for Social Policy and Management at Brandeis University this past May.

The goals of the student paper competition are to recognize individuals who show an interest in gerontology and to reward outstanding graduate students for academic excellence in the field of gerontology. The winning papers were selected based upon readability, potential for contribution to the field, originality, and professional insight.

(cont’d on page 12)
Competitions to Support STEM

TO PROSPER IN THE GLOBAL ECONOMY, each nation must focus on growing its next generation of scientists, engineers, and entrepreneurs. Success will require exciting many more young students about science and mathematics. When appropriately organized and directed, science and engineering competitions can provide a lifelong appreciation of interest in, and enjoyment of science and engineering activities in much the same way that involvement in sports competitions provides a lifetime enjoyment of sporting events. In February, the second-ever White House Science Fair celebrated the student winners of a broad range of science, technology, engineering, and mathematics (STEM) competitions from across the United States. And this year will see monetary and scholarship prizes awarded to students by longstanding, prestigious competitions that include the Intel Science Talent Search, the Siemens Competition in Math, Science and Technology, the Google Science Fair, the FIRST Robotics Competition; and the TechnoWorld Science Teachers Association Explore/View competition, among others. But these competitions require financial support in much the same way that extracurricular sports and Olympic teams do. More private industries, large and small, are needed to support STEM education by sponsoring such competitions.

Many competition programs, both international and local, are supported by corporate contributions. For many students, involvement is driven by the chance of scholarship can range from a few hundred dollars to full support at college. In the International Science and Mathematics Olympiads competitions, top precollege students worldwide solve theoretical and experimental problems. On the local level, there are science fairs, robotics, math programs, and science competitions. Many of these competitions provide an opportunity for a student to choose and explore an original problem. Students, with guidance from teachers, scientist mentors, and other adults, work independently or in small groups on a project that they find motivating. Student participation can spill over to enhance science instruction in classrooms and provide lifelong memories of doing science among those who may not be involved in a formal competition.

More international competitions should consider creating competitions that don’t duplicate already available programs, but instead increase the range of ways in which students can be involved in STEM. It’s wonderful that local companies support youth baseball and soccer teams, but they should also encourage STEM success in the schools. Most participants in major competitions started with simpler competition projects; thus, this is an approach that keeps students engaged and motivated over the years, building both interest and skills.

Unfortunately, many industries lack the staying power to remain committed to supporting STEM education. The often marketing departments of large corporations must decide between funding an educational initiative or putting their company’s logo on a banner at a sporting event. STEM education often loses that competition.

Despite 8% unemployment today, the United States cannot fill 600,000 jobs that require analytical and technical skills. Businesses need to think in the long term. The success of longstanding and widely recognized competitions, such as Intel and Toshiba, should serve as models for other large corporations to explore. Teachers and scientists can work with local industry to start a science fair or an invention competition. Producing future graduates with STEM skills must become a universal goal, and meeting it will be critical for the economic and societal well-being of each and every nation.

—Arthur Elenbush
New Sponsored Awards

Lilia Bartolome, Applied Linguistics
$45,000 grant by the Massachusetts Department of Elementary and Secondary Education to support her project, "Rethinking Equity and Teaching for English Language Learners." (2012)

Rezarta Bilali, Conflict Resolution, Human Security and Global Governance
$13,360 from Psychology Beyond Borders and $2,000 from the Society for the Study of Social Issues to support her project, "Improving Media Interventions to Prevent Violence and Promote Non-violent Conflict Resolution in Ongoing Armed Conflicts: The Case of Eastern Democratic Republic of the Congo." (2012)

Alice Carter, Psychology
$40,000 from the Spencer Foundation for her project, "Violence in Early Childhood: Development Competence and School Readiness." (2012)

Jonathan Celli, Physics
$237,000 grant from the National Cancer Institute for his project, "Mechanism-based Therapies for Pancreatic Cancer Informed by Stromal Microrheology." (2012-2013)

Alan Christian, Biology, and Robyn Hannigan, Environmental, Earth and Ocean Sciences
$50,000 grant from the National Science Foundation for their project, "2012 Biology Research Experiences for Undergraduates Workshop: Evaluating and Strengthening the REU Experience."

Mary Ellen Colten, Center for Survey Research
$49,067 grant from Case Western Reserve University to support her project, "Disease Advocacy Organizations and Clinical Researchers: A Survey to Examine Clinical Researchers’ Experiences." The National Institutes of Health is the prime sponsor. (2012)

Wei Ding, Computer Science
$59,752 grant from George Mason University for her project, "A Prototypical Ontology-Supported Intelligent Geospatial Discovery System for [Nuclear] Proliferation Detection." The prime sponsor is the U.S. Department of Energy. (2012)

Wei Ding, Computer Science
$26,000 grant from the National Science Foundation for "Supporting U.S.-based Students to Attend the 2012 IEEE International Conference on Data Mining."

Anne Douglass, Curriculum and Instruction
$61,000 grant from the Massachusetts Department of Education to design and provide a "Professional Development System Study." (2012)

Sonnya Espinal, Institute for Learning and Teaching
$30,000 grant from the Amelia Peabody Foundation in support of "Project ALERTA Summer and Afterschool Academic Enrichment Activities for the Boston Public Schools." (2012)

Robyn Hannigan, Environmental, Earth and Ocean Sciences, and Alan Christian, Biology
$109,000 grant from the National Science Foundation for their project, "Research Experiences for Undergraduates Site: Coastal Research in Environmental Science and Technology at UMass Boston." (2012)

Kurt Jacobs, Physics
$210,635 grant from the University of Southern California to support his project, "Control of Quantum Open System: Theory and Experiment." The United States Department of Defense is the prime sponsor.

Paidrig O’Malley, John Joseph Moakley Chair of Peace and Reconciliation
$49,400 from the U.S. Embassy in Baghdad. (2012)

Jean Rhodes, Psychology
$120,000 from the Hive Chicago Learning Network to develop for the sponsor the "Digital Media and Learning Project." The prime sponsor is the MacArthur Foundation. (2012)

Anthony Roman, Center for Survey Research
$203,000 from the U.S. Census Bureau for the project "Affordable Care Act Pretesting," $18,000 by ARGUS, A Boston-based agency specializing in advertising and multicultural marketing, for the project "Measuring Behavior Change," and $7,000 by the Dana-Farber Cancer Institute for the project "Cancer Survivor Study." (2012)

Russell Schutt, Sociology
$24,000 from the John E. Fetzer Institute, Inc. for his project, "Teen Empowerment: Forgiveness and Reconciliation Project for Inner-City Youth and Police." The Fetzer Institute is a private foundation that supports research on poverty. (2012)

Stephen Silliman, Anthropology
$15,000 from the National Geographic Society Waitt Program to conduct the pilot archaeological project "The Other Triangle: Archaeology of Native American and African Enslavement in Bermuda." (2012)

Peter Spiegler, Economics
$59,000 from the Institute of New Economic Thinking for his project, "A Constructive Critique of Economic Modeling." (2012)

Lakshmi Srinivas, Sociology
$37,800 from the National Endowment for the Humanities for her project, "Indian Cinema and the Active Audience: An Ethnographic Study." (2012)

Ed Tronick, Psychology
$420,000 from the National Institutes of Health in support of his project, "Hair Cortisol as a Biomarker of Chronic Stress in Mother-Infant Dyads." (2012-2014)

(cont’d on page 12)
Srikanth Publishes Constructing the Enemy: Empathy/Antipathy in U.S. Literature and Law

In her engaging book, Constructing the Enemy, published by the Temple University Press, Professor of English Rajini Srikanth, who possesses expertise in human rights and literature, probes the concept of empathy, attempting to understand its different types and how it is—or isn’t—generated and maintained in specific circumstances.

Using literary texts to illuminate issues of power and discussions of law, Srikanth focuses on two case studies: the internment of Japanese citizens and Japanese Americans in World War II after the bombing of Pearl Harbor, and the detainment of Muslim Americans and individuals from various nations in the U.S. prison at Guantanamo Bay.

Daniel Kanstroom, professor of law, director of the International Human Rights Program, and an associate director of the Boston College Center for Human Rights and International Justice, says, “Constructing the Enemy is a fascinating book—nuanced and engaging—that weaves together legal theory, the realities of legal practice, historical vignettes, and literary analysis. Srikanth artfully straddles disciplines and adds important new insights. Her refined, subtly developed topic is quite timely, and her ideas about empathy/antipathy are both challenging and accessible.”

Through primary documents and interviews that reveal why and how lawyers become involved in defending those who have been designated “enemies,” Srikanth explores the complex conditions under which engaged citizenship emerges. Constructing the Enemy probes the seductive promise of legal discourse and analyzes the emergence and manifestation of empathy in lawyers and other concerned citizens and the wider consequences of this empathy on the institutions that regulate our lives.

Contributing Writers

Special thanks are due to Pamela Worth and Colleen Locke of the Office of University Communications; Colleen for her coverage of the GC ’12 on pages 2-3, and Pam for her story, “Four Extraordinary Faculty Earn Chancellor’s Awards,” on page 4.

Alexander McAdams wrote the profile on Professor of Sociology Stephanie Hartwell on page 5.

Leslie Limon wrote the profile on Associate Professor of Chemistry on page 6, as well as the profile on Distinguished Professor of Art Paul Tucker on page 7.

Ed Tronick, Psychology

$44,000 from the Cincinnati Children’s Hospital Medical Center for his project, “Treatment of Maternal Depressions in Home Visitation: Mother and Child.” The National Institutes of Health is the prime sponsor. (2012)

Jack Wiggín, Urban Harbors Institute

$60,000 from the Marine Environmental and Education Alliance, Inc. to conduct a feasibility study to measure the likely success of a higher education facility, or an Ocean Campus Center, dedicated to courses in marine and environmental sciences and technologies for the purposes of creating more skilled job opportunities and also to maintain the vitality of working ports along the Massachusetts coast. (2012)

J. Cedric Woods, New England Native American Studies