UMass Boston and IBM Advance Technology Accessibility Research

The University of Massachusetts Boston (UMass Boston) and IBM have announced a new research initiative to advance accessible technology solutions for people with disabilities, the growing elderly population, those with low literacy, and novice technology users.

As part of IBM's Academic Initiative, IBM will provide access to technology and industry expertise to students, professors, and researchers at UMass Boston.

Working together, IBM and UMass Boston will work with state and federal government agencies as well as local and global non-governmental organizations to advocate for key policies and legislation related to technology accessibility. Additionally, the collaboration will explore new ways to integrate assistive technologies into the design of mobile devices, apps or websites that enable access for people with disabilities, and improve the overall user experience.

“Since the founding of the University of Massachusetts Boston nearly 50 years ago, access and inclusion have been at the heart of our mission and values,” said UMass Boston Chancellor J. Keith Motley. “We are pleased to join IBM in furthering this cause around the world.”

For instance, IBM and UMass Boston will work together to further develop the following applications using IBM technology. For example, IBM My Campus Mobile App. (cont’d on page 11)

Books Published by UMass Boston Faculty, Staff, and Students (also at www.umb.edu/research/books_published)

The UMass Boston faculty are dedicated to research, innovation, scholarship, and creativity that yields vital contributions in all major areas of human concern both locally and globally. Each year our faculty make new inroads in their respective fields that set new standards of transdisciplinary scholarship. They advance human knowledge in areas such as education and human development, the liberal arts, the health sciences, policy and global studies, and science and mathematics. And from September 2012 through November 2013, the faculty continued their outstanding contributions to these fields with the publication of more than 70 books and creative works. (cont’d on page 6)
Assistant Professor of Physics Jonathan Celli was recently awarded a three-year $715,422 grant by the National Cancer Institute to continue conducting research on mechanism-based therapies for pancreatic cancer informed by stromal microrheology. The opportunities provided by this award will allow Celli to pursue potentially groundbreaking research, which originally began with support of a mentored career development award he received as a junior faculty at Harvard Medical School.

“My research resides at the intersection of biophysics and cancer biology. In my lab we use concepts and technologies from the physical sciences, alongside more traditional techniques in cancer research to inform new therapeutic strategies targeting tumor-microenvironment interactions. For example, biophysical techniques that provide quantitative measures of tissue mechanics before, during and after a therapeutic intervention can be correlated with signaling events and applied to provide new insight into how this phenotypic parameter impacts treatment response.”

Indeed, the importance of the physical properties of tumor stroma (connective tissues and surrounding non-cancer cells) are increasingly recognized by Celli’s peers. For example, the rheology (or mechanical properties, stiffness) of the tumor microenvironment has been shown to regulate tumor growth behavior, invasive potential, and therapeutic response. This is particularly provocative in the case of pancreatic cancer, an exceptionally lethal disease, which is noted for a profound desmoplastic reaction resulting in overabundance of dense, rigid, fibrous stroma. The role of the characteristic stiffness of the pancreatic tumor stroma remains poorly understood, though it is widely implicated as a physical barrier to drug delivery [see for example Stromal Depletion Goes on Trial, by Garber, JNCI 2010].

Similarly, interaction between pancreatic cancer cells and pancreatic stellate cells, a myofibroblast-like stromal partner, are known to drive increased proliferation, motility/invasion, and drug resistance.

“My laboratory is specifically interested in the implementation of photodynamic therapy to overcome and/or bypass therapeutic resistance associated with stromal crosstalk,” says Celli. Photodynamic therapy (PDT) is a light-based treatment modality, in which wavelength-specific activation of an otherwise non-toxic compound can achieve targeted tumor destruction. This approach, which is already in clinical use for several human cancers, involves administration of a photosensitizing molecule (photosensitizer, PS), a delay period during which the PS accumulates in malignant tissue, followed by selective light activation, usually using a laser source. The Celli lab is developing new PDT-based treatment strategies targeting not only cancer cells themselves but also stromal interactions which contribute to drug resistance in the clinic.

Celli’s team uses a variety of custom in vitro 3D tumor models with varying scaffold and cellular content that restore biologically relevant stromal interactions. “The basic idea of this approach is to bioengineer the tumor microenvironment so we can put cancer cells back into physiological context. In this way we bring back crucial interactions, making cancer harder to kill in the lab so that the answers we get will have more meaning in the clinic.”

They do so in combination with tracers for monitoring longitudinal changes in extracellular matrix mechanics, and high-content processing of fluorescence microscopy data. These research methods allow them to conduct quantitative analysis of tumor growth and associated changes in the physical microenvironment, correlated with response to therapy.

The highly interdisciplinary nature of this research program is reflected in the scientific backgrounds of the personnel in the lab. Students and technicians with prior training in physics, biology and chemistry work side by side to overcome challenges that fall between traditional disciplinary lines. And in the process everyone learns and grows as scientists. For example, physics students are trained in cell culture and molecular biology assays, while students from biology backgrounds learn image...
“Sometimes just by looking at a tumor we can’t be sure how it is going to progress,” says Jill Macoska, Alton J. Brann Endowed Distinguished Professor in Science and Mathematics, and director of the UMass Boston Center for Personalized Cancer Therapy (CPCT). The CPCT’s chief aim is to develop biomarkers that will measure tumor progression in much quicker time. “Currently, no good tools exist for tumor subtyping,” explains Macoska. “If you’re looking at two tumors there is no way to tell which will respond to conventional therapy.” Crude imaging such as MRI, metastasis, and regression are the only ways to measure tumor progression. “But Cancer patients don’t have time. You want to know sooner if the treatment is working.”

The collaboration with the Dana-Farber/Harvard Cancer Center has brought a whole host of resources to UMass Boston students involved in cancer research. Some of these include experienced faculty, over 1,000 researchers, the best technology, research funding, and a large tumor collection. Students also have access to the research done at the Dana-Farber/Harvard Cancer Center’s seven member institutions: Beth Israel Deaconess Medical Center; Boston Children’s Hospital; Brigham and Women’s Hospital; Dana-Farber Cancer Institute; Harvard Medical School; Harvard School of Public Health; and Massachusetts General Hospital. “Both UMass Boston and the Commonwealth have shown a real commitment to cancer research,” says Macoska. Both have put in a lot of resources, and Massachusetts has committed a large amount of money to its Life Sciences Fund.

At the CPCT, students are learning how to do translational cancer research. They are developing imaging mechanisms and biomarkers for tumor subtyping which will help the clinicians determine therapeutic approaches and whether the treatment is hitting the right markers on tumors. This lab-to-clinic approach teaches students how to take a discovery from the lab and make it applicable in clinics. Students not only do research, they actively develop future medications and clinical procedures. “This [kind of research] is a new direction for our College of Science and Mathematics,” asserts Macoska.

Along with training students to do cancer research, the CPCT is also forming alliances with the local biomedical and pharmaceutical industry. The center is training students to have careers within this industry and to use the skills they learn at UMass Boston. “It is our commitment to provide the industry with talented people,” says Macoska. “UMass Boston’s student body diversity is currently not reflected in the biomedical field,” she says. Collaboration with the industry will mean that our students will not only find employment in this field, but lead the way in commercial cancer research and treatment.

It is one of Macoska’s many goals to develop a program in cancer biology. “The area of human disease is the big show in town in terms of jobs,” she explains. Her goals as a teacher and a researcher are to see her students become independent scientists in their own right. “I derive a lot of satisfaction seeing them move from one milestone to the next.”

Macoska’s enterprising spirit is one reason she has accomplished so much in the short time she’s been at UMass Boston. Since March 2013, under her leadership, the CPCT has set up an advisory board consisting of faculty members at UMass Boston and at the Dana-Farber/
Haroon’s interest in borderlands has led her to develop courses that examine regions and time periods when present-day religious boundaries came to be set. Her courses (Faith and Politics in Islam, Iran, Pakistan; Afghanistan in Modern World History; India Since 1857) examine South Asia and Islam during a period of political polarization and turmoil when national, political, and religious identities, as we understand them today, came to be formed. She examines the historical actors who shaped these identities—the clerics and politicians—by locating them in the specific historical circumstances in which they acted and were in turn acted upon.

Her courses in turn have given a new direction to her research. From borderlands she has shifted her focus to cities, both in the metropole and the colony. She looks at cities as spatial constructs, and studies how their built environment influences religious identities. “Cities are sites of significant political and social change,” she explains. “It is in the cities where we can locate some of the most significant changes that have shaped our world.” From the Industrial Revolution in London to the launching of the Quit India Movement in Mumbai that led to the independence of India and Pakistan in 1947, cities shape change.

It was while researching cities in the colonial state of India that Haroon discovered the limitations of the traditional archive. Documents of imperial rule are largely silent about the lives of common people. “You and I are simply not there,” says Haroon. “The state is too powerful. So, how do you write the history of cultural change? The history from below?” To find the voices of common people Haroon has searched for new sources such as oral histories and the underused Arabic, Persian, and Urdu archives in Pakistan, India, and the U.K. By using oral histories she has opened her research to new areas of inquiry and found these supplement her use of the traditional archive. This wider use of sources has changed the way she approaches her research. By taking into account the small players (cont’d on page 10)
Facility Profile: Zsuzsanna Kaldy, Associate Professor of Psychology

Kaldy attempts to understand how babies perceive the physical world around them, where they look, and how much visual working memory they possess.

“We know so little about the brains of babies,” says Zsuzsanna Kaldy. “But with improved technology and carefully designed experiments we can learn a lot more.” It was her pioneering spirit and ceaseless pursuit of learning more that led Kaldy to launch the first baby lab at UMass Boston in 2003 to begin asking some very pertinent questions about the development of human memory.

“We [Kaldy and her research team] are attempting to understand how babies perceive the physical world around them, where they look, and how much visual working memory they possess,” she explains. In essence, Kaldy’s methodology is to use behavioral research to understand developmental neuroscience.

Most recently, her team has been creating behavioral experiments for measuring infant attention and visual working memory via an eye tracker machine.

“The eye tracker,” Kaldy says, “has revolutionized the field” of her research and significantly improved the accuracy of her results. The machine tracks the eye movements of babies while they watch an animation on a computer screen. Parents sit with their babies while the eye tracking machine processes 60 images per second to record where the babies’ eyes are looking on the screen. The tracker feed displays the same animation with a tracer to show the research team what the babies are looking at.

In the animations, designed by Kaldy’s team, the babies are first trained how to match to sample. Three cards appear face down on the screen. A sample card is flipped, and then its match. A reward animation trains the baby to look for the match card. The next animation tests the delay in match-to-sample in the baby. If the baby remembers the location of the matching card, he/she will look there in anticipation. The goal of these experiments is to test young infants’ visual working memory capacity for objects in a scene, and to record their predictive responses so as to more accurately measure their ability to remember. The studies’ results have been nothing short of remarkable.

Kaldy and her team have learned that seven-month-old babies possess a smaller capacity for visual memory, but by ten months these same babies start to remember the location and identity binding of at least one item in the experiment, representing a significant increase in their visual working memory in just three months. But Kaldy believes the current technology still underestimates their ability, requiring even more clever designs and improved technology to achieve even more accurate assessments of their abilities.

Since her arrival at UMass Boston, Kaldy has focused on improving the research “milieu” of her department. One significant development, following years of hard work and planning, has been the implementation of the new PhD Program in Developmental and Brain Sciences. Students selected for admission to the program possess the exceptional skill and motivation necessary for engaging in lab work ranging from cognitive development and psychophysics to neuroendocrinology and behavioral genetics. Additionally, Kaldy’s research continues bringing in grants from significant sources such as the National Institutes of Health. Most recently, her team received a Simons Foundation grant for investigating attentional dysfunction in young toddlers with ASD. (cont’d on page 10)

- Established UMass Boston’s first baby lab in 2003
- 20 articles published in peer-reviewed journals
Honored with the title of Commander for his scholarly contributions to the study of Italian history, Spencer DiScala offers a radical way of looking at the 21st century in his new book *Europe's Long Century* that has been hailed by a former Italian Prime Minister as a “comprehensive and courageous book.” Elizabeth Fay and Leonard von Morze’s co-edited collection *Urban Identity and the Atlantic World* presents a new direction for urban, Atlantic, and cultural studies by revealing an exciting interdisciplinary panorama. Aaron Lecklider breaks new ground in *Inventing the Egghead* and explains how ordinary Americans use mass culture for social transformation.

Recipient of fellowships from the National Endowment for the Arts, the New York Public Library, and the Library of Congress, Jill McDonough published two collections of poetry, *Where You Live* and *Oh, James!*

The fourth edition of Randy Albelda’s co-authored book *Unlevel Playing Fields* provides an exceptionally accessible introduction to wage inequality and job discrimination in the U.S. labor market. In *Palestinian Labour Migration to Israel, Land and Occupation*, Leila Farsakh provides the first comprehensive analysis of the rise and fall of Palestinian labour flows to Israel.

Adenrele Awotona in *Rebuilding Sustainable Communities with Vulnerable Populations after the Cameras have Gone* tackles the problem of rebuilding Iraq in an insightful, systematic, and believable way. In *Rising Powers and the Future of Global Governance*, Craig Murphy explores whether rising powers such as Brazil, India, China and others are likely to lead to an increase in democracy and social justice for the majority of the world’s peoples.

Drawing from his long-standing involvement in pioneering work on infant-parent mental health, Ed Tronick’s *Infant and Early Childhood Mental Health* assembles a comprehensive and clinically useful volume for psychiatrists, psychologists, nurses, pediatricians, social workers, and psychotherapists.

In *Saving Global Fisheries*, J. Samuel Barkin analyzes the problem of overfishing and offers a provocative proposal for a global regulatory and policy approach. In *Green Techniques for Organic Synthesis and Medical Chemistry*, Wei Zhang presents an overview of the emerging techniques in green organic chemistry, a new way of looking at organic synthesis and the design of drug molecules that offers important environmental and economic advantages over traditional synthetic processes and helps pharmaceutical companies reduce waste, reduce costs, and develop environmentally benign processes. Kamal Bawa’s *Himalaya: Mountains of Life* takes readers on a journey of biocultural discovery to demonstrate through breathtaking imagery and words, why the preservation of this heritage is so important for the future of all life on Earth.

In the next three pages, we present those books published by faculty, staff, and students. Our apologies if we missed your book. Please share your success with us at your earliest convenience.
College of Education and Human Development

Counseling and School Psychology


Curriculum and Instruction

Leadership in Education


College of Liberal Arts

Africana Studies

American Studies


Anthropology

Art


Communication

Economics

English

Barron, Patrick (co-translator and co-editor). *Haiku for a Season (Haiku per una stagione)* by Andrea Zanzotta, University of Chicago Press, Chicago, IL, 2012.


History


**Latin American and Iberian Studies**


**Modern Languages, Literatures and Cultures**


**Performing Arts**


Oleskiewicz, Mary (performer). *Four Sonatas for Flute and Basso Continuo, by King Frederick “the Great” of Prussia*, Breitkopf & Härtel, Wiesbaden, Germany, 2012.


**Philosophy**


**Political Science**


**Psychology**


**Sociology**


**Women’s Studies**


**College of Management**

**Marketing and Management**


**College of Nursing and Health Sciences**

**Exercise and Health Sciences**


**Nursing**


At the Intersection of Biophysics and Cancer Biology (cont’d from page 2)

Jonathan Celli, Assistant Professor of Physics

processing, tissue optics, and light dosimetry calculations to conduct their PDT experiments. Celli also holds affiliated appointments at Massachusetts General Hospital and Harvard Medical School.

These ties help facilitate translational aspects of this work and enhance student training opportunities.


Celli’s interdisciplinary approach has the potential to develop a new translational research framework whereby the role of the mechanical properties in tumor growth and molecular response are specifically exploited to design new photodynamic therapy combination treatments for pancreatic cancer.
Faculty Profile: Macoska (cont’d from page 3)

Harvard Cancer Center, as well as representatives from the biomedical and pharmaceutical industries. A seminar series informs the university community about the CPCT’s cutting-edge work. Macoska has also set up her own laboratory where she and her team study cancer cells. She commends her staff and faculty for their dedication and hard work. “All this has been possible because of them,” she says.

Macoska has over twenty years of experience leading peer-reviewed research. At the University of Michigan she was the associate director of the Graduate Program in Cell and Molecular Biology. While she misses her Michigan team, she is excited to be at UMass Boston. The pull was just too strong. In her own words, “Boston is the place to do [cancer research.]” The opening of the Integrated Sciences Complex in fall 2014 will herald a lot of new things. There could not be a more promising time for cancer researchers.

Faculty Profile: Haroon (cont’d from page 4)

and the common folk, her historical narratives are now more nuanced and rich with detail.

This is the kind of history, Haroon says, she writes; the kind that constructs large narratives that are informed and shaped by the small details. “Too often we communicate big patterns of historical change. But as a student in my Modern World History class remarked, ‘History is in the details.’” The nuance is good and a lot more fun.

Her teaching philosophy seeks to bridge the gap between this dichotomy of the big narrative and the small details. In her course Survey of Contemporary Asia she examines a large geographical region over a vast track of time through food history. Why food? Because reading about food is more accessible and relatable. In the class, students read mediaeval recipes to discover points of historical insight. They seek to answer the question, is there such a thing as a monolithic Islamic culture? Could historical actors have more than simply religious motivations? If they look for answers in the details, the students can more confidently form larger narratives and break them down to examine their veracity. They can learn, for example, that Asia is not just about the religious and the pre-modern. They discover that “Asia is vast, varied, and nuanced.” It is also modern, it is also political. But it is the details that bring you to this larger historical understanding.

Haroon’s vision continues to encompass the larger historical narratives, and she is very much interested in constructing these narratives involving Islam and South Asia.

Her thorough understanding of the region and the courses which she offers are the reason for her central role in shaping the new South Asia Track of the Asian Studies major at UMass Boston. The new track will present students with a broad knowledge of the politics, economics, history, and culture of the countries of South Asia. Faculty members in the Departments of Art, Economics, English, History, Sociology, and Women’s and Gender Studies will teach a wide array of courses on historic and contemporary South Asia, and offer expertise on the countries of India, Pakistan, Bangladesh, Nepal, Sri Lanka, and Afghanistan.

Faculty Profile: Kaldy (cont’d from page 5)

Studying the visual processing abilities of individuals with ASD is one of Kaldy’s major areas of interest. Her research team, along with her UMass Boston collaborators Professors Alice Carter and Erik Blaser, is one of very few groups in the nation focusing on a non-social aspect of autism.

In this new project, Kaldy will study how individuals with ASD process visual scenes, which has implications for many other cognitive processes, such as learning language, approaching novel surroundings, and navigating social situations. Her intent is to investigate what is at the core of the attentional dysfunction in ASD. Already, her findings in this area have been ground-breaking. Her latest publications have highlighted that a two-year-old child with ASD is better at target finding than a child without ASD. She is the first scientist to discover this finding about the visual attention of very young children with autism. “What does this mean?” asks Kaldy. “That they focus much harder than a child without autism in our task. More often than not, we only study the deficits in autism.” This is something positive. Her results are significant for what they reveal about ASD and about how the human brain develops.

Despite having been in the field for many years, Kaldy’s enthusiasm for her work is that of a young researcher. “How amazing and how fortunate it is,” she says, “that we can ask these questions of babies. They are at the very beginning of becoming a complex system. How lucky we are to be able to study them.”

Her results demonstrate her talents as a dedicated, productive researcher, one constantly motivated by the challenge of finding answers to some of the biggest questions about the human brain. She imparts her enthusiasm to her students and is in turn motivated by their interest. “They are very talented young scientists,” she says. “And if I can plant a seed in them to love this research, to love the study of the human brain, then I have made a real contribution, I hope, to improving the human condition.”
This prototype app designed using IBM Worklight helps UMass students, faculty, and staff efficiently navigate the UMass Boston campus. The app uses GPS and mapping technology to help students identify building accessibility features such as ramps or text-to-speech capabilities for the visually impaired, to help guide people around campus. The capabilities used in this app could be expanded beyond campuses to whole cities.

IBM Media Captioner and Editor: This new application automates the process of creating captioned videos. With the explosion of video media for entertainment, education, and business there has never been a greater need to make video content accessible.

With more than 1 billion people with disabilities worldwide and half of the population over the age of 65 living with an age-related disability such as hearing or visual impairment, the global demand for technology accessibility continues to grow, making accessibility a mainstream requirement for governments and businesses around the globe. Enabling widespread access to key technologies such as mobile, cloud, social media, and analytics will depend on the ongoing integration of adaptive, intuitive, and accessible technology solutions.

“As more governments and businesses worldwide seek to enhance the usability and accessibility of products and services, UMass Boston students will develop the necessary skills to tackle these complex challenges and become a massive force of inclusion,” said William Kiernan, founding dean of UMass Boston’s School for Global Inclusion and Social Development. “We are excited to work with IBM, which has been innovating in accessibility for more than 100 years, to help our students gain the training and experience needed to compete in the 21st-century workforce.”

UMass Boston has been a leading academic institution in accessibility and inclusion practices since 1971 through its Ross Center for Disability Services. Now, through its newly formed School for Global Inclusion and Social Development, the first graduate school in the world to focus on inclusion, wellness, and economic development from an international perspective, UMass Boston students will engage in research in technology and accessibility and develop the skills necessary for leadership roles in careers in which they develop practices, procedures, and policies that support global inclusion.

“By developing new accessible innovations in mobile, social and human-centric computing, IBM and UMass Boston can deliver personalized interactions for any individual, on any device, regardless of the skills, abilities or aptitudes of the global population,” said Frances West, worldwide director, IBM Human Ability and Accessibility Center in Cambridge, Massachusetts. “Through this public-private collaboration, IBM and UMass Boston can speed innovation and increase digital access, while reducing the usability gap, so that everyone can live to the best of their ability and be productive and active participants in society.”

This collaboration is part of IBM’s Academic Initiative and the IBM Human Ability and Accessibility Center. IBM’s Academic Initiative offers participating schools no-charge access to IBM software, discounted hardware, course materials, training and curriculum development; over 6,000 universities and 30,000 faculty members worldwide are members of IBM’s Academic Initiative. The IBM Human Ability and Accessibility Center focuses on exploring new technology solutions to address issues associated with disability, aging, and low literacy. An integral part of IBM Research, the Center is a worldwide organization that works with governments, collaborates with partners, and delivers solutions to clients worldwide.

Since 1914, IBM has had a significant presence in Massachusetts. This collaboration furthers IBM’s long tradition of driving innovation in Massachusetts. The largest IBM software development lab in North America is currently located in Littleton, Massachusetts. Additionally, IBM has acquired a number of Massachusetts-based companies, including Lotus and Unica and most recently Ounce Labs, Kenexa and Trusteer. IBM will offer UMass Boston students and professors training and access to IBM technology at the IBM Client and Innovation Center in Cambridge.

This story was originally prepared and issued as a press release by the UMass Boston Office of University Communications on December 3, 2013.
A Sampling of New Sponsored Awards
For the current list of new awards, visit www.umb.edu/research/new_awards/fy_2014.

Ellen Bruce (Associate Professor of Gerontology) was awarded a $117,540 grant by The Retirement Research Foundation for the “Illinois Pension Assistance Project.”

Donna Haig Friedman (Director, Center for Social Policy) was awarded a three-year $100,879 grant by the New Lease for Homeless Families (NLHF) to evaluate the extent to which participating agencies and the Massachusetts Department of Housing and Community Development participated in the NLHF program as designed and anticipated.

Lee Hargraves (Senior Research Fellow, Center for Survey Research) was awarded a $342,000 grant by Yale University to provide technical expertise and assistance to the project “Consumer Assessment of Healthcare Providers and Systems (CAHPS).”

Kymberlee O’Brien (Postdoctoral Fellow, UMass Boston HORIZON Center for Health Equity) was awarded a $20,000 grant by the American Psychological Association for the project “Transmission of Discrimination-Related Stress Reactivity and Reduction from Mother to Infant.”

Maria Paiewonsky (Transition Specialist, Institute for Community Inclusion) was awarded a $220,000 grant by the Massachusetts Department of Elementary and Secondary Education to provide multiple sections of three cost-free online graduate courses in content skills, knowledge, and instructional strategies related to secondary transition that address the needs of all transition-age learners in safe and supportive, inclusive environments.

Anthony Roman (Senior Research Fellow, Center for Survey Research) was awarded a $175,323 grant by the Massachusetts Center for Health Information and Analysis to conduct a statewide employer health insurance survey. The survey’s purpose is to determine the extent to which employers offer health insurance to their employees and their employees take up this insurance, the cost of such insurance, and the difficulties and barriers that exist for employers in offering health insurance.

John Saltmarsh (Co-Director, New England Resource Center for Higher Education, and Professor of Leadership in Education) was awarded a three-year $100,395 grant by the Carnegie Foundation. The New England Resource Center for Higher Education will serve as Carnegie’s administrative partner for the purpose of managing and administering the national Carnegie Community Engagement Classification process.

Cynthia Thomas (Coordinator of Employment Services, Training, and Technical Assistance, Institute for Community Inclusion) was awarded a $675,188 grant by the Massachusetts Department of Developmental Services (DDS) to coordinate and implement a comprehensive set of employment capacity-building activities for supporting the DDS Employment First initiative for increasing integrated employment outcomes and phasing out the use of sheltered workshop services.

Lisa Van Thiel (Senior Early Childhood Specialist/Project Director Early Literacy Matters, Institute for Community Inclusion) was awarded a $147,373 grant by the Massachusetts Department of Education for the project “Improving Teacher Quality: Lowell Public Schools Higher Order Learning.”

Steven Vannoy (Associate Professor of Counseling and School Psychology) was awarded a $114,079 grant by the University of Washington to provide technical assistance for the “Development and Validation of a Theory-Based Screening Process for Suicide Risk.” The U.S. Army is the prime sponsor.

Kristen Wendell (Assistant Professor of Curriculum and Instruction) and Patricia Paugh (Associate Professor of Curriculum and Instruction) were awarded a three-year $262,806 grant by the National Science Foundation for the project “Collaborative Research: Multimedia Engineering Notebook Tools to Support Engineering Discourse in Urban Elementary Classrooms.”