THE FINISH LINE BECOMES THE FRONT LINE

Exceptional Care for the Boston Marathon Injured

BUMC Team Critical to Saving Lives
Message From The Dean

DEAR FRIENDS,

The April 15 bomb blasts at the Boston Marathon triggered a massive emergency medical and disaster response as well as an outpouring of support. Many of our faculty and students were in the tent providing immediate first aid. Our primary affiliated hospital, Boston Medical Center, less than two miles from the race’s finish line, houses one of the best Level 1 trauma centers in the nation. We received a significant number of the most severely injured victims of the bombs. Our faculty, from a cross section of departments, provided the surgical and medical interventions critical to saving lives, preserving the best options for rehabilitation, and giving patients and their families emotional support. Other members of the campus community—staff, residents, and students—all contributed, whether at the scene of the bombings or in the Emergency Department. Students and graduates of our master’s degree in emergency management participated in evidence collection and evaluation. Our response can only be characterized as outstanding.

Critical to the emergency response were our surgeons. Developing highly skilled surgeons is a long and challenging process. In this issue we highlight our surgery department’s shadowing program for medical students, which is designed to explore what it’s like to be a surgeon early in the educational process and to dispel some of the myths about the specialty.

In other news, the Division of Graduate Medical Sciences, under the excellent leadership of Linda Hyman, continues to develop programs to better serve our graduate students. The Programs in Biomedical Sciences and the Professional Development and Mentorship program profiled in this issue are the latest enhancements for the training of tomorrow’s scientists as well as supportive resources to help graduate students make effective career decisions.

Commencement ceremonies rounded out the academic year with the added distinction of the selection of Deborah Vaughan as the winner of the 2013 Metcalf Cup and Prize, the highest teaching award that the University confers. Profiled in the last issue of this magazine, Dr. Vaughan is a consummate teacher who has enlightened and guided generations of BUSM graduates. The School of Medicine is exceedingly proud of this well-deserved recognition.

Finally, the opportunity at Alumni Weekend to spend time with alumni is a special experience. Whether it’s been 5 or 60 years since they graduated from the School, alumni appreciate their BUSM education—a tribute to the long tradition of excellence that marks BUSM. I always enjoy hearing how impressed our graduates are by the renovations and growth on the Medical Campus.

Best regards,

Karen Antman, MD
Provost, Medical Campus
Dean, School of Medicine
Professor of Medicine

Fall 2013 | www.bumc.bu.edu 1
Dean Antman congratulates Dr. Deborah Vaughan on receiving the 2013 Metcalf Cup and Prize for Excellence in Teaching. Vaughan has been a faculty member since 1992, and she is recognized for her excellence in teaching and helping students. She is a former BU professor and chair emeritus of the BU Board of Trustees, to create “a systemic procedure for the review of the quality of teaching at Boston University and the identification and advancement of those members of the faculty who excel as teachers.”

Three faculty members were honored with Educator of the Year Awards at the BUSM Commencement Ceremony on May 18. Lorraine Stanfield, MD, was chosen as Educator of the Year in Preclinical Sciences, David B. McAneny, MD, as Educator of the Year in Clinical Sciences, and Matthew Nugent, PhD, as Educator of the Year in Graduate Sciences. Selected by the Committee on Faculty Affairs (CFA), the three were recognized for their excellence in teaching and mentoring. The awards are presented in the areas of preclinical sciences, clinical sciences, and graduate sciences at BUSM.

A faculty member since 1993, Dr. Stanfield is a clinical assistant professor of medicine, directs the Introduction to Clinical Medicine 2 course (ICM-22) and the Clinical Skills & Simulation Center, and is a member of the BUSM Medical Education office. An attending physician at the Dorchester House Multi-Site Service Center, she first volunteered at BUSM because of her interest in teaching medical students in community health centers. She received her BA in biochemistry from Princeton University and her MD from Harvard Medical School.

Dr. McAneny is an associate professor of surgery and vice chair for quality and patient safety at Boston Medical Center. He is an expert in tumors and other diseases of the endocrine system, the gastrointestinal tract, pancreas, hepatobiliary system, and spleen. The recipient of numerous awards, including the Massachusetts Medical Society award for outstanding contributions to medical education and medical students, Dr. McAneny received BUSM’s highest teaching award, the Stanley L. Robbins Award for Excellence in Teaching, in 2010. He received his medical degree from Georgetown University.

A faculty member since 1992, Dr. Nugent is a professor of biochemistry, ophthalmology, and biomedical engineering. He is also director of the Massachusetts Lions Eye Research Laboratory and a course manager for the Foundations in Biomedical Sciences program in the Division of Graduate Medical Sciences. Dr. Nugent received his BA and PhD from Brandeis University and is a postdoctoral fellow at Massachusetts Institute of Technology.

Medical students and Division of Graduate Medical Sciences students nominate only one faculty member in each category; the awards committee and student representatives work together to select the winners from the nominees. Recipients receive a plaque and a check for $1,500.

Shoumita Dasgupta, PhD, recognized with BUSM’s highest teaching award. Shoumita Dasgupta, PhD, associate professor of medicine at the School of Medicine, has been recognized with BUSM’s highest teaching award, the Stanley L. Robbins Award for Excellence in Teaching.

The award honors an outstanding BUSM educator and acknowledges the importance of teaching skills and commitment to students and education. Established in recognition of the exceptional teaching and devotion to students exemplified by Stanley L. Robbins, MD, former BUSM professor and chair of pathology, the award is presented annually at May Commencement exercises.

Dr. Dasgupta is director of graduate studies for the Genetics & Genomics program and an assistant dean of admissions for the School of Medicine. She is director for the medical genetics course (required for all first-year medical students) that teaches how to apply the approaches of classical genetics and modern genomics to biomedical research and clinical practice. She also co-directs the Foundations in Biomedical Sciences program in the BUSM Division of Graduate Medical Sciences.

Dr. Dasgupta has presented and published in national and international venues on innovative teaching approaches in genetics and on cultural competency education through the basic science curriculum.

One medical student noted, “Dr. Dasgupta’s brilliance is reflected...in our ability to grasp the global and finite concepts of the material and how it is applicable not only to the practice of medicine and the patient but also to the philosophical and scientific milieu of our society.”

A faculty member since 1992, Dr. Nugent is a professor of biochemistry, ophthalmology, and biomedical engineering. He is also director of the Massachusetts Lions Eye Research Laboratory and a course manager for the Foundations in Biomedical Sciences program in the Division of Graduate Medical Sciences. Dr. Nugent received his BA and PhD from Brandeis University and is a postdoctoral fellow at Massachusetts Institute of Technology.

Medical students and Division of Graduate Medical Sciences students nominate only one faculty member in each category; the awards committee and student representatives work together to select the winners from the nominees. Recipients receive a plaque and a check for $1,500.
A doctor’s relationship with a patient is the basis of all healing, physician Jessie Gaeta reminded a sea of newly minted doctors at the School of Medicine Commencement.

Currently medical director of the Boston Health Care for the Homeless Program’s Barbara McInnis House, Gaeta has spent her career working with patients who live in poverty, and who as a result often are chronically ill. She told BU’s graduates gathered at Agganis Arena that they are likely to work with such patients throughout their careers and urged them to passionately connect with them to build lasting relationships.

Doctors must first recognize the “structural inequities” that influence health so they can diagnose appropriately, said Gaeta. “Then, ask yourself, how can I, with privilege and power, impact those underlying factors? Never lose sight of the fact that what you are doing in the lab translates directly to a suffering person—let that guide you in the design and implementation of your research.”

Gaeta, currently a BU Advocacy Training Program core faculty member, recently was promoted to assistant professor of medicine. She earned a medical degree from the University of Maryland School of Medicine, and completed her internship and residency in internal medicine at Boston Medical Center, where she was appointed chief resident in internal medicine in 2001. She became a physician advocacy fellow at Columbia University’s Institute of Medicine as a Profession in 2005. There, she co-founded Home & Healthy for Good, a Massachusetts-based advocacy program that finds permanent housing for the chronically homeless and then treats their illnesses. In 2009, Gaeta was named medical director of the Barbara McInnis House, a 104-bed medical facility that provides respite care to homeless people who are too ill to stay in shelters, but not sick enough to remain hospitalized. She won the Quincy Interfaith Sheltering Coalition’s 2004 Community Hero award and was named the Department of Medicine Teacher of the Year in 2009.

“I am still in awe of the privilege and power we doctors are afforded, even though many years have passed since I sat where you are sitting today,” Gaeta told members of the Class of 2013. “And knowing you as I do, I know you’ll use that privilege and power in the best possible way.”

She cited her own work over the years with a homeless patient she pseudonymously called “Lisa” as an example of a doctor’s privilege in providing care to the homeless. She first met Lisa in a Boston homeless shelter and soon became her primary care physician, often helping her deal with her emphysema. But Lisa also faced extreme poverty, had no family, and was constantly anxious.

Gaeta chose to recount Lisa’s story, she said, because it proved to be a turning point in her career. Lisa taught her that a trusting relationship was the foundation for all the healing that followed.

“‘There are times when the ‘doing’ implied in providing care will leave you wanting at the bedside—because there is no cure, or because there is a cure but it is no match for the despair of the living conditions that the patient endures, or because no medicine will ease the suffering of the patient,’” she said. “Yet you still have some healing to offer your patient: the fact that you are their doctor, all of the time, and the constancy of your relationship with them gives them a connection, a validation, and support that they might not have from anyone else.”

Gaeta urged the graduates to step outside the comfort zone of their individual clinical or scientific field of interest. “Bear witness to injustices that result in poor health, and work to remove those injustices and build health equity,” she said. “This is what healers owe society. And this is what our society desperately needs at this moment in time.”

As degrees were conferred on the Class of 2013’s 222 graduates, cheers filled the arena as some of the new doctors brought their young children on stage when they received their diplomas. The three-hour ceremony concluded with the Oath of the Scientist, read by Linda Hyman, PhD, associate provost for the Division of Graduate Medical Sciences, and the Hippocratic Oath, delivered by Karen Antman, provost of the Medical Campus and dean of the School of Medicine.

This story first appeared in BU Today.
A Critical Mass of Compassionate and Dedicated Individuals

Members of the GMS Class of 2013 receive master’s degrees in 15 fields with a rare degenerative connective tissue disorder. She told of being ready to quit and of speaking to her thesis advisor, Adam Hall. “Dr. Hall convinced me to stay that day by saying one simple thing, ‘You owe it to yourself to get your degree.’ This was the moment that I had to decide if I had the resolve to keep going; the turning point. Today I give to you the lesson I’ve learned: you owe it to yourself to continue to strive for more. Don’t let this be the end. Let this day be a starting point. Let this be the day that you convince yourself that you can do more than this. Keep striving. Even if life beats you down—especially if life beats you down.”

The inaugural GMS Special Faculty Service Award was presented to Jane O’Hern, EdD, for her 50 years of dedication and contributions to Boston University. After a long career at the School of Education, O’Hern was instrumental in developing the GMS Mental Health Counseling & Behavioral Medicine Program and served as a core faculty member. “Dr. Jane O’Hern’s warmth, intelligence, enthusiasm, humor, and flirty New England charm are sorely missed after her most recent retirement from the School of Medicine,” Hyman said in tribute. Sadly, Dr. O’Hern passed away May 27. (See page 32.)

Matthew Nugent, PhD, professor of biochemistry, biomedical engineering, and ophthalmology, received the Educator of the Year Award in Graduate Sciences for his excellence in teaching and mentoring. The Robert F. Trotzler Award in Biochemistry, which recognizes extraordinary student achievement in that discipline, was awarded to James Kornfield. Kornfield is currently pursuing a Master of Arts in Medical Science.

In closing, Hyman told the assembled graduates, “Don’t be surprised if you hear from me, not necessarily with the typical request for a donation, but rather to ask you to help out; to welcome a current student into your practice, your lab, your new world. Come back and visit, give a seminar, or just stop by to say hello. We hope to learn from you even after you leave BU.”

“Perhaps we, BU, are more than a team; more than just the place where you went to school. We are part of your family, and just as you’ve done for all of your family here today, you have made us very proud.”

— Linda Hyman, PhD, associate provost for the Division of Graduate Medical Sciences

The Division of Graduate Medical Sciences (GMS) held Commencement exercises on Friday, May 17, in the George Sherman Union’s Metcalf Hall.

One hundred and twenty students received MAs in anatomy and neurobiology; biomaging; clinical investigation; medical anthropology and cross-cultural practice; mental health counseling and behavioral medicine; nutrition and metabolism; pathology laboratory medicine; medical sciences and clinical investigation; medical sciences and public health; medical sciences oral health track; and medical sciences; 53 received Ms’s in biomedical forensic sciences; forensic anthropology; genetic counseling; and health care emergency management. Students were hooded by the faculty member of their choice, bringing 36 to the podium.

Linda Hyman, PhD, associate provost for the Division of Graduate Medical Sciences, hailed the students as smart and accomplished: “You are the best.” Noting that the Latin alma mater means “nurturing mother,” she told the Class of 2013, “Perhaps we, BU, are more than a team; more than just the place where you went to school. We are part of your family, and just as you’ve done for all of your family here today, you have made us very proud.”

Madeeha Channah, who received her degree in medical health counseling and behavioral medicine and was one of three students chosen by the class to speak at Commencement, said, “As I stand here this morning, I believe I am looking at some of the finest individuals this world has to offer. I don’t think there is any place in this world that, at this moment, has such a critical mass, such a concentration, of passionate, compassionate, and dedicated individuals as those sitting before me. I am proud and humbled to have been part of this village, of being nurtured by it, and having contributed to it.”

Rauvynne Sangara, who graduated with a Master of Arts in Medical Sciences (MAMS), spoke of the faculty. "MAMS has a great reputation around this city and country, and it is because of you. The knowledge you have given and the confidence you have instilled in us will position us for success as we move on from BU. Your ability to maintain a level of professionalism as our educators while demonstrating care and compassion as our advisors is unrivaled.”

Sarrah Hannon, who received her degree in biomedical forensic sciences, talked of being diagnosed in the middle of her program...
embraces their medical education, recognizing this, the Hippocratic Oath, an act that states universally recite the Oath of the Scientist. PhDs in the biomedical sciences need a generation professional identity, too. Despite widespread use of the Hippocratic Oath, no analogous oath has been widely adopted for students graduating with doctorates in the biomedical sciences in general—and many of the same issues of professional identity and ethics addressed by Maimonides and Hippocrates, but also poses additional concerns. The realm of science is very broad and encompasses several fields, including medical science. A scientist’s oath should reflect the professional activities inherent to being a scientist, a commitment to responsible conduct, and commitments to humanity and society at large. Such an oath could emphasize the value of the graduates to our society.

An effective oath captures the essential elements of a field and is inspiring without being confining; developing an oath can help define its field. The Hippocratic Oath has been modified to reflect the evolution of medicine in society, and an oath of scientists might also evolve over time.

At Boston University School of Medicine, the Oath of the Scientist to be recited by PhD awardees at graduation ceremonies. Rituals are a key element of culture. Earning a doctorate and then standing on a podium and being hooded to symbolize entry into a new profession represents a major achievement. The transition to responsibility was first recited at the 2012 Boston University School of Medicine (MD) from schools of medicine in the United States universally recite the Hippocratic Oath, an act that embraces their medical education and helps to cement their professional identities.

The oath developed at Boston University School of Medicine incorporates a commitment to apply science to humanistic purposes. It also refers to key concepts related to the use of scientific methods to facilitate objective assessment of the natural world and explicitly highlights the role of scientists as teachers and mentors to the younger generation and society at large. This oath reflects the growth of science as a profession, and will help to inspire graduates to reach for their highest ideals as they continue in their careers. First recited at the 2012 Commencement ceremony, the Oath of the Scientist is now recited at BUOM by graduates receiving their doctorate in science.

OATH OF THE SCIENTIST:
By accepting my Doctor of Philosophy degree, I earnestly assert that:
I will apply my scientific skills and principles to benefit society;
I will continue to practice and support scientific process that is based on logic, intellectual rigor, personal integrity, and an uncompromising respect for truth;
I will treat my colleagues’ work with respect and objectivity;
I will convey these scientific principles in my chosen profession, in mentoring, and in public debate;
I will seek to increase public understanding of the principles of science and its humanitarian goals. These things I do promise.

Acknowledgements: The authors wish to thank the faculty members and trainees of the Boston University School of Medicine who read our oath and supported the idea, as well as Dr. Linda Hyman and Dean Karen Antman, MD, for incorporating the oath into Boston University School of Medicine’s Commencement ceremony.

Students graduating with their medical degree (MD) from schools of medicine in the United States universally recite the Oath of the Scientist. Despite widespread use of the Hippocratic Oath, no analogous oath has been widely adopted for students graduating with PhDs in the biomedical sciences, even though students graduating with doctorates in the biomedical sciences need a professional identity, too. Recognizing this, Boston University School of Medicine designed the Oath of the Scientist to be recited by PhD awardees at graduation ceremonies. Rituals are a key element of culture.

Earning a doctorate and then standing on a podium and being hooded to symbolize entry into a new profession represents a major achievement. The transition to responsibility was first recited at the 2012 Boston University School of Medicine (MD) from schools of medicine in the United States. The realm of science is very broad and encompasses several fields, including medical science. A scientist’s oath should reflect the professional activities inherent to being a scientist, a commitment to responsible conduct, and commitments to humanity and society at large. Such an oath could emphasize the value of the graduates to our society.

An effective oath captures the essential elements of a field and is inspiring without being confining; developing an oath can help define its field. The Hippocratic Oath has been modified to reflect the evolution of medicine in society, and an oath of scientists might also evolve over time.

At Boston University School of Medicine, the Oath of the Scientist to be recited by PhD awardees at graduation ceremonies. Rituals are a key element of culture. Earning a doctorate and then standing on a podium and being hooded to symbolize entry into a new profession represents a major achievement. The transition to responsibility was first recited at the 2012 Boston University School of Medicine (MD) from schools of medicine in the United States. The realm of science is very broad and encompasses several fields, including medical science. A scientist’s oath should reflect the professional activities inherent to being a scientist, a commitment to responsible conduct, and commitments to humanity and society at large. Such an oath could emphasize the value of the graduates to our society.

An effective oath captures the essential elements of a field and is inspiring without being confining; developing an oath can help define its field. The Hippocratic Oath has been modified to reflect the evolution of medicine in society, and an oath of scientists might also evolve over time.

At Boston University School of Medicine, the Oath of the Scientist to be recited by PhD awardees at graduation ceremonies. Rituals are a key element of culture. Earning a doctorate and then standing on a podium and being hooded to symbolize entry into a new profession represents a major achievement. The transition to responsibility was first recited at the 2012 Boston University School of Medicine (MD) from schools of medicine in the United States. The realm of science is very broad and encompasses several fields, including medical science. A scientist’s oath should reflect the professional activities inherent to being a scientist, a commitment to responsible conduct, and commitments to humanity and society at large. Such an oath could emphasize the value of the graduates to our society.

An effective oath captures the essential elements of a field and is inspiring without being confining; developing an oath can help define its field. The Hippocratic Oath has been modified to reflect the evolution of medicine in society, and an oath of scientists might also evolve over time.
Dean’s Advisory Board Meeting

The School of Medicine Dean’s Advisory Board held its annual spring meeting May 3. Dean Karen Antman, MD, opened with an update on the admissions profile of the incoming Class of 2017. She discussed the increasingly competitive residency matching program and the success of the Class of 2013. Timely presentations by Gerard Doherty, MD, chair of the Department of Surgery, and Maria Ober, director of communications at Boston University Medical Campus, gave the board an overview of the Medical Campus response to the Boston Marathon attack. Deborah Frank, MD, professor of pediatrics, spoke about the impact of research on impoverished children. Roundtable discussion groups led by board members Ann Cea, MD, Pedram Salimpour, MD, and Suzanne Cutler, PhD, addressed important School issues, including increased board engagement, research resources, and faculty recruitment.

Photo far left: Ann Cea, MD, ’67, Lawrence Crimmins, and Louis Sullivan, MD, ’58
Photo left: Jonathan Gertler, MD, Michael Kussman, MD, ’68, and Mervyn Bagan, MD, ’62

www.bu.edu/supportingbusm

Robert J. Vinci, MD, has been appointed the Joel and Barbara Alpert Professor and Chair of the Department of Pediatrics and chief of pediatrics at Boston Medical Center (BMC). For the past 20 years, Dr. Vinci has served as vice chair and clinical chief of the department, spearheading the significant expansion of pediatric clinical services. He co-founded the Kids Fund at BMC, which helps meet children’s most basic needs and gives them the foundation for a healthy and bright future. He led the campaign to establish Kids Can’t Fly, a window-fall prevention program for children in Boston that has led to a dramatic decrease in the number of window-fall injuries. In partnership with the Massachusetts Department of Public Health, Dr. Vinci established the Massachusetts Emergency Medical Services (EMS) Program for Children, which created training protocols and guidelines for children in the statewide EMS system.

Dr. Vinci received his medical degree from the College of Medicine and Dentistry-Rutgers Medical School, now known as the Robert Wood Johnson Medical School. After completing his pediatric residency at the former Boston City Hospital (now BMC) and serving as chief resident, he joined the Department of Pediatrics at BUSM in 1984. Two years later, he established the Division of Pediatric Emergency Medicine at Boston City Hospital.

An innovative leader in medical residency education throughout his career, he founded the fellowship program in Pediatric Emergency Medicine here in 1988 and has directed pediatric residency since 1989. In 1996, Dr. Vinci and Frederick H. Lovejoy, MD, established the Boston Combined Residency Program in Pediatrics, one of the nation’s leading pediatric residency programs. He has also championed research activities, global health training, and flexible training opportunities for pediatric residents. Dr. Vinci has authored more than 60 peer-reviewed papers and book chapters on the topics of pediatric emergency medicine and pediatric education, and has received numerous awards for teaching and mentoring, among them BUSM’s Leonard Tow Humanism in Medicine Award in 2010.

William R. Creevy, MD, ’85, has been appointed chief executive officer and president of the Faculty Practice Foundation (FPF) and assistant dean for faculty practice at BUSM. He is responsible for the overall strategic direction of the FPF and direct fiscal and operational oversight of the physician organization.

Creevy has served as vice chair of the Department of Orthopaedic Surgery, leading orthopaedic surgery clinical services for the past 15 years. He is also the physician quality leader for orthopaedic surgery at BMC. Creevy received his undergraduate degree from Boston University, graduating magna cum laude, and his medical degree from Boston University School of Medicine, where he was named a Commonwealth Scholar. He completed his orthopaedic surgery residency at BMC, serving as chief resident, and a fellowship in sports medicine at the Graduate Hospital, University of Pennsylvania. He joined the Department of Orthopaedic Surgery at BUSM in 1994. In 2001, he received a Master of Science in Health Care Management from the Harvard School of Public Health.

Creevy has received numerous awards, including the Robert E. Leach Resident Teaching Award from the BU Orthopaedic Surgery Residency Program.
GMS Launches New Doctoral Student Recruitment Program: Single Portal to Graduate Science Education

Previously, each of the 14 doctoral programs had its own admissions committees, recruitment day, and acceptance procedures, plus other infrastructure that surrounds attract and enrolling new students. Hyman points out that while individual departments have not been required to use PIBS for recruiting new students, most of them have signed on.

“In the spirit of efficiency as well as looking at what is best for students and optimizing their experience, we created this single portal into the doctoral program at the medical school,” notes Hyman. “The streamlined process has reduced the considerable faculty and staff resources required to attract the most qualified students to our programs.”

Hyman points out the flexibility advantages of PIBS for students who enter thinking they want to study in one program and realize they are interested in another area of science. They have more choices and options in that they have not committed to one program from the outset and can experiment to learn what it is that they really want to study,” says Hyman. “We want our students pursuing the science that is most interesting to them and where they can make the greatest contributions.”

PIBS also meshes smoothly with the new Foundations in Biomedical Sciences program, as students enter GMS through a single process and experience their first year as a more cohesive group.

“The core of all of these changes we initiated at enhancing the educational experience of our students,” adds Hyman. “We care about our students. The message is Boston University is the best place to study—biochemistry or microbiology, for example—and we also accept students who know they want to pursue biomedical sciences education but haven’t decided which area. Both groups can benefit from the integrated model.”

Professional Development and Mentorship: Foundations Curriculum 2.0

After creating a new curriculum, Foundations in Biomedical Sciences (FIBS), BUSM’s Division of Graduate Medical Sciences (GMS) formed a committee to develop and implement a program focused on professional growth and mentorship. Available to all students in all GMS programs, the Professional Development and Mentorship curriculum addresses the need for training in a variety of skills applicable to different careers.

“We recognize that perhaps 12 percent of our graduates will do what we do—go into academia,” says Barbara Schreiber, PhD, professor of medicine and a member of the committee, who created and implemented the Professional Development and Mentorship curriculum. “We are already giving our students a strong science foundation; with this program, we are enhancing that by giving them the skills to apply it to public policy, education, or whatever possibilities they wish to explore. When you look nationwide, progressive students are demanding this. They are looking at options other than the traditional academic career track. They want to be able to promote themselves and be able to network effectively.”

An important component of the curriculum is the mentorship piece that offers student access to alumni who have agreed to serve as mentors. “Alumni can give back in a large way with a small investment,” says Schreiber. “Mentors are important and can give students real-life experience. Business schools figured this out long ago and made networking a priority.”

“Alumni who have volunteered to be mentors engage in a range of activities, including as researchers and administrators in academia, clinical workers in hospitals and institutions; research analysts for biomedical and pharmaceutical companies; and senior research scientists at commercial laboratories (engaged, for example, in human genetics therapies development, assay development, and glycolic and protonic technology development). They are also scientists and administrators at the National Institutes of Health (NIH) and the US Public Health Service.”

There are a series of workshops on topics including work-life balance and creating an Individual Development Plan (IDP), which is a career-planning strategy endorsed by the NIH and a number of scientific societies that uses the online tool myIDP as a framework to help students set achievable goals, improve professional skills, and engage mentors in career development. The Personal, Professional and Career Development workshops examine how personality type has an impact on career and explores choosing between academia and industry, identifying competencies and intelligence that promote leadership, and how understanding can help develop a career plan. There are also sessions on how to get published and how to move from academia to entrepreneurship, and self-promotion strategies to use with prospective employers.

“We have a workshop titled ‘Selling Yourself, A Dirty Job You Can Do,’ presented by Tobe Berkovitz, PhD, associate professor of advertising in the college of Communication and a media consultant on presidential and congressional campaigns,” says Schreiber. “The skills he highlights are critical no matter what you do. To say that the experiments in your lab are going to get you an academic position is not enough. You have to figure out how to get those hiring to agree that you are the person they need.”

Alumni and other individuals who want to support the program are encouraged to volunteer to become mentors by filling out this form, or email PIBS at phd.professionaldevelopment@boston.edu.

For more information on Professional Development and Mentorship programs, go to www.bumc.bu.edu/postdoc/mentorship/ and check the Development and Mentorship programs section of the website. There are a variety of resources for more information on professional development and mentorship opportunities.”
Exceptional Care for the Boston Marathon Injured

Last April 15—Boston’s Marathon Monday—was one of those pleasant spring days. Seventeen BU/Boston Medical Center (BMC) attendees and residents as well as more than 50 medical students were volunteering in the medical tents located at the race’s Boylston Street finish line, ready to care for runners with dehydration, sprains, and strains.

It was a regular Monday at BMC, BUSM’s primary teaching hospital located a five-minute ambulance ride from the finish line. BUSM faculty direct and staff BMC’s Emergency Department (ED) and trauma team along with medical students on rotation in the ED and in surgery.

Everything changed at 2:49 p.m., when the first of two bombs exploded just short of the finish line. Bystanders, race officials, Boston Emergency Medical Services, and medical volunteers mobilized and triaged the hundreds of injured, sending them to area hospitals.

BMC pediatric resident Natalie Stavas, MD, had just finished running the marathon on a broken foot when the bombs exploded. Jumping over barricades to get to the injured, she applied tourniquets to limbs and pumped oxygen. BUSM medical student marathon volunteers grabbed wheelchairs and gurneys to help get the injured into ambulances. BMC doctors who were running the marathon just kept on going to reach the Medical Campus; others who were bystanders used any means necessary to get to the hospital.

They included Jeffrey Kalish, MD, assistant professor of surgery and director of endovascular surgery at BMC, who was watching his wife run the race and took a pedicab to the hospital to avoid gridlock on the streets.

BMC, which embraces the School of Medicine with buildings on both sides of the Medical Campus, is a Level 1 trauma center and the busiest provider of emergency services in New England. Although staff were seasoned, highly skilled practitioners, Marathon Monday was different for these trauma veterans. They had only minutes to prepare for what one nurse described as, “Patients bloody, missing limbs, and in shock physiologically and psychologically. They had multiple amputations and were being treated as though they had just been removed from the front lines of a war zone in Bosnia, Iraq, or Afghanistan.”

BMC received 23 patients over 40 minutes ranging in age from 5 to 76, many in critical condition. A majority had limb- as well as life-threatening injuries. Trauma, vascular, orthopedic, and plastic surgeons worked on 16 patients in 10 operating rooms, performing seven amputations on five patients. Patients’ bodies were riddled with nails, pellets, and glass, a number of them were wounded so severely that they needed multiple operations in the trauma gridlock on the streets.

Patients were riddled with nails, pellets, and glass; a number of them were wounded so severely that they needed multiple operations in the trauma gridlock on the streets.

BMC’s motto is “Exceptional Care Without Exception.” On Marathon Monday the accuracy of this deeply felt mission was demonstrated by the physicians, nurses, technicians, transport and nutrition staff, and patient advocates who cared for and supported the patients and their family members. Off-duty physicians came in to help wherever they were needed. In less than an hour, a family resource center was established for the victims’ families with computers, phone lines—including an international line—and phone chargers. Food was offered while hospital social workers, chaplains, patient advocates, and volunteers worked with families to update them on conditions, unite them with their loved ones as quickly as possible, and lend support in the face of such devastating loss. “In my 20 years here I have never been more proud to be a part of BMC,” said Ulrich.

In addition to caring for patients and their families, experts from the master’s programs in health care emergency management and biomedical forensic sciences assisted authorities in tracking down the suspected bombers. Four graduates of the forensic program—who are also adjunct professors of the program—work in the Boston Police Department Crime Lab as criminalists and were involved in analyzing the evidence.

“My medical community, as demonstrated on Marathon Monday and the days and weeks that followed this tragedy, is truly extraordinary,” said Dean Karen Antman, MD. “Our faculty, staff, and students are consummate caregivers and their dedication and outstanding skill is an inspiration.”

US Marine Corps members of Semper Fi who lost limbs in Iraq and Afghani stan talk to members of the BMC Emergency Department who cared for victims of the Boston Marathon bombings. The Marines also offered support and encouragement to patients who underwent amputations.
I grew up in Watertown, a block and a half from where the second Boston Marathon bomber was captured and where my parents still live. On Marathon Monday, I was in the main medical tent less than a block from where the first bomb exploded. Posing for a group photo with other volunteers from BMC’s Emergency Department (ED) that morning, we had no idea what we would be facing later that day. Along with several of my colleagues, I was assigned to Tent A near the finish line. We arrived early, prepared our areas, then waited until the elite runners came through, followed by a steady stream of manageable patients. When that first explosion came—a sound none of us had ever heard before—we stopped and the entire tent went silent. It sounded like a bomb. Then the second boom came and someone yelled, “They need doctors!” and before we could stop to think, we ran out into the acrid smell of explosives toward the injured.

I will never forget that scene. People lay in disarray, their clothes and shoes blown off, the sidewalk covered with blood. They lay soundless, but family members, friends, and strangers held them, held their torn limbs, and pleaded with them to hang on. Miraculously, almost every patient I attended to had already been tourniqueted with a torn pant leg, a belt, or someone’s shirt. Their faces were unlike any I had ever seen; these patients were silent and in shock. In retrospect, I wondered if they could even hear us and if their eardrums had been injured in the blast. Smoke hung in the air, a store alarm rang, and amid the chaos, we worked as we’d never worked before. We used scattered debris to splint legs that were barely hanging on. We rolled people onto boards. Boston Emergency Medical Services (EMS) was everywhere with stretchers, backboards, and helping hands. Volunteers, police, and bystanders helped evacuate patients as quickly as possible in any way they could. A group of us put a patient on a backboard and ran, carrying him back to the tent, where we found a scene that resembled a MASH unit. Doctors and nurses moved from patient to patient, assessing injuries, placing IVs and bandages, and doing whatever was needed. Boston EMS triaged with number cards or simply wrote on people’s foreheads, apologizing as they did so. I can’t say enough about Boston EMS; they worked furiously and with incredible speed to get people organized and get patients moved out to hospitals.

And in between all this was my BMC family. We looked at each other in disbelief and despair as we worked. We gathered together after we had done what we could and worried about our department. When we finally made contact with the ED, they told us to come in. And we did. By bike, ambulance, walking, whatever way we could. And when we got there we found our department filled with people who had come from every part of the hospital, every part of the city and state, to help where they could. There were embraces for those of us who had been at the scene. Then we did what we could, until we were just getting in the way and were told to go home.

At the end of the day, I leaned over to unlock my bicycle to ride home. The bottoms of my sneakers were caked with blood. I could not rid my mouth of the taste of explosives and I was more tired than I have ever been. I looked up and there waiting beside me on the street was an EMS supervisor. He rolled down his window and asked me if I would like a ride home. I could have cried. I smiled and thanked him for his kindness. Then I got on my bike and rode home, from one family to another, numb with grief and shock, awed by the incredible people I work with, and inspired by the people of the city of Boston, rising up to face terrorism like they face most things: straight ahead, with conviction and without fear.

This article has been accepted for publication in Annals of Emergency Medicine for Fall 2013.
Tracey Dechert, MD, knows from experience that medical students are exposed to misinformation about the field of surgery. As a woman, she was actively discouraged from becoming a surgeon; as the faculty advisor to the student Surgical Society at BUSM, she often hears students tell her that before their surgical rotation they had never considered surgery because they either didn’t understand the field, or held negative perceptions of it.

When Dechert came to BU’s Medical Campus as an attending at Boston Medical Center (BMC), she never intended to focus on teaching. “I love the work because trauma, critical care, and emergency surgery are very busy. I also like the patient population of a safety net hospital and serving people who traditionally have not had access to high-quality care.”

As Dechert got farther along in her training and career, she realized how much she enjoyed teaching and was named associate program director for the residency program in general surgery at BMC. “That is when it really hit. I started meeting with students who thought they were interested in surgery and who were brimming with ideas of what it meant to be a surgeon, many of which were inaccurate.”

“I heard the stories and the rumors about surgeons when I was a student,” says Dechert, associate professor of surgery and trauma surgeon at BMC. “I thought, after all of these years, this is still what students are hearing—and for women it is even worse. Students have told me about being discouraged not just by family members, but doctors in other fields of medicine and other students.”

From her experience in the field, Dechert knew that perception and reality were quite divergent. She thought that if those students could be exposed to surgical care and practicing surgeons early in their medical school experience, they could make more informed decisions about their careers. “First and second years of medical school are learning all of the basics, but we can’t wait until third year to let them see what surgery is about,” she says. “Also, early student opportunities to experience medicine and surgery in practice can help motivate them. Seeing the light at the end of the tunnel, as it were.”

As the faculty advisor to the surgery interest students, Dechert had a ready-made group of first- and second-year students who were considering surgery as a career path and who could benefit from a shadowing program. With the backing of the Department of Surgery, Dechert put together a program that offers students access to surgical situations and to both resident and attending surgeons years before their required surgical rotation.

A little more than a year ago, first- and second-year students began shadowing the trauma service. Dechert feels that with classes and studying for exams students may only be able to shadow at night or on weekends, making the trauma service a good fit. The team works 24 hours a day, 7 days a week, and weekends and holidays. “A student can come in on a Saturday morning or Sunday night and our whole team is here—attendings, fellows, chief residents, interns, and third-year medical students,” explains Dechert. “Students have the opportunity to learn about the different roles and gain experience at the different levels of training and providing care. They are linked with various members of the team—they can go to the Emergency Department to see what’s happening with new patients or the OR, and if there is no surgery happening, they can go to the ICU!”

Because each day and night can be different in trauma service, Dechert says the students are never bored, and they can shadow as many times as they want.

“The first night I shadowed the surgery team I witnessed a patient with penetrating trauma, a stab wound that required no surgical intervention, and the placement of a chest tube in a patient who had suffered bilateral pneumothoraces subsequent to an automobile accident,” says David Cholok ’16. “During perhaps my most arresting experience, I observed a patient with a ruptured abdominal aortic aneurysm. I was surprised by the willingness of surgeons and residents to facilitate my learning experience. As long as I wasn’t immediately in the way, everyone was respectful and more than willing to shed light on what was going on at any particular moment.”

Approximately 30 students have taken advantage of the program, and Dechert wants to increase this number significantly. She is looking for ways to get the word out to students, especially those who may not have considered surgery as an option. Dechert notes that surgery shadowing is not unique to BUSM, as in most medical schools, students can seek out surgeons to observe. “But the onus is on the student,” she says. “Our program facilitates the experience for students, alleviating what may seem to them a daunting task of approaching an already-busy surgeon and asking for his or her time. The initiative comes from us, the surgeons.”

“Our program facilitates the experience for students, alleviating what may seem to them a daunting task of approaching an already-busy surgeon and asking for his or her time. The initiative comes from us, the surgeons.”

—Tracey Dechert, MD
Learning is enhanced by the firsthand exposure of shadowing, which connects students to the living, breathing expression of their studies. “The first year of medical school involves a significant amount of classroom and study time,” says Chris LaChapelle ’16, a program participant. “One can forget the reasons for embarking on the voyage of becoming a doctor.”

Students get to see the anatomic structures they have been studying in the lab in a live patient while the surgical team describes each step in a gall bladder removal or an appendectomy, for example. Step stools are provided for viewing surgeries from above, and students are encouraged to ask questions along with their third-year student counterparts who are on their surgical rotation.

“Most important learning moments for me have been unexpected and unplanned,” notes Tyler Robinson ’15, who has shadowed in surgery a number of times. “Chatting informally with interns, residents, fellows, and medical students has given me many different perspectives on surgery, career development, and work-life balance. It’s been great to be a second-year medical student and to shadow in my free time. I’ve been able to ask all the questions I’ve wanted without being responsible for knowing much or seeing to patient duties. My observations of serious cases being handled in the OR and ED have been pretty awe-inspiring, too.”

Robinson first met Dechert at a breakfast seminar to introduce general surgery to first- and second-year medical students. The seminar’s panel included two BMC surgical attendings and two recently matched BUSM fourth-years. “I was happy to see that all four were women, and I asked whether this perhaps signaled a change in the field of surgery, in being more accommodating to family and personal needs,” he says. “They all affirmed that surgery remained tougher than many other fields, but that it in no way prohibits you from having a quality personal life.”

Members of the Department of Surgery—as well as patient care providers from the specialties involved with surgical services like emergency medicine, anesthesiology, and radiology—have been very supportive of the shadowing program, and because the trauma service works as a team, members are used to being observed as well as teaching. Exposure to postgraduate training is another benefit of shadowing.”

“Learning is enhanced by the firsthand exposure of shadowing, which connects students to the living, breathing expression of their studies. “The first year of medical school involves a significant amount of classroom and study time,” says Chris LaChapelle ’16, a program participant. “One can forget the reasons for embarking on the voyage of becoming a doctor.”

Students get to see the anatomic structures they have been studying in the lab in a live patient while the surgical team describes each step in a gall bladder removal or an appendectomy, for example. Step stools are provided for viewing surgeries from above, and students are encouraged to ask questions along with their third-year student counterparts who are on their surgical rotation.

“The most important learning moments for me have been unexpected and unplanned,” notes Tyler Robinson ’15, who has shadowed in surgery a number of times. “Chatting informally with interns, residents, fellows, and medical students has given me many different perspectives on surgery, career development, and work-life balance. It’s been great to be a second-year medical student and to shadow in my free time. I’ve been able to ask all the questions I’ve wanted without being responsible for knowing much or seeing to patient duties. My observations of serious cases being handled in the OR and ED have been pretty awe-inspiring, too.”

Robinson first met Dechert at a breakfast seminar to introduce general surgery to first- and second-year medical students. The seminar’s panel included two BMC surgical attendings and two recently matched BUSM fourth-years. “I was happy to see that all four were women, and I asked whether this perhaps signaled a change in the field of surgery, in being more accommodating to family and personal needs,” he says. “They all affirmed that surgery remained tougher than many other fields, but that it in no way prohibits you from having a quality personal life.”
Alcohol Consumption a Leading Preventable Cause of Cancer Death in the U.S.

BSUM and BUSPH researchers have shown that alcohol is a major contributor to cancer deaths and years of potential life lost. These findings, published in the April 2013 issue of the American Journal of Public Health, also show that reducing alcohol consumption is an important cancer prevention strategy, as alcohol is a known carcinogen even when consumed in small quantities.

Timothy Naimi, MD, MPH, associate professor of general internal medicine, and colleagues from the National Cancer Institute, the Alcohol Research Group, the Public Health Institute, and the Centre for Addiction and Mental Health examined recent data from the United States on alcohol consumption and cancer mortality. They found that alcohol resulted in approximately 20,000 cancer deaths annually, accounting for about 3.5 percent of all cancer deaths in the United States.

Breast cancer was the most common cause of alcohol-attributable cancer deaths in women, accounting for about 7,600 deaths annually, or about 15 percent of all breast cancer deaths. Cancers of the mouth, throat, and esophagus were common causes of alcohol-attributable cancer mortality in men, resulting in a total of about 6,000 annual deaths.

“The relationship between alcohol and cancer is strong, but it is not widely appreciated by the public and remains underemphasized even by physicians,” said Naimi, who served as the paper’s senior author. “Alcohol is a big preventable cancer risk factor that has been hiding in plain sight.”

Researchers Propose Potential Epigenetic Mechanisms for Improved Cancer Therapy

A review article by Boston University Cancer Center researchers proposes a new epigenetic hypothesis linked to tumor production and novel ideas about what causes progenitor cells to develop into cancer cells and how they might be treated.

Published in February 2013 issue of epigenetics, the article provides examples of how epigenetic drug treatments could be beneficial in treating cancers and also decrease the likelihood of cancer relapse. The article’s corresponding author, Sibaji Sarkar, PhD, adjunct instructor of medicine, and colleagues propose that epigenetic processes, specifically DNA methylation, may trigger cancer progenitor cell formation from somatic cells in coordination with other cellular and environmental events. “Progenitors are known to cause cancer relapse, and because epigenetic drugs can help destroy progenitor cells, these drugs could help reduce the chance of cancer relapse and improve the long-term outcomes of people with cancer,” said Sarkar. “While our hypotheses are based on current knowledge, we are proposing important and exciting areas to be explored in the future.”

Research included in this review article was funded in part by the American Cancer Society.

New Genomic Regions Associated with Age-Related Macular Degeneration Discovered

Lindsay Farrer, PhD, chief of the Biomedical Genetics section and BUSUM and BUSPH professor, is co-lead author of a study by an international group of researchers that has discovered seven new regions of the human genome—called loci—that are associated with age-related macular degeneration (AMD).

“Genetic research allows us to piece together disease pathways that may have their starting point much earlier in life,” said Farrer. “These newly identified genes, individually and collectively, provide novel clues and targets to evaluate for their potential therapeutic benefits.”

Study Reveals Potential Target to Better Treat, Cure Anxiety Disorders

BSUM researchers have, for the first time, identified a specific group of cells in the brainstem whose activation during rapid eye movement (REM) sleep is critical for the regulation of emotional memory processing. The findings, published in the Journal of Neuroscience, could help lead to the development of effective behavioral and pharmacological therapies to treat anxiety disorders, such as post-traumatic stress disorder, phobias, and panic attacks.

During REM sleep, the brain becomes more active and the muscles of the body become paralyzed. Dreaming generally occurs during REM sleep, as well as physiological events including saccadic eye movements and rapid fluctuations of respiration, heart rate, and body temperature. One particular physiological event, which is a hallmark sign of REM sleep, is the appearance of phasic pontine waves (P-waves).

Memories of fearful experiences can lead to enduring alterations in emotion and behavior. “Our study suggests that it is not a coincidence that memories of fearful experiences can lead to alterations in emotion and behavior.”

The study, published online in the Journal of Immunology, was led by first author Anna C. Belkina, MD, PhD, a researcher in the Department of Microbiology, and senior author Gerald V. Denis, PhD, associate professor of pharmacology and medicine at BUSUM.

Epigenetics is an emerging field of study exploring how genetically identical cells express their genes differently—resulting in different phenotypes—due to mechanisms other than DNA sequence changes. Previous studies have shown that a gene, called Brd2, is associated with high insulin production and excessive adipose (fat) tissue expansion that drives obesity when Brd2 levels are low, and cancer when Brd2 levels are high. The Brd2 gene is a member of the Bromodomain Extra Terminal (BET) family of proteins and is closely related to Brd4, which is important in highly lethal carcinomas in young people, as well as in the replication of Human Immunodeficiency Virus (HIV). The BET family proteins control gene expression epigenetically by acting on chromatin, the packaging material for genes, rather than on DNA directly. The study results show that proteins in the BET family have a strong influence on the production of pro-inflammatory cytokines in macrophages. “This research suggests that it is not a coincidence that patients with diabetes experience higher risk of death from cancer, or that patients with chronic inflammatory diseases, such as arthritis and insulin resistance, are more likely to develop complications from inflammatory complications,” said Belkina. “This requires us to think of diverse diseases of different organs as much more closely related than our current division of medical specialties allows.”

Research was supported in part by the National Institutes of Health’s National Institute of Diabetes, Digestive and Kidney Diseases.

Study Reveals Potential Immune Benefits of Vitamin D Supplements in Healthy Individuals

Improving vitamin D status by increasing its level in the blood could have a number of non-skeletal health benefits, a BUSUM study shows. Published online in the Journal of Clinical Endocrinology & Metabolism, the research reveals for the first time that improvement in the vitamin D status of healthy adults significantly impacts genes involved with a number of biologic pathways associated with cancer, cardiovascular disease (CVD), infectious diseases, and autoimmune diseases. While previous studies have shown that vitamin D deficiency is associated with an increased risk for the aforementioned diseases, these results go a step further in providing direct evidence that improvement in vitamin D status plays a large role in improving immunity and lowering the risk for many diseases.

Belkina, MD, PhD, a researcher in the Department of Microbiology, and senior author Gerald V. Denis, PhD, associate professor of pharmacology and medicine at BUSUM.

Epigenetics is an emerging field of study exploring how genetically identical cells express their genes differently.
Vitamin D is unique in that it can be both ingested and synthesized by the body with sun exposure. It is then converted by both the liver and kidneys to a form that the body can use. An individual’s level of vitamin D, or their vitamin D status, is determined by measuring 25-hydroxyvitamin D in the blood. Vitamin D deficiency—which is defined as a status of less than 20 nanograms per milliliter (ng/mL) of 25-hydroxyvitamin D—can cause a number of diseases, including osteoporosis and other musculoskeletal diseases. Recent data, however, suggests that vitamin D deficiency (<20 ng/mL) and vitamin D insufficiency (between 21–29 ng/mL) are linked to autoimmune diseases, infectious diseases, type 2 diabetes, and cardiovascular disease.

Samples of white blood cells were collected from study participants receiving different levels of vitamin D, and a broad gene expression analysis was conducted on the samples, with more than 22,500 genes investigated to see if their activity increased or decreased as a result of vitamin D intake. The results of the gene expression analysis indicated statistically significant alterations in the activity of 291 genes. Further analysis showed that the biologic functions associated with the 291 genes are related to 160 biologic pathways linked to cancer, autoimmune diseases, infectious diseases, and CVD.

**The results of the gene expression analysis indicated statistically significant alterations in the activity of 291 genes.**

Researchers identified a new chemical class of compounds that effectively block genetically diverse viruses from replicating by limiting RNA production by the virus in cell culture.

**Chemical Compounds That Halt Virus Replication Identified**

A new class of compounds that have the potential to block genetically diverse viruses from replicating has been identified by BUSM researchers. The findings, published in Chemistry & Biology, could allow for the development of broad-spectrum antiviral medications to treat a number of viruses, including the highly pathogenic Ebola and Marburg viruses.

“This study reveals the molecular fingerprints that help explain the non-skeletal health benefits of vitamin D,” said Michael F. Holick, PhD, MD, professor of medicine, physiology, and biophysics, and leading vitamin D expert who served as the study’s first author. The researchers hypothesized that the measure of vitamin D deficiency that characterizes type 2 diabetes. The researchers also demonstrated that B cells directly regulate inflammatory T cells, an immune cell type known to cause insulin resistance in animal models of disease.

“Now that we have identified the specific mechanisms by which B cells promote inflammation, we can help develop novel, targeted approaches to treat type 2 diabetes,” said Barbara Nikolayczak, PhD, associate professor of microbiology and the study’s senior author. “Our findings introduce a novel way to study COPD that could lead to new treatments and ways to monitor patients’ responses to those treatments. The study is published online in the American Journal of Respiratory and Critical Care Medicine.”

**Busm researchers identify novel approach to study COPD and treatment efficacy**

Busm researchers have pinpointed a genetic signature for chronic obstructive pulmonary disease (COPD) from airway cells harvested utilizing a minimally invasive procedure. Their findings introduce a novel way to study COPD that could lead to new treatments and ways to monitor patients’ responses to those treatments. The study is published online in the American Journal of Respiratory and Critical Care Medicine.

**Detecting Dangerous Plaques**

Busm researchers have shown that using magnetic resonance imaging (MRI) to measure blood flow over atherosclerotic plaques could help identify plaques at risk for thrombosis. Their findings introduce a novel way to study COPD that could lead to new treatments and ways to monitor patients’ responses to those treatments.

**Using magnetic resonance imaging (MRI) to measure blood flow over atherosclerotic plaques could help identify plaques at risk for thrombosis.**

The research was supported by grant funding from the National Institutes of Health’s National Heart, Lung, and Blood Institute (NHLBI).

**Busm Researchers Identify Novel Approach to Study COPD and Treatment Efficacy**

Busm researchers have pinpointed a genetic signature for chronic obstructive pulmonary disease (COPD) from airway cells harvested utilizing a minimally invasive procedure. Their findings introduce a novel way to study COPD that could lead to new treatments and ways to monitor patients’ responses to those treatments. The study is published online in the American Journal of Respiratory and Critical Care Medicine.

“The study revealed the molecular fingerprints that help explain the non-skeletal health benefits of vitamin D,” said Michael F. Holick, PhD, MD, professor of medicine, physiology, and biophysics, and leading vitamin D expert who served as the study’s first author. The researchers hypothesized that the measure of vitamin D deficiency that characterizes type 2 diabetes. The researchers also demonstrated that B cells directly regulate inflammatory T cells, an immune cell type known to cause insulin resistance in animal models of disease.

“Now that we have identified the specific mechanisms by which B cells promote inflammation, we can help develop novel, targeted approaches to treat type 2 diabetes,” said Barbara Nikolayczak, PhD, associate professor of microbiology and the study’s senior author. “Our findings introduce a novel way to study COPD that could lead to new treatments and ways to monitor patients’ responses to those treatments. The study is published online in the American Journal of Respiratory and Critical Care Medicine.”

**Busm researchers identify novel approach to study COPD and treatment efficacy**

Busm researchers have pinpointed a genetic signature for chronic obstructive pulmonary disease (COPD) from airway cells harvested utilizing a minimally invasive procedure. Their findings introduce a novel way to study COPD that could lead to new treatments and ways to monitor patients’ responses to those treatments. The study is published online in the American Journal of Respiratory and Critical Care Medicine.

“The study revealed the molecular fingerprints that help explain the non-skeletal health benefits of vitamin D,” said Michael F. Holick, PhD, MD, professor of medicine, physiology, and biophysics, and leading vitamin D expert who served as the study’s first author. The researchers hypothesized that the measure of vitamin D deficiency that characterizes type 2 diabetes. The researchers also demonstrated that B cells directly regulate inflammatory T cells, an immune cell type known to cause insulin resistance in animal models of disease.

“Now that we have identified the specific mechanisms by which B cells promote inflammation, we can help develop novel, targeted approaches to treat type 2 diabetes,” said Barbara Nikolayczak, PhD, associate professor of microbiology and the study’s senior author. “Our findings introduce a novel way to study COPD that could lead to new treatments and ways to monitor patients’ responses to those treatments. The study is published online in the American Journal of Respiratory and Critical Care Medicine.”

**Busm researchers identify novel approach to study COPD and treatment efficacy**

Busm researchers have pinpointed a genetic signature for chronic obstructive pulmonary disease (COPD) from airway cells harvested utilizing a minimally invasive procedure. Their findings introduce a novel way to study COPD that could lead to new treatments and ways to monitor patients’ responses to those treatments. The study is published online in the American Journal of Respiratory and Critical Care Medicine.
In this study, skin cells were cultured and exposed to UVB or UVA rays and then examined for expression and accumulation of progerin, a protein that has been associated with both normal and abnormal aging.

The study, published in the Journal of Investigative Dermatology, was led by co-authors Thomas M. Ruerger, MD, PhD, professor and vice chair of the Department of Dermatology, and Hidetaka Takesue, MD, PhD. In this study, skin cells were cultured and exposed to UVB or UVA rays and then examined for expression and accumulation of progerin, a protein that has been associated with both normal and abnormal aging. The results showed that progerin is induced by ultraviolet light, specifically UVA rays, and that this induction is mediated by reactive oxygen species, causing alternative splicing of the Lamin A gene pre-mRNA.

"This, to our knowledge, is the first time that induction of progerin is described in response to an external agent," said Ruerger, who also is professor of pathology and laboratory medicine at BUMS and a dermatologist at Boston Medical Center. "Our results reveal a novel mechanism by which UVA rays, which are often emitted from tanning beds, may play a role in the acceleration of photoaging of the skin."

The researchers also note that some aspects of photoaging should be regarded as a process of damage-accelerated intrinsic aging, and that intrinsic and extrinsic aging are interdependent.

The researchers note that some aspects of photoaging should be regarded as a process of damage-accelerated intrinsic aging, and that intrinsic and extrinsic aging are interdependent.

"We can look at the structure of even very large molecules and look at how they change before and after the process. Asked to explain how this process works, Costello says, 'I do puzzles.'

"I can see at the structure of even very large molecules and look at how they change before and after the process. Asked to explain how this process works, Costello says, 'I do puzzles.'
Under Antman’s stewardship, BUSM strives to ensure that deserving women are nominated for professional awards and societies and pushes for a multicultural campus.

Under Antman’s stewardship, BUSM strives to ensure that deserving women are nominated for professional awards and societies and pushes for a multicultural campus.
A Good Map Reader
My last conversation with Peter Mozden, MD ’53, professor emeritus of surgery

BY ROBERT M. BEAZLEY, MD, PROFESSOR EMERITUS OF SURGERY AND MEDICINE

Peter Mozden, MD ’53, my old friend and colleague who in 1988 convinced me to come to Boston University, was a pioneering surgical oncologist with an international reputation. Since 1949, when he began medical school here, he had maintained a deep loyalty and commitment to the Boston University School of Medicine and its mission. In 1989, I established the Peter Mozden Visiting Professorship and renamed the surgical oncology service the Mozden Service in his honor. Peter, in turn, started the Mozden Summer Student Fellowship and the Mozden Award, given to a graduating senior for surgical scholarship.

I visited Peter on the afternoon of January 3, 2011, a cold, wet, and gray day. He was quite ill, so I decided to keep my visit brief. Our colleague, Dr. David McNerney, was also visiting, and he and Peter began to discuss Peter’s clerical status.

I knew a little about Peter’s service in World War II and that he liked to tell stories. Hoping to change the conversation and perhaps learn a little more about him, I said, “Peter, tell us what you did when you were in the Army. Were you drafted out of college?”

“Well, not exactly, I got one year in but was not a good student,” he said. “I had to take ROTC and did well, with a special comment about being a very good map reader. I wanted to fly but the list was up to nine months, so I volunteered for the Army. After boot camp I was assigned to a Russian language school at the University of Wisconsin for about 10 months. Our teachers were old Russian officers; really strict. One weekend we were all invited to their dacha on the lake, where we were introduced to vodka. I got so sick that I never touched the stuff since then! I got pretty good with Russian before I was shipped to France in ’44.”

“They don’t speak Russian in France, as I recall,” I said.

“That is right, but the Army works in funny ways,” he replied.

“Peter, your voice was strong, with few pauses.”

“What did you do in France?”

“Well, I was attached to the Ninth Army in the 458th Mechanized Reconnaissance Battalion, in a jeep with a machine gun, out front scouting the way for the Army.”

“Peter, that sounds pretty hazardous.”

“Could be at times.”

Then he grinned. “I got to France in time to get caught up in the Battle of the Bulge. I was actually in Belgium while my brother Joe was caught, too, a few miles away. After it was all over we got to meet, which was a special treat. I remember Christmas Eve ’44. We were ordered up a high hill to look out over the next valley for Germans. Well they were there alright, starting up the other side of the same hill, shooting everything they had. I remember lying in the snow under my jeep at 10 below zero watching the German tracer bullets going over-head into the clouds. It was frightening, strange, and beautiful all at the same time. Some Christmas!”

“What did you do?” I asked.

He laughed. “We were ordered to get the hell off the hill. The big German push eventually failed, and we chased them back across France, Alsace, and the Rhine River. When we got into Germany, all the road signs had been removed or turned the wrong way. We made a lot of wrong turns and did a lot of backtracking. When the generals came up, they always told us how great a job we were doing—they didn’t know we got lost a lot! Eventually we made it to the Elbe River and were told to stop and wait for the Russian Army coming from the East.”

“Did you get to use your Russian?”

“I did!” he said with a big smile and a gleam in his eyes.

“Since I was one of the few who could speak Russian, I was needed for all the meetings, negotiations, and parties. On the first night, all the officers were invited to the Russian side. The vodka flowed like water. We brought most of the American officers back in trucks loaded like cordwood. The next night was the Americans’ turn and they broke out Kentucky bourbon. The Russians refused to touch the stuff, calling it ‘baby’s milk,’ and drank their vodka instead.”

At this point we were all laughing. The mood had totally changed. Peter’s spirits were raised by memories of his youth.

Another team of doctors came in, and the spell broke. Shaking Peter’s hand, I thanked him for his great story and for his service.

He said, “Good-bye, Bob.” I felt good that for a few minutes we had managed to snatch him back, to go to another place and see his sparkle once again, if only fleetingly. The next evening, Peter passed away.

In addition to his theater and campaign ribbons and medals, Sergeant Mozden received the Purple Heart and the Bronze Star for valor in action.

Peter Mozden, MD ’53, my old friend and colleague who in 1988 convinced me to come to Boston University, was a pioneer surgical oncologist with an international reputation. Since 1949, when he began medical school here, he had maintained a deep loyalty and commitment to the Boston University School of Medicine and its mission.

William R. Cranley, MD ’68, clinical professor of radiology and associate professor of pediatrics, on May 18, 2013, at Boston Medical Center, where he served as chair of pediatrics for four decades, died on May 18, 2013. Dr. Cranley leaves his wife of 39 years, Kathleen K. Cranley, two sons, and a daughter.

Merrill I. Feldman, MD, former chair of the Department of Radiology, on April 27, 2013. A distinguished radiation oncologist, he graduated from Harvard College and received his medical degree from Harvard Medical School. He completed his radiology residency at Yale School of Medicine. While on a fellowship at the Royal Marsden Hospital in London, he began work on radiation therapy to treat cancer. On the staff of North Shore Medical Center in Lynn, he established the hospital’s first cancer treatment center. In 1972, he began teaching at BUMC, ultimately rising to chair the department. A pioneering cancer researcher, Dr. Feldman was a member of the National Surgical Adjuvant Breast and Bowel Cancer Project.

A decorated hero of World War II, he received the Bronze Star, the Silver Star, and two Purple Hearts. In 2008, the French Consul General presented Dr. Feldman with the Legion of Honor.

In Memoriam

In Memoriam

Willard R. Cranley, MD ’68, clinical professor of radiology and associate professor of pediatrics, on May 18, 2013, at Boston Medical Center, where he served as chair of pediatrics for four decades, died on May 18, 2013. Dr. Cranley leaves his wife of 39 years, Kathleen K. Cranley, two sons, and a daughter.

Merrill I. Feldman, MD, former chair of the Department of Radiology, on April 27, 2013. A distinguished radiation oncologist, he graduated from Harvard College and received his medical degree from Harvard Medical School. He completed his radiology residency at Yale School of Medicine. While on a fellowship at the Royal Marsden Hospital in London, he began work on radiation therapy to treat cancer. On the staff of North Shore Medical Center in Lynn, he established the hospital’s first cancer treatment center. In 1972, he began teaching at BUMC, ultimately rising to chair the department. A pioneering cancer researcher, Dr. Feldman was a member of the National Surgical Adjuvant Breast and Bowel Cancer Project.

A decorated hero of World War II, he received the Bronze Star, the Silver Star, and two Purple Hearts. In 2008, the French Consul General presented Dr. Feldman with the Legion of Honor.
the French Legion of Honor in recognition of his service to help liberate France during World War II.

He leaves his wife, Avis, and three sons, one of whom is James Feldman, MD, BUSM professor of emergency medicine.

Jane O’Hern, EdD, BU and BUSM professor emerita, on May 27, 2013. After serving as a professor in the School of Education for 33 years, Dr. O’Hern joined the faculty of the Rhode Island Association of Counselor Educators and Supervisors, and was a fellow of the Massachusetts Psychological Association. She also served on the Boston University National Alumni Council for 10 years. Dr. O’Hern was presented with a special award for her service from the Division of Graduate Medical Sciences at Commencement on May 17, 2013.

“Jane O’Hern’s warmth, intelligence, enthusiasm, humor, and flinty New England charm will be sorely missed,” said Linda Hyman, PhD, associate provost for the Division of Graduate Medical Sciences.

Gordon L. Snider, MD, former chief of pulmonary medicine at BUMC and chief of medicine at the Boston Veterans Affairs in Jamaica Plain, on June 8, 2013, after a long illness. Dr. Snider was an outstanding clinician, scientist, teacher, administrator, academic leader, advisor, and friend. He influenced the lives of his patients, students, and trainees, and informed and educated countless others through his administrative duties and numerous publications.

Dr. Snider was an outstanding clinician, scientist, teacher, administrator, academic leader, advisor, and friend.

Dr. Snider came to BUSM in 1968 as professor of medicine and head of the Pulmonary section. He teamed with thoracic surgeon and physiologist Edward Gaensler and Carl Franzblau, chair of the BU Department of Biochemistry, to develop a research program in lung cell and molecular biology, and built an academic pulmonary training program at Boston University. They merged the pulmonary programs at three hospitals—BUMC, Boston City Hospital, and the Boston Veterans Affairs Hospital. Led by Dr. Snider, they built one of the pre-eminent training programs in the US, which attracted research trainees from around the world. He was also instrumental in developing and guiding the scientific and research programs of the Alpha One Foundation and an important contributor to the NHL Lung Division programs.

The Gordon and Ruth Snider Professorship in Pulmonary Medicine was endowed at BU in 2000. Plans for a lecture-ship in his name are in progress.

He leaves his wife, Sarah Everett, two sons, a daughter, two stepdaughters, and many grandchildren.

Diane Weiner, PhD, assistant professor of family medicine and core faculty of the master’s program in medical anthropology and cross-cultural practice in the Division of Graduate Medical Sciences, on June 14, 2013, after a brief and sudden illness. She was a beloved friend and colleague and a passionate dedicated and engaged teacher. Dr. Weiner was also an adjunct assistant professor in community health sciences at the School of Public Health.

She was a medical anthropologist who worked with American Indian tribal, rural, and urban communities to develop cancer and diabetes education and support interventions. She obtained her PhD in Cultural Anthropology from UCLA in 1994 and was particularly interested in chronic illness behaviors and lay-health professional communication encounters.

Based at Mashantucket Pequot Tribal Nation (MPTN), she worked on projects in Connecticut and other parts of the Northeast with a multidisciplinary team of researchers, educators, and American Indian cancer advocates to conduct research on cancer information-seeking patterns, colorectal cancer education, and cancer survivorship.

BUSM Student Receives Award for Melanoma Research

Elizabeth Shenk, a PhD student in pharmacology and biomedical engineering, has received the Joanna M. Nicolay Melanoma Foundation (JMMNF) 2013 Research Scholar Award, one of 10 nationally competitive $10,000 grants from the JMMNF supporting exceptional graduate student melanoma research.

The highly prestigious award is a mark of distinction for lab directors, universities, and cancer research institutions across the US. Shenk’s research uses a three-dimensional engineered platform to determine which melanomas are likely to metastasize. She has been instrumental in creating the cellular model of this system, which is expected to be used to develop novel therapies targeting the metastatic progress on an individualized basis for patients at risk for metastasis.

Shenk, who graduated with honors and high distinction from Penn State in 2010, works under the direction of Rhoda Alani, MD, and the BUSM Herbert Mescon Professor and Chair of Dermatology. She also collaborates with Joyce Wong, PhD, and Mario Cabodi, PhD, of the BU College of Engineering Biomedical Engineering Department. The JMMNF is the first program in the US to fund graduate student melanoma researchers.

The Research Scholar Award program was initially piloted with the Johns Hopkins Sidney Kimmel Cancer Center in 2006, and expanded nationally to benefit the broader academic, scientific, clinical, and patient communities and encourage more students to choose a career in melanoma research.
Giving

Robert E. Schiesske

A LOVE OF LEARNING

BU alumnus honors his parents through the School of Medicine.

The scholarship agreement begins, “The Alice (Davis) and Victor Schiesske Scholarship Fund is established at Boston University by Robert E. Schiesske (MET’78, GSM’82), in honor of his parents, to whom he is forever grateful.”

Robert Schiesske lights up when he talks about his parents. He describes his father, Victor, as a resilient and principled man. “He battled corruption within his own company,” Schiesske says, “and he survived the death of my mother, four bouts of cancer, and continuing congestive heart failure by keeping up his strong work ethic and daily activities.”

Schiesske’s mother, Alice, was generous and always connecting with people. “You could climb a mountain with her, and she’d fall way behind, talking to the other people on the trail,” Schiesske says. “Then, you’d turn and make your way back down from the summit, and everyone you met

who was still climbing would have some story about my mother—about how kind she was or the conversation they’d had, and eventually you’d find her again, talking to someone new.” In 1939, she met an Australian rancher on a train; she sent him a Christmas card every year until his death. Alice Schiesske was unforgettable.

And together, the Schiesskes shared a love of learning and knowledge. Robert grew up in a home full of newspapers and magazines, and his parents instilled a deep appreciation of education and opportunity in him.

He was already working hard in the IT field when the time came to get a second degree. Knowing how important work was to his family, he searched for a master’s program that would allow him to continue his day job, but also give him an in-depth understanding of computer science. “BU had a nice evening program,” he recalls. “I could have supper in the company cafeteria and walk down to campus. It was almost a second job.” A couple of years later, Schiesske had his degree from Metropolitan College and entered BU’s MBA program with another evening schedule and more opportunity to expand his knowledge.

After graduation, Schiesske’s connection to BU faltered a bit. “Once I had the degrees, I would glance through Bostonia, but I was never particularly active,” he says. Then, his parents passed away, and he was determined to create a memorial to them that others would benefit from and appreciate. His years of struggling with the health issues of his aging parents gave him an idea.

“When they start giving back, a lot of people are getting in touch with the medical community,” Schiesske explains. “The Wall Street Journal recently highlighted health care as nearly the top choice of retirees for ongoing support.” To Schiesske, this makes sense; after years of meeting doctors and witnessing medical procedures, the effects of degenerative diseases, and the difficulties in geriatric care, Schiesske knows how important health care is and how much support it needs in order to improve treatment and find cures.

Having been a student of technology and business, Schiesske might not have immediately considered his alma mater except for the strong reputation of BU’s School of Medicine. He knew he could give to a national health organization, but this MBA-holder knows a little something about return on investment. As he puts it, “A very successful mutual fund manager once said, ‘Invest locally—it’s what you know best and it’s easy to keep track of progress.’”

In addition to the scholarship, Schiesske has created several bequests, including a stroke fellowship named for his mother and a geriatric fellowship named for his father. He aims to further research and improve the odds for those who someday will suffer the same diseases and medical struggles his parents experienced.

Thanks to Robert Schiesske’s generosity, these memorials will carry the names of Victor and Alice in perpetuity, reminding future recipients to work hard, never give up, and be generous, curious—and unforgettable.

www.bu.edu/supportingbusm

Middlesex District Medical Society Endows Emergency Fund for Medical Students

BUSM is the beneficiary of a $100,000 contribution by the Middlesex District Medical Society as part of an effort to establish endowed funds at all of the medical schools in Massachusetts to benefit medical students during an unanticipated financial emergency. The endowed funds at the four medical schools will be called the “Middlesex District Medical Society Student Emergency Fund.”

Barry M. Manuel, MD, secretary/treasurer of the Middlesex District Medical Society and BUSM associate dean and professor of surgery, reported that for years the district has been contributing funds to Massachusetts medical schools to help meet the unanticipated financial needs of medical students. “Our district felt we had the necessary funds to make a major commitment to our medical students,” Manuel said. “It is our hope that others will see this as an important safety net for our medical students and contribute to these funds.”

The Middlesex District Medical Society is a component of the Massachusetts Medical Society, the commonwealth’s professional association of physicians and medical students.

“The generosity of the Middlesex District Medical Society will assist medical students at a crucial, and often urgent, juncture in their lives,” said Dean Karen Antman, MD. “We are grateful for the Society’s considerable foresight of the unanticipated financial needs of our students.”

The generosity of the Middlesex District Medical Society will assist medical students at a crucial, and often urgent, juncture in their lives, said Dean Karen Antman, MD. “We are grateful for the Society’s considerable foresight of the unanticipated financial needs of our students.”

Thanks to Robert Schiesske’s generosity, these memorials will carry the names of Victor and Alice in perpetuity, reminding future recipients to work hard, never give up, and be generous, curious—and unforgettable.

www.bu.edu/supportingbusm

Barry M. Manuel, MD
DEAR FRIENDS,

Two of the School of Medicine’s highlight events occurred in May: Alumni Weekend and Commencement. Alumni Weekend was a great success, with many reunions from classes ending in 3 and 8. The 25th reunions, the Class of 1988, and 50th reunions, the Class of 1963, were well represented indeed.

One of the Alumni Weekend highlights was the “Campus Experience” program we developed to give alumni a taste of what it is like to be a current BUSM student. Faculty members spoke of the new tools being used to enhance education, and a panel of students gave presentations about other learning activities at BUSM that add to their overall experience. We were also happy to hear alumnus Jim Brust ’68 give a truly informative talk on the history of the School of Medicine. An amateur historian with a treasure trove of facts and photos, Dr. Brust wonderfully exemplifies our multitalented alumni community.

Commencement showcased the tremendous quality of BUSM students and our outstanding faculty. It is an event of ritual as well as a joyful and spontaneous experience. As associate dean for alumni affairs, I am a program participant; I personally present each graduate with a welcome packet and congratulate them on their graduation—and on becoming our newest alumni. All of the student speakers for both the GMS and MD/PhD ceremonies noted the rigor of their education as well as the impressive support they received during their years here that helped make their achievements possible. You will be pleased and proud to know that the emphasis on caring for patients remains the center of a BUSM education.

With the close of one academic year and the start of the next one soon to come, BUSM continues to be an institution of extraordinary education and research as well as a community of caring and connection.

Best regards,

Jean E. Ramsey, MD ’90, MPH ’08
Associate Dean for Alumni Affairs
Associate Professor, Ophthalmology and Pediatrics
Vice Chair of Education and Program Director

In April, Thomas Insel, MD, presented a prestigious TED Talk on the topic of “Toward a New Understanding of Mental Illness.” A Class of 1974 graduate and a renowned psychiatrist and neuroscientist, Insel is director of the National Institutes of Mental Health (NIMH). Noting that early detection and early intervention have greatly reduced the mortality and morbidity rates of major chronic illnesses such as cancer, heart disease, and stroke in the past two decades, Insel proposes that mental illnesses be treated as any other chronic condition. Major mental disorders like schizophrenia, bipolar disorder, depression, and obsessive-compulsive disorder start very early in life, with 50 percent afflicted by age 14 and 70 percent by age 24. Insel suggests that by 10 percent of behavioral problems, thus opening up a new framework for understanding mental illness; changes in the brain are manifest years before behavior changes. For the full talk, go to www.ted.com/speakers.

Thomas Insel ’74, NIMH Director, Gives TED Talk

In April, Thomas Insel, MD, presented a prestigious TED Talk on the topic of “Toward a New Understanding of Mental Illness.” A Class of 1974 graduate and a renowned psychiatrist and neuroscientist, Insel is director of the National Institutes of Mental Health (NIMH). Noting that early detection and early intervention have greatly reduced the mortality and morbidity rates of major chronic illnesses such as cancer, heart disease, and stroke in the past two decades, Insel proposes that mental illnesses be treated as any other chronic condition. Major mental disorders like schizophrenia, bipolar disorder, depression, and obsessive-compulsive disorder start very early in life, with 50 percent afflicted by age 14 and 70 percent by age 24. Insel suggests that by 10 percent of behavioral problems, thus opening up a new framework for understanding mental illness; changes in the brain are manifest years before behavior changes. For the full talk, go to www.ted.com/speakers.

More than 500 School of Medicine alumni and their guests came back to the Medical Campus on May 3 and 4 to attend the School’s annual Alumni Weekend, some for the first time in more than 60 years. After a campus welcome and Grand Rounds, alumni listened to a group of faculty members and medical students discuss new instructional technology and its impact on the experience of current medical students at BUSM.

Deborah Vaughan, PhD, professor of anatomy and neurobiology and assistant dean for admissions, shared how BUSM is using technology that is changing the way students learn today. “It is often said that technology isolates students, and what we are doing here at the medical school is making sure that we take advantage of the technology to help the students work in
Lectures are recorded and presented online for students who miss class, and can be used as a resource to clarify material.

“Teams,” said Vaughan, this year’s winner of the Metcalf Cup and Prize for Excellence in Teaching. Vaughan demonstrated how students and faculty use the online learning management system Blackboard to share educational resources. Laptops are used during class, to take exams, and in place of microscopes in the lab. Lectures are recorded and presented online for students who miss class, and can be used as a resource to clarify material. She highlighted technological tools for clinical training including robotic teachers—affectionately called SimMan and Friends—that simulate patients and are programmed for a variety of situations, including emergency care, so students can practice their clinical skills.

“When I got here I thought I was going to spend every second of my life studying,” said Mauro Caffarelli, a second-year student at BUSM. “It didn’t turn out that way. The way we learn here is tremendously efficient.”

Doug Hughes, MD, associate dean for academic affairs,
also explained plans to expand the medical school curriculum to a global platform by implementing a third-year pediatric clerkship option for BUSM students in the US Virgin Islands, which began this June. “We have been chosen by the AAMC (Association of American Medical Colleges) to pilot a new global program, the Global Health Learning Opportunity,” said Hughes. “This program will help facilitate our fourth-year students doing electives globally and will allow fourth-year medical students from other countries to take electives more easily at BUSM. Our students can choose from 15 international medical schools in their fourth year, and we will be bringing international students to our campus each year. The goal is to create a diverse, rich, global experience for our students both in travel and also on campus.”

In addition to reunion dinners and the annual meeting and banquet of the alumni association, BUSM alumni attended a presentation on BUSM’s extraordinary history. Tours of the Medical Campus highlighted new classrooms, expanded research facilities, the Alumni Medical Library, and the new medical student residence. The weekend ended in a night of dinner, dancing, and award presentations, recognizing Robert Golden ’79 and Andrew Levey ’76 as 2013’s Distinguished Alumni.
11. MEd Alumni Association President Katherine Phaneuf and Class of 1968 classmates enjoy their 25th reunion.
12. Burt Portmutter ’63 and his wife, Bobbi, celebrate his 50th reunion and enjoy dancing at the Alumni Banquet.
13. Lisa Scheid Ramsey ’79 hugs Serena Philips, MD.

1945 • Harold K. Miller of Laguna Woods, California, on January 9, 2013, at the age of 97. A general surgeon in the Boston area for many years, he served at Memorial University Medical Center in Savannah and was the chief of surgery at Bethesda Naval Hospital in New York. He was a captain in the US Army during World War II. Predeceased by his wife, Mary, his daughter, and his four grandchildren.

1945 • Joseph Alpert of Savannah, Georgia, on May 27, 2012, at the age of 90. A retired vascular surgeon, he served at Memorial University Medical Center in Savannah and was the chief of surgery in the US Army during World War II. Predeceased by a son, he leaves his wife of 52 years, Jane, two daughters, four sons, two stepdaughters, eight grandchildren, three step-grandchildren, and four great-grandchildren.

1949 • Leonard Alexander of Northfield, Minnesota, on April 4, 2013. He practiced internal medicine and gastroenterology for 45 years and was a professor of medicine at the Mayo Clinic. He was a captain in the US Army during World War II. Predeceased by his wife, Mary, his daughter, and his four grandchildren.

1950 • George J. Tolle of Naples, Florida, on March 27, 2013, at the age of 87. An obstetrician-gynecologist, he practiced in Natick, Massachusetts, for 30 years. In Naples, he enjoyed providing medical care to the elderly of Collier County at the Senior Medical Center. He leaves his wife, Jo-Ann Rodman, three daughters, a son, and a granddaughter.

1952 • Arnold Abrams of Lexington, Massachusetts, on December 27, 2012, at the age of 85. A psychoanalyst, he spent more than 50 years in public service, working for the Commonwealth of Massachusetts as a regional administrator and as an assistant superintendent of the Department of Mental Health, and holding positions with the Veterans Administration and the Social Security Administration. He practiced at the University of Massachusetts Medical School, Worcester, Massachusetts, and at the University of Massachusetts Amherst. He leaves his wife, his three daughters.

1955 • David Hutchison of Aztec, New Mexico, on September 2, 2012, at the age of 78. A psychiatrist, he was predeceased by his wife, Elizabeth O’Rourke Hutchison, and leaves his significant other, Terren Kennedy, two daughters, six grandchildren, and eight step-grandchildren.

1957 • Gary M. Tanguay of West Boylston, Massachusetts, on April 21, 2013, at the age of 61. An internist and generalist, he was an assistant professor of medicine at the University of Massachusetts Medical School and served as an outpatient preceptor for the Internal Medicine Residency program. He also served on the board of trustees at Central Mass Health Care and as a medical director of Sunbridge Worcester and Clark Manor Health Care. He leaves his wife of 38 years, Marilyn S. (Sawinski) Tanguay, a son and a daughter, and his parents.

1965 • Susan Ferrante of Naples, Florida, on May 25, 2012, at the age of 41. A neurologist, she established the Women’s Neurology Division within the UPMC Department of Neurology, one of the first in the country. She published numerous papers and book chapters, and lectured nationally on women’s neurological issues. She leaves her husband, Dr. Robert J. Ferrante, a daughter, a stepdaughter, and her mother and father.
Thanks to our donors’ forward thinking, we can move ahead.

We can:
- develop more effective treatment strategies
- support more cutting-edge research
- serve our patients—and the world—more effectively

The Boston University Planned Giving team can help you create a philanthropic strategy that fits your unique interests and financial situation. Once you know all the possibilities, you may discover that you can have a greater impact than you ever imagined.

Ready to start the conversation? We want to hear from you.

Please contact the BUSM Development Office at busmdev@bu.edu or 617-638-4570, or visit www.bu.edu/supportingbusm.
Nationwide coverage of the Boston Marathon bombings featured stories of the critical care BUSM doctors at Boston Medical Center provided to victims of the explosions.