MAKING AN IMPACT ALL ACROSS THE COMMONWEALTH
Every fall, when we welcome a new class of students to our gleaming campus, it is both the fulfillment of one dream and the dawn of another. Whether entering medicine, biomedical research or nursing, the students’ eager curiosity about what their futures will hold echoes what I imagine our founders wondered, too, when those visionaries stood aside the lake just half a century ago and planned to create a campus that would change the future of medicine.

Today, UMass Medical School embodies a deep commitment to improve the health and well-being of the people of the commonwealth and the world through pioneering advances in medical education and biomedical research. We stand apart from our peers by virtue of the fact that half of our graduates choose to stay in Massachusetts.

We are an integral component of the five-campus UMass system and the state’s only public medical school. While the heart of our campus beats strongly in Worcester, our students, staff and faculty are making a difference in communities from the Berkshires to Cape Cod.

Our commitment to the people of the commonwealth reveals itself in countless ways, many of which I hope you’ll take a moment to read about in greater depth in this magazine. It is reflected in our dedication to the region’s public health; in our support of K-16 STEM education; in our varied student-led community service initiatives; and in our $1.575 million investment in Worcester’s One City – One Library.

We are proud to be a part of the very fabric of our community.

With our founding commitment to primary care, our long-standing commitment to groundbreaking discovery and our complete commitment to quality and integrity in all our mission areas, we are a commonwealth resource that is here for a reason.

Chancellor Michael F. Collins, MD

On the cover: Cassidy Mellin, SOM ’18, is one of the students at UMass Medical School who run the Farm to Health Center Initiative in Worcester. The program distributes fresh fruits and vegetables to food insecure families at Family Health Center of Worcester.
Whether bringing comfort to sick children, helping middle school students discover a love for science or giving compassionate care to the homeless, students at UMass Medical School are deeply involved in the Worcester community through a broad range of student programs. Alongside their faculty mentors, our students are passionate about making a difference.

**MAKING A DIFFERENCE**

Medical student Justin Pespisa, SOM ’16, launched a Best Buddies chapter at UMass Medical School to promote friendships between adults with intellectual disabilities and aspiring doctors and advanced practice nurses, and to reinforce the importance of compassion in health care. “Best Buddies is a program that I’ve been involved in ever since high school and when I got to UMass, they didn’t have a chapter here and I thought they really should,” said Pespisa. “It’s particularly important for people going into health care to really view people with intellectual disabilities as our equals. Viewing them as equals will lead to more compassion and empathy when caring for them.”

Pespisa and chapter co-founder Victoria Winslow, SOM ’18, reached out to Seven Hills Foundation of Worcester to help find interested adults in their community who might enjoy friendships with the students. Originally hoping to start with a handful of students and community members, Pespisa and Winslow said they were delighted by the nearly two dozen pairs who signed up. They now have nearly four dozen students paired with friends.

John Lauria, who is buddies with Salim Zerriny, SOM ’16, said their favorite activity is going out to dinner. “He means a lot to me, like a good friend,” Lauria said at a recent picnic organized by the UMMS students. “He can help me with different things in life, so I think it’s good.”

UMass Medical School students provide new foster children some comfort through the Kelley Backpacks program.

Every month at the University campus of the UMass Memorial Medical Center, children are taken into protective custody by the Massachusetts Department of Children and Families (DCF) due to concerns about abuse or neglect. Although these children are being removed from dangerous and unhealthy living environments, the separation from their families is traumatic nonetheless. These children are often discharged from the hospital into emergency foster care with only the clothing on their backs. Until they are placed into a longer term foster home, they have very little to call their own. The goal of Kelley Backpacks is to make this transition a little more comfortable for the children and their foster families.

The Kelley Backpacks program was started in 2011 by Heather Busick, MD ’12, then a fourth-year medical student. Students in the Kelley Backpacks program aim to provide a backpack with age and gender appropriate supplies for each child discharged into DCF custody at the University campus of UMass Memorial Medical Center. The bags are loaded with clothing, books, stickers, games, hair accessories, toothbrushes, pajamas, blankets and stuffed animals. More than 100 bags have been distributed to children in need since the program was launched.
The Sidekicks program matches medical students with patients receiving care at the UMass Memorial Children’s Medical Center. By pairing a pediatric patient with a student, usually in his or her first year, Sidekicks creates an opportunity for the patient to build a supportive relationship outside the usual family or medical setting. It also creates opportunities for students to learn from situations they may not be exposed to in the classroom and to build relationships with these children that will prepare them to become better physicians.

For example, Shaun Dean, MD ’12, said one of the most important things he came to understand through his young companion is the toll a child’s illness takes on the family. “I saw how hard it was for the family . . . the travel and gas expenses; trying to find a wheelchair and a parking space,” he said. “And the waiting. Waiting, waiting, waiting.”

Tricia Campero, whose son Christian receives treatment for T-cell acute lymphoblastic leukemia at UMass Memorial, credits her son’s Sidekick, Walter Palmer, SOM ’16, with changing the way her son feels about going to the hospital. “Christian was always scared to come here, but that’s changed,” Campero said. “Now he sees that it is an opportunity to spend time with Walter. Ninety-nine percent of the time, Walter shows up when we let him know that Christian will be here. It has been an amazing pairing.”

According to pediatric oncologist Naheed Usmani, MD, co-founder and faculty adviser for Sidekicks, the program has 67 pairs of students and children this year.

Crystal’s Story

Crystal, who is Chinese, was born in the United States to parents who moved there from their home country to pursue better educational opportunities for themselves and their children. After graduating from college, Crystal went to medical school, and now practices medicine in her community. Her son, Alex, has severe autism.

“Alex loves to go to the hospital,” Crystal said. “He is so happy when he sees the doctors and the nurses. He has a special bond with one of the nurses. And when he goes to the hospital, he always asks me ‘When can I come back?’”

Alex’s Sidekick, Crystal said, has a special bond with him as well. “She is so patient. She always asks me how I am doing, and she checks on me after I have given birth,” Crystal said. “It has been very nice to have someone who is willing to listen and who will take the time to talk to me.”

The program aims to educate physicians and staff to screen patients at the Family Health Center of Worcester for food insecurity and refer them to the appropriate community support programs. Each week during the growing season, the program provides patients with high quality, fresh produce free of charge. The program also provides access to education about healthy cooking, nutrition and community food security resources.

Class of 2017 School of Medicine students Elizabeth Rosen, Kathryn Bailey and Rachel Er idol started the Farm-to-Health Initiative in 2014. A total of 6,972 pounds of vegetables were delivered to patients at Family Health in that first summer, as an average of 116 families collected vegetables each week. A survey of patients found 52 percent of recipients had worried about running out of food in the previous month.

The Farm-to-Health Initiative, launched by UMass Medical School students, is a partnership between UMass Medical School and the Community Harvest Project aimed at reducing rates of food insecurity by increasing patient access to and consumption of fresh produce. The program provides patients with high quality, fresh produce free of charge. The program also provides access to education about healthy cooking, nutrition and community food security resources.

The Worcester Free Clinic Coalition oversees five clinics that offer health care services to underserved and uninsured populations in the greater Worcester area. The Epworth Clinic, St. Anne’s Clinic, Greenwood St. Clinic, India Society of Worcester Health Soup and Akwaaba Health Initiative provide free health care on different nights of the week.

All clinics are staffed by volunteer physicians, physician’s assistants, nurses and social workers. UMass Medical School students in medicine and nursing help meet the enormous—and growing—need for services. In recent years, innovative student-driven projects have helped the free clinic coalition improve access and effectiveness by creating a platform for electronic medical records; implementing tracking systems for medications and prescriptions; and tracking referrals.

In addition to the opportunity to be mentored in clinical skills such as taking a patient history, performing portions of the physical exam, and phlebotomy, what keeps student volunteers coming back is the experience of making an immediate difference in the lives of patients.
TALENT PIPELINE:
THE UMass Med School Connection to Health Care Careers

Now serving his residency in a sought-after specialty, African immigrant and 2015 School of Medicine graduate Achankeng “AC” Afiadata, MD, launched his medical career years before becoming a medical student. While still attending high school and college, Dr. Afiadata took advantage of UMass Medical School’s “talent pipeline” of programs that bring students who are underrepresented in STEM professions and/or from economically disadvantaged groups into the health care workforce.

Afiadata participated in the Worcester Pipeline Collaborative at Worcester North High School, and in the Summer Enrichment Program while he was an undergraduate at UMass Dartmouth. Since then he has paid it forward by volunteering as a mentor and tutor for the Pipeline Collaborative.

The UMMS Office of Outreach Programs leads the Worcester Pipeline Collaborative in partnership with the Worcester Public Schools to prepare, educate and train K-12 students for the region’s health care and science oriented economy, with especially intensive involvement at Worcester East Middle, Worcester Technical High School and North High School, home to the city’s Health Sciences Academy. Since its inception in 1996, students have participated in Worcester Pipeline Collaborative activities including mentoring, job-shadowing, tutoring, clinical shadowing, research internships and after-school science programs.

The Office of School Services and Outreach Programs also hosts three summer programs for high school and college students. All programs provide stipends to the participants.

With its goal to increase the number of individuals from underrepresented and disadvantaged backgrounds in health care and science careers, the annual High School Health Careers program is a four-week, tuition-free educational and residential summer program that exposes Massachusetts high school sophomores and juniors to a variety of careers in medicine, biomedical sciences and biotechnology at a formative stage in their academic development.

The Summer Enrichment Program, also a tuition-free four-week residential program, emphasizes practical as well as academic preparation for college sophomores and juniors interested in entering medical school and other health professions.

The Combined Summer Undergraduate Research Opportunity is a non-credit, 10-week, structured research program that encourages college students to consider biomedical research as a viable career choice. With funding from the National Institute of Health and UMMS Office of Research, each student conducts laboratory research with an investigator serving as a mentor, role model and advisor.

Paid internships offer career exploration along with summer employment. UMass Medical School embraces the opportunity to support diverse communities by providing work and volunteer experiences for local youth. These experiences help young people learn meaningful skills and contribute to building the workforce of the future.

UMMS has created meaningful job opportunities for Worcester teens in partnership with the citywide Building Brighter Futures with Youth initiative, a strategic undertaking launched by the United Way of Central Massachusetts to help youth navigate successfully to adulthood. Through the community-based program, UMMS offers employment to Worcester public high school students along with classes to improve math, science and basic business skills. Working in part-time positions for eight weeks during the summer, the students gain exposure to the business of health care in a variety of departments and offices.

In 2014 the Diversity and Inclusion Office launched the Emerging Professionals Summer Internship Program for college students. The paid 10-week internships give eight talented college students from underrepresented backgrounds the opportunity to explore potential administrative careers in an academic health science center.
The interprofessional Center for Experiential Learning and Simulation is the medical school’s hub for excellence in education, training, research and innovation. A campus-based, community-wide resource, iCELS brings together teachers and learners, forging new partnerships in a community of simulation talent and expertise at UMass Medical School and beyond. High fidelity simulation provides the opportunity for realistic clinical experiences in a controlled setting. The use of interactive mannequins, task trainers and clinical instrumentation allows for deliberate practice in an ideal learning environment to develop skills mastery and enhance team-based communication; and deliver high quality, accredited continuing education opportunities to health care providers to enhance their professional development.

When UMass Medical School professor Craig C. Mello won the Nobel Prize in 2006, Worcester became known as a powerhouse of biomedical innovation. The region had long enjoyed a rich history of applied science and industrial development. UMMS has put the city on the map for biomedical science and education, as well. Discoveries at UMMS will change the landscape for the treatment of disease; the effective delivery of health care; the way that doctors, nurses and scientists learn; and the development and manufacture of lifesaving pharmaceuticals and biologics, with an impact on human health—and economic development.

Innovation is a byword at UMass Medical School, where a rich history of educational innovation and biomedical research discovery creates an atmosphere where faculty, staff and students are committed to new ways of thinking and to creating new opportunities for growth, research and development.

A key initiative is the Innovation Institute, a multidisciplinary institute focused on applied research and innovation that complements academic research and that creates value for government, industry, academic institutions, foundations and other partners. The Innovation Institute’s goal is to increase opportunities for engagement with a wide array of potential partners, translating those opportunities into mutually beneficial relationships, and effectively moving research outcomes from campus labs into society. Led by Brenda O’Leary, PhD, a scientist and former venture capitalist, the Innovation Institute is dedicated to propelling the medical school’s long history of research excellence by transforming science and technology into applied research and innovation. Learn more at www.umassmed.edu/ibd.

MassBiologics, with locations in Boston and Fall River, is the only non-profit, FDA-licensed vaccine manufacturer in the nation. Historically a leader in immunization, today MassBiologics provides 15 percent of the Td vaccine used in the United States, and is focused on translating basic research ideas into new vaccines and biologics for commercialization and distribution worldwide. Voyager Therapeutics, a Cambridge-based biotech startup that recently received $45 million in funding from Third Rock Ventures, entered into a strategic collaboration with MassBiologics in 2014 to establish scalable processes for manufacturing gene therapy products at MassBiologics’ South Coast Manufacturing Center in Fall River. Learn more at www.umassmed.edu/massbiologics.
Q: The term public health seems so broad, incorporating initiatives as varied as gun buybacks and food deserts. What does public health mean to you?
A: You’re trying to define ways of making the public at large smarter about their health and more able to access good, healthy choices and to diminish the amount of preventable illness or injury out there so we can keep the community happier, more productive, healthier, and in a way, to reduce the amount of rescue care that we do.

Q: How did you choose a career in public health?
A: I came to this in a very circuitous way. I got to public health through injury prevention because I became very frustrated that the approach to trauma care was becoming too much like a M.A.S.H. unit. We weren’t really looking at what was getting people injured in the first place.

Q: How does the DPH seek and incorporate public input?
A: During my first year leading the DPH I learned a tremendous amount because, fortuitously, the community health assessment (CHA) was underway. We surveyed 2,700 community members of all ages and ethnicities and partnered with representatives from 93 community organizations, gathering a ton of data that provided insight into how we needed to change some perceptions. For instance, a lot of people came to the table saying violence was a huge problem and, to some extent, I agreed because I think the specter of violence is a huge part of people’s psyche and it affects their behavior. But, truth be told, our trauma center data showed that we had the lowest penetrating trauma rate of any city in New England. We had a disconnect. The parent who wanted to have their child to be active would say, ‘I want my kid to be out there playing but it’s not safe in the park,’ so I go with them, but when I go with them I don’t have time to cook a meal, so I get fast food.” The truth is, people were much more likely to be in a motor vehicle related crash, in a fall as an elderly person, or in a fall out of a window as a little kid, than they were to get shot. So that’s how the whole community health improvement plan (CHIP) was crafted. It had tons of community input, it had tons of expert input but in the end we came up with five domains, (see sidebar on page 12) believing that if we could make a dent in all five we could reach our stated goal of being the healthiest city in New England by 2020.

Q: That is a bold aspiration. Are we on track?
A: We have made good progress. There’s been a paradigm shift. Now there’s awareness that those goals aren’t just drivers of public health, they’ll also drive economic development, making our community more attractive to outside companies and young people. We’re adding bike lanes and working to make the parks safer and friendlier.

Q: What is it that keeps you so motivated and invested in the community?
A: When I first came to Worcester in 1986, what attracted me was the spirit of the medical school being so new and different. I had trained at much older, more established programs, where the students were kind of afterthoughts. That was completely different here. I’ve just bonded with this educational philosophy, and it has been so exciting to build an academic public health department that can function as a living laboratory. We have all these great academic institutions in town, many of which have service or community learning requirements for their students. What we thought we would create with this CHIP is a list of “shovel-ready” projects, so that a student could, with the right kind of faculty supervision at their home base, get what they need for their academic advancement but also help the DPH, in a strategic way, advance our causes in the CHIP.

Q: How has the DPH evolved?
A: The recession of 2008 forced us to be leaner, smarter and more effective with fewer resources. We have regionalized the Worcester DPH to now include Grafton, Holden, Leicester, Milbury, Shrewsbury and West Boylston, allowing us to all work together to affect change on a larger scale. So, our goal of making Worcester the healthiest city in New England by 2020 has evolved to a new slogan: the healthiest you, in the healthiest city, in the healthiest region by 2020. These alignments are wonderful, and we’re fortunate to have a cadre of passionate colleagues who believe in the whole process and in the possibilities, which I really do feel are endless.
UMASS MEDICAL SCHOOL FOCUSED ON HELPING TO REBUILD THE HEALTH CARE SYSTEM IN LIBERIA

UMass Medical School has played a significant role in helping the people of Liberia restore and expand its fragile health care system, decimated first by civil war a decade ago and then by last year’s Ebola epidemic. When the West African country emerged from strife in 2003, it had only 50 practicing physicians for its more than 3 million people, and its medical education system, desperately needed to train and produce more health care workers, was in ruins. “For years, colleagues at our medical school have nurtured relationships in Liberia that have helped to improve patient care and health education in that country,” said Chancellor Collins. “We have practiced there on a regular basis; our residents have gone over; even our librarians are engaged in improving the library at the University of Liberia. “The commitment so many of our colleagues have made to improving the health and education of people so far away reflects the core mission of our institution to advance the health and well-being of not only the people of the commonwealth, but of the world.”

Liberian President Ellen Sirleaf Johnson traveled to Worcester in 2012 to accept an honorary degree from Chancellor Collins and to thank the medical school community for the work it has done to improve the health and well-being of the people of Liberia. While in Worcester, President Sirleaf participated in a community event that welcomed Worcester’s Liberian community to the medical school, further emphasizing a relationship with a long history and important future for the African country. When the Ebola outbreak struck Liberia last year, UMass Medical School again stepped up to help, playing an important role in restoring critically needed basic health care in Liberia by reopening hospitals overwhelmed by the virus outbreaks.

Richmond Sacra, MD, assistant professor of family medicine & community health, became infected with Ebola while treating patients in Liberia. He survived the disease and returned to Liberia to help treat patients.
IMPROVING LIVES OF ADULTS WITH MENTAL ILLNESS

The ability to earn a living is a major life goal for most adults, including those who, like Jack Grillo, live with major mental illnesses. “My steps to recovery from bipolar disorder can be retraced in terms of work,” Grillo wrote in an issue of Psychiatric Services, a journal of the American Psychiatric Association. Now employed part-time at UMass Medical School’s Center for Mental Health Services Research, Grillo credits the transitional employment program of Worcester’s Genesis Club with helping him achieve his employment goals.

Since 1988, the Genesis Club has supported a robust employment program for its members, who boast a 47 percent employment rate, compared to the national average of 8 percent for adults with mental illness. And for nearly as long, UMass Medical School has been providing services at UMass Medical School, works closely with Worcester’s Genesis Club to help find employment for people with mental illnesses. Chancellor Callina recognized his efforts with the Chancellor’s Award for Excellence in Community Service.

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Bill Tsaknopoulos, director of auxiliary services at UMass Medical School, helps improve the lives of adults with mental health issues. Through his work with the Genesis Club, he has helped hundreds of people find employment.

What the medical school tries to do is... give them the opportunity to come back into the world and the workforce.

It can be life-changing when individuals with disabilities who have been overlooked obtain jobs with employers that value a diverse and talented workforce. Work Without Limits, a program of UMass Medical School’s Commonwealth Medicine division, has made increasing those opportunities, and the number of inclusive employers, its core mission.

“I feel like this job was such a godsend,” said Neil McGrath of the position he secured in October 2013 as a member services associate for Blue Cross Blue Shield of Massachusetts. McGrath, paralyzed from the chest down, said Work Without Limits’ career fairs and staff advocacy led to his first full-time job offer since becoming disabled 17 years ago.

A statewide network of employers and community partners, Work Without Limits is successful because of its vast reach. It created the now independent Central Massachusetts Employment Collaborative, operates a membership-driven B2B network that enables businesses to learn from one another, hosts the annual Raise the Bar Hire! conference and career fair, educates people with disabilities about the impact of working on public benefits and offers customized education sessions for employers.

“Work Without Limits is a convener, and they clearly are bringing critical stakeholders together. Together with their help, we are moving forward effectively and efficiently,” said Laura Stout, president of the Empowering Abilities Employee Resource Group at Blue Cross Blue Shield of Massachusetts, a member of Work Without Limits’ Business Advisory Council.

State Street has been involved with Work Without Limits since its creation in 2008, and continues to benefit from that affiliation, said Richard W. Curtis, State Street’s vice president of Workforce Development.

“We are committed to significantly increasing the employment rates of people with disabilities in our state,” said Cathy Petkasidou, senior program director at Work Without Limits. “It’s a fallacy that people with disabilities can only do low-level jobs, that they can only do certain jobs, that they get sick a lot. Those all are myths.”
CARNEGIE DESIGNATION

In 2008, UMass Medical School became the first medical school in the nation to be recognized by the Carnegie Foundation for the Advancement of Teaching with its Community Engagement Classification. This year, the classification was renewed until 2025, recognizing the “excellent alignment among campus mission, culture, leadership, resources and practices that support dynamic and noteworthy community engagement.” UMMS is now one of three medical schools so recognized. Notable examples include maintaining affordability, commitment to primary care education, outstanding instruction in community health and culturally appropriate care, and community-responsive educational offerings in health care and research.

“Our commitment to community engagement has been strengthened and expanded since our initial Carnegie classification in 2008,” said Chancellor Collins. “The ways in which our public service mission manifests itself have evolved from an initial focus on providing affordable medical education and improving access to primary care to our current diverse and global orientation. But whether the community with which we engage is around the corner or across the globe, open communication and dialogue are central features of our initiatives.”
True to our founding mission, **MORE THAN HALF OF OUR GRADUATES PRACTICE PRIMARY CARE, HELPING TO MEET A CRITICAL NEED.**

The Association of American Medical Colleges projects that by the year 2025 the United States will face a shortage of up to 90,000 physicians.

**UMass Medical School COMPRIZES THREE GRADUATE SCHOOLS:**

The School of Medicine, the Graduate School of Biomedical Sciences and the Graduate School of Nursing.

**WE ARE IN THE TOP 2%**

of NIH funded research institutions, with federal and private research grants and contracts exceeding $240 million in FY14.

**OUR TUITION & FEES MAKE US THE MOST AFFORDABLE MEDICAL SCHOOL IN THE NORTHEAST**

Consistently ranked **IN THE TOP 10%** of U.S. medical schools for primary care by *U.S. News & World Report*

**OUR ESTEEMED, WORLD-CLASS FACULTY INCLUDE A NOBEL LAUREATE, A BREAKTHROUGH PRIZE RECIPIENT, LASKER AWARD WINNER, HOWARD HUGHES MEDICAL INSTITUTE INVESTIGATORS AND FIVE MEMBERS OF THE NATIONAL ACADEMIES**

UMASS MEDICAL SCHOOL WAS THE FIRST MEDICAL SCHOOL IN THE NATION TO BE RECOGNIZED FOR COMMUNITY ENGAGEMENT by the Carnegie Foundation for the Advancement of Teaching with its Community Engagement Classification.

**Did you know?**

*Our esteemed, world-class faculty include a nobel laureate, a breakthrough prize recipient, lasker award winner, howard hughes medical institute investigators and five members of the national academies.*