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Middle and high school students flocked to WCMC-Q to take part in Medicine Unlimited, the college’s annual community outreach event.

Students and their families were welcomed to WCMC-Q to tour the college’s world-class facilities, meet with current students, faculty members, researchers, and staff and learn about studying for a career in medicine.

The visiting students also had the chance to visit stalls to view and take part in a series of interactive demonstrations as faculty members used models and simulations to describe key scientific principles and present the anatomical features of structures such as the heart, eyes and skeleton.

The event began at Hamad Bin Khalifa University’s (HBKU) Student Center, with students and their families transported by shuttle bus to WCMC-Q.

Dr. Javaid Sheikh, dean of WCMC-Q, gave a presentation to explain the college’s unique curriculum and its contribution to the goals of Qatar National Vision 2030.

He said: “It is my great pleasure to see so many of you here today to learn more about the intellectual stimulation a career in medicine can offer to you, and what you can offer to your community by pursuing such a career. In line with Qatar National Vision 2030, we want to help you to unlock your human potential and play a part in developing the knowledge-based society of the future.”

Students who are accepted to WCMC-Q join a six-year cohesive medical education program. The college awards its graduates a U.S.-accredited M.D. degree, and is the only university outside the United States to do so. The college also offers a one-year Foundation Program that equips high school graduates with the knowledge of English,
math and the basic sciences they need to tackle the six-year medical program.

So far the college has produced 181 doctors since it began operations in 2002. Previous graduates have gone on to gain places on residency programs at elite institutions such as Johns Hopkins Hospital, NewYork-Presbyterian Hospital, Cleveland Clinic and Hamad Medical Corporation, among many others.

This year, Sidra Medical Research Center participated for the first time, along with Hamad Medical Corporation and the Qatar Diabetes Association, showcasing their programs and simulations to prospective students and parents. Dr. Rachid Bendriss, assistant dean for student recruitment, outreach and foundation programs, said: “The middle and high school students have really impressed us with their enthusiasm and their interest in medicine and the program that we offer here.

“Watching the young people of Qatar eagerly participate in the Medicine Unlimited event and getting inspired to pursue their dreams of becoming the nation’s future healthcare contributors is really heartwarming. It is evident today, as we host such activities, that these students understand the value of our education and are set to achieve their dreams if they work hard and dedicate themselves to their studies. Meeting our current students, seeing the facilities that we have here and interacting with our faculty is an excellent way to show these young people that if they aspire to become doctors, there is a clear path that they can follow to make that happen.”

The event attracted hundreds of visitors and concluded with an interactive quiz activity that contributed to a successful community outreach event.
Students take a stride against breast cancer

Scores of people from across the Qatar Foundation community joined a group walkathon to raise awareness of breast cancer issues organized by two WCMC-Q student groups.

As part of the international Breast Cancer Awareness Month movement, the Women’s Health Interest Group and Beyond White Walls invited walkers to convene at the entrance to WCMC-Q and join them in a walk around the grounds of Education City to “take a stride against breast cancer”.

The event in October also gave attendees the chance to learn more about breast cancer from information booths run by WCMC-Q faculty and Qatar National Cancer Society, and to engage in dialogue with one another to share knowledge about the disease.

Breast cancer is the most common cancer among women worldwide, according to the World Health Organization, which estimated that approximately 508,000 women around the globe died as a result of the disease in 2011. However, many breast cancers can be successfully treated if caught early and studies have shown that following healthy lifestyle habits may reduce the risk of suffering from the disease.

Early detection is vital to improve breast cancer outcomes, so encouraging women to self-examine and to have regular mammograms is extremely important. For these reasons, the WCMC-Q student groups Beyond White Walls and the Women’s Health Interest Group are very keen to encourage dialogue about breast cancer among women in Qatar.

First-year medical student Sarah Khan, president of the Women’s Health Interest Group, said: “The reason we want to raise awareness about breast cancer issues is quite simply because this approach works - raising awareness saves lives.
Early detection and increased awareness play a key role in beating breast cancer.”

Sarah, who co-founded the group with fellow med 1 students Faryal Malick, Fatima Al-Maadid, Sahar Mahadik and Farah Al-Sayyed, added:

“By having the awareness walk, we aimed to encourage more people to take an active role in learning about how this disease can impact them as well as promote the life-saving role they can play in detecting it early on.

“We had a great turnout and I think we managed to educate and encourage a lot of our attendees to learn more about the disease and its impacts.”

For more information about breast cancer and support services in Qatar, visit www.qatarcancersociety.org.
Researchers at WCMC-Q have made exciting new discoveries about the role of calcium in biological processes that underpin almost all aspects of life.

A research project conducted by Dr. Raphael Courjaret, research associate in physiology and biophysics, and Dr. Khaled Machaca, associate dean for research, has shed new light on the complex role played by calcium ions (Ca²⁺), which at the cellular level serve as messengers, ferrying information to different parts of the cell to facilitate key biochemical processes such as fertilization, muscle contraction, transmission of nervous signals and blood clotting.

The research, which used advanced laser microscopy and electrophysiology techniques to reveal a novel pathway for calcium signaling at the intracellular level, has been published in the prestigious biomedical journal *Nature Communications.*

Dr. Courjaret explained: “Calcium is an intracellular messenger that encodes information from the environment into a cellular response. It tells the cell when to move, divide or even die. In other words calcium converts information into a new language that the cell can understand.”

It has long been known that calcium plays a role as a messenger within cells, and that calcium ions can enter cells through membrane proteins known as channels; it is also well known that calcium is able to serve as an intracellular messenger by signaling locally in close proximity to these channels, as well as globally if the ions spread throughout the whole cell. The new work by Courjaret and Machaca, has defined a novel calcium signaling pathway between these two spatial extremes that they call ‘mid-range calcium signaling’.

Dr. Courjaret said: “What we were able to show was a level of sophistication in the way calcium ions are used to distribute information around the cell, which was not previously understood. We found mechanisms that allow calcium ions to travel within an intracellular structure called the endoplasmic reticulum, which acts as a communication hub to distribute Ca²⁺ to a distant effector.”

Dr. Machaca said: “Given the ubiquitous nature of Ca²⁺ signaling, our findings are likely to have broad implications on many physiological and pathological processes. It is gratifying to see significant scientific contributions come out of the generous funding provided to research labs in Qatar by the Qatar National Research Fund (QNRF) and Qatar Foundation (QF), in line with Qatar National Vision 2030.”

The paper, entitled *Mid-range Ca²⁺ signaling mediated by functional coupling between store-operated Ca²⁺ entry and IP³-dependent Ca²⁺ release,* was published in May 2014 and can be found at http://www.nature.com/ncomms/2014/140528/ncomms4916/full/ncomms4916.html. The work described in the paper was funded by a grant from the National Priorities Research Fund of QNRF (NRPR5-474-3-126) and by the Biomedical Research Program program of QF, which supports the research effort at WCMC-Q.
Complementary medicines popular among Arab women

Complementary and alternative medicines are used by almost 40 percent of middle-aged Arabic women living in Qatar, according to a study conducted by Weill Cornell Medical College researchers in Doha and New York.

A survey of 841 women aged 40 to 60 of Qatari and other Arabic nationalities found that in the past 12 months 38.2 percent had used a “complementary or alternative medicine” (CAM) such as a special diet, herbal remedies, physical treatments like acupuncture and massage, homeopathy, traditional Chinese medicine, meditation or folk medicine.

The research, which is the first comprehensive study of complementary and alternative medicine use to be conducted in Qatar, has been published in the World Health Organization’s high profile Eastern Mediterranean Health Journal.

Entitled Use of complementary and alternative medicine among midlife Arabic women living in Qatar, the paper was authored by Dr. Linda M. Gerber, professor of healthcare policy and research at WCMC-NY along with WCMC-Q faculty Dr. Ravinder Mamtani, associate dean for global and public health; Dr. Sohaila Cheema, director of global and public health; and Dr. Mohamud Verjee, associate professor of family medicine.

Dr. Gerber said: “We felt that there had been little previous research conducted about the health-related behaviors and practices of midlife women in Qatar. Our results may inform patients and healthcare providers about the fairly widespread use of CAM in Qatar. The finding that 38 percent of our sample of women between the ages of 40 and 60 had used CAM in the previous 12 months merits more attention since the safety and efficacy of CAM may be of concern. Often patients do not tell their doctors about the about their use of CAM and doctors also often do not ask specifically about non-medicinal or non-conventional therapies.

“We believe it is important to educate and inform patients and providers about the benefits and limitations associated with CAM.”

The participants in the survey were women who had sought healthcare at primary health centers across Qatar. They hailed from many countries.
across the Arab world, including Qatar, Egypt, Jordan, Palestine, Sudan, Lebanon and Syria.

Ms. Ya-Lin. Chiu, formerly of WCMC-NY, Dr. Abdulbari Bener of Hamad Medical Corporation and Dr. Madhuvanti Murphy of The University of the West Indies in Barbados also contributed to the study.

Dr. Mamtani explained that complementary and alternative medicines are in many cases beneficial to the health of patients, but that some have little or no effect and others can be harmful, particularly if they interfere with conventional medications prescribed by a qualified physician.

He said: “It is interesting to see that so many women are seeking out non-conventional medicines. However, it is very important for people to discuss whatever complementary medicines they are taking with their doctors to make sure they are not harmful and that they will not produce any dangerous side-effects when taken in combination with their prescribed therapies. The survey has contributed to an exciting movement towards integrative medicine, in which doctors should work with their patients to coordinate conventional treatments with beneficial complementary medicines to deliver the best possible healthcare outcomes.”

Dr. Sohaila Cheema said: “The findings reveal that complementary medicines are widely used, so it is clearly important that both patients and physicians are aware of the impact of these treatments and that they are able to communicate effectively with one another to coordinate the most effective evidence-based care package. As such, we are looking at some very exciting and promising programs that can be developed to educate both patients and physicians about integrative medicine and the opportunities it offers for improved healthcare.”

The paper is part of a series of studies about the health of women of midlife age in Qatar being conducted by Cornell researchers at WCMC-Q and WCMC-NY with the support of Qatar National Research Fund under the National Priorities Research Program [NPRP 08-467-3-098].

Dr. Mohamud Verjee said: “This paper has contributed extremely valuable new knowledge to our understanding of women’s healthcare in Qatar and it is extremely gratifying to see the study published so prominently.”

Dr. Khaled Machaca, associate dean for research at WCMC-Q, added: “This study will help local physicians and medical institutions better understand the health care needs of midlife women in Qatar and cater their services accordingly. Such studies support WCMC-Q’s vision and ongoing commitment to produce research that benefits the local and regional communities.”
In the first of a new lecture series, Dr. Javaid Sheikh, dean of WCMC-Q said that the college’s Your Health First campaign, run in partnership with the Supreme Council of Health, is providing evidence of effective ways to deliver a preventative healthcare initiative.

Dr. Sheikh delivered a lecture on ‘Developing a framework for an effective population health initiative: evidence from Your Health First’ at the inaugural WCMC-Q Grand Rounds event. As part of the lecture, targeted at healthcare professionals, Dr. Sheikh outlined the college’s ambition to develop a new, more effective model for public health campaigns in order to reverse worrying increases in chronic conditions such as type-2 diabetes, cardiovascular disease and obesity. These interrelated conditions, which are largely caused by poor lifestyle choices, are particularly prevalent in the Gulf region but are also on the rise in almost all parts of the world.

Addressing an audience of fellow healthcare professionals in the community of Qatar, and visiting faculty from Weill Cornell Medical College in New York, Dr. Sheikh said that modern medicine has a poor record in the field of preventative healthcare. He explained that the college aims to rectify this using evidence from its own successful public health campaign, Sahtak Awalan – Your Health First.

Dr. Sheikh said: “While modern medicine is very effective at treating disease, efforts to prevent people from becoming unwell in the first place by encouraging healthy lifestyles have not been anywhere near as successful. The alarming growth in the prevalence of preventable, lifestyle-related diseases means it is now high time we redressed that balance. We need to take a truly scientific approach to public health campaigns and preventative healthcare, just as we do with medical research and treatment, so that we can discover the strategies that really deliver results.

“Our own campaign, Your Health First, is providing us with a great deal of useful evidence about public engagement and this offers us a great opportunity to gain new understanding of this field and to develop the tools we need to meet some of the most pressing public health challenges of the 21st century.”

Dr. Sheikh pointed to a survey conducted by the World Health Organization in 2012, which reported that 70.1 percent of adults in Qatar are overweight and 41.4 percent clinically obese, while an estimated 17 percent of adults in Qatar are diabetic. Lifestyle factors such as lack of physical activity and overconsumption of calorie-rich foods are believed to be to blame for the high levels of obesity and diabetes in the country.

Dr. Sheikh said that Your Health First, a five-year campaign launched by WCMC-Q in 2012, was proving effective by utilizing a wide variety of platforms to engage with the public to provide information about healthy eating, exercise and the dangers of unhealthy habits like smoking. These platforms include social media, television programs, a smartphone app, radio commercials and traditional pamphlets.
Crucially, the campaign also makes use of interactive events to encourage people to actually engage in the types of healthy behaviors the initiative aims to promote. To date, Your Health First has organized a healthy cooking event for kids called ‘Your Healthy Chef’, an annual physical sports competition for middle school students called ‘The Challenge’, and has provided greenhouses, gardening equipment and seeds to primary schools across Qatar to teach students the benefits of growing and eating fresh fruit and vegetables. The campaign has also joined forces with QF to provide healthy menus and incentive schemes to encourage students at QF schools to choose healthy options at mealtimes. Meanwhile, adults are engaged by positioning information booths at strategic locations in shopping malls and through a series of free, interactive health lectures called ‘Ask the Expert’, among several other initiatives.

Dr. Sheikh added: “By observing the strategies employed by Your Health First and determining which are the most successful, in addition to reviewing the available scientific literature, we aim to develop a framework for conceptualizing, constructing and delivering public health messages in the most effective way possible, as well as devising methods for assessing the success of public health campaigns.

“This will increase our capacity to implement public health strategies that make a real difference to the lives of people in Qatar and beyond, helping them to avoid debilitating conditions like type-2 diabetes, obesity and heart disease, which can have such a devastating effect on individuals and their families.”

The WCMC-Q Grand Rounds series is a new initiative of the college’s division of Continuing Professional Development that aims at engaging the healthcare professionals in the community, in Qatar and the region, to enhance their skills and knowledge on the latest in medical developments, technology, and good practices. This activity was developed by an interdisciplinary committee of experts in various areas of healthcare and research.

Many of WCMC-Q’s faculty attended the lecture, including Dr. Shahrad Taheri.
New students welcomed

WCMC-Q introduced its new intake of students to life at the college with a week of orientation exercises.

The fresh cohort of students accepted to WCMC-Q’s Foundation and Pre-medical Programs spent four days taking part in a variety of sessions designed to help them acclimatize to their new surroundings before studies begin in earnest.

The orientation program featured daily icebreaker sessions to help the new students get to know one another, demonstrations of how to use WCMC-Q’s digital library, and advice about key study techniques and time-management skills. The students also received their new laptops, learned about the college’s computer services and were advised about academic integrity, before the week culminated with a treasure hunt and murder mystery evening on the final day of the program.

Dr. Javaid Sheikh, dean of WCMC-Q, offered words of encouragement to the new students.

“It is always extremely gratifying to see a new intake of students join the college,” he said. “They bring with them a great deal of talent, intellectual curiosity and a desire to work hard that permeates throughout the entire college and serves as an inspiration to all of us here at WCMC-Q.

“I am sure that each and every one of our new students will take full advantage of the opportunities available to them at the college, not just in terms of learning from our world-class faculty, but also by joining some of the many clubs and societies that make such an important contribution to the culture of WCMC-Q.

“I look forward to seeing them grow and develop both as people and as students, and I wish them all the very best in their new endeavor.”

WCMC-Q’s year-long Foundation Program is aimed primarily at Qatari high school graduates and provides students with intensive coaching in the basic sciences and English language skills in preparation for the Pre-medical Program.

This year a total of 21 students are enrolled on the Foundation Program, of which 17 are Qatari. Fifteen of the Foundation students are female and six are male.

The Pre-medical Program is a two-year course of study that prepares students for the medical program. This year there are 43 students on the first year of the Pre-medical Program, comprising 24 female students and 19 male students. There are 14 Qatari students enrolled on the first year of the Pre-medical Program. Taken together, the 112 students on the Foundation Program and the Pre-medical Program will provide a rich and diverse student body for the college, with a strong commitment to academic achievement and community service.
The orientation exercises also gave the students the opportunity to visit the Hamad Bin Khalifa University Student Center and Katara Cultural Village, and to enjoy an evening of Arabic food and entertainment. The new students also contributed to community events by serving food at a lunch for maintenance and catering staff, and by helping to gather and pack items donated to Qatar Charity’s Tayf Program.

These occasions were a great help to newly enrolled Qatari Foundation student Hissa Al-Hail.

She said: “Orientation has been a great opportunity to meet other students, not just on my course but also some of the pre-med students who know the college quite well already. We are all just amazed and so happy to be here, and for me this is like a dream come true – I’m so proud and excited to be a student here.”

Australian Pre-medical student Sabiha Khan said that a desire to improve healthcare in the developing world had inspired her to train as a doctor. “There is a shortage of doctors worldwide but the need in the developing world is particularly acute,” she said. “I am motivated by an interest in the sciences and the personal satisfaction I will gain from understanding medicine, but what really drives me is that I want to make a difference to the lives of people who currently don’t have access to the healthcare they need.”
WCNC-Q alumna Dr. Haya Ahram has been awarded a prestigious prize in recognition of her commitment to teaching and her compassionate treatment of patients and their families, students and colleagues.

Class of 2013 graduate Dr. Ahram, who is in the second year of a family medicine residency at St. Francis Hospital and Medical Center, University of Connecticut, received the Arnold P. Gold Humanism and Excellence in Teaching Award and has been inducted as a member of the Gold Humanism Honor Society.

Dr. Ahram is the first WCNC-Q graduate to win the accolade and the first ever family medicine resident at St. Francis Hospital and Medical Center to receive the award. She was one of six recipients of the award chosen from a program of more than 200 residents by a popular vote among third-year medical students at St. Francis.

Dr. Ahram said: “It was both a shock and a great honor to have been chosen by the medical students of the University of Connecticut to receive this humbling award. Such a group of bright and talented students reminded me of what it was like to have once been in their shoes as a student at WCNC-Q, and how one of the most important elements of my education was the ongoing teaching and support I received from my residents. It became very clear to me how important it was to recognize that and ultimately convey it to medical students.

“Along with that teaching and support comes the importance of being a role model and exemplifying the care and compassion one must have to provide adequate healthcare. This is especially important in family medicine where long-lasting relationships are built with patients through continuity of care and ongoing compassion.”

Dr. Mohamud Verjee, WCNC-Q’s associate professor of family medicine, taught several of Dr. Ahram’s classes during her time at the college.

He said: “I am absolutely delighted to hear that Haya has received this wonderful award and that her residency program is clearly progressing so well. Haya showed great commitment to family medicine almost from the moment she began her studies at WCNC-Q and she has evidently shown the same level of commitment to her patients and the students she teaches in Connecticut. She has worked hard to nurture her natural ability to treat her patients and their families with compassion and has understood that this is a very important element of care giving.

“We are all very proud of her achievements and of the fine example she sets for our current students, especially those who have an interest in family medicine.”

WCNC-Q has consistently produced graduate doctors who have joined family medicine residency programs at elite universities. In total, seven graduates have enrolled on family medicine programs since the first graduating class of 2008, and five out of the college’s seven graduating classes to date have produced at least one family medicine resident.

Dr. Javaid Sheikh, Dean of WCNC-Q, also applauded Dr. Ahram’s efforts.

“It is always a great pleasure to hear of the success of any of our former students and I am sure everyone at WCNC-Q will join me in offering their very warmest congratulations to Haya,” he said.

“It is very important for us at WCNC-Q that our students not only become doctors of excellent technical ability, but also that they develop the ability to treat each patient with compassion and respect. Haya has demonstrated these qualities in abundance and we are very proud and happy to see her recognized accordingly with this very special award.”
A collaborative study conducted by WCMC-Q and Qatar Diabetes Association (QDA) found that up to 4.2 percent of secondary school students could be prediabetic.

Prediabetes is a condition in which blood sugar level is elevated more than normal but not sufficiently high to be labeled as diabetes. The research involved four independent schools and a total study sample of 1,694 students aged between 11 and 18.

In all 56 boys and 15 girls were found to have the high blood-sugar levels associated with prediabetes. Significantly, the researchers were also able to identify the risk factors associated with prediabetes. The knowledge could help prevent a disease that afflicts between 15 and 17 percent of Qatar’s population.

The study, published in the prestigious Journal of Royal Society of Medicine was authored by Drs. Javaid Sheikh, Ravinder Mamtani and Sohaila Cheema from WCMC-Q and Dr. Abdulla Al-Hamaq, Sharoud Matthis and Katie El-Nahas from QDA.

Dr. Mamtani, associate dean for global and public health at WCMC-Q, said: “I think the research was on a topic of huge public health importance to Qatar and the wider region. It was also a reflection of collaborative research with our partners in Qatar.

“The purpose was to ascertain the prevalence of prediabetes among children attending schools aged between 11 and 18.”

The researchers used a questionnaire to collect the demographic and health information, for example the weight and height of a student, how much exercise they did and their basic lifestyle. After all the data was collated and analyzed, it was found that 4.2 percent of the total number of
students were prediabetic. However, being male significantly increases the risk. Of the 974 boys in the study, 56 were found to be prediabetic - or 6 percent. Of the 720 girls, 15 were prediabetic, or 2 percent.

Apart from being male, other characteristics associated with pre-diabetes was having a parent who was diabetic and having a girth to height ratio greater than 0.5. This means that a child who is 160cm tall should have a waist measurement of no more than 80cm.

Dr. Mamtani said: “We think that this has implications. Knowing that there are certain risk factors among children might make it worthwhile to target those children in lifestyle programs. Secondly, when those risks are identified, pediatricians should take those risk factors into account, when evaluating children.”

Dr. Al Hamaq said: “The percentage of children who had prediabetes was significant but that will encourage QDA to work even harder to reduce the percentage via prevention or intervention programs.”

Just because those with the prediabetic condition were more likely to have certain characteristics does not mean that they were the only risks associated with the condition. Dr. Sohaila Cheema, director of global and public health at WCMS-Q, said that regular exercise and a balanced, nutritious diet played a huge role in the prevention and progression of type 2 diabetes.

She said: “We found that children who exercised daily tended to have lower weight than those who did not, a smaller girth and so were making the right lifestyle choices. Habits are formed within our formative years so it is important to encourage children to make the right lifestyle choices while they are still young.”

The research was conducted in four independent schools and of the 1,694 participants, 988 were Qatari citizens and 706 came from mostly Middle Eastern countries. Strikingly, almost half of the students were overweight. In the case of the boys, 46 percent were either overweight or obese. In the girls, 44 percent were classed as overweight or obese.

QDA is set to expand the study and conduct it in more detail, asking participants for more information about their diet, frequency and type of exercise they do and other lifestyle choices. There will also be advice for those who are prediabetic.

Dr. Al Hamaq added: “For prediabetic children, QDA will conduct an intervention program to delay the onset of diabetes, and for diabetic children we have already set up programs, such as Al-Bawasil Annual Camp to delay the onset of the complications.”

The full, original study entitled Adolescent prediabetes in a high-risk Middle East country: a cross sectional study, can be read here: http://shr.sagepub.com/content/5/8/2054270414536550.full.pdf+html
Hamad Bin Khalifa University honored a graduating WCMM-Q student in recognition of her work while at the college.

Tayseer Marwan Mosleh was one of five students from Qatar Foundation colleges who were presented with the President’s Award in recognition of her academic excellence and commitment to community service both on and off the Education City campus.

Dr. Mosleh, who is currently on an internal medicine residency at NewYork-Presbyterian Hospital Weill Cornell, was presented with a certificate of achievement and commemorative medallion during a ceremony at the Hamad Bin Khalifa University Student Center attended by deans, faculty and staff, as well as family and other community members.

His Excellency Sheikh Abdulla bin Ali Al-Thani, President of HBKU, said: “Candidates for the President’s Award are evaluated on their academic achievements and commemorative medallion during a ceremony at the Hamad Bin Khalifa University Student Center attended by deans, faculty and staff, as well as family and other community members.

His Excellency Sheikh Abdulla bin Ali Al-Thani, President of HBKU, said: “Candidates for the President’s Award are evaluated on their academic achievements and commemorative medallion during a ceremony at the Hamad Bin Khalifa University Student Center attended by deans, faculty and staff, as well as family and other community members.

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Dr. Mosleh, who graduated in May 2014 and has a younger sister at WCMM-Q, said: “I was honestly honored just being nominated for HBKU’s president award. The application process was extensive to say the least and to be chosen from more than 500 graduates from HBKU was a huge honor.

“My stay in Education City allowed me many opportunities to be involved in research as well as to give back to the community either through research, tutoring or volunteering. Qatar Foundation and WCMM-Q gave me the opportunity to be involved in cutting-edge research by providing state-of-the-art technology and funding. I was actively involved in different QNRF research projects ranging from studying molecules and genes, education, to advancements in robotic surgery. I was also involved in tutoring and teaching within both the WCMM-Q community and Education City as well as volunteering as an editor for the student-run publication Between Seminar Rooms at WCMM-Q, volunteering for the Alfakhoora campaign, Best Buddies, and ECCT, in addition to being involved in Qatar Society for Rehabilitation of Special Needs.

“All of the above would not have been possible without the amazing opportunities provided by QF, the guidance and mentorship of my professors and the continuous unwavering support of my family.”

Dr. Mosleh added that she plans to return to Qatar to contribute to the advancement of medicine and education once she has finished her residency at NewYork-Presbyterian Hospital.

Twenty two students with a grade point average of 3.6 and above were nominated for the President’s Award 2014 by the deans of their respective universities. Potential finalists then completed an evaluation process during which they had an opportunity to explain to the selection committee how they created a positive impact on the community through their out-of-class involvement, and what they gained from those experiences.
HIV epidemics are emerging among people who inject drugs in several countries in the Middle East and North Africa, according to researchers at WCMC-Q.

Though HIV infection levels were historically very low in the Middle East and North Africa, substantial levels of HIV transmission and emerging HIV epidemics have been documented among people who inject drugs in at least one third of the countries of this region, according to the findings published in *PLOS Medicine*.

The HIV epidemics among people who inject drugs (PWID) are recent overall, starting largely around 2003, and continuing to grow in most countries. However, they vary across the region. In countries such as Afghanistan, Bahrain, Egypt, Iran, Morocco, Oman, and Pakistan, on average between 10 and 15 percent of PWID are HIV-positive. The HIV epidemics in these countries appear to be growing; in Pakistan, for example, the fraction of PWID who are HIV-infected increased from 11 percent in 2005 to 25 percent in 2011. In Iran, the HIV epidemic among PWID has stabilized at about 15 percent. There are, however, other countries where limited HIV transmission was found among PWID, such as in Jordan, Lebanon, Palestine and Syria.

“Not only have we found a pattern of new HIV epidemics among PWID in the region, but we also found indications that there could be hidden HIV epidemics among this marginalized population in several countries with still limited data,” said Ghina Mumtaz, lead author of the study and senior epidemiologist at the Infectious Disease Epidemiology Group at WCMC-Q.

“For example in Libya, the first study among people who inject drugs was conducted only recently and unveiled alarmingly high levels of HIV infection, suggesting that the virus has been propagating, unnoticed, among this...
population for at least a decade. Eighty-seven percent of PWID in Tripoli, the capital of Libya, were infected with HIV, one of the highest levels reported among PWID globally.

The study estimated that there are about 626,000 people who inject drugs in the Middle East and North Africa. This translates into 24 people who inject drugs for every 1,000 adults in this part of the world. These individuals are typically involved in several types of behavior that expose them to HIV infection, such as sharing of needles or syringes, a behavior reported by 18 to 28 percent of injecting drug users during their last injection across these countries.

“The levels of HIV infection among people who inject drugs tell only half of the story. We also see high levels of risky practices that will likely expose this population to further HIV transmission in the coming years,” said Dr. Laith Abu-Raddad, principal investigator of the study and associate professor of public health in the Infectious Disease Epidemiology Group at WCMC-Q. “We found that nearly half of people who inject drugs are infected with hepatitis C virus, another infection of concern that is also transmitted through sharing of needles and syringes.

“Since the HIV epidemics among people who inject drugs in the Middle East and North Africa are still overall in an early phase, there is a window of opportunity to prevent these epidemics from further growth. This will also limit the potential for HIV transmission to be bridged to other population groups” said Mumtaz.

Although the region overall lags behind in responding to the emerging HIV epidemics among PWID, several countries have made significant progress in building and expanding harm-reduction programs and integrating them within the socio-cultural fabric of the region. These programs refer to policies and strategies aimed at reducing the harmful consequences of injecting drug use, including needle- and syringe-exchange programs and opioid-substitution therapies.

“It is of priority that countries in the region expand HIV surveillance systems among PWID to detect and monitor these budding and growing HIV epidemics. About half of the countries of the region still lack sufficient data to assess the levels of HIV infection among this population, and we continue to discover these epidemics several years after their onset. We need to be ahead of the epidemic to prevent a public health burden that this region is largely not prepared to handle,” Dr. Abu-Raddad said.

Key scientific findings of the study

- There are emerging HIV epidemics among people who inject drugs in at least one third of countries in the Middle East and North Africa.
- Most of the HIV epidemics among people who inject drugs have emerged recently, around 2003, and some of them have grown rapidly. The lack of sufficient evidence in some countries does not preclude the possibility of hidden epidemics among this population in these countries.
- There are an estimated 626,000 people who inject drugs in the Middle East and North Africa, and these individuals are typically involved in several types of behavior that expose them to HIV infection. This suggests potential for further epidemics and HIV transmission among this population group.
- About half of people who inject drugs in this region are infected with hepatitis C virus.
Researchers have published the first comprehensive analysis of internet health information in the GCC region.

The study, entitled “Typology and Credibility of Gulf Cooperation Council (GCC) Internet Health Websites” has appeared in the World Health Organization (WHO) publication Eastern Mediterranean Health Journal. The research additionally won a national award for the top student research grant, awarded by Qatar National Research Fund (QNRF) in its Undergraduate Research Experience Program.

The research, carried out between 2012 and 2014, retrieved all of the 925 functional health websites in the GCC region, which comprises Bahrain, Oman, Kuwait, Qatar, Saudi Arabia, and the United Arab Emirates, and categorized the information found on them.

Dr. Alan S. Weber, associate professor of English in the Pre-medical Department, and Dr. Mohamud A. Verjee, associate professor of family medicine, jointly led the faculty research. The student research team consisted of Zahra Rahman, Fathima Ameerudeen and Nadeen Al-Baz, all third-year medical students at WCMC-Q. The authors developed a novel checklist based on website quality criteria from international organizations such as the Health on the Net Foundation (HON). The checklist determined if the sites contained such key information as privacy policies, advertising policies, current date, attribution of information to qualified medical professionals, and other important information necessary to help a health consumer determine the accuracy and validity of the information on the site.

Qatar scored highly on its e-health readiness as well as site quality. In 8 out of 10 quality categories measured by the authors, Qatari websites scored higher than the GCC average. However, Dr. Weber and Dr. Verjee cautioned that serious deficiencies in health websites in both Qatar and the GCC should be addressed, specifically:

- Technical medical information needs to be dated, and the authorship and credentials disclosed.
- Websites should be available in languages other than Arabic and English, due to the large Asian expatriate populations of the Gulf.
- Sponsorships, site ownerships, and advertising policies should be disclosed clearly.
- Privacy and security policies need to be implemented and disclosed.

The team stressed that Qatar is now uniquely placed to take a leading role in internet-based health information in the region. Factors such as Qatar’s high internet connectivity and penetration rates, planned broadband infrastructure upgrades, a positive youth attitude towards technology, and health sector improvements are all valuable assets for future development of e-health in Qatar.

The WCMC-Q research team also wrote and published a set of Arabic and English public health information brochures to help Qataris evaluate internet health information and use web health resources safely. The brochures have been distributed throughout the public health system in Doha.

Dr. Weber said: “As internet infrastructure matures in the region and GCC citizens gain greater health literacy, e-health will be able to provide accurate and up-to-date consumer health information for patients to supplement advice from their doctors, as well as technical information for medical professionals. Although this study identified specific weaknesses in consumer health on the Internet in the GCC, governments and web site owners could address these concerns simply through new regulations and better site development.”

Dr. Verjee added: “Health has become a priority area in GCC government planning since new gas and oil revenues are underwriting higher quality universal care and new resources. Although patients are increasingly seeking health information on the Internet, the physician should be the primary source of information on medical matters. Both physicians and websites should provide the best possible information to the patient without any commercial bias or potential conflicts of interest.”
Research and education partnership expanded

Aspetar and WCMC-Q have expanded their existing clinical training and education partnership.

The original agreement signed in 2009 saw Aspetar become a designated center for providing academic and clinical training opportunities to the college’s medical students, and promoting medical education in primary care and specific clinical services such as the diagnosis and management of musculo-skeletal disorders.

In addition, as part of the original agreement, selected Aspetar physicians involved in teaching and supervising WCMC-Q medical students were appointed Weill Cornell faculty members.

Dr. Khalifa Al Kuwari, director general of Aspetar said: “Our renewed agreement with Weill Cornell Medical College in Qatar represents a long-standing relationship between our organisations. It also signifies Aspetar and Weill Cornell’s firm belief in collaborating to achieve the common goal of providing outstanding medical education and to raise the level of health services across Qatar and beyond.”

“This agreement will continue to strengthen our ties in order to enhance current and future requirements in the fields of medical education, biomedical research and clinical services that align with the goals and objectives of the National Health Strategy 2011-2016 and the Qatar National Vision 2030.”

The collaboration entails that Aspetar provides its premises, facilities and well-reputed experienced staff for the education and training of WCMC-Q students. In addition, WCMC-Q faculty will provide clinical services to Aspetar’s patients within its scope of services. Moreover both organisations will be able to use the two facilities for integrated biomedical research and related publications.

It is anticipated that the renewed agreement will lead to additional future collaborations between the two medical institutions.

Dr. Javaid Sheikh, dean of WCMC-Q, said: “WCMC-Q and Aspetar share common interests in education, research and clinical practice, and we are very happy with the partnership we have enjoyed since 2009. We welcome this expansion of our joint efforts and we look forward to continuing our work with Aspetar to realize the ambitions set out in the Qatar National Vision 2030 of creating a knowledge-based society, a capable and motivated workforce, and healthy communities.”
Researchers at WCMC-Q have made a major step towards understanding why certain cancers often recur after they have been treated with conventional therapies.

The research, which focused on a specific protein that allows skin, prostate and breast cancers to regrow after initially successful treatment, paves the way for future studies that could lead to the development of a new generation of more effective anti-cancer drugs.

Led by WCMC-Q’s professor of genetic medicine & immunology, Dr. Lotfi Chouchane, the project is the result of a joint effort by researchers from WCMC-Q, Qatar Biomedical Research Institute (QBRI), and Sidra Medical and Research Center, all of which are Qatar Foundation member organizations. Additional contributions were made by medical institutions in China and the United States.

The study demonstrated the role of a protein, appropriately named ‘BAD protein’, in the survival and renewal of some cancer cells – known as cancer stem cells – which are able to resist even the most advanced anti-cancer drugs available today.

Dr. Chouchane explained: “The problem with existing cancer treatments is that they can target and kill most of the cancer cells, but they are not able to target the cancer stem cells. These cancer stem cells are only a small proportion of the total number of cancer cells, but they are very important because they are able to sustain tumor growth, which means the cancer comes back. “We were able to show that the BAD protein not only plays a role in the survival of cancer stem cells, but that it is actually essential for their
survival. This makes BAD an extremely attractive target for research for new, more effective cancer therapies."

The study, entitled Targeting proapoptotic protein BAD inhibits survival and self-renewal of cancer stem cells, has now been published in the peer-reviewed scientific journal *Cell Death and Differentiation*, part of the prestigious *Nature* series of journals.

BAD stands for ‘Bcl2-Antagonist of cell Death’, where Bcl-2 refers to the name of the gene that encodes the protein. The protein is known as an ‘antagonist of cell death’ because in a different form it actually helps to kill cancer stem cells, but when it undergoes a common molecular process called phosphorylation its properties change and the protein then helps the deadly cells to survive and progress.

Laboratory tests performed by the team on cultivated melanoma, prostate and breast cancer cells showed a positive relationship between the levels of BAD protein and cancer stem cells. The study also found high expression levels of BAD protein in 83 percent of breast cancer tumor specimens taken from patients. Additionally, the researchers discovered a positive correlation between BAD and prostate cancer progression, which suggests BAD plays a role in tumor advancement as well as tumor initiation. This means that future research could use BAD to develop a new way to monitor tumor progression as well as novel cancer therapies.

Major contributors to the project were Dr. Konduru Sastry, research associate in microbiology and immunology at WCMC-Q, and scientist Dr. Mariam Al Muftah of QBRI, while Sidra contributed the expertise of Dr. Francesco M. Marincola, Dr. Ena Wang and Dr. Awatef Ismail.

Dr. Chouchane said: “It was very pleasing that we were able to work with colleagues at QBRI and Sidra to produce this study and it shows the great progress that is being made by Qatar in the field of biomedical research.”

Dr. Khaled Machaca, WCMC-Q’s associate dean for research, said: “This study represents an important milestone in our understanding of cancer eradication and promises new therapeutic avenues. It is very encouraging and rewarding to have such important findings as the fruits of a multi-institution collaboration among multiple entities within the Qatar Foundation family. This fits squarely within the vision of the QF leadership to encourage collaborative efforts among research-focused institutions in Qatar. Such a collaborative effort between WCMC-Q, QBRI and Sidra offers a shining example of how successful such collaborations can be.”

Other contributors to the project were research specialist Ms. Moza Al Kowari and Dr. Abdelali Haoudi from QBRI; Ms. Dhanya Kizhakayil, laboratory specialist at WCMC-Q; Dr. George Kulik of Wake Forest University School of Medicine in North Carolina; and Dr. Pu Li of Shanghai Jiao Tong University School of Medicine in China.

Funding for the project was contributed by the Biomedical Research Program of Qatar Foundation, which supports the research effort at WCMC-Q, and by Qatar Biomedical Research Institute.
Initiative to create a new and healthy generation of young people

The health of thousands of children across the country will be improved now and into the future thanks to QF and WCMC-Q.

WCMC-Q is currently running its high-profile Sahtak Awalan—Your Health First campaign and under that initiative, with the vision and support of QF, children at all of Qatar Foundation’s schools are now being served the healthiest meals possible during their lunch breaks. The healthy, nutritional, multi-course menu has been devised by AMLAK Services and is being cooked in their state-of-the-art kitchens. AMLAK Services is a subsidiary of AMLAK Holding which itself is a member of Qatar Foundation. Adopting Sahtak Awalan branding and health messages, children are also being encouraged to take responsibility for the food they eat and are learning about the benefits of certain foods. The aim is to create healthy eating habits at a young age, potentially improving the health of an entire generation and preventing obesity, diabetes and heart disease in years to come.

The initiative is symbiotic with QF’s mission of developing sustainable human capacity and unlocking human potential. The scheme will also set an example for other schools to adopt, bringing healthier lunches to students at schools across the country.

Commenting on the initiative, Buthaina Al Nuaimi, associate vice president for education at QF, said: “Instilling the benefits of healthy eating amongst Qatar’s youth and building a health conscious society is paramount to Qatar Foundation’s Community Development Pillar. This on-going five-year Sahtak Awalan campaign aims to educate the community about healthy living. Ultimately, through this knowledge sharing process, Qatar Foundation, along with its partners, will not only help ensure the well-being of future generations, but the long-term sustainability of the entire nation.”

Dr. Javaid Sheikh, dean of WCMC-Q, said an initiative like this could have a huge impact on children’s health.

Dr. Sheikh said: “Weill Cornell Medical College in Qatar is proud of its increasingly positive role within the community and is committed to the future of Qatar and helping it reach the targets set out in Qatar National Vision 2030. Our doctors understand the health issues that Qatar faces but know that these health issues can, for the most part, be dealt with effectively with a healthy diet and regular exercise. If we can encourage Qatar’s children and young people to change their habits we can create a healthy generation able to make a real and active contribution to the goal of moving towards a knowledge-based economy. We strongly believe that habits and lessons learned at a young age are set in stone and will stay with the child for the rest of their lives.”

Mr. Ahmed Al Hajjaji, CEO of AMLAK Holding said: “First and foremost, we take pride in WCMC-Q’s Sahtak Awalan campaign, which is aimed at influencing people to make positive changes to their lives by eating healthily and exercising. We are delighted to be contributing to the overall health and well-being of the students and the community at large. The management of our food services subsidiary aspires to serve only healthy food options so helping to educate QF’s students about a balanced and nutritious diet.”

The QF schools’ canteens project was officially launched in September at the start of the new school year. Along with the new lunches, there are facts about nutrition and interactive displays in each of QF’s school canteens, reinforcing the healthy eating message. In addition, there is information showing students in the senior schools how they can calculate their BMI to motivate them to adopt a healthier lifestyle, and information that emphasizes the health benefits of certain foods. Healthy recipe cards are available for students to cook with their parents and a Top Trumps game based around healthy foods has also been designed for the children to play among themselves.

To encourage children to eat healthily, Sahtak Awalan has devised a reward system with children receiving stamps in a book whenever they choose a healthy option. Once they have collected enough stamps they receive a badge.
And it appears that the revamped cafeterias are already seeing results.

Qatar Academy student Abdulrahman Aldosri, aged 10, said: “I like eating fruit, especially cherries, which are my favorite. If you want to grow up to have a strong and healthy body you have to eat the right food and not lots of candies and french fries.”

Seven-year-old Jay Sherwood, added: “I play football and if you drink lots of milk it gives you strong muscles and bones so your legs will be strong for running and kicking the ball.”

The Sahtak Awalan – Your Health First campaign was launched in 2012 as a five-year initiative designed to curtail unhealthy habits and help improve the health of the nation. It has won high-profile support and is run in association with the Supreme Council of Health and in partnership with Qatar Foundation, the Supreme Education Council, Qatar Petroleum, Oxy Qatar, ExxonMobil Inc. and Qatar Olympic Committee.
Hepatitis C virus mapped in Egypt

There is a large geographic variation in the distribution of the hepatitis C virus (HCV) in Egypt according to a new study by researchers at Weill Cornell Medical College in Qatar.

Egypt has the highest infection level of the disease in the world, with 14.7 percent of the population carrying HCV, but it is still not clear why this is the case. Treatment campaigns for bilharzia – a disease caused by parasitic worms – during the 1960s and 1970s, using parenteral antischistosomal therapy (PAT), certainly contributed to the epidemic through wide-scale sharing of needles and syringes. However, these campaigns can explain only about 10 percent of HCV infections in this country. It is probable that most HCV infections in Egypt are linked to exposures in medical care settings. These are some of the findings of the study, which has been published in the prestigious journal *Hepatology*.

Dr. Diego Cuadros, lead author of the study and postdoctoral associate at the Infectious Disease Epidemiology Group at WCMC-Q, explained what the research involved.

“We implemented a novel methodology with the aim of characterizing the geographical clusters of HCV infection and PAT exposure all over Egypt,” he said. “We were able to identify six clusters of high HCV infection levels and three clusters of low HCV infection levels. We were also able to identity five clusters of high PAT exposure and four clusters of low PAT exposure. We further conducted different kinds of analyses on these clusters to identify the drivers of this unusual epidemic in this specific country.”

What the study found, contrary to expectation, was a rather weak association between HCV infection and previous PAT exposure.

Dr. Laith Abu Raddad, principal investigator of the study and associate professor of public health in the Infectious Disease Epidemiology Group at WCMC-Q said: “This suggested that bilharzia treatment campaigns explained only a small fraction of HCV infections in Egypt. Most infections in this country occurred due to other modes of transmission, and probably linked to medical care. Our analyses also suggested that there must be considerable ongoing HCV transmission in Egypt today.”

Dr. Cuadros said the results could help formulate more efficient treatment plans. There is a growing pipeline of highly effective – but expensive – treatments for HCV. However, a targeted approach focused on the settings of most intense HCV transmission, as identified by the study, will probably be more cost-effective than a broad one at the national level, he concluded.

The work described in the study was funded by a Junior Scientist Research Experience Program (JSREP) grant from the Qatar National Research Fund (QNRF) and by the Biomedical Research Program of Qatar Foundation, which supports the research effort at WCMC-Q. The JSREP program was recently launched by QNRF with the aim of supporting junior scientists to initiate their own research careers.
New faculty welcomed to the college

Dozens of doctors from WCMC-Q’s affiliated institutions were welcomed as new faculty at an orientation event held at the college.

A total of 77 new faculty members from Aspetar Orthopaedic and Sports Medicine Hospital, Hamad Medical Corporation (HMC), the Primary Health Care Corporation (PHCC) and Sidra Medical and Research Center were in attendance to learn about their new roles as clinical tutors and mentors for WCMC-Q students.

The new faculty, who remain employed by their own institutions, will provide hands-on clinical training to WCMC-Q students within the affiliated institutions, as well as offering advice and encouragement to guide the young trainee doctors as they take their first steps in the world of medicine.

Giving the welcome address at the New Faculty Orientation Seminar event, Dr. Robert Crone, senior advisor to the dean on academic affairs at WCMC-Q, said: “It gives me great pleasure to welcome so many highly qualified, dedicated physicians as new members of our faculty. You have so much to offer our students in terms of expertise, experience and mentorship, and I know that they greatly appreciate the opportunity to work with you. Strengthening the bonds of collaboration that exist between our organizations is helping to create an integrated, cohesive health system in Qatar that unites medical education, research and clinical practice, for the benefit of everyone in the community.”

In the third and fourth years of their medical degrees, WCMC-Q students spend a total of 55 weeks on clinical clerkships in affiliate institutions where they learn the hands-on clinical skills required to become fully qualified physicians. The recruitment of new medical faculty who are based at affiliate institutions broadens the range of opportunities for students to learn from qualified physicians, as well as helping to equip Qatar with a new generation of doctors in line with the goals of Qatar National Vision 2030 and the National Health Strategy.

Dr. Ismail Helmi, deputy director of the Department of Medical Education at HMC, said: “I have been involved with WCMC-Q since 2004 and it is incredible to see how the relationship has developed between the college, HMC, Sidra, Aspetar and the PHCC. In a spirit of great friendship, all of these organizations are involved in moving us towards the goal of establishing an academic health system in the country, which promises to deliver a very bright future for healthcare in Qatar.”

Dr. Basma Harara, head of administration at Aspetar, and Professor Ziyad M. Hijazi, acting chief medical officer and clinical service chief of pediatrics at Sidra Medical and Research Center, were also in attendance to welcome their colleagues from their home institutions and

Dr. Robert Crone, senior advisor to the dean on academic affairs.
participate in the lively discussions. There were also presentations by WCMC-Q staff members Sunanda Holmes, director of business planning and contracts, and Dr. Alicia Tártalo, faculty affairs manager, explaining WCMC-Q policies and appointments and promotions processes, while Information Services librarian Paul Mussleman instructed the new faculty members how to access the college’s comprehensive electronic library.

The welcome addresses were followed by two panel discussions that explored the role of affiliated faculty in contributing to the medical students’ education and to the achievement of the goals of Qatar National Vision 2030. The event, which was coordinated by WCMC-Q’s Office of Faculty Affairs, concluded with a tour of the college facilities for the new faculty members and a networking lunch session.

Dr. Tártalo said: “We are so pleased to see so many of our new faculty appointees attend this first faculty orientation for our affiliated institutions. Their enthusiasm for our students and the mentorship they can provide are an inspiration to all of us. We look forward to welcoming our new colleagues to many other WCMC-Q events in the future.”

New faculty member Dr. Yahia Imam, specialist in neurology and internal medicine at HMC, said: “I recall from my own training just how beneficial it was to work alongside qualified physicians. You can read every book in the library but there really is no substitute for hands-on experience in the clinic.

"It is a privilege to be involved in the education of trainee doctors at such a crucial and valuable stage in their training and I hope to be able to provide the same sort of mentorship that helped me so much when I was a student.”
A new generation of trainee doctors donned the symbolic white coat for the first time during a ceremony at WCMC-Q.

In total, 41 students have joined the college’s medical program — 11 of whom are Qatari. The students’ success at being accepted onto the program was marked by the White Coat Ceremony, which was held in September in front of faculty, family and friends.

The aspiring physicians - the Class of 2018 - will now have four years of training in all aspects of medicine from faculty members based in Qatar and also from Weill Cornell Medical College in New York. If successful they will then receive a U.S-accredited medical degree.

Dr. Javaid Sheikh, dean of WCMC-Q, said the White Coat Ceremony is one of the highlights of the college’s year and is a memorable occasion in the students’ academic careers.

Dr. Sheikh said: “Donning the white coat for the first time has great significance for every young medical student. The white coat is symbolic of so many things - compassion, dedication and excellence - and by wearing it the students commit themselves to the ideals encompassed in a medical career.”

The White Coat Ceremony marked the end of the college’s orientation program, during which the students met their classmates and faculty members, learned about the standards of professional conduct expected of them and received training on standard medical safety procedures.

The event was convened by Dr. Stephen Scott, executive director of medical research at Hamad Medical Corporation (HMC), and program director for pediatric training programs at HMC.

The 41 members of the Class of 2018 are made up of 20 nationalities in total, and comprise 27 women and 14 men.

Fatima Al-Maadid is one of the students and has spent the last two years on WCMC-Q’s pre-medical program. She said one of the best aspects of studying at WCMC-Q was the sense of community.

Fatima said: “I think the thing I liked best about the pre-medical program was the fact that we were all so close and that our professors were really invested in the learning process and that we learned for the sake of knowledge rather than just to pass a test.”
"I'm now looking forward to becoming more involved in the clinical aspects of medicine as opposed to just the sciences. I always thought medicine was interesting and being a doctor is an internationally recognized career. Also the fact that you can help people is what attracted me to medicine; that someone can be sitting there and in a vulnerable situation but trusts you to help them is wonderful."

Fellow student Khalid Al-Marri was accepted to the medical program after he completed both the one-year foundation program and the two-year pre-medical program at WCMC-Q.

He said: "I am very excited to be starting the medical program because it feels like I am making real progress towards my goal of becoming a doctor. When I started the foundation program, it seemed like it would take forever to complete the entire seven years of training, but now I am nearly halfway and I am feeling so positive about the next challenge.

"For me, becoming a doctor is about being of service to the community and making a difference to people’s lives. To be able to help someone regain their health is something I think will bring me great happiness."
Researchers discuss global infections

Medical and public health experts from all over the world convened in Doha to discuss serious infectious diseases affecting the Middle East and North Africa, such as hepatitis C, HIV/AIDS and MERS.

The Endemic and Emerging Viral Diseases of Priority in the Middle East and North Africa (MENA) workshop brought together more than 150 researchers from 25 countries to promote collaborative international research into infectious diseases that blight the lives of millions of people across the MENA region.

The four-day workshop in May was supported by the U.S. National Institutes of Health, WCMC-Q, Qatar National Research Fund (QNRF), Qatar’s Supreme Council of Health, Hamad Medical Corporation, and Sidra Medical and Research Center.

In a series of plenary sessions held at the Four Seasons Hotel, researchers discussed a variety of issues relating to infectious diseases, including the status of the HIV epidemic, recent advances in hepatitis C treatments, and the latest developments in the outbreak of Middle East Respiratory Virus-Corona Virus (MERS-CoV).

The researchers at the event were drawn from elite global institutions including Johns Hopkins University and Harvard University in the United States, Toulouse University in France, as well as leading institutions from the MENA region such as American University of Beirut, Tripoli Medical Centre in Libya, Cairo University in Egypt, the University of Jordan and WCMC-Q.

Dr. Saleh Al Marri, assistant secretary general for medical affairs at the Supreme Council of Health, said: “Bringing renowned experts in the field of viral diseases to Qatar from elite institutions all over the world is an extremely important step in the effort to control infectious diseases that affect people in the Middle East and North Africa.

“Our aim is that we in Qatar can provide a forum within which researchers from all over our region as well as from the United States, Europe and the Far East, can collaborate to develop initiatives that will help to eliminate these diseases, which cause terrible suffering to very large numbers of people all over the world.”

The interdisciplinary workshop was part of a collaborative initiative between the United States, Qatar, and the rest of the MENA region. It was led from the United States by the National Institute of Allergy and Infectious Diseases of the National Institutes of Health within the U.S. Department of Health and Human Services (NIAID/NIH/HHS) in partnership with the National Institutes of Health’s Office of Rare Diseases Research (NIH/ORD/HHS) and the U.S. Department of State’s Biosecurity Engagement Program (DOS/BEP).

The NIH and QNRF have formed a partnership to provide seed funding to scientists in attendance at the workshop for collaborative research projects into infectious diseases.

Dr. Javaid Sheikh, Dean of WCMC-Q, said the workshop brought different nations together for the benefit of all.
He said: “Through collaboration, countries and research institutions can combine their efforts and their knowledge to combat these diseases. Part of WCMC-Q’s tripartite mission is to improve healthcare for all and we are determined to do that in a myriad of ways whether it is through training world-class doctors or conducting high-level research.”

Susan L. Ziadeh, ambassador of the United States of America to the State of Qatar, said: “The United States is deeply committed to working with the Government of Qatar and others in the region and elsewhere, as they strive to improve the health of individuals and communities throughout North Africa, the Middle East and South Asia. A significant element of our commitment is expressed through our support for collaborative biomedical research and research training, which are the focus of this important workshop.”

Dr. Laith Abu-Raddad, associate professor of public health at WCMC-Q, said: “Viral diseases pose a significant threat to the health of people across the MENA region and more needs to be done to enhance the capacity of this region to combat this threat.

“By coordinating the efforts of researchers through events such as this workshop, and the funding mechanism that comes with it, we can more effectively introduce measures to monitor and prevent outbreaks of infectious diseases, develop vaccines and vaccination programs, and introduce programs to educate the public about ways to minimize the risk of contracting serious diseases. Infectious diseases do not respect national borders, and as such we must endeavor to coordinate a global response to them.”
First-year medical students got to grips with the high-pressure world of emergency medicine as they spent a day learning first responder skills at Hamad International Training Center.

The course, directed by Dr. Hina Ghory, assistant professor of medicine at Weill Cornell Medical College in New York and attending emergency physician at the city’s Weill Cornell Medical Center, consists of six workshops that demonstrate the potentially life-saving skills and knowledge first responders need in order to treat and summon help for patients who are injured or suffering a health emergency.

Three practical workshops demonstrated airway skills, how to administer slings and splints, wound care, and how to immobilize patients to prevent further injury and allow them to be safely removed from the scene of the incident. Two of the workshops presented the students with case scenarios in which they had to assess and provide appropriate care to standardized patients simulating serious conditions, and to accurately report the situation to emergency services.

The workshops were facilitated by Hamad Medical Corporation emergency physicians and WCMC-Q faculty. Dr. Stephen Scott, WCMC-Q’s associate dean for student affairs, took charge of a case scenario workshop, while Dr. Ghory led a role-play session in which the students played the parts of government officials and emergency services personnel and were tasked with coordinating a response to a large-scale disaster that involved multiple casualties.

Explaining the importance of the course, Dr. Ghory said: “The first
The responder course is one of the first exposures our medical students have to the management of sick patients, so it is something of a milestone for them. The practical, hands-on element of the workshops really empowers our students and gets them excited about becoming physicians, who will be administering care to real people in the real world.

Student Abdulaziz Al-Thani said: “One of the workshops was based on a scenario in which the patient was suffering from heatstroke, which is clearly something that is very useful to know how to deal with considering the harsh climate we live in. It was great to learn and apply some practical skills after spending so long studying from textbooks to reach this point and it really felt like we got to see what our futures as doctors will be like, so it was a really exciting day for everyone.”

The course was followed the next day by an Objective Structured Clinical Evaluation (OSCE) session, held in the Clinical Skills Center back at WCMC-Q. Each student was presented with a case scenario in which they had to respond to a standardized patient simulating a health emergency, with only five minutes to assess the situation, summon additional help, and stabilize the patient.
The academic achievements of 24 students were recognized with their induction onto the Dean’s Honors List at a ceremony held at Hamad Bin Khalifa University’s Student Center.

Students who posted a GPA of 3.75 or higher in the Spring 2014 term made it onto the honors list of Dr. Javaid Sheikh, Dean of WCMC-Q.

Dr. Sheikh presented the awards and congratulated the students on their impressive academic achievements, encouraging them to continue to strive for excellence.

Dr. Sheikh said: “I am delighted to applaud the exceptional performance of these students as they are recognized for this significant academic honor. Inauguration onto the Dean’s Honors List reflects the high caliber of WCMC-Q’s student body and it has become a tradition that is firmly entrenched in the college.

“These young men and women have demonstrated an outstanding level of work to achieve this honor and their commitment and talent is inspiring to all at WCMC-Q. We are proud to support them and help them achieve their undoubtedly remarkable potential.”

Two Dean’s Honors Lists are published in each academic year to record the achievements of students in the fall and spring semesters, an initiative that began with the fall 2011 semester.

The audience was also addressed by alumnus Dr. Nigel Pereira, of WCMC-Q’s Class of 2010, who is undertaking fellowship training in reproductive endocrinology and infertility at the world-renowned Ronald O. Perelman and Claudia Cohen Center for Reproductive Medicine at WCMC in New York.

Dr. Pereira advised the students that as well as studying at college, they also had to develop independent learning habits so as to remain highly skilled once their formal education was over.

The students inducted to the Dean’s Honors List for the spring 2014 semester were: Youmna Abdelghany, Hawra Al Lawati, Nora AlFakhri, Fatima Al-Maadid, Said Alnajjar, Imen Becetti, Tina Bharani, Farah Bshesh, Nada Darwish, Syeda Razia Haider, Irfan Helmy, Merna Hussien, Mu Ji Hwang, Sahar Abida, Mahadik, Safa Mahgoub, Faryal Malick, Suresh Menik Arachchige, Adham Musthak, Basem Oraby, Yahya Othman, George Sadek, Tarek Taha, Noor Tarifi, and Nahel Tunio.
Dr. Sheikh, senior faculty members and the high-achieving students.

Dr. Nigel Pereira advised the students of the need for lifelong learning.

The audience was made up of students, family, faculty and friends.
CMC-Q won first prize in the poster presentation category at the Association for Medical Education in Europe (AMEE) Annual Conference in Milan, Italy.

Deema Al-Sheikhly, WCMC-Q’s manager for continuing professional development, presented the poster, titled Objective Structured Clinical Exam (OSCE) Curriculum Design and Implementation: A Faculty Development Program, which won first place in the Medical Teacher Poster Prize category from a field of approximately 800 rival poster presentations.

The poster was lead-authored by Ms. Al-Sheikhly, with contributions by WCMC-Q colleagues Dr. Dora Stadler, assistant professor of medicine and assistant dean for continuing professional development; Dr. Thurayya Arayssi, associate professor of medicine and associate dean for continuing professional development; Dr. Stella Major, associate professor of clinical medicine; Lan Sawan, Clinical Skills Center manager; and Dr. Mohamud Verjee, associate professor of family medicine.

Paying tribute to her colleagues’ efforts, Ms. Al-Sheikhly said: “I was delighted and honored to have the poster selected for the award and I feel it is a reflection of the effort that was put into it and into developing the curriculum. This was only possible because of the ongoing support from Dr. Arayssi, Dr. Stadler, and other colleagues within the institution.

“This award is a great inspiration and will encourage me to focus on identifying other opportunities to enhance and develop further scholarly activities in medical education.”

The AMEE is a worldwide organization with members in 90 countries on five continents that promotes excellence in medical education. Members include educators, researchers, administrators, curriculum developers, assessors, and students in medicine and the healthcare professions. AMEE organizes an annual conference and delivers courses in curriculum planning, teaching, assessment techniques, simulation, and research and leadership skills for teachers in medicine and the healthcare professions.
CMC-Q has hosted its first international exchange student through the Global Education in Medicine Exchange (GEMx) program.

Sana Khan, currently in her final year of studies at Manipal College of Medical Sciences in Nepal, spent two weeks taking an elective in sports medicine at WCMC-Q’s partner institution, Aspetar Orthopaedic and Sports Medicine Hospital. The placement was arranged through WCMC-Q’s membership of GEMx, which is a global partnership of medical schools that facilitates student exchanges among institutions based in 16 countries around the world, including Egypt, Chile, Ireland, Malaysia and Australia.

GEMx, which is a program of the Educational Commission for Foreign Medical Graduates (ECFMG), is building a network comprised of international medical school deans, administrators, faculty, global health experts, and students who share a commitment to advancing global exchange in medical education. GEMx offers a web-based system through which universities can publish details of the electives they offer. Students can use the system to apply for the electives, safe in the knowledge that the host school has signed up to the ECFMG charter, which guarantees established standards of student support and pre-agreed learning outcomes. Partnership is central to the GEMx vision.

Sana, aged 23, said: “It was such a great opportunity for me to take an elective at a world-class institution and I am truly grateful to everyone at WCMC-Q, Aspetar and GEMx and my college in Nepal for making this possible. Being placed at Aspetar, which provides healthcare to top-level athletes, has shown me a completely different perspective on medicine than I had from working in the hospital in Nepal, where we mainly serve a community of people with modest incomes.

“It has been fascinating to see the state-of-the-art technology available at Aspetar and to work with the excellent physicians they have there. I was very fortunate that the doctors made a great effort to involve me in many aspects of care, from patient consultations and physical examinations to interpreting x-rays and MRI scans.”

Dr. Ravinder Mamtani, associate dean for public health at WCMC-Q, is chair of the GEMx Advisory Committee.

He said: “It has been a great pleasure to welcome Sana to WCMC-Q and to see her gaining so much from her elective at our partner institution, Aspetar. She is an extremely bright and intellectually curious student, and she has given both students and faculty here great insight into the practice of medicine in Nepal. Sana has served as a superb ambassador for her school in Nepal, as well as providing a wonderful example of just how mutually beneficial the GEMx program can be for the partner universities involved.”

GEMx director Anna Iacone said: “ECFMG and GEMx are highly committed to fostering a network of committed individuals. As Sana experienced, we are seeing high-quality exchange opportunities for our students through GEMx. She is one of the many success stories.”
Young stars give students a helping hand

Students had the opportunity to conduct pediatric examinations when faculty and staff members brought their children to the college to take part in the annual Cornell Stars event.

The activity forms part of the Introductory Clerkship course, which introduces students to clinical medicine through a series of lectures and practical sessions supervised by senior faculty members.

Held in June, the event brought a total of 23 ‘stars’ aged between one-month and six-years to the college’s Clinical Skills Center, along with their parents. The 36 students of the Class of 2016 observed pediatricians and family physicians as they demonstrated different approaches to interacting with children. The students then took it in turns to conduct physical examinations that included listening to the child’s breathing, monitoring their heart rate and checking general motor function.

Dr. Amal Khidir, assistant professor of pediatrics, and Dr. Mai Mahmoud, assistant professor of medicine and director of the Introductory Clerkship course, jointly coordinated the Cornell Stars event.

Dr. Mahmoud said: “The goal of the Introductory Clerkship course is to help students make the transition from basic sciences to clinical rotations and to make them comfortable with the hospital environment. In line with this goal, Cornell Stars introduces our students to children as patients, which helps them to understand how to interact with children at different developmental stages, particularly through role modeling provided by Cornell and Hamad Medical Corporation (HMC) faculty. Students really appreciate the opportunity to practice their skills in a safe environment. I am very grateful to the support of our faculty and staff who happily brought their kids to the session and worked so enthusiastically with our students.”

Dr. Khidir, who is course director of the Pediatrics Clerkship, added: “Children react in many different ways to the experience of visiting the doctor. Some may be compliant and easy to deal with, while others can be shy and withdrawn or hyperactive and fidgety. The Cornell Stars event provides a friendly, relaxed atmosphere in which trainee physicians can develop a ‘toolbox’ of skills that they can use to put the child at ease, and can observe the many different styles physicians use when working with children. Through experiences like Cornell Stars we aim to help our students develop their own unique styles that work for them.”

The students have previously examined adult standardized patients at the university and have visited clinics at HMC hospitals, but for many of them this was the first time they had worked with children.
Student Ikram Al Lawati said: “The sessions have been very useful because I am not used to communicating with children in a clinical environment and I was a little uncertain about how to do it. The skills are very different from those we use when we interact with adult patients, and it has been good to practice techniques to maintain the child’s attention and keep them on task so that you can complete the examination.”

The young stars were rewarded for volunteering to take part in the session with healthy snacks and a gift to take home with them. Staff member Hussein Abdelkarim, immigration coordinator in the human resources division, brought his two-year-old daughter Noor to the event.

He said: “As staff members we are happy to bring our children along because this experience is really good for the students and it is a way for us to contribute to their training. I think the students benefit from meeting the children and learning how to keep them calm, which they managed to do with Noor simply by being kind and gentle with her.”

Dr. Khidir added: “We are extremely grateful to all of our staff and faculty who were kind enough to bring their children along, and also to the children, who were very patient and accurately demonstrated the diverse range of behaviors that the students are likely to encounter when they work with children. Their contribution made the event an extremely beneficial and useful training experience for our students.”

HMC doctors who took part in the event were: Dr. Hussain Parappil, Dr. Magda Wagdy, Dr. Madeeha Kamal, Dr. Amira Elfaki Mustafa, Dr. Mehdi Adeli, and Dr. Amal Haider (fellow).

Doctors from WCMC-Q who participated were: Dr. Marcellina Mian, professor of pediatrics and associate dean for medical education; Dr. Stella Major, associate professor of clinical medicine and director of the Medicine, Patients and Society II course; and Dr. Amal Khidir.
Seven interns have used an innovative WCMC-Q program as a springboard to launch their careers in biomedical research.

The interns completed the six-month Biomedical Research Training Program for Nationals, which offers graduates the opportunity to learn a comprehensive range of scientific research skills by working with WCMC-Q’s world-class faculty in the college’s state-of-the-art laboratories.

Each of the seven interns was awarded a certificate of completion at a ceremony held at the college in July.

Dr. Khaled Machaca, associate dean for research at WCMC-Q, said the program offered a hands-on research experience that would prove invaluable to the interns in future.

He said: “The program provides the trainees with a very strong and broad grounding in the essential skills they need to pursue successful careers in research, ranging from practical bench research skills through to design of research projects and research administration. I hope and am confident that this very accomplished group of interns has gained experience that will allow them to make very meaningful contributions to Qatar’s growing biomedical research community.”

Dr. Machaca also used his address to thank Dr. Mohammed Al-Thani, director of public health at the Supreme Council of Health, who was in attendance, for his institution’s continued support for the program.

The ceremony marked the completion of the fourth installment of the Biomedical Research Training Program for Nationals, which runs from January to July each year at WCMC-Q. This year’s cohort of interns comprised Amera Al Saadoun, Ghada Saeed Mubarak, Sara Nasser Al-Thani, Ayeda Ahmed, Noor Saad Al-Hajri, Amna Al-Thani and Alya Saleh Al-Sulaiti.

Dr. Javaid Sheikh, dean of WCMC-Q, praised the dedication of the interns and hailed the program as a key element of the college’s commitment to build human capacity in scientific research in line with Qatar National Vision 2030.

He said: “Our mission as a college is not only to produce truly excellent clinicians, but also to help build the workforce Qatar needs to realize its bold and unique vision to become a world leader in the field of research and development. “By completing this very rigorous and demanding program the interns have shown they have the potential to be crucial members of this new generation of scientific investigators. I offer each of the interns my warmest congratulations – mabrouk to you all.”

A total of 18 interns have now completed the Biomedical Research Training Program for Nationals since it was launched by WCMC-Q in 2011. The program is overseen by Yassir Hussain, WCMC-Q’s nationals training program coordinator, and Shaikha AlQahtani, program coordinator at WCMC-Q, who are both graduates of the program.

Intern Noor Al-Hajri, a graduate of Qatar University’s biomedical science degree program, said: “Learning how real research works has been extremely beneficial and has given most of us quite clear ideas of the paths we wish to follow in our careers. I myself have a strong interest in neurogenetics and I want to pursue research in this area in the future – the program has helped me to develop skills I need to do that.”
Although the program is aimed at recent graduates who are interested in pursuing a career as a bench scientist, clinician or biomedical researcher, graduates who have non-science degrees may also be accepted.
Newly enrolled first-year medical students learned how elderly people are looked after in Qatar when they visited a residential care home during their orientation program.

As part of the community service element of orientation, the students toured the facilities at Qatar Foundation for Elderly People Care (IHSAN), which provides outpatient as well as residential care services for older people. The facility, which was established at the behest of Her Highness Sheikha Moza Bint Nasser, also provides home care services to elderly people in the community.

During their visit, the students watched a presentation about the facility, took part in a Q&A session with staff members and chatted with residents to discover the full range of services provided by the foundation, which ranges from basic healthcare and hygiene to physiotherapy and management of complex conditions such as dementia, Alzheimer’s disease, osteoporosis and rheumatoid arthritis. The foundation also places a great emphasis on the integration of older people with the rest of the community and works with family members and volunteers to organize frequent social events.

For student Abdulrahman Al-Abdulmalek the visit provided insight into the way doctors interact with their patients. He said: "Meeting the residents made me realize that being a doctor is not just about treating conditions or health problems - it is also about showing compassion and humanity towards the people who need our help. It is wonderful that a place like this exists where our older people can access the care that they need."

Zainab Al-Kuwari, program coordinator at IHSAN, explained that ensuring the elderly people are happy is an important part of the care the organization provides. She said: "In addition to providing healthcare and residential care, IHSAN also provides opportunities for lots of social interaction so that the elderly people have fulfilling and stimulating lives. In this way it is like a club where they can meet people who are the same age as them and they can pursue their interests and hobbies together."

Al-Kuwari added that integration and participation of the elderly in their community protects them from social isolation and that this is one of the priorities of IHSAN, which aims to provide the elderly in Qatar with a decent quality of life. A key part of the work of the foundation is collaboration with other members of the care team, such as physicians at external institutions, in order to provide the best possible care to elderly people.

Dr. Stephen Scott, associate dean for student affairs, led the student visit. He said: "I’m glad students have the opportunity to see the kind of work that the foundation does, which is so important to the community. It is great for the students to understand first-hand that caregiving also takes place outside of the hospital and the clinic. The excellent, holistic care provided by the foundation demonstrates that healthcare is more often than not a team effort that brings together the talents of many different people."

He added: "I think they also gained a great deal from seeing the genuine compassion and attentive care that the elderly residents receive from the staff."
The potential uses of computer-generated virtual worlds for educational purposes were explored in the latest installment of WCMC-Q’s Educators Across the Health Care Spectrum series. Now in its third year, the annual event brought two experts from universities in the United States to WCMC-Q to deliver a series of workshops that explained how to use virtual platforms to facilitate learning.

The two-day event, entitled Virtual World Simulation for Health Care Education, was coordinated by WCMC-Q’s Division of Continuing Professional Development and the Division of Information Technology Services, and drew approximately 50 attendees.

In addition to faculty and staff from WCMC-Q, physicians and other healthcare professionals from local institutions were also in attendance at the series, which was designated a maximum of 5.5 AMA PRA Category I credits from the WCMC Office of Continuing Medical Education and 5.5 CNE credits from Hamad Medical Corporation’s Continuing Nursing Education Program.

Dr. Carolyn Lowe, associate professor in the School of Education at North Michigan University, led two workshops focusing on using the virtual platform. She said: “Virtual worlds have emerged as extremely powerful educational tools that have really challenged the traditional teaching methods and offer a lot of exciting opportunities for improving learning outcomes. Virtual worlds are used to coordinate learning through online platforms that connect educators with learners, and also as computer-generated simulations of the real world that enable learners to try out techniques in a safe environment.

“These new technologies have the power to make learning more efficient, and also more effective because people retain knowledge better when they have the chance to put a skill into practice rather than simply hearing about it in a lecture.”

Dr. Rachel A. Umoren, who is also a faculty fellow at the Ball State University Institute for Digital Intermedia Arts said: “Virtual environments can be used in several domains for health professional education: Practice and simulation events for faculty and students, collaborative and distance learning courses, visualization in the basic sciences, and interactive learning activities involving role-play or serious games. The ability to bring students and faculty together in real-time from geographically separated campuses to the same 3D virtual space fosters interprofessional learning.”

Dr. Dora Stadler, assistant dean for continuing professional development and the course director of the event added: “This is a wonderful
introduction to the uses of virtual world simulation in training and a great opportunity to liaise with other healthcare educators in Qatar. This technology is now quickly expanding and can be useful for students and faculty alike in terms of collaborative projects and interprofessional skills training.”

WCMC-Q director of continuing professional development, Deema Al-Sheikhly, an organizer of the event, said: “The educational series highlighted the importance of being abreast of technology and enlightened the audience with regards to the application of virtual environments across a wide variety of healthcare related topics. It is important for healthcare educators to be aware of innovative strategies that can be used to provide this generation with an interactive and enhanced learning experience.”

Dr. Carolyn Lowe said virtual technologies have the potential to make learning more efficient.
The success of WCMC-Q medical students who spent the summer gaining research experience at Massachusetts General Hospital (MGH) in Boston has prompted the creation of a new exchange program with Harvard Medical School.

During the summer, Class of 2017 students Aya El-Jerbi, Omar Subei and Joud Abuodeh spent eight weeks working in the research laboratories of the MassGeneral Institute of Neurological Disease (MIND), a division of MGH, which is the largest teaching hospital of Harvard Medical School.

The placement of the students at MGH is the result of an emerging relationship between WCMC-Q and the hospital, which began in the summer of 2013 when Class of 2016 student Mostafa Naguib undertook a summer of research in the MIND institute. Dr. Nayef Mazloum, assistant research professor of microbiology and immunology, serves as the coordinator of student research and oversees the placement of medical students at external research institutions.

He said: “Mostafa impressed his research mentor at MGH with his dedication, drive and professionalism, and that helped to establish a very positive relationship between WCMC-Q and researchers at MGH.

“After Mostafa’s successful experience, the researchers of the MIND institute were very keen to invite more WCMC-Q students to spend the summer training in the MIND laboratories. This represented a great opportunity for Aya, Omar and Joud to go there this summer and they were also wonderful ambassadors for WCMC-Q.”

Aya spent her research experience working in the lab of Dr. Stephen Gomperts studying the hippocampus and the dopamine system of the brain and how their functions degrade in neurodegenerative diseases...
such as Alzheimer’s and Parkinson’s. Meanwhile, Omar joined the lab of Dr. Bradley T. Hyman where he helped to investigate neural system failure in relation to Alzheimer’s and the role of a specific protein thought to be involved in causing of Parkinson’s disease. Joud worked under the guidance of Dr. Oksana Berezovska on a project that studied the cellular and molecular mechanisms of Alzheimer’s disease using state-of-the-art molecular imaging technologies.

The relationship between the two institutions is now in the process of being formalized as the WCMC-Q/MGH-MIND Research Exchange Program, which will enable medical students who completed their first year to apply for funding to help them spend the summer gaining experience in MIND labs on an on-going annual basis.

The new program has grown out of the success of the WCMC-Q Travel Award Committee, which offers funding assistance on a competitive basis to medical students who submit proposals to undertake research at Cornell campuses and at external institutions. The research projects are student-initiated, meaning the students themselves are responsible for developing working relationships with mentors at other institutions and securing invitations to visit them to work on research projects.

Dr. Mazloum, who chairs the Travel Award Committee, added: “The new program will strengthen the relationship between ourselves and MGH, and will facilitate the exchange process for students who wish to spend their research experience in the MIND labs in Boston, which are conducting some of the most cutting-edge research in the world in the field of neurology, and are run by researchers who are among the very best in their disciplines. “The program offers our students a great opportunity to discover the world of medicine that exists outside of the college, learn essential research skills and develop their identities as medical professionals. “As we have seen, the students also serve as excellent ambassadors for WCMC-Q thanks to the energy and enthusiasm they bring to the research projects they join.”
Three medical students discovered the challenges of delivering healthcare in an under-resourced environment when they spent eight weeks in Tanzania on WCMC-Q’s Global Health and Research Experience Program (GHERP).

Second-year medical students Amina Bougaila, Abdulla Elzafarany and Muhammad Shakir spent last summer at Weill Bugando Medical Center in Mwanza, the second largest city in the country, where they witnessed the difficulties local health workers have trying to care for large numbers of sick and injured people with limited equipment and staff.

The students attended morning report sessions at the hospital each day, shadowed local physicians on ward rounds, performed basic physical examinations and took patient histories. They also had the opportunity to travel beyond the hospital to take part in field work for research projects and to help with vaccination programs for infants under the age of five.

This competitive program is run by WCMC-Q’s Global and Public Health Division, which selects students who have just completed the first year of the medical program and wish to spend a summer at Weill Bugando. Now in its fourth year, the program has typically sent two students to Tanzania each summer, but was expanded in 2014 to three students.

In presenting the program overview, Dr. Sohaila Cheema, Director of GPH, outlined the program and its benefits. She laid emphasis on the collaborative nature of the program, and applauded the efforts of Cornell faculty in New York and Tanzania. She said: “The Global Health Education and Research Program is a once in a lifetime, enriching experience for our students. The students return with strengthened physical examination and communication skills and increased medical knowledge. They learn how to reduce reliance on technology, and develop an appreciation of cultural sensitivity and how it affects healthcare delivery. Additionally, the students also gain an increased understanding of global and public health issues.”

In a presentation to fellow students upon their return to WCMC-Q, the students explained how the trip gave them the chance to see first-hand a number of diseases that are rarely encountered in developed countries, such as malaria, tuberculosis, tetanus and schistosomiasis, a condition caused by parasitic worms that is spread by contact with contaminated water. The disease is common in Mwanza owing to the city’s location on the shores of Lake Victoria, which is contaminated with the parasites. The students also saw many patients who had been injured in motorcycle accidents.
For Abdullah, seeing the daily struggles endured by local healthcare providers made a lasting impression. He said: "The eight weeks that I spent in Weill Bugando Medical Centre were very enriching to me as a medical student. Experiencing global health in real life has enlightened me in a way that no amount of lectures about global health could. It has helped me form my own picture of how medicine is practiced in a resource-poor setting and it has also helped me realize what kinds of hardships and obstacles physicians go through as they try to practice in such a setting.”

The students, who were still first-years when they visited Tanzania, finished each working day at 3pm, leaving them time to dedicate to a number of research projects, which included studies of hypertension and neonatal screening for hemoglobinopathies, and proposals for making pediatric ward logs more efficient. They also had the opportunity to spend time sampling the local cuisine, learning some Swahili and to take a short trip to the savannah where they saw some of Tanzania’s impressive wildlife, including lions and elephants.

Muhammad said: “In addition to being an extremely fulfilling and humbling experience, it was also a great learning opportunity as a first-year medical student with the perfect mix of clinical, research, and community service opportunities. I would definitely encourage anyone interested in global health to apply for this program.”

Amina was encouraged by the dedication of healthcare workers and the generosity of the people in Tanzania. She said: “My visit to Tanzania was a true eye-opener about global health issues. It was very enlightening and encouraging to see how some people have very little and they still work so hard and give the best they can to provide healthcare to their people. I truly respect the enthusiasm and the hard work of the Tanzanian doctors and medical students. Despite all the difficulties and challenges they face every day while trying to do their job, they never give up on their patients.

“Tanzania is a beautiful country and its people are very hospitable and generous even with the little they have.”

Dr. Ravinder Mamtani, associate dean for global and public health, said: "I am very pleased to hear that our students found their experience so rewarding and that they have so clearly gained a deep understanding of global health issues from their time in Tanzania. Not only have they honed their clinical skills in a taxing and demanding environment, but they have also gained an appreciation of the challenges we face as we strive to expand access to quality healthcare to all corners of the globe.”
Twenty WCMC-Q students spent the summer gaining experience of biomedical research in Cornell laboratories in New York, Ithaca and Doha.

The Student Summer Research Program (SSRP) gives students who are interested in pursuing a career in research the opportunity to join a working laboratory and benefit from the mentorship of a leading researcher.

This summer, eight second-year pre-medical students spent their 10-week SSRP at Ithaca working with esteemed investigators such as Dr. Yung-Fu Chang, who studies the molecular biology of infectious diseases, and Dr. Robert Oswald, who studies the structure and function of neurotransmitter receptors at molecular level.

Meanwhile, four second-year pre-medical students undertook the program in Doha, where they joined the labs of Dr. Chris Triggle, who specializes in diabetes, glucose toxicity and microvascular disease; Dr. Shahinaz Bedri, whose research focuses on cardiovascular disease, breast cancer, gynecological cancers and the biomarkers of chronic disease; and Dr. Khalid Machaca, associate dean for research, whose lab investigates calcium signaling pathways in relation to cellular development and differentiation. The pre-medical students submitted progress reports about the projects they were working on, wrote an abstract and presented their findings with a research poster and a seminar.

Additionally, a parallel program saw eight first-year medical students spend eight weeks at Weill Cornell Medical College in New York, where they worked with highly regarded researchers such as Dr. Ronald Crystal, one of the world’s leading authorities in the field of gene and stem cell therapies, and Dr. Mark Dinkin, an expert in the field of neuro-ophthalmology.

Yassir Hussain, nationals training program coordinator at WCMC-Q, said: “Students who have an interest in research benefit immensely from spending several weeks in a real, working laboratory where they have the opportunity to learn from some of the most respected researchers in the world.

“The SSRP is a challenging and intensive program that provides an excellent introduction to a wide range of research skills, from practical bench work to report writing. It’s a great way to kick-start a career in research for these students.”

Dr. Chris Triggle.
Introducing new faculty members

Dr. Rayaz A. Malik
Professor of Medicine

Rayaz Malik is a Professor of Medicine at WCMC-Q. He obtained his BSc., MSc. and MB ChB from the University of Aberdeen and his PhD from the University of Manchester. He undertakes translational (T1 to T3) research on neuropathy and cardiomyopathy. He is an expert in the pathogenesis, assessment and treatment of diabetic neuropathy and has been a co-editor for 3 books, co-authored over 30 book chapters and published (~150 peer reviewed papers) and presented (~500 national and international presentations) extensively. His research is funded by the NIH, JDRF, DUK, BHF and EU and his funding totals ~$8M. He is currently supervising 6 PhD’s and has supervised to completion 2 BSc, 3 MRes, 8 PhD and 5 M.D students. He was the Chairman of Neurodiab, the international study group of the EASD for Diabetic Neuropathy (2009-2012). He won the young clinical investigator prize for clinical science for Neurodiab in 1999, North West of England Medical Society Prize in 2000; North East Medical Society Prize 2012. He has been an invited lecturer for the American Diabetes Association 2003, 2007 and 2010, 2012, 2013; European Association for the Study of Diabetes 2004, 2007, 2008, 2010, 2012 and 2013 and World Diabetes Congress 2009, 2011, 2013. He is an associate editor for Diabetic Medicine (2006 to present); BMC Neurology (2009-present); Advances in Therapy (2009-present) and is on the editorial board for Journal of Diabetes and Its Complications (2012-present) and Journal of Diabetes Investigation (2012-present). He is a grant application reviewer for Diabetes UK, MRC and Wellcome Trust, Canadian Diabetes Association, Austrian Diabetes Association and Dutch Diabetes Association. He is on the Juvenile Diabetes Research Foundation Complications and Clinical Investigation Research Committee (2005-2014) and JDRF innovative grant panel 2013-2016. He has undertaken regular reviews for NIDDK and NINDS (2007-present). He served as a reviewer on the MRC DPFS/DCS review panel 2013-2014. He is a regular reviewer for Neurology, Diabetes, Diabetes Care, Diabetologia, and the Lancet.

Dr. Clare McVeigh
Senior Lecturer in Biology

Dr. Clare McVeigh obtained her B.A. (Hons) and M.Sc. in Biological Anthropology and Palaeopathology at the University of Sheffield, UK. She was awarded a Commonwealth Scholarship to undertake a Ph.D. at McMaster University, Canada in 1995, where she investigated the effect of the environment on human dental development. She subsequently became a lecturer in Human Anatomy at California State University, San Bernardino. She returned to the UK in 2004 to become Director of Violence Prevention and Intelligence at John Moores University. During this time she collaborated with the World Health Organization and co-authored the influential report Violent Britain (2005). In 2007 she took a position as Senior Lecturer in Human Biology at the University of South Wales, where she contributed towards their successful Pre-medical degree program. In 2014 she accepted the position of senior lecturer in biology at WCMC-Q. Dr. McVeigh’s primary focus is on the development and implementation of successful and innovative teaching methods and practice, an area in which she has received numerous awards on both sides on the Atlantic. Her research interests continue to be diverse and wide ranging, and include peer-reviewed publications in the areas of forensic osteology and odontology, palaeopathology, and palaeodemography.
Dr. Douglas L. Bovell
Professor of Physiology and Biophysics

Dr. Douglas L. Bovell joined WCMC-Q in September, as professor of physiology in the Medical Education Division. He joined from Glasgow Caledonian University (GCU) where he was professor of physiology and served as associate dean international for the School of Health and Life Sciences, interim director for gcu’s international office and student recruitment services and head of international development coordination in the School of Life Sciences.

Dr. Bovell was born in Scotland, UK and obtained a BSc (Hons) and a PhD in physiology from the University of Glasgow. He pursued postdoctoral research studies at the Institute of Physiology, University of Glasgow before taking up his first teaching post at Queen’s College/GCU, Glasgow. An experienced academic leader and administrator, he served, throughout his time at GCU, on university management committees and program development boards. He is passionate about teaching physiology and contributed to the development of this and other programs in his department through serving on the U.K Physiological Society’s Education and Policy Committee and being a Fellow of the Higher Education Academy in the UK.

In addition, he devised, developed and was program lead for a Masters in Biomolecular and Biomedical Sciences. He is excited about contributing to teaching physiology in WCMC-Q. In his various international roles, he helped develop an internationalization strategy for both GCU and the School of Health and Life Sciences and was responsible for the development of educational links with overseas partners. Evidence of his leadership in this area is the development of a joint Master of Science program between GCU and the University of Misurata in Libya, and a Bachelor of Science in collaboration with the Institute of Health Sciences in Muscat, Oman, as well as professional development training courses offered by GCU for the Saudi Arabian Ministry of Health.

Dr. Bovell has taught a wide range of courses in physiology, histology, and cellular pathology at undergraduate and graduate levels and has advised and mentored Master and PhD students, as well as serving as an external examiner for both PhD and Masters theses in the UK and abroad.

His research interest is in the field of human physiology with emphasis on epithelial transport, particularly using sweat glands as a model for exocrine gland physiology in health and disease.

Dr. Frank Smith
Professor of Chemistry

Dr. Frank Smith is professor of chemistry at WCMC-Q. He received his B.Sc. in Chemistry from Bristol University in the U.K, M.Sc. from McGill University in Canada and a Ph.D. degree from the University of New South Wales in Australia. He received a Diploma in Education from Makerere University in Uganda. Before joining WCMC-Q, Dr. Smith was director (dean) of graduate studies and research, and professor of inorganic and analytical chemistry, at Laurentian University, Canada, where he is currently appointed as professor emeritus. His current research interests are in microwave-assisted chemistry, analytical chemistry and organotin chemistry. Dr. Smith is a fellow of the Royal Society of Chemistry.
Dr. Steven C. Hunt
Professor of Genetic Medicine

Dr. Steven C. Hunt joined WCMC-Q in October 2014 as professor of genetic medicine in the Research Division. Dr. Hunt attended the University of Utah where he obtained his B.S. in mathematics and his Ph.D in genetic epidemiology. In 1980, he was invited to join the faculty, and since 1993, served as professor of internal medicine. He is trained in biostatistics, genetic epidemiology, physiology, and computer applications to biomedical research. His research is centered around genetic and environmental causes of cardiovascular disease, particularly focusing on hypertension, lipids, and severe obesity. Relatives of probands of interest have been recruited to create extended, high-risk pedigrees for detailed phenotypic and genetic studies assessing underlying cardiovascular and obesity risk factors and disease outcomes. He directs a long-term, controlled, longitudinal study on the risks and benefits of gastric bypass surgery for the severely obese. He is working on detailed physiological studies relating gene variants and expression to salt sensitivity of blood pressure, focusing on the renin-angiotensin, cortisol, and catecholamine systems. He is also funded to look at gene expression of cardiomyocytes derived from induced pluripotent stem cells of sibships with high genetic risk of abnormal echocardiographic measurements obtained over 10 years.

Dr. Hunt has authored 300 original research peer-reviewed publications in leading journals and has presented extensively at national and international conferences. He has been a member of many national and international committees and taskforces, such as a four-year term on the NIH Cardiovascular and Sleep Epidemiology Study Section, the NIH personalized medicine RFA review group, the NHLBI mammalian genotyping (linkage markers) review committee, the NHLBI re-sequencing and genotyping service review panel, and the Eurogear review committee for the European Science Foundation. He has been a grant reviewer for NHLBI special study sections and was Chair of the NHLBI re-sequencing and genotyping service review panel from 2008 through 2010. He is a member of the American Society of Human Genetics, the American Heart Association Council on Hypertension, and the International Genetic Epidemiology Society, and is a Fellow of the Obesity Society.
Student Affairs’ Luma Rayyan and Med 4 student Dana Anchassi, who won a bicycle in the raffle.

Hussein Jaber and Wumi Akinade practise bowling on the Wii.

Gloria Peay and Sharon Hollinsworth with their decorated plates.
Dou Huang has her skin analyzed.

Diana Serrao and Ameen Al-Aghil learn how to extinguish a fire.

Ahmed Mushannen tries out the skin analyzer.

Plate painting proved particularly popular.

Hanan Lakkis gets some information about health.

Student Affairs’ Doney Moroney tries a healthy snack.
Rami Aladham leads a tour of high school students around the Clinical Skills Center.

The high school students learned what life at WCMC-Q is like.
Dr. Javaid Sheikh with faculty members who won teaching awards.

Winners of Sahtak Awalan’s photo competition with their prizes.

Dr. Mike Pungente cools down with the Ice Bucket Challenge.
WCMC-Q and Sahtak Awalan were invited to join the National Day QF tent because of the work done in the community to promote healthy living.

Along with the smoothie-making blender bikes, children could also plant their own fruit and vegetables.

More than 80,000 children and parents visited the Sahtak Awalan booth at Darb Al Saai during the National Day celebrations.

Along with the smoothie-making blender bikes, children could also plant their own fruit and vegetables.