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Could a pill eventually cure obesity?
THE MAGAZINE OF WEILL CORNELL MEDICAL COLLEGE IN QATAR

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WCMC-Q has entered into an agreement with Belgian organization VITO to develop novel ophthalmic screening techniques for a large range of common neurological diseases.

Through the imaging of the retina and cornea, it has been discovered that one can diagnose and make a range of predictions about the future health of a patient. By measuring retinal blood vessels and corneal nerves, for example, one can evaluate a patient’s risk of dementia and stroke, or neurological conditions like multiple sclerosis. Now WCMC-Q and VITO, a leading European independent research and technology organization, have signed a Memorandum of Understanding (MOU) that will see each organization benefit from the other’s knowledge and technology, ultimately providing a novel strategy for diagnosis and improved management of patients in Qatar and the rest of the world.

WCMC-Q currently uses a cutting-edge Spectralis OCT and HRT III corneal confocal microscopy (CCM) for live imaging of the retina and cornea, while VITO has developed a number of highly sophisticated algorithms to rapidly quantify pathology in these images. Combining these two approaches will lead to rapid early diagnosis with timely intervention to limit progression of chronic neurological diseases that cause significant disability.
Dr. Rayaz Malik, professor of medicine at WCMC-Q, said: “This really is a wonderful partnership which will offer immeasurable benefits not only to WCMC-Q and VITO but, most importantly, to the community that we serve in Qatar. Moreover this provides a platform for cutting edge world leading translational research.

“The size, shape and branching of blood vessels in the retina offers a snapshot of what a patient’s cardiovascular health may be like in the future. Similarly, the number of nerves visible in the cornea offers us a means of diagnosing not only diabetic neuropathy but also a range of other peripheral neuropathies including idiopathic small fiber neuropathy, chemotherapy induced neuropathy and hereditary neuropathies. We are also exploring for the first time the potential of CCM in diagnosing a range of central neurological conditions like dementia, Parkinson’s disease and multiple sclerosis.”

The cutting-edge translational work will be undertaken in collaboration with Professor Ashfaq Shuaib, director of the Neuroscience Institute in Hamad Medical Corporation. The images will be analyzed using state of the art algorithms and technology shared with VITO to establish rapid diagnostic and prognostic information.

“We are also exploring for the first time the potential of CCM in diagnosing a range of central neurological conditions like dementia, Parkinson’s disease and multiple sclerosis.”

The Memorandum of Understanding was signed by Dr. Malik, on behalf of WCMC-Q, and Mr Fransaer, CEO of VITO, in the presence of H.E. Ahmed Amer Mohamed Al-Humaidi, minister of environment in Qatar; H.H. Princess Astrid de Belgique; Geert Bourgeois, the prime minister of the Flemish Region; and Didier Reynders, minister of foreign affairs for the Belgian Government.
over subsequent weeks the wooden frame grew taller, plywood walls were nailed into place and the resulting structure was painted white. A white curtain covered the entrance. Curiously, no contractors were ever seen working on the structure during the daytime, puzzling observers still further. Eventually, the truth behind the mystery was revealed when bold, black letters appeared on the building, declaring the name of the installation - "Chromothesia" - and explaining its status as a conceptual art project created by a team of six WCMC-Q students and six Virginia Commonwealth University in Qatar (VCU-Q) students working together on an experimental semester-long course that explores the relationship between art and medicine. One of the main projects of the course tasked the students with the conceptualization, design and creation of an artwork. The result was Chromothesia, an interactive, immersive installation that uses Twitter hashtags sourced from people around Doha to take “an aggregate of the community’s emotional status” which is then translated into a color and projected onto the interior of the installation via a series of glowing LEDs. This color alters over time to allow the viewer to experience the changing mood of the community’s collective consciousness. On March 29 the first visitors were admitted to Chromothesia as the exhibition opened its doors for a four-week period. Chromothesia was in fact a project within a project, borne from a research study authored by a team of WCMC-Q and VCU-Q professors who were interested to discover
how students from two apparently very different disciplines would react when asked to work together. In the project’s own words, the installation itself and the course aimed to “examine the contemporary intersection of medicine and art and the degree to which the disparate practices of artists, designers, clinicians, and scientists can inform and inspire one another.” The academic team who guided the project and provided mentorship to the students comprised WCMC-Q faculty members Dr. Alan Weber, associate professor of English, and Dr. Stephen Scott, associate professor of family medicine and associate dean for student affairs, along with their VCU-Q colleagues Rhys Himsworth, director of painting and printmaking, and Amy Andres, assistant professor and libraries director. The Chromothesia installation remained at WCMC-Q until the end of April. The installation was equipped with a tablet mounted at the doorway from which viewers could tweet their emotional status to influence the color of the light projected inside. Rhys Himsworth of VCU-Q said: “One of the most striking ways in which art and medicine intersect relates to the influence that environment can have on mood, feelings of wellbeing and, potentially, on healing. For example, many people associate the clinical and institutional character of hospitals with negative ideas about illness and fear, so there is great potential for artists and designers to work in partnership with people in the medical profession to develop clinical environments that promote positive feelings. I think that sensitive use of color, light and space can all have a profound and positive impact on feelings of wellbeing and I think the students of both colleges found this to be a really interesting and relevant concept to explore together.” The WCMC-Q students enrolled on the course were Eman Mosleh, Mu Ji Hwang, Farah Al Sayyed, Rebal Turjoman, Faryal Malick and Yanal Ji Hwang. The participating VCU-Q students were Abdul Rahman Anwar, Mohammad Jawad, Noor H Al Thani, Habeeb M Hussain Buftaim, Amelie A Beicken and Emma Soares. Class of 2018 WCMC-Q student Faryal Malick said: “Being a person from a purely science background, I jumped at the chance of being a part of this course because of the sheer novelty that it offers. Our major project, the Chromothesia Box, introduced a lot of firsts in my life; it was the first time I helped build a structure from scratch, the first time I used a drill, applied plaster or painted a wall. When we were first introduced to the project, my colleagues from WCMC-Q and I tended to get lost in the abstracts of it and our VCU-Q counterparts had to bring us back to the practical aspects of producing such a piece. We were all completely out of our comfort zones and it was probably the first time in our lives that we were completely clueless about something - a humbling experience, if there ever was one.”

Faryal said that the course also helped the students to appreciate that the relationship between art and science is not quite as distant as it often appears. For example, Dr. Rachel Koshi, director of WCMC-Q’s anatomy program, gave a lecture on the celebrated 16th century Renaissance artist Michelangelo and his work as an anatomist. VCU-Q interior design senior Amelie Beicken said that the students from each college quickly developed effective working relationships. She said: “From our side as VCU-Q students we brought our handcraft skills and abilities to conceptualize, design and build things, while the medical students contributed very interesting concepts about how the finished artwork would affect the viewer. They also helped to keep the focus of the project on the viewer’s experience rather than allowing it to become simply an expression of our own artistic sensibilities, which I think helped us to create a more interesting and relevant installation.” Dr. Stephen Scott noted that the mentors asked students fundamental questions such as, “What is art? What is its purpose? How does the medium influence or illustrate the themes or questions raised by the art?” Dr. Scott added: “It was fascinating to see how students not only reacted, and perhaps initially rejected some of the artists’ ideas, but also engaged with the limits and opportunities of art and science.”

**Dr. Alan Weber**

“The stereotypical assumptions are that art students are creative and spontaneous, while medical students are very methodical, logical and that they learn in a highly structured environment that doesn’t have much space for creativity. By asking students of these two apparently very different disciplines to work together we have been able to explore and challenge these assumptions, while simultaneously identifying the areas in which artists and scientists can work collaboratively to create new ideas that have both artistic and practical value.”
Yalla Natural is part of the ongoing Sahtak Awalan: Your Health First campaign, and aims to help all members of the community to boost their health naturally. This could be by cooking with fresh and healthy ingredients, eating lots of fruit and vegetables, exercising outdoors with friends and family, and growing fresh produce at home for the dinner table. The new initiative was launched with a two-day event on Doha's Corniche in February that unveiled the Yalla Natural Trailer, a 12-meter custom-built transportable activity and information hub. The trailer will continue to pop-up across Qatar to hold free interactive events, dispense advice from expert nutritionists, WCMC-Q physicians and gardeners, and offer free exercise classes for the whole family to take part in, like aerobics and running. Children are able to get hands-on by planting seeds and will be given grow-kits to take home with them to learn about fresh fruits and vegetables. Healthy cooking lessons and tips are offered from the trailer by French chef Eric Cousin of the Chef’s Garden Restaurant, which is operated by AMLAK Services, a member of Qatar Foundation. Following the launch event, Yalla Natural held roadshows at both QF and Qatar International Food Festival. While at the latter, H.E. Sheikha Al-Mayassa, chairperson of Qatar Museums Authority, visited the roadshow as she was shown around ahead of the public opening. H.E. told WCMC-Q staff members involved in the Yalla Natural campaign that because of its goals, Yalla Natural should be a year-round initiative. Her Excellency was also given a plant to take away with her to grow at home.
DR. JAVAID SHEIKH, DEAN OF WCMC-Q, SAID EDUCATING PEOPLE WAS THE KEY TO IMPROVING THE HEALTH OF A POPULATION.

“Research has shown that encouraging people to participate in healthy activities and giving them the tools to adopt healthy lifestyles is far more effective than simply telling them what they should or should not eat and that they have to go to the gym.

“The Yalla Natural Campaign is a great example of this concept in action because it brings people together to take part in healthy activities that are enjoyable, accessible and extremely effective.

“Yalla Natural is also a wonderful way to remind us all that nature provides so many of the things we need to keep us healthy and happy. Simple things like drinking plenty of water, eating lots of fresh produce, doing some gardening or taking some exercise outdoors not only improve the health and fitness of the whole family, but also work wonders at helping people to relax and relieve stress.”

#YALLANATURAL #YHF #SAHTAKAWALAN

Yalla Natural also offers the public free recipe cards, nutritional information packs and exercise cards, and people are able to weigh themselves and find out vital health statistics like their BMI using equipment carried by the trailer. Everyone who takes part in Yalla Natural can tweet about their experiences and share their healthy pictures with the community by using the hashtags: #YallaNatural #YHF and #SahtakAwalan. People can also visit Your Health First on Facebook, Twitter or Instagram and share information on the produce they have grown, healthy meals they have created and exercise sessions they have taken part in.
Qatar’s Newest Doctors Graduate

A new cohort of doctors has graduated from WCMC-Q and received their U.S. medical degrees.

A total of 42 students received their degrees in front of family, friends and faculty at a ceremony held on the college’s campus. The students were also honored earlier in the day by a visit from the Minister for Health, His Excellency Abdulla bin Khalid Al Qahtani, who spoke to them about their future plans and posed for photographs. The graduating Class of 2015 - the largest in WCMC-Q’s history - will now go on to take residencies at hospitals in the U.S and in Qatar, or take up research positions. Dr. Javaid Sheikh, dean of WCMC-Q, paid tribute to the students, who are now some of the world’s newest doctors.
Dr. Sheikh added: “I am hoping that most of you will choose to serve Qatar whether you complete your postgraduate training here or abroad. Your own future career achievements will then be fundamentally intertwined with the future of Qatar and its vision for a knowledge-based economy and a healthy, vibrant population. And yes, I fully expect many of you to join us on the faculty to complete the virtuous cycle. “Class of 2015, as you look forward to the next chapter in your lives, remember this unprecedented generosity of Qatar Foundation in giving you the opportunity to become world class physicians; and consider how you can similarly enrich the lives of others, both locally and globally.”

Student speaker Ahmed Mohsen reminded his peers of the immense amount of work they had to complete to get to where they are, the need for humility in their future careers, and the importance of teamwork. He also thanked Qatar’s leadership, the graduates’ families, and WCMC-Q staff, saving particular thanks for everyone who has helped teach the new doctors. He said: “I’d like to thank all of our educators, including our premedical and medical professors, our clinical faculty at Hamad Medical Corporation, Sidra Medical and Research Center and NewYork-Presbyterian Hospital. “There is a poignant Chinese proverb that I’m sure you may have heard: Give a man a fish, and you feed him for a day. Teach a man to fish, and you feed him for a lifetime. “We have realized that the skills you have taught us have granted us the opportunity to serve society; provide for our families; and help steer the world into a more positive direction. Thank you for this gift, which we will cherish, and promise to hold dear.”

Dr. Laurie Glimcher, dean of WCMC-New York was also in attendance to watch the students receive their degrees and hear them recite the Hippocratic Oath – the traditional promise that all new doctors take to serve their patients. She told the graduates that they would always be part of the Weill Cornell family and would always have a home, either in Qatar or New York. She told them that they should become leaders and innovators, to stretch themselves at all times and to never stop learning. Dr. Glimcher also told them to always remember why they are doctors. She said: “Whether you end up working at the bedside or pursuing research, working in pediatrics or geriatrics, the patient should always be the focus of your efforts—and the force propelling you forward on your path of discovery.”

Dr. David Skorton, president of Cornell University, addressed the audience via a recorded video message and spoke of Cornell’s pride in the new graduates. Dr. Skorton said: “During my nine years as president of Cornell University one of my great joys has been to see the growth and flowering of this program and the young people of extraordinary talent and commitment who become our graduates. I congratulate all of you on your achievements and wish you great success as you move to the next stage of your medical careers.”
“Whether you end up working at the bedside or pursuing research, working in pediatrics or geriatrics, the patient should always be the focus of your efforts—and the force propelling you forward on your path of discovery.”

Dr. Laurie Glimcher
CONVOCATION AWARDEES 2015

Excellence in Internal Medicine: Co-awarded to Ayman Al Jurdi and Sarah Beshay
Excellence in the Medicine, Patients and Society III Course: Dana Anchassi
Excellence in Neurology: Ossama Khazaal
Excellence in Obstetrics and Gynecology: Co-awarded to Nour Abuhadra and Omar Kallas
Excellence in Pediatrics: Co-awarded to Ayman Al Jurdi and Omar Kallas
Excellence in Primary Care: Omar Kallas
Excellence in Psychiatry: Abdulhadi Alsaei
Excellence in Public Health: Co-awarded to Abdulhadi Alsaei and Mohammed Al-Hajri
Excellence in Surgery: Mujahed Laswi
Excellence in the Clinical Curriculum: Co-awarded to Ayman Al Jurdi and Sarah Beshay

Leadership in Medicine Award: Ayman Al Jurdi
Biomedical Research Award: Mais Al-Kawaz and Omar Kallas
Outstanding Community Service Award: Rim ElChaki
The Good Physician Award: Ahmed Alsaei and Sarah Beshay
Class of 2008 Student Leadership Award: Ayman Al Jurdi and Mohammed Premjee

House Staff Teaching Award: Dr. Moamena Ahmed Awad El-Matbouly
The Senior List: WCMC-Q Faculty: Dr. Laith Abu-Raddad, Dr. Badreldeen Ahmed, Dr. Hassen Al-Amin, Dr. Thurayya Arayssi, Dr. Naim Haddad, Dr. Ziad Kronfol, Dr. Dora Stadler, and Dr. Basim Uthman. NY Faculty: Dr. Mark Pecker and Dr. Joseph Safdieh
Humanism in Medicine Award: Faculty: Dr. Mohamud Verjee. Student: Sarah Beshay
Excellence in Pre-Clinical Teaching Award: Dr. Gerardo Guiter
Excellence in Clinical Teaching Award: Dr. Naim Haddad

Global and Public Health Award of Merit: Aseel Abu-Dayya and Rim ElChaki
Outstanding Public Health and Community Medicine Research Award: Aseel Abu-Dayya
Alumni Update:
A Global Quest for Knowledge

When WCMC-Q alumna Dr. Amila Husic returned to Bosnia-Herzegovina in 2014 to work at University Hospital in Sarajevo, it marked the completion of an arduous yet inspiring 15-year odyssey across the globe in pursuit of the skills and knowledge required to practice medicine.

Amila, who joined WCMC-Q in 2002, the college's first year of operations, left her home and family aged just 15 to take up a scholarship at the prestigious King Henry VIII School in Coventry, England. After excelling in her 'A' levels – the U.K. equivalent of the U.S. Advanced Placement (AP) program – Amila won another scholarship, this time from the State of Qatar, offering her the chance to join a bold experiment by studying at the newly established WCMC-Q. At that point the college was operating from borrowed classrooms in an elementary school while construction work on the new building was completed. Despite the daunting prospect of moving to a region she had never visited to join a college that had only just opened, Amila says she jumped at the chance. “It just felt right at the time,” she explained. “I didn’t hesitate for a moment. I felt confident that both Qatar and Cornell would be able to make the college a success and I was really excited by the idea of being a part of something new right from the beginning. As it turned out, I think I made the right choice.” Amila’s decision paid off six years later when she donned the red WCMC-Q robes and black mortarboard and stood on the stage as a member of WCMC-Q’s first-ever graduating class - the Class of 2008. The newly qualified Dr. Husic didn’t rest on her laurels, moving swiftly on to another country, another continent and another challenge as she gained a place on the highly sought-after general surgery residency program at the world-renowned Lahey Clinic in Massachusetts. Dr. Husic said: “I had six great years at WCMC-Q and I feel extremely lucky and privileged to have been in the right place at the right time to join the college just as it started. All of us - the students, faculty and staff - were all working together to achieve something great and unique so there was a great sense of togetherness.” In her fourth year, Dr. Husic had interviews with residency program directors at several teaching hospitals in the U.S., but once again chose to follow her instincts and go with what felt right and join Lahey. She explained: “My journey out to Lahey for my interview was a bit of a disaster. There was heavy snow and my flight was delayed, then the bus to the clinic was delayed and I knew I was going to be late. It took hours to drive through the snow and I was worried about missing the interview but I was also completely charmed by the view through the window. Everything was covered in snow, the buildings were beautiful and I just fell in love with the place. Luckily they are pretty used to the snow causing delays and they offered me a place despite the fact I was horrendously late!”

“I will always think of WCMC-Q fondly, not just because of the friends I made here and the happy memories I have, but also because of the knowledge and training I gained that has opened up such a wide world of opportunity for me.”
Dr. Husic had determined fairly early in her time at WCMC-Q that a career in surgery would suit her. She explained: “I have always been very active and I knew that I would enjoy the energy and the need to make and implement decisions quickly and efficiently that surgery involves. ‘Surgery is not for everyone and I think it is more exacting and stressful than most specialties because it demands so much concentration and there is often a lot of time pressure. But for me there really was no other specialty – it had to be surgery because I love the high level of activity and the need to solve problems quickly and effectively.’”

Dr. Husic completed her residency program at Lahey in 2013 and then moved on to a one-year colorectal surgery fellowship at Mayo Clinic, Arizona. She joked: “After five years away from Qatar I decided it was time I moved back to a desert! In fact, I was extremely happy to be accepted onto a fellowship at such a well-respected institution and I loved the landscape of Arizona, which is very dramatic and beautiful.”

In 2014, having completed her fellowship, Dr. Husic decided it was time to bring her journey full circle and return home to Bosnia to offer her services as a volunteer in the Department of Oncologic Surgery at University Hospital in Sarajevo. She said: “I am really enjoying spending some time at home after having been away for so long. I am excited about getting back in touch with my Bosnian roots and my friends and family who I have missed so much - I left home when I was 15 and it feels wonderful now to be back. I also want to work here and use the knowledge and skills I have picked up from around the world for the benefit of people in Bosnia.”

In the future, Dr. Husic plans to return to the United States to continue her career and is also keen to retain strong links with WCMC-Q. Indeed, in March 2015 she returned to WCMC-Q to give the keynote address at the college’s annual Residency Program Directors’ Symposium, where she spoke about her experiences as an international student, a general surgery resident and a surgery fellow. She said: “It was wonderful to come back to WCMC-Q and see faculty and staff who were here when I was studying, and I was very happy and honored to be asked to speak to the symposium about my time at WCMC-Q and in the U.S.”
In Qatar and the wider Middle East, the problem is particularly acute; not only does Qatar have a high rate of obesity, but around 17 per cent of the population also has diabetes. If a weight-loss pill could be discovered, many of the illnesses associated with obesity could be prevented overnight. It may sound like science fiction but Dr. Lotfi Chouchane, WCMC-Q’s professor of genetic medicine and professor of microbiology and immunology hopes to produce just such a pill. For the last four years Dr. Chouchane and his team have been studying fat cells and believe they may be able to fight fat with fat.

The theory comes from the fact that the human body has two types of fat: brown fat and white fat.

Dr. Chouchane explained that white fat stores excess energy and is the largest endocrine organ in the body. Brown fat is less abundant and is responsible for maintaining body temperature through non-shivering thermogenesis (heat production). In addition, brown fat emerges earlier during the development of the fetus and is at its greatest amount - relative to bodyweight – at birth. This is because of the role it plays in protecting the new-born baby from the temperature changes associated with birth. Over time the amount of brown fat in the body reduces and has traditionally being considered insignificant in adults. However, that is not true as it is now known that the amount of brown fat in the body is inversely proportionate to the body mass index (BMI) of an individual; the leaner a person is the more brown fat they have. Interestingly, exposure to cold temperatures also increases the quantity of brown fat in a person who is already slim. However, cold temperatures have no effect on the brown fat content of someone who is overweight. It is also now known that brown fat helps to clean the blood of triglycerides, increases insulin sensitivity and protects against diabetes, meaning that it really could be the holy grail that scientists are searching for in their fight against diseases of the metabolic system. Through nanotechnology and the use of stem cells, Dr. Chouchane and his team have discovered that brown

The knowledge has the potential to revolutionize health care and save millions of lives and dollars.
DR. CHOUCHANE SAID:

“We started our findings with pre-adipocyte stem cells. We noticed that after a few weeks they turned into brown fat. Then, after a further three or four weeks, they became white fat.

“My ultimate goal is to inhibit the transition from brown to white fat. If I find the molecule that switches the transition on and off it will provide the opportunity to create a drug that can cure obesity.”

Obesity and associated diseases like diabetes and heart disease cause tens of thousands of deaths and cost countries tens of millions of dollars each year to treat.

None of this would be possible without funding, of course, from WCMC-Q’s own biomedical research program but also Qatar National Research Fund via NPRP 4-294-3-092 and NPRP 4-748-2-277. Together WCMC-Q and Qatar National Research Fund are helping to create a truly knowledge-based economy.
The winners have been announced in an innovative annual competition to encourage young people to think about their health.

The Challenge Poster Competition is now in its third year and is organized by WCMC-Q in Qatar as part of its Sahtak Awalan: Your Health First campaign. Students from 30 middle schools across Qatar were invited to undertake a research project on a health topic and approximately 300 posters were submitted in total. The posters were judged by faculty from WCMC-Q and the top ten posters were awarded prizes. The nine schools to win trophies were English Modern School Al Khor, Al Hammad International School, Ossama Bin Zaid Independent School, Qatar Canadian School, Mesaieed Independent School for Girls, Al Ahnaf International School, Qatar Leadership Academy, Audio Education Complex, and Al Hikma International School. Dr. Javaid Sheikh, dean of WCMC-Q, said the standard of the competition had been very high.

Dr. Javaid Sheikh said:

“The judges were very impressed with the academic work that all of the students had put in to their posters.

“Health is one of the most valuable gifts that we have and it is so important that we take the time to make a conscious effort to live healthy lives, not just for our sakes but also the sakes of our families and friends. The Your Health First campaign encourages people to do just that – think about their health and then make the right choices.”
Topics chosen by the students included obesity, car accidents and nutrition. Sixteen-year-olds Saeed Al-Merri and Mohammed Al-Marghi, from the Audio Education Complex, chose smoking as their topic, creating a 3D poster that used models of cigarettes as a funeral pyre. “Smoking has a negative effect on health,” they said, “but before our research we didn’t know that smoking can affect the heart and can discolor the eyes.”

Art teacher Nourelhadi Osman said that the poster competition had been a valuable educational tool and had come at the right time as it coincided with National Stop Smoking Week so Saeed and Mohammed took their message to the rest of the school. The students then joined a discussion led by Nesreen Al-Rifai, WCMC-Q’s chief communications officer, in which they explained their posters and their reasons for choosing their particular topic. Mohammed Saeed of Ossama Bin Zaid Independent School worked with a group of friends to create a poster about obesity. He said: “We chose obesity because it’s a major issue for Qatar that affects a lot of people here. The problem is that people are eating too much fast food and not enough people have an exercise program that they follow. But we say in the poster that the most important thing is to have the self-motivation to eat healthy food and to exercise regularly.” Each school was awarded a trophy while every student received an individual prize presented by Dr. Marco Ameduri, WCMC-Q’s associate dean for pre-medical education.
A Look Ahead to an Era of Integrative Medicine

Ways to effectively integrate complementary and alternative treatments with conventional medicine were explored at a symposium hosted by WCMC-Q’s Division of Global and Public Health.
The symposium, attended by more than 200 healthcare professionals, featured speeches by healthcare experts on a variety of integrative medicine topics such as acupuncture, mind-body medicine, and nutritional and herbal supplements. Strategies for enabling self-care and building therapeutic alliances with patients were also discussed. The event, which had the theme ‘Integrative Medicine: A Refreshing Approach to Optimum Health’, explored the positive aspects of alternative therapies, but also the dangers and risks they can pose to patients. The relatively new movement towards ‘integrative medicine’ encourages physicians to speak to their patients to ensure that any evidence-based alternative therapies they are using complement conventional therapies and do not endanger health by conflicting with prescription drugs, for example.

Dr. Ravinder Mamtani, professor of healthcare policy and research at WCMC-Q, explained: “As physicians, we have a responsibility to engage empathetically with patients to discover the complementary and alternative therapies they might be using. One compelling reason for this is that research has shown that a large number of patients make use of complementary therapies, so it would be remiss to ignore this factor. Furthermore, there is sufficient evidence that many complementary therapies actually have clinical benefits and can help patients to deal with a variety of conditions and diseases, many of which may cause chronic and disabling pain. Physicians have an obligation to explore how these modalities can help patients and we must therefore also examine new ways to structure healthcare delivery to facilitate the integration of evidence-based complementary therapies with conventional medicine.”

Dr. Javaid Sheikh, dean of WCMC-Q, gave the keynote address. This followed remarks by Dr. David Reilly, consultant physician at the National Health Service Centre for Integrative Care in Glasgow, Scotland, who spoke about self-care, wellness enhancement and human healing.

Other speakers at the event included Dr. Benjamin Kligler, who gave an address about integrative approaches to pain management. Dr. Albert Lowenfels, emeritus professor of surgery and professor of community and preventive medicine at New York Medical College, Valhalla, New York, spoke about the impact of integrative medicine on mortality and morbidity. Dr. Mamtani then returned to speak about practical measures for the integration of complementary medicine into conventional healthcare. The symposium concluded with an interactive Q&A session moderated by Dr. Sohaila Cheema, director of the Division of Global and Public Health at WCMC-Q. She said: “Complementary and alternative therapies are often beneficial and can provide hope to many patients suffering from chronic conditions. But some therapies can present risks. It is therefore very important for physicians to have an open dialogue with their patients to discuss which therapies are safe and how they can be integrated in the overall care package.”

Dr. Mamtani added: “It is extremely valuable for physicians to engage in discussions among themselves through events such as this symposium so that we can share ideas about how to prepare for the new era of integrative medicine and ensure that we provide optimum healthcare for patients.”

Dr. Javaid Sheikh:

“It is extremely gratifying to welcome so many healthcare professionals to WCMC-Q to discuss and explore the impact of complementary and alternative therapies, which is an absolutely crucial issue for healthcare providers in the 21st century. As preventative medicine and self-care become increasingly important, we have a duty to accommodate the complementary therapies used by patients, to understand how they can be beneficial and to raise a warning flag when they could be harmful. This symposium is therefore a wonderful opportunity to discuss how we can work with patients to safely integrate complementary therapies into conventional medicine.”
The ways in which simulation-based learning methods are changing medical education were explored at a special lecture given by a visiting expert in the field.

Dr. Deborah Sutherland, CEO of the University of South Florida Center for Advanced Medical Learning and Simulation, told an audience of students and healthcare professionals about the opportunities and challenges posed by the increasing use of simulation-based teaching methods in medical education. Simulation-based learning uses artificially contrived scenarios and, frequently, specialist technology such as anatomical models and computer-generated images to allow medical students and healthcare professionals to develop practical skills in a safe environment. Simulation-based learning can remove the need to learn skills by practicing on living patients, which reduces the risk of injury and improves learning outcomes by creating a less stressful learning environment and allowing techniques to be practiced repeatedly under close supervision.

Dr. Sutherland’s lecture, entitled ‘The Changing Paradigm of Medical Education: The Role of Simulation-Based Learning’, explained that the new teaching method has begun to change the way medicine is taught. She said: “The proliferation of simulation-based learning activities represents a critical shift in the medical education paradigm.”

Dr. Deborah Sutherland
simulation-based learning activities represents a critical shift in the medical education paradigm. A definite movement is underway from the traditional apprenticeship model that has been used for centuries to a model that has a competency-based approach at its core, and the way in which competency is being ensured is largely through simulation-based learning and assessment.”

Held at WCMC-Q, the lecture was organized by the Division of Continuing Professional Development in collaboration with the Dean’s Office. Dr. Sutherland, who is also associate vice president of the University of South Florida Health and associate dean of the Morsani College of Medicine, visited Doha as part of a delegation of specialist advisors who are working with WCMC-Q to discuss the evolution of the college’s Clinical Skills Center.

Dr. Robert Crone, senior advisor to the dean on academic affairs at WCMC-Q, said: “Dr. Sutherland is a recognized expert in her field and our audience members were clearly very interested to hear her thoughts about the ways in which simulation-based learning can benefit both students and healthcare professionals undergoing training as part of their continuing professional development, and how this can ultimately lead to improved healthcare outcomes for patients.”

The University of South Florida Center for Advanced Medical Learning and Simulation, known as CAMLS, is based in a three-story, 90,000 square foot building in Tampa and is one of the world’s foremost medical simulation and training facilities. Dr. Sutherland gave the placement of a central-venous catheter as an example of the type of procedure that the facility can simulate. The procedure entails insertion of a catheter into a vein near the heart by threading it through a large vein in the arm, chest or neck. She said: “Placement of the central-venous catheter has been identified as one of the top ten most erroneously performed medical procedures in the United States. CAMLS is addressing this by offering a course that allows medical professionals to learn the correct procedure for placing the central line using ultrasound in a safe, controlled environment, which has clear benefits for both the medical professional and the patient.”

Dr. Javaid Sheikh, dean of WCMC-Q, said: “Simulation-based learning has emerged as an incredibly useful tool for training medical students to perform a very wide variety of critical skills in a safe environment under close observation by faculty. At WCMC-Q we have embraced the opportunities offered by simulation-based learning in our state-of-the-art Clinical Skills Center and we are excited by the potential for developing our capacity even further.”
**HH Sheikha Moza Explores Sahtak Awalan Campaign**

WCMC-Q’s Sahtak Awalan team was privileged to be visited by Her Highness Sheikha Moza Bint Nasser at the World Innovation Summit for Health (WISH).

The Sahtak Awalan: Your Health First campaign was chosen by WISH as one of 20 global innovations to be showcased to health experts from around the world. In her capacity as Chairperson of WISH, Her Highness officially opened the conference and visited the Sahtak Awalan booth where she was updated on the continuing work of the campaign.

Dr. Javaid Sheikh, dean of WCMC-Q, said it was a huge honor for the college.

Dr. Sheikh said: “Health and education are both passions of Her Highness Sheikha Moza, impacting as they do on everyone from the young to the old, the rich to the poor. Indeed, they are two of the reasons why Qatar Foundation was created and why WCMC-Q itself is here today.

“The Sahtak Awalan campaign also encompasses education and health – it is helping to teach the public about how to live a healthy life so they and their families may enjoy a long and happy future.”
It is very gratifying for WCMC-Q and the Sahtak Awalan team that this work has been recognized by Her Highness. I hope that we are making a very real difference to the well-being of Qatar and helping to create a healthy population capable of fulfilling the goals of Qatar National Vision 2030.”

Sahtak Awalan was also discussed by Dr. Sheikh in a high-level debate about how to communicate complex health messages to the public. Your Health First was used as an example of how to run a public campaign against obesity. Dr. Sheikh said: "It was a great privilege to be asked to participate in the discussion and be able to give the audience of health professionals an insight into the work we are doing at WCMC-Q in the realm of public health.

"Obesity and diabetes are both complex disorders but Sahtak Awalan is communicating the preventative measures that the public can take in an accessible and meaningful manner, using a variety of techniques that can be replicated in countries across the world.”

As one of WISH’s chosen innovations, Sahtak Awalan was invited to showcase its work in the innovations hall. Visitors to the booth were told about the high-profile work that Your Health First has done in the community, including The Challenge, Your Healthy Chef, the Greenhouse Project and the revamping of the canteens at QF schools. Delegates also heard about Sahtak Awalan’s new initiative, Yalla Natural, which is encouraging people to exercise and grow and cook their own fresh healthy food.
The laws governing the practice of medicine in Qatar were explored at a seminar held at WCMC-Q in collaboration with Qatar University’s College of Law (QU-LAWC).

More than 100 attendees from both the medical and legal professions participated in the event, which aimed to establish a dialogue to examine the law as it pertains to physicians, researchers, nurses and other healthcare providers working in Qatar. The seminar, presented by WCMC-Q’s Division of Continuing Professional Development, the Office of Faculty Affairs and the LAWC Dean’s Office discussed issues such as the legal protections that exist for patients, the processes followed in medical malpractice cases, and the difficulty of developing a universal understanding of the law in a highly diverse healthcare workforce and patient base, among other topics.

The event, entitled ‘Crossroads of Law and Medicine’, was opened by an address from LAWC dean Dr. Mohamed Al-Khulaifi, who emphasized the importance of the collaboration between physicians and lawyers to ensure that patients and healthcare providers receive maximum protection under the law. He said: "Being part of this important dialogue reflects the college’s position as Qatar’s only college of law and one of the leading law colleges in the region, through the quality of its academic programs, the competencies of its graduates, the expertise of its faculty and the wide-ranging services it provides to the community. Collaboration between the legal and healthcare sectors plays a core role in enhancing current medical malpractice laws in Qatar, and highlights the importance of overcoming ambiguities within the current system. It also emphasizes the role of law in the society as one of the most efficient factors towards building a knowledge-based economy, in line with..."
Qatar National Vision 2030. LAWC is well-placed to bring critical discussion to this seminar that will be of invaluable benefit to participants.”

The conference also featured a presentation by LAWC professor Dr. Gaber Mahgoub on current medical malpractice laws in Qatar. Dr. Mahgoub described how criminal court, civil court and institutional administrations may participate in addressing patient complaints. Additionally, HMC general counsel, Mr. Abdulmajid Basheer Abdulmajid, described how medical malpractice claims are handled at the country’s largest healthcare system. He described how patient complaints are directed through a system that includes not only compensating patients for legitimate complaints, but also understanding how systems can be improved to enhance patient safety and prevent injury from occurring in the future.

Sunanda Holmes, WCMC-Q legal counsel, moderated the dialogue between the presenters and the audience on the issues raised in the presentations. Explaining the purpose of the seminar, she said: “Our goal is to begin an ongoing and continuous dialogue between doctors and lawyers about the practice of medicine in Qatar. This is an extremely important issue because the majority of healthcare workers in Qatar are from outside the country and they need to have a good understanding of their liabilities, responsibilities and protections under Qatari law in order to provide the best possible standard of healthcare to their patients. It also brings healthcare providers peace of mind to know the legal process if they are ever involved in a malpractice action, for example.”

Holmes explained that 69 percent of physicians and 91 percent of nurses practicing in Qatar are expatriates, and that they are drawn from approximately 70 different countries. She noted that, given the complex and intricate nature of law in all countries, plus the language barrier that exists for non-Arabic (and non-English) speakers, legal issues can prove difficult to understand and worrisome for some healthcare workers. Holmes believes that starting a dialogue about these issues will help to dispel some of the concerns.

The event also included a lively discussion session with the audience that comprised legal scholars as well as healthcare practitioners from all sectors of the Qatari healthcare system. It was generally agreed by all participants that the seminar was an important first step in developing future cooperation and dialogue within the legal, regulatory and medical professional communities in relation to protecting the public and the healthcare practitioners through clear and unambiguous laws and medical regulations.

WCMC-Q and QU-LAWC are planning future seminars as well as an international conference on Law and Medicine scheduled for later this year and in 2016.

Dr. Ibrahim Janahi, senior consultant and head of pediatric pulmonology at Hamad Medical Corporation (HMC) shared his unique perspective, both as a practicing physician as well as head of the Supreme Council of Health. Qatar Professional Council. Dr. Janahi, who was appointed WCMC-Q professor of clinical pediatrics in December 2014, becoming the first Qatari to have full professorial rank at the college, spoke about the physician’s rights and responsibilities within the Qatari legal framework as well as the council’s proposed changes to Qatari law as it relates to protecting patients and providers. He emphasized that the proposed draft legislation, which will be available for stakeholder comment in the near future, should remove some of the uncertainty and ambiguity that exists within the current system dealing with malpractice.

Dr. Thuraya Arayssi, WCMC-Q associate professor of medicine and associate dean for continuing professional development, highlighted her perspective as an expatriate physician and a faculty member in preparing her students for the practice of medicine in Qatar and beyond. Dr. Arayssi emphasized the importance of communicating and understanding a patient’s cultural context in order to practice in the most effective way and to avoid patient-provider misunderstandings.
The next generation of doctors learned where they will spend the next chapter of their lives following the annual Match Day.

Match Day is when 40,000 graduating medical students from around the world find out if they have been successful in applying for approximately 25,000 residency positions in the U.S. At WCMC-Q on March 20, 39 future medics announced where they would be heading next for their residency programs, when they begin training in their chosen specialty. In all, 32 of 33 of the students who entered the National Residency Match Program (NRMP) also known as “the Match” will go to the U.S. to such internationally
renowned institutions as Cleveland Clinic Foundation, NewYork-Presbyterian Hospital, and University Hospitals Case Medical Center. Seven have chosen to continue their training in Qatar at Hamad Medical Corporation (HMC). Qatari Mohamed Al-Hajri is one of those and will begin his residency training in radiology at HMC. Mohamed said that he had spent time working at NewYork-Presbyterian Hospital and at HMC during his time at WCMC-Q and thought there were both advantages and disadvantages of training in the U.S. and in Qatar. Ultimately, however, he wanted to remain close to his family. He explained his decision to choose a residency in radiology. He said: “I worked in many departments in HMC, and radiology was one of the strongest in terms of education and the cases that you see. In addition, I like technology, and radiology offers that facet more than any other field. I am particularly interested in interventional radiology. I saw one procedure and it was magnificent, combining surgery, diagnostics and therapeutics. It was like surgery but not as physically invasive as you use CT scans and MRIs to guide you through the anatomy; it’s like a 3D map.”

Match Day marked the culmination of four years of medical training for WCMC-Q’s students, who graduated in May.

Dr. Javaid Sheikh, dean of WCMC-Q, said the Class of 2015 had shown commitment, hard work and talent to become physicians.

“We will soon be saying goodbye to these students as they embark on the next stage of their career, some in Qatar and some overseas. Myself, the college’s faculty and staff are confident that they will be wonderful ambassadors for WCMC-Q, and that they will show the same aptitude and drive as they have over the last four years. If I can give them one piece of advice, it would be to retain their curiosity of the world and to never stop seeking knowledge. “I wish each and every one of them the very best of luck.”
Six interns have been inducted into the latest cycle of WCMC-Q’s Biomedical Research Training Program for Nationals where they will learn a comprehensive range of scientific skills to help give their careers an early boost.

The six-month program gives graduates the chance to gain hands-on work experience within WCMC-Q’s technically advanced laboratories and learn from the college’s world-renowned research faculty. This is the fifth installment of the extremely successful Biomedical Research Training Program for Nationals, which was established by WCMC-Q in 2011 to help build the new generation of highly educated professionals Qatar needs to develop a thriving knowledge economy in line with the goals of Qatar National Vision 2030.

To date, 18 interns have completed the Biomedical Research Training Program for Nationals. Interns learn a wide variety of competencies on the program, from practical bench research skills through to design of research projects and research administration. The new interns spoke of their hopes for their time working in the labs at WCMC-Q. Maryam Al-Dosari said: “The program is an opportunity to develop our research skills under the guidance of renowned and distinguished researchers, in order to contribute to the progress of the scientific research in Qatar.” Her new colleague, Rouda Al-Qahtani, said: “I am thankful for being accepted to this training program as I am sure that it will grant me the necessary knowledge and the ability to pursue my future career.” Although the program is aimed at recent graduates who are interested in pursuing a career as a bench scientist, clinician or biomedical researcher, graduates

“I am sure that it will grant me the necessary knowledge and the ability to pursue my future career.”

Rouda Al-Qahtani
who have non-science degrees may also be accepted. Noof Al-Kuwari said: "As a nurse, I’m keen to learn and to be aware of anything related to the patients to be able to offer them the best medical and healthcare services, and my enrollment in this program will definitely add to my scientific efficiency and my ability to develop my research skills.” Rouda, Noof, and Maryam will be working with their colleagues Maha AlDosari, Aisha Al-Qahtani and Sharefa Al-Mannai in the program until July this year. Dr. Khaled Machaca, associate dean for research at WCMC-Q, welcomed the new interns to WCMC-Q. He said: “It is very pleasing for us to be able to bring these enthusiastic and talented young people to WCMC-Q so that they can learn first-hand the vital skills needed to pursue a successful career in research. “This is a great opportunity for the interns to learn from some of the most respected biomedical researchers in the world. With the knowledge they will gain, they have the chance to develop extremely rewarding careers and to make very important contributions to the growing research community in Qatar.”

“This is a great opportunity for the interns to learn from some of the most respected biomedical researchers in the world.”

Dr. Khaled Machaca
The pioneering research being conducted at WCMC-Q was showcased at the college’s 5th Annual Research Retreat.

Members of the research community at WCMC-Q and many other elite institutions gathered at the college to see presentations of the latest cutting-edge scientific investigations being conducted at WCMC-Q in a wide range of fields, including genetic medicine, hypertension, inherited diseases, diabetes, obesity, and the role of calcium in the cellular processes that underpin almost all aspects of life.

The annual event is designed to provide a forum for WCMC-Q researchers to share their investigations with members of the scientific community in Qatar. This year, more than 240 delegates were in attendance at the one-day event, including representatives of the Qatar National Research Fund, Hamad Bin Khalifa University, Supreme Council of Health, Hamad Medical Corporation, Qatar National Research Fund, Qatar Foundation, Sidra Medical & Research Center, Qatar University and more.

The event began with opening remarks given by Dr. Javaid Sheikh, dean of WCMC-Q, and Dr. Khaled Machaca, associate dean of research at WCMC-Q. Dr. Sheikh said: "The annual Research Retreat has become a firmly established tradition at WCMC-Q and a keenly anticipated date in the calendar of the college. The event gives us the opportunity to discover the incredible inventiveness of the research faculty we are so fortunate to have here and to share their work with our peers. "We are extremely proud to be able to play a key role in the thriving research community here in Qatar and to be making a valuable contribution to efforts to diversify the economy in line with Qatar National Vision 2030, with great support from our enlightened leadership through Qatar Foundation and Qatar National Research Fund. As such, it gives us great pleasure to showcase the results of the pioneering work being conducted in our laboratories."

Delegates heard a keynote speech by Professor Wanjin Jong (picture above), executive director at the A*STAR Institute of Molecular & Cell Biology in Singapore, in which he recounted his experiences of seeing Singapore transformed into an international hub for biomedical research.

The Research Retreat featured oral presentations by WCMC-Q researchers, with Dr. Lotfi Chouchane, professor of genetic medicine, speaking about genetic susceptibility to obesity and Dr. Joel Malek, assistant professor of genetic medicine, who explained his work on the genetic sequencing of the date palm. Dr. Khalid Fakhro, assistant professor of genetic medicine, presented his research into genetic sequencing of inherited diseases among families in Qatar. Dr. Machaca delivered an address entitled ‘Hypertension & Calcium Signaling in Vascular Smooth Muscle’ and Dr. Shahrad Taheri, professor of medicine at WCMC-Q, spoke about conducting clinical research into diabetes and obesity on a
Dr Khaled Machaca said: “The Research Retreat provides us with an excellent forum for bringing the scientific community together to appraise and discuss the progress that has been made in WCMC-Q’s research program over the past year. WCMC-Q has 35 active research laboratories investigating diverse areas, ranging from the basic molecular and cellular processes through to translational, clinical and population-based studies. There are now more than 200 staff and faculty members at WCMC-Q engaged in research, and the cumulative amount of extra-mural funding awarded to WCMC-Q researchers through competitive programs administered by Qatar National Research Fund has reached $89.5M over the past six years. The Research Retreat drew to a close with the announcement of awards for the most accomplished poster presentations in three categories. First place in the student category was awarded to Mais Al-Kawaz for her poster on autistic-like behavior in genetically manipulated mice, while Tushar Khanna took second place with his poster on the characteristics of cerebral spinal fluid in children with an inherited neurodegenerative disorder called CLN2 disease. Dhabiba Al-Kubaisi won third place for her poster on biodiversity and barcoding lizards in Qatar. In the research specialists category Ghina Mumtaz came first with a poster about HIV epidemics among drug users; Hina Sarwath was second with a poster about the significance of an identified protein in cervical cancer, and Susanne Awad was third with a poster about male HIV sufferers. In the postdoctoral fellows category, Dr. Houari Abdesselem was first with a poster about the effects of a gene called SIRT1 on fat accumulation; Dr. Ioannis Petropoulos was second with a poster about the use of a special type of microscope to demonstrate nerve damage in diabetes patients; and third place was shared between Dr. Vimal Ramachandran with a poster about MicroRNA and Dr. Pegah Ghiabi with a poster about breast cancer.”
WCMC-Q debaters endured a frustrating finale to the season as they struggled to convert their dominance in the league and Nationals competitions into victories.

Despite having the four highest-ranked speakers at the Nationals competition and the four highest-scoring teams in the preliminary rounds of the two-day contest in March, the WCMC-Q debaters were beaten in the final by a team from Texas A&M University at Qatar. There was similar heartbreak for the WCMC-Q team in the last round of the Qatar Universities Debating League in February as a late charge failed to topple Carnegie Mellon University in Qatar from their position at the top of the table.

At the Nationals event, students debated motions relating to pressing contemporary issues such as artificial...
intelligence research, pharmaceutical advertising regulations and immigrants’ voting rights, among other topics. All university debates in Qatar are conducted according to the British Parliamentary format, which pits four two-member teams against one another in a battle of wits, rhetoric and speed of thought as they argue either for or against a motion put before them. Although debates are contested in pairs, debaters are also scored separately and WCMC-Q team members finished in the top four spots in the individual standings at the Nationals. Cleo Reyes clinched the top spot, while Daniyaal Rasheed was second, Mountasir El-Tohami finished third and Alaaeldin Elsayed was fourth in a field of 55 competitors.

Eman AlMosleh, president of the WCMC-Q Debate Club, applauded the efforts of her teammates. “Everyone worked really hard as a team to get to where we are today,” she said. “To win Nationals is great, but to have three teams in the final means the world to me because it means we have succeeded as a club and not only as individuals, and that is what debating is all about; teamwork.” The loss in the final of the Nationals was all the more galling for the fact that WCMC-Q had three teams in the debate versus one team from Texas. Dr. Sharkey added: “Of course we are disappointed, especially as we outnumbered them three to one in the final, but we have to acknowledge a great performance from a very strong Texas team and offer them our congratulations. We dominated everywhere but the final, but that’s the way things go sometimes. ‘We’ll be back next season – forgive the Wild West metaphor - to run Texas and all the other teams out of town.”

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Nevertheless, WCMC-Q debate team coach Dr. Rodney Sharkey, associate professor of English, was keen to accentuate the positives of the strong performances by the team’s speakers over the course of the season. He said: “The students gave a very good account of themselves and performed to a really high level. I’m very proud of the way they conducted themselves and the spirit they showed to keep us in contention right to the end.

“I was also very pleased that we won a lot of individual prizes. For the third year in a row we have the top ranked national debater in Qatar, this year in the form of Cleo Reyes. And I’m particularly pleased that our novice debaters are winning the top individual awards as it bodes extremely well for the future.”
The academic excellence of 29 high-flying students was recognized with a ceremony held to mark their inclusion on the Dean’s Honor List.

The ceremony at Hamad Bin Khalifa University’s Student Center acknowledged the efforts of first and second-year pre-medical students who made it onto the list by achieving GPA scores of 3.75 or above in the Fall 2014 term. Dr. Javaid Shekih, dean of WCVMC-Q, presented each of the students with an award to commemorate their inclusion on the list. He said: “It takes a great deal of dedication, hard work and talent to make it onto the list, so each of you deserves to feel a huge sense of satisfaction at what is a truly remarkable achievement, as do our tremendous faculty who play such a key role in helping you to make the very best of your potential. “I hope that the memory of this achievement will stay with you and become a source of encouragement as you move forwards with your studies and take on the many challenges that lie
Dr. Sheikh said achieving a GPA of 3.75 took dedication ahead, both here at the college and in your careers in medicine after you qualify.” WCMC-Q alumna Dr. Noora Al-Shahwani, who graduated from the college in 2011 and is now a pediatric surgery resident at Hamad Medical Corporation, gave an address at the event. She said: “Each of you has done something spectacular and I am sure I speak for everyone involved with WCMC-Q and your families when I say that we are all immensely proud of you. A life in medicine is a life committed to lifelong learning, and I urge you to continue to apply your intellect and your curiosity to improving your knowledge throughout the entirety of your careers. “In this way, you will not only reach your maximum potential but you will also ensure that you are able to provide the very best care possible to your patients.”

The students included on the Fall 2014 Dean’s Honor List were:
Organized by Qatar National Research Fund (QNRF), the competition is always a fiercely contested affair, with talented student research teams from Hamad Bin Khalifa University colleges and Qatar University vying for top spot in the oral and poster presentation categories. Class of 2018 student Mu Ji Hwang, together with Ahmed Mushannen and Haidar Kubba of the Class of 2017, won second prize in the oral presentation category with their UREP 14-supported project entitled Metformin improves Endothelial Function and Protects Vasculature against Glucose Toxicity, which was co-supervised by Dr. Hong Ding, WCMC-Q’s assistant research professor of pharmacology, and Dr. Christopher Triggle, professor of pharmacology. The project investigated the effects of metformin, the first-choice drug for the treatment of type 2 diabetes, on vascular function. The results of the study indicate that metformin protects endothelial cells against the effects of hyperglycemia. Dr. Ding and Dr. Triggle said that they were very pleased with the success of the project, the dedication of the students to their research.

"The UREP program of QNRF has proven to be an incredibly successful vehicle for supporting the ambitions of undergraduates who have an interest in research."

Dr. Khaled Machaca
work and the support they had received QNRF. Third prize in the oral presentation category was won by a project entitled Validation and Functional Characterisation of Novel Factors in Senescent 3T3-L1 Pre-adipocytes, which was led by Dr. Houari Abdesselem, postdoctoral associate in microbiology and immunology, and Dr. Nayef Mazloum, assistant research professor of microbiology and immunology. The oral presentation was given by Class of 2018 student Hawra Al Lawati who worked on the project with fellow Class of 2018 students Imen Becetti and Nahel Tunio, along with Amina Bougaila of the Class of 2017. The success of the WCMC-Q teams this year continues the college’s run of good results in the UREP Competition; in 2014, the college won first prize in both the oral and poster presentation categories. Dr. Khaled Machaca, associate dean for research, said: “The UREP program of QNRF has proven to be an incredibly successful vehicle for supporting the ambitions of undergraduates who have an interest in research. We are extremely grateful to be able to participate in UREP and very proud that our students continue to show such enthusiasm and perform so well in the program. “I offer my congratulations and thanks to our student research teams, their supervising faculty members and to Qatar National Research Fund for their continued support and encouragement.”

Dr. Hong Ding

“The results of this study, which are in the process of being submitted for publication, provide convincing supportive evidence that treatment of diabetics with metformin protects the cardiovascular system against the effects of high blood glucose and will therefore prove to be a valuable contribution to the medical literature.”
Color Run Comes to Doha

The Color Run, the original 5-kilometre color powder race, enjoyed a huge turnout in its Doha debut at the Qatar National Convention Centre.
With the help of Sahtak Awalan: Your Health First - the health campaign run by WCMC-Q, the “Happiest 5k on the Planet” saw participants of all ages and abilities enjoy a unique way to stay healthy and have some fun along the way. Following a warm up from Reebok’s internationally famed ‘Les Mills’ Master Trainers, Color Runners dressed in pristine white were led across the starting line before running, jogging or walking their way around the 5k color extravaganza. More than 180 volunteers were on hand to shower participants in vibrant colored powder at one-kilometre intervals around the course. After completing the course, Color Runners made their way to the Finish Festival where the celebrations continued with massive color throws, stage performances and live music. Color Runner Kate Inwood said: “The reason I chose The Color Run was because it was fun. I am recovering from heart problems and I needed to pay more attention to my health and this was the perfect start. The Color Run is open to everyone and the fact that it is an untimed race meant there was no pressure.”

First, an initiative of WCMC-Q in association with the Supreme Council of Health and the campaign’s strategic partners, Qatar Foundation, Supreme Education Council, Occidental Petroleum Qatar, ExxonMobil, and Qatar Olympic Committee. The five-year educational health campaign, which was launched in 2012, is aimed at all age groups but has a special focus on encouraging young people between the ages of 10 and 25 to make healthy lifestyle choices. Exploding in popularity since its launch in January 2012, The Color Run has become the single largest event series in the United States and is gaining traction around the world with more than 100 events and one million participants in 2013 alone. In keeping with the event’s community focus, $1 from every entry at the Color Run was donated to Educate a Child. Launched in November 2012, by Her Highness Sheikha Moza bint Nasser, Educate A Child (EAC) is a global program of the Education Above All Foundation (EAA) that aims to significantly reduce the number of children worldwide who are denied their right to education.

“It was fantastic to see so many people take part in The Color Run. This was the first event of its kind in Doha and the response has been overwhelmingly positive. Everyone had such a great time whilst getting active and healthy and for Your Health First, that is what this event is all about – making a healthy lifestyle fun and accessible.”

Nesreen M. Al-Rifai, Chief Communications Officer for WCMC-Q
A cross Qatar, the Middle East and the wider world, tens of thousands of women die from ovarian cancer each year meaning any improvement in the therapies used could be of huge significance. Now Dr. Bella Guerrouahen, formerly a postdoctoral associate in genetic medicine at WCMC-Q, has discovered one of the aspects of how and why a patient may build up resistance to the popular cancer drug bevacizumab, which is sold commercially as Avastin. The job of Avastin is to prevent the growth of blood vessels to the tumor, thereby cutting off its food and oxygen supply. It does this by targeting VEGF (vascular endothelial growth factor) – a protein that stimulates the growth of new blood vessels (termed vasculogenesis), and also the creation of new blood vessels from existing ones (angiogenesis). The VEGF itself is produced by the cancer cells – and the VEGF then attracts the endothelial cells which form new blood vessels around the tumor. But despite initial success where the Avastin works and prevents the growth of new blood vessels – so inhibiting the tumor - patients often suffer from a build-up of resistance to the Avastin whereby the blood vessels begin growing again. In turn this allows the tumor to thrive and potentially spread. Working in the research laboratory of Dr. Arash Rafii, associate professor of genetic medicine in obstetrics and gynecology at WCMC-Q and an expert in stem cell science and gynecologic oncology, Dr. Guerrouahen explored the reasons behind the phenomenon. With funding from Qatar National Research Fund under the Junior Scientists Research Experience program, and support from Dr. Ahmed Saleh from the pharmacy at Qatar’s National Centre for Cancer Care and Research (NCCCR), she and her research team discovered that it was the endothelial cells – cells that line the walls of blood vessels – that were essentially building up a resistance to Avastin. Because Avastin was neutralizing the VEGF, the cancer cells instead produced more FGF (fibroblast growth factor), another protein involved in the creation of blood vessels. This allowed the production of new blood vessels to re-start and eventually for the tumor to carry on growing. Dr. Guerrouahen said: “This research demonstrates the innovation of the work we are conducting and is at the fore-front of cancer research. We are now not just looking at the resistance of cancer cells but also the wider microenvironment of the tumor, in this case the resistance mediated by the endothelium. “What my paper showed was that patients would benefit from a combination of therapies – when you use an anti-FGF in tandem with Avastin you get better results. This could apply to other cancers as well.
“With this kind of study we are looking for optimizing treatments for these diseases. It also explains the mechanism, how it works and how we can improve treatment. It can help to build new translational research as combination therapies can be studied in trials.” Her research opens new avenues in how tumor microenvironment is perceived and scientists might soon develop new therapeutic strategies targeting the dialogue between the tumor and endothelial cells. He added: “The success of this research relied on strong collaboration between WCMC-Q and Hamad Medical Corporation.”

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Dr. Guerrouahen’s research can be read in full at http://www.ncbi.nlm.nih.gov/pubmed/25319392. It was funded by Qatar National Research Fund under its National Priorities Research Program award number: 09-1174-3-291, 4-640-1-096, 6-1131-3-268 (A. Rafii) and JSREP No: 4-013-3-005 (B.S. Guerrouahen).
Aspiring Doctors On Path to Medical Career

Eighteen high school students took a step towards their dreams of pursuing a career in medicine as they completed the Qatar Aspiring Doctors Program.

The Student Recruitment and Outreach Unit of WCMC-Q’s Pre-Medical Education Division designed the program to help talented students reach the academic level required to successfully apply to study medicine full-time at WCMC-Q after they graduate high school. The students celebrated completion of the program at a ceremony held at WCMC-Q, at which they received a certificate to commemorate their achievements before an audience of friends and family. Dr. Rachid Bendriss, assistant dean for student recruitment, outreach and foundation programs at WCMC-Q, paid tribute to the efforts of the students. He said: “The students have shown an enormous motivation to learn and have worked extremely hard to master the material that has been presented to them. We have been very impressed by their intelligence, their intellectual curiosity, and their work ethic. “This program is a testament to WCMC-Q’s outreach to the school community in Qatar and our unwavering support for their students to develop their academic skills and expose them to WCMC-Q’s programs.” The program, which runs from September to March each academic year, is individually tailored to suit the academic level and career goals of each student. The course comprises a combination of face-to-face instruction, online modules and hands-on training covering subjects such as math, biology, the physical sciences and research skills, based on a customized timetable designed to fit with each student’s school schedule. These subjects were taught by Dr. James Roach, associate professor of chemistry, Dr. Ghizlane Bendriss, teaching assistant of biology, and Ms. Reya Saliba, information sciences specialist. Students who completed the WCMC-Q Qatar Aspiring Doctors Program were drawn from schools across Qatar, which were Al Bayan Secondary High School, Al Wakra Independent School for Girls, Debakey High School, Omar Bin Khattab School, Al Jazeera Academy and Al Ieman School. Student Hassan Iyad Elrobi of Omar Bin Khattab School said: “It was a fruitful program for me - I admire the way they teach students here at Weill Cornell. I love the way professors guide students in the labs and online. My passion is to become a doctor and I would love to spend the next several years of my life here at Weill Cornell and graduate from such a prestigious university.”
Participation in the Qatar Aspiring Doctors Program is based on merit, and in order to be selected students must have demonstrated academic aptitude, a desire to forge a career in medicine and, most importantly, great dedication to their studies.

Dana Faisal Al-Sayegh of Al Bayan Secondary High School was the student speaker at the closing ceremony. She said: “This long journey was a great chance for us to answer all sorts of questions and concerns that can cross any high school graduate’s mind. The course didn’t only enrich us academically, but it also polished our leadership attributes and self-esteem, and taught us to appreciate teamwork and to respect the cultural diversity among the team. I definitely encourage all high school students that are interested in medicine to be a part of this program and to embrace this valuable experience and make the best out of it.”

“My passion is to become a doctor and I would love to spend the next several years of my life here at Weill Cornell and graduate from such a prestigious university.”

Hassan Iyad Elrobi
There is widespread use of nutritional and herbal supplements among college students in Qatar, with some even believing supplements are more effective and safer than conventional medicine in treating certain diseases.

The collaborative research was conducted by WCMC-Q, College of the North Atlantic in Qatar, and Qatar University and involved a sample of 419 students of both genders and various nationalities. Nutritional and herbal supplements include products like multivitamins, ginger, mint, fish oil and protein powders. The research found that of those 419 students, 208 (49.6%) had used a supplement at some time in their lives, and 137 (32.7%) were regular or current users. There were also significant numbers who believed that supplements were sometimes more effective than conventional medicines. Of those polled, almost 60 per cent would choose supplements over conventional medicine when trying to lose weight, almost 45 per cent would choose them for treating colds and influenza and 30 per cent for diabetes.

Dr. Ravinder Mamtani, associate dean for global and public health and professor of healthcare policy and research at WCMC-Q, said the results merit attention and that healthcare professionals should be aware of the prevalent use of supplements. While the study did not inquire about the dose of supplements taken, Dr. Mamtani said that supplements, when taken appropriately in recommended doses, can be beneficial. For example, vitamin D and calcium supplements are appropriate for strengthening bones and preventing bone loss. But they could prove harmful if taken incorrectly. Vitamin D, for example, if taken in large doses, can lead to nausea, vomiting, polyuria (excessive urine) and kidney damage. Calcium deposits in the body’s soft tissues can also occur. He said that in short:

“People should always consult their physician before taking herbal or nutritional supplements.”

The report’s other findings included the fact that women were more likely to take supplements than men, but that there was no difference between nationalities.
In conclusion the report’s authors said that national guidelines should be developed to incorporate the issue of supplements into the healthcare delivery systems in Qatar. All healthcare practitioners should receive training so they feel comfortable asking patients if they are taking supplements. The public should also be made aware about the appropriate use of supplements and they should inform the doctor about anything they may be taking when they are prescribed conventional medicines.

"A vast majority of students believe that these supplements are safer and more effective than conventional medicines, but that is not always the case. In addition, herbal and nutritional supplements are not always regulated as stringently as conventional medicines, which have to go through numerous laboratory tests and controlled trials before they can be prescribed. Supplements can also interfere with the efficacy of conventional medicines in certain cases. Physicians and other health care professionals need to be aware that their patients may well be taking these supplements and ask about them accordingly."

"The finding of protein supplements use is particularly concerning as they can have unpleasant gastrointestinal effects, but additionally, they have not been shown to have any beneficial effect on athletic performance and strength training."

Sports Day Success for Your Health First

WCMC-Q and the Your Health First campaign were at the forefront of National Sports Day celebrations, helping to encourage the public to eat healthily and exercise.
CMC-Q’s Sahtak Awalan team had booths at two high-profile locations in Doha – the first at Qatar Olympic Committee’s Sports Village on the Corniche and the second at WCMC-Q itself as part of the wider Qatar Foundation celebrations. At both venues thousands of people were able to take advantage of the latest technology and accurately measure their weight and how much of their body is muscle, bone and fat. The college’s medical mannequins were available for people to attempt resuscitation and learn more about how the body works and Dr. Shahrad Taheri, professor of medicine at WCMC-Q, gave a talk on obesity. The famous smoothie bikes were also on hand, allowing young and old alike to blend their own smoothies by pedaling a bicycle. Down on the Corniche, a mini football obstacle course let youngsters practice their ball skills. The Your Health First booths also attracted the attention of VIPs. H.E. Sheikh Saoud Bin Abdulrahman Al-Thani, the then secretary general and CEO of the Qatar Olympic Committee, and H.E. Sheikha Al Mayassa bint Hamad Al Thani, chairperson of the Qatar Museums Authority, both visited the booth at the Sports Village to find out more about the work of Your Health First. At WCMC-Q, QF president Eng Saad Ebrahim Al Muhannadi asked aspiring doctor and Class of 2016 student Bassil Kherallah for details about the medical mannequin.

Dr. Javaid Sheikh, dean of WCMC-Q, said National Sports Day had been a great success across the country and that the Your Health First campaign was a perfect fit for it. Dr. Sheikh said: “As a medical college we have cutting-edge equipment at our disposal and it’s very gratifying to be able to share this with the public, allowing them to analyze the make-up of their own bodies. This gives them a real insight into how their diets and exercise have a physical effect on themselves. “On the lighter side we had the smoothie bicycles, which are not only great fun, but hopefully remind people that fruit and vegetables can taste great without adding sugar, ice cream and syrup. “Sports Day is a wonderful opportunity for us all to take stock of our health and make changes that will benefit not only ourselves but also our friends and families in future years.”
Sleep Loss Linked to Weight Gain in Diabetics

If you’re diabetic, regularly stay up late, and miss out on sleep, you have an increased chance of obesity and insulin resistance, researchers at Weill Cornell Medical College in Qatar have discovered.

The team, led by Dr. Shahrad Taheri, professor of medicine at WCMC-Q, found that a lack of sleep during the week potentially has a negative impact on waistlines and insulin resistance in diabetics. Dr. Taheri said that a lot of work had already been done indicating that a lack of sleep is a risk factor in developing diabetes as well as obesity. But what Dr. Taheri and his team wanted to examine was how sleep deficiency affected those with existing diabetes. Dr. Taheri said: “The importance of sleep in regulating the metabolism is a relatively new discovery and each year we discover new functions that sleep performs in the body. It is incredible to think that although diet and exercise are universally known to have direct effects on one’s health, the role of sleep is still relatively unknown, yet it is something that we spend one third of our lives doing.”

The research team asked 593 diabetics based in the UK to keep a sleep diary to ascertain when they went to bed and when they woke up. Dr. Taheri said: “The research we carried out at WCMC-Q and its findings could have a direct impact on the lives of many people in Qatar, which has a high percentage of people with diabetes and diseases of the metabolic system.”

Dr. Taheri and his research core
to sleep and when they woke up to calculate “sleep debt”. This is the amount of sleep that they are losing out on and failing to catch up with at the weekend. Dr. Taheri said: “We found that just 30 minutes of sleep debt per day is great enough to cause significant metabolic changes. “It is all evidence that demonstrates how sleep is vitally important to our health. Also, we are already finding that there are differences between the sleep habits of people in the UK and Qatar, which hopefully will give us some clues as to why certain conditions like diabetes are so common here. “We think that interventions that only look at diet and physical activity are not always as successful as we want them to be as they do not take sleep into account. We know that sleep can affect food consumption and activity levels but sleep is not taken seriously enough in our 24-hour society.” If you are sleep deprived you are more likely to make risky decisions or unhealthy decisions. Dr. Taheri added that it is thought that a lack of sleep may also change your palate, so sleep debt could lead to a preference for fatty, salty food. It may even change your sense of smell.

At the end of 12 months, the researchers found that those with sleep debt were more likely to be obese and have greater insulin resistance, conditions which worsened over time, compared to those without sleep debt.

Dr. Shahrad Taheri

“More studies are needed to look at at different age groups, other chronic disorders and also on Qataris specifically. We hope that we will secure future funding to allow us to examine these and other health issues in more detail.

“If you bring young people into the laboratory and deprive them of sleep they develop insulin insensitivity equivalent to that found in the elderly. Basically, obesity and a lack of sleep predispose to accelerated ageing. People are now developing cancer and diabetes at an earlier age and you even feel and look older if you are tired. Sleep is a vital component of a healthy life.”
Twenty-five students from nine schools were invited to WCMC-Q to take part in the program, which gave them the opportunity to hear lectures from senior faculty members, take part in a series of workshops, quiz current medical students about their experiences and conduct experiments in the college’s laboratories. The Winter Qatar Medical Explorer Program, which is aimed at high school students in grades 10, 11 and 12, is designed to give the students a comprehensive introduction to college life and the study of medicine, and to give them an idea of the many different career paths a medical degree can offer. Following an introductory session at the beginning of the program with Noha Saleh, director of student recruitment and outreach at WCMC-Q, and Syed Ahmed Hasnain, programs manager, the students spent their two weeks exploring almost every area of the college and its curriculum. They were given introductions to biology, chemistry and physics, both in lectures and in the labs, and visited the Clinical Skills Center to learn how to work with standardized patients and discover more about the heart with Harvey, the center’s lifelike mechanical dummy. Dr. Rachid Bendriss, assistant dean for student recruitment, outreach and foundation programs, spoke to the students about reading strategies for
college, while Dr. Rodney Sharkey, associate professor of English, gave sessions on understanding poetry and narratives. The students were also introduced to the college’s state-of-the-art distributed eLibrary. The second week featured sessions on careers in medicine, adolescent health, pharmacology and medical ethics, plus a visit to Qatar Robotic Surgery Center at Qatar Science & Technology Park. The students received guidance on how to write effective personal statements and techniques for succeeding in college admissions interviews. Throughout the program the students worked in small groups to produce presentations on a health-related topic to deliver on the penultimate and the final days of the program, which then ended with a closing ceremony on Thursday 5 February. Noha Saleh explained that the Winter Qatar Medical Explorer Program presents a great opportunity for students considering a career in medicine. She said: “The program, part of our Cornell Enrichment series, gives the students the chance to explore the college, our curriculum, and all the many exciting possibilities presented by a career in medicine with a great level of depth. They go to classes, interact with faculty and current students and are expected to conduct themselves in a professional manner by practicing good timekeeping and meeting deadlines for assignments, just as our students are.” Dr. Bendriss said: “The aim is to provide a truly immersive experience so that they can get a very accurate impression of what it would be like to become a fully-fledged medical student at WCMC-Q. If they find the experience stimulating and inspiring, that is a very good indication that they will gain a great deal of satisfaction from both studying and working in medicine.” The students were drawn from a variety of schools across Qatar and were selected based on their academic aptitude and their interest in the sciences. The high schools represented on this year’s program were Mosaab Bin Omair School for Boys, Al Wakra Independent School for Girls, Al Wakra Independent School for Boys, Al-Eman School for Girls, Al Bayan Secondary School, Global Academy International School, Qatar Independent Secondary School, Amna Bint Wahab Independent School for Girls and Michael E. DeBakey High School – Qatar. This year, 20 of the 25 students who took part were Qatari nationals. Hissa Mohammed, aged 16, of Al Bayan Secondary School, explained why she was keen to participate in the program. She said: “I am fascinated by biology and how the human body works and I am very interested in learning about all the different things that can go wrong with it and how to fix them. “I’m motivated to study medicine both by a desire to help people and by my interest in biology. It has been very useful to come here because I have learned about the different fields of medicine and about what it is like to be a student and spend time in the labs doing experiments. It has been very exciting.” ■
Students Shine at Annual Research Forum

WCMC-Q foundation students had their first experience of presenting their findings in poster form at the fourth annual Foundation Program Research Forum.

Ten groups of students working in pairs displayed posters at the open forum event and discussed their research projects with the senior faculty and medical students.

The forum marked the culmination of a four-week course run by Dr. Clare McVeigh, visiting senior lecturer in biology, in which the students gained hands-on research experience by conducting examinations of feline cadavers to determine the pathologies that affected the animals during their lifetimes. The course, which forms part of the foundation biology program, challenged the students to apply the knowledge they have learned in the classroom about anatomy and disease to a real-life situation and to then present their findings in formal academic style.

Abdulla Al-Thani and Ahmad Al-Neama worked together on a project that discovered and described a gastrointestinal obstruction in a cat. Abdulla said: “We found that the feline had an obstruction that had been caused by torsion of the jejunum and we then researched various scholarly sources on the subject to see if the pathologies described matched what we had observed.” Ahmad added: “Obstructions of this sort commonly cause vomiting, weakness, diarrhea and weight loss, and we observed that there was not much adipose tissue on the abdominal region of the animal, which was consistent with our assumptions.”

Aisha Al-Qadi and Sara Al-Quradaghi investigated a feline case of vascular damage. Al-Qadi said: “It was really good to apply our knowledge of anatomy to real life and...”
also to compare what we have learned about human anatomy to feline anatomy. I think that being able to observe the similarities and differences between the two has really improved my understanding of anatomy. I also enjoyed the process of presenting our findings to other students and the faculty and hearing their feedback.”
Dr. McVeigh said: “The aim of the course is to challenge the students to learn independently through enquiry and investigation. Introducing the students to this type of self-directed, enquiry-based learning is a really important part of their development because it is absolutely fundamental to the practice of medicine.”
A supplementary course coordinated by Dr. Rachid Bendriss, assistant dean for student recruitment, outreach and foundation programs at WCMC-Q, helps the students to reinforce the new skills they have learned by asking them to reflect on their experiences in essays and class discussions. Dr. Bendriss said: “It is absolutely crucial for students to reflect upon the new skills and knowledge they have learned in order to consolidate that information. This is particularly true when they have been challenged to make a conceptual leap in the way they learn, as they were by Dr. McVeigh’s course.”

“This group really embraced that challenge and showed a great deal of confidence in their own abilities, which is reflected in the high quality of the posters they presented and the assured manner in which they discussed their projects with more experienced students and faculty.”

Dr. Rachid Bendriss
Researchers Shed Light on Hep-C Infections In Children

Up to five thousand new hepatitis C virus (HCV) infections occur in Egypt annually as a result of mother-to-child transmission, according to a study by researchers from WCMC-Q and the London School of Hygiene & Tropical Medicine in the UK.
Egypt has the highest infection level of the disease in the world with 14.7 per cent of the population carrying HCV. There are at least 100,000 new cases every year, but the proportion of these new infections that occur through different transmission routes is not well understood. This study was the first to estimate the number of new cases of HCV as a consequence of mother-to-child (vertical) transmission. The authors estimated that in 2008, between three and five thousand new cases of the infection were caused by this transmission route, which can occur during pregnancy, childbirth and the postpartum period from an infected mother to her child. In addition, the findings show that mother-to-child transmission is an important transmission route among children under five years of age, contributing between a third and a half of new cases in that age group in Egypt. These are some of the findings of the study, which was published in the prestigious journal Hepatology.

The study estimated that 7% of currently married women in reproductive age had HCV viremia in 2008. This means that their children were at risk of vertical infection, which occurs during gestation and birth. Based on the number of births in Egypt, the study estimated that between three and five thousand children were vertically infected by HCV in 2008. This makes vertical transmission one of the primary HCV infection routes among children aged under five in Egypt. These new cases of HCV are a public health concern. Currently, no effective interventions are available to prevent mother-to-child transmission of HCV.

These estimates are essential for health service provision in Egypt, but they also show that there is need to quantify the relative contributions of other transmission routes, which are responsible for the majority of all new HCV infections in Egypt.

Lenka Benova, lead author of the study and research fellow at the London School of Hygiene & Tropical Medicine and WCMC-Q.

Dr. Laith Abu-Raddad, principal investigator of the study and associate professor of public health in the Infectious Disease Epidemiology Group at WCMC-Q.

“This is the first time we have been able to show how many babies are being infected with hepatitis C virus every year in Egypt, and action needs to be taken to reduce the number of children becoming part of this devastating epidemic. We need to see faster evaluation of drugs that women can use during pregnancy to treat hepatitis C, as well as interventions to provide treatment to women before they become pregnant.”

“These results highlight a significant and previously poorly understood dimension of the large HCV epidemic in this country. This high number of transmissions to small children, with lifelong clinical and social consequences, demonstrates the need for appropriate public health interventions to tackle this aspect of the epidemic.”

The study is available free-of-charge from the website of the journal Hepatology:

Grand Rounds Hears of Hi-Tech Heart Surgery

One of the world’s leading cardiologists explained a variety of advanced interventional procedures used to treat adults with congenital heart disease in an installment of the college’s Grand Rounds lecture series.

Professor Ziyad M. Hijazi, chief medical officer (acting) and chair of the Department of Pediatrics at Sidra Medical and Research Center, spoke about the latest developments in interventional therapies to repair common congenital and structural heart disorders such as atrial and ventricular septal defects (also known as hole in the heart), pulmonary valve stenosis (narrowing of the pulmonary valve), aortic valve stenosis (narrowing of the aortic valve) and patent foramen ovale, which is when an opening between the upper two chambers of the heart does not close after birth as it should.

Prof. Hijazi, who is also director of the Sidra Cardiovascular Center of Excellence, explained how cardiac interventionalists use advanced techniques, equipment and instruments to repair heart defects, often using a sophisticated catheter device to access the heart through an artery or vein in the groin, removing the need for opening the chest cavity.

Incredibly, Prof. Hijazi and his colleagues have refined a surgical procedure to repair an atrial septal defect (hole in the heart) to such a degree that it can now be safely performed under local anesthetic with the patient remaining conscious throughout. Each year, approximately 5,000 children are born with atrial septal defects in the United States alone. An estimated one million children and one million adults in the United States have some form of congenital heart disease.

Speaking at WCMC-Q to an audience of physicians, researchers, students and healthcare professionals, Prof. Hijazi said:

“One of the nice things about the patient remaining conscious for this procedure is that we can now allow them to be accompanied by a loved one during the operation, which brings them great comfort. Additionally, because we are using local anesthetic, the patient can often return home the same day.”
In the procedure, Prof. Hijazi and his team use the catheter device to insert a special disc called an Amplatzer occluder made of braided nitinol – a sophisticated metal alloy of nickel and titanium - to close the hole between the two atria, allowing the heart to function normally. If left untreated, the hole causes more blood to flow to the lungs, which over time can cause the blood vessels there to become damaged. In adulthood this can lead to problems such as high pulmonary blood pressure, heart failure, electrical problems and increased risk of stroke. Prof. Hijazi was the primary investigator who led the trials and pioneered the use and testing of Amplatzer occluders in the United States, leading to the device gaining approval from the United States Food and Drug Administration for use in children and adults.

A prolific researcher, Prof. Hijazi has more than 290 peer-reviewed published articles to his name and has authored six books and more than 40 book chapters.

Dr. Thurayya Arayssi, WCMC-Q’s associate dean of continuing professional development, said: “It is our great privilege to welcome Professor Hijazi here to explain a truly fascinating field of medicine to us. The development of highly advanced surgical techniques in the field of heart medicine, such as those pioneered by Dr. Hijazi, give hope to the millions of people worldwide whose lives are blighted by congenital and structural heart defects.”

The Grand Rounds, developed by WCMC-Q’s Division of Continuing Professional Development, provides a platform from which expert speakers can engage with healthcare professionals in the community to disseminate knowledge of the latest developments in medical technology, research and best practice.

“Approximately 10 per cent of all congenital heart defects are atrial septal defects and in my experience more than 90 per cent of cases can be repaired using a septal occluder device. For children and adults who are affected by this heart defect, making this repair can greatly improve their quality of life and also extend their lifetime, in some cases by many decades.”

Professor Ziyad M. Hijazi
Accreditation Success
For College

WCMC-Q has been accredited as a provider of continuing medical education (CME) and continuing professional development (CPD) by the Qatar Council for Healthcare Practitioners (QCHP) of the Supreme Council of Health.

During the accreditation ceremony held at WCMC-Q, Dr. Jamal Al-Khanji, acting chief executive officer of QCHP presented the certificate to Dr. Javaid Sheikh, dean of WCMC-Q. In attendance to celebrate the achievement were members of QCHP Accreditation Department, members of WCMC-Q’s CPD division, along with faculty and staff members of the college. Dr. Al Khanji said: “Weill Cornell has become an integral part of Qatar’s healthcare system, and as one of our main partners will help us to develop and improve our healthcare system to a very high level.”

The accreditation recognizes the quality and value of programs being offered by WCMC-Q for physicians and healthcare practitioners across the country.
Dr. Javaid Sheikh

“It is a great honor and a privilege for WCMC-Q to receive accreditation to provide continuing medical education to physicians and other healthcare practitioners in Qatar, and I extend my sincere thanks to all involved in the realization of this goal for their wonderful dedication and hard work.

“In an era of rapid technological progress such as ours, it is imperative that we constantly refresh our knowledge and skills to ensure our patients receive the maximum benefit possible from the constant stream of advances in the realm of medical science. The accreditation bestowed upon us by the Qatar Council for Healthcare Practitioners provides us with a strong platform from which we can help to share the expertise and knowledge of our faculty and staff with the rest of the healthcare community in Qatar.

“We now look forward to working ever more closely with our colleagues across the healthcare community to ensure that the healthcare available in Qatar continues to meet and exceed the standards of excellence that our patients expect and deserve, in line with the goals of Qatar National Vision 2030.”
Top Medical Schools Engage with Students

Residency program directors from some of the world’s best medical schools visited WCMC-Q to meet with students and faculty at the college’s annual Residency Program Directors’ Symposium.

This year’s event brought 17 residency program directors to WCMC-Q from elite medical schools and teaching hospitals across the U.S., such as Rochester General Hospital, University of Texas Southwestern Medical Center and Cleveland Clinic Children’s Hospital. The symposium gives residency program directors an opportunity to get to know WCMC-Q and its facilities, learn about the college’s curriculum, engage with students and tour Hamad Medical Corporation (HMC), WCMC-Q’s principal clinical training partner. Residency program directors are key figures in medical education because of their central role in admitting medical school graduates to highly competitive residency programs where graduates continue their clinical training and pursue a specialty in a chosen field. The Class of 2014 at WCMC-Q achieved an unprecedented 100 percent U.S. match rate last year as every student who sought a place in a U.S. residency program secured one through the National Residency Matching Program. The Cornell University M.D. degree that the college awards its graduates is the only U.S.-accredited M.D. degree given outside the United States. It is a goal of WCMC-Q to have its graduates return to Qatar upon completion of their training to contribute to the growth of the country’s healthcare system in line with the standards of excellence set out in Qatar National Vision 2030 and the National Health Strategy. The theme of this year’s symposium was ‘Leadership Training in Graduate Medical Education’ and

DR. MARCELLINA MIAN

“We always look forward to welcoming residency program directors to WCMC-Q so that they can appreciate the academic rigor of our curriculum and see the dedication and talent of our students. It is also a great opportunity for the students to gain some insight into what residency program directors look for in a candidate so that they can maximize their chances of gaining acceptance to a very high quality program after they have graduated from WCMC-Q.”
the four-day event featured keynote addresses by five visiting residency program directors, including Dr. Sania Amr of the University of Maryland School of Medicine, Baltimore, and Dr. Jeffrey Chipman of the University of Minnesota Medical School, Minneapolis. There was also a keynote address by WCMC-Q alumna, Dr. Amila Husic, who recounted her experiences as an international student and as a general surgery resident at Lahey Clinic Medical Center, Massachusetts, and her subsequent return to her home country of Bosnia and Herzegovina to work in the healthcare system there. Dr. Husic expressed great appreciation for the high quality of education she received at WCMC-Q and HMC.

The symposium also featured presentations about WCMC-Q’s curriculum by senior faculty, as well as student case study presentations, student research poster presentations, and roundtable discussions between program directors and students. Delegates toured the facilities at WCMC-Q and HMC, and learned about the college’s research program through addresses by Dr. Khaled Machaca, associate dean for research, and Dr. Nayef Mazloum, coordinator of student research.

“Dr. Marcellina Mian (center), with faculty, students, and directors of residency programs from across the U.S.”

Also in attendance at the symposium was Dr. Barbara Hempstead, who was recently appointed senior associate dean for education at Weill Cornell Medical College in New York. Dr. Hempstead said: “This has been a great opportunity for me to learn about the medical school, the quality of its curriculum and its faculty.”

Dr. Marc Borenstein, department chair and program director for the Department of Emergency Medicine, University of Missouri School of Medicine, was visiting WCMC-Q and Qatar for the first time. He said: “This has been a great opportunity for me to learn about the medical school, the quality of its curriculum and its faculty, the educational and research resources here, and of course the students, who are absolutely exceptional young people. I have also had the chance to experience medical education in a cultural environment that is new to me, which has been hugely stimulating and has given me a new perspective on the future of medicine.”
Students across Qatar will benefit after their teachers and counselors attended a workshop at WCMC-Q about the best ways of writing personal statements and reference letters.

In all 20 teachers and counselors from 10 independent and private schools participated in the workshop, which was hosted by WCMC-Q’s Student Recruitment and Outreach Office in partnership with the writing faculty of the college’s Pre-Medical Education Department. The attendees, who came from a variety of disciplines, were advised on how they could help their students write personal statements that would offer them the best chance of being accepted by a university.

The workshops were organized as part of the Adopt A School program that was launched by WCMC-Q four years ago. They were attended by representatives of Global Academy International, OBK Scientific Secondary Independent School, Gulf English School, Doha British School, Lebanese School, Aspire Academy, Dukhan English School, Ali bin Jassim Boys Secondary, Raba’a Al Adawiya Secondary School for Girls, and Zubaidah Independent Secondary School for Girls.

As part of the general session, Ms. Adrienne Gibbons, director of admissions, offered some insights on how to fill out the application’s reference form as well as explaining their importance in the candidate’s file. In total, five break-out sessions were held by WCMC-Q faculty members on March 19. They were lead by Adam Larson, writing center coordinator; Dr. Rodney Sharkey, associate professor of English; Dr. Krystyna Golkowska, associate professor of English; Ian Miller, assistant professor of English; and Dr. Alan Weber, associate professor of English. Dr. Golkowska, who coordinated the event, emphasized that the personal statement is the first impression that a university has of a student, so it is vital that prospective students get it right. She said: “The admissions committee already knows about a candidate’s grades and academic attainment. The point about a personal statement is that it is a student’s chance to demonstrate what he or she is like as an individual. Thus it is important that the candidate discuss extracurricular activities, motivation for studying a particular subject, and relevant personal characteristics to present a holistic picture. In addition, it goes without saying that personal statements should be interesting, well-written and with a coherent structure. They should always be revised and proof-read before they are submitted.”

The workshop also addressed writing reference letters. The school teachers and counselors were welcomed to WCMC-Q by Dr. Rachid Bendriss, assistant dean for student recruitment, outreach and foundation programs who stated that such outreach sessions present an opportunity to help students across Qatar, and not just those who want to pursue a career in medicine. Dr. Bendriss said: “As a college, we know what other colleges look for when they are considering students for admission. They want well-rounded, intellectually curious individuals who have a drive to study a certain subject. But that has to be articulated, and workshops like these empower teachers to help their pupils to do that. Similarly, teachers themselves have to write reference letters that inform the admissions committee about their students.”
College Hosts Forum on Innovations in Medical Education

Medical and educational experts from all over the world convened in Doha for the Innovations in Global Medical and Health Education (IGMHE) Forum, hosted by WCMC-Q.

The forum, held in January, brought together some of the world’s foremost authorities on medical education and medical practice with practicing healthcare professionals and researchers to share their expertise and discuss the opportunities presented by a wide range of innovations related to medical education, assessment, licensing, and program accreditation. The international gathering featured a series of presentations by expert speakers who are engaged in endeavors to help establish international standards for the practice of medicine, and provided a platform for debate on both evolutionary and disruptive innovations that have the potential to transform medical education in the region and beyond. Work being conducted at WCMC-Q and with multiple regional collaborators that will move education and training in the region forwards was also presented to delegates. The co-editors-in-chief of the Global Medical and Health Education Journal are Dr. Javaid Sheikh, dean of WCMC-Q, and Dr. Victor J. Dzau, president of the U.S.-
The forum, which was coordinated by WCMC-Q’s Division of Continuing Professional Development, was an event of the Innovations in Global Medical and Health Education Journal, an open-access web-based publication issued by Bloomsbury with the support of Qatar Foundation.

Dr. Thurayya Arayssi, WCMC-Q's associate professor of medicine and associate dean for continuing professional development, said: “The extremely rapid pace of change in technology and medical education curricula make it very difficult for working healthcare professionals to stay up-to-date with the latest innovations in medical practice and training. The IGMHE Forum provides a valuable space for interaction between healthcare professionals from different disciplines, different countries and different stages of their careers.”

The IGMHE Forum, held at the Four Seasons Hotel, was aimed at a wide and inclusive audience, drawing together primary care and specialty physicians, as well as nurses, physician assistants, interns and residents, researchers, educators, and other allied health professionals who are interested in innovations and the future development of global medical and health education.

Dr. Sheikh, dean of WCMC-Q, said: “The forum was designed to provide a highly interactive environment in which physicians, healthcare providers and leading medical education professionals from the GCC region and the wider world can meet, share ideas and forge new and fruitful partnerships to drive the field of medical education forwards. “As the pace of change becomes ever faster, we cannot afford to stand still, but must instead embrace the opportunities offered by innovation and international collaboration to ensure we continue to meet the standards of excellence in medical education and practice that students and patients expect and deserve.”
Video Link Offers Diabetes Training

Expert advice on the education of diabetes patients was beamed from the United States to medical professionals in Doha as part of a course offered by WCMC-Q and the Academic Health System (AHS).

Forty researchers, diabetes educators, nurses and dieticians from across Qatar viewed lectures by some of the world’s leading diabetes specialists streamed live by video-link from the Emory University School of Medicine in Atlanta, Georgia to WCMC-Q’s state-of-the-art auditorium during an intensive four-day course in April. The course, which was entitled ‘Diabetes Education for All: A Program for the Arab Community’, was designed to help medical professionals in Qatar educate patients about their condition, treatment options, complications and how to avoid them, management strategies and how lifestyle choices can affect the disease. Participants from WCMC-Q, Hamad Medical Corporation (HMC) and Qatar Red Crescent Society viewed eight hours of lectures each day on subjects such as blood glucose monitoring, diabetes and pregnancy, diabetes in the elderly and the very young, and prevention of lower extremity amputation, which is one of the most severe complications of the disease. There was also an obesity workshop and lectures on diabetes self-management education, diabetes prevention and diabetes in Arab countries, among many other topics.

The course is the latest in a series of collaborative initiatives offered by WCMC-Q and the AHS that aim to further develop the skills of Qatar’s sophisticated and growing workforce of medical professionals.
“Self-management and education is of paramount importance to people living with diabetes and these measures have the potential to dramatically improve their quality of life. We are extremely gratified that so many medical professionals took advantage of this opportunity to learn from some of the world’s foremost experts on the treatment, management and prevention of this condition.”

Dr. Shahrad Taheri, professor of medicine at WCMC-Q

“This course was an extremely valuable learning experience for the participating medical professionals in attendance, giving them the opportunity to discover some of the latest strategies for educating diabetes patients about their conditions. We look forward to continuing to strengthen our working relationships with WCMC-Q and the AHS for the benefit of all those living with diabetes in Qatar.”

Manal Musallam, director of diabetes education at HMC
Help in Charting The Future

Foundation students gained insights into the many career paths open to them thanks to a season of seminars given by senior faculty and healthcare professionals from WCMC-Q and Sidra Medical and Research Center.

The Foundation Program Career Seminar Series, coordinated by Dr. Rachid Bendriss of WCMC-Q’s Pre-Medical Education Division, brought five departmental leaders from Sidra to the college to speak about careers in anesthesiology, hematopathology, radiology, obstetrics and gynecology, and musculoskeletal imaging.

“We believe it is extremely beneficial for our students to meet and hear from practicing healthcare professionals at this early point in their medical education because it helps them begin to think about what direction they want to take with their own careers.”

Dr. Rachid Bendriss
“Hearing from speakers who are clearly passionate and enthusiastic about their work is truly inspiring for our students, and learning about a wide range of specialties is very helpful because they might discover an area of medicine that really captures their interest and imagination.

“Having an end-goal to aim for can be an extremely powerful tool for sustaining the students through their medical training.”

Each of the seminars featured a presentation in which the speakers outlined the main characteristics of their fields of medicine, discussed the technology they use and explained the ways in which they interact with other medical professionals to deliver care. Students then took part in an interactive question and answer session with the speakers to learn more about the subject.

Foundation Program student Kholoud Abu-Holayqah welcomed the opportunity to discover more about the myriad career options available to her.

She said: “We got to know about a lot of different specialties and to examine the advantages and challenges of each and every one of them. Personally, I found it really useful to get an idea of what I should expect my day-to-day working life to be like if I decide to pursue a career in one of the specialties.

“I was also very encouraged to see just how inspired the speakers were when they talked about their work, even after 10 or 20 years of working in that field. It gives me confidence that I can have a career that will be intellectually stimulating for many, many years, which is great to know.”
Researchers have called for greater public awareness about organ donations after a survey found that more than a quarter of people believed they conflicted with Islamic teachings.

The conclusion was reached following a study entitled Organ donation and transplantation: A gender perspective and awareness survey in Qatar, which was conducted by researchers from WCMC-Q. The researchers found that more than a quarter of those surveyed believed that organ donation was not compatible with Islam and there was also a general lack of knowledge about how to sign up for organ donation. Dr. Mohamud Verjee, associate professor of family medicine at WCMC-Q, said that more work needs to be done by the medical community to educate patients about organ transplantations and the vital role they play in saving lives. Dr. Verjee said: “There still seems to be a misunderstanding about faith and organ donation. Not everyone is convinced that the Islamic faith is compatible with organ donation, but in reality there is nothing in Islam that forbids it. “By agreeing to donate organs like the heart, lungs and liver after your death you will potentially save several lives. A kidney could free someone from a lifetime of dialysis while donating the corneas from your eyes could restore someone’s sight. It is perhaps one of the ultimate forms of altruism.”
But the research discovered that attitudes are changing for the better. A study conducted in 2005 found that just 69 per cent of people had heard of organ donation. Of those, just 38 per cent of Qataris and 33 per cent of non-Qataris were willing to donate their organs. However, there is still work to be done and it would appear that awareness campaigns are of only limited use: the WCMC-Q researchers found that just a third of people could recall a high-profile awareness campaign from 2012. The need for donated organs, though, has never being higher. Dr. Verjee said it has been estimated that 19 people die each day in the United States alone through a lack of available organs. The need for organs is just as great in Qatar and the wider MENA region. Of the 300 respondents to the WCMC-Q survey, 25 per cent knew someone who had received a transplanted organ. There is also a lack of knowledge about how to sign up as a donor.

“Nobody really knows much about organ donation or cares about it until they or a member of their family need a transplant and then they don’t know what to do about it.”

Dr. Mohamud Verjee

Dr. Verjee explained that his research involved sending out 400 questionnaires to students and staff at Hamad Bin Khalifa University. Of those 400, a total of 300 were returned; 89 per cent from students and 11 per cent from staff. Of those who returned the survey, more than 90 per cent were aware that donated organs were potential life-savers and 73 per cent knew about brain death. A large majority – 73 per cent – also believed there was no conflict between their faith and organ donation. However, this means that around 27 per cent of people believe there is a conflict.

In 2011 Qatar opened a center for organ transplantation, which is known as Qatar Organ Donation Center (QODC), but colloquially known as Hiba. To learn more about signing up as a donor in the event of death, visit www.organdonation.hamad.qa

To read Dr. Verjee’s research in full visit www.qscience.com/doi/full/10.5339/jlghs.2014.6
The latest volume of *Qira’at, Readings from the Students of Weill Cornell Medical College in Qatar,* has been launched, featuring a collection of the best essays written by WCMC-Q students.

The book is published biennially and is now in its fourth incarnation. The new edition was unveiled at a ceremony at the college attended by the authors of the three best essays as selected by faculty at WCMC-Q, WCMC-New York and Cornell University. Alan Weber, visiting associate professor of English, co-edited the book with colleagues from WCMC-Q’s Writing Center. He said that even though the students were training to be medics, good communication skills were still vital. Dr. Weber said: “Obviously there is the practical element that they need to write accurate case histories so they need to use language correctly and effectively, but in the program we also teach analysis and close reading and these are skills that the students can take into other parts of their profession.”

In all, Dr. Weber said approximately 80 essays were submitted for inclusion and the judging panel then chose 19 for publication. All the essays were peer-reviewed. Dr. Weber added: “What impressed me was that each of the winning essays had passion. The writers were interested in what they were writing about and it showed. That’s an important part of writing – motivation. Instead of just giving them a task to do we try to get them to do something they are interested in and that they can learn from. Some of the essays are research-based and that is a lengthy process. Sometimes the authors will spend up to a month for a research essay so they have to have some passion for the topic.”
TOP PLACES

1ST  Merna Hussein (PRE-MED 2)
      Political Cinema: An Unfinished Detour Away from Mystification

2ND  Adam Shurbaji (MED 4) & Prashanth Venkatesh (CLASS OF 2014)
      Hippocratic Patient-oriented Care to Societal Considerations Dictated by Law

3RD  Nada Darwish (PRE-MED 2)
      The Blind Spot: Muslim Women Healers of the Early Ottoman Era
Qatar, along with other countries in the Middle East and North Africa region, has seen an alarming rise in its rate of diabetes in recent years. Today the populations of several gulf state nations, including Qatar, Saudi Arabia and Kuwait, have rates of diabetes nearly three times the global average.

Demographic and lifestyle factors are largely responsible for the increase of diabetes in this region, according to an article that appeared in the December 2014 issue of the Qatar Medical Journal. The article, "Prevention of Type II diabetes mellitus in Qatar: Who is at risk?" presents the results of a case-control study conducted at Hamad Medical Corporation Hospital (HMC) to identify the key risk factors for Type II diabetes among Qatar’s total population, including Qatari nationals and non-Qatari expatriates. The study was led by a team of researchers at Weill Cornell Medical College in Qatar and New York, as well as physicians at HMC. The work was supported by Qatar Foundation, the Weill Cornell Clinical and Translational Science Center, and the Biostatistics, Epidemiology and Biomathematics Research Core of Weill Cornell Medical College in Qatar.

“The Qatar National Health Strategy has identified diabetes as one of the high-priority diseases for preventive healthcare, and for good reason,” said principal investigator and senior author Dr. Alvin I. Mushlin, the Nanette Laitman Distinguished Professor of Public Health in the Department of Healthcare Policy and Research at Weill Cornell Medical College in New York City. “In addition to its direct effect on health and quality of life, diabetes is a cause of conditions such as diabetic retinopathy, kidney failure, cardiovascular disease and associated heart attacks, strokes, and earlier death.” Paradoxically, the increase of diabetes and other non-communicable diseases in this region is largely tied to major improvements in economic conditions. This period has seen remarkable improvements in the health infrastructure, a lengthening of life expectancy, an increasingly aging population, and a fast pace of urbanization. At the same time the population has become more susceptible to developing diabetes and other chronic diseases associated with a more “Westernized” lifestyle including calorie-rich diets and reduced physical activity.

“We undertook this study to delineate the risk factors for diabetes in Qatar, to highlight areas for future research, and to make recommendations to lower the prevalence of this disease,” said Dr. Mushlin.
The study involved 459 patients with Type II diabetes mellitus (DM) from HMC outpatient adult diabetes clinics, and 342 control patients from various outpatient clinics and inpatient departments at HMC, during the years 2006-2008. “In our study, Qatari nationality was the strongest risk factor for DM, followed by higher income, obesity, no college education, and no vigorous or moderate exercise,” said lead author Dr. Paul J. Christos, lecturer in healthcare policy and research in the Division of Biostatistics and Epidemiology at Weill Cornell Medical College in New York City. Since over 80 per cent of the population of Qatar consists of expatriates from countries throughout the Arab world, South Asia, and other regions, the researchers also conducted a sub-analysis of only Qatari nationals to see if this group had a different risk factor profile than the population at large. “Our analyses suggest that eliminating obesity and improving awareness about this disease may reduce DM cases by up to one third for the population at large and up to half for Qatari nationals. Promoting physical activity may reduce DM cases by up almost 10 per cent for the population at large and by over 15 per cent for Qatari nationals,” said Dr. Christos.

“While, recently, there have been discussions about the role of genetic factors in the rising diabetes levels, our analysis suggests that socio-economic and lifestyle factors are more influential,” said study co-author Hiam Chemaitelly, an epidemiologist in the Infectious Disease Epidemiology Group at Weill Cornell Medical College in Qatar. “This should be seen as encouraging,” she added, “since many lifestyle factors can be modified.” “This evidence collectively supports a health prevention program focusing on modifiable risk factors such as obesity, diabetes awareness, and physical activity to reduce diabetes among Qatari nationals and non-Qatari expatriates,” said study co-author Dr. Laith Abu-Raddad, associate professor and principal investigator of the Infectious Disease Epidemiology Group at Weill Cornell Medical College in Qatar. “While further evaluation of DM risk factors among the Qatari population (as opposed to the resident population) is important and of interest, these findings highlight the need to focus short-term DM interventions on addressing demographic/lifestyle risk factors to achieve substantial and timely declines in DM levels.” “This study is relevant not only for Qatar, but for other countries in the region as well that have seen similar recent advances in their social and economic status,” say the authors. “The findings point to an urgent need to further build up the public health and medical infrastructure to meet the needs of preventing the diseases that are unfortunately associated with this growth.” Additional study co-authors include Dr. Mahmoud Ali Zirie and Dr. Dirk Deleu of HMC.
As part of an initiative coordinated by WCMC-Q and Hamad Medical Corporation (HMC) under the auspices of the Academic Health System (AHS), Dr. Inmaculada de Melo-Martín and Cathleen Acres of WCMC-NY led two medical ethics workshops for Qatar-based researchers. The instructional workshops, held at the Warwick Doha Hotel over two days, explained key concepts in medical ethics in relation to clinical research projects, such as how to obtain informed consent, strategies for working with vulnerable groups, special precautions demanded by genetic research studies, how to handle risk and how to fulfill ethical obligations to report adverse events. The workshops were part of an ongoing program of events coordinated by WCMC-Q, HMC and AHS that aim to share knowledge and skills among institutions in Qatar in order to support and facilitate both individual and collaborative research projects.

“Medical ethics experts from New York visited Doha to advise researchers how to ensure their studies safeguard the rights of participants. As the level of attendance at the workshops was very encouraging as more than 250 people registered to take part. Everyone who participated demonstrated a great deal of interest in the subject, which I think signifies just how much energy and enthusiasm there is among the medical community in Qatar to conduct research that is not only relevant and valuable but which is also conducted in a responsible way that protects the rights and safety of participants.”

Dr. Inmaculada de Melo-Martín
Following the two workshops, Dr. de Melo-Martín and Ms. Acres, who are both members of the Division of Medical Ethics at WCMC-NY, gave a special research lecture at WCMC-Q, entitled ‘Human Subjects Research: Practical Applications and Case Discussions’.

Cathleen Acres said:

“We were very pleased with the level of interaction we encountered at both of the workshops and at the lecture. The attendees were very keen to engage with us and each other to discuss the finer points of the ethical concepts that were raised and how these could be effectively applied in practice. Clearly, there is a very deep appreciation among the medical community in Qatar of the need to conduct research in an ethical manner and we were able to provide some useful guidance of how this can be achieved.”
A WCMC-Q academic has co-edited the prestigious medical textbook Handbook of Clinical Neurology, which will serve as a comprehensive guide for clinicians and researchers dealing with complications of the nervous system arising from diabetes.
Dr. Rayaz Malik, professor of medicine at WCMC-Q, jointly edited the 640-page textbook, the full title of which is *Diabetes and the Nervous System: Handbook of Clinical Neurology*, with Dr. Douglas Zochodne, professor of neurology at the University of Alberta. Published in December 2014, the handbook took three years to compile and is comprised of 36 chapters, written by the world’s foremost experts in the field of diabetic neuropathy from elite institutions in North America, Europe, New Zealand, Japan and here in Qatar. The handbook provides a comprehensive update on experimental and translational studies of the peripheral and central nervous system in children and adults with diabetes and pre-diabetes. The latest diagnostic techniques including peripheral and central imaging as well as therapies for diabetic neuropathy are discussed in detail.

Diabetic neuropathy is characterized by nerve damage and is the most common complication of diabetes. It is also more common than multiple sclerosis, Parkinson’s disease, and amyotrophic lateral sclerosis combined and is a major source of disability in diabetic persons worldwide. Diabetic neuropathy causes a diverse range of symptoms and signs including loss of sensation and pain in the extremities, digestive and urinary as well as cardiac and cerebral problems. Loss of sensation in the extremities predisposes sufferers to foot ulcers and infections, which can result in lower limb amputation.

Dr. Malik, who joined WCMC-Q in June 2014, said: “The global diabetes and obesity epidemic means that diabetic neuropathy, which affects at least 50 percent of all diabetic patients, has become an extremely pressing health issue for both medical science and society at large. “Our aim with the handbook is to provide a comprehensive and up-to-date guide for clinicians and researchers to help bridge the translational gap towards earlier diagnosis and treatment with the best therapies to improve patient outcomes.”

Dr. Malik pioneered the development of a novel diagnostic exam for diabetic neuropathy, which involves live imaging of the patient’s cornea through a special microscope. The exam allows physicians to diagnose nerve damage and repair earlier than previous ‘gold standard’ diagnostic tests such as skin biopsy or electrophysiology. It also represents a unique surrogate endpoint for assessing the efficacy of new drug therapies for diabetic neuropathy.

Dr. Malik explained: “While researchers have been able to demonstrate the viability of many experimental therapies in the laboratory, all have fallen by the wayside as there is currently no FDA-approved therapy for human diabetic neuropathy. This highlights the translational gap, which may well be due to a lack of an ability to demonstrate therapeutic efficacy in humans, rather than a true lack of efficacy.”

Overall the handbook shows that there is a lot of research going on in the field of diabetic neuropathy, but also highlights the roadblocks and difficulties that researchers have encountered. This knowledge will hopefully be a useful guide to researchers working towards the development of an effective new therapy for diabetic neuropathy.

Dr. Khaled Machaca, associate dean for research at WCMC-Q, said: “This handbook is a wonderful piece of scholarship that will serve as an extremely useful practical aid, both for physicians treating diabetic neuropathy and for investigators searching for viable new therapies for this condition, which can be so distressing and debilitating for sufferers.”

*Diabetes and the Nervous System: Handbook of Clinical Neurology* is published by Elsevier Science and Technology.
NEW FACULTY

Liam Joseph Fernyhough

Assistant Professor of Medicine

Dr. Fernyhough joined WCMC-Q as assistant professor of medicine in March 2015. Before coming to WCMC-Q, he was at the University of Otago, Christchurch, New Zealand, where he served as a consultant in clinical and laboratory hematology and a senior lecturer and course convenor for the hematology module at the university. He has been involved in small and large-scale laboratory and clinical research both locally and internationally and is a strong proponent of practicing and teaching evidence based medicine. Dr. Fernyhough obtained his medical degree from Nottingham University in the U.K. He subsequently worked in the U.K. and New Zealand while undertaking further training to obtain fellowship in internal medicine with the Royal Australasian College of Physicians and fellowship as a hematological pathologist with the Royal College of Pathologists of Australasia.
Dr. Rachid Bendriss and Dr. Marco Ameduri with members of the foundation program

Dr. Rachid Bendriss congratulates the foundation class

Ramez Bodair receives his completion certificate from Dr. Marco Ameduri

Fatima Sheeban is all smiles as she receives her certificate

Kholoud Abu-Holayqah collects her completion certificate
Leen Al Hafez introduces the next act at the Coffee House talent show.

Abdel Aziz Al Bawab and Mohamed Soliman

The event always draws a crowd.

Cleo Reyes is accompanied by Rana Abualsaud.

Jee Ah Rhee sings a number.
The students learned about artificial respiration.

Team building activities formed part of the visit.

Reem Abdul Hameed and Ahmed Al-Neama with an infant simulator.

The students learned about artificial respiration.
Yazid Sadiq was the MC for the Golden Stethoscope awards

Mohamed Soliman presents an award to Donney Moroney, director of student affairs and academic counseling.

The Class of 2015 was voted Class of the Year

Everyone wanted to win one of the famous statuettes.
The annual basant event celebrates the beginning of spring

Faten Aqeel and Irfan Helmy

Kite flying is an integral part of the basant celebrations

Arnaud Schoonmaker with her kite

Fatih Aqeel and Iman Helmy

Dyno Tomasi

Kite flying is an integral part of the basant celebrations