QATAR CHRONICLE

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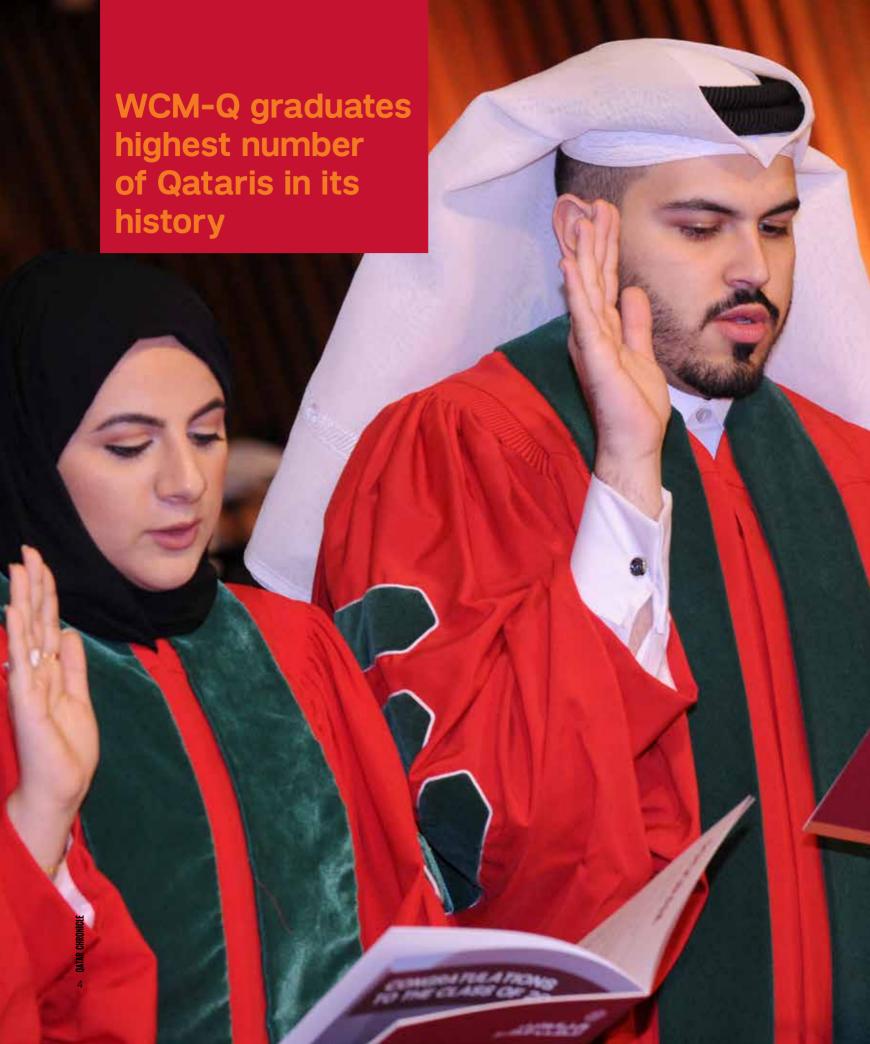
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There are 34 new doctors in the world, 13 of whom are Qatari nationals, following the graduation of Weill Cornell Medicine-Qatar's (WCM-Q) Class of 2018.

he 34 graduates received their Cornell University MD degrees at a ceremony at the Sheraton Hotel in Doha on May 2 watched by family, friends and WCM-Q faculty and staff. The new physicians mean that WCM-Q, under the patronage of Qatar Foundation, has now graduated a total of 335 doctors since the Class of 2008 received their Cornell MD degrees. With 13 Qatari citizens, the Class of 2018 contains the greatest number of nationals to graduate in one year.

Dr. Javaid Sheikh, dean of WCM-Q, paid tribute to the hard work, dedication and compassion of the new doctors. He said: "Graduation is the highlight of the academic year; it is the culmination of everything that we strive for. The Class of 2018 have demonstrated great commitment to their studies, intellectual curiosity and compassion for their patients. These qualities will continue to grow and develop as they progress through their careers and care for their patients in Qatar's hospitals and the wider world.

"This year is also particularly significant because of the number of Qatari nationals who are graduating today. More than a third of the Class of 2018 are national citizens and this is testament to the vision of Qatar's leadership of creating a knowledge economy and a hub of biomedical excellence within the region. Qatar Foundation, under the eminent guidance of HH the Emir, HH the Father Emir, HH Sheikha

"This year is also particularly significant because of the number of Qatari nationals who are graduating today. More than a third of the Class of 2018 are national citizens and this is testament to the vision of Qatar's leadership of creating a knowledge economy and a hub of biomedical excellence within the region."

Moza, and HE Sheikha Hind, is developing national human capacity and creating a sustainable society for generations to come."

The 34 new doctors will now join the ranks of their fellow alumni, who are working at Hamad Medical Corporation and other leading hospitals throughout the world.

In her speech to the audience, class speaker Fatima Al-Maadid told her classmates: "This privilege that we have of education, trust and insight into people and their stories makes us the voice of the vulnerable, whatever voice that may be. In a world that oppresses this truth and tries to forget humanity, in a world where cynicism eclipses idealism, your voice is to personify people and the word of possibilities. Do not take the responsibility lightly."



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WCM-Q has now graduated a total of 335 doctors since 2008.

She continued: "These voices also make our journeys in the realm of medicine so varied. We will go into different specialties, the class being made up of internists, pediatricians, neurologists, obstetricians, surgeons, family physicians, anesthesiologists, ophthalmologists and child neurologists. This is the reality of modern medicine and we will be separated in our realities but what will unite us is the principle to care, to discover and teach, all in the pursuit of wellness of people.

"Whatever you do, I am confident that I am in the presence of leaders of change and growth."

The keynote speaker at the graduation ceremony was Dr. Mashael Al-Khelaifi, pediatric anesthesiologist at Hamad Medical Corporation. Also in attendance were Dr. Martha Pollack, president of Cornell University, who conferred the MD degrees upon the Class of 2018, and Dr. Augustine Choi, dean of Weill Cornell Medicine in New York, and provost for medical affairs at Cornell University.

Dr. Choi reminded the graduates of the importance of lifelong learning. He said: "Medicine is a lifetime commitment. As you go through your residency programs, you'll discover that finding compassion and ways to truly care for your patients are not things you can learn overnight. It is a lifelong process that takes discipline and perseverance. Continue to work at it every single day. The goal is to have the greatest, most positive impact on the health and wellbeing of others.

"Medicine and healthcare will continue to change, probably very rapidly, in the years to come. It's your responsibility to keep up with the latest advances, so that you can offer your patients the very highest quality of care possible. Keep learning and developing new skills. Being the best doctor you can be is about growing, learning, and continually moving forward."

"Medicine is also a process of lifelong learning. We didn't have epigenetics or precision medicine, or 3D printing or nanotechnology when I was in medical school. PCR, GWAS, RNA sequencing, omics – all these technologies and fields of study have emerged just in recent decades.

"Medicine and healthcare will continue to change, probably very rapidly, in the years to come. It's your responsibility to keep up with the latest advances, so that you can offer your patients the very highest quality of care possible. Keep learning and developing new skills. Being the best doctor you can be is about growing, learning, and continually moving forward."



Newly qualified doctor Abdulrahman Ahmad Al-Abdulmalek with Dr. Thurayya Arayssi, senior associate dean for medical education and continuing professional development.



Members of the Class of 2018 take the Hippocratic Oath.



THE CLASS OF 2018 RECIPIENTS OF THE DOCTOR OF MEDICINE DEGREE MAY 2, 2018

Youmna Moustafa Ahmed Abdelghany	*
Hawra Jawad Al Lawati	*
Abdulrahman Ahmad Al-Abdulmalek	
Rula Al-Baghdadi	
Nora Khalid Ali AlFakhri	*
Maha Al-Jabri	
Fatima Mohammed Al-Khori	
Fatima Mohammed Al-Maadid	*
Khalid Hamad Al-Marri	
Alaa Al-Naama	♦
Shaikha Halas Truki Alqahtani	*
Ahmed Fahad Al-Qahtani	
Farah Al-Sayyed	
Ahmad Medawi Al-Shahrani	
Fatima Jassim Al-Shibani	
Abdulaziz Hamad Al-Thani	
Faten Faisal M. O. Aqeel	
Imen Becetti	
Amina Bougaila	
Hadya Ahmed Elshakh	
Mohammed Mohsin Haji	
Zahra Abdulla Hejji	
James Yi Hu	
Dou Huang	*
Mu Ji Hwang	*
Raji Katibe	
Sarah Javed Khan	*
Safa Osama Mahgoub	
Faryal Shahab Malick	
Eman Marwan Mosleh	
Kharisa Nur Rachmasari	*
Ahmed M. H. Saleh	‡◆
Sara Taha	
Nahel Altaf Tunio	‡ ★

- ★ with Academic Distinction
- ‡ with Honors in Research
- ♦ with Honors in Service

The best of teaching

Annual awards honor the faculty and staff members who make WCM-Q great



Dr. Javaid Sheikh and Dr. Thurayya Arayssi (center) with the evening's winners.

he outstanding contribution made by faculty to the teaching of the next generation of doctors was recognized at Weill Cornell Medicine – Qatar's 2018 Excellence in Teaching Awards ceremony.

The annual event was held at Chef's Garden restaurant at Al Shaqab, and saw winning teachers presented with their awards in front of an audience of their peers, students and WCM-Q staff members. Hosted by associate professor of English Dr. Rodney Sharkey - himself the recipient of the English Writing Award - the ceremony saw pre-medical teaching faculty in numerous categories honored, with the winners being voted for by students.

The Teaching Specialist Award was chosen by a jury after nominations from students, and was won by Dr. Dalia Zakaria.

Comments from students included: "[Dr. Dalia] encourages you to seek her help. It is as if it is this teacher's own duty and that she has failed if we do not understand and have not visited her office," and "Dr. Dalia is caring, compassionate, hardworking, and determined to make sure that all of the students succeed."

The other pre-medical faculty to win awards were Dr. Rachid Bendriss, Dr. Kuei-Chiu Chen, Dr. James Roach, Dr. Sean Holroyd and Dr. Moncef Ladjimi.

Teaching specialists Dr. Ali Chaari, Melanie Fernandes, Christine Jenkins and Sarah Roach also received honorable mentions.

New for this year was a restructuring of the Medical Education Awards, with awards presented for the Foundational Sciences Curriculum and the Clinical Curriculum, rather than individual courses. There were also leadership

awards that were voted on by students, faculty members and staff, and a new award - Excellence in Educational Innovation - the winner of which was chosen by an independent jury selected from staff and faculty within the college.

This year, that prize went to Dr. Grigory Ostrovskiy, assistant professor of emergency medicine in medicine, for "enhancing experiential learning through point of care ultrasound and simulation technology".

The other medical faculty to be presented with awards were: Dr. Ameed Raoof, Dr. Bakr Nour and Dr. Amine Rakab, Dr. Avelin Malyango, Dr. Amal Khidir, Dr. Amir Soumekh, Dr. Anthony Ogedegbe and Dr. Joseph Safideh.

Full details of all the awards can be found in the table below. Former directors of courses and clerkships on the old curriculum that have been phased out were also specifically honored, with Drs. Naim Haddad, Gerardo Guiter, Stella Major and Mai Mahmoud taking the plaudits.



Dr. Rodney Sharkey acted as compère for the evening.

Dr. Javaid Sheikh, dean of WCM-Q, said: "We are incredibly fortunate to have faculty and staff at WCM-Q who are so dedicated to their students and who strive to ensure that they achieve academic success. Our faculty are, without exception, gifted educators, and it is because of their commitment, professionalism and concern for the welfare of our young future doctors, that WCM-Q has been so successful in graduating physicians and attaining the reputation it has."

Award Category	Awardee
Foundation Year	Dr. Rachid Bendriss
1st Year Science (Awards 2)	Dr. Kuei-Chiu Chen
	Dr. James Roach
English Writing	Dr. Rodney Sharkey
2 nd Year Science (Awards 2)	Dr. Sean Holroyd
	Dr. Moncef Ladjimi
Teaching Specialist	Dr. Dalia Zakaria





Dr. Grigory Ostrovskiy (center), with Dr. Javaid Sheikh, and Dr. Thurayya Arayssi.

Award Category	Awardee
Excellence in Teaching in the Foundational Sciences Curriculum	Dr. Ameed Raoof
Excellence in Teaching in the Clinical Curriculum	Co-awarded to Dr. Bakr Nour and Dr. Amine Rakab
Excellence in Leadership in the Foundational Sciences Curriculum	Dr. Avelin Malyango
Excellence in Leadership in the Clinical Curriculum	Co-awarded to Dr. Amal Khidir and Dr. Grigory Ostrovskiy
Visiting Faculty Excellence in Teaching – Foundational Sciences Curriculum	Dr. Amir Soumekh
Visiting Faculty Excellence in Teaching – Clinical Curriculum	Co-awarded to Dr. Anthony Ogedegbe and Dr. Joseph Safideh
Excellence in Educational Innovation	Dr. Grigory Ostrovskiy
Course/Clerkship Directors	Awardee
Brain and Mind Course Director	Dr. Naim Haddad
Basis of Disease Course Director	Dr. Gerardo Guiter
Medicine, Patients and Society II Course Director	Dr. Stella Major
Introductory Clerkship Director	Dr. Mai Mahmoud

Honor for WCM-Q scientist

The work of WCM-Q's associate dean of research recognized and celebrated by his alma mater

leading scientist at Weill Cornell Medicine - Qatar (WCM-Q) has been presented with the Distinguished Alumnus of the Year Award from his alma mater in the US.

Dr. Khaled Machaca, associate dean of research at WCM-Q and professor of physiology and biophysics, was awarded his PhD in cell and developmental biology from Emory University's Laney Graduate School in Georgia in the US in 1996.

Since then, Dr. Machaca has had an internationally renowned career as a researcher in the fields of calcium signaling and gamete maturation, publishing multiple highimpact scientific articles in leading journals. He joined WCM-Q in 2007 and was appointed associate dean of research the following year.

Dr. Machaca oversaw the establishment and growth of the research program at WCM-Q over the past decade. This included the recruitment of 16 faculty members to join the program, the implementation of the operational and regulatory infrastructure for research at WCM-Q, and the establishment of state-of-the-art core facilities that currently service WCM-Q faculty and other stakeholders nationally. The research program has been successful and has established itself as one of the premier biomedical programs regionally by garnering significant extramural funding in excess of \$100 million, publishing more than 800 papers which have received over 16,000 citations to date.

His significant contributions to the scientific world have now been formally recognized by Emory University's Graduate Division of Biological and Biomedical Sciences (GDBBS) who have named him the recipient of their 2018 Distinguished Alumnus of the Year Award. As such, Dr. Machaca was invited to deliver a seminar at Emory. The lecture, entitled 'Of Chicken, Worms, Frogs, Mice and Humans, Searching for the Spark of Life', summarized Dr. Machaca's scientific and professional journey to the audience at Emory. The seminar was followed by a banquet to honor the distinguished alumnus and student achievements at the North Druid Hills Golf Club.

Dr. Machaca said: "It is a great honor and privilege to have my career recognized by my alma mater. This award was particularly special because my daughter Raya is currently a student at Emory. It further allowed me to reflect back on my career in a different light, and interact with students and colleagues at Emory GDBBS and realize the great strides on the research front that Emory has achieved over the past two decades since my days there as a graduate student.

"Science and research are vital to the acquisition of knowledge and the development of better healthcare Dr. Khaled Machaca.

- particularly personalized healthcare - and it is very gratifying to be working in a country like Qatar, which places such importance on knowledge and scientific research."

As WCM-Q's associate dean of research, Dr. Machaca is leading the college's efforts to research diseases and conditions prevalent in Qatar and the MENA region, like diabetes and obesity, with the goal of contributing to the discovery and development of new therapies. He is also passionate about increasing local research and scientific capacity, and under his leadership intern programs have been introduced to provide prospective Qatari scientists with bench and administrative experience in WCM-Q's world-class research enterprise. In his role, Dr. Machaca also oversees the operational, academic and financial management of the research enterprise at WCM-Q.



OATAR CHRONICLE

A decade of debate

Alumni and current students convene at WCM-Q to mark club's anniversary



Several WCM-Q graduates returned to the college to join current students for a debate marking the 10th anniversary of the WCM-Q Debate Society.

Id rivalries were rekindled as past and present presidents of the WCM-Q Debate Society reconvened to mark the club's tenth anniversary with one more battle of wits.

The debate brought together current Debate Society president, Amina Kunnummal, a first-year medical student, with seven former holders of the post, including three returning alumni, to debate the motion: This house believes that regarding the opioid crisis in the USA 'the market decides'.

Introducing the event, held in WCM-Q's Lecture Hall 4, Dr. Rodney Sharkey, associate professor of English and WCM-Q's debate society coach for ten years, said: "It's extraordinary to find that we are celebrating our decennial as a club. Full credit to these presidents, and the members, for sustaining this club with such enthusiasm for a decade. We look forward to another ten years. Debate is vitally important for a healthy society to thrive and prosper."

Contested according to the British Parliamentary format, which pits four two-member teams against one another, the debate teamed returning alumnus Dr. Emad Mansoor of the Class of 2014, who is now gastroenterology fellow in the

Digestive Health Institute at University Hospitals Cleveland Medical Center/Case Western Reserve University, with Amina Kunnummal to give the opening argument for the motion, while Mountasir El-Tohami (Class of 2019) and Eman Mosleh (Class of 2018) opened against the motion.

The closing argument for the motion was made by first-year student Shahryar Rana and alumnus Ahmed Almeer of the Class of 2017, who is now a first-year internal medicine resident at Hamad Medical Corporation (HMC). Finally, Dr. Mustafa Abdulkarim of the Class of 2016, currently on the psychiatry residency program at HMC, gave the closing argument alongside Dr. Mariam Gabrial of the Class of 2014, who is now a pediatrics resident at the University of Buffalo. Fourth-year student Alaaeldin Elsayed was billed to appear but gave his apologies as he was unable to attend.

Addiction to opioids has become an epidemic in the US, with many patients becoming hooked after receiving prescribed synthetic opioid pain management drugs, such as fentanyl. Research has shown that many patients switch from prescribed drugs to illicit opioids after their course of treatment ends. Arguing for a free-market approach to opioid distribution, Dr. Mansoor pointed to a successful



WCM-Q alumnus Dr. Ahmed Almeer takes part in a debate held to celebrate a decade of the WCM-Q Debate Society.

model of light-touch regulation in the US state of Vermont, saying: "As doctors we should robustly defend the patient-doctor relationship, which is what medicine is all about, from interference by the Federal Government." Amina then argued that excessive regulation can prevent patients from accessing prescribed medications, driving them into the arms of dealers of illicit drugs, often with devastating consequences.

The Debate Society is one of the most popular and successful student clubs at WCM-Q, attracting a steady supply of members since it was formed back in 2008. WCM-Q debaters have won the Qatar National Debate Title four times, the Qatar National Debate League three times and have competed at the World University Debate Championship held annually and variously in Europe, South America, Africa and South East Asia.

Following a closely fought contest the judging panel awarded victory to the closing opposition team of Dr. Mustafa Abdulkarim and Dr. Mariam Gabrial.



Dr. Eman Mosleh, who graduated this year, puts forth her arguments.

Conference boosts biotech sector

Speakers call for stronger links between academia and corporations to develop new medical interventions

trategies for bringing innovations in biomedical research to market to help diversify Qatar's economy were discussed at the second Industry Academia Alliances conference, an event coordinated by WCM-Q.

The conference brought together leading biomedical research academics, local biomedical stakeholders in Qatar, and senior executives from both small and large biotech firms for two days of presentations, discussions and networking.

The aim of the conference, now in its second iteration, is to stimulate collaborative alliances between industry and academia in order to facilitate the journey of new technologies from the laboratory to the marketplace, explained Dr. Khaled Machaca, associate dean for research at WCM-Q.

"We are interested in building bridges between industry and academia," he said. "Our aim is to support the growth of an innovation eco-system in Qatar that promotes the translation of good research into clinical practice, which can then attract investment from industry and venture capital. Ultimately, the aim is to create an environment that allows new ideas to become successful commercial ventures that are based here in Qatar, establishing new revenue streams for the Qatari economy and closing the 'research loop'."

The event featured presentations from leading figures in the international biotech industry, including Dr. Robert. R. Ruffolo Jr., the retired president of research and development for Wyeth Pharmaceuticals and corporate senior vice president of Wyeth (now Pfizer). In that role, Dr. Ruffolo managed an R&D organization of 9,000 scientists with a budget of \$4billion.

Other speakers included Dr. Thomas Caskey, professor of molecular and human genetics at Baylor College of Medicine in Houston, Texas; Dr. Ronald Crystal, chairman of the Department of Genetic Medicine at Weill Cornell Medicine in New York; and Dr. Javaid Sheikh, dean of WCM-Q.

Dr. Sheikh said: "Qatar has been tremendously supportive of biotech R&D, both in terms of establishing world-class research institutions and in developing human capital through education. Our goal now is to aid diversification of the economy by attracting 'seasoned capital' from local and international venture capital investors who have an appetite for taking calculated risks on biotech innovations that could deliver very significant rewards, both for them and for the economy in Qatar."

WCM-Q's Research Division has 25 active laboratories and has established a center of excellence in basic, translational and clinical biomedical research, with a special focus on the most pressing health challenges facing Qatar.

Since 2010 WCM-Q faculty have published over 800 papers with an associated 16,000 citations. The Research Division also runs a series of programs offering research training to young people in Qatar.

The conference was coordinated by WCM-Q in collaboration with Qatar Foundation, Hamad Medical Corporation, Hamad Bin Khalifa University, Qatar Biobank, Qatar Genome, Sidra Medicine and Qatar Science and Technology Park (QSTP). QSTP, a Qatar Foundation member, encourages growth and investment in Qatar's hi-tech sector through its Free Zone, which allows for 100 percent foreign ownership, tariff-free imports and other tax incentives.

Also speaking at the event were leading figures from local research and healthcare institutions, including Dr. Hadi Abderrahim, lead strategy for healthcare and biomedical at Qatar Foundation R&D; Dr. Maher Hakim, executive director of QSTP; Dr. Marco A. E. Marcus, chairman of anesthesiology at Hamad Medical Corporation; and Dr. Richard O' Kennedy, vice-president for research at Hamad Bin Khalifa University, among others.



Dr. Javaid Sheik, dean of WCM-Q, said it was important for Qatar's biotech industry to attract local and international investment.

Match Day triumph

Graduating students learn where they will spend the next stage of their careers



Students have matched with leading healthcare institutions, including Hamad Medical Corporation, Case Western/University Hospital Cleveland, and NewYork-Presbyterian/Weill Cornell Medical Center.

tudents of WCM-Q's graduating class celebrated after 'matching' at some of the world's most respected healthcare institutions.

The medical students, who graduated as doctors in May, matched with residency training programs at leading healthcare institutions in Qatar and the US, including Hamad Medical Corporation (HMC), Case Western/University Hospital Cleveland, Massachusetts General Hospital, NewYork-Presbyterian/Weill Cornell Medical Center, and Virginia Commonwealth University.

This year's graduating class has 13 Qatari nationals, the highest number of any graduating class in WCM-Q's history. The graduating students will join their residency training programs in the fall and in their chosen specialties, which this year comprise anesthesiology, pediatric neurology, neurology, family medicine, general surgery, internal medicine, obstetrics-gynecology and pediatrics.

Khalid Al-Marri was accepted for the family medicine residency program at Hamad Medical Corporation.

He said: "I'm really excited to be joining HMC and to have the chance to serve my community. I chose to train as a family physician as they are very often the first point of contact for patients, which will allow me to help ensure people are able to access the care they need. I hope to one day subspecialize in sports medicine as this will be useful to Qatar during the World Cup in 2022."

Matching is a crucial step in a doctor's career and the annual Match Day event is highly competitive - this year 37,103 applicants vied for just 33,167 positions.

Students and their families of the Class of 2018 attended a Match Day ceremony held at WCM-Q to hear the results of their applications soon after they were announced by the National Resident Matching Program in Washington, DC. Match Day marks the culmination of four years of medical training for WCM-Q students, who are awarded a US-accredited MD degree by Cornell University.

Fatima Al-Maadid will join the pediatric neurology residency program at Massachusetts General Hospital in Boston, US. She said: "I'm so happy to have matched at MGH and I'm really looking forward to beginning my training in a specialty that I love. I feel that the education I have received at WCM-Q has given me a very strong foundation for success and I'm very grateful to everyone who has supported me during my time here."

Fatima has ambitions to complete a fellowship in the US after her residency but hopes to return to Qatar to serve her community in the future.

Dr. Javaid Sheikh, dean of WCM-Q, said: "We are extremely proud of our talented future doctors for matching at such prestigious institutions and very happy that all their hard work has been rewarded. It is also wonderful news that 13 of our graduates this year are Qatari nationals, which is a record high for WCM-Q."

AR CHRONICLE

A decade of success

Foundation Program celebrates 10 years of supporting students to achieve their potential



Dr. Javaid Sheikh, dean of WCM-Q, with VIPs and faculty and staff from the Foundation Program.

CM-Q has celebrated the 10th anniversary of its Foundation Program, designed to help students achieve success in its medical program.

The Foundation Program was launched by WCM-Q in 2007, specifically to develop the skills of those from traditional educational backgrounds who are academically gifted but may not be ready for the transition from high school to university. The program essentially acts as a bridge between high school and university for those wanting to study medicine.

On March 28, the 10th anniversary celebration of "The program was held at Hamad Bin Khalifa University Student Center in front of an audience of faculty, students and staff.

Dr. Javaid Sheikh, dean of WCM-Q, said the Foundation Program was launched to support Qatari students to succeed on the medical program and realize their full potential.

Dr. Sheikh said: "Weill Cornell Medicine is an Ivy League school and holds its students, faculty, and staff to truly world-class standards. In order to help prepare talented and motivated local students to achieve those exceptionally high standards, we went into Qatar's high schools and identified

students who were interested in careers in the health professions. We then created the conditions in which they could learn math, science and English and so be ready for the rigor of the six-year medical program.

"The program has led to more Qatari physicians graduating and so more Qatari doctors who are working in and making a very valuable contribution to the healthcare landscape of the country.

"Through the Foundation Program we are also creating additional human capacity within the Qatari healthcare system and helping to graduate Qatari doctors who are working in – and improving – the medical sector of the nation. They are acting as role models for the younger generation and contributing to the dissemination of best medical practice, so adding to Qatar's ever-expanding knowledge economy."

The Foundation Program curriculum comprises courses in physics, biology, chemistry, math and English, but the true lessons that students learn are much more fundamental.

Dr. Marco Ameduri, associate dean for pre-medical education at WCM-Q, played a central role in the development of the curriculum.

Dr. Ameduri, who is also associate professor of physics, said: "The aim of the Foundation Program is not just about the dissemination of facts and having students learn information off by heart. We want students to become independent learners, to be curious enough to ask a question, but then to also have the necessary skills to find the answer themselves. We want to instill them with a strong work ethic and to have them become life-long learners, seeing the acquisition of knowledge as a journey."

Dr. Rachid Bendriss, assistant dean for student recruitment, outreach and foundation programs, and associate professor for English as a second language, added that the program has helped many students achieve their potential and become doctors.

Dr. Bendriss said: "When we see from someone's application that they have real potential but are not quite ready for the Medical Program we invite them to consider joining the Foundation Program. This method has helped us to find some exceptionally gifted students over the years.

"Through the Foundation Program we are also creating additional human capacity within the Qatari healthcare system and helping to graduate Qatari doctors who are working in – and improving – the medical landscape of their home country. They are acting as role models for the younger generation and contributing to the dissemination of best medical practice, so adding to Qatar's everexpanding knowledge economy."

"It is very satisfying to think that we have more doctors in the world today because the Foundation Program has given them the support they needed to succeed."

At the anniversary celebration, which was held at HBKU Student Center, guests saw a film produced to commemorate the anniversary and heard from two alumni of the program - Eman Mosleh and Mohammed Al-Hajri - who have gone on to success in the Medical Program.

There were 22 students in the 2017/18 Foundation Program, the vast majority of whom were Qatari. Razan Al-Mousawi was one of them.

"The program put everything in perspective for me," she said. "The Foundation Program helped us to understand what would be expected of us in the Medical Program and the standards we need to maintain as students of Cornell."

After successfully completing the Foundation Program, students are promoted to the WCM-Q Six-Year Integrated Medical Program.



Dr. Mohammed Al-Hajri is a former student of the Foundation Program.



Dr. Sarah Saleh Al Khawaga, an alumna of the Foundation Program, is interviewed by local media.



Dr. Clare McVeigh, senior lecturer in biology, with current Foundation Program students.

An insight into disease

Study looks at the genetic signs that show how our bodies are reacting to disease

esearchers at Weill Cornell Medicine - Qatar (WCM-Q) have used comprehensive molecular measurement techniques to better understand how our cells respond to disease.

Dr. Karsten Suhre, professor of physiology and biophysics and director of the college's Bioinformatics Core, led a team of researchers from institutions across the globe who studied how individual differences in lifestyles and health leave an imprint on a person's epigenome – a series of chemical modifications to a person's genome that have the ability to switch genes 'on' or 'off'.

They researched how disorders like diabetes, cancer and cardiovascular disease, in conjunction with exposure to environmental factors like smoking and lack of exercise, affect the biochemical make-up of small molecules and proteins as they circulate within the human body.

Dr. Suhre says: "Complex disorders, including extreme obesity, cardiovascular disease and diabetes, as well as lifestyle choices, such as exposure to cigarette smoke

"This response leaves so-called epigenetic marks on the genome which tell the cells which genes they need to activate. Epigenetic marks are like little flags – their presence or absence at specific locations on the genome can tell how well a cell is faring in its response to a health challenge. For instance, some of them can serve as early indicators for the onset of diabetes."

or unhealthy food choices, force our body to respond by eliminating toxic molecules from the body.

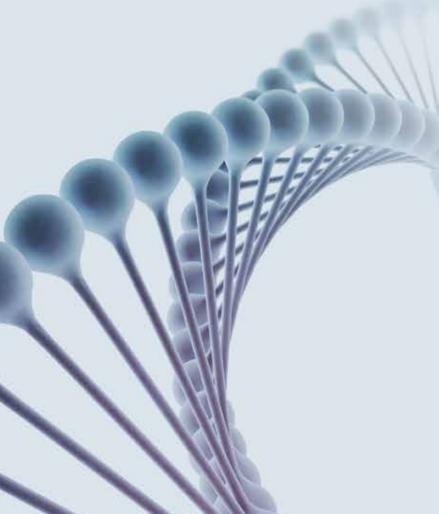
Their study was entitled 'Deep molecular phenotypes link complex disorders and physiological insult to CpG methylation' and is the first study that analyzes such a broad spectrum of molecular measurements, including metabolomics, lipidomics, proteomics and glycomics to measure all possible kinds of small molecules that can be found in blood, urine and saliva.

This study has now been published in the prestigious international journal *Human Molecular Genetics* and can be accessed at the following URL: https://doi.org/10.1093/hmg/ddy006.

Dr. Shaza Zaghlool, the first author of the study and who performed all the data analyses, explained: "If your pancreas is already crumbling because you have diabetes, then it is already very late to intervene, but if we can spot the disease earlier by looking at some of the markers we identify in our study, there may be room for intervention."

She added: "Knowing that certain factors are associated with each other is only a first step in dealing with the problem. Understanding which of these factors are actually driving the disease will allow us to pinpoint specific molecules that we can target with drugs. This is what we started to do. It's about an integrated approach to developing new therapies."

Dr. Khaled Machaca, associate dean for research at WCM-Q, said: "These biomarkers could help with the early diagnosis of certain cancers, diabetes, or cardiovascular disease, and may one day allow doctors to begin therapies earlier, ultimately improving clinical outcomes. These biomarkers could also allow patients to make timely lifestyle changes, perhaps even avoiding the disease altogether. The results of this study advance WCM-Q's research program on addressing the most prevalent and challenging health needs in Qatar and the region."



One quarter diabetic by 2050

Mathematic modeling techniques predict the diabetes burden in Qatar will increase

esearchers at WCM-Q predict that type 2 diabetes prevalence in Qatar will soar from 17 percent in 2012 to at least 24 percent by 2050.

Qatar is already one of the countries most affected by type 2 diabetes worldwide and, according to findings published in *Diabetes Research and Clinical Practice*, this epidemic is set to worsen in the next three decades, driven by the ageing of the population and high levels of obesity.

The WCM-Q study, Forecasting the Burden of Type 2 Diabetes Mellitus in Qatar to 2050: A Novel Modeling Approach, was conducted with funding from the Qatar National Research Fund, a Qatar Foundation member, through the National Priorities Research Program.

The study used sophisticated mathematical modeling techniques to forecast diabetes burden in the Qatari population up to 2050. Despite already being over twice the global average, with 17 percent of Qataris currently living with diabetes, it was projected that at least one in every four adult Qataris will have diabetes by 2050.

The researchers also calculated the likely economic costs accompanying the rise in the prevalence of diabetes.

"Not only have we projected an alarming increase in the diabetes epidemic, but we also forecasted a high burden of diabetes on Qatar's health expenditure," said Susanne Awad, first author of the study and senior mathematical epidemiologist at the Infectious Disease Epidemiology Group at WCM-Q. "While diabetes is already consuming about 20 percent of Qatar's national health expenditure, it will consume nearly one-third of the national health expenditure by 2050, according to our model."

One of the main findings of the study is that most cases of diabetes are due to obesity. The fraction of Qataris who are obese stands currently at 41 percent, but was projected by the study to increase to 51 percent by 2050. The study also forecast that, by 2050, 66 percent of diabetes cases will be caused by obesity.

Professor Laith Abu-Raddad, principal investigator of the study and professor of healthcare policy and research at WCM-Q, said: "Though there are several causes of Qatar's diabetes epidemic such as direct genetic factors, low levels of physical activity, and smoking, the combined role of these factors was relatively minor compared to obesity. Obesity was by far the leading driver of the diabetes epidemic in Qatar."

The study provided a framework for generating strategic information to inform diabetes public health policy, programming and resource allocation at the national level. The framework also offers a platform for extensions to assess the impact and cost-effectiveness of interventions against diabetes and its leading risk factors.

"It is a priority to focus on public health and lifestyle interventions to control, or even reverse the rising diabetes burden through individual- and population-based prevention approaches. These approaches remain to be tested to



Professor Laith Abu-Raddad and Susanne Awad.

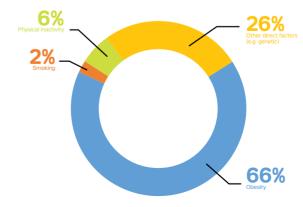
determine their feasibility and effectiveness in Qatar," said Professor Abu-Raddad.

The research was only possible thanks to support from Qatar National Research Fund through grant NPRP 7-627-3-167.

Dr. Khaled Machaca, associate dean of research at WCM-Q, said: "WCM-Q, with strong support from the Qatar National Research Fund through the National Priorities Research Program, is committed to developing strategies to tackle the rise of obesity and diabetes in Qatar. This important study gives us a better understanding of the nature of the diabetes disease burden in Qatar and will therefore help us to more effectively target future interventions."

Key scientific findings of the study:

- The fraction of Qataris with type 2 diabetes is forecasted to grow by 43% by 2050.
- The annual number of new type 2 diabetes cases is forecasted to grow by 147% by 2050.
- Type 2 diabetes is forecasted to consume one-third of Qatar's health expenditure by 2050.
- Obesity is the main driver of the type 2 diabetes epidemic, causing two-thirds of all new cases.



The fraction of diabetes cases that will be due to obesity, smoking, physical inactivity, and other factors by 2050.

The fight against lifestyle diseases

Doctor among first to be certified in lifestyle medicine by prominent US board

ne of WCM-Q's senior faculty has placed himself at the forefront of a global movement to combat the emerging epidemic of lifestyle-related chronic disease.

Dr. Ravinder Mamtani, senior associate dean for population health, capacity building and student affairs at WCM-Q, is among a group of only 204 physicians worldwide who have become the very first medical professionals to be certified by the American Board of Lifestyle Medicine (ABLM)/the American College of Lifestyle Medicine (ACLM) and the International Board of Lifestyle Medicine.

Lifestyle Medicine - as defined by the ACLM - is the use of evidence-based, therapeutic approaches to improve or maintain health, effected through positive lifestyle habits. These include a whole-food, plant-based diet, regular physical activity, adequate sleep, stress management, tobacco cessation, and other non-drug modalities, to prevent, treat, and often even reverse chronic disease.

The ABLM was formed in the US in 2015 by a group of physicians who wanted to create a set of common standards and a common language for evidence-based lifestyle medicine, to differentiate it from non-evidence-based approaches and to set a benchmark of quality. To ensure practitioners meet these standards, ABLM/ACLM certification is based upon an exam, which Dr. Mamtani took and passed in Tuscon, Arizona recently.

Dr. Mamtani said: "All over the world, both rich and poor countries are struggling to cope with skyrocketing rates of obesity and non-communicable diseases like type 2 diabetes, cardiovascular disease, hypertension, stroke and certain forms of cancer. Lifestyle medicine approaches are an extremely effective way to combat these conditions as they address the causes, not just the symptoms.

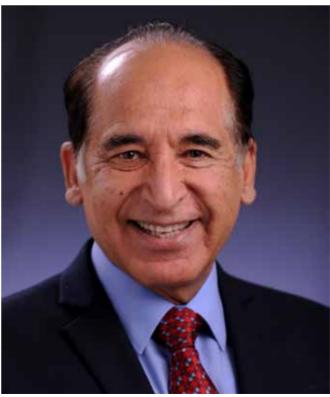
"But, in order to ensure the advice healthcare professionals offer is correct and consistent, it is essential to establish common standards that are based upon real evidence. That is why I am so pleased to have received board certification from the ABLM/ACLM, which does exactly that."

Studies suggest that lifestyle medicine is an effective way of addressing chronic illness that is often cheaper than conventional approaches, and that healthy lifestyle practices could prevent as much as 80 percent of chronic disease. Furthermore, an estimated 80 percent of healthcare spending is linked directly to the treatment of conditions rooted to poor lifestyle choices. Importantly, lifestyle medicine does not attempt to replace required conventional therapies but rather to provide guidelines for maintaining and improving overall health, making chronic disease less likely and helping people with chronic disease to recover.

Dr. Mamtani added: "Certification also protects patients from disreputable or unqualified practitioners of lifestyle-based approaches who might offer advice that is not evidence-based and could even be dangerous. People with chronic illness should consult their physician about ways to incorporate lifestyle medicine into their treatment and should never discontinue any treatment without discussing it with a qualified healthcare professional first."

Dr. Sohaila Cheema, director of WCM-Q's Institute for Population Health, said: "With increasing rates of diabetes and obesity in the Middle East, it is our hope at WCM-Q to support the development and implementation of lifestyle medicine education and clinical programs in this region."

WCM-Q's Institute for Population Health (IPH) offers an annual Certificate in Clinical Nutrition course, which provides health practitioners with an understanding of how nutrition affects physiological and biochemical systems in the human body. Additionally, the course provides relevant clinical information and skills to the participants. IPH continues to develop and implement additional lifestyle medicine programs for health practitioners in Qatar.



Dr. Ravinder Mamtani says that lifestyle medicine approaches are very effective at combating diseases like type 2 diabetes.

Khayr Qatarna launched by WCM-Q

New phase of Project: Greenhouse will promote self-sufficiency and food security in Qatar



HE the Minister of Education and Higher Education Dr. Mohammed bin Abdul Wahid Al Hammadi, and Dr. Javaid Sheikh, dean of WCM-Q, with VIPs and children.

national health and sustainability campaign has launched an innovative new phase to produce fruits and vegetables for public consumption.

Sahtak Awalan is WCM-Q's flagship health campaign, and since its launch has provided more than 130 schools across Qatar with greenhouses, soil, plant pots and fruit and vegetable seeds through its Project: Greenhouse initiative. This has allowed children to learn about the environment, sustainability, where their food comes from and most importantly the benefits of healthy eating.

Project: Greenhouse is now taking the scheme to the next level and has installed three large-scale greenhouses at certain schools, with more greenhouses to follow. These greenhouses will be used to grow fruit and vegetables that the Ministry of Agriculture will then distribute through local supermarkets. Students will continue to be involved and will be able to visit the greenhouses, learning more about food production and economics.

The initiative was launched at Qatar National Convention Center in the presence of HE the Minister of Education and Higher Education Dr. Mohammed bin Abdul Wahid Al

The launch was also attended by more than 1,500 children who have been directly involved with Project: Greenhouse, along with senior representatives of Sahtak Awalan's strategic partners; the Ministry of Public Health, Qatar Foundation, the Ministry of Education and Higher Education, the Ministry of Environment and Municipality, ExxonMobil, Occidental Petroleum and the Supreme Committee for Delivery and Legacy.

The guests were told the history of Project: Greenhouse and the wider Sahtak Awalan campaign through a variety of films, displays and exhibits. Previous successes include events like the annual Color Run, the Yalla Natural roadshow, Your Healthy Canteens and The Challenge.

Dr. Javaid Sheikh, dean of WCM-Q, spoke about the impact that good nutrition has on our lives.

Dr. Sheikh said: "Non-communicable diseases are one of the greatest threats to our health; they include diabetes, obesity, certain cancers, cardiovascular disease and strokes. However, they are also almost entirely preventable and by taking regular exercise and eating a balanced diet we can remain healthy and active for longer.

"That is what Project: Greenhouse has been teaching our children; the importance of a diet high in fruit and vegetables and low in processed food. It has also encouraged children to try new foods and to encourage their families to eat a balanced diet and we hope that this latest phase of Project: Greenhouse will do the same for the wider population. By providing fresh, locally grown fruit and vegetables we hope to encourage people to include more of them in their diet, at the same time as contributing to environmental sustainability through a reduction in food miles."

The launch ended with students involved in Project: Greenhouse distributing some of the produce grown to the VIPs. The new large-scale greenhouses will be cultivating a variety of foods including onions, parsley, broccoli, radishes, tomatoes and red cabbage. All proceeds from the initiative will be reinvested in Project: Greenhouse.

Khayr Qatarna

The first harvest



Students from Saladin Independent Preparatory School for Boys helped harvest the first crop.

hayr Qatarna, an initiative of the Sahtak Awalan - Your Health First campaign, harvested its first crop in March and has begun supplying fresh fruit and vegetables to local supermarkets to help improve food security, increase sustainability, and encourage healthy eating.

The new initiative has seen three large-scale, climate-controlled greenhouses built at three schools in Qatar. These greenhouses are being used to grow fruit and vegetables that are then distributed with Khayr Qatarna branding to the community through local supermarkets. More greenhouses are in the pipeline, and all profits from the scheme are being reinvested in the initiative.

All the crops have been granted the status of 'Premium Products' - an indication of their freshness and quality - by the Ministry of Municipality and Environment, who have given valuable support and advice to the Khayr Qatarna project. The first crop of cucumbers and tomatoes has now been harvested by local schoolchildren and delivered to local supermarkets Géant at Hyatt Plaza and selected branches of Al Meera, with the help of the Ministry.

Tons of cucumbers, tomatoes, bell peppers, melons and other fruit and vegetables will be grown each year, and students at the schools where the greenhouses are based will help grow them and see how they are cultivated, harvested and distributed, providing valuable lessons in economics, agriculture and logistics.



The produce has all been granted the status of 'Premium Products' by the Ministry of Municipality and Environment.

Exchange students visit WCM-Q

The visiting students experienced the college's curriculum and met with their peers, faculty and staff



WCM-Q faculty and staff with the exchange students.

en students from medical colleges in Oman, India, Pakistan, Lebanon and Palestine spent a week at Weill Cornell Medicine-Qatar as part of the International Exchange Program.

The program brought two students and one faculty from each of the participating colleges to WCM-Q to explore the state-of-the-art facilities, learn about the curriculum and meet students and faculty. In January 2018, a return delegation of WCM-Q students visited the College of Medicine and Health Studies at Sultan Qaboos University in Oman for a week on the Host Country Program.

The participating colleges were An-Najah National University of Nablus, Palestine; Dow International Medical College of Karachi, Pakistan; Kasturba Medical College of Mangalore, India; the American University of Beirut; and the College of Medicine and Health Studies at Sultan Qaboos University.

During the program, which is coordinated by the WCM-Q Division of Student Affairs, the visiting and host school students had the chance to compare the WCM-Q curriculum with other medical curricula, observe clinical encounters with students during clinical rotations, examine varying educational methods, including problem-based learning, and to learn about various aspects of country- and region-specific population health programs.

The students also visited WCM-Q's Clinical Skills and Simulation Lab where they saw hi-tech learning aids such as electronic medical mannequins and an anatomage table – a human-sized touchscreen display for visualizing the human anatomy.

Student Yasmin Khader of Al-Najah National University in Nablus said: "I'm so impressed with the college, the facilities and the curriculum here. The anatomage table, for example, is really something amazing and we could see immediately what a useful teaching aid it is. It has been great to come here and see a different approach to teaching medicine."

Khalil Al Ajmi of Sultan Qaboos University said: "The emphasis on problem-based learning and the hi-tech learning aids such as the electronic mannequin and the digital anatomage table are the things that most interested me. These are really useful and effective approaches to learning skills. I'm also really glad we all had this opportunity to take part in this worldwide interaction, which has been so interesting and thought-provoking."

During the eight-day trip the students also toured Education City and healthcare institutions around Doha, including Hamad Medical Corporation, Al Gharaffa Medical Center, the Psychiatry Hospital and Rawdat Al Khail Wellness Center. Ms. Faten Shunnar, director of Student Affairs, said "We are very happy with the outcome of the program, and we look forward to working and collaborating with other medical schools in the region."

Dr. Ravinder Mamtani, senior associate dean for population health, capacity building and student affairs, said: "It has been a great pleasure to welcome students and faculty from Oman, Palestine, Pakistan, India and Lebanon to WCM-Q to exchange valuable knowledge about the many different approaches to teaching medicine that exist around the world. This program has provided us all with many valuable and rewarding experiences during a highly instructive week."

Literature and the mind

Literary characters exhibiting psychiatric problems can offer insights and solace for those suffering from mental health issues in real life

Literature can therefore pro health issues can be safe worked through in private which can be extrest beneficial for the roman provided that they are comfort in the Speaking Sharkey said other humanis seminars had develop an in He said: "Tell Apart are and are explored in characters can be est students, who naturally of both life and medicine understand them. This in the become interested in psychia health on physical wellbeing."

This process inspired set Mental Health Conference are safe and safe and safe and safe and medicine understand them. This in the become interested in psychia health on physical wellbeing."

This process inspired set Mental Health Conference are safe and safe an

Characters in Hamlet display a range of psychiatric problems.

he capacity of literature to provide a space in which the reader can explore and understand mental health issues was discussed by Dr. Rodney Sharkey at the 6th Qatar International Mental Health Conference.

Giving one of the keynote addresses at the conference, organized by Hamad Medical Corporation, Dr. Sharkey said that the travails of characters in fiction affected by mental health issues can offer readers powerful insight into the life of the mind. This not only enhances understanding of psychiatric conditions in general, but can also offer solace to readers who may recognize some of their own traits in troubled characters and in so doing come to terms with themselves.

Dr. Sharkey, WCM-Q associate professor of English, said: "In the telling of stories we create spaces and explore themes that have relevance to everyday life and to one's self, and this is very true of psychiatric issues and mental health.

Literature can therefore provide a space in which mental health issues can be safely explored, understood and worked through in private and with absolute discretion, which can be extremely cathartic, reassuring and beneficial for the reader."

Dr. Sharkey said that characters exhibiting mental health issues such as anxiety, depression or compulsive behavior, among others, can show readers with similar issues that they are not alone, bringing them comfort in the process of identification.

Speaking after the conference, Dr. Sharkey said that works of literature and other humanities materials studied in writing seminars had prompted several students to develop an interest in psychiatry.

He said: "The inner turmoil of characters such as Hamlet and Ophelia in Shakespeare's Hamlet, and Okonkwo in Chinua Achebe's Things Fall Apart are extremely thought-provoking and are explored in detail in the books. These characters can be especially compelling for medical students, who naturally seek to apply their knowledge of both life and medicine to the characters in order to understand them. This in turn has led some students to become interested in psychiatry and in the impact of mental

This process inspired several students to attend the Mental Health Conference and to explore their burgeoning interest in psychiatry in their studies and their interactions with doctors during clinical rounds at HMC. Third-year medical student Abdel Aziz Al Bawab is one of those. A keen reader and cinema fan, Abdel Aziz has developed a strong interest in psychiatry, in part because of the themes and characters he has discovered in fiction.

Abdel Aziz said: "During the psychiatry clerkship, I had difficulty properly understanding the dissociative symptom of 'depersonalization'. What is it like to be outside yourself, observing yourself? This, we learned, is an experience that people with borderline personality disorder might go through. In the series *The End of The World*, however, the character Alyssa is going through what could be could be described as depersonalization, and by sharing her subjective experience we are able to see the connections between her behaviors, rather than merely being offered a fragmentary collection of symptoms. That's an example of how literature and film can help us come to a closer understanding of what otherwise seems unfathomable."

Student research triumph

Third-year medical student Rana Abualsaud presented research on heat-related illness at a high-profile emergency medicine conference

hird-year medical student Rana Abualsaud presented research on heat-related illness at the Western Regional Meeting of the Society for Academic Emergency Medicine (SAEM), a leading professional body for academic emergency physicians.

Rana presented a research project about the varying susceptibility to heat-related illness of different population groups in California, which she worked on with WCM-Q faculty member Dr. Grigory Ostrovskiy, assistant professor of emergency medicine and Dr. Ziyad Mahfoud, associate professor of healthcare policy and research.

Explaining her interest in the project, Rana said: "We were interested in studying heat-related illness in Qatar and how some populations can be more vulnerable than others. We think this research is important given the increasing attention to climate change and with extreme weather events becoming more frequent in different parts of the world."

Dr. Ostrovskiy, who graduated from WCM-Q in 2011, returned to the college as a professor in 2016. He has a keen interest in heat-related illness and research, and currently provides mentorship to a number of students, including Rana.

Dr. Ostrovskiy said: "We submitted our research abstract to a conference and were extremely pleased to be invited to present our research. We felt this would be a great opportunity for Rana to gain some early experience presenting research at an important conference and she was eager to step up and embrace the challenge, which, as her mentor, was very gratifying to see. Furthermore, her presentation was professional and compelling – she did an amazing job."

The research project, entitled 'Ethnicity-based Inequality in Heat-Related Illness is on the Rise in California', was concerned with the relationship between ethnicity and visits to the emergency room with problems like heatstroke. The study found that minorities were far more likely to visit the ER with problems like heatstroke than the white population, particularly during hotter years. The study also revealed that this inequality has increased in recent years. In short, ethnic minorities were found to be at an increasingly higher risk of suffering from heat-related illness.

Rana was also invited to present the research at the annual national meeting of the Society for Academic Emergency Medicine in Indianapolis.

Rana added: "My love for medicine actually started when I was shadowing in the emergency room in high school. I love managing acute illness and being open to the surprises that

"We were fortunate in that we found public data in California that enabled us to study the impact of heat-related illness on different ethnicities through measuring heat-related emergency department visits. This allowed us to make some inferences that may be relevant to the pattern of heat-related illness in Qatar."

can walk through the door. The variety in patient populations and presentation is also something I love. I am lucky that Dr. Ostrovskiy joined the WCM-Q faculty because since then we have been working on a number of different emergency medicine-related projects."



Rana Abualsaud.







More than 9,000 people completed the run.

kaleidoscope of color engulfed Doha at the Qatar National Convention Centre as The Color Run presented by Sahtak Awalan: Your Health First saw people walk, run, skip and laugh their way to the finish line.

In total, more than 9,000 Color Runners completed the 'Happiest 5K on the Planet' and were coated from head-to-toe in an array of colors thanks to this year's Dream World Tour theme. One of the biggest and most colorful events that Doha has ever seen, this edition of The Color Run presented by Sahtak Awalan: Your Health First, brought five exhilarating color zones: red, yellow, green, blue and pink for participants to run through.

Color Runners gathered for the warm-up exercises before the first wave of runners dashed off on the 5k course in their tutus, party socks and sunglasses. At 1km intervals around the course, participants were doused in vibrant colors, before celebrating at the Finish Festival, which included the world-famous color throws.

Nesreen Al-Rifai, chief communications officer for Weill Cornell Medicine-Qatar (WCM-Q), which runs the Your Health First campaign, said: "Doha has once again shown its commitment to lead a healthier and happier lifestyle. This edition of The Color Run presented by Sahtak Awalan: Your Health First witnessed more than 9,000 Color Runners taking part, showcasing a beautiful celebration where the local community had one goal in common: getting healthy and active and appreciating doing so in a fun environment."

Peter, a nurse from Sidra Medicine and a keen runner, was there on the day. He said he had been looking forward to The Color Run in Doha ever since seeing his friends having so much fun at last year's event. "I couldn't wait to join the

crowd this morning and experience the color zones," he said. "I love running and this only makes the whole experience even more fun. The Finish Festival was great as well; it was really good to see so many people out in Doha together joining in the fun. I can't wait to come again next year."

Since its inception in 2012, The Color Run has become a global phenomenon, continuing to innovate the 5k paint race genre each year. The Color Run has been experienced by over six million people worldwide in more than 35 countries and has donated \$5 million to charity to date. This year, The Color Run presented by Sahtak Awalan: Your Health is once again donating \$1 of every entry to Educate Above All.



Runners celebrated their achievement at the Finish Festival.

Academic enrichment program at WCM-Q

Year-long program is designed to support prospective students and strengthen their college applications



The QADP completion ceremony.

igh school students with dreams of careers in medicine have received a boost thanks to WCM-Q's Qatar Aspiring Doctors Program (QADP).

The year-long QADP is designed to help talented high school students who are interested in becoming doctors strengthen their college applications by improving on their areas of strength in the physical sciences, biology, English for academic purposes, and research skills.

This year, 28 students in grades nine to 12 from 20 high schools across Qatar participated in the program. These students were invited, along with their families, to a closing event at WCM-Q where they received certificates marking their participation in, or completion of, the program.

Dr. Rachid Bendriss, assistant dean for student recruitment, outreach and foundation programs, said: "QADP is an excellent way for high school students with ambitions to become doctors to begin to acquire a solid foundation of skills that will help them to do so. It challenges students to be self-disciplined and pro-active, and I'm pleased to say that this year's cohort rose to that challenge extremely well. We look forward to receiving applications to join WCM-Q from a great many of them."

The program, now in its fourth year, also helps students prepare for the ACT college admissions test, as well as helping them acquire important time-management and critical-thinking skills.

The QADP course comprises a combination of face-to-face instruction, online modules and hands-on training based on a customized timetable that takes account of students' high school studies. QADP is self-paced, flexible and involves a full academic year of contact from September to April. Students also have the opportunity to engage directly with WCM-Q faculty, staff and students, and to use WCM-Q facilities, giving them an accurate idea of what life as a medical student at WCM-Q would be like.

Of the 28 students who participated, five students were awarded certificates for completion with honors in the physical sciences, research skills or biology. One student – Latifa Mahmoud of Al Bayan Secondary School for Girls – was awarded a certificate of completion with honors in all modules of the program.

Speaking at the closing event, Latifa said: "The great thing about being a QADP student is that you don't just get to enhance your skills academically, you also get amazing advice and tips about the college application process and access to WCM-Q resources, like you were a true Cornell student. I feel I am a much stronger student now."

Admission to the QADP is based solely on merit. Students who wish to participate must have excellent academic high school performance, have demonstrated a strong desire to become a doctor and be nominated by their high schools.

Safeguarding human research subjects

Law and Medicine lecture series examines the administration of ensuring people volunteering for medical research are safe



The event brought expert speakers from around the world.

ethods for safeguarding human subjects in biomedical research were discussed at the latest conference in WCM-Q's Law and Medicine series.

Entitled 'The Role of Data and Safety Monitoring Boards in Human Subject Research', the conference brought physicians, researchers and healthcare professionals together at WCM-Q to hear expert speakers from around the globe explain the ethics and safeguards used when conducting studies on humans.

The expert speakers included Susan Ellenberg, professor of biostatistics at the University of Pennsylvania, who explained how statistical analysis and data can be used to monitor and maximize safety of participants in clinical trials. Zoe Doran, head of the clinical trials support group at Mahidol Oxford Tropical Medicine Research Unit in Bangkok, discussed the unique challenges posed when conducting multinational clinical trials in many different countries at the same time. She also listed the expectations of data and safety monitoring boards (DSMB) that oversee these multinational trials.

Also speaking at the event were Dr. Shahrad Taheri, professor of medicine and assistant dean for clinical investigations at WCM-Q, and Dr. Ziyad Mahfoud, WCM-Q's associate professor of healthcare policy and research. Dr. Taheri used his presentation to outline the similarities and differences between clinical care and clinical research and

illustrated the importance of clinical trials to clinical practice. Dr. Taheri delivered a second lecture later in the day about the role that funding bodies have in clinical research and how their decision-making processes may impact clinical trials and patient safety.

Meanwhile, Dr. Mahfoud's lecture examined the role of DSMBs in human subject research with reference to local circumstances in Qatar, explaining that the main functions of the board are to ensure the safety of the human subjects and to preserve the integrity of the research data. The activity was accredited locally by the Qatar Council for Healthcare Practitioners-Accreditation Department (QCHP-AD) and internationally by the Accreditation Council for Continuing Medical Education (ACCME).

The conference concluded with a panel discussion moderated by Dr. Sunanda Holmes, WCM-Q's deputy chief administrative officer & associate university counsel, and assistant professor of healthcare policy and research.

Dr. Taheri said: "Conducting human subjects research is incredibly important for identifying the best treatment options. Researchers, however, have a strong duty of care to research subjects to ensure that they face no physiological, mental or emotional effects or distress. DSMBs have a very important role to play in this as they provide an impartial viewpoint that provides a detailed critique of every facet of the study."

Experts speak at heart conference

WCM-Q participated in an international heart conference, hosting a symposium about cardiology and diabetes



From left: Conference chairman HE Dr. Hajar Ahmed Hajar Al Binali with WCM-Q's Dr. Khaled Machaca and Dr. Charbel Abi Khalil.

he 14th Gulf Heart Association Conference and 11th Gulf Vascular Society Symposium were held with WCM-Q supporting the event as a platinum sponsor and providing speakers and moderators.

Patients with diabetes have a heightened risk of developing several cardiovascular disorders, such as hypertension, stroke, coronary heart disease, cardiomyopathy, congestive heart failure and coronary heart disease. Dr. Charbel Abi Khalil, assistant professor of genetic medicine and assistant professor of medicine at WCM-Q, delivered a lecture entitled 'Epigenetic basis of cardiovascular complications of diabetes'. Dr. Abi Khalil explained how diabetes triggers epigenetic changes to the DNA and predisposes people to certain cardiovascular complications.

Dr. Khaled Machaca, associate dean for research at WCM-Q, gave an introductory speech outlining the scope of WCM-Q's Biomedical Research Program (BMRP). Other speakers at the WCM-Q symposium included Dr. Mark Cooper, Professor of Medicine at Monash University in Australia, who spoke about inflammation, oxidative stress and cardiovascular outcomes in patients with diabetes; Dr. Michel Marre, professor of medicine at Paris VII – Sorbonne Paris Cite University, who discussed new anti-diabetic drugs and their effects on the heart in diabetics; and Dr. Samer Kabani, associate professor of medicine at the Lebanese American University in Beirut, who spoke about the current situation and the challenges that are faced by researchers studying the heart and diabetes in the Middle East.

Dr. Khaled Machaca said it had been a pleasure to help sponsor this exceptional event and act as a moderator for one of the symposia. He said: "Cardiovascular conditions are a global medical issue and have a devastating impact on the lives of patients and their families. Conferences like this create and strengthen the links between experts and institutions, facilitating collaborations and allowing knowledge to be disseminated more easily, ultimately providing clinicians with the tools to improve patient outcomes. Studies into cardiovascular conditions are central to WCM-Q's research focus and this conference has proved to be a fascinating and valuable event for everyone involved."

Dr. Machaca and Dr. Abi Khalil both gave thanks to conference chairman HE Dr. Hajar Ahmed Hajar Al Binali, who awarded a Certificate of Appreciation to WCM-Q during the symposium. WCM-Q is appreciative of the organizers of this illustrious conference from the Gulf Heart Association, Hamad Medical Corporation, the European Society of Cardiology and the American College of Cardiology, who together helped make the event such a success.

Dr. Javaid Sheikh, dean of Weill Cornell Medicine-Qatar, said: "The types of partnerships that are being formed among healthcare and biomedical research leaders in Qatar speak volumes of the spirit of collaboration among the scientific community here, which is not only helping to cement Qatar's scientific status internationally but also serves to drive continuous improvement in the quality of healthcare provided to patients in Qatar."

Opportunities for alumni research

Symposium offers advice and information for alumni interested in conducting biomedical research at the college

he opportunities for alumni of WCM-Q to engage in biomedical research were outlined by some of the country's leading researchers at a college symposium.

Recent graduates of the college, many of whom are working as doctors at Hamad Medical Corporation (HMC). were invited to the event to learn more about the ways they could become physician scientists - doctors who practice medicine but also undertake research to increase the burden of medical knowledge. This also allows doctors to work on areas of special interest to them and, if their work is significant, to gain an international reputation and enhance their careers.

WCM-Q graduate doctors who attended the symposium heard from Dr. Ibrahim Janahi, the executive director of medical research at HMC, who told them that research is one of the three pillars of the organization - along with healthcare and education - and that it is vital to HMC's role as an academic health system. Dr. Janahi underlined the importance of research in driving change in clinical practices and improving outcomes for patients. He also stressed the support that HMC offers physician doctors, both financially and logistically, to ensure their research is valid and meets the highest of international requirements.

Dr. Khaled Machaca, associate dean for research at WCM-Q, discussed the development of WCM-Q's research program and the infrastructure that the college has at its disposal, including core laboratories in genomics, proteomics, microRNA, and bioinformatics, and metabolomics - the resources of which could be utilized for agreed research studies. He also spoke of the impact that WCM-Q research is having, with almost 16,000 citations in scholarly works since the biomedical research program was launched in 2009, achievements that are placing Qatar firmly on the scientific world map.

Dr. Machaca said: "Thanks to the importance that Qatar's leadership places on research and its investment - through Qatar National Research Fund (QNRF) - in the creation of knowledge, Qatar has become a regional scientific hub, and attracts collaborations with highly prestigious institutions and established research programs across the world."

The criteria required for QNRF funding and how to apply for it formed the basis of Dr. Laith Abu-Raddad's presentation. WCM-Q's assistant dean for extramural research funding gave an overview of QNRF's funding programs and outlined the focus of QNRF's National Priorities Research Program. This includes cancers, genetic diseases, epidemiology studies, alongside diabetes, obesity, hypertension, and cardiovascular complications.

Dr. Abu-Raddad also spoke about the "path towards personalized medicine", and the support of research that aims to provide tailored medical treatment based on genetic profile.

Finally, WCM-Q's alumni heard from Yassir Hussein, WCM-Q's assistant director of research training and outreach. Mr Hussein also runs the college's Biomedical Research Training Program for Nationals that introduces graduates to biomedical research and aims to build human research capacity in line with Qatar National Vision 2030.

One of the alumni who attended the symposium was Dr. Sara Al Khawaga, who obtained her medical degree with several honors from Weill Cornell Medicine-Qatar in 2014. After completing her residency at Hamad Medical Corporation, she completed a PhD in biological and biomedical science while concurrently completing a fellowship focusing on pathways governing stem cell-derived pancreatic beta cells.

"By undertaking research in Qatar, WCM-Q's graduate doctors add to the body of biomedical knowledge, help achieve the aims of Qatar National Vision 2030, and also potentially make a hugely positive impact on the lives of their patients."

Now working at Sidra Medicine's Clinical Research Center on translational research, Dr. Al-Khawaga is already experienced in biomedical research, including having worked with Dr. Manikkam Suthanthiran in the Department of Transplantation Immunology at Weill Cornell Medicine -New York.

She said the symposium had been a useful reminder of the available facilities.

She said: "It was very helpful to re-connect with Weill Cornell's scientific community for potential collaboration. Further, it was helpful to get to know more about the different core facilities at Cornell for future collaboration and to avoid redundancy in infrastructure."

Dr. Al-Khawaga is currently researching neonatal diabetes, familial and rare forms of diabetes in children, with reference to molecular mechanisms.

A partnership to promote sustainability

Ministry of Municipality and Environment will work with WCM-Q to encourage food sustainability and good health in Qatar



The Ministry is providing support for the sale of Khayr Qatarna produce.

he Ministry of Municipality and Environment and WCM-Q announced the signing of a major new strategic partnership to promote environmental sustainability and healthy eating among Qatar's young people to meet the challenges of the future.

Under the new partnership, the Ministry of Municipality and Environment will provide strategic support and expert advice to WCM-Q's flagship public health campaign, Sahtak Awalan – Your Health First.

Your Health First runs Project: Greenhouse, an initiative which has already gifted greenhouses, seeds, and gardening equipment to more than 130 schools across Qatar to teach students how to grow a wide variety of fruit, vegetables, and herbs.

With all countries across the world facing critical issues such as climate change, food security, and health issues like obesity, type 2 diabetes, and heart disease, Project: Greenhouse is providing the future generation in Qatar with essential practical skills and knowledge to meet and overcome these challenges. The project is also teaching children to appreciate where their food comes from, the importance of eating fresh produce for good health, and valuable lessons about environmental sustainability. Importantly, children are taking the fresh produce they have

grown – and these valuable lessons – home with them from school, encouraging their families to eat healthily and to think about sustainability and green issues.

The Ministry of Municipality and Environment will now provide crucial technical and scientific expertise, materials and support as Project: Greenhouse expands and enters an exciting new phase – Khayr Qatarna - and prepares for the next five years of promoting sustainability and health.

Existing greenhouses are to be expanded, more schools are to join the program, and production will increase to boost the yield of important crops. The aim is for all schools across Qatar to be enrolled in Project: Greenhouse, giving all students the chance to both learn and contribute, creating a strong and healthy young generation able to fulfill the vision of His Highness the Emir, Sheikh Tamim bin Hamad Al Thani.

The healthy produce grown in the schools is being offered for general sale to the community in selected supermarkets under the Khayr Qatarna brand, with all revenues from sales to be reinvested into Project: Greenhouse to strengthen and expand the initiative.

Project: Greenhouse will continue to benefit from the support it has received to date from the Ministry of Public Health and the Ministry of Education and Higher Education.

Her Excellency Sheikha Hind bint Hamad Al Thani, vice chairperson and chief executive officer of Qatar Foundation. commented on the partnership, saying: "We at Qatar Foundation are honored to collaborate with the Ministry of Municipality and Environment. We value this cooperation as, together, with all of our partners, we strive to promote the importance of food security and environmental sustainability, simultaneously, improving the health and wellbeing of our local community. Indeed, it is vital now more

than ever that we are collectively working to

invest in Qatar's future."

The new strategic partnership between the Ministry of Municipality and Environment and WCM-Q, a partner organization of Qatar Foundation for Education, Science and Community Development, will make a significant and long-lasting contribution to the goals of achieving good health, environmental sustainability, and self-sufficiency, as set out in Qatar National Vision 2030.

of Municipality and

H.E. Mr. Muhammad bin Abdullah Al Rumaihi, minister of municipality and environment, said: "This strategic partnership between the Ministry of Municipality and Environment and Weill Cornell Medicine-Qatar marks the beginning of a collaboration that will benefit all members of the community in Qatar. It is of paramount importance that young people in Qatar not only eat a healthy, balanced diet, but that they also understand how the earth provides for us all, and how we must respect, protect, and sustain the

"Your Health First supports the Ministry of Public Health's commitment to raise awareness of healthy lifestyle habits among Qatar's residents, and is in line with the Rome Declaration on Nutrition which Qatar has signed up to which aims to improve nutrition for children and reverse the obesity trend, as well as the Qatar Dietary Guidelines which provide a healthy dietary framework for the population of Qatar. With this new partnership, we can be confident that Your Health First will continue to improve the health of our nation for many years to come."

environment in order to meet the challenges that the future holds. This collaboration will further those aims significantly."

His Excellency Dr. Mohammed bin Abdul Wahid Al-Hammadi, the minister of education and higher education, stated that human development within the framework of Qatar National Vision 2030 aims to achieve a number of goals, the most important of which are to promote interest in the educational system, and improve physical and psychological health so unlocking the potential of a qualified and committed workforce. Hence, health and environmental

awareness are among the basic knowledge that we are promoting among learners for the undoubtedly positive effects on Man and the environment in general. The Ministry of Education and Higher Education, in cooperation with various bodies, undertakes educational and awareness roles while offering a high level of education for our students.

His Excellency the Minister further hailed the partnership of the Ministry of Municipality and Environment with the Your Health First campaign and the support the Ministry can provide to Project: Greenhouse which is being implemented in schools across the State of Qatar. This emphasizes the aspiration of the Ministry of Education and Higher Education to work with the Ministry of Municipality and all other partners in achieving the objectives of Your Health First to change the lifestyles of students and members of the community to healthy and active ones.

His Excellency the Minister said: "In this context, we call on schools to further cooperate with the Your Health First campaign to educate our children about the healthy habits that can protect them from diseases and improve the prospects for a physically and psychologically healthy life."

Dr. Javaid Sheikh, dean of WCM-Q, said: "We are honored and privileged to welcome the Ministry of Municipality and Environment as our new strategic partner. The unparalleled expertise in agricultural science that the ministry can offer to Sahtak Awalan – Your Health First and Project: Greenhouse will help enormously in driving these initiatives' growth and success, bringing fresh, healthy produce to the community in Qatar, and equipping schoolchildren with a keen understanding and appreciation of the environment."

"This partnership between the Ministry of Municipality and Environment and Sahtak Awalan – Your Health First will strengthen our ability to improve the health of Qatar's population, specifically its youth," said Sheikha Dr. Al-Anoud bint Mohamed Al-Thani, director of health promotion and non-communicable diseases at the Ministry of Public Health.

Experts discuss student wellness

Symposium designed to educate professionals how to support students with their everyday problems

ore than 100 healthcare and education professionals convened at WCM-Q for a two-day symposium on protecting student wellness.

The symposium, coordinated by WCM-Q's Institute for Population Health and the Division of Student Affairs, featured a series of interactive workshops and presentations delivered by experts in their fields on topics such as stress management, mental wellness and physical resilience, time management, healthy diets, physical exercise and more.

Dr. Ravinder Mamtani, senior associate dean for population health, capacity building and student affairs, said: "College can be a very challenging environment for students, what with the stress of their studies and living away from home for the first time. It is therefore extremely important that as healthcare and educational professionals we understand how to promote and protect wellness on campus so that students are happy, healthy and able to get the best out of their time at college."

The first day of the symposium saw workshops by WCM-Q's Jamie Marie Gray, director of the Distributed eLibrary, and Dr. Sunanda Holmes, assistant professor of healthcare policy and research, on cultivating mental wellness; Dr. Mohamud Verjee, assistant dean for medical student affairs on physical activity; Dr. Mamtani and Dr. Sohaila Cheema, director of the Institute for Population Health, on food shopping, cooking and healthy diets; and Ms. Raji Anand, IPH administration manager, on time management.

The second day featured presentations and lectures on a number of key topics by healthcare and education professionals. These included Dr. Wayne S. Dysinger, CEO and physician at Lifestyle Medicine Solutions, on using lifestyle medicine to promote wellness. Ms. Julie Smith, professor in the School of Communication at Webster University, spoke about the impact of media literacy on student wellness.

Ms. Smith said: "As the media – both social and mainstream - pervade more and more areas of our lives it becomes increasingly important to be critical and knowledgeable consumers of media content. Helping students to understand how, why, by whom and for what purpose content is created gives them an ability to deal with media that might otherwise be alarming."

Dr. Dysinger commented: "I'm passionate about lifestyle medicine because it can be so beneficial for students. Eating well, taking regular exercise, managing stress and getting enough sleep provide a solid foundation upon which students can build academic success."

The event was accredited locally by the Qatar Council for Healthcare Practitioners-Accreditation Department and internationally by the Accreditation Council for Continuing Medical Education.



The event featured a series of lectures and interactive workshops.

Other presentations included those by Dr. Arthur Hengerer, professor of otolaryngology at the University of Rochester, on the importance of wellbeing for achieving academic and personal goals, and Stephan Herzog, executive director, American Board of Lifestyle Medicine who spoke on busting common nutrition myths. As the event drew to a close, Dr. Cheema moderated a panel discussion and Q&A session in which delegates explored topics and ideas arising from the discussions at the symposium, before Dr. Verjee gave the concluding remarks.

Dr. Cheema said: "We are very grateful to all of our expert speakers for bringing their knowledge to the symposium to share with everyone. Providing students with support is crucial, but the event also underlined the need to equip students with appropriate skills, knowledge and resilience to rise to the challenges they may face as they progress in their respective careers."

Spreading the word about nutrition

Conference hears that with the spread of diabetes, obesity and heart disease, good nutrition has never been so important



The event was a chance for healthcare professionals to access the most up-to-date information about nutrition.

ealthcare professionals from all over the world learned the latest information about the impact of

Forty-eight doctors, nurses, pharmacists, researchers, dieticians and other healthcare professionals joined the four-day course, where they learned about a wide range of subjects including the role of nutritional supplements, the benefits and risks of various popular diets, ways to incorporate healthy nutritional practices in specific clinical situations and conditions, creating nutritional plans tailored to children, the elderly, and pregnant and lactating women, and the role of nutrition in the causation and management of chronic conditions such as obesity, cancer and diabetes.

The course, delivered by WCM-Q's Institute for Population Health, involved 32 hours of on-site learning sessions such as workshops, lectures and Q&A sessions led by medical faculty and healthcare professionals from WCM-Q and other leading institutions, and an 18-hour 14-module online selfstudy unit. Upon successful completion of both elements participants were awarded the WCM-Q Certificate in Clinical Nutrition. The certificate program is a regular WCM-Q event that is offered once a year.

Dr. Ravinder Mamtani, professor of healthcare policy and research, and Dr. Sohaila Cheema, assistant professor of healthcare policy and research and director, Institute for Population Health, were the course directors of the certificate program.

Dr. Mamtani, who is also senior associate dean for population health, capacity building and student affairs, said: "With the prevalence of obesity and lifestyle-related diseases such as type 2 diabetes, heart disease and hypertension on the rise globally, sound knowledge of nutrition has never been more important. This certificate program is a very effective vehicle for sharing the most up-to-date guidance on issues in nutrition and diet with healthcare professionals so that they can give their patients the very best advice possible to protect their health."

The activity was accredited locally by the Qatar Council for Healthcare Practitioners-Accreditation Department (QCHP-AD) and internationally by the Accreditation Council for Continuing Medical Education (ACCME).

Course participant Dr. Sumaiya Zobairi, a family medicine physician at Tadawi Medical Center in Doha, said: "The certificate program is a very effective way for me to refresh and update my knowledge of key issues in health and nutrition. The speakers are very well-qualified and I also found it extremely helpful to meet and speak with other healthcare professionals in attendance to share knowledge and experiences."

Psychiatry for the non-psychiatrist

Workshop was designed to offer advice to healthcare professionals treating patients with psychiatric conditions



Dr. Hassen Al-Amin, associate professor of psychiatry and event co-director.

review and update of the latest advice for healthcare professionals working in non-psychiatric practices who encounter patients with psychiatric conditions was offered at a specialist workshop at WCM-Q.

The half-day event, entitled 'Psychiatry for the Non-Psychiatrist', was designed to equip physicians, nurses, dentists, pharmacists and allied health professionals with knowledge and skills to help them provide the best possible care to patients with psychiatric conditions who present at non-psychiatric practices.

The event consisted of four sessions delivered by three WCM-Q psychiatry professors, with each session designed to impart a different set of practical skills. Dr. Aicha Hind Rifai, assistant professor of clinical psychiatry, who codirected the event, began proceedings with an introduction that explained the significance of attending to patients' mental health needs in non-psychiatric settings in order to maximize patient wellbeing and prevent unfavorable health outcomes.

Dr. Rifai said: "Psychiatric conditions such as depression, anxiety, substance abuse and somatic disorders - mental

health conditions related to pain or fatigue - often present alongside non-psychiatric conditions. In addition, patients with a psychiatric condition may visit a general practice for treatment, or a psychiatric condition may become known during treatment for another health complaint. In all cases it is very important that non-psychiatry professionals have the necessary skills and knowledge to recognize the presence of a psychiatric condition, provide appropriate care and refer patients to a psychiatry specialist as and when required."

Dr. Ziad Kronfol, professor of psychiatry and event codirector, delivered a session that explained how to recognize the extent and complexities of the association between co-morbidity of medical and psychiatric conditions, and recommended strategies for managing patients with co-morbidities. Dr. Hassen Al-Amin, associate professor of psychiatry and event co-director, then ran a session on methods for assessing substance abuse in the non-psychiatric session. This session outlined the most common medical and psychiatric problems associated with substance abuse and outlined methods for engaging patients to seek treatment.





Dr. Aicha Hind Rifai began proceedings with an introduction that explained the significance of attending to patients' mental health needs in a non-psychiatric setting.

"We were extremely pleased with the openminded and enthusiastic approach that the participants brought to this event, and we are confident that the learning sessions have enhanced their ability to provide care to psychiatric patients that is not only appropriate and professional, but also sensitive and compassionate."

The event was accredited locally by the Qatar Council for Healthcare Practitioners-Accreditation Department and internationally by the Accreditation Council for Continuing Medical Education.

Dr. Rifai delivered the final presentation, which discussed psychosomatic disorders in the medical setting and described the recommended management of these patients. The event concluded with a panel discussion and a question and answers session during which participants were able to discus specific recommendations to address their patients' needs for comprehensive psychiatric and medical care in the non-psychiatric setting.

Dr. Rifai added: "We were extremely pleased with the open-minded and enthusiastic approach that the participants brought to this event, and we are confident that the learning sessions have enhanced their ability to provide care to psychiatric patients that is not only appropriate and professional, but also sensitive and compassionate."



Dr. Ziad Kronfol delivered a session that explained how to recognize the extent and complexities of the association between co-morbidity of medical and psychiatric conditions.

Annual Research Retreat at WCM-Q

Event hears that the current funding method for the pharmaceutical industry is unsustainable



Scientific investigators from all over the world convened at WCM-Q for the Annual Research Retreat.

undreds of scientists from across the country and around the world visited WCM-Q to attend its Annual Research Retreat.

The yearly event is an opportunity to review the college's biomedical research in collaboration with local stakeholders over the previous 12 months, hear about upcoming studies and discuss new developments in the realm of biomedical research.

The event was opened by Dr. Khaled Machaca, associate dean for research at WCM-Q, who gave delegates a brief history of the college's biomedical research program, which is under the sponsorship of Qatar Foundation. Since its launch nine years ago, Dr. Machaca said that scientists at WCM-Q have published over 800 publications, which have garnered over 16,000 citations attesting to the impactful and internationally visible science undertaken in WCM-Q laboratories in Qatar. Dr. Machaca said the college was involved in several high-profile national collaborations - including with Hamad Medical Corporation, Qatar BioBank, Qatar Genome Project and Sidra Medicine to name a few - but there were new challenges ahead.

Dr. Machaca said: "How do we translate this research into improved healthcare with an economic impact, while maintaining our basic research discovery plan? A possible solution could be a national collaborative approach towards

this issue on which the government, funding bodies and research institutes work together."

Dr. Machaca went on to thank Qatar Foundation and Qatar National Research Fund for their unwavering support over the years and their continued backing of the mission to create a knowledge-based economy.

The audience also heard from keynote speaker Dr. Robert Ruffolo, retired president of research and development for Wyeth Pharmaceuticals in the US, whose speech was entitled 'An overview of research and development in the pharmaceutical industry: A most unique industry'.

Dr. Ruffolo argued for a different business model for the global pharmaceutical industry, as the current one is unsustainable.

Dr. Ruffolo explained that the pharmaceutical industry is by far the biggest primary source of new drugs across the world and that because of the huge costs involved in bringing a drug to market and the length of time involved - which can be as long as 16 years – companies have to take huge risks; if a drug falls at the final hurdle then vast amounts of time and money are wasted.

But major pharmaceutical companies are vital for ensuring new drugs come to the market. By way of comparison, Dr. Ruffolo said his former company had a \$4billion biomedical research and development budget while the United Kingdom only has a \$1billion annual budget. He argued for a model of much closer collaborative ties between universities like WCM-Q, biotechnology companies and 'big pharma' to better advance drug development in the

The Annual Research Retreat was also an opportunity for WCM-Q's scientists to showcase their work to the scientific community, and eight of the senior researchers gave short presentations of their studies. The highlight of the event, though, was the poster presentations, when 120 of the researchers presented their work in poster form. These were judged by a team of experts from WCM-Q and partner institutions, and the winners announced at the end of the day.

Commenting on the great advancements made over the last year in research, Dr. Javaid Sheikh, Dean of Weill Cornell Medicine-Qatar said: "The productivity and impact of our research program over the past decade have been monumental, both in terms of scientific impact and capacitybuilding nationally. In the very short span of nine years extremely short in the biomedical research world - WCM-Q went from having no research footprint to establishing one of the premier biomedical research programs in the region, thanks to the continued support of Qatar Foundation and the dedication of our researchers."



The Poster Presentations

Students

Joint 1st: Sulaiman Al-Shakhs, Inhibition of the CD33 Pathway as a Novel Strategy to Alleviate Alzheimer's Disease Neuropathological; and Hisham Abdelwahab, AAV-mediated anti-Notch1 Antibody Expression to treat Glioblastoma Multiforme.

2nd: Nada Darwish, Regulation of integrin linked kinase by calreticulin as a mechanism for cancer development and metastasis.

3rd: Abdulla Al Mulla, Dysregulation in crp, tnf-alpha and il-6 markers associated with obese bipolar patients.

Research specialists

1st: Ayeda Ahmed, Characterization of genomic alterations and TCRB repertoire of tumor-infiltrating lymphocytes in breast cancer.

2nd: Divya Vishwanathan, Endoplasmic reticulum stress enhances the rate of endocytosis in calreticulin knock out cells.

3rd: Raja'a Dalloul, Vascular endothelial dysfunction as the mechanism for the development of obesity.

Postdoctoral researchers

1st: Vimal Ramachandran, A microRNA-based strategy to combat hypercholesterolemia.

Joint 2nd: Murugan Subramanian, A microRNAdependent pathway regulating ER stress-induced lipogenesis via mTOR in liver; and Yasser Majeed, Functional interaction between Sirt1 deacetylase and Myc oncogene regulates adipogenesis.



Divya Vishwanathan presents her poster.

QATAR CHRONICLE

Book examines GCC healthcare

How the politics of the Middle East have proved to be a fertile ground for the growth of state-of-the-art medicine

new book exploring healthcare policy across the GCC, which was edited by a leading academic at WCM-Q, has been published.

Dr. Ravinder Mamtani, professor of healthcare policy and research, and senior associate dean for population health and capacity building at WCM-Q, edited the book, entitled *Critical Issues in Healthcare Policy and Politics in the Gulf Cooperation Council States*, which examines the rapid development and modernization of healthcare systems across the region, a subject he believes has received too little attention.

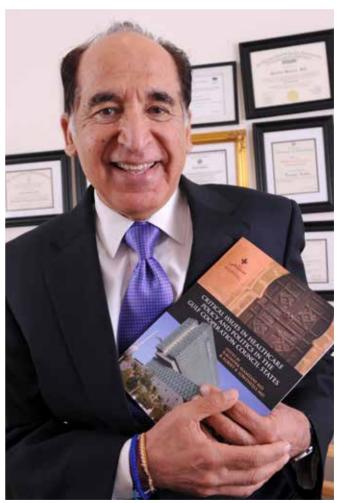
"The development of healthcare systems in the GCC in the past two decades has been remarkable, both in terms of scale and improvements in quality," explained Dr. Mamtani. "This has been of enormous benefit to patients all over the region, yet the processes that have brought about this incredible change have barely been examined from an academic perspective."

The book was published by the Center for International and Regional Studies (CIRS), Georgetown University in Qatar's (GU-Q) premier research institute, under the guidance of CIRS director Dr. Mehran Kamrava. The book was coedited by Dr. Albert B. Lowenfels, professor of surgery and professor of community and preventive medicine at New York Medical College. In addition to the introduction written by Dr. Mamtani and Dr. Lowenfels, the book features seven chapters contributed by leading healthcare experts from prestigious institutions all over the world.

Topics addressed include a historical overview of healthcare in the GCC, mental health, politics and healthcare, substance abuse, the profile of chronic disease in GCC countries, and human resources issues in GCC healthcare. Dr. Mamtani and Dr. Lowenfels also penned a chapter on lifestyle diseases in the GCC and the book's concluding chapter, the latter in partnership with WCM-Q's Dr. Sohaila Cheema, director of the Institute for Population Health and assistant professor of healthcare policy and research.

Dr. Mamtani added: "This book gives an extremely detailed and comprehensive account of the development of healthcare systems and policy across the GCC and is a useful guide for both academics and the general reader. We are extremely grateful to all of the contributors and very happy to have been able to collaborate on this project with our esteemed colleague Dr. Mehran Kamrava and his dedicated team at the Center for International and Regional Studies of GU-Q."

"As such, we felt that there was a pressing need to understand how the politics of the region have created the conditions for high quality, state-of-the-art healthcare institutions to take root and flourish across the GCC, in part so that others might learn from and duplicate this extraordinary success story in other parts of the world."



Dr. Mamtani said the development of healthcare systems in the GCC has been astonishing.

Program to improve interpersonal skills

Research shows that emotional intelligence helps enhance interpersonal and social communication skills and achieves a range of benefits

CM-Q's Institute Population Health (IPH) training has introduced new course entitled Mastering Emotional Intelligence - as part of its mission to enhance population's health and build capacity.

The aim is to train healthcare professionals to be emotionally aware and manage the source of their behavior, reflect on their social awareness and learn how to handle the triggers of their emotions for the benefit of clinical care, healthcare outcomes, patient satisfaction and team morale. Emotional intelligence (EQ) is made of four core skills: self-awareness, self-management, social awareness and relationship management. EQ is the foundation for a host of critical skills and the strongest predictor of high performance.

The one-day workshop is delivered by Ms. Maha Elnashar and Ms. Huda Abdelrahim from the Center for Cultural Competence in Healthcare (CCCHC) a unit of the Institute for Population Health, who are licensed by TalentSmart Inc. one of the world's top providers of EQ training.

Ms. Elnashar, director of CCCHC said: "EQ is one of the essential skills needed to work with and manage cultural diversity. Differences can trigger various emotional reactions like anxiety and fear that can express annoyance and apprehension; or they can stimulate curiosity and interest to learn more. Dealing with this mixture of emotional responses requires emotional intelligence. The need for well-developed emotional intelligence training is particularly strong in Qatar because of the country's wide mix of cultures. WCM-Q is also planning to provide the training in Arabic to target all levels of healthcare and educational professionals."

Published research shows that EQ education is needed in the medical sector as it helps enhance interpersonal and social communication skills and achieves a range of benefits including increased job satisfaction, improved performance and better patient-doctor relationships. It ensures people are treated equally and receive high-quality care. For example, studies demonstrate that some patients fail to follow instructions if they feel they have not been treated with sufficient respect, while doctors may misinterpret these emotions and be unaware of the patient's negative feelings towards them. Being emotionally intelligent means that individuals can recognize, understand and manage their feelings in positive ways, allowing them to better deal with highly stressful situations, improving their communication skills, and increasing empathy.



The course is delivered by Huda Abdelrahim (above), and Maha Elnashar.

Dr. Ravinder Mamtani, senior associate dean for population health, capacity building and student affairs said the course is an excellent fit for IPH's mission, and that improving a person's emotional intelligence allows them to view their feelings critically, objectively and to react positively.

He added: "Since emotions influence our behavior and reactions, the regulation of emotions should be coupled with teaching. EQ is a flexible set of skills that can be acquired and improved with practice over time.

"This new course will enhance WCM-Q's commitment to improving healthcare across Qatar, providing innovative training to healthcare professionals, allowing them to obtain new skills and so improving the inpatient and outpatient experience for patients."

Exploring careers in medicine

High school students from across Qatar get the chance to experience life as a medical student at WCM-Q

group of talented high school students had the chance to discover whether a career in medicine would suit them thanks to WCM-Q's twoweek Qatar Medical Explorer Program (QMEP).

Thirty-four students from schools across Qatar spent two weeks studying at WCM-Q on the program, which is designed to provide a comprehensive and accurate understanding of what life is like at the college and what it takes to become a doctor.

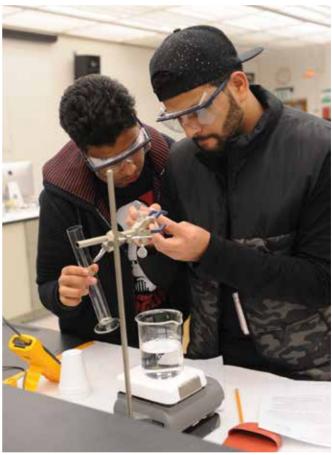
QMEP, which runs both a winter and a summer session, is one of WCM-Q's Enrichment Programs, a series of initiatives that engage with the local community, demystify the life of a medical student and inspire talented students with an interest in the sciences to fulfill their potential by applying to the college.

Noha Saleh, director of student recruitment and outreach at WCM-Q, said: "Choosing your career path is a very important step in life and it can be challenging for young people. That's why we created QMEP - it gives students the opportunity to see the reality of studying medicine, to take the same sort of classes WCM-Q students take, to inhabit the same environment, and to interact with senior faculty members and current students. That way, students can make an informed choice about whether WCM-Q and a career in medicine is right for them."

QMEP features a full schedule of lectures on subjects such as biology, human anatomy, chemistry, pharmacology, physiology and adolescent health, among others. The high school students also visited WCM-Q's state-of-the-art Clinical Skills and Simulation Lab, the Distributed eLibrary, and the vivarium, as well as touring the facilities of Hamad Medical Corporation, WCM-Q's affiliate institution where medical students undertake much of their clinical training.

In addition, students took liberal arts classes on understanding poetry and drama techniques, and received coaching to help them with their college applications, with classes on writing personal statements and interview techniques. Throughout the week the students worked in groups to prepare research presentations for a competition, which they delivered on the penultimate day. The program culminated with the announcement of the winners in the final session of the final day.

Grade 12 student Ahmed Hany Amarah, aged 17, of Musab Bin Omair Secondary School was one of nine students in the team that won the Best Presentation Award, with their presentation on autism and depression. Ahmed said: "I am very happy our team won and also very happy that I had two great weeks here on QMEP. Getting to go into the chemistry lab, taking an anatomy class and meeting the faculty



The program offers experience in WCM-Q's teaching laboratories.

members has been amazing. It has completely confirmed in my mind that studying medicine is the right choice for me."

Grade 12 student Shahd Jaouni, aged 17, of DeBakey High School for Health Professions, was in the team that finished runners-up. She said: "I first became interested in medicine when I visited a center for children with special needs and I felt a strong desire to work with them and help make their lives better. Coming to WCM-Q for QMEP has been really inspiring and it has made me even more passionate about studying medicine than before."

Dr. Rachid Bendriss, assistant dean of student recruitment, outreach and foundation programs, said: "This group of students impressed us a great deal with their enthusiasm, intelligence and their passion for learning. We are very pleased that for many participants QMEP not only confirmed their interest in medicine but has actually served as a terrific source of inspiration that will help them achieve their goal of becoming doctors."

Exploring the 'flipped classroom'

Symposium investigates the use of interactive learning tools to give students responsibility for their own learning

he power of the 'flipped classroom' teaching model for maximizing learning outcomes among medical students was discussed by two visiting experts at a two-day symposium at WCM-Q.

The flipped classroom model reverses traditional teaching approaches by using interactive learning tools, particularly digital resources like online videos, to empower students to acquire foundational knowledge in their own time rather than in the classroom. This allows instructors to use class time to utilize that knowledge as a basis for a variety of enriched learning activities such as collaborative discussions, practical exercises and, crucially for medical students, simulated learning sessions that mimic real-world interactions with patients.

More than 60 educators working in the health professions field attended the 'Digital Education Strategies for Implementing the Flipped Classroom' conference, which was delivered by Dr. Traci Wolbrink and Dr. Dennis Daniel, both of Boston Children's Hospital and Harvard Medical School.

Attendees took part in 12 interactive learning sessions over the two days, covering topics such as the evolution of medical education in the digital context, characteristics of millennial learners, adult learning theory, definitions of the flipped classroom, audience response systems and practical advice on how to create effective and compelling video and audio recordings for learners.

Dr. Wolbrink, associate in critical care medicine at Boston Children's Hospital and assistant professor in anesthesia at Harvard Medical School, said: "We know that medical students are excellent at integrating knowledge from written material and videos, so if they can do that outside of the classroom we can use that valuable and expensive classroom time for more interactive and effective learning strategies. If we as educators can curate the right content for them to learn ahead of time they have better questions for their instructors and they can engage in activities that are more exciting and effective than listening to a didactic lecture."

The event was coordinated by WCM-Q's Division of Continuing Professional Development as part of the college's Educators Across the Healthcare Spectrum series, which promotes excellence and innovation in the field of health professions education.

Dr. Daniel, assistant in critical care medicine at Boston Children's Hospital and Harvard Medical School, said: "Millennial learners have grown up with digital communications technologies and they are accustomed to going to the internet to find answers to things, to learning about things by watching brief videos and to reaching out

to their peers and collaborating on all types of topics. These are the kinds of behaviors that the flipped classroom can leverage in order to promote development of foundational knowledge and enhance learning outcomes. At the same time, millennial learners still really value – probably more than ever before – the interconnections between each other and their educational facilitators."

The event was accredited locally by the Qatar Council for Healthcare Practitioners-Accreditation Department (QCHP-AD) and internationally by the Accreditation Council for Continuing Medical Education (ACCME).

Dr. Robert Crone, vice dean for clinical & faculty affairs at WCM-Q, was one of the event's course directors. He said: "Utilization of videos and other digital assets as teaching aids aligns extremely well with the strengths and learning habits of medical students today. The flipped classroom model not only makes the best use of limited time but also makes learning more active, self-directed, engaging and rewarding for students."



Dr. Traci Wolbrink.

Talking medicine

Grand Rounds brings expert speakers to Doha's healthcare community

he Grand Rounds lecture series has continued to go from strength to strength, bringing the wisdom of expert researchers, clinicians and medical executives from Qatar and all over the world to Qatar's growing community of healthcare practitioners.

The program, delivered by the Division of Continuing Professional Development, stages as many as three public lectures per month, helping local physicians, nurses, students and others keep up-to-date with the latest developments in medicine across a wide range of topics.

The events are accredited locally by the Qatar Council for Healthcare Practitioners-Accreditation Department (QCHP-AD) and internationally by the Accreditation Council for Continuing Medical Education (ACCME).

Dr. Thurayya Arayssi, senior associate dean for medical education and continuing professional development, said: "We are extremely pleased that Grand Rounds has continued to bring very high-profile, engaging speakers to WCM-Q to speak about topics that are challenging, interesting and relevant to recent developments in healthcare. These lectures continue to help Qatar's local healthcare practitioners keep their knowledge and understanding of medicine up to date, for the benefit of themselves, their colleagues, and all patients."

Recent Grand Rounds events delivered to the community include:

- Dr. Dora Stadler, clinical assistant professor of medicine at WCM-Q, on Medical Professionalism in the Age of Social Media.
- Dr. Matthew E. Fink, Louis & Gertrude Feil Professor and Department Chair of Neurology at Weill Cornell Medicine in New York, on Mobile Stroke Units: Present & Future.
- Dr. Jeremie Arash Rafii Tabrizi, associate professor of genetic medicine in obstetrics/gynecology at WCM-Q, on Personalized Medicine in Women's Cancer.
- Dr. Martin Steinhoff, Professor and Chairman of the Department of Dermatology and Venereology at Hamad Medical Corporation, on Translational Treatment of Atopic Dermatitis.
- Dr. Ali Sultan, associate professor of microbiology and immunology at WCM-Q, on Antimicrobial Resistance and Stewardship: Trends and Future.
- WCM-Q alumna Dr. Rana Biary of the Class of 2008, now assistant professor and director of the medical toxicology fellowship at New York University, on Management of the Agitated Patient.
- Peter Bohan, director of occupational health and wellbeing at Sidra Medicine, on Occupational Health & Wellbeing in Healthcare.

- WCM-Q alumna Dr. Tania Jaber of the Class of 2011, on Radioactive Iodine in Thyroid Cancer: Past, Present and Future.
- Dr. Mohammed Jaber Alsaey, consultant, oral surgeon at Aspetar Orthopedic Hospital, on Management of Oral Trauma in Sports.



Dr. Thurayya Arayssi, senior associate dean for medical education and continuing professional development, said Grand Rounds gives healthcare professionals in Qatar the chance to hear from high-profile international sneakers

Doctors' notes

The Music Therapy and Healing workshop at WCM-Q explored historical and current applications of music therapy

he potential for music therapy approaches to improve patient health and wellbeing were explored at a continuing medical education workshop held at WCM-Q.

The event featured lectures by expert speakers who gave a brief history of music therapy, discussed the effect of music on the brain, and described the application of music therapy interventions in clinical practice.

Attendees also took part in an interactive workshop to learn how music therapy can be an effective treatment intervention to help clients deal with trauma and chronic illness, and how playing music or musical instruments can provide psychological relief and an inner resource for people to positively confront their ongoing illness.

Expert speakers at the event included Dr. Aicha Hind Rifai, assistant professor of clinical psychiatry, who discussed music therapy in clinical practice. Dr. Rifai said: "Music therapy is currently a scientifically approved treatment for the following conditions: depression with anxiety; Parkinson's disease to treat gait, speech and swallowing problems; schizophrenia to decrease hallucinations, delusions and apathy, and to improve mood, cognition and quality of life; and finally for sleep problems. Patients suffering from any of the above conditions should be routinely referred for music therapy either as a main treatment or in addition to the standard medical treatment they are receiving."

She added: "Although music therapy is of benefit in cases of autism and in end of life care, more systematic studies are needed to confirm the efficacy of the treatment in these and other conditions and to clarify which type of music therapy intervention works for each disease."

The symposium, entitled Music Therapy and Healing, was part of WCM-Q's ongoing Lives in Medicine series, which explores interactions between art, medicine and healing. Previous events have examined medicine and the visual arts, the medical humanities, and narrative medicine.

The event also featured Dr. Waseem Kotoub, a professional concert pianist, composer and medical doctor. Dr. Kotoub, who trained at the Royal Academy of Music in London, has used music therapy with autistic children to aid the development of communication skills. He also established what is believed to be the first music therapy center in the MENA region.

Dr. Khotoub gave a joint presentation about the history of music therapy alongside Dr. Alan Weber, WCM-Q's visiting professor of English.

Dr. Weber said: "Research from history and ethnomusicology shows how many different ancient and contemporary cultures, especially the Greeks and Muslim physicians, recognized the healing power of music and used



Dr. Waseem Kotoub is a professional pianist as well as a medical doctor.

its effects therapeutically in similar ways to modern music therapy."

Dr. Khotoub and Dr. Mohamud Verjee, associate professor of family medicine in clinical medicine and assistant dean for medical student affairs at WCM-Q, then delivered a workshop on the use of music therapy for treating trauma and chronic illness. Dr. Khotoub demonstrated basic concepts of music therapy on the piano for the audience who participated with singing and humming.

Dr. Rifai then concluded the event by summarizing the benefits of music therapy in patient care.

The event was accredited locally by the Qatar Council for Healthcare Practitioners-Accreditation Department (QCHP-AD) and internationally by the Accreditation Council for Continuing Medical Education (ACCME).

Symposium supports occupational health

Speakers from industry share their perspectives and knowledge about a range of subjects



Dr. John Roberts, group medical director for Qatar Airways.

a symposium at WCM-Q.
The symposium, coordinated by WCM-Q's Institute for Population Health (IPH), was designed to provide a platform for discussion and knowledge sharing about occupational health strategies, while also raising awareness and advocating for effective occupational health policies in order to enhance the safety of employees and the public.

ritical issues in occupational health were explored at

The event, entitled 'Occupational Health is Everyone's Business', featured a variety of expert speakers on subjects such as occupational health in the airline and construction industries, the health of migrant workers, a general overview of occupational health issues, and risk mitigation.

Dr. Ravinder Mamtani, professor and senior associate dean for population health, capacity building and student affairs at WCM-Q, said: "Occupational health truly is everyone's business. Whether you are a senior manager, an employee or a member of the public, your health must be proactively protected and the way to do this is through effective occupational health strategies. Furthermore, intelligently designed occupational health strategies actually boost productivity and overall economic activity."

Speakers at the event included Dr. Mamtani, Dr. Taher Giaedi, chief operating officer, Qatar Red Crescent, Medical Affairs Division, on the challenges surrounding migrant health; and Thomas Doyle, WCM-Q's director of environmental health, safety & security on ways to define, identify and mitigate health hazards and risks in the workplace.

Dr. Penny Stern, director of preventive medicine at

Northwell Health, New York, gave a presentation on occupational health opportunities and challenges in the construction industry; and Dr. John Roberts, Qatar Airways group medical director, discussed occupational health in aviation. His presentation explored the physiological challenges facing employees in the aviation industry, discussed how some medical conditions can be adversely affected while traveling as an airline passenger, and explained what information can help airlines decide whether passengers are fit to fly.

Dr. Roberts said: "Occupational health is taken very seriously by Qatar Airways as the health and safety of our passengers and staff is our number one priority. We are convinced that a comprehensive, effective and caring occupational health strategy not only makes us a better and safer airline, but also more productive and more efficient as a corporation."

The one-day symposium concluded with a panel discussion on the issues raised in the presentations, which was chaired by Dr. Sohaila Cheema, assistant professor of healthcare policy and research, and director of the Institute for Population Health at WCM-Q, and featured as panelists all of the speakers plus additional experts Dr. Ahmad Latif, lead medical officer at Qatar Petroleum, and Dr. Osama Ibrahim, chief medical officer and SHE coordinator at Qatargas.

The symposium was accredited locally by the Qatar Council for Healthcare Practitioners-Accreditation Department (QCHP-AD) and internationally by the Accreditation Council for Continuing Medical Education (ACCME).

Happenings

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Happenings

Med Gala















Happenings International Night













Happenings Student-Faculty Majlis











Happenings Children's Health Fair













Happenings

Bazaar









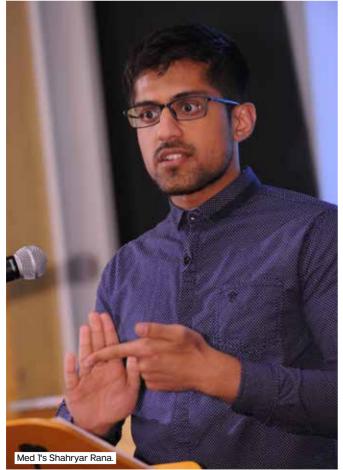




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