



**Weill Cornell  
Medicine-Qatar**



**ANNUAL REPORT  
2017**



---

WELCOME TO  
**WEILL CORNELL  
MEDICINE-QATAR  
ANNUAL REPORT 2017**

---



# Weill Cornell Medicine-Qatar Annual Report 2017

## Contents

Leadership Report	06
Joint Advisory Board	08
Medical Education	10
Continuing Professional Development	28
Premedical Education	40
Clinical and Faculty Affairs	46
Research	58
Institute for Population Health	70
Student Recruitment and Outreach	84
Admissions	92
Student Affairs	98
Community Development	108
Statistics	118
Leadership Structure	123
Faculty Publications	124

# Leadership Report

It is always gratifying to pause for a moment and recall the achievements of the year just past, particularly as our habit at WCM-Q is to look forward to new horizons, rather than back at the path along which we have walked together. While this tendency to look ahead is now happily part of our 'institutional DNA', it is important to take stock each year and to derive inspiration from the successes that our collective efforts have delivered.

As ever, chief among these achievements was the graduation of a cohort of highly trained young doctors – 45 this year - bringing the total number of WCM-Q graduates to 301 since we began operations in 2002. In addition, the Class of 2017 continued the WCM-Q tradition of achieving an enviable match rate, this year reaching 90 percent, with our talented graduates securing acceptance to residency programs at many world-leading teaching hospitals in the United States and here in Qatar.

There has also been success in our efforts to continually update the educational offering at WCM-Q, with our integrated Six-Year Medical Program going from strength to strength thanks to the diligent work of our faculty and staff. WCM-Q students now benefit from the very latest pedagogical innovations in medical training, ensuring that we produce physician-scientists who are comfortable with the rapid pace of change which now characterizes modern medicine, and who are therefore able to deliver the very best care to their patients.

It is with this trend of unceasing and accelerating change in mind that WCM-Q has continued to support Innovations in Global Health Professions Education (IGHPE), an open-access journal and online platform that serves as a globally interconnected forum for the presentation and discussion of innovative concepts in all areas of health professions education. This exciting initiative has expanded in scope and ambition over the past year, and in April 2017



**Dr. Javaid I. Sheikh, Dean.**

underlined its commitment to nurturing cross-cultural collaboration by hosting its third annual conference in Shanghai, China. This global, open and inclusive outlook remains a core guiding principle of WCM-Q, and in this regard, and many others, we are truly grateful for the unwavering support we have received from Qatar's steadfast leadership and Her Highness Sheikha Moza Bint Nasser, Chairperson of Qatar Foundation.

2016-17 was also a year of success for our researchers, who, true to form, made a number of significant discoveries in research areas as wide-ranging and diverse as the brain disorder cerebellar ataxia, the genetic basis of rheumatoid arthritis in Arab populations, the relationship between high blood pressure, heart disease and type 2 diabetes, and many more. Our researchers also continued to see their findings published in leading global journals, and WCM-Q research gained some 4,200 citations in 2016, helping to consolidate and extend our reputation as the region's leading research hub.

Meanwhile, WCM-Q registered a remarkable achievement in our ongoing mission to contribute positively to the improvement of healthcare in Qatar when the college gained accreditation from the Accreditation Council for Continuing Medical Education (ACCME). Similarly, our drive to be a key supporter of excellence in healthcare

in Qatar passed a significant milestone as the number of affiliated WCM-Q faculty from our strategic partners at HMC, Sidra, Aspetar and PHCC exceed 500 for the first time. This growing network is a powerful vehicle for continuous improvement in patient care.

Our engagement with the community at large also continued unabated, with the creation of the Institute for Population Health, which is already forming valuable partnerships at local, regional and global level to establish evidence-based population health programs and activities. Furthermore, our public health campaign Sahtak Awalan – Your Health First celebrated its fifth anniversary and continued to achieve great success in its mission to empower people across Qatar to adopt healthy and sustainable lifestyle habits.

Through all of these initiatives, and many more, WCM-Q's enduring mission to provide excellence in medical education, patient care and research, and to be a force for good in our community has been evident. I extend my most sincere thanks to everyone who has contributed to these shared goals over the past year and I hope you will gain great satisfaction from reflecting upon the achievements detailed in this Annual Report.

# Weill Cornell Medicine-Qatar

**The Joint Advisory Board provides advice and assistance to the dean and the governing parties of WCM-Q.**



# The Joint Advisory Board Members of WCM-Q

---

## **Qatar Foundation Representatives:**

**H.E. Ghalia Bint Mohammed Al-Thani, M.D.**  
Co-Chair, WCMC-Q Joint Advisory Board  
Member, Board of Governors, Ministry of Public Health  
Chair, Sidra Clinical Steering Planning Committee  
Chair, Qatar Foundation for Child & Woman Protection  
Consultant in Pediatrics, Hamad Medical Corporation

**Jassim Al Suwaidi, M.B. Ch.B. B.A.O., L.R.C.P. & S.I. (Honors)**  
Consultant Cardiologist  
Hamad Medical Corporation

**Omar M.A. El-Agnaf, PhD**  
Acting Executive Director  
Qatar Biomedical Research Institute

---

## **Cornell University Members:**

**Augustine M.K Choi, MD**  
Co-Chair, WCMC-Q Joint Advisory Board  
Stephen and Suzanne Weiss Dean,  
Weill Cornell Medical College  
Provost for Medical Affairs, Cornell University

**Mr. Tarek Abdel-Meguid**  
Member, Board of Overseers  
Weill Cornell Medicine

---

## **Independent Representatives:**

**Sir Graeme Catto, M.D. (Hons)**  
Member, Qatar Council for Healthcare Practitioners  
Trustee, the International Medical Education Trust

---

## **Ex-Officio Members:**

**Javaid I. Sheikh, M.D.,**  
Dean  
Weill Cornell Medicine - Qatar

**Ms. Jessica Bibliowicz**  
Chairman, Board of Overseers  
Weill Cornell Medicine

**Ahmed M. Hasnah, Ph.D.**  
President  
Hamad Bin Khalifa University

**Abdulla Ali Al-Ansari, MBBCh**  
Deputy Chief of Medical, Academic & Research Affairs for  
Surgical Services  
Hamad General Hospital, HMC

# Medical Education

---







**Dr. Ali Khairat** gave the valedictorian speech at the graduation of the Class of 2017.

# Congratulations to the Class of 2017

An historic milestone was reached on May 3, 2017 with the graduation of the 10th medical class from WCM-Q. The 45 graduates in the Class of 2017 joined the ranks of 256 other alumni to continue the WCM-Q mission to provide the highest quality of health care to patients in Qatar and around the world.

Of the 45 new graduates, 10 graduated with academic distinction, three with honors in research, and three with honors in service. Academic excellence was also recognized earlier in the week at the convocation event for the Class of 2017, where many graduates received individual awards for excellence in the foundational sciences and clinical courses and clerkships. Of particular note was the success of graduating student Lina Irshaid, who received 12 academic excellence awards, including the Excellence in the Pre-Clinical Award, and the Excellence in the Clinical Curriculum Award.

Dr. Augustine Choi, the newly appointed dean of Weill Cornell Medicine in New York was also in attendance. He joined Dr. Javaid Sheikh, dean of WCM-Q, in praising the graduates on their success and commenting that they will be the leaders of healthcare for their generation, helping to enrich the profession with their knowledge and skills, to enhance the delivery of patient care for the future.

The class speaker was Dr. Ali Khairat who gave an impassioned speech to his fellow graduates inspiring them to do what they love, and to strive in the face of adversity to achieve their goals.

The guest speaker at the graduation event was Dr. Amal Al-Malki, founding dean of the College of Humanities and Social Sciences at Hamad Bin Khalifa University. Dr. Al-Malki said that the new doctors would prove to be excellent ambassadors for WCM-Q, Qatar Foundation, and the whole nation.





# Student Achievements

**“The student success stories continue well beyond graduation, though, as our alumni also excel in postgraduate training.”**

The Class of 2017 celebrated their achievements on March 17, 2017 as the vast majority of the graduates who had applied to the National Resident Matching Program matched in their chosen specialties at leading institutions in the U.S. These included New York-Presbyterian Hospital/Weill Cornell Medical Center, Virginia Commonwealth University Health System, Lincoln Medical Center in New York, and Dartmouth-Hitchcock Medical Center. There was also a double celebration for two members of the class with a ‘couple’s match’ in the highly competitive specialties of radiology and pathology at Yale New Haven Hospital.

Six graduates also received welcome news of being accepted to take up a residency place in their chosen specialty at Hamad Medical Corporation.

The student success stories continue well beyond graduation, though, as our alumni also excel in postgraduate training. These have included Dr. Ayman Al-Jurdi, who was named Intern of the Year of his internal medicine residency program at New York-Presbyterian/Weill Cornell Medical Center. A graduate of the WCM-Q Class of 2015, Dr. Al-Jurdi was selected from a cohort of approximately 50 residents and received the award in recognition of his knowledge, mastery of the program material, and his dedication to patients and the medical students he teaches.

WCM-Q graduate Dr. Muhamad Baljević returned to his alma mater in November 2016 as a Grand Rounds speaker to discuss his research in multiple myeloma, a form of blood cancer. Since graduating in 2010, Dr. Baljević has completed his residency training in internal medicine at the New York-Presbyterian Hospital, Weill Cornell Medical Center in New York, and fellowship training in hematology and medical oncology at the University of Texas MD Anderson Cancer Center. Dr. Baljević is now assistant professor of medicine at the University of Nebraska.

Three female medical students are standing in a clinical setting, likely a hospital or clinic. They are all wearing white lab coats over their personal clothing. The student on the left is wearing a black hijab and glasses. The student in the middle is wearing a pink top and glasses. The student on the right is wearing a yellow top and a black hijab. They are all looking down at something in the middle student's hands. The background is a plain, light-colored wall.

**"A novel pedagogical approach placing greater emphasis on critical thinking and promoting identity formation, inquiry and self-improvement."**



## Implementation of the new curriculum

After many years of planning and preparation, the Class of 2020 entered the Medical Program as the first cohort of students to experience WCM-Q's new medical curriculum. This new program of study combines the academic rigor of a traditional medical curriculum with novel pedagogical approaches that place greater emphasis on critical thinking and promote identity formation, inquiry and self-improvement. To facilitate these new priorities, the curriculum has been designed to allow individualization of experience, and to provide more interactive time and more exposure to patients both inside and outside the classroom.

The new curriculum broadly follows that of WCM-Q's home campus in New York, with certain adaptations to fit local circumstances and maximize the benefits of WCM-Q's particular strengths, such as its favorable student to faculty ratio, well-developed biomedical research program and support from Qatar Foundation. The new four-year medical curriculum is designed to follow on from the two-year WCM-Q pre-medical curriculum. Together, the two curricula form the cohesive and comprehensive WCM-Q Six-Year Medical Program.


# The Four-Year Curriculum

## WEILL CORNELL MEDICINE - QATAR OVERVIEW OF THE FOUR YEAR MEDICAL CURRICULUM

		July	August	September	October	November	December	January	February	March	April	May	June			
Year 1		Essential Principles of Medicine (EPOM)					BREAK	EPOM Continued		Health, Illness & Disease-1 (HID-1)					AOC	BREAK
		Fundamental Disease Process								Heart	Lung	GI	Renal	Endo		

Year 2	Summer Recess	Health, Illness & Disease- II (HID- II)			BREAK	HID-II Continued			STUDY BREAK	Clerkships & USMLE Step 1
		Neuroscience	Rheum	Derm		ID	Heme-Onc	Repro		Intro to Clerkships

Year 3	USMLE Step 1, Clerkships, Electives & Sub-Internships						USMLE Step 2 (CK & CS)	
	Anesthesia & Critical Care	Medicine	Neurology	Obstetrics & Gynecology	PCC	Pediatrics	Psychiatry	Surgery

Year 4	Clerkships, Electives & Sub-Internships		Areas of Concentration Program (AOC)		Clerkships	M.D. AWARDED 
	Health Care & Public Health	Palliative Care			Boot Camp	

Curriculum Themes

SCIENCE

PATIENT CARE

PHYSICIANSHIP

Under the new WCM-Q medical curriculum, the timetable has been carefully reconfigured so that courses that fall under the three themes of science, patient care, and physicianship run concurrently, rather than consecutively. This allows professors to coordinate complementary learning experiences that span different courses, providing an integrated and unified approach and a far richer overall learning experience for students than the traditional, more segmented model. This also allows for an early introduction to patient care with increased focus on the development of patient care and physicianship skills from the start of the medical curriculum.

Inculcating a passion for research is a key requirement for producing doctors who are able to not only adapt to change but also to be drivers of innovation. As such, the new curriculum has been designed to encourage students to view themselves as physician-scholars who engage in both clinical practice and academic research to make discoveries that contribute new knowledge and improvements in patient care. The new curriculum allows multiple research experiences throughout the four-year program, culminating in protected time in the fourth year for students to conduct their own research projects, and develop key competencies such as laboratory skills, clinical research methods, administrative and project design skills, research ethics, and how to draft publications and present findings.

# Curricular Innovations



Dr. Grigory Ostrovskiy, far right, leads the POCUS component of the curriculum.

In line with implementing a new medical curriculum, WCM-Q has also adopted the Point of Care Ultrasound (POCUS) component, and the lead instructor for this is Dr. Grigory Ostrovskiy, assistant professor of emergency medicine. POCUS enables the students to learn how advances in ultrasound technology enhance the ability of physicians to make quick, accurate diagnoses at the bedside. Originally developed at Weill Cornell Medicine-New York and then adapted for WCM-Q, POCUS was introduced to the Class of 2020 in the spring as part of the Patient Care and Physicianship unit in the Health, Illness and Disease I course. The students are trained to use the ultrasound equipment by working under supervision with standardized patients in WCM-Q's Clinical Skills and Simulation Lab.

Dr. Ostrovskiy has also introduced a 'boot camp' elective that provides rigorous and personalized training to help prepare final year students for the transition to residency training. This elective focuses on equipping newly qualified doctors with essential skills to manage increased clinical responsibilities that require strong interpersonal, communication and organization skills in addition to medical training. The long-term goal for this elective is that it will evolve to become a required course in the curriculum that all students will be expected to complete before graduating, starting with the Class of 2020. The boot camp will also teach students how to manage common emergencies, how to rapidly identify sick patients, when and how to ask for help, and to how to look after their well-being. It will also be tailored to each individual student to take account of the specialty they have chosen.

Another unique feature of the new curriculum is early exposure to patients as part of the Patients as Teachers Program (PAPT), which is led by Dr. Amine Rakab, assistant dean for clinical learning. This new initiative introduces WCM-Q students to volunteer patients with chronic conditions to help teach them about patient-centered care and the experience of living with chronic illness. Patients with particular conditions or experiences are invited to help students at the appropriate stage of their learning program.

For the Class of 2020, the introduction to PAPT began in orientation week during the session "Interview with a Patient".

Inter-professional education (IPE) is fast becoming a growing trend in educating and training healthcare professionals and WCM-Q has begun to incorporate IPE into the curriculum, and this is led by Dr. Stella Major, WCM-Q associate professor of family medicine in clinical medicine. Partnering with Qatar University College of Pharmacy (QU CPH), University of Calgary in Qatar (UCQ) and the College of the North Atlantic - Qatar (CNA-Q), WCM-Q hosted two separate IPE workshops for trainees from four different health professions. These workshops were designed to teach vital collaborative working skills to help the trainees deliver coordinated care packages when they enter the healthcare profession after graduation.



# Curricular Space and Technological Enhancements



The CSSL now includes a high-fidelity simulation space.

In parallel with the changes in the curriculum, efforts have been underway to enhance the facilities that support new modalities for curriculum delivery. This includes the expansion and enhancement of the Clinical Skills and Simulation Lab, which was completed by the start of the 2016-17 academic year and renamed the Clinical Skills and Simulation Lab (CSSL). The CSSL now includes a high-fidelity SIM space, a total of 12 standardized patient (SP) exam rooms, an enhanced SP suite, and additional space for offices and seminar rooms. The enhancements to the footprint of the CSSL will enable the students to have an optimal learning experience in a safe and secure clinically oriented environment.

Another exciting development is taking place in the Anatomy Suite with preparations underway for the implementation of a plastination laboratory. Once completed, this project will enable the preservation of human specimens for use as models for demonstrations to supplement the teaching that currently takes place using cadavers. The acquisition of an anatomy imaging table is also contributing to the enhancement of undergraduate and postgraduate anatomy education. This technologically advanced visualization system illustrates the anatomical realism of a living human and incorporates imaging technology.

Finally, the reconfiguration and refurbishment of the existing seminar room space on the ground and first floor of the North Hall is supporting the functional requirements for delivering the new curriculum. The changes allow for a flexible learning environment that encourages an interactive teaching model. Mobile furniture, including portable instructor tables enable collaborative work and more engagement in the classroom by both teacher and learner.

# Expansion with Clinical Affiliates

The opening of the outpatient clinics at Sidra Medicine finally realized the long-anticipated goal for WCM-Q medical students to rotate through this new state-of-the-art hospital and research facility. The first WCM-Q cohort to benefit from this experience was the Class of 2017 when obstetrics and gynecology, pediatrics and psychiatry students joined the teams of specialized doctors, nurses and allied healthcare professionals to serve the local population.

As part of the new curriculum's emphasis on early introduction to patient care and physicianship, students from the Class of 2020 had the privilege of visiting HMC Heart Hospital to perform cardiac examinations on real patients. The 38 students worked in pairs to meet with a patient, take their medical history and then perform a clinical cardiac examination. This visit formed part of the Health, Illness and Disease I course that students take in the second semester of the first year of the new medical curriculum. These formative experiences are great learning opportunities and critical in supporting the students to develop their core clinical skills.

**Toqa Afifi** examines a patient at the Heart Hospital.



**Dr. Aicha Hind Rifai** joined WCM-Q from the Department of Behavioral Health at the Henry Ford Health System in Detroit, Michigan, where she was an attending psychiatrist.



# New Faculty

**“The recruitment of two WCM-Q graduates to the faculty ranks is a historic milestone and completes a ‘virtuous cycle’.”**

The arrival of new faculty on campus is further enriching the academic environment and continuing the college’s ongoing mission to provide excellence in medical education. In particular, the recruitment of two WCM-Q graduates to the faculty ranks is a historic milestone and completes a ‘virtuous cycle’, with alumni returning to the college to educate the next generation of doctors to serve patients in Qatar.

Dr. Grigory Ostrovskiy completed his MD degree at WCM-Q in 2011 before securing a place in a highly sought-after emergency medicine residency program at NewYork-Presbyterian Hospital. Having completed his residency, Dr. Ostrovskiy has returned to WCM-Q as assistant professor of emergency medicine.

Joining Dr. Ostrovskiy is former classmate Dr. Sumeja Zahirovic who also graduated from WCM-Q in 2011. Dr. Zahirovic completed her internal medicine residency at Englewood Hospital in New Jersey followed by a fellowship in rheumatology at Virginia Commonwealth University Medical Center in Richmond, Virginia. Dr. Zahirovic has returned to WCM-Q as assistant professor of medicine.

The other new additions welcomed to WCM-Q over the course of the 2016-17 academic year are: Dr. Aicha Hind Rifai, assistant professor of clinical psychiatry; Dr. Ameer Raoof, professor of anatomy in radiology; Dr. Mange Manyama, assistant professor of anatomy in radiology, Dr. Sean Holroyd, associate professor of physiology and biophysics, and Dr. Ming-Jung Ho, director of the Office of Educational Development and assistant dean for continuing professional development.

The new faculty members were chosen for their technical and clinical expertise, their flair for teaching and their interest in innovation, which accord with WCM-Q’s tripartite mission to provide excellence in education, research and patient care. These qualities are also deemed essential for the delivery of WCM-Q’s new curriculum, a key theme of which is a readiness to embrace innovation and progress, both in terms of technology and teaching methodologies

Dr. Aicha Hind Rifai joined WCM-Q from the Department of Behavioral Health at the Henry Ford Health System in Detroit, Michigan, where she was an attending psychiatrist. Dr. Rifai’s arrival at WCM-Q marks a return to Qatar for her, as she spent a year as a temporary attending psychiatrist in the Department of Psychiatry at Hamad Medical Corporation from 2011 to 2012.

## New Faculty

Dr. Mange Manyama joined WCM-Q from the Catholic University of Health and Allied Sciences (CUHAS) in Mwanza, Tanzania, where he was associate professor in the Department of Human Anatomy and Cell Biology from 2011 to 2015. Dr. Manyama has also been a visiting faculty member on the anatomy and visualization program at Weill Cornell Medicine in New York on three separate occasions.

Dr. Ameer Raoof joined WCM-Q from Oakland University William Beaumont School of Medicine in Michigan, where he was associate professor of anatomy. As a pioneer of the technique of plastination – the preservation of tissue using transparent silicone rubber – Dr. Raoof's skillset make him a valuable addition to the WCM-Q faculty.

Dr. Sean Holroyd joined WCM-Q from the John Flynn College, James Cook University, Australia where he was a deputy principal and academic

dean. He also served as a lecturer in physiology and pharmacology at James Cook University. Dr. Holroyd holds a unique position at WCM-Q as his faculty appointment is with both the pre-medical education and medical education divisions, enabling him to play an integral role in the development of the curriculum for the six-year integrated program.

Prior to joining WCM-Q, Dr. Ming-Jung Ho taught at National Taiwan University, National Yang Ming University, and Chang Gung University and has won several teaching awards. Dr. Ho's teaching and academic interest lies in the application of anthropology to medical education and she has published articles relating to these themes in many leading international journals.



Dr. Mange Manyama discusses human anatomy with WCM-Q students.





Dr. Ameer Raoof is a pioneer of the technique of plastination.



### Teaching Specialists

The recruitment of teaching specialists in the foundational sciences was another new initiative to further enhance the support for the students embarking on the new curriculum.

Dr. Simeon Andrews was appointed as the teaching specialist for cellular and molecular biology, and Dr. Jennifer McCallum is the teaching specialist for physiology, pathology and pharmacology. Prior to taking on these new roles, both were working in WCM-Q as post-doctoral researchers. Both teaching specialists work closely with the faculty to provide the students with one-to-one learning, as well as assisting with assessment and other class learning activities.



**Dr. Chris Triggles** was elected a fellow of the British Pharmacological Society

# Faculty Recognition Awards

In addition to their teaching responsibilities, the faculty members continue to excel in the academic arena. Notable achievements over the past year include the election of Dr. Chris Triggles as a fellow of the British Pharmacological Society. Dr. Triggles, WCM-Q professor of pharmacology since 2007, received this accolade in recognition of his contributions to the discipline of pharmacology over the course of a distinguished career.

Dr. Douglas Bovell also received high praise for his election as a fellow to the British Physiological Society in recognition of his contributions to the disciplines of physiology and biophysics over the course of a distinguished career. Dr. Bovell, WCM-Q professor of physiology and biophysics since 2014, has also been appointed to serve on the American Physiological Society's International Committee.

Dr. Lotfi Chouchane was a recipient of the 2016-17 UAE International Genetics Disorders Prevention Award. Dr. Chouchane, professor of genetic medicine, and professor of microbiology and physiology, joined WCM-Q in 2005. He was chosen to receive this award in the category for Scientific Excellence—International. Dr. Chouchane has a distinguished career as a scientist and his research interests include the genetics and immunology of multi-factorial diseases including cancer, obesity and diabetes.

## Visiting Professorship Program

As part of the continuous efforts to support the students who wish to enter into residency programs in the United States, WCM-Q once again hosted US residency program directors from multiple specialties including, family medicine, internal medicine, obstetrics and gynecology, and surgery. For many of the visiting professors, this was the first time in the region and they were very impressed with WCM-Q's curriculum, students, faculty and facilities. The visiting professors also had an opportunity to visit Hamad Medical Corporation to meet with the affiliated teaching faculty, and participate in morning report and grand rounds.

# Continuing Professional Development





## Continuing Professional Development

The past year saw the Division of Continuing Professional Development (CPD) continue to work according to the guidance provided by its 2015-2020 strategic objective: “To Enhance Knowledge and Practice of Qatari and Regional Physician Workforce Through Graduate and Continuing Medical Education (CME).”

To fulfill this goal, the division provided a wide range of extremely high-quality professional development opportunities for healthcare professionals, offering a broad educational program that extends beyond WCM-Q’s undergraduate curriculum, while maintaining alignment with the college’s overall mission.

The division also maintained its commitment and focus upon driving continuous improvement in patient care by basing all learning opportunities for healthcare professionals on identified needs and the latest developments in scientific research, medical care and pedagogical innovation.

### Supporting Our Healthcare Community Through Accreditation

Weill Cornell Medicine-Qatar has become amongst the first institutions in the world outside of the United States to receive accreditation by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians. There are approximately 2,000 ACCME accredited CME organizations across the US, where the body is recognized as the national model in its field, but until recently accreditation was not available to institutions outside the US. Now WCM-Q has become the very first institution in the Gulf Cooperation Council (GCC) region to receive the same accreditation and to have the rights and responsibility to designate AMA PRA Category 1 Credits™ (American Medical Association Physician’s Recognition Award). Furthermore WCM-Q, via the CPD division, was re-accredited in November 2016 as a CME/CPD provider by the Qatar Council of Healthcare Practitioners-Accreditation Department (QCHP-AD). Several WCM-Q activities have been accredited by the abovementioned systems and fall under three areas of concentration (see Figure 1 below).



Dr. Javaid Sheikh, dean of WCM-Q, with Dr. Thurayya Arayssi, senior associate dean for medical education and continuing professional development, and the CPD team.

# Activities accredited by the CPD Division in 2016|2017

---

WCM-Q Grand Rounds

---

International Diabetes Excellence  
Academy

---

Periodontal Disease: From Screening to  
Management

---

Minor Surgical Skills for Primary Care  
Physicians

---

IPH Certificate in Clinical Nutrition

---

EHS: Clinical Containment Strategies for  
Emerging Infectious Diseases

---

Library: Faculty and Staff Training

---

Certificate Program in the Development  
of OSCE with Standardized Patients (SPs)

---

Intersection of Law and Medicine

---

Lives in Medicine

---

IPH: Building Capacity in Healthcare  
Professions Symposium

---

Critical Issues in Global Health  
Symposium

---

Educators Across the Healthcare  
Spectrum Series

---

## Clinical Sciences



## Research Education for Clinicians



## Medical Education





## Expanding Our Activities and Offering More to Our Target Audience

In the 2016/2017 academic year the CPD division accredited 19 activities and welcomed more than 3,000 participants, including practitioners from hospitals, educational institutions, private clinics, government, and industry (see Figure 2 facing page). WCM-Q is leading the way in providing a diversity of learning opportunities and providing practitioners with opportunities to network and promote collaboration in multidisciplinary teams. The intended audience for CPD activities is broad in consideration of our clinical care partners and their mission to improve quality of care throughout the region.

This audience includes:

---

Faculty members and staff of the college and its affiliated hospitals and healthcare centers

---

Physicians and healthcare professionals in the State of Qatar and the region

---

WCM-Q alumni and current students.





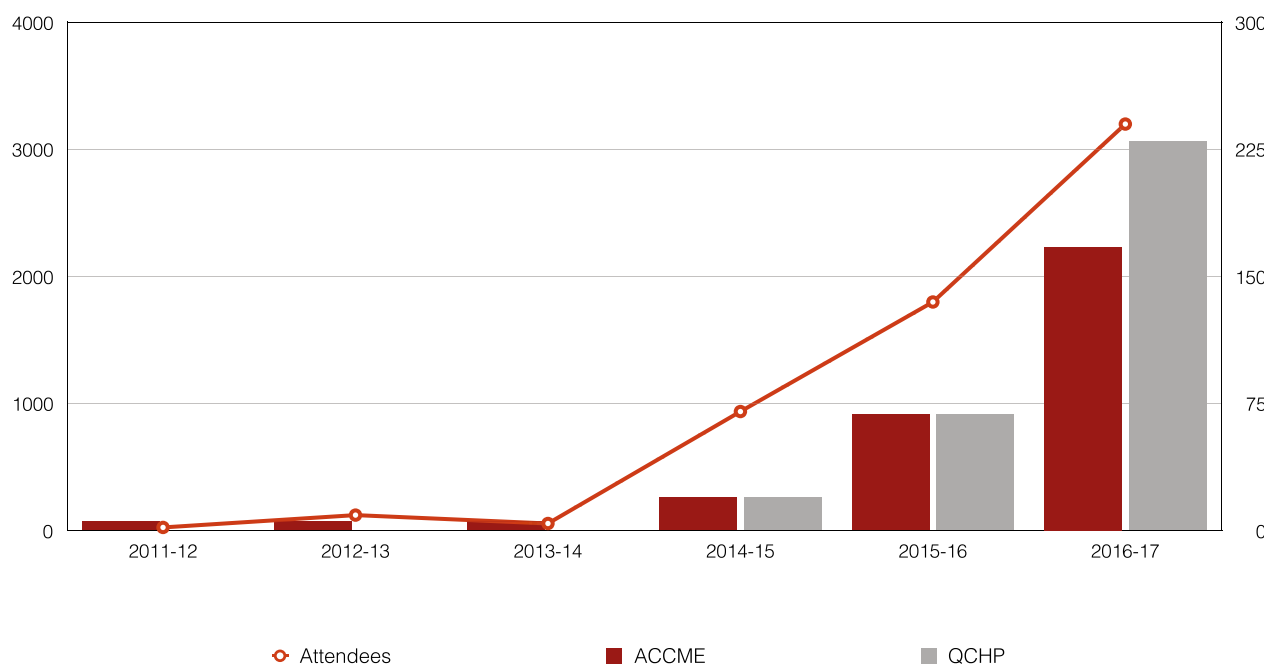


Figure 2: Showing the increase in accredited activities offered as well as an increase in attendance from 2011 to 2017.



## The CPD program of Weill Cornell Medicine-Qatar offers a variety of educational activities in different areas including:

### 1. Clinical Sciences

#### WCM-Q Grand Rounds (GR)

In the third year since its launch, the regularly scheduled WCM-Q Grand Rounds series continued to play an integral role in providing frequent, convenient and formal opportunities for professional development of the WCM-Q community and local healthcare practitioners. This activity is developed by an interdisciplinary committee of experts in various areas of healthcare and research. The committee brings together members from multiple

divisions within WCM-Q and members from our affiliate institutions, thereby enabling the committee to identify and meet the practice gap of a diverse target audience. Grand Rounds ran on a monthly basis, delivering 16 lectures overall in the 2016-2017 academic year (see Table 1).



# Table 1: WCM-Q Grand Rounds 2016-2017 Presentations

DATE	SPEAKER	TOPIC
September 21	<b>Muhamed Baljevic, MD</b> Assistant Professor of Medicine, University of Nebraska Medical Center	Treatment Paradigms in Multiple Myeloma Evolving
October 9	<b>Muhammad Waqar Azeem, MD, DFCAACAP, DFAPA</b> Chair, Department of Psychiatry, Sidra Medicine	Autism Spectrum Disorder
November 1	<b>Peter Kaboli, MD, MS, FACP, FHM</b> Professor of Internal Medicine, University of Iowa Carver College of Medicine	Clinical Quality Improvement Work and Patient Safety
November 6	<b>Thalia Arawi, PhD</b> Founding Director, The Salim El-Hoss Bioethics and Professionalism Program, AUB	The Lures of the Scalpel
December 11	<b>Ibrahim Fawzy Hassan, MD</b> Corporate Director of Critical Care, HMC Assistant Professor of Medicine, WCM-Q	Severe Respiratory Failure: When Conventional Ventilation Fails
January 8	<b>Grigory Ostrovskiy, MD</b> Assistant Professor of Emergency Medicine in Medicine, WCM-Q	Salicylate Poisoning
February 12	<b>Graham Buirski, MBBS, MRCP(UK), FRCR, FRANZCR, MD</b> Section Head Musculo Skeletal Imaging, Sidra Medicine	Pediatric Imaging: What Test Do I Order?
February 13	<b>James D. Lewis, MD, MSCE</b> Professor of Medicine and Epidemiology University of Pennsylvania	Modern Life at a Crossroad: Intersection of Diet, the Gut Microbiome, Inflammation and Cancer
February 15	<b>John E. Nestler, MD</b> William Branch Porter Professor of Medicine Virginia Commonwealth University	Polycystic Ovary Syndrome and the Risks of Diabetes and Cardiovascular Disease
March 12	<b>Christopher R. Triggle, PhD, FBPhS</b> Professor of Pharmacology Weill Cornell Medicine-Qatar	Metformin: A Drug for All Reasons?
April 4	<b>Courtney M. Townsend Jr., MD, FACS</b> Professor and Robertson-Poth Distinguished Chair, University of Texas Medical Branch	Pancreatic Neuroendocrine Tumors (NETs)
April 9	<b>Linnie M. Golightly, MD</b> Associate Professor of Clinical Medicine, Microbiology & Immunology, Weill Cornell Medicine	Travel Medicine
April 26	<b>Molly McNairy, MD, MSc</b> Assistant Professor of Medicine Weill Cornell Medicine	The HIV Care Continuum: a road map to evaluate HIV programs and improve patient outcomes
May 14	<b>Rishi Desai, MD</b> Clinical Instructor, Stanford University	Applying Learning Science to Medical Education
May 23	<b>P. Pearl O'Rourke, MD</b> Associate Professor of Pediatrics, Harvard Medical School	Human Subjects Research: Who is Responsible for What? The Role of the Investigator
June 11	<b>Justin Konje, MD</b> Professor of Obstetrics & Gynecology, Sidra Medicine	Chronic Pelvic Pain in Women of Reproductive Age

### **International Diabetes Excellence Academy (IDEA) Conference**

After its successful launch in 2016, The International Diabetes Excellence Academy, developed by a team of expert medical educators from Qatar, United Arab Emirates, Pakistan, India and the United Kingdom, and built upon the pedagogical skills of the participants, was delivered twice in the 2016-2017 academic year. The two-day IDEA conference featured lectures and debates led by expert speakers, plus Q&A sessions on a wide variety of topics, such as new diagnostic methods

for neuropathy and ischemic heart disease, dietary and pharmacological recommendations, insulin treatment, diabetes and stroke, diabetic foot and managing diabetes in pregnancy, among others. The program has been designed to provide a holistic approach on how to improve diabetes care in view of the available therapeutic modalities. More than 80 local and international healthcare practitioners attended this conference.



Dr. Syed Abbas Raza, consultant diabetologist/endocrinologist at Shaikat Khanum Cancer Hospital and Research Center and the National Hospital in Lahore, Pakistan, delivers his lecture.

## 2. Medical Education

### Educators Across the Health Care Spectrum (EAHCS)

This was the sixth year the cross-disciplinary educational series of lectures and workshops has been running, bringing world-class scholars to speak on topics that will strengthen understanding of significant topics in health education amongst residents, medical students, faculty and other healthcare professionals. Two activities were run in the 2016/17 academic year:

#### i. Assessment in Health Professional Education

This three-day symposium run by local and international speakers included a series of interactive sessions to explain the latest assessment methods and instruments to physicians and other healthcare professionals. In addition to demonstrating how to write high-quality narrative evaluations, the learning activity highlighted the strengths and weaknesses of several different methods of learner assessment, how to determine the validity of assessment instruments, and how to apply frameworks for evaluation to judgments about learners. The skills and knowledge taught by the workshops were applicable to both classroom-based and clinic-based learning exercises.

#### ii. Professionalism in Medical Education: Exploring the Hidden Curriculum. A Faculty Development Workshop

Over the course of this two-day symposium the attendees heard from expert speakers and participated in interactive learning exercises designed to increase understanding of the history, theory, methodology and application of the hidden curriculum to health professional education, as well as exploring the interface between the hidden curriculum and medical professionalism.

### Law and Medicine Seminar Series

A series of interactive seminars aimed at providing physicians with greater awareness of law and legal issues which impact on medical practitioners in the State of Qatar. In the 2016/17 academic year two activities were delivered:

i. Ethical and Legal Dilemmas in the Practice of Medicine and Research: A Middle East Perspective. The two-day seminar was attended by more than 250 health and legal professionals that included nurses, pharmacists, physicians, lawyers and government employees. The event featured presentations on key issues in modern

medicine, such as the ethics involved in obtaining informed consent from patients and research subjects, the moral dimensions of organ donation and transplantation, the ethics and laws relating to stem cell research, confidentiality, and Islamic perspectives of medical ethics.

ii. Impact of New and Amended Legislation on Qatar's Healthcare Delivery and Workforce: A Look at Sponsorship, Privacy and Mental Health Laws. The impact of legislation on the delivery of healthcare in Qatar was examined and explained to more than 150 physicians, nurses and allied healthcare professionals.



Dr. Bakr Nour, senior advisor to the dean at WCM-Q, speaks at a Law and Medicine seminar.



## Continuing Professional Development

### Lives in Medicine Seminar Series

On April 29, 2017 the division launched its first activity of many to come in the Lives in Medicine Series, titled “Perspectives from the Humanities”. The purpose was to introduce healthcare practitioners in the community to the fields of Medical Humanities and Narrative Medicine and the evidence behind using them to improve patient outcomes. The half-day activity included presentations by WCM-Q faculty and group discussions and analysis.



Drs. Mohamud Verjee, Alan Weber, Rodney Sharkey, and Stephen Scott at the Lives in Medicine series.

### Certificate Program in the Development of an OSCE with Standardized Patients

WCM-Q's Division of Continuing Professional Development and other WCM-Q faculty delivered the certificate program in the college's state-of-the-art Clinical Skills and Simulation Lab. The program equipped medical professionals with the skills to design and deliver a comprehensive Objective Structured Clinical Examination (OSCE) program to maximize learning outcomes and ensure effective assessment, such as how to set clear program objectives, write cases, devise appropriate checklists and scoring systems, give effective feedback to learners after assessment and train standardized patients.

The OSCE utilizes 'standardized patients'—trained actors who play the role of patients—to create a lifelike simulated learning environment in which the clinician is tasked with conducting a thorough medical examination. This teaches and allows for the assessment of core practical skills such as how to take a medical history, check vital signs, perform various physical examinations to determine the health of the patient, and communicate effectively with a patient, among other competencies.



The OSCE program provided medical professionals with the skills to create and deliver their own OSCE.

## 3. Research Education for the Clinician

### FAST – Faculty and Staff Training

Relying on one source of information for patient care and overlooking the wealth of information available through library subscription can lead to adverse health outcomes and complications in patient care. As such, this activity described a variety of skills that practitioners need for their research, including strategies and techniques for

accessing a wide variety of sources. The activity identified library tools that can be used for clinically oriented research, provided an explanation of the use of advanced database search techniques and enhanced the participants' abilities to critically evaluate and use research publications.

# Premedical Education





# Foundation Program: Laying the foundation for future success

The Foundation Program is a rigorous one-year curriculum that serves as a pathway to the Six-Year Medical Program. Students take relevant courses in biology, chemistry, calculus, physics, and English to develop effective study skills and habits, critical thinking, and knowledge application in preparation for the premedical curriculum. The foundation curriculum has been specially designed to provide students with the appropriate academic background and requisite skills for their intended degree.

The Foundation Program recorded another successful year, promoting 92% of students to the Six-Year Medical Program. The Foundation Program continues to play a vital role in the academic readiness of Qatari students by preparing them for the Six-Year Medical Program, which helps them to fulfill their dreams of becoming physicians.



# Career seminars: Inspiring talks by physicians and alumni

Physicians, alumni, current students, and research professors provided foundation students with an insight into their professional lives and careers as part of the Medical Career Seminar Series. The series aimed to inspire students and educate them on the various career paths through motivational talk. Speakers included WCM-Q faculty and physicians from the healthcare community. Guests included Dr. Javaid Sheikh, WCM-Q dean and professor of psychiatry; Dr. Wafa Al Yazeedi, assistant professor of clinical rehabilitation medicine and chairperson of the Physical Medicine and Rehabilitation Department

at Hamad Medical Corporation (HMC); Dr. Abdulla Al -Kaabi, executive vice chief medical officer at Sidra Medicine; Dr. Khaled Machaca, associate dean for research at WCM-Q; and Dr. Samar Al Emadi, senior rheumatology consultant and head of the rheumatology section at HMC. Foundation alumni who are second and third year medical students also participated in the seminar. Interacting with physicians, faculty, and alumni contributes to student motivation and commitment to the medical profession.



Dr. Wafa Al Yazeedi discusses clinical rehabilitation.



Dr. Khaled Machaca talks about biomedical research.



The seminar series is a chance for foundation students to learn about career opportunities.



# A Smooth Transition from Foundation to Pre-Medical Education

This year, post-foundation students participated in the Foundation to Pre-Medical Summer Transition Program, which comprised one credit course and an enrichment module offered by teaching specialists. In the first course, Dr. James Roach, associate professor of chemistry, assisted by Dr. Majda Sebah, teaching specialist in chemistry, introduced students to the essential problem-solving skills and lab training required for premedical general chemistry. The other mini-course, led by Ms. Padmakumari Sarada, strengthened students' algebra skills. In addition, foundation students participated in the Post-Foundation Summer Program at Cornell's main campus in Ithaca, New York. Arranged and supervised by Dr. Krystyna Golkowska, associate professor of English, this exciting program allows post-foundation students to take summer session courses while experiencing a new culture.

## Curricular Innovation

In the fall of 2015, Weill Cornell Medicine-Qatar admitted its first cohort of students to the six-year medical education program. This new program integrates pre-medical and medical education into one cohesive six-year program and provides a unique opportunity for innovation in curriculum and instruction.

To this end, a team of premedical faculty, including Dr. Marco Ameduri, Dr. Clare McVeigh, Dr. Sean Holroyd, and Dr. Ghizlane Bendriss, designed two new courses: Physics and Physiology and Physiology and Immunology. The first course will cover basic physics concepts associated with physiology or medical application as well as the physiology underlying the human nervous, skeleto-muscular and cardiovascular systems. Students will be well-prepared for the medical curriculum through a demonstrable understanding of the relationship between physics, anatomy, and physiological functions.

In the second course, students further develop their understanding of organ system physiology and are introduced to the human immune system. Tutorials emphasize the clinical aspect of the organ systems as well as their response to immunological disruption. Students will gain an understanding of organ system physiology and immunology and be able to apply this knowledge to pathophysiological situations. Curricular innovation like this integration introduces pre-clinical concepts that extend student learning.



# Experiential Learning through Observerships at HMC

Fifty-six pre-medical and foundation students learned about the realities of a career in medicine after shadowing doctors at Hamad Medical Corporation (HMC). The annual HMC Observership program provided students with the opportunity to volunteer for a week in one of nine departments at HMC, including emergency medicine, pediatrics, general surgery, internal medicine and psychiatry. The students were able to accompany doctors on their patient rounds, participate in morning conferences, and watch surgeons in the operating room.

At the conclusion of the program, students wrote reflection papers on their experience and were excited about the opportunity because it allowed them to observe the patient-doctor interaction, the importance of teamwork, and communication across cultures. One student's comment summarized the significance of this experiential learning opportunity when she stated, "the experience showed me what it feels like to be a doctor."

Pre-medical students are introduced to human physiology and immunology, alongside basic concepts of physics.





# Clinical and Faculty Affairs

---



Faculty members at WCM-Q and its clinical affiliates are committed to excellence in teaching, research, patient care, the advancement of the art and science of medicine, and to developing the next generation of leaders in healthcare for Qatar and the region.

The Office of Clinical and Faculty Affairs supports the recruitment, appointment, and promotion processes for all WCM-Q academic staff, which includes resident faculty, research associates and postdoctoral associates, and faculty at our affiliated institutions. The office also supports the implementation of policies and procedures, oversees the annual performance review process, maintains academic staff records, is the repository for academic staff data, and facilitates and monitors the credentialing of our clinical resident faculty.

---

**FULL-TIME FACULTY**

Medical Education Faculty	44
Pre-medical Education Faculty	17
Research Faculty	15
<b>Total</b>	<b>76</b>

---

**APPOINTED**


---

**VOLUNTARY FACULTY**

Hamad Medical Corporation	377
Aspetar	13
Primary Health Care Corporation	23
Sidra Medicine	82
Other Institutions	6
<b>Total</b>	<b>501</b>

---

**APPOINTED**


In January 2017, WCM-Q hosted its annual faculty orientation for affiliated faculty. The event attracted more than 40 physicians with recent WCMC faculty appointments.

# Appointments and Promotions

## Faculty at affiliated hospitals and other institutions

Faculty at affiliated institutions play a valued role in supporting the college's mission in Qatar by overseeing the clinical education of WCM-Q students and contributing to our research programs. During the academic year 2016-2017, 52 colleagues from Hamad Medical Corporation (HMC), the Primary Health Care Corporation (PHCC), Aspetar, Sidra Medicine and Qatar Council for Healthcare Practitioners (QCHP) received academic appointments at Weill Cornell Medical College (WCMC), four of them at the rank of professor. In addition, 14 faculty members from affiliated institutions achieved promotion to a higher faculty rank:

### To assistant professor:

**Shahzad Anjum (HMC)**, assistant professor of emergency medicine in clinical medicine

**Amira Nasser I. H Al-Hail (HMC)**, assistant professor of clinical otolaryngology

**Shakeel Parakkatt (HMC)**, assistant professor of clinical ophthalmology

**Bahaaeddin H.S. Alkahlout (HMC)**, assistant professor of emergency medicine in clinical medicine

**Fatihi Hassan Soliman Toaimah (HMC)**, assistant professor of clinical pediatrics

**Sami Moustafa Ibrahim Abdelmaksoud (HMC)**, adjunct assistant professor of clinical anesthesiology

**Fahad Abdullah Rashid Al Kindi (HMC)**, assistant professor of clinical medicine

**Firjeeth C. Paramba (HMC)**, assistant professor of clinical medicine

**Samya Ahmad A A Al-Abdulla (PHCC)**, assistant professor of family medicine in clinical medicine

**Noora Ahmad A M Al-Mutawa (PHCC)**, assistant professor of family medicine in clinical medicine

### To associate professor:

**Madeeha M. Kamal (HMC)**, associate professor of clinical pediatrics

**Suhaila Ali Ghuloum (HMC)**, associate professor of clinical psychiatry

**Hashim Mohamed Al-Sayed (PCHH)**, associate professor of family medicine in clinical medicine

**Sheikh Mohammed Hamad Jassim Al-Thani (QCHP)**, associate professor of clinical healthcare policy and research



# WCM-Q faculty welcomes new members

During the academic year 2016-2017, WCM-Q welcomed nine new full-time faculty members:

**Dr. Sunanda K. Holmes** was appointed as assistant professor of healthcare policy and research in July 2016. Dr. Holmes joined WCM-Q in September 2013 and currently serves as deputy chief administrative officer and associate university counsel. She holds a juris doctor (JD) from Howard University School of Law, a master of laws from Georgetown University Law Center, and an MBA from Johns Hopkins University. Prior to joining WCM-Q, she was the global compliance officer at Johns Hopkins University and taught corporate governance at the Johns Hopkins' Carey Business School. She is a member of Maryland and District of Columbia Bars and has over 25 years of experience as an international attorney

practicing corporate and business law, commercial litigation as well as in policy related issues in education, health care, and governance. Her legal expertise is in the Asia, sub-Saharan Africa and the MENA regions, and she is well versed in the legal and regulatory requirements of these jurisdictions on corporate structure and governance, tax, labor law, and financial compliance for healthcare, education and research activities. She has counseled US businesses working with foreign companies, NGOs and government agencies negotiating agreements related to international transactions, joint ventures, business formation, and agency and distribution arrangements. Her research interests include improving access to healthcare through policy changes, improving medical education in the global context, and improving healthcare delivery through integrated healthcare teams.

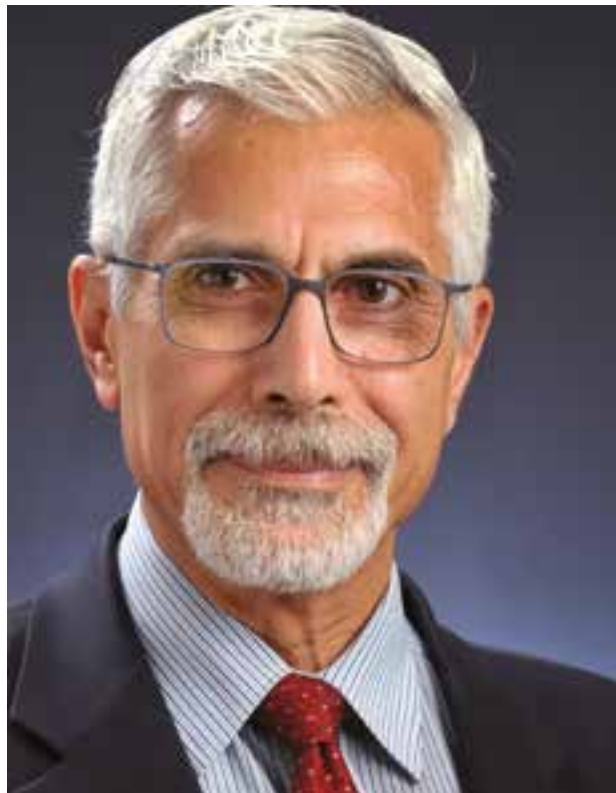
**Dr. Ming-Jung Ho** joined the Division of Medical Education in August 2016 as professor of medicine, assistant dean for continuing professional development, and director of the Office of Educational Development. Dr. Ho earned a BA in biological anthropology from Harvard University, an MD from University of Pennsylvania, and an M.Phil. in ethnology and museum ethnography from University of Oxford, where she also received a D.Phil. in social anthropology. She taught at National Taiwan University, National Yang Ming University, and Chang Gung University before and has won several teaching awards. Dr. Ho's teaching and academic interest lies in the application of anthropology to medical education.



**Dr. Mange Festo Manyama** joined the Division of Medical Education in July 2016 as an assistant professor of anatomy in radiology. Dr. Manyama holds an MD from the University of Dar es Salaam, Tanzania (now Muhimbili University of Health and Allied Sciences), a master of science in human anatomy from Makerere University, Uganda, and a PhD in cell biology and anatomy from the University of Calgary, Canada. He also completed a fellowship in health sciences education at the Southern Africa FAIMER Regional Institute (SAFRI), South Africa. Before joining WCM-Q, he was an associate professor of anatomy at the Catholic University of Health and Allied Sciences in Tanzania and held different administrative roles, including head of the Department of Anatomy, associate dean for the School of Medicine, director of quality assurance, and chairperson of the university curriculum review. His research over the last eight years has focused on identifying genetic markers that play important roles in determining facial morphometric shape variation in humans, and potentially playing roles in susceptibility to orofacial clefts.

**Dr. Ameer Raoof** joined the Medical Education Division in November 2016 as assistant professor of anatomy in radiology (interim). Dr. Raoof holds an MB, ChB and an MSc from the University of Baghdad, Iraq, and a PhD from the University of Dundee, UK. He joined from Oakland University William Beaumont (OUWB) School of Medicine in Michigan where he spent roughly two years as an associate professor of anatomy. During that short period of time, Dr. Raoof attained the Faculty Fellowship in Medical Education and the Medical Education Certificate. He was also recognized for his service as a member of the Medical School's Admission Committee and was nominated as the Basic Science Educator of Year, among other achievements. Prior to joining

OUWB, Dr. Raoof was an assistant professor of anatomy and medical education at the University of Michigan Medical School for about fifteen years where he served as the director of the Division of Anatomical Sciences, director of the Anatomical Donation Program, and directed the Plastination Lab. During his career at UM, Dr. Raoof received several national and university teaching awards. Dr. Raoof's research has focused on enhancing the role of plastination in anatomy education, assessing and improving the effectiveness of peer presentations/evaluation during gross anatomy lab sessions, and assessing the effectiveness of innovative teaching methods in the undergraduate anatomy course.



# New Faculty

**Dr. Grigory Ostrovskiy** joined the Division of Medical Education as an assistant professor of emergency medicine in medicine in October 2016. He is the first of our graduates to join the college as a faculty member. After completing his MD in Qatar in 2011, Dr. Ostrovskiy moved to New York to complete his residency training in emergency medicine at NewYork-Presbyterian Hospital. He is Board Certified in emergency medicine by the American Board of Emergency Medicine (2016). As a faculty member in the medical program, Dr. Ostrovskiy plays a leading role in emergency medicine and serves as a role model to our medical students. Dr. Ostrovskiy's research interests include point of care ultrasound, toxicology, and critical care. He has served on the US Emergency Medicine Resident Association's National Committees on Critical Care, Education, and Research.



**Dr. Alicia Tártalo** was appointed as assistant professor of education in medicine in December 2016. Dr. Tártalo joined WCM-Q in April 2010 and currently serves as director of clinical and faculty affairs. Dr. Tártalo has over 20 years of experience in higher education. Since November 2014, she has been the director of clinical and faculty affairs. Prior to joining WCM-Q, she was at the American University in Dubai, where she was the director of institutional effectiveness and previously, for over a decade, at Embry Riddle Aeronautical University, where she held positions with diverse responsibilities, including faculty recruitment and development, student academic advising, and admissions and enrollment management at the US campus in Florida as well as at university centers in Germany, Italy, Luxembourg, and Spain. Dr. Tártalo's research interests include program development

and evaluation and the impact of non-US trained faculty in teaching and learning in US-style higher education institutions. She holds a master's in physical chemistry from the Universidad Complutense of Madrid, Spain, an MBA from Clemson University, South Carolina, and a PhD in education (leadership for higher education specialization) from Capella University, Minnesota.







**Dr. Ghizlaine Bendriss** was appointed lecturer in biology in the Pre-medical Education Division in January 2017. Dr. Bendriss holds a PhD in neurobiology and neurophysiology from the University of Aix-Marseille, France. She joined WCM-Q in 2011 as a postdoctoral associate in physiology and biophysics under the mentorship of Dr. Khaled Machaca, associate dean for research. In August 2013, she decided to dedicate more time to teaching and became part of the biology support teaching team in the Pre-medical Education Division.

In addition to her teaching role as teaching assistant, and later as teaching specialist for the biology course, she was involved in several outreach programs and in undergraduate research projects, in which she shared her expertise in biology and laboratory techniques with high school and premedical students, and acted as the course director for the neuroscience seminar course. Besides her passion for teaching, her personal research interest is the gut-brain axis and the role of the microbiota in pathogenesis of diseases such as autism.



**Dr. Sean Matthew Holroyd** joined WCM-Q in January 2017 as assistant professor of physiology and biophysics (interim) to teach in both our Medical Education and Pre-medical Education Divisions. Dr. Holroyd holds a PhD in physiology from Monash University, Australia, and has over 15 years of experience teaching medical, science, and nursing students in several different countries. He joined us from The John Flynn College, James Cook University, Australia where he was a deputy principal and academic dean. He also served as a lecturer in physiology and pharmacology at James Cook University until February 2016. As academic dean, he led a team of 10 faculty members providing guidance to the faculty and facilitating faculty services to students. Previously, he held teaching and academic administration positions at St. Georges University,

Grenada; Ross University School of Medicine, Dominica; the University of South Queensland, Australia; and the University of the South Pacific, Fiji. At St George's University, he was deputy head of the Department of Physiology and Neuroscience, in charge of managing the physiology section of the department. Dr. Holroyd has taught a variety of audiences, including undergraduate students, medical students, and junior faculty. He has taught organ systems physiology to medical and veterinary students, anatomy and physiology to undergraduate nursing students, undergraduate pharmacology to science and nursing students, and has contributed to the pathophysiology course for medical students.



# New Faculty

**Dr. Sumeja Zahirovic** joined the Medical Education Division as assistant professor of medicine in January 2017. After completing her MD at WCM-Q in 2011, Dr. Zahirovic completed her internal medicine residency at Englewood Hospital in New Jersey followed by a fellowship in rheumatology at Virginia Commonwealth University Medical Center in Richmond, Virginia. She is Board Certified in internal medicine by the American Board of Internal Medicine and is a member of the Bosnian-Herzegovinian American Academy of Arts and Sciences and the American College of Rheumatology. Dr. Zahirovic was a chief resident during

her internal medicine residency, which gave her ample opportunity to teach medical students during the biweekly conferences that included presenting a patient case followed by an interactive learning period with questions pertaining to the clinical presentation, pathophysiology, and treatment of the condition. Her fellowship also allowed her to participate in creating and leading didactics with rotating residents. She is very interested in designing and participating in research projects in Qatar, with a special interest in public health and rheumatology.



# Promotions



**In 2016-2017, we celebrated the promotion of three of our colleagues in recognition of their contributions to education, research, and service to the college and the community:**

**Dr. Rachid Bendriss** was promoted to associate professor of English as a second language in September 2016. He joined WCM-Q in 2010 as lecturer of English as a second language in the Pre-medical Education Division and was appointed assistant dean for student recruitment, outreach, and foundation programs in 2013. In this role, he provides a dynamic and forward-looking leadership to attract local and regional student talent to prepare for a career in medicine through innovative pathway programs and engaged relationship building. Under Dr. Bendriss' leadership, the Foundation Program has played a vital role in increasing the number of Qatari students and preparing them to succeed in the six-year integrated

medical program. He has contributed to the scholarship of teaching and learning through leading and research collaboration related to second language literacies and educational technology. He has lectured and written extensively on the internationalization of higher education, recruitment and enrollment management, academic English development, information fluency, college readiness, and educational technology. He is a recipient of the Fulbright Scholar Award of International Education, the Florida Association of International Education Award, and WCM-Q's Excellence in Teaching Award. Dr. Bendriss holds a doctorate of education in educational leadership from the University of Central Florida, US.



**Dr. Sohaila Cheema** was promoted to assistant professor of healthcare policy and research in October 2016. She joined WCM-Q in 2008, became director of the Global and Public Health Division (now Institute for Population Health) in 2013, and was appointed as instructor in healthcare policy and research in 2014. In addition to her primary responsibility as the director of Institute for Population Health, Dr. Cheema serves as co-director and instructor for the global health and disease course for pre-medical students; oversees and mentors medical students who pursue global health opportunities at Weill Bugando in Tanzania and at other global settings; and delivers public health seminars to WCM-Q medical students and community medicine residents at HMC. She also co-directs and teaches healthcare practitioners in the Certificate in Clinical Nutrition course and serves as WCM-Q's manager for Global Educational Exchange in Medicine and the Health Professions (GEMx) program, a platform gaining popularity

worldwide, which allows dialogue amongst students, educators and healthcare professionals from around the world. Dr. Cheema's educational and research interests are multidisciplinary with an emphasis on non-communicable disease paradigm, road traffic injuries, and healthcare policy and planning. A medical doctor by training, she holds a master's in public health from Johns Hopkins Bloomberg School of Public Health and is certified in public health by the National Board of Public Health Examiners, USA.

# Promotions



Dr. Laith J. Abu-Raddad was promoted to professor of healthcare policy and research in February 2017. He joined WCM-Q in 2008 as an assistant professor and was promoted to associate professor in 2012. Dr. Abu-Raddad is also the director of the areas of concentration program; director of the biostatistics, epidemiology, and biomathematics research core; and assistant dean for extramural research funding at WCM-Q. As a researcher, he has received almost \$US10 million in funding within a decade, mostly as the lead principal investigator. He has published over a hundred original research articles in peer-reviewed journals, the majority of

them since joining WCM-Q. He has been published in high impact journals such as *Science*, *PLOS Medicine*, *Hepatology*, and *Proceedings of the National Academy of Sciences*, among others. He serves on distinguished advisory boards and councils for several international organizations such as the World Health Organization and the International Society for Infectious Diseases, and he is on the editorial boards of several leading journals. In addition, Dr. Abu-Raddad's passion for teaching and mentoring is evidenced by his efforts with students and mentees and their growth and career development. Dr. Abu-Raddad holds a PhD in computational and mathematical physics from Florida State University, US.

## Medical License and Privileges in Qatar

In 2016-2017, HMC's board of directors approved the applications for credentialing and clinical of privileges for three WCM-Q physicians: Dr. Aicha Hind Rifai, assistant professor of clinical psychiatry, Dr. Grigory Ostrovskiy, assistant professor of emergency medicine in medicine, and Dr. Sumeja Zahirovic, assistant professor of medicine. In addition, Sidra Medicine's board of directors approved the applications for credentialing and clinical of privileges for the first two WCM-Q physicians: Dr. Amal Khidir, associate professor of pediatrics and Dr. Stephen Atkin, professor of medicine. All of them have now been appointed to the medical staff at their respective hospitals.

## Activities and Events

**We have been actively engaged in efforts to enhance the value of being a WCM-Q faculty member by providing educational and informational programs that are relevant to our clinician educators. The Office of Clinical and Faculty Affairs organized several activities during this academic year to enhance engagement with its clinical affiliates, other local educational institutions, and the wider Cornell community in both Qatar and the US:**

## White Coat Ceremony for Faculty at Affiliated Institutions

On October 1, 2016, WCM-Q honored the vital work of hundreds of local physicians who selflessly share their knowledge and experience to help train the college's doctors of the future. Two hundred and ninety-one faculty physicians, out of the 470 invited, attended the ceremony held at the HMC's Hajar Auditorium where they were presented with the WCM-Q doctor's white coat. The work of WCM-Q's affiliate doctors at HMC, Sidra Medicine, Aspetar Orthopedic and Sports Medicine Hospital, the Primary Health Care Corporation (PHCC), and the Feto-Maternal Center is invaluable to the education of the next generation of doctors and to the future of healthcare in Qatar.

## Faculty Promotion Workshops

In December 2016, 10 faculty members attended the workshop to prepare for promotion to assistant professor, and in February 2017, 48 faculty members attended the workshop to prepare for promotion to associate professor. Both workshops were accredited by the Qatar Council for Health Practitioners and carried 1.75 continuing medical education credits.

## Faculty Orientation

In January 2017, WCM-Q hosted its annual faculty orientation for affiliated faculty. The event attracted more than 40 physicians with recent WCMC faculty appointments. This orientation was focused on fully integrating newly appointed faculty as part of the WCM-Q community. This successful endeavor served to encourage new faculty to become involved with the academic life of WCM-Q and introduced them to the resources available at the college. Topics discussed included the appointment and promotions processes, access to library resources, and opportunities to contribute to teaching and research at teaching and research at WCM-Q.

## WCM-NY and WCM-Q Faculty Affairs Annual Meeting

The annual meeting in New York took place in March 2017. In addition to meeting with several department chairs and administrations to discuss the operations and procedures, promotions, and strategies to improve appointment and promotions processes, Dr. Robert Crone, associate dean for clinical and faculty affairs, and Dr. Alicia Tártalo, director of clinical and faculty affairs, hosted the traditional closing luncheon, which was attended by Dr. Jane E.

Salmon, WCM associate dean for faculty affairs, Dr. Mark Albano, WCM assistant dean for faculty affairs, and 41 WCM New York colleagues.

## Dean's Lectureship: Sharing in Academic Excellence

In April 2017, Dr. Javaid Sheikh, dean of WCM-Q, and Dr. Augustine Choi, dean of WCM, established the Weill Cornell Medicine NYC-Qatar Dean's Lectureship: Sharing in Academic Excellence. This bi-annual lectureship has been established to celebrate the achievements of our outstanding Weill Cornell senior faculty serving in Qatar in order for them to share their achievements with their faculty colleagues based in New York City. The lectureship is supported financially by both deans' offices and administered through the Office of Faculty Affairs on both campuses. The event will consist of a two-day visit to New York with a special lecture and meetings with departmental and college-wide faculty, and with residents and fellows. For the inaugural lectures, Dr. William McKenna, CEO and medical director at the Heart Hospital at HMC, and Dr. Rusung Tan, chair of pathology and laboratory medicine at Sidra Medicine, have been nominated.



The White Coat Ceremony for WCM-Q's affiliated faculty.



# Research



# Building support for research



In its ninth year of operation, the Biomedical Research Program (BMRP) at Weill Cornell Medicine-Qatar continued to make important discoveries across a wide range of research areas, and to make significant contributions to the educational, training and outreach mission of WCM-Q, Qatar Foundation, and at the national level in Qatar.

The division maintained focus on its goal of consolidating and strengthening the program's status as the premier biomedical research program in Qatar and the region by bringing highly qualified faculty from all over the globe to WCM-Q, and at the same time continuing to invest in local talent by recruiting scientists in Qatar and providing them with robust and comprehensive training programs, with a special focus on training Qatari nationals and long term residents to enhance the research human capital in that country and support the research enterprise.

The Research Division also continued to honor its commitment to conduct cutting-edge research and increase understanding in areas of biomedicine with particular relevance to Qatar and the wider region, such as precision medicine, diabetes, polycystic ovary syndrome, obesity and inherited diseases in the Qatari population, to name but a few. Thanks to this ongoing focus, WCM-Q scientists published important findings in all of these research fields during the year 2016-17. In addition, the BMRP also continued to conduct basic molecular research aimed at increasing understanding of the mechanisms underlying disease, and translational and clinical research to help bring about improvements in healthcare and patient outcomes locally, regionally and internationally. WCM-Q faculty have published over 150 papers in 2016 alone, contributing to cumulative publication total of over 700 papers since 2010, garnering an annual citation rate of over 4,200 citations in 2016 alone.



WCM-Q faculty have published more than 700 research papers since the BMRP was launched.





The BMRP comprises 32 active laboratories investigating a range of areas.

### Building infrastructure to support research

Much of WCM-Q's research success has been possible because of an ongoing commitment to year-on-year infrastructural improvement, which has allowed the college to establish and maintain its position as a regional center of excellence. The BMRP now comprises 32 active laboratories investigating areas ranging from basic molecular and cellular pathways to translational and clinical projects. Nine central core laboratories support the research effort, while world-class faculty provide expertise through numerous research platforms, including deep phenotyping of clinical cohorts. The cores include: Genomics; Imaging; Basic; Proteomics; Bioinformatics & Metabolomics; miRNA; Biostatistics; Clinical Research Support; and a Vivarium.

As of the close of the 2017 financial year, Research had 172 employees, including 28 non-faculty staff, consisting mainly of postdoctoral and research associates. The majority of employees in the division are hired locally and trained within the Research Division's laboratories. This ensures that their skills and knowledge meet the high standards demanded of an elite institution like WCM-Q, but also importantly enhances the scientific human capital in the country and ensures the presence of a skilled workforce in the biomedical arena who can support the advancement of the research and commercialization enterprise in Qatar in the short and long terms.

The division also continues to welcome volunteers and visiting researchers, with 42 currently active at the college. Since 2008, a total of 268 volunteers and visiting researchers have received training in the Research Division of WCM-Q, allowing them to gain practical, hands-on experience contributing to ongoing research projects in state-of-the-art laboratories.



# National Research Collaborations

Significant progress was made over the past year toward enhancing the already robust research collaborations among various biomedical stakeholders in Qatar. A significant alignment of research activities and core usage was achieved between HBKU (QBRI) and WCM-Q, which would greatly streamline research efforts and improve the efficiency of research fund expenditure. Furthermore, this exercise provides additional resources and capabilities to all biomedical researcher under the QF umbrella.

In addition, research and training collaborations with our national partners have continued with an increased gusto this year. Significant research collaborations continued and new ones were initiated with HMC, our primary clinical research partner, where our faculty not only conduct research with HMC colleagues but also support the clinical effort. New collaborations were established with the Qatar Biobank and the Qatar Genome Project in the context of the genomics and clinical studies focused on the Qatari population. In addition to the collaborative effort on the core services with HBKU, several research projects between HBKU and WCMQ are ongoing, and furthermore there is alignment of activity to support the graduate programs at HBKU with WCM-Q faculty contributing to the teaching effort and hosting students in their labs to conduct their PhD research. Collaborations with Sidra Medicine focused on training for Qatari nationals in biomedical research in addition to research collaborations among investigators been founded. The existing collaborative effort with Qatar University in graduate education has also continued this year.

## Faculty development

To reflect the ongoing evolution and growth of the research effort at WCM-Q, faculty are progressing steadily in their career growth and taking on responsibilities to support the program. These included:

### **Appointment of Dr. Rayaz Malik as the organizational official for the Human Research Protection Program (HRP).**

In his new role, Dr. Malik will oversee the HRP Program operations, which includes IRB operations, with the main goal of facilitating the conduct of human subject research while ensuring full compliance with institutional, federal, and Qatari regulations. Dr. Malik also continues in his role as professor of medicine.

### **Promotion of Dr. Laith Abu-Raddad to professor of healthcare policy and research.**

Dr. Abu-Raddad has established an international reputation as a leading authority in respect of the epidemiology of HIV and other sexually transmitted infections, and the epidemiology of hepatitis C. This promotion recognizes Dr. Abu-Raddad's important contributions to investigation, his effective leadership, and his dedication to teaching. Dr. Abu-Raddad also continues in his roles as assistant dean for extramural research funding and director of the Biostatistics, Epidemiology, and Biomathematics Research Core.



WCM-Q has continued to forge collaborations with other national research programs.



# The Year in Events

In March 2017, the Research Division hosted the seventh WCM-Q Annual Research Retreat, bringing together the college's researchers and students with their peers from across Qatar and the wider world to reflect on a year of scientific endeavor and achievement. Speaking at the event, Dr. Khaled Machaca, associate dean of research, congratulated the faculty and students for an exceptional year of research productivity and achievements.

In October 2016, the division launched a new initiative, the Research Perspective Seminar Series, to share the stories and career paths that WCM-Q research faculty followed to become academic scientists.

The Research Division has also been an active participant in Hamad Bin Khalifa University's Life Science Seminar Series, jointly organized by WCM-Q, the College of Science and Engineering, Qatar Biomedical Research Institute and Carnegie Mellon University in Qatar.

## Other notable events in the year 2016-17 included:

### 3rd Middle East Molecular Biology Congress and Exhibition, November 14-18, 2016

This workshop provided training to a cadre of healthcare professionals to further the development and adaptation of clinical guidelines for application to the area of musculoskeletal disorders. The overall aim is to create a nexus of local experts with the ability to work collaboratively at local, regional and global level to progress this area of research.

### Conference on Understanding Molecular Mechanisms in Cardiovascular Disease, Diabetes, and Obesity (CUDOS 2017), April 10-12, 2017

WCM-Q partnered with Sidra Medicine to host this three-day conference and workshop focused on discussions, sharing of viewpoints, and general principles pertaining to the molecular mechanisms underlying CUDOS. Held at the Shangri-La Hotel, the conference was attended by around 80 people.

### Human Risk Factors in Laboratory Safety, May 22, 2017

Laboratory safety refresher training was provided for research faculty, staff and students, in line with WCM-Q's commitment to protecting the health of all employees, human subjects participating in research studies and others.

### Scientific Communication Workshop, May 23-24, 2017

Sponsored by the Dana-Farber Cancer Institute/Harvard Medical School and the Biomedical Research Program at WCM-Q, the Scientific Communication Workshop was conducted by Dr. Navid Madani of the Harvard Medical School. The workshop consisted of three sets of lectures on different aspects of scientific communication: basics of scientific writing; professional communication; and applying for a research position. The workshop provided advice on practical skills such as writing compelling CVs, resumes and cover letters, and understanding the structure of university enrollment procedures.



The WCM-Q Annual Research Retreat is a highlight of the college's academic calendar.



# Forward together: Training, outreach and engagement

Program for Nationals continued its success in its seventh year. Six talented young graduates completed this year's program, which runs for six months from January to July. The interns learned a wide variety of competencies including practical lab skills, how to undertake clinical research and research administration. To date, 33 graduates have completed the training, of which more than 85 percent of the graduates are now working in biomedical research at WCM-Q or other local institutions, or working towards a graduate degree.

In order to help fulfill the goals of Qatar National Vision 2030 by increasing local research capacity, the Research Division launched the Summer Research Internship for National High School Students. The program targets nationals who have recently completed grades 10 or 11 and are interested in scientific research. During the summer of 2016, two interns completed the program, one of whom has been accepted into the WCM-Q Medical Program Class of 2023. The Research Division welcomed a new

cohort of interns in July 2017 for the third cycle of the program. WCM-Q also runs an internship program for college students – the Research Internships for National College Students.

The Research Division continues to provide opportunities for WCM-Q students to become involved in research before they graduate. Forty first-year medical students received funding through the Medical Students Research Award (MSRA) to conduct research, and thereby complete their Advanced Biomedical Sciences (ABS) requirement. Through the program students conducted research at WCM-Q, Massachusetts General Hospital, New York University, and Imperial College London, during the summer of 2016. In addition, 11 students completing their Pre-medical curriculum requirement received funding through the Supplemental Summer Research Funding for pre-medical Students (SSRF-PM) to work on research projects with the faculty at WCM-Q last summer.

The Research Division also provides funding to students to publish and present the results of their research in professional journals and meetings through the Presentation Award. Over the past year, 10 students received the Presentation Award to present at conferences in the United States, Japan, and Sweden.

The Student Research Association has also been working hard to ensure that their fellow students are able to utilize the special research opportunities at WCM-Q by hosting journal clubs and organizing competitions for presenting research journals that the students have reviewed.







# Scientific impact: WCM-Q research published in leading journals

**WCM-Q scientists continued to see their research published in highly regarded international journals in 2016, bringing the total number of publications since 2010 to over 700 at the time of writing, with these publications garnering over 4,200 citations in 2016.**

## Studying the health benefits of dates

Researchers at WCM-Q utilized state-of-the-art technologies to discover the health-promoting properties of date fruit.

Dates contain large amounts of phytochemicals, naturally occurring plant chemicals that can lower cholesterol, reduce the risk of heart disease, and have anti-oxidant, anti-inflammatory, anti-cancer, neuroprotective and antioxidant properties, among other benefits. This study is part of a long and continuing interest that WCM-Q researchers have in the date palm. In 2012, they were awarded a National Priorities Research Program – Exceptional Proposals (NPRP-EP) grant from Qatar National Research Fund (X-014-4-001) to advance research efforts in basic research, translational and clinical research on date palms. WCM-Q researchers have also created the first known ‘Dates Bio-Bank’ which records the characteristics of more than 250 different varieties of date fruits collected from 15 countries, including Qatar, UAE, Saudi Arabia, Egypt, Iraq, Pakistan, Libya, Tunisia, USA, Morocco, Jordan, Sudan, Oman and Spain. Of these, the researchers have metabolically characterized 110 date fruit varieties. In the future, by combining this data with the results from the new bioavailability study, it shall be possible to predict the specific health benefits of each date variety.

## Joint research study by WCM-Q and HMC looks at using saliva to test for diabetes

A collaborative team of researchers, led by Dr. Karsten Suhre, professor of physiology and biophysics and director of the Bioinformatics Core at WCM-Q, and the team from HMC, led by Dr. Ramzi Mohammad, director of the interim Translational Research Institute (iTRI), conducted a project to assess the viability of non-invasive monitoring and screening of diabetes through a saliva test. Early diagnosis and treatment is vital for patients with diabetes as it can significantly reduce the risk of developing complications but traditional tests are invasive and rely on taking blood samples.

The research, published in the *Journal of Translational Medicine*, demonstrated that measurements of a biomarker called metabolite 1,5-anhydroglucitol – 1,5AG in saliva is feasible in clinical settings because saliva provides a stable environment for the biochemical test. They also identified another molecule that interferes with the test readouts and limits the measurements. Therefore, current efforts are focused on optimizing the test by introducing an enzymatic reaction to remove the interference and enable the direct use of patients’ saliva for the test.

### A new MS test in sight

Researchers at WCM-Q and the Neurosciences Institute at Hamad Medical Corporation (HMC) won a prestigious international funding award for their highly innovative proposal to use eye examinations to aid in early diagnosis, analysis of disease progression, and benefits of treatment in patients with multiple sclerosis.

WCM-Q professor of medicine Dr. Rayaz Malik was presented with the Grant for Multiple Sclerosis Innovation (GMSI) award by the European Committee for Treatment and Research in Multiple Sclerosis (ECTRIMS). It was one of only four research grants awarded from a total of 260 applications from 45 countries and the first ever to be awarded to the MENA region.

The official title of the project is 'Corneal Confocal Microscopy: A Rapid Non-invasive Surrogate Endpoint for Axonal Loss and Repair in Multiple Sclerosis'.

### Research sheds new light on brain disorder

Study by researchers at Weill Cornell Medicine-Qatar has revealed the genetic cause of a neurological disorder and the implications it has for marriage.

The research examined the genetics behind cerebellar ataxia, a congenital malformation of the brain whereby the total volume of the cerebellum – a part of the brain that regulates muscle activity at the back of the skull - is diminished.

Collaborating investigators from Weill Cornell Medicine-Qatar, Weill Cornell Medicine in New York and Hamad Medical Corporation have now discovered an unusual recessive mutation that leads to cerebellar ataxia. Their results were published in the *Annals of Neurology*, a highly influential journal in the field. The study, entitled 'Mutation in non-coding RNA, RNU12 causes early-onset cerebellar ataxia', was carried out by a team of doctors and scientists including lead researcher Dr. Alice Abdel Aleem, WCM-Q's assistant research professor of neuroscience, and assistant research professor of neurology, along with Dr. Elizabeth Ross, the Nathan E. Cumming professor of neurology and neuroscience, and chair of the Neuroscience Graduate Program at WCM in New York; Dr. Mahmoud Fawzy Elsaid, senior consultant pediatric neurologist in the Department of Pediatrics at Hamad General Hospital; and Dr. Tawfeg Ben-Omran, senior consultant and head of clinical and metabolic genetics at Hamad General Hospital

The research was made possible by Qatar National Research Fund's (QNRF) NPRP grant 4-099-3-039, the Qatar Foundation Biomedical Research Program, and the Teebi Project.

### Research reveals genetic basis of rheumatoid arthritis in Arabs

Researchers at WCM-Q have completed a major five-year investigation of the genetic factors underlying susceptibility to rheumatoid arthritis in Arab populations in five different countries.

WCM-Q's Dr. Thurayya Arayssi, associate professor of medicine/senior associate dean for medical education, led a team of researchers from five centers across the Arab World that collected samples from around 1,600 individuals with rheumatoid arthritis in Qatar, Jordan, the Kingdom of Saudi Arabia, Lebanon and the UAE, plus samples from control subjects.

Working with researchers at the Broad Institute of MIT and Harvard, the team found that mutations in a gene called HLA-DRB1 are associated with rheumatoid arthritis (RA) risk in Arab populations just as is the case with Europeans and East Asians, suggesting broad similarities in the genetic structure of RA across ethnic groups. However, the study also identified two additional genes that are associated with rheumatoid arthritis in Arabs but not in Europeans or East Asians.

The study was published in the prestigious medical journal *Arthritis & Rheumatology*, and funded by NPRP grant 4-344-3-105 from the Qatar National Research Fund, a member of Qatar Foundation.

# Scientific impact: WCM-Q research published in leading journals

## **WCM-Q study pushes the boundaries of genetic medical research**

A study by WCM-Q researchers revealed many previously unknown links between genetic variations and a series of debilitating conditions, including Alzheimer's disease, heart disease, autoimmune disorders and cancer.

A team of researchers led by WCM-Q's Dr. Karsten Suhre, professor of physiology and biophysics, used novel proteomics technology (SOMAscan) to screen over a thousand proteins in plasma and analyzed the data in conjunction with genetic and metabolomic data of more than 1,300 individuals from Europe, Asia and the Middle East and identified over 450 genetic variants, many of which are involved in serious diseases.

The study, entitled 'Connecting genetic risk to disease endpoints through the human blood plasma proteome', has now been published in the prestigious UK-based journal *Nature Communication*.

## **WCM-Q joins elite global research group investigating STIs**

WCM-Q scored a success when the college was awarded funding by a major UK trust to join efforts to reduce global prevalence of sexually transmitted infections (STIs).

The UK-based Wellcome Trust, as part of a pan-European initiative called Europe and Global Challenges, in partnership with the Volkswagen Foundation and the Swedish Riksbankens Jubileumsfond, has awarded €891,000 (\$967,000) to an international team of six leading research institutions that will collaborate to investigate the most effective ways that public policy can help to control STIs. Professor Laith Abu-Raddad, professor of healthcare policy and research, will be leading the WCM-Q component of the project, which will focus on mathematical modelling of the transmission of STIs and the epidemiology of STIs in the Middle East and North Africa.

## **Novel insights into oocyte maturation in preparation for fertilization**

Research in the lab of Dr. Khaled Machaca has investigated a long-standing dogma in the field of reproductive biology that the long term oocyte meiotic arrest is released through the regulation of the second messenger cAMP.

In a study entitled: 'Release from *Xenopus* oocyte prophase I meiotic arrest is independent of a decrease in cAMP levels or PKA activity', the researchers showed that contrary to the long-standing belief that a cAMP levels is a pre-requisite for the release of meiotic arrest, oocytes are able to mature without commitment changes to cAMP levels.

These findings, which were published in the premier Developmental Biology Journal, *Development*, have significant implications on our understanding of oocyte maturation which impacts reproductive competence.



Dr. Khaled Machaca, center, and his team.

#### **Honor for leading WCM-Q faculty member**

Dr. Chris Triggles, who joined WCM-Q in 2007, was made a fellow of the British Pharmacological Society (BPS) in recognition of his contributions to the discipline of pharmacology over the course of a distinguished career that to date has spanned more than four decades.

Dr. Triggles, professor of pharmacology, is a leading authority on the effects of metformin, the world's most widely used type 2 diabetes medication. His latest research has helped demonstrate that in addition to keep blood sugar levels under control by improving insulin sensitivity, metformin appears to have beneficial side-effects including anti-aging and anti-cancer properties.

#### **For some, high blood pressure associated with better survival**

Patients with both type 2 diabetes and acute heart failure face a significantly lower risk of death but a higher risk of heart failure-related hospitalizations if they had high systolic blood pressure on discharge from the hospital compared to those with normal blood pressure, according to a study led by a WCM-Q researcher.

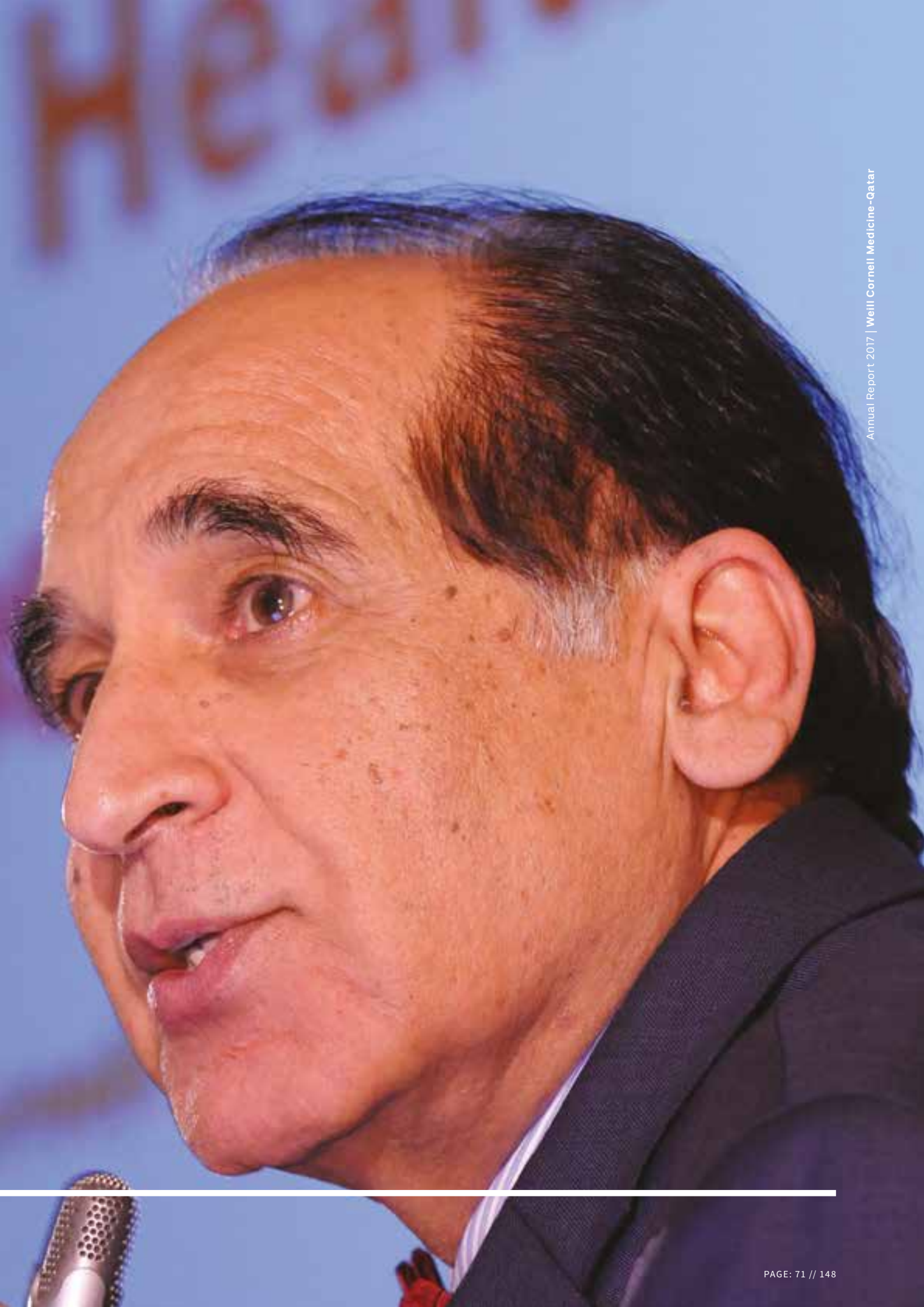
The study, by Dr. Charbel Abi Khalil at WCM-Q, along with Dr. Jassim Al Suwaidi, Dr. Kadhim Sulaiman at HMC, also found that higher body mass index, which is usually associated with worse health outcomes in people with heart disease, is linked with better survival in some patients with type 2 diabetes and heart failure, leading to the notion of an "obesity paradox."

The study was an analysis of the Gulf-CARE registry, which is conducted under the auspices of the Gulf Heart Association and funded by Servier, a French pharmaceutical company. Dr. Abi Khalil is funded by the biomedical research program at WCM-Q, a program funded by Qatar Foundation, and by NPRP grants 7-701-3-192 and 9-169-3-024 from the Qatar National Research Fund, a member of Qatar Foundation. The findings presented are solely the responsibility of the authors.



# Institute for Population Health

---







**Dr. Sohaila Cheema,**  
director of IPH,  
delivers a talk.

**In alignment with Qatar National Vision 2030, IPH works in partnership with local, regional, and global partners in the development and implementation of best evidence-based population health programs and activities with a view to promoting the overall wellbeing of the people in the State of Qatar, the MENA region and beyond.**

**The Institute for Population Health (IPH)** at Weill Cornell Medicine – Qatar believes that population health at both local and global levels are of paramount importance. IPH initiatives facilitate the integration of knowledge across the many factors that influence both health and its outcomes. IPH continues to fulfill its strategic objectives 2015-2020 by supporting and nurturing the development and implementation of programs aimed at population-based health promotion, research and disease prevention initiatives. Additionally, it provides and advances educational opportunities in population health/preventive medicine/integrative health for medical students and health practitioners from Qatar and around the world.



Dr. Ravinder Mamtani, left, and the IPH team.

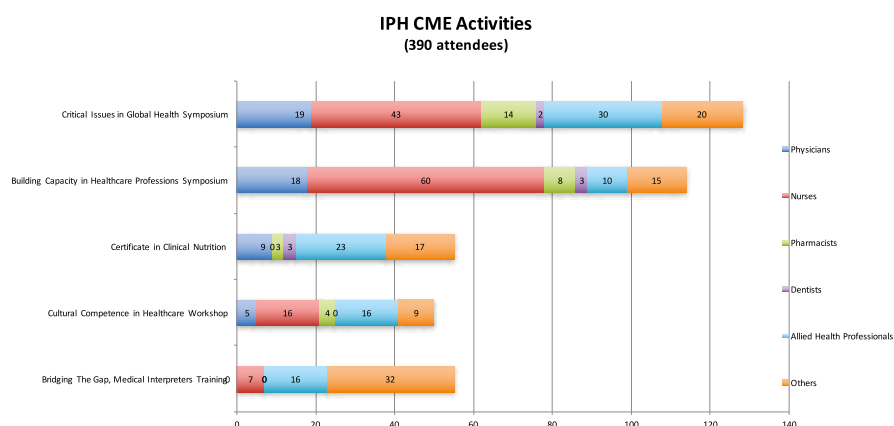
Dr. Ravinder Mamtani, senior associate dean for population health, capacity building and student affairs leads the IPH team. The IPH team members are as follows: Dr. Sohaila Cheema, director and assistant professor of healthcare policy and research; Raji Anand, administration manager; Dr. Karima Chaabna, population health and communication specialist; Dr. Amit Abraham, project specialist, who is a WCM-Q alumni from the Class of 2011, and Ms. Jovita Pereira, administrative coordinator. The Center for Cultural Competence in Health Care is an integral component of IPH led by Maha El Nashar and supported by Huda Abdelrahim.

In alignment with Qatar National Vision 2030, IPH works in partnership with local, regional, and global partners in the development and implementation of best evidence-based population health programs and activities with a view to promoting the overall wellbeing of the people in the State of Qatar, the MENA region and beyond. The institute's research and programmatic activities are focused within the broad areas of education, research, relevant patient-related care and community support.



# Educational Programs and Activities

IPH is actively involved in developing and implementing activities to support the creation of a highly skilled and motivated healthcare workforce in Qatar. In the past year, IPH's continuing education (CE) activities have provided high quality, evidence-based education to approximately 400 healthcare practitioners on a wide range of topics (Figure 1).



## Building Capacity in Healthcare Professions Symposium

Transformative pedagogies in medical education and healthcare professions have changed the traditional approach to building and enhancing health careers, and acquiring skills relevant to healthcare delivery, professions and policy. Building such capacity requires interdisciplinary and inter-professional collaboration. The Building Capacity in Healthcare Professions symposium provided healthcare practitioners and educators with an understanding of how to engage and develop partnerships and become life-long learners with the ultimate aim to enhance population health. The aim was to show delegates that continuous learning and improvement are the basis for capacity building.

The pre-symposium workshops and plenary sessions were held on February 18 and 19 respectively, in collaboration with the divisions of pre-medical education and admissions. Qatar Council for Healthcare Practitioners (QCHP) accredited the activity for 8.5 credit hours.

Workshop topics included: 'Understanding design as a healthcare development resource', by Mr. Peter Martin, the interim chair of graphic design at Virginia Commonwealth University in Qatar; 'A systems approach to capacity building and lifelong learning', by Dr. William Bozeman, University of Central Florida; and 'Social media research and practice in the health domain', by Drs. Luis Luque and Ingmar Weber, of Qatar Computing Research Institute-Qatar. From WCM-Q, Dr. Ravinder Mamtani and Dr. Sohaila Cheema led a discussion about lifestyle medicine, Dr. Alan Weber spoke about narrative medicine and Maha Elnashar and Huda Abdelrahim focused on cultural competence.

At the plenary session, Dr. Javaid Sheikh, dean of WCM-Q, spoke about developing innovation in the training of healthcare professionals, and how trends in climate change, non-communicable diseases, and urbanization are impacting healthcare. Dr. Arthur Hengerer, board chair for the Federation of State Medical Boards, USA spoke about the importance of physician wellness and burnout,

and stressed the need for an open and transparent medical environment, where concerns could be raised without fear in order to protect patient safety. Dr. John Ioannidis, the world-renowned CF Rehnborg chair in disease prevention, and professor of medicine and of health research and policy at Stanford University in the US, discussed the subject of biomedical research. Dr. Ioannidis suggested that biomedical research has endemic problems and that researchers need to be more rigorous in their search for answers.

Both the pre-symposium workshops and the plenary sessions were well attended. The overall feedback received was commendable. Evaluations highlighted several areas of enhanced knowledge, including the importance of lifestyle medicine and its impact on preventing non-communicable diseases, recognizing physician burnout and addressing its consequences, the importance of interdisciplinary professional education, cultural competency in healthcare settings, and the significance of life-long learning for healthcare professionals.



Maha Elnashar leads the Center for Cultural Competence in Health Care.



Drs. Rachid Bendriss, Ravinder Mamtani, Javaid Sheikh, William Bozeman, and Sohaila Cheema.

# Educational Programs and Activities

## Critical Issues in Global Health Symposium

Globally, major health challenges include the increased prevalence of chronic non-communicable diseases, the rising dilemma of mental health issues, inequity in women's health outcomes, the lack of availability of basic healthcare provision, gaps in healthcare professionals' education especially in low-income countries, and widening national and regional health disparities. At the crux of these diseases are unhealthy behaviors and lifestyle factors leading to a large burden of disease affecting low, middle and high-income countries.

The Critical Issues in Global Health symposium, which took place on April 19, 2017 enabled healthcare practitioners to understand the role of lifestyle medicine in addressing the non-communicable disease paradigm, learn about women's health, develop an understanding of the challenges associated with mental health and how the education of healthcare professionals can lead to better provision of healthcare leading to overall improvement of population health. The Accreditation Council of Continuing Medical Education (ACCME) and QCHP accredited the symposium for 3.5 credit hours.

At the symposium, Dr. Suhaila Ghuloum, senior consultant psychiatrist at HMC, spoke about mental health in the region; Mr. Mugisha Imani, the CEO of Reach and Support All in Tanzania, highlighted the importance of screening for non-communicable diseases in Tanzania; Dr. Jennifer Downs, assistant professor of medicine at Weill Cornell Medicine's Center for Global Health in New York, and Dr. Neema Kayange, specialist physician in pediatrics at Bugando Medical Center in Tanzania, inspired the audience with their presentation on promoting women's health and female leadership in global health. Dr. Ravinder Mamtani, senior associate dean for



The symposium (above and right) provided understanding of the role lifestyle medicine can play in addressing non-communicable diseases, among other global health challenges in addressing the non-communicable disease.

population health, capacity building and student affairs at WCM-Q, and Ms. Susan Benigas, the executive director at the American College of Lifestyle Medicine in the US, concluded the symposium by elaborating on the evidence base available for the world to move forward in the direction of lifestyle medicine.

The audience was appreciative of the symposium topics. Areas from which healthcare practitioners benefited most included lifestyle medicine and its application to manage health and prevent chronic disease conditions, the importance of mental health, global health and women's equality and health.





## Certificate in Clinical Nutrition

The increased prevalence of noncommunicable diseases like obesity, diabetes and heart disease is extremely worrying. Healthcare professionals require adequate training and knowledge to deal with this epidemic. In order to inform and equip healthcare practitioners with comprehensive, up-to-date and evidence-based knowledge IPH hosted its second Certificate in Clinical Nutrition course for healthcare practitioners in December 2016 at WCM-Q.

The course, accredited by the Qatar Council for Healthcare Practitioners for 32 credit hours, provided healthcare practitioners with an understanding of how nutrition affects physiological and biochemical systems in the human body, relevant clinical information and skills, and nutrition strategies to prevent disease, manage illness and promote health.

The course duration was 50 hours: an onsite unit of 32 hours and an online self-study unit of 18 hours. The onsite unit comprised lectures and interactive

discussions led by WCM-Q faculty including Dr. Ravinder Mamtani, Dr. Sohaila Cheema, Dr. Amal Khidir, Dr. Badreldeen Ahmed, Dr. Mohamud Verjee, Dr. Moncef Ladjimi, Dr. Rayaz Malik and Dr. Shahradd Taheri, Dr. Mohammed Ilyas Khan of Hamad Medical Corporation, and international experts Dr. Benjamin Kligler, the national director for integrative health at the Coordinating Center for the Veterans Health Administration, New York, Dr. David Reilly, former consultant physician at the NHS's Centre for Integrative Care in Glasgow, and Dr. Albert Lowenfels, of New York Medical College in the US.

The course was fully subscribed within a few days of opening registrations. Participants felt that the course was excellent, well designed and that the teaching faculty were experts in their field. Participants learned new strategies in various aspects of nutrition practice. Post course evaluations highlighted the following areas of enhanced knowledge among the course participants: health benefits of phytonutrients

and probiotics; effect of lifestyle and nutrition and behavioral modification on disease prevention or reversal; importance of plant based diet in disease prevention; herbal and nutritional supplements; evidence base for integrative medicine and the importance of an integrative medicine approach in treating patients; nutritional needs for diabetes and in obesity management; and how to read the nutritional values on food labels.

So far, 108 healthcare practitioners have completed the certificate in clinical nutrition course. Owing to the huge demand, IPH offered the course again in December 2017 at WCM-Q.



The course gave an understanding of how nutrition affects the physiology and biochemistry of the human body.



# Educational Programs and Activities

## Global Health Education and Research Program 2016

The Global Health Education and Research Program (GHERP) is a collaborative program between WCM-Q, the Global Health Office at Weill Cornell Medicine, New York and the Weill Bugando School of Medicine, Mwanza, Tanzania (WBSOM). Syeda Razia Haider and Dalal Hussain, first year medical students at WCM-Q, spent eight weeks during the summer in Mwanza, Tanzania gaining valuable experience in healthcare delivery, public health, research and introductory aspects of clinical medicine and healthcare in a low-income setting. The GHERP program has three main pillars – clinical, research and community-related work in which students get experiential learning.

## Educational Engagements

IPH actively participates in various teaching activities throughout the year to promote healthcare and public health education in the region and beyond. IPH faculty and staff actively participate in the Precollege Enrichment Program and Qatar Medical Explorer Program aimed at providing prospective high school students with an opportunity to explore their intellectual curiosity in a college setting. The Division of Student Recruitment and Outreach host these programs.

Dr. Mamtani presented a talk entitled Lifestyle Changes to the Department of Endocrinology at Hamad General Hospital.

## Health and Disease: A Global Perspective

This two-credit premedical course provides WCM-Q's foundation and pre-medical students with basic knowledge and information necessary to understand key concepts related to health and disease. The course builds upon concepts in natural science courses taught during high school education and personal experiences of the students. Additionally, students are exposed to basic principles of writing a report, memo or opinion editorial on topics of public health importance.

## Population Health and Primary Care Perspectives Elective

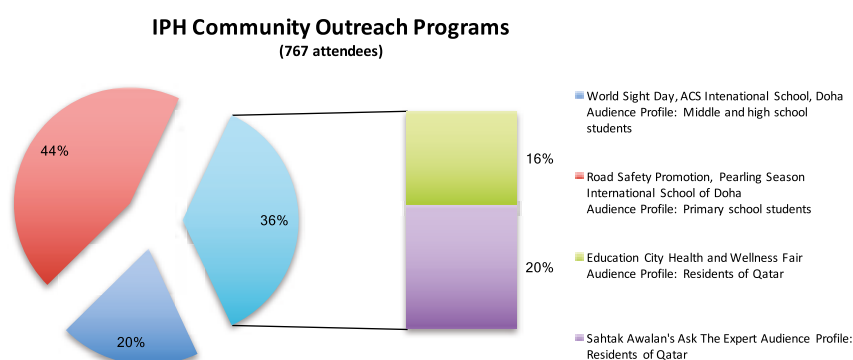
Senior medical students from WCM-Q and around the world are eligible to apply for this four-week elective. During the elective, students are introduced to various global health topics with a special focus on population health and primary healthcare. Dr. Ravinder Mamtani serves as sponsoring faculty for the elective.

## Global and Public Health Internship

This innovative internship program is open to undergraduate students from around the world. Talented high school students who have exhibited a strong interest in healthcare are also considered. The program introduces students to the basic core concepts of global and public health with a view to optimizing their awareness and knowledge in these areas. Dr. Ravinder Mamtani directs the program and Dr. Sohaila Cheema serves as co-director.

## Global and Local Community Initiatives

IPH continues to contribute towards building a healthier population in Qatar and participates in educational and community outreach programs aimed at health promotion and disease prevention for the people of Qatar (Figure 2).



(Figure 2).

### Global Educational Exchange in Medicine and the Health Professions

Global Educational Exchange in Medicine and the Health Professions (GEMx) is a worldwide partnership of exchange in medical education that connects medical schools, students and faculty worldwide administered by the Educational Commission for Foreign Medical Graduates (ECFMG), USA.

WCM-Q currently offers two electives via the GEMx portal (<http://www.gemxelectives.org>): Population Health and Primary Care Perspectives Elective, and Sports Medicine in Primary Care Elective. Dr. Ravinder Mamtani serves as the chair of the GEMx Advisory Committee, while Dr. Sohaila Cheema serves as the manager for the GEMx program at WCM-Q.

Via the GEMx program, IPH welcomed Ms. Faghira Afrina binti Mat Tarmizi, senior medical student from Penang Medical College, Malaysia in November 2016 for the Sports Medicine in Primary Care Elective (four weeks). During the elective, Afrina spent time at WCM-Q, Aspetar and the airport health center. The overall experience went far beyond her expectation and the highlight for Afrina was the sports medicine component, which she greatly enjoyed. Afrina was able to engage with the WCM-Q students, experience a new culture and understand how healthcare was practiced in the State of Qatar.

### Global Health Service Learning Program 2017

For its inaugural global health service learning program in May 2017, IPH selected six WCM-Q first year pre-medical students to spend time at an orthopedic and rehabilitation hospital for two weeks in Ho Chi Minh City, Vietnam. Students also had the opportunity to work with special needs children suffering from genetic and neurological disorders. While shadowing/working alongside healthcare professionals, the program enabled students to examine healthcare system in a lower to middle income country, gain medical knowledge, identify challenges associated in working with special needs children, learn about the Vietnamese culture and engage with the host community.

The students found the experience rewarding. It allowed them to develop empathy, self-reflect and enhance their social and teamwork skills. Additionally, the program enabled the students to discern the meaning of volunteerism and what really is the essence of global service learning. The students felt that the experience they gained is not something which can be taught, and that all students should get an opportunity to experience this first hand.

This IPH and pre medical education collaborative program, under the overall supervision of Dr. Rachid Bendriss, assistant dean for student recruitment, outreach and foundation programs, and Dr Sohaila Cheema, director of population health, will pave the way for additional international student learning opportunities in the years ahead.



Raji Anand, Dr. Ravinder Mamtani, GEMx student Faghira Afrina binti Mat Tarmizi, and Dr. Sohaila Cheema.

# Educational Programs and Activities

## Partner with Communications Division for Sahtak Awalan – Your Health First initiative, Ask the Expert Series

Ask the Expert is a series of interactive health seminars and is part of WCM-Q's Sahtak Awalan: Your Health First initiative, a five-year campaign to encourage individuals of all ages and backgrounds to adopt healthier lifestyles. The 2016-17 cycle consisted of the following talks by WCM-Q faculty (Figure 3):

- September 2016: Dr. Robert Beilke (psychologist – learning specialist) presented on mindfulness, a practice with many health benefits.
- November 2016: Dr. Ziyad Mahfoud (associate professor of healthcare policy and research) discussed emerging trends in tobacco use (shisha and e-cigarettes) in Qatar and the region.
- January 2017: Dr. Mai Mahmoud (assistant professor of medicine) spoke about high blood pressure and all one should know about it.
- March 2017: Dr. Amal Khidir (associate professor of pediatrics) presented on child and adolescent nutrition.
- May 2017: Dr. Aicha Hind Rifai (assistant professor of clinical psychiatry) spoke about depression.

## Education City Health and Wellness Fair

IPH joined the Education City Health and Wellness Fair held on September 28, 2016. The fair took place at Carnegie Mellon University in Qatar in Education City. Members of the IPH team conducted a quiz on nutrition, led an activity aimed at helping the public on reading food labels and presented the latest updates on vaccination requirements for individuals of different ages.

## World Eyesight Day

IPH's Dr. Hekmat Alrouh, projects specialist, and Ms. Raji Anand, administration manager, participated in an educational activity at ACS International School, Doha for the World Sight Day on October 12, 2016 targeted at approximately 150 middle and high school students. Dr. Alrouh presented on the importance of eyesight, the global epidemiology of eye disease, and tips for protecting and maintaining eye health.

## Road Safety Promotion, Pearling Season International School of Doha

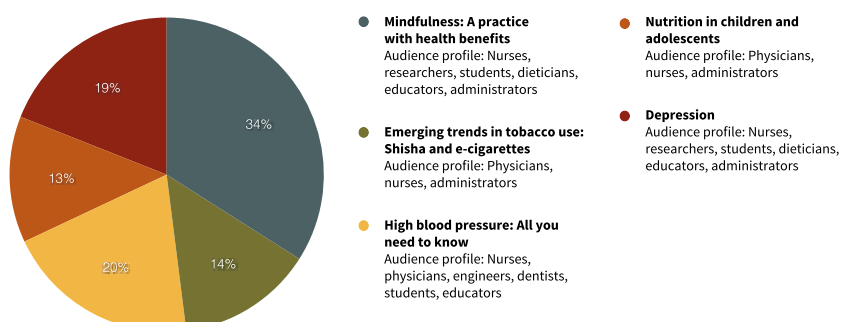
IPH promoted road safety at Pearling Season International School of Doha on December 11, 2017. Dr. Sohaila Cheema, the director of IPH, conducted interactive sessions focusing on healthy road behaviors for students aged 3–7 (178 students) and aged 8–11 (161 students).

## Participation in Committees of Public Health Importance

IPH represents WCM-Q on the following local and national committees:

1. Public Health Committee, Ministry of Public Health: Dr. Ravinder Mamtani (member).
2. Planning Team, National Health Strategy 2017 - 2022, Ministry of Public Health: Dr. Ravinder Mamtani (member).
3. Public Health Strategy Implementation Group, Ministry of Public Health: Dr. Ravinder Mamtani (member) and Dr. Sohaila Cheema (designee).
4. National Oral Health Committee: Dr. Ravinder Mamtani (member) and Dr. Sohaila Cheema (designee).
5. National Workforce Committee, Ministry of Public Health: Dr. Sohaila Cheema (member).
6. Public Health Programs Technical Committee: Dr. Ravinder Mamtani (member).
7. Step into Health in Campuses 2015-2016 by Healthy Lifestyle Program, Aspetar: Dr. Ravinder Mamtani (member).
8. Human Nutrition Advisory Board, Qatar University: Dr. Sohaila Cheema (member).
9. Institutional Review Board of College of the North Atlantic in Qatar: Dr. Sohaila Cheema (member).
10. Health Sciences Department Advisory Committee, Qatar University: Dr. Sohaila Cheema (member).

## Sahtak Awalan's Ask The Expert (157 attendees)



(Figure 3).

## Research

IPH continues to pursue population-based public health research projects with the overall objectives of health promotion, disease prevention and creating a culture of health awareness and wellbeing for the population of Qatar. Collaborating institutions on these research projects include the Ministry of Public Health, Hamad Medical Corporation, Primary Healthcare Cooperation and Qatar Diabetes Association.

In a collaborative study with the Department of Public Health, Ministry of Public Health, IPH published *Prevalence and Determinants of Metabolic Syndrome in Qatar: Results from a National Health Survey in BMJ Open*. Using Qatar STEPwise survey data the study determined optimum measurements for abdominal obesity and to assess the prevalence and determinants of metabolic syndrome in Qatar. Sheikh Dr. Mohammed H. Al-Thani, director of public health, at the Ministry of Public Health, and a principal member of the research team said that this study has given them a better understanding of the prevalence of metabolic syndrome among Qataris and that it will help health professionals target interventions more accurately to address the growing problem of obesity and related conditions, which is a very pressing concern throughout the region.

In another collaborative study utilizing the national STEPS data, researchers from IPH, the Ministry of Public Health, Hamad Medical Corporation and the Primary Healthcare Corporation focused on oral health. The study entitled *Oral Health Behavior and Factors Associated with Poor Oral Status in Qatar: Results from a National Health Survey* and published in the *Journal of Public Health Dentistry* will help healthcare

practitioners to understand the true nature of oral health among Qataris. The study findings can be beneficial in planning appropriate national dental awareness campaigns and aid dentists in better evaluating and managing their patients.

The division's faculty and staff participated in the following oral and poster presentations:

1. International Association for Medical Education Conference (AMEE) in Barcelona, Spain. August 2016 (poster presentation). Promoting and Assessing Cultural Competency in a clinical setting among Medical Students at Weill Cornell Medicine-Qatar (WCM-Q). Authors: Maha Elnashar, Huda Abdelrahim, Ziyad Mahfoud and Stella Major.
2. International Association for Medical Education Conference (AMEE) in Barcelona, Spain. August 2016 (workshop) - Facilitating Global Resident Exchanges and Making Them Happen. Authors: Ahmet Murt (Junior Doctors Network (JDN), Turkey), Klaus Puschel (Catolica Pontificia de Chile), Sohaila Cheema (Weill Cornell Medicine -Qatar), Anna Iacone (ECFMG-GEMx, USA), Marta van Zanten (FAIMER, USA), Ricardo Correa, MD, Resident Fellow, United States, Junior Doctors Network.
3. The Unity For Health, World Summit on Social Accountability Conference in Hammamet, Tunisia. April 2017 (poster presentation). Building Partnerships through Global Educational Exchanges. Authors: Sohaila Cheema and Ravinder Mamtani.

## Center for Cultural Competence in Health Care

The Center for Cultural Competence in Health Care (CCCHC) continues to promote culturally and linguistically appropriate healthcare concepts and practices in Qatar.

## Education

CCCHC presents an Introduction to Cultural Competence session to foundation and premedical students during the Health and Disease: A Global Perspective course at Weill Cornell Medicine-Qatar. Additionally, ten hours of cultural competence training are delivered to medical students. Through didactic lectures, group discussions, interactive exercises and videos, students learn about culture and its impact on healthcare. Topics include diversity and its effect on healthcare, an introduction to cultural competence and its continuum, bias and stereotyping, knowing your community, exploring a patient's perspective, medical interpretation and health disparities. Students are also trained on how to work with a trained/untrained medical interpreter before they start their clerkships. Furthermore, a two-hour OSCE Session is conducted during obstetrics/gynecology clerkship rotation in collaboration with Dr. Moune Jabre, director of the obstetrics/gynecology clerkship. The students are trained through this format to work with patients with limited English proficiency and medical interpreters.



# Educational Programs and Activities

CCCHC assists the Division of Medical Education in providing medical interpretation services to WCM-Q students during their clinical training in HMC hospitals and PHCC centers. This service is provided by trained volunteers from the IPH Bridging the Gap program.

CCCHC supports the WCM-Q new hire orientation to highlight the importance of diversity in the workplace and to introduce the center's vision, mission, activities and services. CCCHC participates in the Qatar Institute for Intercultural Communication (QIIC), a collaborative initiative by Education City Campuses with the Intercultural Communication Institute (ICI) from Portland, Oregon, in the US. CCCHC hosts Cultural Competence in Healthcare workshops (4 hours) to healthcare professionals in Qatar. Six workshops are conducted each calendar year. The workshops are accredited by

QCHP and ACCME for 3.25 credit units, Group Learning Activity (Category 1). CCCHC continues to participate in the Comskil Training module at HMC prepared by Memorial Sloan-Kettering Cancer Center in New York. This is a communication-training program that focuses on end-of-life communication skills and targets HMC residents and specialists. CCCHC contributed to the development and modification of this program in order to customize it to Qatar's healthcare settings and environment. Furthermore, CCCHC teaches cultural competence skills and medical interpretation to students during the first year of the professional skills course at the Faculty of Pharmacy at Qatar University. Bridging the Gap medical interpreters training was conducted by CCCHC for Sidra employees in September 2016.

## Community Outreach

### Bridging The Gap Medical Interpreters Training

Since 2012, biannually CCCHC offers the Bridging the Gap medical interpreters training course. The Bridging the Gap medical interpreters training is accredited by ACCME and QCHP for 32.5 credit units, Group Learning Activity (Category 1). A total number of 200 medical interpreters representing 20 languages have been trained through the program. The trained interpreters volunteer to help WCM-Q students during their practical training at HMC. This significantly helps WCM-Q students to communicate effectively with their patients via trained medical interpreters and enhances their cross-cultural communication skills.

### Research

CCCHC continues to publish peer reviewed papers from the NPRP research grant (NPRP.08-530-3-116) titled, Providing Culturally Appropriate Healthcare Services in Qatar: Development of a Multilingual Patient Cultural Assessment of Quality Instrument.

### Scholarly contributions by CCCHC

1. Abdelrahim H, Elnashar M, Khidir A, Killawi A, Maya Hammoud, Al-Khal A & Fettes M. Patient Perspectives on Language Discordance During Healthcare Visits: Findings From the Extremely High-Density Multicultural State of Qatar. *Journal of Health Communication*. 2017 - DOI: 10.1080/10810730.2017.1296507
2. AlRawi S, Khidir A, Elnashar M, Abdelrahim H, Killawi A, Hammoud M & Fettes M. Traditional Arabic & Islamic Medicine: validation and empirical assessment of a conceptual model in Qatar. *BMC Complementary and Alternative Medicine*. 2017. 17:157 - DOI 10.1186/s12906-017-1639.
3. Bylund CL, Alyafei K, Afana A, Al-Romaihi S, Yassin M, Elnashar M, Al-Arab B, Al-Khal A. Satisfaction with a 2-day communication skills course culturally tailored for medical specialists in Qatar. *J Fam Community Med* 2017;24:122-7. Available at: <http://www.jfcmonline.com/article>.
4. Bylund C, Alyafei K, Anand A, Al Marri A, Omer W, Sinha T, Alam W, Abdelrahim H, Al-Khal A. Implementing and tailoring a western-developed communication skills training program for graduate medical trainees in Qatar. *International Journal of Medical Education*. 2017;8:16-18. Doi: 10.5116/ijme.5856.72b4. 2016. Available here: (<https://www.ijme.net/archive/8/communication-skills-training-in-qatar/>)
5. Book chapter: Elnashar M, Abdelrahim H, Major S., MBBS, FRCGP. Weill Cornell Medicine-Qatar strides to instill Cultural Competence training in the Medical Education Curriculum. Book titled: *Intercultural Competence in International Higher Education* (Routledge) edited by Deardorff & Arasaratnam-Smith. This is part of the Routledge Internationalisation book series with editor Elspeth Jones. 2017. <https://www.routledge.com/Intercultural-Competence-in-Higher-Education-International-Approaches/Deardorff-Arasaratnam-Smith/p/book/9781138693852>.

# Student Recruitment and Outreach

---





# Student Recruitment and Outreach

The Office of Student Recruitment provides quality support to future students, helping them in identifying their interests, developing their skills and talents and engaging them in enrichment programs and activities that enhance their college readiness.

Within the framework of a strategy that aims to prepare and develop prospective students, both academically and emotionally, for college life in general and medicine in particular, the office has been engaged in several cultivation programs. The main goal of these programs is to support the initiatives of the Qatari community to help develop not only students, but also school personnel, administrators and officials.

This year with the launch of the annual e-magazine Cornell Colors and the periodical newsletters, the office attempts to reflect the work of our main collaborators: faculty, staff and students to the wider community. Also, with our first High School Medical Conference that was held in November 2017, we provided additional professional development opportunities for schoolteachers, a conference presentation opportunity for high school students, and a platform for WCM-Q and the participating schools to be showcased to the public.

Alongside these new initiatives, the office continues to develop and implement a yearly local and regional recruitment calendar and is thus far successful in creating a pipeline of qualified and diverse prospective students and applicants.

## Local Recruitment and Outreach

### Qatar Aspiring Doctors Program (QADP)

The QADP is a yearlong program that runs in parallel with the high school academic year, and offers academic and career support to a selected number of Qatari students with strong potential. Nominated through their schools, students have to be highly performing in the sciences and math and to have an interest to explore medicine as a career.

Through online modules developed and taught by our faculty members and staff, as well as face-to-face interactions, students are provided with adequate support to complete modules in biology, physical sciences, English for academic purposes and research skills.

A total of 35 students were invited to take part in this program, 34 of whom are Qatari. Twenty-eight students have successfully completed the program, 12 of whom completed with honorable mentions. A total of 14 students of those eligible to apply in this admissions cycle applied for entry to the college, 10 of whom were offered admissions into our Foundation and Six-Year Medical Program.

### Doctors of the Future Scholarships: Healing Hands Essay Competition

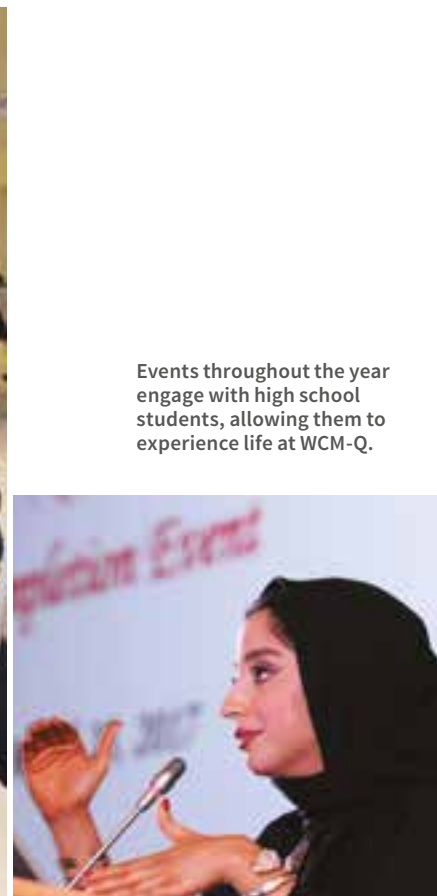
The Qatar Doctor of the Future Scholarships are fully funded, two-week experiences of a life-time at Weill Cornell Medicine in New York City and Cornell University at Ithaca.

Four Qatari high school students from three schools - International School of London, Al Iman Independent School for Girls, and the English Modern School - who won the Healing Hands essay writing competition, received WCM-Q's Doctor of the Future Scholarships as their prizes.

The winners visited prominent research laboratories and spent a week with distinguished Weill Cornell researchers in major New York hospitals. They also spent a week in Cornell University in Ithaca where they learned about reading scientific articles and writing and recording research results. The scholarships also cover the cost of travel for the winners along with one of their escorting parents.

The Healing Hands scholarship program has proven to be a real inspiration for Qatari students, encouraging them to study medicine and help fulfill the goals of Qatar National Vision 2030. The program continues to yield highly qualified, prospective Qatari students who go on to join our Foundation and Six-Year Medical Program.

Six more participants in the essay competition received the judging committee's honorable mentions and 20 received a certificate of participation.



Events throughout the year engage with high school students, allowing them to experience life at WCM-Q.



Qatar Aspiring Doctors Program helps support promising high school students who are interested in a medical career.

# Student Recruitment and Outreach

## Enrichment Programs

### Summer Enrichment Programs (SEP)

Two programs, the Qatar Medical Explorer and the Pre-college Enrichment Programs, were offered to high school students during the summer of 2016. A total of 33 students participated in the Pre-college Enrichment Program, and 36 in the Qatar Medical Explorer Program. Participants in the SEPs this year were predominantly Qatari and long term residents of Qatar, in addition to a number of regional and international students coming from as far Kuwait, Oman and the USA.

Both programs continue to offer students the opportunity to attend pre-medical and medical class simulations, tour Hamad General Hospital, get hands-on experience in laboratories, participate in students' research projects, and prepare for college admissions.

Due to a rigorous application process, mimicking that of the Six-Year Medical Program, the Summer Enrichment Programs have been a great source for identifying talented young men and women who later on enrolled into our Foundation and Six-Year Medical Program. The yield of this year's programs is around 80 percent applications from those eligible to apply.

### Winter Enrichment Program (Winter-QMEP)

Following nominations from their independent schools, the Winter Enrichment Program invited students to join the Qatar Medical Explorer Program (QMEP), during the schools' winter break. This two-week program was conducted with a total of 21 students, 20 of whom were Qatari. Students spent two weeks learning what it is like to train to become a medical doctor at WCM-Q. Pre-medical and medical faculty members, teaching assistants, current students, graduates and staff of WCM-Q, delivered the winter session of the QMEP.



### High School Medical Conference and High School Research Competition

Early in 2017, the Office of Student Recruitment and Outreach announced its first High School Medical Conference for local and international schools in Qatar, as a pilot initiative. The main aim of the conference is not only to raise awareness about the excellent careers that medicine has to offer but also foster a palpable interest in the Science, Technology, Engineering and Math (STEM) tracks. STEM being a top priority for Qatar, the conference will present a great platform to engage top-notch educators across these various disciplines to achieve an integrated approach for high school students to prepare them for the future.

The High School Research Competition is one element of WCM-Q's new High School Medical Conference, a three-part outreach initiative that also comprises a series of professional development workshops designed for teachers and counselors who advise students interested in careers in medicine. The third element is an exhibition entitled Medicine Unlimited, which was held at WCM-Q on November 10, 2017.

In March 2017, 23 student teams from 14 schools presented posters at the High School Research Competition event, with topics ranging from the prevalence of vitamin D deficiency in Qatar, to the impact of type-2 diabetes, to public attitudes to mass transport systems in Qatar, among many others

Fifteen teams were selected by the judging committee, which comprised faculty and researchers at WCM-Q, to present at the High School Medical Conference that was held on November 10 and 11. During the conference, three finalist teams competed to win valuable prizes. First prize in the contest was an



educational trip to Weill Cornell Medicine in New York for the winning students and their school supervisor.

### International Biology Olympiad

In preparation for the International Biology Olympiad that took place in the UK in July, the Office of Student Recruitment and Outreach coordinated - along with the Ministry of Higher Education - the training of 11 students forming the Qatari team that competed in the international competition. With the help of pre-medical faculty and under Dr. Claire McVeigh's supervision, a two-week program involving laboratory sessions was crafted. In addition to Dr. McVeigh, Dr. Majda Sebah, Dr. James Roach, Dr. Dalia Zakaria and Dr. Ghizlane Bendriss also delivered sessions in this program.

### Adopt a School Program

The Adopt a School Program offers a yearlong relationship with high schools in Qatar, providing curriculum support, teacher and counselor training, and workshops targeted at academic counselors and schoolteachers. A series of meetings with key personnel of major feeder schools were conducted to cement the college's relationship with these schools. Dr. Rachid Bendriss, Assistant Dean for Student Recruitment, Outreach and Foundation Programs, continues to serve on the advisory board of the Debakey High School for Health Professions.

This year the Adopt a School Program concluded a very successful school visitation program, attending open days and fairs in Qatar as well as participated in joint activities organized by HBKU.

### Counselors' Workshops, Parents' Nights and School Fairs

In collaboration with Education City branch campuses and HBKU, the Doha Counselors' Day was organized on October 7, 2016 and offered the opportunity for 52 counselors from across Doha to receive campus updates, learn about the application process and receive information about our six-year Medical Program.

In November 2016, two Discover Education City events and two parents' nights were organized in partnership with HBKU and other Education City branch campuses, attracting prospective students, parents and school counselors. The events were both held in the HBKU Student Center.

The Student Recruitment and Outreach team participated this year in the 7th Annual University Fair held in the Qatar National Convention Center in October 2016. The fair was inaugurated by H.E. the Minister of Education and attracted hundreds of local and international higher education institutions.





# Student Recruitment and Outreach

## School Visits, Open Days and Fairs

The Student Recruitment and Outreach team visited 55 local schools and 48 regional schools throughout the year. During the fall, graduating seniors were offered information including admissions requirements and deadlines, along with one-on-one counseling relating to test scores, subject selection, the application process and funding opportunities.

From September to May, the office hosted a weekly open day - amounting to 32 open days in total - which included presentations and campus tours organized for parents, students and interested schools. A typical open day consists of a formal presentation of WCM-Q's programs and admissions requirements, a tour of the college and an interactive activity in the Clinical Skills and Simulation Lab. Additionally, the office responded to an increasing number of online, phone and walk-in inquiries throughout the year.

## Regional Recruitment

The Office of Student Recruitment and Outreach continues to participate in the Discover Education City Regional Roadshow jointly organized with Education City branch campuses. During the fall of 2016, the team visited 48 schools in several locations across the region including Dubai, Sharjah, Abu Dhabi, Al Ain, Kuwait, Muscat, Manama and Amman, and was successful in recruiting a number of highly qualified regional candidates.

As we continue to foster regional relationships with higher education institutions to expand access for highly qualified graduates considering WCM-Q's four-year medical curriculum, WCM-Q representatives attended the New York University health careers weekend to provide a high level of counseling to students interested to pursue their medical study at WCM-Q.

The office also attended Al Najah fair in Abu Dhabi during the fall, and spoke to tens of interested potential applicants from a variety of schools in the UAE.





Students visiting WCM-Q open days get practical experience in the Clinical Skills and Simulation Lab.

# Admissions





# Office of Admissions

**The success of WCM-Q continues to grow, leading to strong competition from applicants for a place at the institution. This Office of Admissions report for the year 2016-2017 summarizes the new integrated Six-Year Medical Program, the admissions process, expected incoming students and their demographics, admissions workshops, new appointments and the student information system utilized by the Office of Admissions.**

## Six-Year Medical Program

Dr. Javaid Sheikh, dean of WCM-Q, announced the new Six-Year Medical Program in November 2014. This program integrates pre-medical and medical curricula into one cohesive and unified Six-Year Medical Program. The successful completion of this program leads to the award of the Cornell University Doctor of Medicine degree.

The third class of the Six-Year Medical Program joined WCM-Q in August 2017. These students will not have to take part in a separate admissions process upon satisfactory completion of the pre-medical curriculum in order to continue their studies at WCM-Q. Rather, the students will progress through the Six-Year Medical Program according to advancement criteria, which include academic performance, professionalism and commitment to the profession of medicine. The four-year medical curriculum component of the Medical Program remains available to external applicants who have completed a baccalaureate program at other colleges or universities from around the world.



There were 411 applications to join WCM-Q for Fall 2017.

## Admissions Process

WCM-Q seeks applicants who uphold the highest academic and personal standards. To this end, the admissions procedure is designed to identify the best qualified applicants from a diverse range of academic and personal backgrounds, with final decisions on the suitability of applicants for each program made by the Committee on Admissions.

The committee, appointed by the dean of WCM-Q, is composed of members of the faculty. The dean also appoints to the committee student representatives and ex-officio members as appropriate. The Office of Admissions continues to support the Committee on Admissions in their use of a holistic and balanced approach to select a diverse and academically well-prepared entering class.



The Foundation Program helps prepare students for the Six-Year Medical Program.

## Incoming Students

During the 2016-2017 academic year, 411 applications were submitted for Fall 2017 admission to the six-year Medical Program. Of the 411 submitted applications, the Committee on Admissions accepted 48 students directly into the program. A further 11 students were promoted from the Foundation Program into the Six-Year Medical Program.

As of June 2017, we are expecting 54 students to enter the Six-Year Medical Program starting in August 2017. The entering class is composed of students of 16 nationalities, with approximately 61 percent of those students making their home in Qatar. Of the 54 students, 10 (19 percent) are Qatari citizens.

Admission was offered to 23 candidates for the Foundation Program for Fall 2017 entry. As of June 2017, we expect all 23 students to enroll in the program. Of these students, 18 are Qatari citizens (78 percent). The WCM-Q Foundation Program is a one-year program that allows students to study the relevant subjects, in addition to helping them further develop their study skills and critical thinking abilities, in preparation for entry to the Six-Year Medical Program. The Foundation Program has been very successful and continues to yield positive results.

This year there were 43 applications for admission to the four-year Medical Curriculum component of the Medical Program by candidates who completed a baccalaureate program at other colleges or universities from around the world. Of these, seven were accepted, and, as of June 2017, four are expected to enroll in August 2017, representing four nationalities, including one Qatari citizen. Three students are graduates of Carnegie Mellon University in Qatar and one is a graduate of the American University in Cairo.

# Office of Admissions

As can be seen from the table shown here, of the 81 new students who are expected to join WCM-Q's Foundation, six-year and four-year Medical Programs, 29 (36 percent) are Qatari citizens. The remaining students have diverse cultural and ethnic backgrounds and come from many countries around the world. The data indicates a strong interest among Qataris to pursue a medical education at WCM-Q.

**Total Number of Students Expected to Join WCM-Q Programs in 2017\***

	<b>Total</b>	<b>Qatari Citizens (%)</b>
Foundation Program	23	18 (78%)
Six-Year Medical Program	54	10 (19%)
Four-Year Medical Curriculum	4	1 (25%)
<b>Total Number</b>	<b>81</b>	<b>29 (36%)</b>

\* These numbers are based on estimates available as of June 2017

## Admissions Workshops

During the 2016-2017 Academic Year, the Office of Admissions hosted two major workshops for applicants applying for Fall 2017 entry to provide additional guidance in the admissions process to the six-year Medical Program.

The first workshop, 'First Step Towards a Complete Application', was held on December 6, 2016, and covered the online application process. Thirty-five applicants attended this workshop.

The second major workshop, 'Next Steps Towards a Complete Application', was held on February 7, 2017. Topics discussed in the workshop included required documentation for a complete admission file, interviewing tips, and other relevant areas of common interest. Sixty-five applicants attended this workshop.

The Office of Admissions will continue to enhance the scope and quality of these workshops in the upcoming admissions cycles to help applicants gain a better understanding of the overall admissions process at WCM-Q.

## New Appointments/ Staff Updates

During the 2016-2017 Academic Year, the Office of Admissions went through a couple of changes in personnel. Dr. Ravinder Mamtani was promoted to the position of Senior Associate Dean for Population Health, Capacity Building and Student Affairs.

Additionally, Ms. Buran Al-Zu'bi was promoted to the position of Admissions Officer. She now works alongside the other Admissions Officer and other colleagues in the Admissions team.



Buran Al-Zu'bi



## Student Information System

The application software Jenzabar-EX, which was launched in September 2013 in strong collaboration with the Educational Computing Team, was once again utilized very effectively this year. The system allows WCM-Q to capture student information from the point at which an applicant makes their initial inquiry through to the moment they become a graduate of the college. The Office of Admissions continues to use the system to improve its efforts to provide appropriate guidance and timely processing of all applications. This in turn continues to allow and facilitate timely and careful review of applications by the Committees on Admissions in each admissions cycle.



# Student Affairs





# Division of Student Affairs

The Division of Student Affairs (SA) supports the academic, personal and professional growth and development of all WCM-Q students.

The core services provided by the division are coordinating and implementing orientation programs/ special events; student academic counselling; personal and career counselling; alumni support; registration and academic record-keeping through the Office of the Registrar; and administrative support to all pre-medical and medical student organizations. In partnership with Qatar Foundation, the division also provides support to students seeking to secure residency permits, housing, local health insurance, international visas and exit permits.

## Student Life

### Orientation Programs

In collaboration with the pre-medical program, SA hosted a four-day orientation program for the new foundation and pre-medical students in August 2016. The orientation program aims at welcoming new students to the campus, the administration, faculty, staff, and introducing them to each other. With the collaborative efforts of the student orientation leaders, student ambassadors and Medical Student Executive Council in Qatar, the students engaged in interactive sessions to develop pride in their new WCM-Q community as well as understand their academic requirements. Students also participated in different activities and icebreakers that focused on teamwork, cooperation, cultural awareness and communication skills.

To increase students' awareness of the WCM-Q community, they participated in service activities during the program orientation days; students hosted the custodial staff and security guards for lunch where the students served the food and presented their guests with gifts as a token of appreciation. In addition to that, they collected, sorted, and packed donations from the college for donation to Qatar charities.

Similarly, the Divisions of Student Affairs and Medical Education hosted a four-day orientation for incoming medical students. The members of the Class of 2020 participated in a series of programs and activities to introduce them to the medical curriculum, medical training, professionalism, the teacher-learner environment and other topics.

Students also engaged in a community service activity in which they visited Qatar Cancer Society. During the visit students met with the staff and doctors and learnt about the society's programs and the services they provide to cancer patients in Qatar. The visit helped students begin to connect with their chosen profession and develop a deeper understanding of their role in treating patients, and not just their diseases.

At the end of the week, the 40 students of the medical curriculum received their first stethoscopes and white doctors' coats during the Opening Exercises ceremony. More than 500 guests attended the event and celebrated the new students of the Class of 2020. Dr. Moune Jabre, assistant professor of clinical obstetrics and gynecology, delivered the keynote speech.







Orientation is a chance to welcome new students to the college and introduce them to the WCM-Q community.





# Division of Student Affairs

## Student Clubs and Activities

The students of WCM-Q are very active outside their classrooms; according to their interests, they gather, establish and lead different specialized clubs and organization ranging from sports clubs to charitable and humanitarian clubs. Currently, WCM-Q has 29 officially recognized clubs and organizations, including: Student Research Association, Reach out to Asia, Cornell Debate Club, Music Club, Pediatric Interest Group, The Qatari Club, Men's Basketball, Women's Basketball, Global Health Club, Emergency Medicine Interest Group, Men's Soccer, Oncology Interest Group, The Medical Student Executive Council, Student Interest Group in Neurology, Family Medicine Interest Group, Obstetrics & Gynecology Interest Group, The Running Club, Spot Lights, Film Club, Photography Club, Cricket Club, Muslim Student Association, Psychiatry Student Interest Group, Student Support Group Organization, Hematology and Oncology Interest Group, Badminton and Volleyball Club, Spoken Word Poetry Society, Food Society and Rad Society.

The Medical Student Executive Council (MSEC-Q) is the student governing body of the college. Comprising members of the college's leadership and four representatives from each of the seven classes, from foundation to the fourth year of the Medical Program, they are vital for supporting and advocating for student interests. They work closely with SA and other divisions to implement ideas students have regarding services, food, space and curriculum. MSEC-Q hosted the annual Dean's Town Hall with Dr. Javaid Sheikh, dean of WCM-Q in February 2017. Students look forward to the annual event, where they voice concerns, ask questions, and learn more about the college's strategic long-term plans.



International Night highlights the different cultures of WCM-Q's students.

MSEC-Q also hosts a number of annual events to celebrate the culture and diversity of the WCM-Q community such as International Night, Club Fest, Basant and the Med Gala. International Night showcases the different nationalities and culture of the college's students, faculty and staff through food and costumes. The program includes performances that represents the different cultures through dances, songs, music and wedding parties. The audience vote for the best performance at the end of the event.

The Debate Club is a very active club. Members participated in the World Universities Debating Championship held in December 2016 in the Netherlands; they won the Qatar Universities Debate League for the second year running, and they were finalists in the Qatar Debate National Debate Tournament and the regional Debate Tournament held at New York University Abu Dhabi. Some members were also ranked in the top ten speakers at this year's Qatar Universities Debate League. In November 2016, student debaters and their peers at WCM-Q raised 50,000 QAR to provide support for refugees in Syria.



The club participated in QU Open, which is Qatar University's open debating tournament; the novice team won the competition in the novice category and one of the debaters won the award for best novice speaker.

In March 2017, the Global & Public Health Club and the Muslim Students Association, in collaboration with Eid Charity, organized Charity Week. Charity Week aimed to raise funds for Syrian refugees and other people in need. The week included soccer competitions between faculty and students, film screenings, an 'escape room' and karak night. The two clubs raised QR 19,910.



A number of social events are held every year at WCM-Q.

### Recognition of Academic Achievement

Pre-medical students who achieved academic excellence in the fall 2015 and spring 2016 terms were inducted onto the Dean's Honor List at a ceremony held at Hamad Bin Khalifa University Student Center. In the fall 2015 term, 24 first-year and ten second-year pre-medical students attained GPA scores of 3.75 or above to make it onto the honor list. In the spring 2016 term, 12 first-year and ten second-year pre-medical students qualified for the list. The ceremony also recognized the achievements of four foundation students who were honored for academic excellence over the past year. Several pre-medical students celebrated a double success as they qualified for the honor list in both terms. The event was attended by students' families and friends, WCM-Q staff and faculty.

### Counseling and Academic Advising

Committed to creating a nurturing environment to optimize student learning, the Academic Counseling Team offers student academic, personal and career support. They provide vital workshops, seminars, and individual counseling with students to foster the development of study skills and effective time-management. The counselors also assist students with registration for standardized exams (MCAT and USMLE); develop their medical school interviewing skills; and provide guidance in preparing personal statements and resumes. They also conduct structured academic advising committee meetings and coordinate psychological, psychiatric, and other referrals as needed.

The Registrar's Office continues to support WCM-Q graduates by responding to requests for transcripts, graduation documents and documents required by the Ministry of Public Health.

### Financial Aid and Scholarship

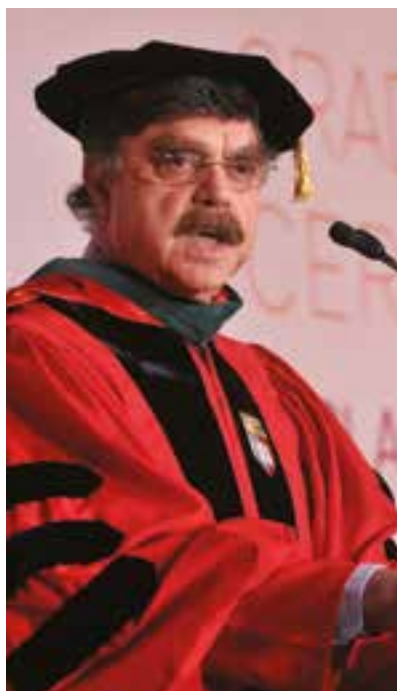
WCM-Q selects students on merit only, and the Committee on Admission screens, evaluates, and accepts students without knowledge of their ability to pay. Students who require financial assistance apply directly to HBKU's financial aid program. Depending upon their citizenship, several avenues of financial assistance are available to WCM-Q students. Qatari students may be sponsored by Sidra, or by the Qatari government through the Higher Education Institute. Sponsored students are usually provided with tuition assistance as well as a stipend to cover their books, supplies, and other costs. Hamad Medical Corporation, the Ministry of Administrative Development, Labor and Social Affairs have also recently developed a sponsorship program specifically for Qatari nationals who are studying at WCM-Q. Non-Qatari students can also apply for Sidra sponsorship, but most are self-funded or apply to QF for financial assistance through an interest-free loan program. In addition, QF may offer a number of merit scholarships per year for students who have completed one year of the Medical Program.



# Division of Student Affairs

## Graduation & Convocation

The annual senior honors convocation recognizes the academic achievements of graduating students. Awards were given based on outstanding performance in courses and clerkships as well as in research and community service. At the graduation ceremony on May 3, 2017, 45 students took the Hippocratic Oath and received their diplomas. While 26 graduates will pursue their residency training in the United States, the rest will either pursue residency training at Hamad Medical Corporation or pursue research or other additional training. In addition, 33 graduates of the Class of 2017 graduated side by side with their peers from the New York campus in Carnegie Hall on June 1. Later that night, a dinner was held at the Almayass Restaurant to honor the graduates and their families.



Dr. Javaid Sheikh addresses the graduation of the Class of 2017.



ClubFest encourages students to participate in extracurricular activities.

## Community Engagement

### ClubFest

In collaboration with Student Affairs, MSEC held the 5th annual Club Fest on October 5, 2016. The event aims to encourage new and current students to engage in extracurricular activities. Representatives from existing and new clubs set their exhibitions to reflect their vision, goals and accomplishments. The clubs' representatives interacted with the participants through games, activities, competitions, posters and media. The Division of Student Recruitment and Outreach, as well as Student Affairs, hosted tables to raise awareness about their services and programs. External organizations who expressed their interest in recruiting students for activities such as Challenge 22 and Qatar Debate also hosted tables during the event. The event was very successful; more than 150 participants of students, staff and faculty attended the event and eight new clubs were registered.

## Health and Wellness

The Health and Wellness team provides a safe, confidential, and culturally sensitive environment for students to address academic, emotional and social concerns, as well as to gain the skills and insights necessary to overcome adversity and thrive in their life and learning. A wide range of services are offered including individual counseling, diagnostic and learning assessments, self-help resources, student advocacy, referrals to care, student support services, training workshops, and activity based interventions. Over the course of this academic year, the team conducted depression and anxiety screenings and also led workshops on resilience and coping, communication, and disability awareness. We provided a holistic approach and conducted mindfulness sessions every week that were open to the WCM-Q community. We also sponsored and supervised the training and implementation of a student peer-to-peer support group. In addition, the team promoted health and wellness by participating and collaborating with various members of the community in and outside of Education City. For



Sonia Alouch, Noor Tarifi and Farah Bshesh at Stand Up Speak Out.

example, we sponsored the national Step Into Health program for WCM-Q, contributed to the Doha-wide Health and Wellness Fair at Education City, and promoted the domestic violence bystander program Stand Up and Speak Out. We are particularly proud of the WCM-Q involvement in the latter as the majority of students trained in bystander intervention and those participating in the Education City celebration were from WCM-Q. The team also presented mindfulness, self-care, disability, and crisis response training sessions locally as well as at an international student affairs conference. Further, the team created and implemented the WCM-Q Disability Accommodation Policy and a campus-wide crisis response plan to better support and advocate for student success.



Dalal Hussein talks about her experiences in Tanzania.

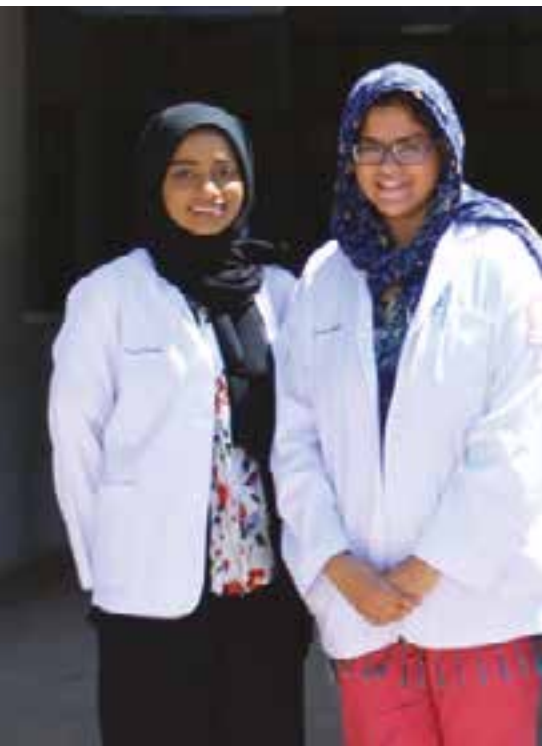
#### **International Service Learning and Community Service**

WCM-Q and Weill Bugando Medical Center in Mwanza, Tanzania have established a strong collaborative relationship, which is enhanced by multiple student exchange and service learning experiences throughout the year.

In August of 2016, eight pre-medical students traveled to Tanzania to take part in a service learning trip. Participants partnered with a local organization, Reach And Support All, to screen the Mwanza community for hypertension and diabetes. Over three days, stationed in the central Mwanza market, they screened 920 patients. Later on, the team partnered with a local youth football group who provides football training and social support to local street children. The WCM-Q team taught the children how to care for wounds, team-building and leadership through scenarios and games. Additionally, in order to provide a true bi-directional learning experience, the street children then taught the students how to play football, which was an amazing experience for the group as the street children football team from Mwanza is very highly respected worldwide, previously winning the Street Child World Cup. At the end of the trip the participants visited a local orphanage and provided painting services and interacted with the children.

For the second year, WCM-Q hosted a group of five Tanzanian students from Weill Bugando medical Center, and one faculty chaperone for one week in Doha in October 2016. During their stay, the team met with WCM-Q faculty, students and staff and had the opportunity to learn about and participate in the WCM-Q curriculum, observe clinical encounters with WCM-Q students on core clinical rotations, learn about and experience various educational methods including problem-based learning, simulation, and objective structured clinical observation (OSCE) exams. The team also had a tour of Education City and Doha's Souq Waqif, and listened to a brief about the Qatari culture.

In February 2017, a team of six medical students travelled and visited the Weill Bugando Medical Center in Mwanza-Tanzania. During their stay the team worked alongside local medical students and medical residents from NewYork-Presbyterian Hospital in the US. The students again provided volunteer service work for Tanzanian organization Reach And Support All. The team was joined by Swahili-speaking volunteer health care workers and screened more than 1,200 inhabitants who came to one of three mobile clinics, which were set up near schools in the district of Sengeremo and the market place in Mwanza city. The screenings involved a brief cardiac risk-factor assessment, a height and weight check to determine the body mass index, and measurement of blood pressure and blood glucose levels. Patients were counseled on modifiable risk factors, and were referred on to receive further care when necessary.



Participating students visit Weill Bugando Hospital in Tanzania.



# Division of Student Affairs

## Alumni Development

As of May 2017, we have 301 WCM-Q alumni. Alumni regularly engage with the college through visits, speaking with students, and participating in formal college events, such as residency training symposia, orientation programs and the Dean's Honor List Dinners. Dr. Muhamed Baljevic (Class of 2010), a hematologist and oncologist at the University of Nebraska Medical Center visited Doha in September 2016. During his stay Mohamed participated in WCM-Q Ground Rounds and discussed his research in multiple myeloma, a form of blood cancer and was the keynotes speaker for the Dean's Honor List Dinner on September 22.

WCM-Q's alumni have continued to serve as excellent ambassadors for the college over the past year, notching up a series of impressive achievements in their residency programs, in various fields of research, and by winning prestigious awards.

Our alumni not only act as wonderful ambassadors for WCM-Q but also provide inspiration for our current students. As such, Student Affairs maintains strong links with our alumni in order to share news of their achievements with the WCM-Q community.

Alumni who have shared their successes with us over the past year include:

### Dr. Zahrae Sandouk

Dr. Sandouk, from the Class of 2011, completed her residency at Henry Ford Hospital from 2011-14, which she followed with a fellowship in endocrinology at Cleveland Clinic from 2015-16. Dr. Sandouk's talent and dedication to her role led to her being made chief fellow in the Department of Endocrinology at Cleveland Clinic in the second year of her fellowship – a remarkable achievement and a testament to the quality of the training and mentorship she received during her time at WCM-Q.

Dr. Sandouk's success in her residency and fellowship programs was rewarded in 2016 when she was appointed clinical assistant professor at the University of Michigan, one of the leading hospitals in the US, where she specializes in endocrinology, diabetes and metabolism.

### Dr. Yazan Abou-Ismael

Class of 2014 alumnus Dr. Abou-Ismael, who is in the third and final year of internal medicine training at Rochester General Hospital in Rochester, New York, had his research abstract named among the best by the American Society of Hematology at its annual conference in late 2016.

The event is the premier and largest hematology conference in the world, attended annually by around 20,000 attendees. Dr. Abou-Ismael's abstract on his research into von Willebrand's Disease, a hereditary bleeding disorder, was chosen among the best six from almost 200 competing submissions. Consequently, he then presented his abstract in front of an audience of 400 specialists and was presented with the abstract achievement award for the research. The next step in Yazan's career is to specialize in hematology and oncology.

**Dr. Emad Mansoor**

Class of 2014 alumnus Dr. Emad Mansoor has been blazing a trail in the world of gastroenterology research, having been awarded three prestigious prizes.

Dr. Mansoor, who recently completed his third and final year as an internal medicine resident at Case Western Reserve University/University Hospitals in Cleveland, Ohio, was presented with the American Gastroenterology Association's Early Stage Investigator Award, in May 2016 for his population-based study into risk factors for pancreatic cancer following new-onset diabetes mellitus.

He followed that success with two further research awards, both of which were presented to him at the American College of Gastroenterology Annual Scientific Meeting in Las Vegas in October 2016. The first of these was the Fellows-in-Training Award for his research study into the prevalence of eosinophilic gastritis, gastroenteritis and colitis in the US. This award is presented to only 30 awardees from a field of more than 2,000 submitted abstracts. Dr. Mansoor also won the Presidential Poster Award for the same study.

Emad has now moved on to the next stage in his career, having begun a fellowship in gastroenterology and hepatology, also at Case Western Reserve University/University Hospitals.

**Dr. Mohamed Elshazly**

Dr. Elshazly of the Class of 2010 is now a cardiology fellow at the world-renowned Cleveland Clinic. He recently won two research awards for his research on lipids and cholesterol.

The first of these was the Robert and Suzanne Tomsich Research Award, which is presented by the Cleveland Clinic Cardiovascular Medicine Fellowship to a cardiology fellow who has demonstrated excellence in research.

He also won first place in the Clinical Lower Award category, which is presented by Cleveland Clinic to encourage original investigation and professional excellence in the preparation of scientific papers. Dr. Elshazly received the award for his manuscript entitled Implications of Total to High-Density Lipoprotein Cholesterol Ratio Discordance with Alternative Lipid Parameters for Coronary Atheroma Progression and Cardiovascular Events.

**Dr. Ayman Al Jurdi**

Class of 2015 alumni Dr. Ayman Al Jurdi has been named chief resident of the internal medicine residency program at NewYork-Presbyterian/Weill Cornell Medical Center for the 2017-18 academic year. This achievement follows another remarkable success for Dr. Al Jurdi, who was named intern of the year in 2016 from a cohort of more than 50 residents.

**Dr. Shehryar Khan**

Since his graduation with the Class of 2015, Dr. Khan has been a resident physician in the Department of Psychiatry at the Henry Ford Health System in Detroit, Michigan. His dedication to his patients and excellent overall performance in his role has now led to him being appointed chief resident for the 2017-18 academic year.

**Dr. Jawad Al-Khafaji**

Class of 2011 alumnus Dr. Al-Khafaji has embraced the spirit of innovation and entrepreneurialism by developing a new invention – an automatically aspirating syringe. Dr. Al-Khafaji, who is assistant professor of medicine in the Department of Internal Medicine and director of the Academic Nocturnist Program at Virginia Commonwealth University School of Medicine in Virginia, developed his prototypes using a 3D printer with the help of colleagues in the VCU School of Engineering. He has now applied for a patent for his invention, which he hopes can be commercialized and will eventually help to make central line procedures safer and more efficient.

# Community Development

---







# Outreach

## Her Highness celebrates with Sahtak Awalan

WCM-Q celebrated the fifth anniversary of its innovative and health campaign Sahtak Awalan: Your Health First in the presence of Her Highness Sheikha Moza bint Nasser, Chairperson of Qatar Foundation.

The event took place in October 2016 and told how, in the five years that it has been operating, Sahtak Awalan has made a real impact on the health landscape of Qatar, influencing and educating the community to lead healthier lives for the benefit of their health and wellness. There has also been a major focus on the nation's youth, advocating preventative measures that will help the next generation stay healthy and rise to the challenges of Qatar National Vision 2030. VIPs including Her Highness Sheikha Moza, heard the story of the campaign, from its inception to its future plans.

The audience, which included more than 1,000 schoolchildren who have acted as ambassadors for the Sahtak Awalan campaign, heard how the campaign was inspired by WCM-Q's mission to improve healthcare both now and for future

generations, and by the specific health issues affecting Qatar, namely diabetes and obesity. They also heard how Sahtak Awalan has promoted prevention and small lifestyle changes that could be easily achieved yet would make a big difference to people's health and that of their families by preventing disease from striking.

During the event, the audience was told about the campaign's achievements with figures and facts and many successes along with hearing its future five-year strategic plans to building up on the success.

Launched in 2012 in association with the Ministry of Public Health, Sahtak Awalan's strategic partners include Qatar Foundation, the Ministry of Education and Higher Education, Occidental Petroleum, and ExxonMobil.

Programs launched by Sahtak Awalan include Project Greenhouse, The Challenge, Yalla Natural, The Color Run, the Poster Competition and Your Healthy Canteens.

## Nurturing Foundations

WCM-Q and Sahtak Awalan – Your Health First took on their most innovative and challenging program to conduct research and provide expert, independent advice to ensure the nutritional health of laborers working on the World Cup 2022 projects.

Under the Nurturing Foundations program, the Supreme Committee for Delivery & Legacy, which is leading the preparations for the World Cup, appointed WCM-Q to collect data, make recommendations and deliver change to ensure the health of all laborers working on the football stadiums for the event. WCM-Q provided a team of researchers to monitor the health of the manual workers - the majority of who come from Nepal and India - and ensure their nutritional requirements are met. Measurements including blood pressure, cholesterol levels and heart rate have all been taken as the Supreme Committee for Delivery & Legacy works to uphold the exacting standards they themselves have set on worker welfare. Any laborer who is found to have an undiagnosed, serious health condition is being helped to access the appropriate treatment.



HH Sheikha Moza bint Nasser, Chairperson of Qatar Foundation, with representatives from YHF's partners.



Each laborer involved in the project was interviewed to assess their lifestyle and knowledge of health issues.

There are currently 5,000 laborers working on the Supreme Committee's World Cup sites and for the pilot, 1,000 of them have been involved in the Nurturing Foundations program, the duration of which will initially last for 14 months. Following on from the initial medical check-ups, WCM-Q is assessing the changes that need to be made to the meals provided to the men. These meals include breakfast, a packed lunch and an evening buffet, all of which are provided for free. WCM-Q is also introducing a multi-lingual campaign to ensure that those working on the stadiums understand the need for good nutrition and the implications of excess sugar, fat and processed food in the diet.

The aim of the Nurturing Foundations program is to develop new and existing initiatives that will increase health and safety within workers' accommodation and on construction sites and to protect and improve the health and fitness levels of the laborers. The Supreme Committee already has stringent health and safety guidelines in place for World Cup workers to which contractors must adhere. These include everything from stipulations about the quality of accommodation provided, to rules about laundry and accessibility to the internet. By working with outside institutions like WCM-Q, though, the Supreme Committee wants to consult experts in their field.



# Outreach

## The Color Run

Sahtak Awalan: Your Health First brought The Color Run to Qatar for the third time in the biggest and most colorful staging of the event yet.

Held at Qatar national Convention Centre, more than 8,000 runners completed the 'Happiest 5K on the planet' and got coated from head-to-toe in a tropical array of colors each kilometer of the course until the finish line.

Participants included the young and old, veterans and first-time Color Runners, who walked, jogged or ran the five-kilometer course. Runners were then treated to the Finish Festival, featuring music and massive color throws. The aim was to demonstrate that everyone can exercise, no matter what their current physical fitness, and that exercise can be fun.





Nesreen Al-Rifai receives the award from Engineer Ahmed Al Abdullah.



Yalla Natural helps teach families about health, nutrition and sustainability.

### **Qatar Sustainability Award**

Sahtak Awalan - Your Health First won the Qatar Sustainability Award in the University Initiative category in a scheme run by Qatar Green Building Council (QGBC).

The awards recognize organizations that have made outstanding contributions to sustainable initiatives in Qatar in the past year.

Your Health First, which was launched in 2012 to encourage and empower people in Qatar to adopt healthy lifestyles, is founded on principles of sustainability and respect for the environment. The campaign runs a series of initiatives that directly engage the community of Qatar in activities that promote both sustainability and healthy behaviors, with a special focus on young people. The University Initiative award was presented to Nesreen Al-Rifai, Chief Communications Officer at WCM-Q, by Engineer Ahmed Al Abdullah, Board Member at QGBC.

### **Yalla Natural celebrates National Day**

Thousands of children visited the Yalla Natural trailer and learned about healthy lifestyles as WCM-Q's health campaign celebrated Qatar National Day.

Yalla Natural, which is part of the wider community campaign Sahtak Awalan – Your Health First, was invited to participate in the Qatar Foundation tent at Darb Al Saai as part of the National Day celebrations.

Along with the Yalla Natural truck, visitors were able to plant their own fruit and vegetable seeds and make their own healthy smoothies on the blender bikes. Dr. Javaid Sheikh, dean of WCM-Q, said it was a great honor to be able to celebrate Qatar National Day at Darb Al Saai, and a wonderful opportunity to take the message about healthy lifestyles to the community.

Visitors were also able to see cookery demonstrations that transformed healthy ingredients into delicious meal suitable for all the family. Parents could also take away recipe cards to try at home.

In all, Yalla Natural was visited by thousands of schoolchildren along with their teachers, and they were full of praise for the campaign.



# Outreach

## MOU signed with QBGC

Sahtak Awalan - Your Health First, the public health campaign of WCM-Q, has signed a Memorandum of Understanding with the Green Life initiative of Qatar Green Building Council (QGBC).

Your Health First and Green Life will work together to raise awareness of the impact that the built environment has on public health, promote sustainable health and environmental practices, and collaborate on joint research projects to improve understanding of the link between the environment and good health.

The five-year Memorandum of Understanding was signed by Engineer Meshal Al Shamari, QGBC director, and Nesreen Al-Rifai, WCM-Q's chief communications officer, at the Qatar Green Buildings Conference, which was held at Qatar National Convention Center during Qatar Sustainability Week.

## The Poster Competition

Students from middle schools across Qatar learned vital messages about protecting their health when they took part in a poster competition organized by WCM-Q's Sahtak Awalan – Your Health First campaign.

More than 350 students from 35 middle schools participated in the Sahtak Awalan Poster Competition, which challenged them to research a pressing public health issue and then present their findings in poster form. In total, more than 420 posters were submitted to the contest.

After the posters were judged by a panel of WCM-Q physicians and faculty members, 25 students from eight schools were awarded trophies and mountain bikes for the exceptionally high standards of their posters. Certificates of Achievement were presented to all participating students and student coordinators in acknowledgement of the very high standard of all entries.

The eight schools with students that were awarded trophies and mountain bikes were Salah Eddine Al Ayoubi Independent Preparatory School for Boys, Al Ahnaf Bin Qais Independent Preparatory School for Boys, Audio Complexe Center for Boys, Audio Complexe Center for Girls, Al Hammad International Developed School, Al Manar International School, Qatar Leadership Academy, and English Modern School Al Khor.

Students presented posters on a wide range of health topics, including road safety, the dangers of smoking, obesity, the health risks associated with poor diet, the increasing prevalence of type-2 diabetes, and the negative impact on health of excessive consumption of refined sugar, among many others.



The winners of the YHF Poster Competition with Dr. Mohamud Verjee, WCM-Q's assistant dean for medical student affairs.



Students from Qatar Leadership Academy claimed first prize in Project Greenhouse 2017.

## Project Greenhouse

A vast array of fruit and vegetables were grown by children learning about health, nutrition, science and sustainability. The students all took part in Project Greenhouse, an initiative from Sahtak Awalan – Your Health First that is designed to teach children not only where their food comes from, but also the types of food they should be eating to stay healthy and to avoid diabetes and obesity when they are older. Each year the 101 schools that have received a greenhouse from Your Health First compete to see who has the best harvest.

The winners for 2017 were announced in May, with Qatar Leadership Academy, member of Qatar Foundation for Education, Science and Community Development in Al Khor claiming first prize by not only producing a bumper harvest, but also incorporating the greenhouses into a multitude of different lessons and community projects. Umm Salal Ali Model Independent School for Boys came second, and Omar Ibn El Khatab Educational Center came third. Ali Jassim Al Kuwari, head of the Adult Education Section at the Ministry of Education and Higher Education, presented the trophy for first place. Fruit and vegetables grown by students at QLA include lettuce, parsley, tomatoes, chilies, eggplants and cilantro. They also introduced mango trees and okra and even built an irrigation system to make watering the plants much easier. The next stage was for solar panels to be installed.

QLA's English department had used the greenhouses as inspiration for reflective writing, while the humanities department was planning a farmers' market for the community. There are also plans for an environmental study center at Al Khor Park.



# Outreach

## Environmental Health, Safety & Security

### Health and Safety Seminar Series

Strategies on how to contain diseases like MERS or ebola in a hospital setting was the topic for the annual Health and Safety Seminar Series.

Now in its seventh year, the course deals with all aspects of health and safety within both a laboratory and clinical healthcare setting. The theme for 2017 was 'clinical containment strategies for emerging infectious diseases'.

Almost 300 nurses, physicians, dentists, pharmacists, researchers, medical technologists, and administrative professionals attended WCM-Q to hear from Sean G. Kaufman, a recognized US expert and trainer in behavioral sciences, infectious disease control, emergency preparedness and risk communication.

The seminar used an interactive approach to deliver tangible and real-life lesson examples to help mitigate and manage risks to medical and laboratory staff that work with and around potentially infectious disease threats. The seminar taught clinical containment strategies including lessons learned from the front line of infectious disease research and management of isolation unit staff when treating infectious patients.

The seminar was fully accredited and offered valuable training for people who may be working with infectious diseases in a clinical setting.

Topics examined included the creation of isolation units, personal protective equipment, the mitigation of biological risk, and emergency medical triage strategies.



Thomas Doyle, director of environmental health, safety & security, with Sean G. Kaufman and the delegates.







# Statistics

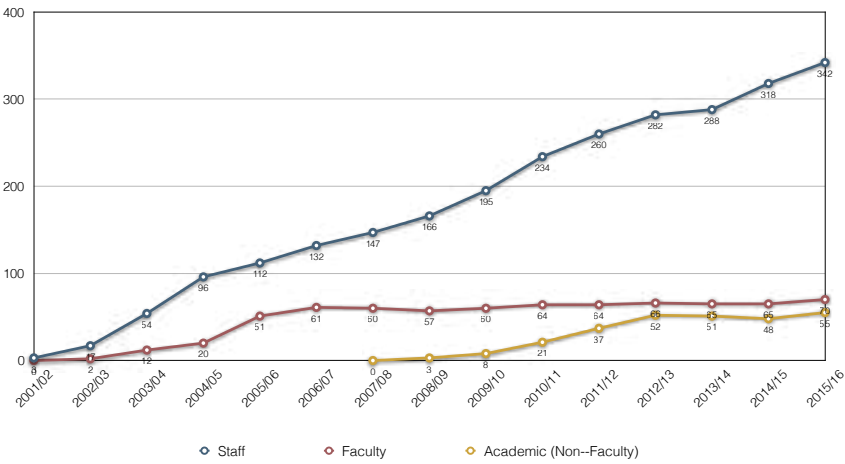
---



# Statistics

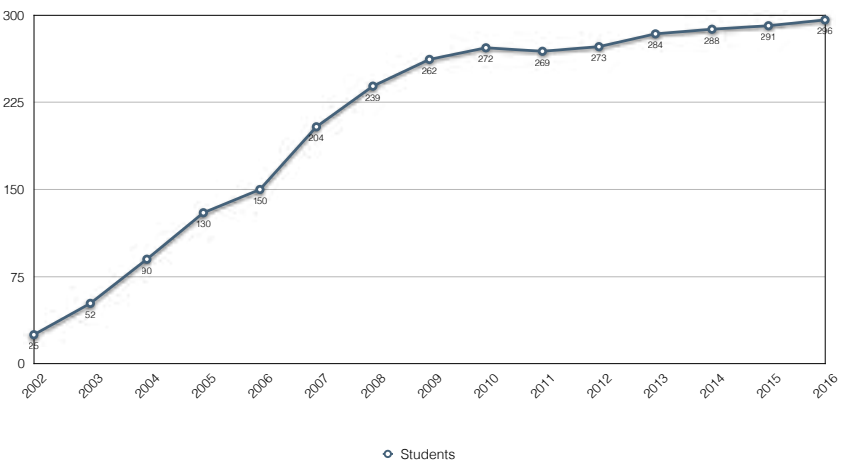
## Faculty and staff numbers, 2001-2016

Figures for faculty include all those on the WCMC-Q payroll considered active within the 2015-2016 academic year. Figures for staff are as of September 1, 2016 and include those residing in New York. Academic non-faculty includes postdoctoral positions in the research program.



## Total number of students, 2002-2016

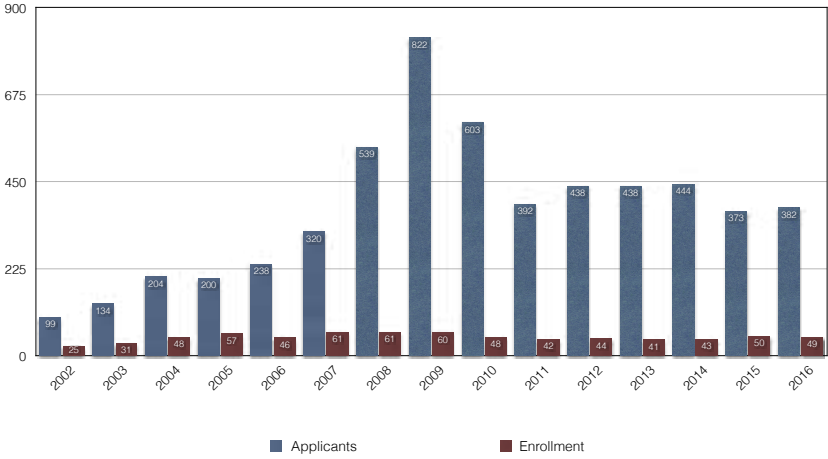
Figures are as of September 2016, and reflect any attrition from incoming classes in subsequent years.



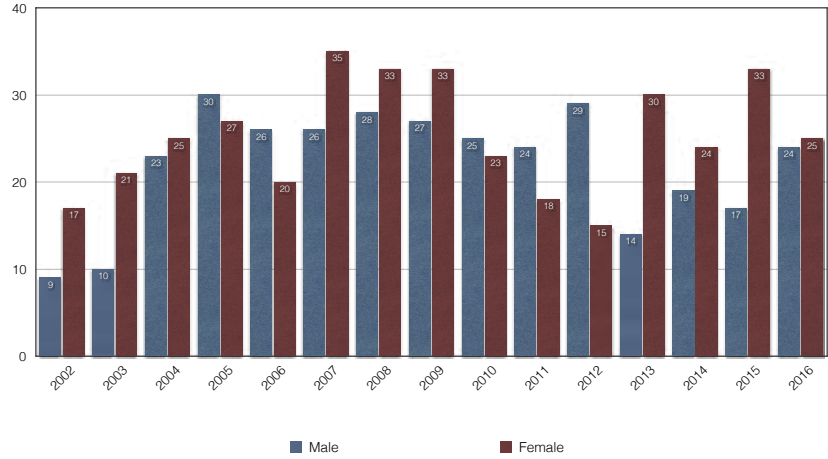


Profile of classes entering the Pre-Medical Program, 2002-2016

Total Enrollment and Applicants



Gender Profile



# Statistics

## Profile of entering medical students, September 2016

**Stats**

- Average college GPA
- Average age (September 2015)



## Citizenship of student body 2016



# Leadership Structure

---

## Cornell University

**Robert S. Harrison**  
Chairman, Board of Trustees

**Hunter R. Rawlings III**  
Interim President

---

## Weill Cornell Medicine

**Jessica Bibliowicz**  
Chair, Board of Overseers

**Robert Appel**  
Vice Chair

**Robert A. Belfer**  
Vice Chair

**Jeffrey Feil**  
Vice Chair

**Barbara B. Friedman**  
Vice Chair

**Sanford I. Weill**  
Chair Emeritus

**Augustine M.K. Choi**  
Dean, Weill Cornell Medicine  
Provost for Medical Affairs, Cornell University

---

## Weill Cornell Medicine - Qatar

**Javaid I. Sheikh, M.D.**  
Dean, Weill Cornell Medicine - Qatar

**Robert Crone, M.D.**  
Vice Dean for Clinical & Faculty Affairs

**Stephen F. Kenney**  
Chief Administrative Officer

**Sunanda Holmes**  
Deputy Chief Administrative Officer and  
Associate University Counsel

**Marco Ameduri, Ph.D.**  
Associate Dean for Pre-medical  
Education

**Thurayya Arayssi, M.D.**  
Senior Associate Dean for Medical  
Education and Continuing Professional  
Development

**Khaled Machaca, Ph.D.**  
Associate Dean for Research

**Ravinder Mamtani, M.D., M.Sc.**  
Senior Associate Dean for Population  
Health, Capacity Building and Student  
Affairs

**Bakr Nour, M.D.**  
Senior Advisor to the Dean

**Nesreen Al-Rifai**  
Chief Communications Officer

**Jamie Marie Gray**  
Director, Distributed eLibrary

**Omar Baki**  
Director, Human Resources

**John Doig**  
Director, Facilities Management

**Thomas Doyle**  
Director, Environmental Health & Safety

**Shahzad Jafri**  
Chief Information Officer

**Sameer Kalash**  
Director, Finance and Business Services

# WCM-Q Publications

---





# WCM-Q Faculty Publications

## July 2016 – June 2017

(As of June 30, 2017. The list also includes some items published too late to appear in the previous year's list.)

### Abdel-Aleem, Alice

Elsaid MF, Chalhoub N, Ben-Omran T, Kumar P, Kamel H, Ibrahim K, Mohamoud Y, Al-Dous E, Al-Azwani I, Malek JA, Suhre K, Ross ME, Aleem AA. Mutation in noncoding RNA RNU12 causes early onset cerebellar ataxia. *Annals of neurology*. 2017 Jan;81(1):68-78. doi: 10.1002/ana.24826

Elsaid MF, Ibrahim K, Chalhoub N, Elsotouhy A, El Mudehki N, Abdel-Aleem A. NT5C2 novel splicing variant expands the phenotypic spectrum of Spastic Paraplegia (SPG45): case report of a new member of thin corpus callosum SPG-Subgroup. *BMC medical genetics* [Internet]. 2017 Mar 21 [cited 2017 Jun 3];18(1):33 [7 p.]. Available from: <https://doi.org/10.1186/s12881-017-0395-6>

### Abi Khalil, Charbel

**Abi Khalil C.** Cardiovascular disorders and epigenetics. In: Tollefsbol TO, editor. *Medical epigenetics*. London, UK: Elsevier Academic Press; 2016. p. 243-56.

**Abi Khalil C,** Al Suwaidi J, Singh R, Asaad N, Abushahba G, Kunju U, Al Qahtani A, AlBinali HA. Beta-blockers are associated with decreased in-hospital mortality and stroke in acute decompensated heart failure: findings from a retrospective analysis of a 22-year registry in the Middle East (1991-2013). *Current vascular pharmacology*. 2017;15(1):77-83.

**Abi Khalil C,** Sulaiman K, Singh R, Jayyousi A, Asaad N, AlHabib KF, Alsheikh-Ali A, Al-Jarallah M, Bulbanat B, AlMahmeed W, Dargham S, Ridha M,

Bazargani N, Amin H, Al-Motarreb A, AlFaleh H, Elsfar A, Panduranga P, Al Suwaidi J. BMI is inversely correlated to the risk of mortality in patients with type 2 diabetes hospitalized for acute heart failure: findings from the Gulf aCute heArt failuRE (Gulf-CARE) registry. *International journal of cardiology*. 2017 Aug 15;241:262-9. doi: 10.1016/j.ijcard.2017.02.119

Fakhro KA, Staudt MR, Ramstetter MD, Robay AP, Malek JA, Badii R, Al-Marri AA, Abi Khalil C, Al-Shakaki A, Chidiac O, Stadler DJ, Zirie M, Jayyousi A, Salit J, Mezey JG, Crystal RG, Rodriguez-Flores JL. The Qatar genome: a population-specific tool for precision medicine in the Middle East. *Human genome variation* [Internet]. 2016 Jun 30 [cited 2017 Jun 4];3:16016 [7 p.]. Available from: <https://doi.org/10.1038/hgv.2016.16>

O'Beirne SL, Salit J, Rodriguez-Flores JL, Staudt MR, Abi Khalil C, Fakhro KA, Robay AP, Ramstetter MD, Al-Azwani IK, Malek JA, Zirie M, Jayyousi A, Badii R, Al-Nabet Al-Marri A, Chiuchiolo MJ, Al-Shakaki A, Chidiac O, Gharbiah M, Bener A, Stadler DJ, Hackett NR, Mezey JG, Crystal RG. Type 2 diabetes risk allele loci in the Qatari population. *PloS one* [Internet]. 2016 Jul 6 [cited 2017 Jun 4];11(7):e0156834 [14 p.]. Available from: <https://doi.org/10.1371/journal.pone.0156834>

Pasquier J, Gupta R, Rioult D, Hoarau-Vechot J, Courjaret R, Machaca K, Al Suwaidi J, Stanley EG, Rafii S, Elliott DA, Abi Khalil C, Rafii A. Coculturing with endothelial cells promotes in vitro maturation and electrical coupling of human embryonic stem cell-derived cardiomyocytes. *The Journal of heart and lung transplantation*. 2017 Jun;36(6):684-93. doi: 10.1016/j.healun.2017.01.001

Salam AM, Sulaiman K, Al-Zakwani I, Alsheikh-Ali A, Aljaraallah M, Al Faleh H, Elsfar A, Panduranga P, Singh R, Abi Khalil C, Al Suwaidi J. Coronary artery disease prevalence and outcome in patients hospitalized with acute heart failure: an observational report from seven Middle Eastern countries. *Hospital practice* (1995). 2016 Dec;44(5):242-51. doi: 10.1080/21548331.2016.1246945

### Abu-Raddad, Laith J.

Akbarzadeh V, Mumtaz GR, Awad SF, Weiss HA, Abu-Raddad LJ. HCV prevalence can predict HIV epidemic potential among people who inject drugs: mathematical modeling analysis. *BMC public health* [Internet]. 2016 Dec 3 [cited 2017 Jun 3];16(1):1216 [17 p.]. Available from: <https://doi.org/10.1186/s12889-016-3887-y>

Awad SF, Sgaier SK, Lau FK, Mohamoud YA, Tambatamba BC, Kripke KE, Thomas AG, Bock N, Reed JB, Njeuhmeli E, Abu-Raddad LJ. Could circumcision of HIV-positive males benefit voluntary medical male circumcision programs in Africa? Mathematical modeling analysis. *PloS one* [Internet]. 2017 Jan 24 [cited 2017 May 31];12(1):e0170641 [20 p.]. Available from: <https://doi.org/10.1371/journal.pone.0170641>

Ayoub HH, Abu-Raddad LJ. Impact of treatment on hepatitis C virus transmission and incidence in Egypt: a case for treatment as prevention. *Journal of viral hepatitis* [Internet]. 2016 Jun [cited 2017 Jun 8];24(6):486-95. Available from: <https://doi.org/10.1111/jvh.12671>

Charara R, Forouzanfar M, Naghavi M, Moradi-Lakeh M, Afshin A, Vos T, Daoud F, Wang H, El Bcheraoui C, Khalil I, Hamadeh RR, Khosravi A, Rahimi-Movaghar V, Khader Y, Al-Hamad N,

Makhlouf Obermeyer C, Rafay A, Asghar R, Rana SM, Shaheen A, Abu-Rmeileh NM, Hussein A, Abu-Raddad LJ, Khoja T, Al Rayess ZA, AlBuhairan FS, Hsairi M, Alomari MA, Ali R, Roshandel G, Terkawi AS, Hamidi S, Refaat AH, Westerman R, Kiadaliri AA, Akanda AS, Ali SD, Bacha U, Badawi A, Bazargan-Hejazi S, Faghmous IA, Fereshtehnejad SM, Fischer F, Jonas JB, Kuate Defo B, Mehari A, Omer SB, Pourmalek F, Uthman OA, Mokdad AA, Maalouf FT, Abd-Allah F, Akseer N, Arya D, Borschmann R, Brazinova A, Brugha TS, Catala-Lopez F, Degenhardt L, Ferrari A, Haro JM, Horino M, Hornberger JC, Huang H, Kieling C, Kim D, Kim Y, Knudsen AK, Mitchell PB, Patton G, Sagar R, Satpathy M, Savuon K, Seedat S, Shiue I, Skogen JC, Stein DJ, Tabb KM, Whiteford HA, Yip P, Yonemoto N, Murray CJ, Mokdad AH. The burden of mental disorders in the Eastern Mediterranean region, 1990-2013. *PloS one* [Internet]. 2017 Jan 17 [cited 2017 May 31];12(1):e0169575 [17 p.]. Available from: <https://doi.org/10.1371/journal.pone.0169575>

Cuadros DF, Abu-Raddad LJ. Geographical patterns of HIV sero-discordancy in high HIV prevalence countries in Sub-Saharan Africa. *International journal of environmental research and public health* [Internet]. 2016 Aug 31 [cited Aug 31];13(9):[12 p.]. Available from: <https://doi.org/10.3390/ijerph13090865>

Elmi AA, Bansal D, Acharya A, Skariah S, Dargham SR, Abu-Raddad LJ, Mohamed-Nady N, Amuna P, Al-Thani AA, Sultan AA. Human papillomavirus (HPV) Infection: molecular epidemiology, genotyping, seroprevalence and associated risk factors among Arab women in Qatar. *PloS one* [Internet]. 2017 Jan 3 [cited 2017 May 31];12(1):e0169197 [14 p.]. Available from: <https://doi.org/10.1371/journal.pone.0169197>

GBD 2015 Child Mortality Collaborators, [incl. Abu-Raddad LJ]. Global, regional, national, and selected subnational levels of stillbirths, neonatal, infant, and under-5 mortality, 1980-2015: a systematic analysis for the Global Burden of Disease Study 2015. *Lancet* (London, England) [Internet]. 2016 Oct 8 [cited 2017 Jun 14];388(10053):1725-74. Available from: [https://doi.org/10.1016/s0140-6736\(16\)31575-6](https://doi.org/10.1016/s0140-6736(16)31575-6)

GBD 2015 DALYs and HALE Collaborators, [incl. Abu-Raddad LJ]. Global, regional, and national disability-adjusted life-years (DALYs) for 315 diseases and injuries and healthy life expectancy (HALE), 1990-2015: a systematic analysis for the Global Burden of Disease Study 2015. *Lancet* (London, England) [Internet]. 2016 Oct 8 [cited 2017 Jun 14];388(10053):1603-58. Available from: [https://doi.org/10.1016/s0140-6736\(16\)31460-x](https://doi.org/10.1016/s0140-6736(16)31460-x)

GBD 2015 Disease and Injury Incidence and Prevalence Collaborators, [incl. Abu-Raddad LJ]. Global, regional, and national incidence, prevalence, and years lived with disability for 310 diseases and injuries, 1990-2015: a systematic analysis for the Global Burden of Disease Study 2015. *Lancet* (London, England) [Internet]. 2016 Oct 8 [cited 2017 Jun 14];388(10053):1545-602. Available from: [https://doi.org/10.1016/s0140-6736\(16\)31678-6](https://doi.org/10.1016/s0140-6736(16)31678-6)

GBD 2015 HIV Collaborators, [incl. Abu-Raddad LJ]. Estimates of global, regional, and national incidence, prevalence, and mortality of HIV, 1980-2015: the Global Burden of Disease Study 2015. *Lancet HIV* (London, England) [Internet]. 2016 Aug [cited 2017 Jun 4];3(8):e361-e87. Available from: [https://doi.org/10.1016/S2352-3018\(16\)30087-X](https://doi.org/10.1016/S2352-3018(16)30087-X)

GBD 2015 Mortality and Causes of Death Collaborators, [incl. Abu-Raddad LJ]. Global, regional, and national life expectancy, all-cause mortality, and cause-specific mortality for 249 causes of death, 1980-2015: a systematic analysis for the Global Burden of Disease Study 2015. *Lancet* (London, England) [Internet]. 2016 Oct 8 [cited 2017 Jun 14];388(10053):1459-544. Available from: [https://doi.org/10.1016/s0140-6736\(16\)31012-1](https://doi.org/10.1016/s0140-6736(16)31012-1)

GBD 2015 Risk Factors Collaborators, [incl. Abu-Raddad LJ]. Global, regional, and national comparative risk assessment of 79 behavioural, environmental and occupational, and metabolic risks or clusters of risks, 1990-2015: a systematic analysis for the Global Burden of Disease Study 2015. *Lancet* (London, England) [Internet]. 2016 Oct 8 [cited 2017 Jun 14];388(10053):1659-724. Available from: [https://doi.org/10.1016/s0140-6736\(16\)31679-8](https://doi.org/10.1016/s0140-6736(16)31679-8)

GBD 2015 SDG Collaborators, [incl. Abu-Raddad LJ]. Measuring the health-related Sustainable Development Goals in 188 countries: a baseline analysis from the Global Burden of Disease Study 2015. *Lancet* (London, England) [Internet]. 2016 Oct 8 [cited 2017 Jun 14];388(10053):1813-50. Available from: [https://doi.org/10.1016/s0140-6736\(16\)31467-2](https://doi.org/10.1016/s0140-6736(16)31467-2)

Humphrey JM, Cleton NB, Reusken CB, Glesby MJ, Koopmans MP, Abu-Raddad LJ. Dengue in the Middle East and North Africa: a systematic review. *PLoS neglected tropical diseases* [Internet]. 2016 Dec 7 [cited 2017 May 31];10(12):e0005194 [9 p.]. Available from: <https://doi.org/10.1371/journal.pntd.0005194>

# WCM-Q Faculty Publications

## July 2016 – June 2017

Humphrey JM, Cleton NB, Reusken C, Glesby MJ, Koopmans MPG, Abu-Raddad LJ. Urban Chikungunya in the Middle East and North Africa: a systematic review. *PLoS neglected tropical diseases* [Internet]. 2017 Jun 26 [cited 2017 Jun 29];11(6):e0005707 [19 p.]. Available from: <https://doi.org/10.1371/journal.pntd.0005707>

Humphrey JM, Ranbhise S, Ibrahim E, Al-Romaihi HE, Farag E, Abu-Raddad LJ, Glesby MJ. Multiplex polymerase chain reaction for detection of gastrointestinal pathogens in migrant workers in Qatar. *The American journal of tropical medicine and hygiene* [Internet]. 2016 Dec 7 [cited 2017 May 31];95(6):1330-7. Available from: <https://doi.org/10.4269/ajtmh.16-0464>

Mokdad AH, Forouzanfar MH, Daoud F, El Bcheraoui C, Moradi-Lakeh M, Khalil I, Afshin A, Tuffaha M, Charara R, Barber RM, Wagner J, Cercy K, Kravitz H, Coates MM, Robinson M, Estep K, Steiner C, Jaber S, Mokdad AA, O'Rourke KF, Chew A, Kim P, El Rizek MM, Abdalla S, Abd-Allah F, Abraham JP, Abu-Raddad LJ, Abu-Rmeileh NM, Al-Nehmi AA, Akanda AS, Al Ahmadi H, Al Khabouri MJ, Al Lami FH, Al Rayess ZA, Alasfoor D, AlBuhairan FS, Aldhahri SF, Alghnam S, Alhabib S, Al-Hamad N, Ali R, Ali SD, Alkhateeb M, AlMazroa MA, Alomari MA, Al-Raddadi R, Alsharif U, Al-Sheyab N, Alsowaidi S, Al-Thani M, Altirkawi KA, Amare AT, Amini H, Ammar W, Anwari P, Asayesh H, Asghar R, Assabri AM, Assadi R, Bacha U, Badawi A, Bakfalouni T, Basulaiman MO, Bazargan-Hejazi S, Bedi N, Bhakta AR, Bhutta ZA, Bin Abdulhak AA, Boufous S, Bourne RR, Danawi H, Das J, Deribew A, Ding EL, Durrani AM, Elshrek Y, Ibrahim ME, Eshrati B, Esteghamati A, Faghmous IA, Farzadfar F, Feigl AB, Fereshtehnejad SM, Filip I, Fischer F, Gankpe FG, Ginawi I, Gishu MD, Gupta R, Habash RM, Hafezi-Nejad N, Hamadeh RR, Hamdouni H,

Hamidi S, Harb HL, Hassanvand MS, Hedayati MT, Heydarpour P, Hsairi M, Hussein A, Jahanmehr N, Jha V, Jonas JB, Karam NE, Kasaeian A, Kassa NA, Kaul A, Khader Y, Khalifa SE, Khan EA, Khan G, Khoja T, Khosravi A, Kinu Y, Defo BK, Balaji AL, Lunevicius R, Obermeyer CM, Malekzadeh R, Mansourian M, Marcenes W, Farid HM, Mehari A, Mehio-Sibai A, Memish ZA, Mensah GA, Mohammad KA, Nahas Z, Nasher JT, Nawaz H, Nejari C, Nisar MI, Omer SB, Parsaeian M, Peprah EK, Pervaiz A, Pourmalek F, Qato DM, Qorbani M, Radfar A, Rafay A, Rahimi K, Rahimi-Movaghar V, Rahman SU, Rai RK, Rana SM, Rao SR, Refaat AH, Resnikoff S, Roshandel G, Saade G, Saeedi MY, Sahraian MA, Saleh S, Sanchez-Riera L, Satpathy M, Sepanlou SG, Setegn T, Shaheen A, Shahrzaz S, Sheikhbahaei S, Shishani K, Sliwa K, Tavakkoli M, Terkawi AS, Uthman OA, Westernman R, Younis MZ, El Sayed Zaki M, Zannad F, Roth GA, Wang H, Naghavi M, Vos T, Al Rabeeah AA, Lopez AD, Murray CJ. Health in times of uncertainty in the eastern Mediterranean region, 1990-2013: a systematic analysis for the Global Burden of Disease Study 2013. *The Lancet Global health* [Internet]. 2016 Oct [cited 2017 Jun 3];4(10):e704-13. Available from: [https://doi.org/10.1016/s2214-109x\(16\)30168-1](https://doi.org/10.1016/s2214-109x(16)30168-1)

Stanaway JD, Flaxman AD, Naghavi M, Fitzmaurice C, Vos T, Abubakar I, Abu-Raddad LJ, Assadi R, Bhala N, Cowie B, Forouzanfar MH, Groeger J, Hanafiah KM, Jacobsen KH, James SL, MacLachlan J, Malekzadeh R, Martin NK, Mokdad AA, Mokdad AH, Murray CJ, Plass D, Rana S, Rein DB, Richardus JH, Sanabria J, Saylan M, Shahraz S, So S, Vlassov VV, Weiderpass E, Wiersma ST, Younis M, Yu C, El Sayed Zaki M, Cooke GS. The global burden of viral hepatitis from 1990 to 2013: findings from the Global Burden of Disease Study 2013. *Lancet (London, England)* [Internet]. 2016 September 10 [cited 2017 Jun 4];388(10049):1081-8.

Available from: [https://doi.org/10.1016/s0140-6736\(16\)30579-7](https://doi.org/10.1016/s0140-6736(16)30579-7)

### Al-Amin, Hassen

Albanna M, Yehya A, Khairi A, Dafeeah E, Elhadi A, Rezgui L, Al Kahlout S, Yousif A, Uthman B, Al-Amin H. Validation and cultural adaptation of the Arabic versions of the Mini-Mental Status Examination - 2 and Mini-Cog test. *Neuropsychiatric disease and treatment* [Internet]. 2017 Mar 14 [cited 2017 May 31];13:793-801. Available from: <https://doi.org/10.2147/ndt.s126825>

Hammoudeh S, Ghuloum S, Mahfoud ZR, Opler M, Khan A, Yehya A, Abdulhakam A, Al-Mujalli A, Hani Y, Elsherbiny R, Al-Amin H. Reliability, validity and factorial structure of the Arabic version of the international suicide prevention trial (InterSePT) scale for suicidal thinking in schizophrenia patients in Doha, Qatar. *BMC psychiatry* [Internet]. 2016 Dec 7 [cited 2017 May 31];16(1):437 [9 p.]. Available from: <https://doi.org/10.1186/s12888-016-1155-4>

Hani Y, Ghuloum S, Mahfoud ZR, Opler M, Khan A, Yehya A, Abdulhakam A, Hammoudeh S, Al-Mujalli A, Elsherbiny R, Al-Amin H. Validation of the Arabic version of Calgary Depression Scale for Schizophrenia. *PloS one* [Internet]. 2016 Sep 1 [cited 2017 Jun 3];11(9):e0162304 [11 p.]. Available from: <https://doi.org/10.1371/journal.pone.0162304> Kronfol Z, Al-Amin H, Haddad N, Streletz LJ, Gordon-Elliott J, Marzuk P. Teaching psychiatry on the global scene: the Cornell University experience. *Academic psychiatry : the journal of the American Association of Directors of Psychiatric Residency Training and the Association for Academic Psychiatry*. 2016 Aug;40(4):698-700. doi: 10.1007/s40596-015-0409-7



Yehya A, Ghuloum S, Mahfoud ZR, Opler M, Khan A, Hammoudeh S, Abdulhakam A, Al-Mujalli A, Hani Y, Elsherbiny R, Al-Amin H. Validity and reliability of the Arabic version of the Positive and Negative Syndrome Scale. *Psychopathology*. 2016;49(3):181-7. doi: 10.1159/000447328

#### Arayssi, Thurayya

Bayoumy K, MacDonald R, Dargham SR, Arayssi T. Bibliometric analysis of rheumatology research in the Arab countries. *BMC research notes* [Internet]. 2016 Aug 8 [cited 2017 Jun 3];9:393 [6 p.]. Available from: <https://doi.org/10.1186/s13104-016-2197-x>

Saxena R, Plenge RM, Bjornes AC, Dashti HS, Okada Y, Gad El Haq W, Hammoudeh M, Al Emadi S, Masri BK, Halabi H, Badsha H, Uthman IW, Margolin L, Gupta N, Mahfoud ZR, Kapiri M, Dargham SR, Aranki G, Kazkaz LA, Arayssi T. A multinational Arab genome-wide association study identifies new genetic associations for rheumatoid arthritis. *Arthritis & rheumatology* (Hoboken, N.J.). 2017 May;69(5):976-85. doi: 10.1002/art.40051

#### Atkin, Stephen L.

Cho LW, Sathyapalan T, Kilpatrick ES, Keevil BG, Miller AG, Coady AM, Ahmed L, Atkin SL. Androsterone glucuronide to dehydroepiandrosterone sulphate ratio is discriminatory for obese Caucasian women with polycystic ovary syndrome. *BMC endocrine disorders* [Internet]. 2017 May 19 [cited 2017 Jun 3];17(1):26 [5 p.]. Available from: <https://doi.org/10.1186/s12902-017-0177-3>

Ghavideldarestani M, Atkin SL, Leese HJ, Sturmey RG. Expression and function of transient receptor potential channels in the female bovine

reproductive tract. *Theriogenology*. 2016 Jul 15;86(2):551-61. doi: 10.1016/j.theriogenology.2016.02.005

Greetham S, Goodwin S, Wells L, Whitham C, Jones H, Rigby A, Sathyapalan T, Reid M, Atkin SL. Pilot investigation of a virtual gastric band hypnotherapy intervention. *The International journal of clinical and experimental hypnosis*. 2016 Oct-Dec;64(4):419-33. doi: 10.1080/00207144.2016.1209037

Sathyapalan T, Al-Qaissi A, Kilpatrick ES, Dargham SR, Adaway J, Keevil B, Atkin SL. Salivary testosterone measurement in women with and without polycystic ovary syndrome. *Scientific reports* [Internet]. 2017 Jun 15 [cited 2017 Jun 21];7(1):3589 [9 p.]. Available from: <https://doi.org/10.1038/s41598-017-03945-w>

Sathyapalan T, Aye M, Rigby AS, Fraser WD, Thatcher NJ, Kilpatrick ES, Atkin SL. Soy reduces bone turnover markers in women during early menopause: a randomized controlled trial. *Journal of bone and mineral research*. 2017 Jan;32(1):157-64. doi: 10.1002/jbmr.2927

Sathyapalan T, Dakrouy Y, Ahmed L, Elshewehy AM, Kilpatrick ES, Coady AM, Atkin SL. Endocannabinoid receptor blockade increases hepatocyte growth factor and reduces insulin levels in obese women with polycystic ovary syndrome. *Clinical endocrinology*. 2016 Oct;85(4):671-3. doi: 10.1111/cen.13120

Sathyapalan T, Javed Z, Kilpatrick ES, Coady AM, Atkin SL. Endocannabinoid receptor blockade increases vascular endothelial growth factor and inflammatory markers in obese women with polycystic ovary syndrome. *Clinical endocrinology*. 2017 Mar;86(3):384-7. doi: 10.1111/cen.13239

Sathyapalan T, Javed S, Rigby AS, Kilpatrick ES, Atkin SL. Soy protein improves cardiovascular risk in subclinical hypothyroidism: a randomized double-blinded crossover study. *Journal of the endocrine society* [Internet]. 2017 Apr 3 [cited 2017 Jun 14];1(5):423-30. Available from: <https://doi.org/10.1210/js.2016-1068>

Sathyapalan T, Dickerson EH, Maguiness SM, Robinson J, Dakrouy YHZ, Atkin SL. Androstenedione and testosterone levels correlate with in vitro fertilization rates in insulin-resistant women. *BMJ open diabetes research & care* [Internet]. 2017 May [cited 2017 Jun 18];5(1):e000387 [5 p.]. Available from: <https://doi.org/10.1136/bmjdr-2017-000387>

Sathyapalan T, Rigby AS, Bhasin S, Thatcher NJ, Kilpatrick ES, Atkin SL. Effect of soy in men with type 2 diabetes mellitus and subclinical hypogonadism: a randomized controlled study. *The journal of clinical endocrinology and metabolism* [Internet]. 2017 Feb 1 [cited 2017 Jun 3];102(2):425-33. Available from: <https://doi.org/10.1210/jc.2016-2875>

Wells L, Hardie L, Williams C, White

K, Liu Y, De Santis B, Debegnach F, Moretti G, Greetham S, Brera C, Papageorgiou M, Thatcher N, Rigby A, Atkin SL, Sathyapalan T. Deoxynivalenol biomarkers in the urine of UK vegetarians. *Toxins* [Internet]. 2017 Jun 22 [cited 2017 Jun 22];9(7):196 [12 p.]. Available from: <https://doi.org/10.3390/toxins9070196>

Wells L, Hardie L, Williams C, White K, Liu Y, De Santis B, Debegnach F, Moretti G, Greetham S, Brera C, Rigby A, Atkin SL, Sathyapalan T. Determination of deoxynivalenol in the urine of pregnant women in the UK. *Toxins* [Internet]. 2016 Oct 25 [cited 2017 Jun 3];8(11):E306 [10 p.]. Available from: <https://doi.org/10.3390/toxins8110306>

# WCM-Q Faculty Publications

## July 2016 – June 2017

### Bedri, Shahinaz

Denkert C, Wienert S, Poterie A, Loibl S, Budczies J, Badve S, Bago-Horvath Z, Bane A, Bedri S, Brock J, Chmielik E, Christgen M, Colpaert C, Demaria S, Van den Eynden G, Floris G, Fox SB, Gao D, Ingold Heppner B, Kim SR, Kos Z, Kreipe HH, Lakhani SR, Penault-Llorca F, Pruneri G, Radosevic-Robin N, Rimm DL, Schnitt SJ, Sinn BV, Sinn P, Sirtaine N, O'Toole SA, Viale G, Van de Vijver K, de Wind R, von Minckwitz G, Klauschen F, Untch M, Fasching PA, Reimer T, Willard-Gallo K, Michiels S, Loi S, Salgado R. Standardized evaluation of tumor-infiltrating lymphocytes in breast cancer: results of the ring studies of the international immuno-oncology biomarker working group. *Modern pathology*. 2016 Oct;29(10):1155-64. doi: 10.1038/modpathol.2016.109

Mohamed M, Sarwath H, Salih N, Bansal D, Chandra P, Husain NE, Chouchane L, Sultan AA, Bedri S. CD8+ tumor infiltrating lymphocytes strongly correlate with molecular subtype and clinico-pathological characteristics in breast cancer patients from Sudan. *Translational medicine communications* [Internet]. 2016 Oct 1 [cited 2017 Jun 13];1(4):[6 p.]. Available from: <https://doi.org/10.1186/s41231-016-0005-1>

### Bendriss, Ghizlane

Schaefer-Ramadan S, Bendriss G, Hubrack S, Al-Abdulmalek A, Machaca K. A novel approach to the expression and purification of recombinant *Xenopus* Cdc25C. *Protein expression and purification*. 2016 Apr;120:148-52. doi: 10.1016/j.pep.2015.12.007

### Bovell, Douglas L.

Scheer M, Bischoff AM, Kruzliak P, Opatrilova R, Bovell DL, Büsselberg D. Creatine and creatine pyruvate reduce hypoxia-induced effects on phrenic nerve activity in the juvenile mouse respiratory system. *Experimental and molecular pathology*. 2016 Aug;101(1):157-62. doi: 10.1016/j.yexmp.2016.07.006

### Büsselberg, Dietrich

Büsselberg D, Florea AM. Targeting intracellular calcium signaling ([Ca<sup>2+</sup>]<sub>i</sub>) to overcome acquired multidrug resistance of cancer cells: a mini-overview. *Cancers* [Internet]. 2017 May 9 [cited 2017 Jun 4];9(5):48 [11 p.]. Available from: <https://doi.org/10.3390/cancers9050048>  
Caprnda M, Kubatka P, Gazdikova K, Gasparova I, Valentova V, Stollarova N, La Rocca G, Kobyliak N, Dragasek J, Mozos I, Prosecky R, Siniscalco D, Büsselberg D, Rodrigo L, Kruzliak P. Immunomodulatory effects of stem cells: therapeutic option for neurodegenerative disorders. *Biomedicine & pharmacotherapy = Biomedecine & pharmacotherapie*. 2017 Apr 24;91:60-9. doi: 10.1016/j.biopha.2017.04.034

Elsheikha HM, Büsselberg D, Zhu XQ. The known and missing links between *Toxoplasma gondii* and schizophrenia. *Metabolic brain disease*. 2016 Aug;31(4):749-59. doi: 10.1007/s11011-016-9822-1

Florea AM, Varghese E, McCallum JE, Mahgoub S, Helmy I, Varghese S, Gopinath N, Sass S, Theis FJ, Reifenberger G, Büsselberg D. Calcium-regulatory proteins as modulators of chemotherapy in human neuroblastoma. *Oncotarget* [Internet]. 2017 Feb 11 [cited 2017 Jun 5];8(14):22876-93.

Available from: <https://doi.org/10.18632/oncotarget.15283>

Kubatka P, Kello M, Kajo K, Kruzliak P, Vybohova D, Mojzis J, Adamkov M, Fialova S, Veizerova L, Zulli A, Pec M, Statelova D, Grancai D, Büsselberg D. Oregano demonstrates distinct tumour-suppressive effects in the breast carcinoma model. *European journal of nutrition*. 2017 Apr;56(3):1303-16. doi: 10.1007/s00394-016-1181-5

Rathore R, McCallum JE, Varghese E, Florea AM, Büsselberg D. Overcoming chemotherapy drug resistance by targeting inhibitors of apoptosis proteins (IAPs). *Apoptosis*. 2017 Apr 19;22(7):898-919. doi: 10.1007/s10495-017-1375-1

Salamon S, Podbregar E, Kubatka P, Büsselberg D, Caprnda M, Opatrilova R, Valentova V, Adamek M, Kruzliak P, Podbregar M. Glucose metabolism in cancer and ischemia: possible therapeutic consequences of the Warburg effect. *Nutrition and cancer* [Internet]. 2017 Feb-Mar [cited 2017 Jun 6];69(2):177-83. Available from: <https://doi.org/10.1080/01635581.2017.1263751>

Scheer M, Bischoff AM, Kruzliak P, Opatrilova R, Bovell DL, Büsselberg D. Creatine and creatine pyruvate reduce hypoxia-induced effects on phrenic nerve activity in the juvenile mouse respiratory system. *Experimental and molecular pathology*. 2016 Aug;101(1):157-62. doi: 10.1016/j.yexmp.2016.07.006

Varghese S, Kubatka P, Rodrigo L, Gazdikova K, Caprnda M, Fedotova J, Zulli A, Kruzliak P, Büsselberg D. Chili pepper as a body weight-loss food. *International journal of food sciences and nutrition*. 2017 Jun;68(4):392-401. doi: 10.1080/09637486.2016.1258044

Varinska L, Kubatka P, Mojzis J, Zulli A, Gazdikova K, Zubor P, Büsselberg D, Caprnda M, Opatrilova R, Gasparova I, Klabusay M, Pec M, Fibach E, Adamek M, Kruzliak P. Angiomodulators in cancer therapy: new perspectives. *Biomedicine & pharmacotherapy*. 2017 May;89:578-90. doi: 10.1016/j.biopha.2017.02.071

#### **Cheema, Sohaila**

Al-Thani MH, Al-Thani AA, Cheema S, Sheikh JI, Mamtani R, Lowenfels AB, Al-Chetachi WF, Almalki BA, Hassan Khalifa SA, Haj Bakri AO, Maisonneuve P. Prevalence and determinants of metabolic syndrome in Qatar: results from a National Health Survey. *BMJ open* [Internet]. 2016 Sep 6 [cited 2017 Jun 6];6(9):e009514 [11 p.]. Available from: <https://doi.org/10.1136/bmjopen-2015-009514>

Chaabna K, Cheema S, Mamtani R. Migrants, healthy worker effect, and mortality trends in the Gulf Cooperation Council countries. *PloS one* [Internet]. 2017 Jun 20 [cited 2017 Jun 22];12(6):e0179711 [10 p.]. Available from: <https://doi.org/10.1371/journal.pone.0179711>

Mamtani R, Cheema S, Sheikh JI, Al Mulla A, Lowenfels A, Maisonneuve P. Cancer risk in waterpipe smokers: a meta-analysis. *International journal of public health* [Internet]. 2017 Jan [cited 2017 Jun 4];62(1):73-83. Available from: <https://doi.org/10.1007/s00038-016-0856-2>

#### **Chen, Kuei-Chiu**

Chen K-C. Teaching competency in scientific research from experimental design to presentation: case study of a U.S. medical school in the Middle East. *Journal of college science teaching*. 2016 Sep/Oct;46(1):48-56.

#### **Chouchane, Lotfi**

Ban Y, Mai J, Li X, Mitchell-Flack M, Zhang T, Zhang L, Chouchane L, Ferrari M, Shen H, Ma X. Targeting autocrine CCL5-CCR5 axis reprograms immunosuppressive myeloid cells and reinvigorates antitumor immunity. *Cancer research*. 2017 Apr 17;77(11):2857-68. doi: 10.1158/0008-5472.can-16-2913

Bettaieb A, Paul C, Plenchette S, Shan J, Chouchane L, Ghiringhelli F. Precision medicine in breast cancer: reality or utopia? *Journal of translational medicine* [Internet]. 2017 Jun 17 [cited 2017 Jun 21];15(1):139 [13 p.]. Available from: <https://doi.org/10.1186/s12967-017-1239-z>

Ghedira R, Mahfoudh W, Hadhri S, Gabbouj S, Bouanene I, Khairi H, Chaieb A, Khelifa R, Bouaouina N, Remadi S, Elmi AA, Bansal D, Sultan AA, Faleh R, Zakhama A, Chouchane L, Hassen E. Human papillomavirus genotypes and HPV-16 variants distribution among Tunisian women with normal cytology and squamous intraepithelial lesions. *Infectious agents and cancer* [Internet]. 2016 Dec 1 [cited 2017 May 31];11:61 [10 p.]. Available from: <https://doi.org/10.1186/s13027-016-0109-2>

Haidar Z, Temanni R, Chouery E, Jitesh P, Liu W, Al-Ali R, Wang E, Marincola FM, Jalkh N, Haddad S, Haidar W, Chouchane L, Megarbane A. Diagnosis implications of the whole genome sequencing in a large Lebanese family with hyaline fibromatosis syndrome. *BMC genetics* [Internet]. 2017 Jan 19 [cited 2017 May 31];18(1):3 [13 p.]. Available from: <https://doi.org/10.1186/s12863-017-0471-0>

Liao L, Song M, Li X, Tang L, Zhang T, Zhang L, Pan Y, Chouchane L, Ma X. E3 ubiquitin ligase UBR5 drives the growth and metastasis of triple-negative breast cancer. *Cancer research*. 2017 Apr

15;77(8):2090-101. doi: 10.1158/0008-5472.can-16-2409

Ma C, Sastry KS, Flore M, Gehani S, Al-Bozom I, Feng Y, Serpedin E, Chouchane L, Chen Y, Huang Y. CrossLink: a novel method for cross-condition classification of cancer subtypes. *BMC genomics* [Internet]. 2016 Aug 22 [cited 2017 Jun 3];17 Suppl 7:549 [12 p.]. Available from: <https://doi.org/10.1186/s12864-016-2903-z>

Megarbane A, Al-Ali R, Choucair N, Lek M, Wang E, Ladjimi M, Rose CM, Hobeika R, Macary Y, Temanni R, Jithesh PV, Chouchane A, Sastry KS, Thomas R, Tomei S, Liu W, Marincola FM, MacArthur D, Chouchane L. Temple-Baraitser Syndrome and Zimmermann-Laband Syndrome: one clinical entity? *BMC medical genetics* [Internet]. 2016 Jun 10 [cited 2017 May 23];17(1):42 [11 p.]. Available from: <https://doi.org/10.1186/s12881-016-0304-4>

Memni H, Macherki Y, Klayech Z, Ben-Haj-Ayed A, Farhat K, Remadi Y, Gabbouj S, Mahfoudh W, Bouzid N, Bouaouina N, Chouchane L, Zakhama A, Hassen E. E-cadherin genetic variants predict survival outcome in breast cancer patients. *Journal of translational medicine* [Internet]. 2016 Nov 16 [cited 2017 Jun 3];14(1):320 [11 p.]. Available from: <https://doi.org/10.1186/s12967-016-1077-4>

Mohamed M, Sarwath H, Salih N, Bansal D, Chandra P, Husain NE, Chouchane L, Sultan AA, Bedri S. CD8+ tumor infiltrating lymphocytes strongly correlate with molecular subtype and clinico-pathological characteristics in breast cancer patients from Sudan. *Translational medicine communications* [Internet]. 2016 Oct 1 [cited 2017 Jun 13];1(4):[6 p.]. Available from: <https://doi.org/10.1186/s41231-016-0005-1>

# WCM-Q Faculty Publications

## July 2016 – June 2017

Sastry KS, Chouchane AI, Wang E, Kulik G, Marincola FM, Chouchane L. Cytoprotective effect of neuropeptides on cancer stem cells: vasoactive intestinal peptide-induced antiapoptotic signaling. *Cell death & disease* [Internet]. 2017 Jun 1 [cited 2017 Jun 7];8(6):e2844 [15 p.]. Available from: <https://doi.org/10.1038/cddis.2017.226>

### Ding, Hong

Samuel SM, Ghosh S, Majeed Y, Arunachalam G, Emara MM, Ding H, Trigg CR. Metformin represses glucose starvation induced autophagic response in microvascular endothelial cells and promotes cell death. *Biochemical pharmacology*. 2017 May 15;132:118-32. doi: 10.1016/j.bcp.2017.03.001

Trigg CR, Ding H. Metformin is not just an antihyperglycaemic drug but also has protective effects on the vascular endothelium. *Acta physiologica* (Oxford, England). 2017 Jan;219(1):138-51. doi: 10.1111/apha.12644

### Fernyhough, Liam J.

Quach H, Fernyhough LJ, Henderson R, Corbett G, Baker B, Browett P, Blacklock H, Forsyth C, Underhill C, Cannell P, Trotman J, Neylon A, Harrison S, Link E, Swern A, Cowan L, Dimopoulos MA, Miles Prince H. Upfront lower dose lenalidomide is less toxic and does not compromise efficacy for vulnerable patients with relapsed refractory multiple myeloma: final analysis of the phase II RevLite study. *British journal of haematology*. 2017 May;177(3):441-8. doi: 10.1111/bjh.14562

### Golkowska, Krystyna U.

Golkowska KU. Negotiating academic identity on a North-American branch campus. *Arab world English journal*

[Internet]. 2016 Dec [cited 2017 May 23];7(4):3-12. Available from: <https://doi.org/10.2139/ssrn.2898612>

Weber AS, Golkowska K, Larson AH, Miller I, Sharkey R, editors. *Qira'at: readings from the students of Weill Cornell Medical College in Qatar, 2002-2015*. Doha, Qatar: Weill Cornell Medical College in Qatar; 2015. 157 p. (Qira'at; vol. 4).

Weber AS, Sharkey R, Golkowska K, Larson AH, editors. *Qira'at: readings from the students of Weill Cornell Medical College in Qatar*. Doha: Dar al Sharq; 2017. 223 p. (Qira'at; vol. 5).

### Graumann, Johannes

Billing AM, Ben Hamidane H, Bhagwat AM, Cotton RJ, Dib SS, Kumar P, Hayat S, Goswami N, Suhre K, Rafii A, Graumann J. Complementarity of SOMAscan to LC-MS/MS and RNA-seq for quantitative profiling of human embryonic and mesenchymal stem cells. *Journal of proteomics* [Internet]. 2017 Jan 6 [cited 2017 Jun 3];150:86-97. Available from: <https://doi.org/10.1016/j.jprot.2016.08.023>

Cotton RJ, Ploier B, Goren MA, Menon AK, Graumann J. flippant-An R package for the automated analysis of fluorescence-based scramblase assays. *BMC bioinformatics* [Internet]. 2017 Mar 3 [cited 2017 May 31];18(1):146. Available from: <https://doi.org/10.1186/s12859-017-1542-y>

Guo M, Zhang T, Dong X, Xiang JZ, Lei M, Evans T, Graumann J, Chen S. Using hESCs to probe the interaction of the diabetes-associated genes CDKAL1 and MT1E. *Cell reports* [Internet]. 2017 May 23 [cited 2017 May 31];19(8):1512-21. Available from: <https://doi.org/10.1016/j.celrep.2017.04.070>

Ploier B, Caro LN, Morizumi T, Pandey K, Pearing JN, Goren MA, Finnemann SC, Graumann J, Arshavsky VY, Dittman JS, Ernst OP, Menon AK. Dimerization deficiency of enigmatic retinitis pigmentosa-linked rhodopsin mutants. *Nature communications* [Internet]. 2016 Oct 3 [cited 2017 Jun 3];7:12832 [11 p.]. Available from: <https://doi.org/10.1038/ncomms12832>

Suhre K, Arnold M, Bhagwat AM, Cotton RJ, Engelke R, Raffler J, Sarwath H, Thareja G, Wahl A, DeLisle RK, Gold L, Pezer M, Lauc G, El-Din Selim MA, Mook-Kanamori DO, Al-Dous EK, Mohamoud YA, Malek JA, Strauch K, Grallert H, Peters A, Kastenmuller G, Gieger C, Graumann J. Connecting genetic risk to disease end points through the human blood plasma proteome. *Nature communications* [Internet]. 2017 Feb 27 [cited 2017 May 31];8:14357 [14 p.]. Available from: <https://doi.org/10.1038/ncomms14357>

Zeng H, Guo M, Zhou T, Tan L, Chong CN, Zhang T, Dong X, Xiang JZ, Yu AS, Yue L, Qi Q, Evans T, Graumann J, Chen S. An isogenic human ESC Platform for functional evaluation of genome-wide-association-study-identified diabetes genes and drug discovery. *Cell stem cell*. 2016 Sep 01;19(3):326-40. doi: 10.1016/j.stem.2016.07.002

### Haddad, Naim

Haddad N, Melikyan G, Al Hail H, Al Jurdi A, Aqeel F, Elzafarany A, Abuhadra N, Laswi M, Alsamman Y, Uthman B, Deleu D, Mesraoua B, Alarcon G, Azar N, Streletz LJ, Mahfoud ZR. Epilepsy in Qatar: causes, treatment, and outcome. *Epilepsy & behavior : E&B* [Internet]. 2016 Oct [cited 2017 Jun 3];63:98-102. Available from: <https://doi.org/10.1016/j.yebeh.2016.07.043>

Kronfol Z, Al-Amin H, Haddad N, Streletz LJ, Gordon-Elliott J, Marzuk



P. Teaching psychiatry on the global scene: the Cornell University experience. *Academic psychiatry : the journal of the American Association of Directors of Psychiatric Residency Training and the Association for Academic Psychiatry*. 2016 Aug;40(4):698-700. doi: 10.1007/s40596-015-0409-7

#### Ho, Ming-Jung

Ho M-J, Alkhal A, Tekian A, Shih J, Shaw K, Wang CH, Alyafei K, Konopasek L. Contextualizing the Physician Charter on Professionalism in Qatar: from patient autonomy to family autonomy. *Journal of graduate medical education*. 2016 Dec;8(5):719-25. doi: 10.4300/jgme-d-16-00010.1

Ho M-J, Gosselin K, Chandratilake M, Monrouxe LV, Rees CE. Taiwanese medical students' narratives of intercultural professionalism dilemmas: exploring tensions between Western medicine and Taiwanese culture. *Advances in health sciences education: theory and practice*. 2017 May;22(2):429-45. doi: 10.1007/s10459-016-9738-x

Monrouxe LV, Chandratilake M, Gosselin K, Rees CE, Ho M-J. Taiwanese and Sri Lankan students' dimensions and discourses of professionalism. *Medical education* [Internet]. 2017 Apr 25 [cited 2017 Jun 29];51(7):718-31. Available from: <https://doi.org/10.1111/medu.13291>

Wang X, Shih J, Kuo FJ, Ho M-J. A scoping review of medical professionalism research published in the Chinese language. *BMC medical education* [Internet]. 2016 Nov 23 [cited 2017 Jun 3];16(1):300 [10 p.]. Available from: <https://doi.org/10.1186/s12909-016-0818-7>

#### Hunt, Steven C.

Davidson LE, Adams TD, Kim J, Jones JL, Hashibe M, Taylor D, Mehta T, McKinlay R, Simper SC, Smith SC, Hunt SC. Association of patient age at gastric bypass surgery with long-term all-cause and cause-specific mortality. *JAMA surgery*. 2016 Jul 01;151(7):631-7. doi: 10.1001/jamasurg.2015.5501

Ehret GB, Ferreira T, Chasman DI, Jackson AU, Schmidt EM, Johnson T, Thorleifsson G, Luan J, Donnelly LA, Kanoni S, Petersen AK, Pihur V, Strawbridge RJ, Shungin D, Hughes MF, Meirelles O, Kaakinen M, Bouatia-Naji N, Kristiansson K, Shah S, Kleber ME, Guo X, Lyytikainen LP, Fava C, Eriksson N, Nolte IM, Magnusson PK, Salfati EL, Rallidis LS, Theusch E, Smith AJ, Folkersen L, Witkowska K, Pers TH, Joehanes R, Kim SK, Lataniotis L, Jansen R, Johnson AD, Warren H, Kim YJ, Zhao W, Wu Y, Tayo BO, Bochud M, Absher D, Adair LS, Amin N, Arking DE, Axelsson T, Baldassarre D, Balkau B, Bandinelli S, Barnes MR, Barroso I, Bevan S, Bis JC, Bjornsdottir G, Boehnke M, Boerwinkle E, Bonycastle LL, Boomsma DI, Bornstein SR, Brown MJ, Burnier M, Cabrera CP, Chambers JC, Chang IS, Cheng CY, Chines PS, Chung RH, Collins FS, Connell JM, Doring A, Dallongeville J, Danesh J, de Faire U, Delgado G, Dominiczak AF, Doney AS, Drenos F, Edkins S, Eicher JD, Elosua R, Enroth S, Erdmann J, Eriksson P, Esko T, Evangelou E, Evans A, Fall T, Farrall M, Felix JF, Ferrieres J, Ferrucci L, Fornage M, Forrester T, Franceschini N, Franco OH, Franco-Cereceda A, Fraser RM, Ganesh SK, Gao H, Gertow K, Gianfagna F, Gigante G, Giulianini F, Goel A, Goodall AH, Goodarzi MO, Gorski M, Grassler J, Groves CJ, Gudnason V, Gyllenstein U, Hallmans G, Hartikainen AL, Hassinen M, Havulinna AS, Hayward C, Hercberg S, Herzig KH, Hicks AA, Hingorani AD, Hirschhorn JN, Hofman A, Holmen J,

Holmen OL, Hottenga JJ, Howard P, Hsiung CA, Hunt SC, Ikram MA, Illig T, Iribarren C, Jensen RA, Kahonen M, Kang HM, Kathiresan S, Keating BJ, Khaw KT, Kim YK, Kim E, Kivimaki M, Klopp N, Kolovou G, Komulainen P, Kooner JS, Kosova G, Krauss RM, Kuh D, Kutalik Z, Kuusisto J, Kvaloy K, Lakka TA, Lee NR, Lee IT, Lee WJ, Levy D, Li X, Liang KW, Lin H, Lin L, Lindstrom J, Lobbens S, Mannisto S, Muller G, Muller-Nurasyid M, Mach F, Markus HS, Marouli E, McCarthy MI, McKenzie CA, Meneton P, Menni C, Metspalu A, Mijatovic V, Moilanen L, Montasser ME, Morris AD, Morrison AC, Mulas A, Nagaraja R, Narisu N, Nikus K, O'Donnell CJ, O'Reilly PF, Ong KK, Paccaud F, Palmer CD, Parsa A, Pedersen NL, Penninx BW, Perola M, Peters A, Poulter N, Pramstaller PP, Psaty BM, Quertermous T, Rao DC, Rasheed A, Rayner NW, Renstrom F, Rettig R, Rice KM, Roberts R, Rose LM, Rossouw J, Samani NJ, Sanna S, Saramies J, Schunkert H, Sebert S, Sheu WH, Shin YA, Sim X, Smit JH, Smith AV, Sosa MX, Spector TD, Stancakova A, Stanton AV, Stirrups KE, Stringham HM, Sundstrom J, Swift AJ, Syvanen AC, Tai ES, Tanaka T, Tarasov KV, Teumer A, Thorsteinsdottir U, Tobin MD, Tremoli E, Uitterlinden AG, Uusitupa M, Vaez A, Vaidya D, van Duijn CM, van Iperen EP, Vasani RS, Verwoert GC, Virtamo J, Vitart V, Voight BF, Vollenweider P, Wagner A, Wain LV, Wareham NJ, Watkins H, Weder AB, Westra HJ, Wilks R, Wilsgaard T, Wilson JF, Wong TY, Yang TP, Yao J, Yengo L, Zhang W, Zhao JH, Zhu X, Bovet P, Cooper RS, Mohlke KL, Saleheen D, Lee JY, Elliott P, Gierman HJ, Willer CJ, Franke L, Hovingh GK, Taylor KD, Dedoussis G, Sever P, Wong A, Lind L, Assimes TL, Njolstad I, Schwarz PE, Langenberg C, Snieder H, Caulfield MJ, Melander O, Laakso M, Saltevo J, Rauramaa R, Tuomilehto J, Ingelsson E, Lehtimaki T, Hveem K, Palmas W, Marz W, Kumari M, Salomaa V, Chen YD, Rotter

# WCM-Q Faculty Publications

## July 2016 – June 2017

Ji, Froguel P, Jarvelin MR, Lakatta EG, Kuulasmaa K, Franks PW, Hamsten A, Wichmann HE, Palmer CN, Stefansson K, Ridker PM, Loos RJ, Chakravarti A, Deloukas P, Morris AP, Newton-Cheh C, Munroe PB. The genetics of blood pressure regulation and its target organs from association studies in 342,415 individuals. *Nature genetics* [Internet]. 2016 Sep 12 [cited 2017 Jun 3];48(10):1171-84. Available from: <https://doi.org/10.1038/ng.3667>

Hansen ME, Hunt SC, Stone RC, Horvath K, Herbig U, Ranciaro A, Hirbo J, Beggs W, Reiner AP, Wilson JG, Kimura M, De Vivo I, Chen MM, Kark JD, Levy D, Nyambo T, Tishkoff SA, Aviv A. Shorter telomere length in Europeans than in Africans due to polygenetic adaptation. *Human molecular genetics* [Internet]. 2016 Jun [cited 2017 Jun 4];25(11):2324-30. Available from: <https://doi.org/10.1093/hmg/ddw070>

The Telomeres Mendelian Randomization Collaboration, [incl. Hunt SC]. Association between telomere length and risk of cancer and non-neoplastic diseases: a Mendelian randomization study. *JAMA oncology*. 2017 May 01;3(5):636-51. doi: 10.1001/jamaoncol.2016.5945

Imran TF, Patel Y, Ellison RC, Carr JJ, Arnett DK, Pankow JS, Heiss G, Hunt SC, Gaziano JM, Djousse L. Walking and calcified atherosclerotic plaque in the coronary arteries: the National Heart, Lung, and Blood Institute Family Heart Study. *Arteriosclerosis, thrombosis, and vascular biology* [Internet]. 2016 Jun [cited 2017 Jun 4];36(6):1272-7. Available from: <https://doi.org/10.1161/atvbaha.116.307284>

Lamina C, Friedel S, Coassin S, Rueedi R, Yousri NA, Seppala I, Gieger C, Schonherr S, Forer L, Erhart G, Kollerits B, Marques-Vidal P, Ried J, Waeber G, Bergmann S,

Dahnhardt D, Stockl A, Kiechl S, Raitakari OT, Kahonen M, Willeit J, Kedenko L, Paulweber B, Peters A, Meitinger T, Strauch K, Study Group K, Lehtimäki T, Hunt SC, Vollenweider P, Kronenberg F. A genome-wide association meta-analysis on apolipoprotein A-IV concentrations. *Human molecular genetics* [Internet]. 2016 Aug 16 [cited 2017 Jun 13];25(16):3635-46. Available from: <https://doi.org/10.1093/hmg/ddw211>

Liang J, Le TH, Edwards DRV, Tayo BO, Gaulton KJ, Smith JA, Lu Y, Jensen RA, Chen G, Yanek LR, Schwander K, Tajuddin SM, Sofer T, Kim W, Kayima J, McKenzie CA, Fox E, Nalls MA, Young JH, Sun YV, Lane JM, Cechova S, Zhou J, Tang H, Fornage M, Musani SK, Wang H, Lee J, Adeyemo A, Dreisbach AW, Forrester T, Chu PL, Cappola A, Evans MK, Morrison AC, Martin LW, Wiggins KL, Hui Q, Zhao W, Jackson RD, Ware EB, Faul JD, Reiner AP, Bray M, Denny JC, Mosley TH, Palmas W, Guo X, Papanicolaou GJ, Penman AD, Polak JF, Rice K, Taylor KD, Boerwinkle E, Bottinger EP, Liu K, Risch N, Hunt SC, Kooperberg C, Zonderman AB, Laurie CC, Becker DM, Cai J, Loos RJJ, Psaty BM, Weir DR, Kardia SLR, Arnett DK, Won S, Edwards TL, Redline S, Cooper RS, Rao DC, Rotter JI, Rotimi C, Levy D, Chakravarti A, Zhu X, Franceschini N. Single-trait and multi-trait genome-wide association analyses identify novel loci for blood pressure in African-ancestry populations. *PLoS Genet*. [Internet]. 2017 May 12 [cited 2017 Jun 13];13(5):e1006728 [22 p.]. Available from: <https://doi.org/10.1371/journal.pgen.1006728>

Patel YR, Gadiraju TV, Ellison RC, Hunt SC, Carr JJ, Heiss G, Arnett DK, Pankow JS, Gaziano JM, Djousse L. Coffee consumption and calcified atherosclerotic plaques in the coronary arteries: the NHLBI Family Heart Study. *Clinical nutrition ESPEN*. 2017 Feb;17:18-21. doi: 10.1016/j.clnesp.2016.12.003

Steenstrup T, Kark JD, Verhulst S, Thinggaard M, Hjelmborg JVB, Dalgard C, Kyvik KO, Christiansen L, Mangino M, Spector TD, Petersen I, Kimura M, Benetos A, Labat C, Sinnreich R, Hwang SJ, Levy D, Hunt SC, Fitzpatrick AL, Chen W, Berenson GS, Barbieri M, Paolisso G, Gadalla SM, Savage SA, Christensen K, Yashin AI, Arbeevev KG, Aviv A. Telomeres and the natural lifespan limit in humans. *Aging* [Internet]. 2017 Apr 6 [cited 2017 Jun 13];9(4):1130-42. Available from: <https://doi.org/10.18632/aging.101216>

### **Khidir, Amal**

Abdelrahim H, Elnashar M, Khidir A, Killawi A, Hammoud M, Al-Khal AL, Feters MD. Patient perspectives on language discordance during healthcare visits: findings from the extremely high-density multicultural state of Qatar. *Journal of health communication* [Internet]. 2017 Mar 24 [cited 2017 May 25];22(4):355-63. Available from: <https://doi.org/10.1080/10810730.2017.1296507>

AlRawi SN, Khidir A, Elnashar MS, Abdelrahim HA, Killawi AK, Hammoud MM, Feters MD. Traditional Arabic & Islamic medicine: validation and empirical assessment of a conceptual model in Qatar. *BMC complementary and alternative medicine* [Internet]. 2017 Mar 14 [cited 2017 May 25];17(1):157 [10 p.]. Available from: <https://doi.org/10.1186/s12906-017-1639-x>

### **Kronfol, Ziad**

Kronfol Z, Al-Amin H, Haddad N, Streletz LJ, Gordon-Elliott J, Marzuk P. Teaching psychiatry on the global scene: the Cornell University experience. *Academic psychiatry : the journal of the American Association of Directors of Psychiatric Residency Training and the Association for Academic Psychiatry*. 2016 Aug;40(4):698-700. doi: 10.1007/s40596-015-0409-7

**Ladjimi, Moncef**

Megarbane A, Al-Ali R, Choucair N, Lek M, Wang E, Ladjimi M, Rose CM, Hobeika R, Macary Y, Temanni R, Jithesh PV, Chouchane A, Sastry KS, Thomas R, Tomei S, Liu W, Marincola FM, MacArthur D, Chouchane L. Temple-Baraitser Syndrome and Zimmermann-Laband Syndrome: one clinical entity? BMC medical genetics [Internet]. 2016 Jun 10 [cited 2017 May 23];17(1):42 [11 p.]. Available from: <https://doi.org/10.1186/s12881-016-0304-4>

**Larson, Adam H.**

Weber AS, Golkowska K, Larson AH, Miller I, Sharkey R, editors. Qira'at: readings from the students of Weill Cornell Medical College in Qatar, 2002-2015. Doha, Qatar: Weill Cornell Medical College in Qatar; 2015. 157 p. (Qira'at; vol. 4).

Weber AS, Sharkey R, Golkowska K, Larson AH, editors. Qira'at: readings from the students of Weill Cornell Medicine in Qatar. Doha: Dar al Sharq; 2017. 223 p. (Qira'at; vol. 5).

**Machaca, Khaled**

Courjaret R, Dib M, Machaca K. Store-operated Ca<sup>2+</sup> entry in oocytes modulate the dynamics of IP<sub>3</sub>-dependent Ca<sup>2+</sup> release from oscillatory to tonic. Journal of cellular physiology. 2017 May;232(5):1095-103. doi: 10.1002/jcp.25513

Courjaret R, Hodeify R, Hubrack S, Ibrahim A, Dib M, Daas S, Machaca K. The Ca<sup>2+</sup>-activated Cl<sup>-</sup> channel Ano1 controls microvilli length and membrane surface area in the oocyte. Journal of cell science [Internet]. 2016 Jul 1 [cited 2017 Jun 4];129(13):2548-58. Available from: <https://doi.org/10.1242/jcs.188367>

Courjaret R, Machaca K. Xenopus oocyte as a model system to study store-operated Ca<sup>2+</sup> entry (SOCE). Frontiers in cell and developmental biology [Internet]. 2016 Jun 24 [cited 2017 Jun 4];4:66 [12 p.]. Available from: <https://doi.org/10.3389/fcell.2016.00066>

Hodeify R, Yu F, Courjaret R, Nader N, D'ib M, Sun L, Adap E, Hubrack S, Machaca K. Regulation and role of store-operated Ca<sup>2+</sup> entry in cellular proliferation. In: Kozak JA, Putney J. W. Jr, editors. Calcium entry channels in non-excitabile cells. CRC Press; 2017. p. 215-39. (Eichberg J, Zhu MX, editors. Methods in signal transduction series). doi: 10.1201/9781315152592-13

Pasquier J, Gupta R, Rioult D, Hoarau-Vechot J, Courjaret R, Machaca K, Al Suwaidi J, Stanley EG, Rafii S, Elliott DA, Abi Khalil C, Rafii A. Coculturing with endothelial cells promotes in vitro maturation and electrical coupling of human embryonic stem cell-derived cardiomyocytes. The Journal of heart and lung transplantation. 2017 Jun;36(6):684-93. doi: 10.1016/j.healun.2017.01.001

Petersen OH, Courjaret R, Machaca K. Ca<sup>2+</sup> tunnelling through the ER lumen as a mechanism for delivering Ca<sup>2+</sup> entering via store-operated Ca<sup>2+</sup> channels to specific target sites. The Journal of physiology [Internet]. 2017 May 15 [cited 2017 May 31];595(10):2999-3014. Available from: <https://doi.org/10.1113/jp272772>

Rahal ON, Fatfat M, Hankache C, Osman B, Khalife H, Machaca K, Muhtasib HG. Chk1 and DNA-PK mediate TPEN-induced DNA damage in a ROS dependent manner in human colon cancer cells. Cancer biology & therapy. 2016 Nov;17(11):1139-48. doi: 10.1080/15384047.2016.1235658

Schaefer-Ramadan S, Bendriss G, Hubrack S, Al-Abdulmalek A, Machaca K. A novel approach to the expression and purification of recombinant Xenopus Cdc25C. Protein expression and purification. 2016 Apr;120:148-52. doi: 10.1016/j.pep.2015.12.007

**Mahfoud, Ziyad R.**

Barikian A, Salti H, Safar A, Mahfoud ZR, Bashshur ZF. Intravitreal dexamethasone implant as adjuvant treatment for bevacizumab- and ranibizumab-resistant neovascular age-related macular degeneration: a prospective pilot study. Retina (Philadelphia, Pa.). 2016 Jul;37(7):1337-44. doi: 10.1097/iae.0000000000001366

Chaabane Z, Murlasits Z, Mahfoud ZR, Goebel R. Tobacco use and its health effects among professional athletes in Qatar. Canadian respiratory journal [Internet]. 2016 [cited 2017 May 31];2016:2684090 [6 p.]. Available from: <https://doi.org/10.1155/2016/2684090>

Chakhtoura M, Akl EA, El Ghandour S, Shawwa K, Arabi A, Mahfoud ZR, Habib RH, Hoballah H, El Hajj Fuleihan G. Impact of vitamin D replacement in adults and elderly in the Middle East and North Africa: a systematic review and meta-analysis of randomized controlled trials. Osteoporosis international. 2017 Jan;28(1):35-46. doi: 10.1007/s00198-016-3837-7

Chakhtoura M, El Ghandour S, Shawwa K, Akl EA, Arabi A, Mahfoud ZR, Habib R, Hoballah H, El Hajj Fuleihan G. Vitamin D replacement in children, adolescents and pregnant women in the Middle East and North Africa: a systematic review and meta-analysis of randomized controlled trials. Metabolism: clinical and experimental. 2017 May;70:160-76. doi: 10.1016/j.metabol.2017.02.009

# WCM-Q Faculty Publications

## July 2016 – June 2017

El Hajj MS, Kheir N, Al Mulla AM, Shami R, Fanous N, Mahfoud ZR. Effectiveness of a pharmacist-delivered smoking cessation program in the State of Qatar: a randomized controlled trial. *BMC public health* [Internet]. 2017 Feb 20 [cited 2017 May 31];17(1):215 [12 p.]. Available from: <https://doi.org/10.1186/s12889-017-4103-4>

El-Hajj Fuleihan G, Baddoura R, Habib RH, Halaby G, Arabi A, Rahme M, Singh RJ, Kassem M, Mahfoud ZR, Hoteit M, Daher RT, Kassir MF. Effect of vitamin D replacement on indexes of insulin resistance in overweight elderly individuals: a randomized controlled trial. *The American journal of clinical nutrition*. 2016 Aug;104(2):315-23. doi: 10.3945/ajcn.116.132589

Eldeeb N, Halileh S, Alyafei KA, Ghandour R, Dargham S, Giacaman R, Kamal M, Imseeh S, Korayem M, Nasr S, Mahfoud ZR, Abu-Rmeileh N, Mahmoud M, Tawfik H, Lynch MA, Mian M. Child discipline in Qatar and Palestine: a comparative study of ICAST-R. *Child abuse & neglect*. 2016 Nov;61:63-72. doi: 10.1016/j.chiabu.2016.10.006

Ghazal N, Al-Shaar L, Maalouf J, Nabulsi M, Arabi A, Choucair M, Tamim H, Mahfoud ZR, El-Hajj Fuleihan G. Persistent effect of vitamin D supplementation on musculoskeletal parameters in adolescents one year after trial completion. *Journal of bone and mineral research : the official journal of the American Society for Bone and Mineral Research*. 2016 Jul;31(7):1473-80. doi: 10.1002/jbmr.2802

Gkantaras I, Mahfoud ZR, Foreman B, Thompson DR, Cannaby AM, Deshpande DH, Watson R, Topping A, Gray R. The effect of Nurse GraduateTeness on patient mortality: a cross-sectional survey (the NuGaT study). *Journal of advanced*

*nursing*. 2016 Dec;72(12):3034-44. doi: 10.1111/jan.13059

Haddad N, Melikyan G, Al Hail H, Al Jurdi A, Aqeel F, Elzafarany A, Abuhadra N, Laswi M, Alsamman Y, Uthman B, Deleu D, Mesraoua B, Alarcon G, Azar N, Streletz LJ, Mahfoud ZR. Epilepsy in Qatar: causes, treatment, and outcome. *Epilepsy & behavior : E&B* [Internet]. 2016 Oct [cited 2017 Jun 3];63:98-102. Available from: <https://doi.org/10.1016/j.yebeh.2016.07.043>

Hammoudeh S, Ghuloum S, Mahfoud ZR, Opler M, Khan A, Yehya A, Abdulhakam A, Al-Mujalli A, Hani Y, Elsherbiny R, Al-Amin H. Reliability, validity and factorial structure of the Arabic version of the international suicide prevention trial (InterSePT) scale for suicidal thinking in schizophrenia patients in Doha, Qatar. *BMC psychiatry* [Internet]. 2016 Dec 7 [cited 2017 May 31];16(1):437 [9 p.]. Available from: <https://doi.org/10.1186/s12888-016-1155-4>

Hani Y, Ghuloum S, Mahfoud ZR, Opler M, Khan A, Yehya A, Abdulhakam A, Hammoudeh S, Al-Mujalli A, Elsherbiny R, Al-Amin H. Validation of the Arabic version of Calgary Depression Scale for Schizophrenia. *PloS one* [Internet]. 2016 Sep 1 [cited 2017 Jun 3];11(9):e0162304 [11 p.]. Available from: <https://doi.org/10.1371/journal.pone.0162304>

Saxena R, Plenge RM, Bjornnes AC, Dashti HS, Okada Y, Gad El Haq W, Hammoudeh M, Al Emadi S, Masri BK, Halabi H, Badsha H, Uthman IW, Margolin L, Gupta N, Mahfoud ZR, Kapiri M, Dargham SR, Aranki G, Kazkaz LA, Arayssi T. A multinational Arab genome-wide association study identifies new genetic associations for rheumatoid arthritis. *Arthritis & rheumatology (Hoboken, N.J.)*. 2017 May;69(5):976-85. doi: 10.1002/art.40051

Yehya A, Ghuloum S, Mahfoud ZR, Opler M, Khan A, Hammoudeh S, Abdulhakam A, Al-Mujalli A, Hani Y, Elsherbiny R, Al-Amin H. Validity and reliability of the Arabic version of the Positive and Negative Syndrome Scale. *Psychopathology*. 2016;49(3):181-7. doi: 10.1159/000447328

Zidan A, Awaisu A, Kheir N, Mahfoud ZR, Kaddoura R, AlYafei S, El Hajj MS. Impact of a pharmacist-delivered discharge and follow-up intervention for patients with acute coronary syndromes in Qatar: a study protocol for a randomised controlled trial. *BMJ open* [Internet]. 2016 Nov 18 [cited 2017 Jun 3];6(11):e012141 [9 p.]. Available from: <https://doi.org/10.1136/bmjopen-2016-012141>

### Mahmoud, Mai

Eldeeb N, Halileh S, Alyafei KA, Ghandour R, Dargham S, Giacaman R, Kamal M, Imseeh S, Korayem M, Nasr S, Mahfoud ZR, Abu-Rmeileh N, Mahmoud M, Tawfik H, Lynch MA, Mian M. Child discipline in Qatar and Palestine: a comparative study of ICAST-R. *Child abuse & neglect*. 2016 Nov;61:63-72. doi: 10.1016/j.chiabu.2016.10.006

Strulovici-Barel Y, Shaykhiev R, Salit J, Deeb RS, Krause A, Kaner RJ, Vincent TL, Agosto-Perez F, Wang G, Hollmann C, Shanmugam V, Almulla AM, Sattar H, Mahmoud M, Mezey JG, Gross SS, Staudt MR, Walters MS, Crystal RG. Pulmonary abnormalities in young, light-use waterpipe (hookah) smokers. *American journal of respiratory and critical care medicine*. 2016 Sep 1;194(5):587-95. doi: 10.1164/rccm.201512-2470OC

Walters MS, Salit J, Ju JH, Staudt MR, Kaner RJ, Rogalski AM, Sodeinde TB, Rahim R, Strulovici-Barel Y, Mezey JG, Almulla AM, Sattar H, Mahmoud M, Crystal RG. Waterpipe smoking induces



epigenetic changes in the small airway epithelium. *PloS one* [Internet]. 2017 Mar 8 [cited 2017 May 31];12(3):e0171112 [18 p.]. Available from: <https://doi.org/10.1371/journal.pone.0171112>

### Major, Stella

Elnashar M, Abdelrahim H, Major S. Weill Cornell Medicine-Qatar strives to instill cultural competence training in the medical education curriculum. In: Deardoroff DK, Arasarathnam-Smith LA, editors. *Intercultural competence in higher education: international approaches, assessment and application*. New York, NY: Routledge; 2017. p. 180-5. (Internationalization in higher education series).

Kilshaw S, Miller D, Al Tamimi H, El-Taher F, Mohsen M, Omar N, Major S, Sole K. Calm vessels: cultural expectations of pregnant women in Qatar. *Anthropology of the Middle East* [Internet]. 2016 Dec 1 [cited 2017 Jun 13];11(2):39-59. Available from: <https://doi.org/10.3167/ame.2016.110204>

Major S. Viral upper respiratory infections, influenza, and flu. In: Paulman PM, Paulman AA, Jarzynka K, Falk NP, editors. *Taylor's manual of family medicine*. 4th ed. Philadelphia: Wolters Kluwer Health; 2015. p. 693-7. (Lippincott manual series).

Zolezzi M, Abdalla O, Major S, White D, Owusu Y, Sankaralingam S. Teaching physical assessment and disease screening to students in the health professions: a focus in pharmacy education. *Health* [Internet]. 2016 Dec [cited 2017 Jun 13];8(15):1713-25. Available from: <https://doi.org/10.4236/health.2016.815166>

Zolezzi M, Abdallah O, Aden S, Major S, White D, El-Awaisi A. Perceived preparedness of health care students

for providing cardiovascular disease risk assessment and management. *Pharmacy* [Internet]. 2017 Feb 21 [cited 2017 Jun 13];5(1):9 [11 p.]. Available from: <https://doi.org/10.3390/pharmacy5010009>

### Malek, Joel A.

Elsaid MF, Chalhoub N, Ben-Omran T, Kumar P, Kamel H, Ibrahim K, Mohamoud Y, Al-Dous E, Al-Azwani I, Malek JA, Suhre K, Ross ME, Aleem AA. Mutation in noncoding RNA RNU12 causes early onset cerebellar ataxia. *Annals of neurology*. 2017 Jan;81(1):68-78. doi: 10.1002/ana.24826

Fakhro KA, Staudt MR, Ramstetter MD, Robay AP, Malek JA, Badii R, Al-Marri AA, Abi Khalil C, Al-Shakaki A, Chidiac O, Stadler DJ, Zirie M, Jayyousi A, Salit J, Mezey JG, Crystal RG, Rodriguez-Flores JL. The Qatar genome: a population-specific tool for precision medicine in the Middle East. *Human genome variation* [Internet]. 2016 Jun 30 [cited 2017 Jun 4];3:16016 [7 p.]. Available from: <https://doi.org/10.1038/hgv.2016.16>

O'Beirne SL, Salit J, Rodriguez-Flores JL, Staudt MR, Abi Khalil C, Fakhro KA, Robay AP, Ramstetter MD, Al-Azwani IK, Malek JA, Zirie M, Jayyousi A, Badii R, Al-Nabet Al-Marri A, Chiuchiolo MJ, Al-Shakaki A, Chidiac O, Gharbiah M, Bener A, Stadler DJ, Hackett NR, Mezey JG, Crystal RG. Type 2 diabetes risk allele loci in the Qatari population. *PloS one* [Internet]. 2016 Jul 6 [cited 2017 Jun 4];11(7):e0156834 [14 p.]. Available from: <https://doi.org/10.1371/journal.pone.0156834>

Suhre K, Arnold M, Bhagwat AM, Cotton RJ, Engelke R, Raffler J, Sarwath H, Thareja G, Wahl A, DeLisle RK, Gold L, Pezer M, Lauc G, El-Din Selim MA, Mook-Kanamori DO, Al-Dous EK, Mohamoud YA, Malek JA, Strauch K, Grallert H, Peters A,

Kastenmuller G, Gieger C, Graumann J. Connecting genetic risk to disease end points through the human blood plasma proteome. *Nature communications* [Internet]. 2017 Feb 27 [cited 2017 May 31];8:14357 [14 p.]. Available from: <https://doi.org/10.1038/ncomms14357>

### Malik, Rayaz A.

Akhtar N, Salam A, Kamran S, Bourke P, Joseph S, Santos M, Khan R, Irfan F, Deleu D, Malik RA, Shuaib A. Ethnic variation in acute cerebrovascular disease: analysis from the Qatar stroke registry. *European stroke journal* [Internet]. 2016 Sep 1 [cited 2017 Jun 30];1(3):231-41. Available from: <https://doi.org/10.1177/2396987316663776>

Al Rashah K, Pritchard N, Dehghani C, Ruggeri A, Guimaraes P, Poole C, Russell A, Malik RA, Efron N, Edwards K. Repeatability of measuring corneal nerve migration rate in individuals with and without diabetes. *Cornea*. 2016 Oct;35(10):1355-61. doi: 10.1097/ICO.0000000000000913

Al-Fahdawi S, Qahwaji R, Al-Waisy AS, Ipson S, Malik RA, Brahma A, Chen X. A fully automatic nerve segmentation and morphometric parameter quantification system for early diagnosis of diabetic neuropathy in corneal images. *Computer methods and programs in biomedicine*. 2016 Oct;135:151-66. doi: 10.1016/j.cmpb.2016.07.032

Almurdhi MM, Brown SJ, Bowling FL, Boulton AJM, Jeziorska M, Malik RA, Reeves ND. Altered walking strategy and increased unsteadiness in participants with impaired glucose tolerance and Type 2 diabetes relates to small-fibre neuropathy but not vitamin D deficiency. *Diabetic medicine*. 2017 Jun;34(6):839-45. doi: 10.1111/dme.13316

# WCM-Q Faculty Publications

## July 2016 – June 2017

Almurdhi MM, Reeves ND, Bowling FL, Boulton AJ, Jeziorska M, Malik RA. Response to comment on Almurdhi et al. Reduced lower-limb muscle strength and volume in patients with type 2 diabetes in relation to neuropathy, intramuscular fat, and vitamin d levels. *Diabetes Care* 2016;39:441-447. *Diabetes care*. 2016 Oct;39(10):e184-5. doi: 10.2337/dci16-0020

Almurdhi MM, Reeves ND, Bowling FL, Boulton AJ, Jeziorska M, Malik RA. Distal lower limb strength is reduced in subjects with impaired glucose tolerance and is related to elevated intramuscular fat level and vitamin D deficiency. *Diabetic medicine*. 2017 Mar;34(3):356-63. doi: 10.1111/dme.13163

Areti A, Komirishetty P, Akuthota M, Malik RA, Kumar A. Melatonin prevents mitochondrial dysfunction and promotes neuroprotection by inducing autophagy during oxaliplatin-evoked peripheral neuropathy. *Journal of pineal research* [Internet]. 2017 Apr [cited 2017 May 31];62(3):e12393 [17 p.]. Available from: <https://doi.org/10.1111/jpi.12393>

Asghar O, Arumugam P, Armstrong I, Ray S, Schmitt M, Malik RA. Iodine-123 metaiodobenzylguanidine scintigraphy for the assessment of cardiac sympathetic innervation and the relationship with cardiac autonomic function in healthy adults using standardized methods. *Nuclear medicine communications*. 2017 Jan;38(1):44-50. doi: 10.1097/mnm.0000000000000608  
Asghar O, Miller C, Ray S, Schmitt M, Malik RA. Subjects with extreme-duration type 1 diabetes exhibit no structural or functional abnormality on cardiac MRI [letter]. *Diabetes care*. 2016;39(10):e167-e8. doi: 10.2337/dc16-0760

Ashoor MF, Bintouq AK, Rutter MK, Malik RA. Pancreatic islet cell transplantation as a treatment for brittle type 1 diabetes: A case report and review of the literature. *Journal of Taibah University Medical Sciences*. 2016;11(4):395-400. doi: 10.1016/j.jtumed.2016.06.003

Azmi S, Ferdousi M, Alam U, Petropoulos IN, Ponirakis G, Marshall A, Asghar O, Fadavi H, Jones W, Tavakoli M, Boulton AJM, Jeziorska M, Soran H, Efron N, Malik RA. Small-fibre neuropathy in men with type 1 diabetes and erectile dysfunction: a cross-sectional study. *Diabetologia*. 2017 Jun;60(6):1094-101. doi: 10.1007/s00125-017-4245-z

Bitirgen G, Belviranli S, Malik RA, Kerimoglu H, Satirtav G, Zengin N. Assessment of corneal sensation, innervation and retinal nerve fiber layer in patients treated with multiple intravitreal ranibizumab injections. *PloS one* [Internet]. 2017 Jan 13 [cited 2017 May 31];12(1):e0170271 [8 p.]. Available from: <https://doi.org/10.1371/journal.pone.0170271>

Chen X, Graham J, Dabbah MA, Petropoulos IN, Tavakoli M, Malik RA. An automatic tool for quantification of nerve fibers in corneal confocal microscopy images. *IEEE transactions on bio-medical engineering*. 2017 Apr;64(4):786-94. doi: 10.1109/tbme.2016.2573642

Culver DA, Dahan A, Bajorunas D, Jeziorska M, van Velzen M, Aarts L, Tavee J, Tannemaat MR, Dunne AN, Kirk RI, Petropoulos IN, Cerami A, Malik RA, Brines M. Cibinetide improves corneal nerve fiber abundance in patients with sarcoidosis-associated small nerve fiber loss and neuropathic pain. *Investigative ophthalmology & visual science* [Internet]. 2017 May 1 [cited 2017 May 31];58(6):BIO52-BIO60. Available from: <https://doi.org/10.1167/iovs.16-21291>

Dehghani C, Pritchard N, Edwards K, Russell AW, Malik RA, Efron N. Abnormal anterior corneal morphology in diabetes observed using in vivo laser-scanning confocal microscopy. *Ocular surface*. 2016 Oct;14(4):507-14. doi: 10.1016/j.jtos.2016.07.004

Dehghani C, Pritchard N, Edwards K, Russell AW, Malik RA, Efron N. Risk factors associated with corneal nerve alteration in type 1 diabetes in the absence of neuropathy: a longitudinal in vivo corneal confocal microscopy study. *Cornea*. 2016 Jun;35(6):847-52. doi: 10.1097/ico.0000000000000760  
Dehghani C, Russell AW, Perkins BA, Malik RA, Pritchard N, Edwards K, Shahidi AM, Srinivasan S, Efron N. A rapid decline in corneal small fibers and occurrence of foot ulceration and Charcot foot. *Journal of diabetes and its complications*. 2016 Nov-Dec;30(8):1437-9. doi: 10.1016/j.jdiacomp.2016.07.004

Imam YZ, D'Souza A, Malik RA, Shuaib A. Secondary stroke prevention: improving diagnosis and management with newer technologies. *Translational stroke research*. 2016 Dec;7(6):458-77. doi: 10.1007/s12975-016-0494-2

Kalra S, Coetzee A, Afsana F, Aye TT, Bahendeka S, Bajaj S, Bashir M, Chaudhary S, Das AK, Farooqi MH, Jawad F, Jimeno C, Latif ZA, Latt TS, Malik RA, Pathan MF, Raza SA, Shimjee S, Shrestha D, Somasundaram N, Uloko AE. Gestational diabetes mellitus: Berlin and beyond. *JPMA. The Journal of the Pakistan Medical Association* [Internet]. 2017 Apr [cited 2017 Jun 6];67(4):641-4. Available from: [http://jpma.org.pk/full\\_article\\_text.php?article\\_id=8173](http://jpma.org.pk/full_article_text.php?article_id=8173)

Kass-Iliyya L, Leung M, Marshall A, Trotter P, Kobylecki C, Walker S, Gosal D, Jeziorska M, Malik RA, McGlone F, Silverdale MA. The perception of affective touch in Parkinson's disease and its

relation to small fibre neuropathy. The European journal of neuroscience. 2017 Jan;45(2):232-7. doi: 10.1111/ejn.13481

Khan A, Petropoulos IN, Ponirakis G, Malik RA. Visual complications in diabetes mellitus: beyond retinopathy. Diabetic medicine : a journal of the British Diabetic Association. 2017 Apr;34(4):478-84. doi: 10.1111/dme.13296

Khavandi K, Aghamohammadzadeh R, Luckie M, Brownrigg J, Alam U, Khattar R, Malik RA, Heagerty AM, Greenstein AS. Abnormal remodeling of subcutaneous small arteries is associated with early diastolic impairment in metabolic syndrome. Journal of the American Heart Association. 2017 Apr 11;6(4). doi: 10.1161/jaha.116.004603

Malik RA. Diabetes mellitus in the Arab world [editorial]. Journal of Taibah University Medical Sciences [Internet]. 2016 Aug [cited 2017 Jun 4];11(4):283. Available from: <https://doi.org/10.1016/j.jtumed.2016.06.001>

Malik RA, Aldinc E, Chan SP, Deerochanawong C, Hwu CM, Rosales RL, Yeung CY, Fujii K, Parsons B. Perceptions of painful diabetic peripheral neuropathy in South-East Asia: results from patient and physician surveys. Advances in therapy [Internet]. 2017 May 13 [cited 2017 Jun 18];34(6):1426-37. Available from: <https://doi.org/10.1007/s12325-017-0536-5>

Marshall AG, Lee-Kubli C, Azmi S, Zhang M, Ferdousi M, Mixcoatl-Zecuatl T, Petropoulos IN, Ponirakis G, Fineman MS, Fadavi H, Frizzi K, Tavakoli M, Jeziorska M, Jolival CG, Boulton AJ, Efron N, Calcutt NA, Malik RA. Spinal disinhibition in experimental and clinical painful diabetic neuropathy. Diabetes. 2017 May;65(5):1380-90. doi: 10.2337/db16-1181

Martinelli-Boneschi F, Colombi M, Castori M, Devigili G, Eleopra R, Malik RA, Ritelli M, Zoppi N, Dordoni C, Sorosina M, Grammatico P, Fadavi H, Gerrits MM, Almomani R, Faber CG, Merkies IS, Toniolo D, Cocca M, Doglioni C, Waxman SG, Dib-Hajj SD, Taiana MM, Sassone J, Lombardi R, Cazzato D, Zauli A, Santoro S, Marchi M, Lauria G. COL6A5 variants in familial neuropathic chronic itch. Brain: a journal of neurology [Internet]. 2017 Mar 1 [cited 2017 Jun 6];140(3):555-67. Available from: <https://doi.org/10.1093/brain/aww343>

Petropoulos IN, Javed S, Azmi S, Khan A, Ponirakis G, Malik RA. Diabetic neuropathy and painful diabetic neuropathy in the Middle East and North Africa (MENA) region: much work needs to be done. Journal of Taibah University Medical Sciences [Internet]. 2016 Aug [cited 2017 Jun 4];11(4):284-94. Available from: <https://doi.org/10.1016/j.jtumed.2016.06.002>

Ponirakis G, Odriozola MN, Odriozola S, Petropoulos IN, Azmi S, Ferdousi M, Fadavi H, Alam U, Marshall A, Jeziorska M, Miro A, Kheyami A, Tavakoli M, Al-Ahmar A, Odriozola MB, Odriozola A, Malik RA. NerveCheck for the detection of sensory loss and neuropathic pain in diabetes. Diabetes technology & therapeutics [Internet]. 2016 Dec 6 [cited 2017 May 31];18(12):800-5. Available from: <https://doi.org/10.1089/dia.2016.0279>

Pop-Busui R, Boulton AJ, Feldman EL, Bril V, Freeman R, Malik RA, Sosenko JM, Ziegler D. Diabetic neuropathy: a position statement by the American Diabetes Association. Diabetes care. 2017 Jan;40(1):136-54. doi: 10.2337/dc16-2042

Riaz M, Miyan Z, Zaidi SI, Alvi SF, Fawwad A, Ahmadani MY, Zafar AB, Malik RA, Basit A. Characteristics of a large cohort of patients with diabetes having at-risk

feet and outcomes in patients with foot ulceration referred to a tertiary care diabetes unit. International wound journal. 2016 Oct;13(5):594-9. doi: 10.1111/iwj.12289

Srinivasan S, Pritchard N, Sampson GP, Edwards K, Vagenas D, Russell AW, Malik RA, Efron N. Focal loss volume of ganglion cell complex in diabetic neuropathy. Clinical and experimental optometry. 2016 Nov;99(6):526-34. doi: 10.1111/cxo.12379

Srinivasan S, Pritchard N, Vagenas D, Edwards K, Sampson GP, Russell AW, Malik RA, Efron N. Retinal tissue thickness is reduced in diabetic peripheral neuropathy. Current eye research. 2016 Oct;41(10):1359-66. doi: 10.3109/02713683.2015.1119855

### **Mamtani, Ravinder**

Al-Thani MH, Al-Thani AA, Cheema S, Sheikh JI, Mamtani R, Lowenfels AB, Al-Chetachi WF, Almalki BA, Hassan Khalifa SA, Haj Bakri AO, Maisonneuve P. Prevalence and determinants of metabolic syndrome in Qatar: results from a National Health Survey. BMJ open [Internet]. 2016 Sep 6 [cited 2017 Jun 6];6(9):e009514 [11 p.]. Available from: <https://doi.org/10.1136/bmjopen-2015-009514>

Chaabna K, Cheema S, Mamtani R. Migrants, healthy worker effect, and mortality trends in the Gulf Cooperation Council countries. PloS one [Internet]. 2017 Jun 20 [cited 2017 Jun 22];12(6):e0179711 [10 p.]. Available from: <https://doi.org/10.1371/journal.pone.0179711>

Lowenfels AB, Maisonneuve P, Mamtani R. Colorectal cancer on the decline. The New England journal of medicine [Internet]. 2016 Aug [cited

# WCM-Q Faculty Publications

## July 2016 – June 2017

2017 Jun 3];375(8):803 [1 p.]. Available from: <https://doi.org/10.1056/NEJMc1608037#SA1>

Mamtani R, Cheema S, Sheikh JI, Al Mulla A, Lowenfels A, Maisonneuve P. Cancer risk in waterpipe smokers: a meta-analysis. *International journal of public health* [Internet]. 2017 Jan [cited 2017 Jun 4];62(1):73-83. Available from: <https://doi.org/10.1007/s00038-016-0856-2>

### Manyama, Mange

Decaro JA, Manyama M, Wilson W. Household-level predictors of maternal mental health and systemic inflammation among infants in Mwanza, Tanzania. *Am. J. Human Biol.* 2016 Jul;28(4):461-70. doi: 10.1002/ajhb.22807  
Henderson RI, Hatfield J, Kutz S, Olemshumba S, Van Der Meer F, Manyama M, Bastien S. 'We can't get worms from cow dung': reported knowledge of parasitism among pastoralist youth attending secondary school in the Ngorongoro Conservation Area, Tanzania. *Journal of biosocial science.* 2016 Nov;48(6):746-66. doi: 10.1017/s0021932015000358

Hetherington E, Eggers M, Wamoyi J, Hatfield J, Manyama M, Kutz S, Bastien S. Participatory science and innovation for improved sanitation and hygiene: process and outcome evaluation of project SHINE, a school-based intervention in Rural Tanzania. *BMC public health* [Internet]. 2017 Feb 7 [cited 2017 May 31];17(1):172 [15 p.]. Available from: <https://doi.org/10.1186/s12889-017-4100-7>

Li M, Cole JB, Manyama M, Larson JR, Liberton DK, Riccardi SL, Ferrara TM, Santorico SA, Bannister JJ, Forkert ND, Spritz RA, Mio W, Hallgrímsson B. Rapid automated landmarking for morphometric analysis of three-

dimensional facial scans. *Journal of anatomy.* 2017 Apr;230(4):607-18. doi: 10.1111/joa.12576

Roggeveen Y, Schreuder R, Zweekhorst M, Manyama M, Hatfield J, Scheele F, van Roosmalen J. Developing a pictorial sisterhood method in collaboration with illiterate Maasai traditional birth attendants in northern Tanzania. *International journal of gynaecology and obstetrics: the official organ of the International Federation of Gynaecology and Obstetrics.* 2016 Oct;135(1):65-8. doi: 10.1016/j.ijgo.2016.03.035

### Mazloun, Nayef A.

Almuraikhy S, Kafienah W, Bashah M, Diboun I, Jaganjac M, Al-Khelaifi F, Abdesselem H, Mazloun NA, Alsayrafi M, Mohamed-Ali V, Elrayess MA. Interleukin-6 induces impairment in human subcutaneous adipogenesis in obesity-associated insulin resistance. *Diabetologia* [Internet]. 2016 Nov [cited 2017 Jun 4];59(11):2406-16. Available from: <https://doi.org/10.1007/s00125-016-4031-3>

Jaganjac M, Almuraikhy S, Al-Khelaifi F, Al-Jaber M, Bashah M, Mazloun NA, Zarkovic K, Zarkovic N, Waeg G, Kafienah W, Elrayess MA. Combined metformin and insulin treatment reverses metabolically impaired omental adipogenesis and accumulation of 4-hydroxynonenal in obese diabetic patients. *Redox biology* [Internet]. 2017 Mar 16 [cited 2017 May 31];12:483-90. Available from: <https://doi.org/10.1016/j.redox.2017.03.012>

### Mian, Marcellina

Eldeeb N, Halileh S, Alyafei KA, Ghandour R, Dargham S, Giacaman R, Kamal M, Imseeh S, Korayem M, Nasr S, Mahfoud ZR, Abu-Rmeileh N, Mahmoud M, Tawfik

H, Lynch MA, Mian M. Child discipline in Qatar and Palestine: a comparative study of ICAST-R. *Child abuse & neglect.* 2016 Nov;61:63-72. doi: 10.1016/j.chiabu.2016.10.006

Mian M, Collin-Vezina D. Adopting a public health approach to addressing child sexual abuse and exploitation. *Child abuse & neglect.* 2017 Apr;66:152-4. doi: 10.1016/j.chiabu.2017.02.035

### Nour, Bakr M.

Paris W, Jang K, Colsch L, Prus A, Bargainer R, Nour BM, Cooper DK. Psychosocial challenges of xenotransplantation: the need for a multidisciplinary, religious, and cultural dialogue [letter]. *Xenotransplantation.* 2016 Sep;23(5):335-7. doi: 10.1111/xen.12263

### Pallayova, Maria

Pallayova M, Zaghloul HB, Arora T, Choudhury SM, Omar OM, Chagoury OL, Taheri S. Investigating physiological glucose excursions before, during, and after Ramadan in adults without diabetes mellitus. *Physiology & behavior.* 2017;179:110-5. doi: 10.1016/j.physbeh.2017.05.032

Pungente, Michael D. Jubeli E, Goldring WP, Pungente MD. Cationic lipid-based nucleic acid vectors. *Methods in molecular biology* (Clifton, N.J.). 2016 Jul;1445:19-32. doi: 10.1007/978-1-4939-3718-9\_2

Jubeli E, Maginty AB, Khalique NA, Raju L, Nicholson DG, Larsen H, Pungente MD, Goldring WP. Cationic lipids bearing succinic-based, acyclic and macrocyclic hydrophobic domains: synthetic studies and in vitro gene transfer. *European journal of medicinal chemistry.* 2017 Jan 05;125:225-32. doi: 10.1016/j.ejmech.2016.09.027



**Qureshi, Sheila**

Qureshi S, Bradley KL, Vishnumolakala VR, Treagust DF, Southam DC, Mocerino M, Ojeil J. Educational reforms and implementation of student-centered active learning in science at secondary and university levels in Qatar. *Science education international* [Internet]. 2016 Sep [cited 2017 Jun 11];27(3):437-56. Available from: <http://www.icasonline.net/sei/september2016/p6.pdf>

Qureshi S, Vishnumolakala VR, Southam DC, Treagust DF. Inquiry-based chemistry education in a high-context culture: a Qatari case study. *International journal of science and mathematics education*. 2017;15(6):1017-38. doi: 10.1007/s10763-016-9735-

Vishnumolakala VR, Southam DC, Treagust DF, Mocerino M, Qureshi S. Students' attitudes, self-efficacy and experiences in a modified process-oriented guided inquiry learning undergraduate chemistry classroom. *Chemistry education research and practice* [Internet]. 2017 Feb 7 [cited 2017 Jun 11];18(2):340-52. Available from: <https://doi.org/10.1039/C6RP00233A>

**Rafii, Arash**

Abdelmoneim M, Al-Abdulmalek A, Abdellatif A, Ahmad H, Al-Dabhani D, Al-Shahrani A, Alshakhs S, Darwish N, El Hussein S, El-tohami M, Oglat H, Own M, Okasha M, Purra H, Sayed E, Tabrizi JAR, Taha T, Weber AS. Story of hope. Doha: Qatar Cancer Society; 2016. 45, 43 p. English, Arabic.

Billing AM, Ben Hamidane H, Bhagwat AM, Cotton RJ, Dib SS, Kumar P, Hayat S, Goswami N, Suhre K, Rafii A, Graumann J. Complementarity of SOMAscan to LC-MS/MS and RNA-seq for quantitative profiling of human embryonic and mesenchymal stem cells. *Journal of proteomics*

[Internet]. 2017 Jan 6 [cited 2017 Jun 3];150:86-97. Available from: <https://doi.org/10.1016/j.jprot.2016.08.023>

Halama A, Guerrouahen BS, Pasquier J, Satheesh NJ, Suhre K, Rafii A. Nesting of colon and ovarian cancer cells in the endothelial niche is associated with alterations in glycan and lipid metabolism. *Scientific reports* [Internet]. 2017 Jan 4 [cited 2017 May 31];7:39999 [10 p.]. Available from: <https://doi.org/10.1038/srep39999>

Kao T, Labonne T, Niclis JC, Chaurasia R, Lokmic Z, Qian E, Bruveris FF, Howden SE, Motazedian A, Schiesser JV, Costa M, Sourris K, Ng E, Anderson D, Giudice A, Farlie P, Cheung M, Lamande SR, Penington AJ, Parish CL, Thomson LH, Rafii A, Elliott DA, Elefanty AG, Stanley EG. GAPTrap: a simple expression system for pluripotent stem cells and their derivatives. *Stem cell reports* [Internet]. 2016 Sep 13 [cited 2017 Jun 3];7(3):518-26. Available from: <https://doi.org/10.1016/j.stemcr.2016.07.015>

Pasquier J, Gupta R, Rioult D, Hoarau-Vechot J, Courjaret R, Machaca K, Al Suwaidi J, Stanley EG, Rafii S, Elliott DA, Abi Khalil C, Rafii A. Coculturing with endothelial cells promotes in vitro maturation and electrical coupling of human embryonic stem cell-derived cardiomyocytes. *The Journal of heart and lung transplantation*. 2017 Jun;36(6):684-93. doi: 10.1016/j.healun.2017.01.001

Querleu D, Planchamp F, Chiva L, Fotopoulou C, Barton D, Cibula D, Aletti G, Carinelli S, Creutzberg C, Davidson B, Harter P, Lundvall L, Marth C, Morice P, Rafii A, Ray-Coquard I, Rockall A, Sessa C, van der Zee A, Vergote I, du Bois A. European Society of Gynaecologic Oncology quality indicators for advanced ovarian cancer surgery. *International*

*journal of gynecological cancer* [Internet]. 2016 Sep [cited 2017 Jun 6];26(7):1354-63. Available from: <https://doi.org/10.1097/igc.0000000000000767>

**Renzi, Daniel**

Jones JL, McLaughlin J, Renzi D. The noise distribution in a shear wave speed image computed using arrival times at fixed spatial positions. *Inverse problems* [Internet]. 2017 Mar 24 [cited 2017 May 28];33(5):055012 [17 p.]. Available from: <https://doi.org/10.1088/1361-6420/aa6163>

**Robay, Amal P.**

Fadda A, Butt F, Tomei S, Deola S, Lo B, Robay AP, Al-Shakaki A, Al-Hajri N, Crystal R, Kambouris M, Wang E, Marincola M, Fakhro KA, Cugno C. Two hits in one: whole genome sequencing unveils LIG4 syndrome and urofacial syndrome in a case report of a child with complex phenotype. *BMC medical genetics* [Internet]. 2016 Nov 17 [cited 2017 Jun 11];17(1):84 [7 p.]. Available from: <https://doi.org/10.1186/s12881-016-0346-7>

Fakhro KA, Staudt MR, Ramstetter MD, Robay AP, Malek JA, Badii R, Al-Marri AA, Abi Khalil C, Al-Shakaki A, Chidiac O, Stadler DJ, Zirrie M, Jayyousi A, Salit J, Mezey JG, Crystal RG, Rodriguez-Flores JL. The Qatar genome: a population-specific tool for precision medicine in the Middle East. *Human genome variation* [Internet]. 2016 Jun 30 [cited 2017 Jun 4];3:16016 [7 p.]. Available from: <https://doi.org/10.1038/hgv.2016.16>

O'Beirne SL, Salit J, Rodriguez-Flores JL, Staudt MR, Abi Khalil C, Fakhro KA, Robay AP, Ramstetter MD, Al-Azwani IK, Malek JA, Zirrie M, Jayyousi A, Badii R, Al-Nabet Al-Marri A, Chiuchiolo MJ, Al-Shakaki A, Chidiac O, Gharbiah M, Bener A, Stadler DJ, Hackett NR, Mezey

# WCM-Q Faculty Publications

## July 2016 – June 2017

JG, Crystal RG. Type 2 diabetes risk allele loci in the Qatari population. *PloS one* [Internet]. 2016 Jul 6 [cited 2017 Jun 4];11(7):e0156834 [14 p.]. Available from: <https://doi.org/10.1371/journal.pone.0156834>

### Rodríguez del Pozo, Pablo

de Asís-Roig R, Barranco-Avilés M, Cuenca-Gómez P, Rodríguez del Pozo P, Al-Ali K. The impact of the international convention on the rights of persons with disabilities on Qatari domestic legislation. *The age of human rights journal* [Internet]. 2017 Jun [cited 2017 Jun 18];8:1-7. Available from: <http://revistaselectronicas.ujaen.es/index.php/TAHRJ/article/view/3459/2797>

Rodríguez del Pozo P, del Carmen Baranco-Avilés M, Al Ali K, de Asís-Roig R. Implementing the International Convention on the Rights of Persons with Disabilities in Qatar: from charity to human rights. *Journal of local and global health perspectives* [Internet]. 2016 Aug 27 [cited 2017 May 25];2016:2 [11 p.]. Available from: <http://www.qscience.com/doi/pdfplus/10.5339/jlghp.2016.2>

### Scott, Stephen

Andres AJ, Himsworth TR, Weber AS, Scott S. Art and medicine: a collaborative project between Virginia Commonwealth University in Qatar and Weill Cornell Medicine in Qatar [Internet]. Doha: Virginia Commonwealth University in Qatar; 2016 [cited 2017 Jun 14]. 141 p. Available from: [http://scholarscompass.vcu.edu/cgi/viewcontent.cgi?article=1042&context=libraries\\_pubs](http://scholarscompass.vcu.edu/cgi/viewcontent.cgi?article=1042&context=libraries_pubs)

### Sharkey, Rodney

Sharkey R. Patriarchal dissolution in Finnegans Wake: reading Joyce's "porterpeace". *Joyce studies annual*

[Internet]. 2016 [cited 2017 Jun 19];2016:110-29. Available from: <https://muse.jhu.edu/article/650231>

Weber AS, Golkowska K, Larson AH, Miller I, Sharkey R, editors. *Qira'at: readings from the students of Weill Cornell Medical College in Qatar*, 2002-2015. Doha, Qatar: Weill Cornell Medical College in Qatar; 2015. 157 p. (Qira'at; vol. 4).

Weber AS, Sharkey R, Golkowska K, Larson AH, editors. *Qira'at: readings from the students of Weill Cornell Medicine in Qatar*. Doha: Dar al Sharq; 2017. 223 p. (Qira'at; vol. 5).

### Sheikh, Javaid I.

Al-Thani MH, Al-Thani AA, Cheema S, Sheikh JI, Mamtani R, Lowenfels AB, Al-Chetachi WF, Almalki BA, Hassan Khalifa SA, Haj Bakri AO, Maisonneuve P. Prevalence and determinants of metabolic syndrome in Qatar: results from a National Health Survey. *BMJ open* [Internet]. 2016 Sep 6 [cited 2017 Jun 6];6(9):e009514 [11 p.]. Available from: <https://doi.org/10.1136/bmjopen-2015-009514>

Mamtani R, Cheema S, Sheikh JI, Al Mulla A, Lowenfels A, Maisonneuve P. Cancer risk in waterpipe smokers: a meta-analysis. *International journal of public health* [Internet]. 2017 Jan [cited 2017 Jun 4];62(1):73-83. Available from: <https://doi.org/10.1007/s00038-016-0856-2>

### Stadler, Dora J.

Fakhro KA, Staudt MR, Ramstetter MD, Robay AP, Malek JA, Badii R, Al-Marri AA, Abi Khalil C, Al-Shakaki A, Chidiac O, Stadler DJ, Zirie M, Jayyousi A, Salit J, Mezey JG, Crystal RG, Rodriguez-Flores JL. The Qatar genome: a population-specific tool for precision medicine in the

Middle East. *Human genome variation* [Internet]. 2016 Jun 30 [cited 2017 Jun 4];3:16016 [7 p.]. Available from: <https://doi.org/10.1038/hgv.2016.16>

O'Beirne SL, Salit J, Rodriguez-Flores JL, Staudt MR, Abi Khalil C, Fakhro KA, Robay AP, Ramstetter MD, Al-Azwani IK, Malek JA, Zirie M, Jayyousi A, Badii R, Al-Nabet Al-Marri A, Chiuchiolo MJ, Al-Shakaki A, Chidiac O, Gharbiah M, Bener A, Stadler DJ, Hackett NR, Mezey JG, Crystal RG. Type 2 diabetes risk allele loci in the Qatari population. *PloS one* [Internet]. 2016 Jul 6 [cited 2017 Jun 4];11(7):e0156834 [14 p.]. Available from: <https://doi.org/10.1371/journal.pone.0156834>

### Streletz, Leopold J.

Haddad N, Melikyan G, Al Hail H, Al Jurdi A, Aqeel F, Elzafarany A, Abuhadra N, Laswi M, Alsamman Y, Uthman B, Deleu D, Mesraoua B, Alarcon G, Azar N, Streletz LJ, Mahfoud ZR. Epilepsy in Qatar: causes, treatment, and outcome. *Epilepsy & behavior : E&B* [Internet]. 2016 Oct [cited 2017 Jun 3];63:98-102. Available from: <https://doi.org/10.1016/j.yebeh.2016.07.043>

Kronfol Z, Al-Amin H, Haddad N, Streletz LJ, Gordon-Elliott J, Marzuk P. Teaching psychiatry on the global scene: the Cornell University experience. *Academic psychiatry : the journal of the American Association of Directors of Psychiatric Residency Training and the Association for Academic Psychiatry*. 2016 Aug;40(4):698-700. doi: 10.1007/s40596-015-0409-7

### Suhre, Karsten

Adam J, Brandmaier S, Leonhardt J, Scheerer MF, Mohny RP, Xu T, Bi J, Rotter M, Troll M, Chi S, Heier M, Herder C, Rathmann W, Giani G, Adamski J, Illig T, Strauch K, Li Y, Gieger C, Peters

A, Suhre K, Ankerst D, Meitinger T, Hrabe de Angelis M, Roden M, Neschen S, Kastenmuller G, Wang-Sattler R. Metformin effect on nontargeted metabolite profiles in patients with type 2 diabetes and in multiple murine tissues. *Diabetes* [Internet]. 2016 Dec [cited 2017 Jun 3];65(12):3776-85. Available from: <https://doi.org/10.2337/db16-0512>

Adam J, Brandmaier S, Troll M, Rotter M, Mohney RP, Heier M, Adamski J, Li Y, Neschen S, Kastenmuller G, Suhre K, Ankerst D, Meitinger T, Wang-Sattler R. Response to comment on Adam et al. Metformin effect on nontargeted metabolite profiles in patients with type 2 diabetes and in multiple murine tissues. *Diabetes* 2016;65:3776-3785 [letter]. *Diabetes*. 2017 May;66(5):e3-e4. doi: 10.2337/dbi17-0010

Beger RD, Dunn W, Schmidt MA, Gross SS, Kirwan JA, Cascante M, Brennan L, Wishart DS, Oresic M, Hankemeier T, Broadhurst DI, Lane AN, Suhre K, Kastenmuller G, Sumner SJ, Thiele I, Fiehn O, Kaddurah-Daouk R. Metabolomics enables precision medicine: "a white paper, community perspective". *Metabolomics* [Internet]. 2016 Sep 2 [cited 2017 Jun 3];12(10):149 [15 p.]. Available from: <https://doi.org/10.1007/s11306-016-1094-6>

Billing AM, Ben Hamidane H, Bhagwat AM, Cotton RJ, Dib SS, Kumar P, Hayat S, Goswami N, Suhre K, Rafii A, Graumann J. Complementarity of SOMAscan to LC-MS/MS and RNA-seq for quantitative profiling of human embryonic and mesenchymal stem cells. *Journal of proteomics* [Internet]. 2017 Jan 6 [cited 2017 Jun 3];150:86-97. Available from: <https://doi.org/10.1016/j.jpro.2016.08.023>

Cornelis MC, Kacprowski T, Menni C, Gustafsson S, Pivin E, Adamski J, Artati A, Eap CB, Ehret G, Friedrich N,

Ganna A, Guessous I, Homuth G, Lind L, Magnusson PK, Mangino M, Pedersen NL, Pietzner M, Suhre K, Volzke H, Bochud M, Spector TD, Grabe HJ, Ingelsson E. Genome-wide association study of caffeine metabolites provides new insights to caffeine metabolism and dietary caffeine-consumption behavior. *Human molecular genetics*. 2016 Dec 15;25(24):5472-82. doi: 10.1093/hmg/ddw334

Elsaid MF, Chalhoub N, Ben-Omran T, Kumar P, Kamel H, Ibrahim K, Mohamoud Y, Al-Dous E, Al-Azwani I, Malek JA, Suhre K, Ross ME, Aleem AA. Mutation in noncoding RNA RNU12 causes early onset cerebellar ataxia. *Annals of neurology*. 2017 Jan;81(1):68-78. doi: 10.1002/ana.24826

Halama A, Guerrouahen BS, Pasquier J, Satheesh NJ, Suhre K, Rafii A. Nesting of colon and ovarian cancer cells in the endothelial niche is associated with alterations in glycan and lipid metabolism. *Scientific reports* [Internet]. 2017 Jan 4 [cited 2017 May 31];7:39999 [10 p.]. Available from: <https://doi.org/10.1038/srep39999>

Knacke H, Pietzner M, Do KT, Römisch-Margl W, Kastenmüller G, Völker U, Völzke H, Krumsiek J, Artati A, Wallaschofski H, Nauck M, Suhre K, Adamski J, Friedrich N. Metabolic fingerprints of circulating IGF-1 and the IGF-1/IGFBP-3 ratio: a multilfluid metabolomics study. *The journal of clinical endocrinology and metabolism*. 2016 Oct 6;101(12):4730-42. doi: 10.1210/jc.2016-2588

Lee HS, Xu T, Lee Y, Kim NH, Kim YJ, Kim JM, Cho SY, Kim KY, Nam M, Adamski J, Suhre K, Rathmann W, Peters A, Wang-Sattler R, Han BG, Kim BJ. Identification of putative biomarkers for type 2 diabetes using metabolomics in the Korea Association REsource

(KARE) cohort. *Metabolomics*. 2016 Dec;12(12):178 [12 p.]. doi: 10.1007/s11306-016-1103-9

Piontek U, Wallaschofski H, Kastenmuller G, Suhre K, Volzke H, Do KT, Artati A, Nauck M, Adamski J, Friedrich N, Pietzner M. Sex-specific metabolic profiles of androgens and its main binding protein SHBG in a middle aged population without diabetes. *Scientific reports* [Internet]. 2017 May 22 [cited 2017 Jun 6];7(1):2235. Available from: <https://doi.org/10.1038/s41598-017-02367-y>

Pitsiladis YP, Tanaka M, Eynon N, Bouchard C, North KN, Williams AG, Collins M, Moran CN, Britton SL, Fuku N, Ashley EA, Klissouras V, Lucia A, Ahmetov II, De Geus E, Alsayrafi M, Webbott N, Wang G, Bishop DJ, Papadimitriou I, Yan X, Tirosh O, Kuang J, Rankinen T, Sarzinsky M, Mikael Mattsson C, Wheeler M, Waggott D, Byrne NM, Artoli GG, September A, Posthumus M, Van der Merwe W, Cieszczyk P, Leonska-Duniec A, Ficek K, Maciejewska-Karlowska A, Sawczuk M, Stepien-Slodkowska M, Feller J, Dijkstra P, Chmutov AM, Dyatlov DA, Orekhov EF, Pushkareva YE, Shvedkaya IA, Massidda M, Calò CM, Day SH, Stebbings GK, Erskine RM, Montgomery HE, Garton FC, Houweling P, Derave W, Baguet A, Muniesa CA, Sessa F, Petito A, Sale C, Hughes DC, Varley I, Boomsma D, Bartels M, Davies GE, Ginevičienė V, Jakaitienė A, Kučinskis V, Tubelis L, Utkus A, Milašius K, Venckunas T, Skurvydas A, Stasiulis A, Malkova D, Wilson R, Koch LG, Zempo H, Naito H, Kikuchi N, Miyamoto-Mikami E, Murakami H, Miyachi M, Takahashi H, Ohiwa N, Kawahara T, Tsuchie H, Tobina T, Ichinoseki-Sekine N, Tanaka H, Kaneoka K, Nakazato K, Egorova ES, Gabdrakhmanova LJ, Arkhipova AA, Borisova AV, Gabbasov RT, Stepanova AA, Kashapov RI, Rogozkin VA, Astratenkova IV, Druzhevskaya AM, Fedotovskaya

# WCM-Q Faculty Publications

## July 2016 – June 2017

ON, Golberg ND, Hakimullina AM, Kostryukova ES, Alexeev DG, Generozov EV, Ischenko DS, Kulemin NA, Larin AK, Ospanova EA, Pavlenko AV, Govorun VM, Gilep AA, Gilep IL, Haidukevich IV, Rybina IL, Drozdovska SB, Docenko VE, Ilyin VN, Lekontsev E, Akimov EB, El-Rayess M, Georgakopoulos C, Botre F, Suhre K, Hubank M, Wolfarth B, Greeves JP, Stellingwerff T, Ranson C, Fraser WD, Grealy R, Griffiths L, Scott R, Pushkarev VP. Athlome project consortium: a concerted effort to discover genomic and other “omic” markers of athletic performance. *Physiological genomics* [Internet]. 2016 Mar 1 [cited 2017 Jun 4];48(3):183-90. Available from: <https://doi.org/10.1152/physiolgenomics.00105.2015>

Suhre K, Arnold M, Bhagwat AM, Cotton RJ, Engelke R, Raffler J, Sarwath H, Thareja G, Wahl A, DeLisle RK, Gold L, Pezer M, Lauc G, El-Din Selim MA, Mook-Kanamori DO, Al-Dous EK, Mohamoud YA, Malek JA, Strauch K, Grallert H, Peters A, Kastenmuller G, Gieger C, Graumann J. Connecting genetic risk to disease end points through the human blood plasma proteome. *Nature communications* [Internet]. 2017 Feb 27 [cited 2017 May 31];8:14357 [14 p.]. Available from: <https://doi.org/10.1038/ncomms14357>

Visconti A, Al-Shafai M, Al Muftah WA, Zaghlool SB, Mangino M, Suhre K, Falchi M. PopPanTe: population and pedigree association testing for quantitative data. *BMC genomics* [Internet]. 2017 Feb 10 [cited 2017 May 31];18(1):150 [6 p.]. Available from: <https://doi.org/10.1186/s12864-017-3527-7>

Vogt S, Wahl S, Kettunen J, Breitner S, Kastenmuller G, Gieger C, Suhre K, Waldenberger M, Kratzsch J, Perola M, Salomaa V, Blankenberg S, Zeller T, Soininen P, Kangas AJ, Peters A, Grallert H, Ala-Korpela M, Thorand

B. Characterization of the metabolic profile associated with serum 25-hydroxyvitamin D: a cross-sectional analysis in population-based data. *International journal of epidemiology* [Internet]. 2016 Oct [cited 2017 Jun 3];45(5):1469-81. Available from: <https://doi.org/10.1093/ije/dyw222>

Zaghlool SB, Al-Shafai M, Al Muftah WA, Kumar P, Gieger C, Waldenberger M, Falchi M, Suhre K. Mendelian inheritance of trimodal CpG methylation sites suggests distal cis-acting genetic effects. *Clinical epigenetics* [Internet]. 2016 Nov 22 [cited 2017 Jun 3];8:124 [10 p.]. Available from: <https://doi.org/10.1186/s13148-016-0295-1>

### Sultan, Ali A.

Abdul Majid S, Graw MF, Chatziefthimiou AD, Nguyen H, Richer R, Louge M, Sultan AA, Schloss P, Hay AG. Microbial characterization of Qatari Barchan sand dunes. *PloS one* [Internet]. 2016 Sep 21 [cited 2017 Jun 4];11(9):e0161836 [22 p.]. Available from: <https://doi.org/10.1371/journal.pone.0161836>

Elmi AA, Bansal D, Acharya A, Skariah S, Dargham SR, Abu-Raddad LJ, Mohamed-Nady N, Amuna P, Al-Thani AA, Sultan AA. Human papillomavirus (HPV) Infection: molecular epidemiology, genotyping, seroprevalence and associated risk factors among Arab women in Qatar. *PloS one* [Internet]. 2017 Jan 3 [cited 2017 May 31];12(1):e0169197 [14 p.]. Available from: <https://doi.org/10.1371/journal.pone.0169197>

Ghedira R, Mahfoudh W, Hadhri S, Gabbouj S, Bouanene I, Khairi H, Chaieb A, Khelifa R, Bouaouina N, Remadi S, Elmi AA, Bansal D, Sultan AA, Faleh R, Zakhama A, Chouchane L, Hassen E. Human papillomavirus genotypes and HPV-16 variants distribution among

Tunisian women with normal cytology and squamous intraepithelial lesions. *Infectious agents and cancer* [Internet]. 2016 Dec 1 [cited 2017 May 31];11:61 [10 p.]. Available from: <https://doi.org/10.1186/s13027-016-0109-2>

Mohamed M, Sarwath H, Salih N, Bansal D, Chandra P, Husain NE, Chouchane L, Sultan AA, Bedri S. CD8+ tumor infiltrating lymphocytes strongly correlate with molecular subtype and clinico-pathological characteristics in breast cancer patients from Sudan. *Translational medicine communications* [Internet]. 2016 Oct 1 [cited 2017 Jun 13];1(4):[6 p.]. Available from: <https://doi.org/10.1186/s41231-016-0005-1>

Palanisamy S, Chang Y, Scaria J, Penha Filho RAC, Peters KE, Doiphode SH, Sultan AA, Mohammed HO. Genetic relatedness among shiga toxin-producing *Escherichia coli* isolated along the animal food supply chain and in gastroenteritis cases in Qatar using multilocus sequence typing. *Foodborne pathogens and disease*. 2017 Jun;14(6):318-25. doi: 10.1089/fpd.2016.2209

### Taheri, Shahrad

Arora T, Omar OM, Taheri S. Assessment for the possibility of a first night effect for wrist actigraphy in adolescents. *BMJ open* [Internet]. 2016 Oct [cited 2017 Jun 4];6(10):e012172 [7 p.]. Available from: <https://doi.org/10.1136/bmjopen-2016-012172>

Choudhury SM, Arora T, Alebbi S, Ahmed L, Aden A, Omar O, Taheri S. How do Qataris source health information? *PloS one* [Internet]. 2016 Nov 10 [cited 2017 Jun 4];11(11):e0166250 [10 p.]. Available from: <https://doi.org/10.1371/journal.pone.0166250>



Pallayova M, Zaghloul HB, Arora T, Choudhury SM, Omar OM, Chagoury OL, Taheri S. Investigating physiological glucose excursions before, during, and after Ramadan in adults without diabetes mellitus. *Physiology & behavior*. 2017;179:110-5. doi: 10.1016/j.physbeh.2017.05.032

Sathyanarayana A, Joty S, Fernandez-Luque L, Ofli F, Srivastava J, Elmagarmid A, Arora T, Taheri S. Correction of: Sleep quality prediction from wearable data using deep learning. *JMIR mHealth and uHealth* [Internet]. 2016 Nov 25 [cited 2017 Jun 3];4(4):e130 [2 p.]. Available from: <https://doi.org/10.2196/mhealth.6953>

Sathyanarayana A, Joty S, Fernandez-Luque L, Ofli F, Srivastava J, Elmagarmid A, Arora T, Taheri S. Sleep quality prediction from wearable data using deep learning. *JMIR mHealth and uHealth* [Internet]. 2016 Nov 4 [cited 2017 Jun 3];4(4):e125 [13 p.]. Available from: <https://doi.org/10.2196/mhealth.6562> Short MA, Arora T, Gradisar M, Taheri S, Carskadon MA. How many sleep diary entries are needed to reliably estimate adolescent sleep? *Sleep* [Internet]. 2017 Feb 10 [cited 2017 Jun 4];40(3):zsx006 [10 p.]. Available from: <https://doi.org/10.1093/sleep/zsx006>

#### Triggle, Chris R.

Samuel SM, Ghosh S, Majeed Y, Arunachalam G, Emara MM, Ding H, Triggle CR. Metformin represses glucose starvation induced autophagic response in microvascular endothelial cells and promotes cell death. *Biochemical pharmacology*. 2017 May 15;132:118-32. doi: 10.1016/j.bcp.2017.03.001

Triggle CR, Ding H. Metformin is not just an antihyperglycaemic drug but also has protective effects on the vascular

endothelium. *Acta physiologica* (Oxford, England). 2017 Jan;219(1):138-51. doi: 10.1111/apha.12644 Triggle CR, Triggle DJ. From Gutenberg to open science: an unfulfilled odyssey. *Drug development research* [Internet]. 2017 Feb 8 [cited 2017 Jun 3];78(1):3-23. Available from: <https://doi.org/10.1002/ddr.21369>

#### Uthman, Basim

Albanna M, Yehya A, Khairi A, Dafeeah E, Elhadi A, Rezgui L, Al Kahlout S, Yousif A, Uthman B, Al-Amin H. Validation and cultural adaptation of the Arabic versions of the Mini-Mental Status Examination - 2 and Mini-Cog test. *Neuropsychiatric disease and treatment* [Internet]. 2017 Mar 14 [cited 2017 May 31];13:793-801. Available from: <https://doi.org/10.2147/ndt.s126825>

Haddad N, Melikyan G, Al Hail H, Al Jurdi A, Aqeel F, Elzafarany A, Abuhadra N, Laswi M, Alsamman Y, Uthman B, Deleu D, Mesraoua B, Alarcon G, Azar N, Streletz LJ, Mahfoud ZR. Epilepsy in Qatar: causes, treatment, and outcome. *Epilepsy & behavior* [Internet]. 2016 Oct [cited 2017 Jun 3];63:98-102. Available from: <https://doi.org/10.1016/j.yebeh.2016.07.043>

#### Verjee, Mohamud

Verjee MA. Acute Achilles tendon rupture sustained during exertional squash play. *Imaging in medicine* [Internet]. 2017 [cited 2017 Jun 14];9(2):29-30. Available from: <http://www.openaccessjournals.com/articles/acute-achilles-tendon-rupture-sustained-during-exertional-squash-play.pdf>

Verjee MA. Weill Cornell Medicine - Qatar: Clinical Skills Center. In: Foisy-Doll C, Leighton K, editors. *Simulation champions: fostering courage, caring,*

and connection. North American ed. Philadelphia, PA: Wolters Kluwer; 2017. p. 327.

#### Weber, Alan S.

Abdelmoneim M, Al-Abdulmalek A, Abdellatif A, Ahmad H, Al-Dabhani D, Al-Shahrani A, Alshakhs S, Darwish N, El Husseini S, El-tohami M, Oglat H, Own M, Okasha M, Purra H, Sayed E, Tabrizi JAR, Taha T, Weber AS. *Story of hope*. Doha: Qatar Cancer Society; 2016. 45, 43 p. English, Arabic.

Andres AJ, Himsworth TR, Weber AS, Scott S. Art and medicine: a collaborative project between Virginia Commonwealth University in Qatar and Weill Cornell Medicine in Qatar [Internet]. Doha: Virginia Commonwealth University in Qatar; 2016 [cited 2017 Jun 14]. 141 p. Available from: [http://scholarscompass.vcu.edu/cgi/viewcontent.cgi?article=1042&context=libraries\\_pubs](http://scholarscompass.vcu.edu/cgi/viewcontent.cgi?article=1042&context=libraries_pubs)

Darwish N, Weber AS. Muslim women healers of the medieval and early modern Ottoman Empire. *Hektoen international: a journal of medical humanities* [Internet]. 2016 [cited 2017 May 25];Fall 2016:[about 3 screens]. Available from: <http://hekint.org/muslim-women-healers-of-the-medieval-and-early-modern-ottoman-empire/>

Weber AS. Continuing medical education (CME) and lifelong learning (LLL): a semantic ontology for two learning modalities. In: Titrek O, Mikelsone I, Pavitola L, Gultekin GS, editors. *2nd International Conference on Lifelong Learning and Leadership for All (ICLEL 2016)*; 2016 Jul 21-23; Liepaja, Latvia. Sakarya, Turkey: ICLEL Conferences; 2016. p. 108-15).

Weber AS. Lifelong learning and adult education in the State of Qatar. In:

# WCM-Q Faculty Publications

## July 2016 – June 2017

Šimková Z, Sorádová D, editors. 3rd International Conference on Language and Literature in Education and Research. 2016 Sep 15-17; Prague, Czech Republic. p. 8-15).

Weber AS. Researching biology and evolution in the Gulf states: networks of science in the Middle East [book review]. *Journal of Arabian studies*. 2016 Nov;6(2):225-7. doi: 10.1080/21534764.2016.1250387

Weber AS. Analytical review of e-learning in the State of Qatar. *International journal of information and education technology* [Internet]. 2017 [cited 2017 Jun 14];7(12):909-13. Available from: <https://doi.org/10.18178/ijiet.2017.7.12.994>

Weber AS. Philosophical and pedagogical issues in the politics of dress in Arabian Gulf education. In: Buchanan N, Cannata M, Egalité A, Fox R, Maranto R, Ni Y, et al., editors. *Proceedings of the 15th Hawaii International Conference on Education*; 2017 Jan 2-6; Honolulu, HI. Honolulu, HI: Hawaii International Conference on Education; 2017. p.2772-7).

Weber AS. Teacher continuing professional development in Qatar: barriers and prospects. In: Buchanan N, Cannata M, Egalité A, Fox R, Maranto R, Ni Y, et al., editors. *Proceedings of the 15th Hawaii International Conference on Education*; 2017 Jan 2-6; Honolulu, HI. Honolulu, HI: Hawaii International Conference on Education; 2017. p. 2778-82).

Weber AS, Golkowska K, Larson AH, Miller I, Sharkey R, editors. *Qira'at: readings from the students of Weill Cornell Medical College in Qatar, 2002-2015*. Doha, Qatar: Weill Cornell Medical College in Qatar; 2015. 157 p. (Qira'at; vol. 4).

Weber AS, Sharkey R, Golkowska K, Larson AH, editors. *Qira'at: readings from the students of Weill Cornell Medicine in Qatar*. Doha: Dar al Sharq; 2017. 223 p. (Qira'at; vol. 5).

Weber AS, Turjoman R, Shaheen Y, Al Sayyed F, Hwang MJ, Malick F. Systematic thematic review of e-health research in the Gulf Cooperation Council (Arabian Gulf): Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and United Arab Emirates. *Journal of telemedicine and telecare* [Internet]. 2017 May 28 [cited 2017 Jun 4];23(4):452-9. Available from: <https://doi.org/10.1177/1357633x16647894>

### Zahirovic, Sumeja

Zahirovic S, Siddique F. The tale of two thumbs, a dog, and a wooden table. *Arthritis care & research*. 2017 Jun;69(6):912-4. doi: 10.1002/acr.23134





# Weill Cornell Medicine-Qatar



EDUCATION CITY  
QATAR FOUNDATION  
PO BOX 24144  
DOHA-QATAR

[www.qatar-weill.cornell.edu](http://www.qatar-weill.cornell.edu)