Joining Forces to Train New Physicians
NEWS
Events in the world of Weill Cornell Medical College in Qatar and its partners.

TRAINING NEW PHYSICIANS
Through its partnership with WCMC-Q, Hamad Medical Corporation provides a rich and diverse environment for training medical students.

REACHING OUT TO THE COMMUNITY
WCMC-Q is engaging local opinion leaders in focus groups about ways to broaden interest in health care careers among Qatari students.

A FRESH PERSPECTIVE ON TEACHING PHYSICS
Science teachers became students again at a WCMC-Q workshop on new tools and strategies for teaching physics.

IMPROVING CLINICAL CARE BY IMITATING ILLNESS
By emulating a broad range of diseases, standardized patients play a crucial role in helping medical students improve their diagnostic skills.

NAVIGATING THE INFORMATION HIGHWAY
With roughly 20,000 scientific journal articles published every year, busy doctors need to know how to cut through the vast stream of information, fast.

STUDENTS PRESENT RESEARCH AT INTERNATIONAL CONFERENCE
Students were invited to share their research at the Asian Pacific Organization for Cancer Prevention.

HANDS-ON LEARNING
Sometimes, the most memorable educational moments occur outside of books and classrooms.

Weill Cornell Medical College in Qatar was jointly established by Qatar Foundation for Education, Science and Community Development and Cornell University
TWENTY-EIGHT WCMC-Q students have received grants totaling $280,000 in the latest, seventh, round of Undergraduate Research Experience Program (UREP) funding to conduct advanced research projects with faculty members as mentors.

The students will investigate 11 different topics related to cancer treatment and diagnosis, diabetes care, science learning, purifying drinking water, infectious diseases, the function of specific genes, gene therapy for diseases and the growth and development of children in Qatar.

"Biomedical research is an integral part of the mission of WCMC-Q," says Khaled Machaca, PhD, associate dean for research. "Qatar Foundation’s support for research through the UREP grants gives our students valuable opportunities to improve their research skills and understand the methods for generating new biomedical knowledge."

Since UREP funding began in 2006, WCMC-Q has received $1.4 million to support 57 research studies involving more than 150 students. The new UREP projects are listed below:

- Use of novel lipids to carry therapeutic genes directly into cancer cells,
- Gene silencing as a technique to probe the function of specific genes,
- Characterizing the potential for HIV transmission beyond drug users in the MENA region,
- Understanding how students decode graphic representations to learn complex processes,
- Analyzing the effect of scientific literature on students’ growth of knowledge,
- Developing statistics and methodology for identifying emerging HIV epidemics in high risk MENA populations,
- Comparing measures of growth, development, nutritional habits and activity among school children in Qatar,
- Comparing diabetes care in primary care and hospital settings,
- Developing a membrane-based technique to remove acids from chemically purified drinking water,
- Developing molecular tools for cancer diagnosis, and
- Interaction of stem cells and cancer cells in treatment resistant cancer.
Taking Aim at Diabetes and Related Disorders

WCMC-Q is creating a research center to focus on causes and treatments for diabetes, obesity and metabolic syndrome, which are major health challenges in Qatar and the Gulf Region.

With full-page advertisements in international journals, WCMC-Q has begun recruiting six full-time scientists with expertise in clinical research or translational biomedical science. The new recruits will join WCMC-Q’s existing biomedical research program, which was established two years ago and now has more than 30 scientists and research associates as well as fully functioning support laboratories in genomics and imaging.

To accommodate its growing biomedical research program, WCMC-Q has begun construction to double the area allocated to research. Unfinished space on the floor above the existing research wing is being turned into research laboratories, specialized procedure rooms and offices for the biomedical investigators.

"By creating a collaborative, multidisciplinary research team focused on diabetes, obesity, and related disorders, we hope to maximize the impact of our work and its benefits for Qatar and the region” says Javaid Sheikh, MD, dean of WCMC-Q. “The buildup of the research program is an essential part of WCMC-Q’s strategic plan for the next five years. We have successfully implemented the first phase of our plan, the establishment of a branch of Weill Cornell Medical College overseas and the awarding of the MD degree to 49 graduates. Now we focus on the second phase of our plan, namely, biomedical research, including the center to concentrate on diabetes and related disorders,” says Dr. Sheikh. “Working with our partners Hamad Medical Corporation, Sidra Medical and Research Center, and Weill Cornell Medical College in New York, we believe our focus on genomic analysis can help us understand the high risk for diabetes in the Qatari population and use the information to tailor therapies for individuals based on their genes.”

Diabetes and related endocrine, nutritional and metabolic diseases are a leading cause of death in Qatar, according to the international classification of diseases developed by the World Health Organization. About 18 percent of the Qatari population has diabetes, according to recent estimates.

“BY CREATING A COLLABORATIVE, MULTIDISCIPLINARY RESEARCH TEAM FOCUSED ON DIABETES, OBESITY, AND RELATED DISORDERS, WE HOPE TO MAXIMIZE THE IMPACT OF OUR WORK AND ITS BENEFITS FOR QATAR AND THE REGION.”

JAVAID SHEIKH, MD
RECITING THE Hippocratic Oath, graduates of Weill Cornell Medical College in Qatar embraced the sacred promise of physicians to treat the ill and uphold the ethics of their profession as they received their medical degrees from Cornell University at commencement ceremonies in May.

“You are destined to have a bright future in a world that desperately needs your talents, skills and intercultural understanding,” Cornell University President David Skorton, MD, told the graduates, who now move on to residency training at hospitals in the United States and Qatar. “I hope you will build upon the commitment to service that you have demonstrated so well at the medical college. Her Highness Sheikha Mozah Bint Nasser Al-Missned, chairwoman of Qatar Foundation, provides a wonderful example to remember as you continue your life’s journey.”

The new physicians are anxious to take their place in the international medical community, according to class speaker Anas Abou-Ismail. “We hope to help answer the questions of the 21st century and rekindle the flame of scientific innovation, medical discovery, and social justice in this part of the world,” he said.

We are immensely proud of you,” said Antonio Gotto, MD, dean of Weill Cornell Medical College in New York. “You have come through a very difficult program. Not only have you survived, you have flourished.” The students were encouraged to “Be the change you wish to see in the world,” by Javaid Sheikh, MD, dean of WCMC-Q, who wished them well in the next stage of their careers.

The Class of 2010 – 11 men and 6 women from nine different nationalities – is the third class of physicians to graduate from WCMC-Q, bringing the total number of alumni to 49.
New Faculty Appointments

Ravinder Mamtani, MD, has been appointed associate dean for global and public health to develop and direct courses, electives, and training programs in global and public health. He will also develop collaborative research programs and consult with local institutions and agencies on Qatari public health issues. A diplomate of the American Board of Preventive Medicine in the specialties of general preventive medicine and public health and occupational medicine, Dr. Mamtani joined WCMC-Q in 2007 as a professor of public health and has taught and directed public health and preventive medicine courses. Since spring 2009, he has served as the acting associate dean for admissions and student affairs, a position he will continue to hold.

Lyuba Konopasek, MD, has been appointed associate dean for medical education to oversee all aspects of the medical program including implementation, coordination and ongoing evaluation. She joins WCMC-Q from Weill Cornell Medical College where she was associate professor of pediatrics and an associate attending pediatrician at NewYork-Presbyterian Hospital/Weill Cornell Medical Center. Dr. Konopasek is a graduate of Brown University and obtained her MD from the University of Chicago, Pritzker School of Medicine. She completed her pediatric residency training at Massachusetts General Hospital and has held faculty positions at Harvard Medical School and at Weill Cornell Medical College. She has completed the Harvard Macy Institute Program for Physician Educators.

Nasrin Mesaeli, PhD, has been named associate professor of biochemistry. She joins WCMC-Q from the University of Manitoba where she was associate professor in the Department of Biochemistry and Medical Genetics. Dr. Mesaeli received a BS and MSc from Kuwait University in Kuwait and a PhD from the University of Manitoba. She was a post-doctoral fellow and a research associate in the Department of Biochemistry at the University of Alberta. Her research interest is the molecular and cellular biology of cardiovascular development and she has a strong history of administrative experience, serving on more than 20 committees including the Graduate Studies Faculty Council and the organizing committee for an exchange program with Jordan University of Science and Technology.

Dietrich Büsselberg, PhD, has been appointed professor of physiology and biophysics and will serve as coordinator of student research. He joins WCMC-Q from Texas Tech University Health Sciences Center, where he served as professor of physiology and neuroscience. Dr. Büsselberg received a BS and MS from the University of Hohenheim in Germany, and his PhD from the University of Dusseldorf Medical School. His research interests are in the fields of neuro-physiology/neuro-pharmacology and cell signaling, using molecular and electrophysiological approaches as well as cellular imaging techniques.

Benjamin Shykind, PhD, has been appointed assistant professor of cell and developmental biology. He joins WCMC-Q from the Axel Laboratory and the Department of Biochemistry and Molecular Biophysics at Columbia University. He received his undergraduate degree in biochemistry from Columbia University and a PhD in biology from the Massachusetts Institute of Technology. He was a postdoctoral fellow in neurobiology in the laboratory of Richard Axel, Department of Biochemistry and Molecular Biophysics, and associate at the Howard Hughes Medical Institute, Columbia College of Physicians and Surgeons. Dr. Shykind’s research interests are the neurobiology of olfaction, specifically, gene expression studies in odorant receptors.
ON TUESDAYS, rheumatologist Thurayya Arayssi travels from WCMC-Q to Aspetar Orthopedic and Sports Medicine Hospital to see patients with problems related to joints and connective tissues.

The clinic, established earlier this year, is the latest sign of the growing partnership between WCMC-Q and Aspetar. As part of the clinical training and education agreement signed last year, WCMC-Q faculty physicians can be credentialed to practice at Aspetar and Aspetar physicians can seek appointments from Weill Cornell Medical College to participate in the training of students.

Also, WCMC-Q students spend a week of their primary care clerkship at Aspetar; and in January, an elective in sports medicine became available to WCMC-Q students.

“We are delighted with our growing partnership with Aspetar,” says Bakr Nour, MD, associate dean of clinical affairs and professor of surgery. “The relationship not only makes Aspetar’s world-class physicians and facilities available to our students for training purposes, it also helps expand access to clinical care to the people of Qatar and the Gulf Region.”

BAKR NOUR, MD
Another Stamp of Approval for HMC

All Hamad Medical Corporation hospitals received full reaccreditation during the year by the Joint Commission International, the prestigious global agency that provides accreditation and certification services for health care organizations. It is the second round of reaccreditations for HMC hospitals, which raises HMC’s profile internationally and helps attract highly qualified medical professionals from around the world.

Of the 50 hospitals in the Middle East accredited by the JCI, 10 percent are in Qatar. HMC hospitals are the primary clinical training site for WCMC-Q medical students.

Qatar Plans First Medical Simulation Center

Planning is underway for Qatar’s first medical simulation center by executives and clinicians from Sidra Medical and Research Center in collaboration with Hamad Medical Corporation and Sidra’s future academic affiliates, including Weill Cornell Medical College in Qatar, College of the North Atlantic-Qatar, University of Calgary-Qatar and Qatar University.

Preparations for the center, which will be the most advanced in the Middle East, were launched at a three-day workshop late last year that was facilitated by international experts in the simulation field. The attendees, who represented medicine, nursing and allied health in Qatar, focused on setting local and regional priorities for the simulation program as well as curriculum planning.

The simulation center will be located in a 16,145 square foot space in Qatar Science and Technology Park. It is scheduled to open early in 2012 and will be used to train large numbers of clinical staff in preparation for patient care when Sidra opens.

"This simulation center will help Qatar achieve best practice in clinical education and help Sidra provide the best health care," said Sidra Executive Project Director Dan Bergin.

WCMC-Q faculty will be the primary teaching faculty for Sidra when it opens in 2012.
Through its partnership with WCMC-Q, Hamad Medical Corporation provides a rich and diverse environment for training medical students.
Karima Becetti rises early each morning to be at Hamad General Hospital by 6:30 am to check on her patients. She looks for new symptoms then checks on test results before joining the Department of General Medicine for the morning report. There she hears about a case by one of the consulting physicians, residents or medical students and contributes to a group discussion about the appropriate treatment.

Becetti is one of 38 WCMC-Q third and fourth-year medical students participating in a clerkship at Hamad Medical Corporation hospitals and clinics. Clerkships are a vital part of a medical student’s clinical training, providing hands-on experience in the hospital under the supervision of preceptors – in this case, Hamad physicians holding faculty appointments with Weill Cornell Medical College.

During the third and fourth years of the medical program, the students cover the major clinical fields. After a two-week introductory clerkship covering basic skills and responsibilities, they rotate through anesthesiology, internal medicine, neurology, obstetrics/gynecology, pediatrics, primary care, psychiatry, and surgery.

After the morning report, Becetti meets with the rest of her team for rounds, usually from around 8 to 11 am. “We see all the patients – our own and those of the other residents and interns – to discuss patients’ progress and plans and any changes,” Becetti explains.

After that, there is time to carry out the treatment plan put forward by the team, order tests, consult with other specialties, or complete paperwork. The rest of the afternoon is dedicated to giving presentations, independent research on patient cases or, with a little luck, a bit of studying before lectures at HMC or WCMC-Q.

“It’s not easy. It takes a lot of energy,” she says.
Coming Into Their Own

Clerkships are as much about learning responsibility, independence and problem solving as they are about gaining medical knowledge. Under the guidance of the HMC preceptors, WCMC-Q students learn to work within the hospital system while taking thoughtful, conscientious care of their patients.

“We constantly think about our patients,” Becetti says. “Even later in the day when we finish our lectures, sometimes we go back to the hospital to check on them before going home.”

Clinical problems are viewed as springboards for reading and learning, investigating and diagnosing. Whatever condition presented by their patient, students are expected to do the research to make themselves experts on the condition, and on the patient.

“At this stage in our education, we see every little complaint as something to investigate – a learning opportunity. We focus on the details, look at each complaint and try to manage it properly,” says Becetti.

Essa Abuhelaiqa, currently on his ob/gyn rotation, says this expectation to investigate on his own has taught him to appreciate the problem-based learning practiced during the first two years of the medical program.
“That is the basis for learning during the clerkships,” he explains. “The consultants won't give you a lecture about a disease. They give you a hint and you do the reading. Part of becoming a doctor is learning how to learn while you are being a doctor.”

Honing communication skills is critical as well, whether to order a simple test or to break bad news to an anxious family. “Knowing how to talk to a nurse, a patient, or consultant using the appropriate tone and language is key. I think practicing this has made me more mature,” says Nasser Mohammed, a student performing his surgery rotation.
HMC at a Glance
Hamad Medical Corporation is the primary health care provider in Qatar. It operates five JCI-accredited hospitals (see story on page 7) and 24 primary health care centers in and around Doha. The patient population is among the most diverse in the world, with more than 30 languages spoken on any given day.

HMC hospitals are listed below
- Hamad General Hospital – 621 inpatient beds, five intensive care units, eight operating theaters, an Emergency Department, and an outpatient department with 65 specialty clinics.
- Women’s Hospital – 334 beds, 1,000 to 1,200 infant deliveries per month.
- Rumaillah Hospital – 300 bed rehabilitation hospital with ear, nose and throat surgery, ophthalmology, day surgery and a stroke unit
- Al Amal Hospital – 69 bed cancer hospital administratively and medically operated in collaboration with the University of Heidelberg, Germany.
- Al Khor Hospital – 119 bed hospital in the north of Qatar with medical and diagnostic services covering all medical specializations.

Clerkships can also be a time for students to discover which specialties do or don’t interest them. “That’s what’s interesting about third year: there’s the chance that something catches you and you think, I want to do this for the rest of my life,” says Tania Jaber, whose current ob/gyn rotation confirmed her interest in gynecological oncology.

A Successful Partnership
The affiliation agreement among HMC, WCMC, and NewYork-Presbyterian Hospital for clinical training at Hamad hospitals and clinics was signed in October 2004. In July, 2006, the first group of WCMC-Q third-year students began their clerkships at HGH.

Today, in addition to Hamad General Hospital, WCMC-Q students train at Al Amal Oncology Hospital, Rumaillah Hospital, the Woman’s Hospital, and the West Bay and Airport Health Centers.

“The partnership between HMC and WCMC-Q is an essential element in our mission to build the health care and research capacity of Qatar. At HMC hospitals and clinics, our students receive unparalleled experience across the full spectrum of clinical fields,” says Dr. Javaid Sheikh, dean of WCMC-Q. “The preceptors contribute greatly to the development of our medical students’ understanding of what it is to be a doctor and in their acquisition of clinical skills,” he adds.
"HMC is deeply committed to the training of WCMC-Q medical students at its facilities. Our physicians and administrators all take great pride in our role in educating the next generation of doctors as part of our pledge to provide the best possible health care to our community," says Dr. Abdul Latif Al Khal, chairman of medicine and director of medical education at HMC.

The partnership continues to grow and pass significant milestones. As of late 2009, WCMC-Q students had spent over 10,000 hours at HMC affiliated hospitals and centers as part of their medical education. Currently, more than 400 HMC physicians are involved in the education of WCMC-Q students.

"The students are very appreciative of the time HMC faculty give to them, and they are especially appreciative of the breadth and diversity of the patient population they see. We know it’s been an effective learning experience, because they do well on their sub-internships in the US during their fourth year,” says Dr. Thurayya Arayssi, WCMC-Q associate professor of medicine and assistant dean for clinical curriculum and graduate medical education.

The HMC preceptors say they enjoy working with students and they benefit from it, as well. Dr. Ali Raza, associate professor of clinical neurological surgery at WCMC-Q and head of the Neurosurgery Department at HMC, has been working with WCMC-Q students since the clerkships began and still says training medical students is “thrilling.”

“Teaching is a two-way process. You are not just training and guiding them, you are getting something back. Working with students helps you keep your own clinical practice up to date,” he says.

"THE PARTNERSHIP BETWEEN HMC AND WCMC-Q IS AN ESSENTIAL ELEMENT IN OUR MISSION TO BUILD THE HEALTH CARE AND RESEARCH CAPACITY OF QATAR. AT HMC HOSPITALS AND CLINICS, OUR STUDENTS RECEIVE UNPARALLELED EXPERIENCE ACROSS THE FULL SPECTRUM OF CLINICAL FIELDS.”

JAVAID SHEIKH, MD, DEAN OF WCMC-Q
As it strives to increase enrollment among qualified Qatari students, WCMC-Q is engaging local opinion leaders in focus groups about ways to broaden interest in health care careers.

“We appreciate your efforts helping us reach our joint goal, serving the population of Qatar,” Dean Javaid Sheikh told a group of Qatari physicians who participated in a focus group at the medical college in April. “We want to increase enrollment of qualified Qatari students and we’re reaching deep into the community to do that.”

“We are proud to have a college like this in Qatar,” says Dr. Mohamed Salem, senior consultant at Hamad Medical Corporation who attended the session. “It is better to have our children get a quality US education while remaining home in their culture. We welcome the chance to work together to address some of these challenges,” he says.

Some barriers to health care careers are cultural problems beyond the purview of WCMC-Q, several of the physicians said. “Becoming a physician requires more years of education and training than many people are willing to endure; that is not a problem WCMC-Q can fix,” says Dr. Ganem Al Sulaiti, consultant at HMC and director of the WCMC-Q neurosurgery residency program.

However, the medical college could do more to provide options for students who do not go into the medical program either by choice or poor performance after the two-year premedical program, according to several physicians in the focus group.

“We are working to make it easier for our students to go to Cornell University in the US or to Qatar University here if they don’t go on to the medical program,” says Dr. Bakr Nour, associate dean of clinical affairs and professor of surgery who is heading a task force on student recruitment.

The focus group with Qatari physicians followed a similar session in March with high school principals. “As the only medical college in the country, our goal is to increase recruitment of Qatari students,” says Dean Sheikh. “We decided to hold these forums to bring important opinion leaders to our campus to see our facilities first hand, learn more about our program and then share the information with Qatari students.”
They were participants in WCMC-Q’s second annual physics workshop for local high school teachers led by two internationally known physics teacher trainers – Julie Nucci, PhD, and Jim Overhiser – from Cornell University’s Center for Nanoscale Systems Institute for Physics Teachers who guided them through interactive lectures and experiments over two days in lecture halls and labs around the college. The goal was to involve the teachers in hands-on activities to help them engage their students on a deeper level.

“This workshop exposes the teachers to new approaches and to the resources we have at WCMC-Q,” said Syed Ahmed Hasnain, senior physics lab assistant. “Part of our mission is to connect with and support the local community here.”

Over the course of the workshop, the teachers participated in labs involving model stunt cars and ramps to explore velocity and acceleration; light bulbs to explore luminosity; and metal springs, weights, and suction cups to analyze the physics of rock climbing and the forces on the human body.

Working with a grant from the National Science Foundation, Nucci and Overhiser conduct outreach workshops in New York,

A FRESH PERSPECTIVE ON TEACHING PHYSICS

Forty-five science teachers came to WCMC-Q and became students again, racing tiny cars and calculating the physics of rock climbing.
“AFTER LAST YEAR’S WORKSHOP, THE TEACHERS CALLED ME A LOT AND I HAVE BEEN VISITING THEIR SCHOOLS TO TEACH THEM NEW LABS AND HELP THEM PICK UP MORE IDEAS.”
SYED AHMED HASNAIN, SENIOR PHYSICS LAB ASSISTANT

around the United States and internationally. During one part of the workshop, teachers watched YouTube videos and were prompted to think creatively around the concepts of inertia, centrifugal force and other basic tenants of physics. In one case, the teachers watched a video of a motorcycle jumping over a line of buses. As part of the exercise, the teachers were asked to calculate the width of each bus based only on the physics of projectile motion and the video.

“I grabbed four teachers and arranged it so they were sitting in four chairs spaced like the seats of a bus,” Overhiser explains. “I told them ‘you’ve been on a bus, you know how to find the answer to this one.’”

The teachers were given a handout describing how each of the labs and internet-based activities correspond to the standards set out by Qatar’s Supreme Education Council. They expressed excitement about being able to incorporate new material into their classes.

“This has been quite interesting,” said Binda Abraham, a physics teacher at Al Bayan Independent Secondary School for Girls. “We received so many tips to generate more interest among our students and we look forward to coming back and learning...
more in the future. The websites will be very useful."

The real skill of physics is being able to take a big problem and distill it down into smaller problems; that is worth much more than being able to spit out Newton's laws," Nucci says.

The program has grown since last year – from 17 participants to 45 – and Hasnain said he looks forward to building relationships with more schools in the future.

"After last year's workshop, the teachers called me a lot and I have been visiting their schools to teach them new labs and help them pick up more ideas," Hasnain says. "We are really grateful for the chance to work with and positively affect the local community – the Qatari teachers and the Qatari students."

The physics outreach will continue all year long and is improving this year as WCMC-Q prepares an equipment lending library – complete with all of the experiments that Nucci and Overhiser have conducted so far. The library will allow local high school teachers to rent equipment for use in their classrooms. Teachers would, for instance, be able to rent kits with mini stunt-cars and ramps to help their students get an experience of velocity and acceleration.

"We know these things, we just want to know how to apply them directly," says Amina Amir, a physics teacher at Al Bayan Secondary School. "I wasn't sure before, but now I am thinking about how I can introduce projectile motion next year."
IMPROVING CLINICAL CARE BY IMITATING ILLNESS

By emulating a broad range of diseases, standardized patients play a crucial role in helping medical students improve their diagnostic skills.

By Emily Alp

Pretending to be sick is usually frowned upon, but for many adults it’s a serious occupation that actually serves society. People who act sick – when properly trained – provide invaluable experience to medical students at WCMC-Q and medical schools around the world. Formally known as standardized patients (SPs), these pretenders deliver a performance that helps train students to uncover disease in the midst of life-like drama.

The SPs perform as subjects for tests taken by students in the WCMC-Q Clinical Skills Center throughout the academic year. These tests – objective structured clinical exams (OSCEs) – prepare the students for the United States Medical Licensing Examination (USMLE), a clinical skills exam that they take in their third year of medical school. Passing the test is a prerequisite for residency training in the US.

“Students get invaluable feedback from the SPs after the OSCEs – they really hear about the mechanics of the communication and ways to improve upon them,” said Lan Sawan, the standardized patient trainer at WCMC-Q.

“We’re not all nice. We get down to real life, and we get emotional depending on the case,” says Bernadette, an SP at WCMC-Q. “There are times when the students get quite worried because they can’t tell we are acting when we are playing the role of someone in a lot of pain.”

Getting the Role Right
On average, SPs practice 11 hours to portray any given disease. The training involves memorizing lines and role-playing with other SPs – and there are no second chances to get the role right.

“The training is quite intense – there’s a script and you can’t deviate from it. You take the profile and you become that person,” says Debbie, another SP.

“On top of this, you have to be able to interact in an improvisational way. You have to pick up on the things students say and respond in character, without deviating from the script.”

Diseases of the human body are often a mystery at first. An ache here, a pain there, nausea, dizziness – any range of symptoms can start a conversation between the patient and their body. It’s a doctor’s job to get to the heart of that conversation, fast, using people skills and a detective’s sense of symptoms as clues. Working with SPs enhances medical students’ development along these lines.

“The students have to elicit physical signs or at least show that they can given the patient’s history and the feedback they have gathered,” said Mohamud Verjee, MD, director of WCMC-Q’s clinical skills center. “The fact that the SPs are playing the same role each time, for each student, is the essence of standardization. It provides a real sense of student performance that you wouldn’t get in an actual clinic with real patients who act differently each time.”

The clinical skills center at WCMC-Q features one-way mirrors and audio-visual equipment so faculty members can watch and record interactions between the students and the SPs. With the recordings, students can monitor their own performance over time.

Staying Focused
For students, working with SPs is a lesson in staying focused. “You really need to know what to look for and...
Dr. Mohamud Verjee, third from left, and students with a standardized patient in the clinical skills center, top. The monitor outside the exam room, at left, is available so faculty or other standardized patients can observe the session.
what to ask. And you have to fit everything into those few minutes in exams and in real life," said Tasnim Khalife, a fourth-year medical student at WCMC-Q. "I know this prepares us for working with real patients in the long run."

Currently, Sawan has about 45 SPs on call as OSCEs approach, and she knows which diseases they play best. The one challenge she faces in Doha is getting men involved. Classes and exams take place during the workday when most men are generally at their jobs. For now, the women are on stage.

"It’s educational and interesting for all of us," Bernadette said. "You can see how hard the students have to work and just how good they are. Even talking to first-year students is just amazing – you’re talking to 18, 19, 20 year-olds and they surprise you with all that they know, how they present themselves, and how they behave."

In the end, the clinical skills center and standardized patient experience are essential to producing well-rounded practitioners with the social skills to uncover the problems patients face.

"From experience, I can say that many doctors who are already out there don’t have the people skills, but this is teaching them how to interact with people," Debbie said.
Roughly 20,000 scientific journal articles are published every year. For doctors, these articles are a wellspring of new information on procedures, treatments and perspectives on disease – all available online with a few clicks of a mouse. Busy doctors need to know how to cut through the vast stream of information and find what they’re looking for, fast.

Navigating the Information Highway

To help doctors-in-training do just that, WCMC-Q’s library team conducts regular information seminars for them at Hamad Hospital. Every spring, the team provides tutorials to help residents navigate PubMed.

WCMC-Q Students Present Research at International Conference

It’s an achievement for any scientist to have an abstract accepted into a major conference; but for medical students, it’s more like a dream come true. Five WCMC-Q medical students know this feeling first hand. Their research into the relationship between breastfeeding and breast cancer was accepted for abstract and poster presentation at the Asian Pacific Organization for Cancer Prevention’s (APOCP) 5th international conference in April.

The students chose to study the possible link between breastfeeding and breast cancer prevention among women in Middle Eastern countries. “Women in this region tend to have more children and breastfeed longer than women in other countries – so if there is a protective effect, we should see it here,” says Anas Abou-Ismail, fourth-year medical student and one of the five student researchers.
EDUCATION

The project originated with the students. Abou-Ismail and classmate Anas Ahmad were interested in the topic because they had read extensively about it and because breast cancer had affected family members. As they shared the idea with classmates Sanabel Al-Kras, Karim Becetti and Noora Al-Shahwani – all third-year medical students – their research team took shape.

Because of the limited number of patients in Qatar available for study, the team reached out to students in Syria and Jordan to include them and patients there. The response was enthusiastic and helped them line up more than 1,200 mothers for interviews.

Organizing data and reviewing biostatistical analysis with the help of visiting professor Refik Burgut, PhD, the students found what initially appears to be a significant relationship between breastfeeding and reduced cancer rates. They hope their project will encourage researchers to invest in a deeper study of the mechanisms of possible protective effects of breastfeeding.

Presenting their research, from left, Karima Becetti, Anas Ahmad, Anas Abou-Ismail, Noora Al-Shahwani, and Sanabel Al-Akras

WE ARE TEACHING THEM HOW TO SEARCH FOR THE MOST CURRENT INFORMATION RELATED TO THEIR CLINICAL INTERACTIONS.

ROSS BOWRON, MANAGER OF INFORMATION SERVICES AT WCMC-Q

Most residents cannot go through the roughly the 20,000 medical articles that come out every year. These tutorials help them learn how to filter out what applies to and enhances their practice.

The National Library of Medicine’s search service that provides access to more than 19 million citations for biomedical articles. In addition, the instructors guide residents through search exercises to help them find relevant, current findings on a case-by-case basis – a continuing-education process known as evidence-based medicine.

“We are teaching them how to search for the most current information related to their clinical interactions,” says Ross Bowron, manager of information services at WCMC-Q and instructor of the courses at Hamad, which have become a mandatory part of the residency program there.

“I think this is a really important part of the lifelong learning process,” adds Bowron.

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For students, learning about bacteria and other organisms in a classroom is one thing. Studying them while wading through shallow water where they live is another – better – way, judging by the reaction of Foundation Program students on a field trip to the Inland Sea. There was splashing, sliding, and laughing as the students collected samples of different organisms from the intertidal region of the Inland Sea for observation under a microscope back in the classroom. “Interactive learning is not only more fun, but also generally more effective,” says assistant biology professor Renee Richer, PhD, who organizes the field trip as an annual event. As students picked up small slabs of wet bacterial mat, Professor Richer pointed out green coloring that indicated the presence of cyanobacteria, or blue-green algae, a kind of bacteria that obtains energy through photosynthesis. On other small slabs, student could see tiny red patches, indicating the presence of a salt-loving organism called archaea. “Why isn’t it green all the way down?” Professor Richer asks students as they hold small slimy, clumps of earth in their hands. “The answer is that the bacteria produce different colored pigments depending on the available light. Bacteria on the upper layers of the earth reflect green light and absorb red light. The organisms farther down don’t have as much access to red light so they absorb green. These bacteria use different pigments to gather whatever light they can,” she tells the students. Wading through the shallow water, the students churned up the soil, leaving a trail of dark water behind them. 

“THE FIELD TRIP ALSO HELPS CONNECT THE STUDENT TO THE ENVIRONMENT AROUND THEM.”
RENEE RICHER, PhD

Renee Richer, PhD, left, points out bacteria to students during a field trip.
"The black color indicates the presence of reduced sulfur and sulfur bacteria," Professor Richer tells the students, who could smell the tell-tale odor of rotten eggs in the soil. The bacteria help reduce harmful sulphates to harmless sulphides in seawater and are beneficial to marine life.

"I admire these bacteria. When the water comes in, they take what they need in an instant, so they can live another hundred years," says student Sally Elgazar.

"The field trip also helps connect the student to the environment around them," says Professor Richer. "That's a very important part of studying biology."
Happenings at WCMC-Q

1 Medical students, left to right, Hala El Moctar, Shalini Ravishankar, Anayah Sarkar, and Nayera Guirguis, enjoy Coffee House, Education City’s student talent show in March.

2 WCMC-Q faculty and staff gather in March for the medical college’s first group photo.

3 Sheikh Mohammed H. Al-Thani, MD, director of public health for the Supreme Council of Health, discusses public health challenges facing Qatar in February at a continuing medical education program sponsored by WCMC-Q.

4 Fourth-year medical students Anayah Sarkar and Mohamed Elshazly decorate t-shirts and a poster in April in preparation for graduation festivities.

5 Writing lecturer Ian Miller explores issues of life after death from his novel in progress at the Literary Lecture Series in April.

6 Second-year medical student Sara Buhmaid, second from right, discusses educational resources in Education City during a student panel discussion for high school counselors visiting WCMC-Q in February.
Abdullah Firoze Ahmed launches a kite to celebrate Basant, the festival of spring.
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