A Mark of Excellence on Qatar’s Biomedical Map
HIGHLIGHTS

2 NEWS
Events in the world of Weill Cornell Medical College in Qatar and its partners.

9 A MARK OF EXCELLENCE ON QATAR’S BIOMEDICAL MAP
With its stem cell research laboratory, WCMC-Q takes a place on Qatar’s biomedical map.

12 BRIDGING THE CULTURAL DIVIDE
Training provides tools and strategies to enhance cultural competence among students and health care professionals.

16 STUDENTS JOIN THE QUEST FOR A PERFECT NIGHT’S SLEEP
Premedical students participate in Professor James Maas’ breakthrough sleep study.

18 BEYOND THE SCIENCE OF BEING A DOCTOR
Courses in the humanities help premedical students think about the day-to-day realities of being a doctor.

“We’re through the first step, establishing and staffing the lab – and that was the hardest. This year should be very exciting.”
- Arash Rafi Tabrizi, MD, PhD

Weill Cornell Medical College in Qatar was jointly established by Qatar Foundation for Education, Science and Community Development and Cornell University.

Winter 2009
WCMC-Q Introduces Live Grand Rounds from New York

TWO AFTERNOONS a week, WCMC-Q faculty and students gather with colleagues here and in New York for grand rounds in surgery and pediatrics. Despite the distance between Doha and New York City, they are watching together in real time, thanks to regular live broadcasts.

The transmissions began in November as part of a pilot project to evaluate the feasibility of sharing grand rounds in a variety of disciplines. Broadcast of surgery grand rounds began early in November, with pediatric grand rounds following before the month was out.

“The lectures feature excellent speakers not only from New York-Presbyterian Hospital/Weill Cornell Medical Center but also from top academic medical centers around the country. It is a wonderful opportunity for us to have access to these talks,” says Bakr Nour, MD, chief of clinical affairs and vice chair of surgery at WCMC, who hosts the broadcasts of surgery grand rounds.
EAP Helps Students, Employees Cope

WCMM-Q students, employees and their family members have access to free professional, confidential counseling for a broad range of issues, thanks to the Employee Assistance Program.

“In a world of constant change, counseling can make a world of difference,” says Joan Lanning, PhD, director of the new program. “Our goal is to help people manage issues that might adversely impact their work performance, their health and their general well-being.”

Issues for discussion could be relationship and family problems, work and school difficulties, cultural adjustment and assimilation, stress, grief and many others. “Sometimes, talking to a neutral third person about a problem and possible solutions or strategies for coping can make a tremendous difference,” says Lanning.

Counseling sessions are available at two sites for privacy and convenience, on-site in the WCMC-Q building and at a location near the city center.

An EAP counselor is available Sunday through Thursday from 7:30 am to 4:30 pm and at other times upon request. For emergencies, the program is available 24 hours a day. For more information, call (974) 492 8602.

Research Compliance Process Moves In-house

To support its fast-growing research program, WCMC-Q has established a local Institutional Review Board, bringing a critical review process to Doha.

The 14-member panel ensures that WCMC-Q investigators involved in research studies meet the highest ethical standards and comply with all applicable regulations, including local law. Establishment of the local IRB eliminates the time consuming process of sending WCMC-Q biomedical research proposals to and from the US for review.

The IRB also will include a Scientific Review Committee to evaluate research proposals for sound design before they move forward in the review process.

These panels meet a unique need in Qatar where researchers with funding from an array of international sources must be sensitive to local as well as global standards. “There’s local compliance and there’s international compliance,” says Farida Lada, director of research compliance. “If we do clinical trials on new drugs, there’s a whole a host of regulations for the US Food and Drug Administration if the drugs are to be approved in the US, and a whole host of regulations for the European Medicines Agency if we want them approved in Europe.”

While essentially based on US regulations, WCMC-Q policies also take into account Qatar Ministry of Health requirements and local cultural customs, adds Lada.

Chouchane Invited to World Economic Forum

Lotfi Chouchane, PhD, professor of genetic medicine, immunology and microbiology, was one of 20 scientists from around the world invited to Jordan for the World Economic Forum on the Middle East for a discussion on privatizing science.

Chouchane participated in a panel discussion on ways to build a more robust research culture in the Middle East in light of the fact that the Arab world’s 200 universities spend only around one percent of their budgets on research compared to an international average of 35 percent.

During his discussion, Chouchane said that non-profit colleges like WCMC-Q are less burdened by bureaucracy than public universities and more progressive than “business-type” universities, which are prevalent in the region and tend to be limited to the vision of a single, local business investor.

“The private sector or business-type universities are not the solution for overcoming the challenges facing higher education in the MENA region, but non-profit universities combined with the business sector could be the solution and would likely result in more flexible and innovative curricula,” Chouchane said.

Addressing the idea of “brain drain,” Chouchane said that, in order to build a sustainable research industry that would retain its educated citizens, students must be taught how to move research findings into application. This involves a business mindset to complement their scientific knowledge, he said.

This year’s World Economic Forum on the Middle East involved over 1,400 leaders from industry, government and civil society from the Middle East and around the world.
New Class Dons White Coats

A RECORD 41 medical students donned the white coat symbolic of their chosen role as doctors and healing professionals at this year’s White Coat Ceremony, with faculty, staff, family, friends and guests attending to witness the occasion.

“When our students wear the white coat for the first time, they are actively committing themselves to the cause of excellent patient care and research,” says Dr. Javaid Sheikh, dean of WCMC-Q. “They are joining the ranks of doctors, who live by time-honored principles of the profession.”

As their names were called out by Ravinder Mamtani, MD, acting associate director of admissions and student affairs, each student walked to the stage to accept a white coat from Dr. Sheikh and a stethoscope from faculty members Abdullah Al Khal, MD, director of education at Hamad Medical Corporation; Powers Peterson, MD, associate professor of pathology and laboratory medicine; or Thurayya Arayssi, MD, assistant dean for clinical curriculum and graduate medical education.

Among this new class of medical students is Iqbal Assaad, 16, the youngest medical student in the college’s history, who is sponsored by Her Highness Sheikha Mozah Bint Nasser Al-Missned. “After studying really hard for two years, it’s just nice to know that your dream is coming true,” says Assaad.

For Nael Abdul Samad, who came to WCMC-Q from the United Arab Emirates, the ceremony fulfilled a dream that began during his last two years of high school. “More than just the study of medicine, the job of being a doctor is what appealed to me the most. It is a career that is rewarding, as when you satisfy other people’s needs and help them out, you are satisfying your own needs with the feeling of accomplishment.”

“WHEN OUR STUDENTS WEAR THE WHITE COAT FOR THE FIRST TIME, THEY ARE ACTIVELY COMMITTING THEMSELVES TO THE CAUSE OF EXCELLENT PATIENT CARE AND RESEARCH.”

JAVAID SHEIKH, MD
New Peer Tutoring Program

When tutors were needed to help premedical students, Pankit Vachhani was quick to volunteer. “As a first year medical student just out of the premedical program, I knew what the students were going through. I was familiar with the material and thought it would be fun to help.”

Pankit and about 25 others signed up to provide extra help to premedical and foundation students throughout the year. Together, they helped establish a learning center that is open for a couple of hours every day classes are in session.

“When we started tutoring, most students wanted answers to particular questions from a quiz or exam,” says Pankit. “Then faculty members urged us to guide students to the solution rather than just give an answer. This helps reinforce the problem-based learning method we use in our classes,” says Pankit.

“We all knew each other, so it was a very friendly, congenial atmosphere. And if one of the tutors wasn’t sure how to respond to a question, the others would help out,” says second year premed student Nour Barakat, who used the service during the year and is now working as one of the tutors.

$19 Million for Research Program

WCMC-Q biomedical researchers received more than $19 million in grants from Qatar Foundation’s National Priorities Research Program.

The funds will support 18 research projects related to the use of stem cells, molecular medicine, genomics, cancer, diabetes and other topics relevant to global health needs.

“Qatar Foundation’s financial support for our biomedical research program is very encouraging,” says Dr. Javaid Sheikh, dean. The funding process is well organized, with peer review by very knowledgeable scientists worldwide, he says.

“The NPRP funding program, with other Qatar Foundation support, increases our ability to recruit top-tier scientists. Our investigators can initiate novel research programs and do it at a serious level that’s competitive internationally, leading to contributions scientifically through publications, new knowledge and patents.”

Of the total NPRP funding in the latest cycle, WCMC-Q received about 21 percent. That amount ranked second after engineering and technology among all categories that received funding, showing the country’s strong support for this sector.

UREP Grants Boost for Student Research

Seven research projects involving 23 WCMC-Q students have been funded by Qatar Foundation Undergraduate Research Experience Program (UREP), which awarded $10,000 to each of the participating students.

The students will work under the leadership of seven WCMC-Q faculty members and nine mentors from Hamad Medical Corporation, College of the North Atlantic in Qatar, and Qatar University.

**WCMC-Q students will investigate the following topics:**

- Environmental protection in Qatar
- Relationship between hyperglycemia and vascular disease
- Effects of television viewing and video games on youth
- Patient opinion of the doctor-patient relationship in a public hospital in Qatar
- Vocabulary learning with technology
- Osteoporosis
- The differentiation of pluripotent stem cells into certain tissues

“UREP gives students the chance to build their research skills and to better appreciate the conduct of research. In many cases, it helps the students the value of research they learned during their premed training,” says Chris Triggle, PhD, professor of pharmacology at WCMC-Q and faculty mentor for one of the studies.
HMC Aligns Education Programs with International Standard

HAMAD MEDICAL CORPORATION, Qatar’s major healthcare provider, is reviewing and assessing its educational programs to align them with an international standard of quality.

The project, led by Dr. Abdul Latif Al Khal, director of education and the Department of Medicine at HMC, is aimed at aligning HMC programs with the American Council of Graduate Medical Education, the governing body for postgraduate medical education programs in the United States. The ACGME standards have been accepted as a sign of excellence by a growing number of organizations outside the US.

As part of the alignment, HMC physicians and staff are reviewing policies and standards for each program to ensure that the requirements are clearly stated, that appropriate supervision is provided to ensure residents and fellows assume progressive and increasing levels of responsibility, and that appropriate assessment and evaluation tools are used to measure performance and skills. The policies also cover items like hours of duty, leave and vacation rules.

“A tremendous amount of work has been done by Dr. Al Khal and HMC staff to review policies, make the necessary changes and get them approved,” says Thurayya Arayssi, MD, associate professor of medicine, who has been working as a consultant on the alignment project. “They have accomplished a tremendous amount in a short period of time,” says Arayssi. As part of the project, WCMC-Q faculty have provided workshops to HMC staff on topics ranging from communication skills and evidence-based medicine to procedures for developing objective standards for clinical examinations and requirements for preceptors.

HMC has about 455 residents or fellows in 18 different residency programs currently governed by the Arab Board of Medical Specialization, which was established in 1978 to standardize training in the Middle East.

The alignment with ACGME standards is part of a broad-based effort to improve the quality of its residency training programs and broaden its partnership with WCMC-Q. As part of the partnership, more than 150 HMC medical staff have faculty appointments at Weill Cornell Medical College and WCMC-Q students spend more than 2,000 hours at HMC medical facilities as part of their education and training.
**ASPETAR Joins Clerkship Sites**

ASPETAR Orthopedic and Sports Medicine hospital joins the clerkship sites for WCMC-Q medical students this year. The students will spend a week of their primary care clerkship at the hospital.

“The ASPETAR facilities are a wonderful addition to the training sites available to our students,” says Mohamud Verjee, MBChB, assistant professor of family medicine and director of the clerkship for primary care. “They give our students great exposure to a broad range of clinical issues relevant to the practice of primary care medicine, particularly treatment and rehabilitation of musculoskeletal and soft tissue injuries.”

Also for the first time, students can choose an elective course at ASPETAR, which gives them opportunities for in-depth study and research related to orthopedics and sports medicine.

ASPETAR is a 50-bed orthopedic and sports medicine facility built to internationally accredited standards. Its staff includes recognized sports medicine experts from around the world. Use of the facilities by WCMC-Q became possible after the signing of an affiliation agreement earlier this year.

The agreement with ASPETAR complements one signed with Hamad Medical Corporation. WCMC-Q students spend most of their time during clerkships at HMC medical facilities.

**HMC to Target Genetic Disorders**

Qatar’s newborn screening program is one of many services being unveiled through Hamad Medical Corporation’s new genetic and genomic program, says Dr. Ahmad Teebi, professor of pediatrics and genetic medicine at WCMC-Q. Dr. Teebi, who has been working with HMC for more than a decade, is a lead advisor on development of the genetic program.

“HMC plans to screen each baby born in Qatar for 35 genetic disorders,” says Dr. Teebi.

Another program soon to get underway at the center involves genetic testing for all couples planning to marry. Through HMC’s premarital counseling and testing program, people planning to marry will be screened for both communicable disorders – like HIV and hepatitis – and genetic disorders – like spinal muscular atrophy or cystic fibrosis.

Clinics for consultation and treatment will soon be provided by HMC as well, and Dr. Teebi hopes to bring skilled counselors from the United States and other regions where counseling is more prevalent. At the same time, he hopes to encourage local training programs for counselors who will be fluent in Arabic and sensitive to the local culture.
Four Named Assistant Dean

Faculty members Thurayya Arayssi, Marco Ameduri, Chris Triggle and Kevin Smith have been promoted to the position of assistant dean.

Thurayya Arayssi, MD, becomes assistant dean for clinical curriculum and graduate medical education. She will oversee the development, implementation, and management of the undergraduate clinical curriculum at WCMC-Q and continue to provide leadership in efforts to align HMC and Sidra Medical and Research Center with the standards of the American Council on Graduate Medical Education.

Arayssi received her MD from the American University of Beirut (AUB) and completed a residency in internal medicine and primary care at the University of Rochester in the US. She served fellowships in geriatric medicine at Monroe Community Hospital, Rochester, and in rheumatology at the National Institutes of Health.

She joined AUB as a faculty member in 1997. She also served as assistant dean for graduate medical education specifically to work on the organization of the residency programs, an effort that led to the development of the residency program at AUB that meets the full criteria for accreditation by ACGME.

Marco Ameduri, PhD, assistant dean for premedical education since 2005, has been named assistant dean for student affairs. He will work closely with both premedical and medical students, providing mentoring and academic counseling.

Ameduri received his PhD from Cornell University where he served as a lecturer in physics for a year. He subsequently spent two years as a guest scientist at the Max Planck Institute for Physics of Complex Systems in Dresden, Germany. Ameduri joined the WCMC-Q faculty in 2002 and has taught physics and the summer MCAT preparation course.

Chris Triggle, PhD, has been named assistant dean for admissions. He received his PhD in pharmacology from the University of Alberta and did post-doctoral research in the Department of Biochemical Pharmacology at the State University of New York, Buffalo.

Triggle’s academic career was spent primarily in Canada, most recently as professor of pharmacology and therapeutics at the University of Calgary. Concurrently, he served as associate dean of research at the University of Calgary and as professor of pharmacology and innovation professor at the University of Melbourne, Royal Melbourne Institute of Technology.

He joined WCMC-Q in 2007 as professor of pharmacology. He has played strong roles in a number of medical courses and serves on the medical admissions committee.

Kevin Smith, PhD, associate professor of chemistry, has been named assistant dean for premedical education. Smith received his PhD from Dalhousie University in Nova Scotia after which he undertook post-doctoral positions in the Department of Chemistry at Dalhousie and in the Department of Chemistry at the University of Saskatchewan. Subsequently, he served as a assistant professor in the Department of Chemistry and Biochemistry at the University of Lethbridge, Alberta.

Smith joined WCMC-Q in 2003 and with colleagues here and at Ithaca initiated a multi-year transformation of the organic chemistry course. Recently he helped develop and teach an MCAT preparation course for students and he has taken a leadership role reviewing and assessing the premedical curriculum.

New Faculty Appointments

Daniel Renzi, PhD, has joined WCMC-Q as a visiting assistant professor of mathematics. He holds a PhD from Rensselaer Polytechnic Institute and has strong experience in research and teaching both undergraduate and graduate courses. After the completion of his PhD, he was a postdoctoral fellow in the Department of Mathematical Sciences at Rensselaer during which, in addition to teaching, he directed undergraduate research on both wave propagation and numerical methods for static Hamilton-Jacobi equations. Subsequently he served as assistant professor of mathematics at Georgia Gwinnett College and most recently at Al Faisal University. His main research interests lie in inverse problems focusing on elastography, which have applications in the early detection of cancer and the characterization of abnormal tissues. He is also very interested in the computational aspects of mathematics and is currently working on real-time imaging and fast methods for static Hamilton-Jacobi equations.

James Roach, Jr., PhD, has joined WCMC-Q as visiting assistant professor of chemistry. He holds a PhD from the University of Oklahoma and has extensive teaching experience at Emporia State University and most recently Al Faisal University. At both institutions he was heavily involved in recruiting students. His area of expertise is surfactant/colloid chemistry, an area of chemistry with many practical and industrial applications. His specific research interests involve the uses of colloidal systems in seawater desalination, wastewater remediation, and enhanced oil recovery. He directed over 20 undergraduate research projects while at ESU, involving students in the design, experimentation, interpretation, and dissemination stages of each project.

Ian Miller has joined as a visiting lecturer of writing. He holds an MFA from the University of Maryland, College Park, and will be teaching a new course offering in English composition. He is a published writer who has taught writing and English as a second language in the US and in Europe and Azerbaijan. He has prepared and taught developmental reading and writing, creative writing and writing as a critical inquiry. His belief that the study of writing and literature enables us to view ourselves with greater clarity and a broader sense of empathy informs the classes he teaches. He has a first novel under consideration with a publisher and is at work on a collection of short stories, a first book of poetry and a memoir of his experiences in Prague and Baku.
A Mark of Excellence on Qatar’s Biomedical Research Map

WCMC-Q’s stem cell lab team is eyeing a year of firsts and successes

By Emily Alp

Over the past decade, researchers have migrated in droves to stem cell labs – the competition to advance this field is fierce. A stem cell facility is vital to any biomedical research center; and, with the establishment of a fully functioning stem cell lab at WCMC-Q, Qatar is joining the race to unlock the potential of these tiny units of life.

“We’re through the first step, establishing and staffing the lab – and that was the hardest. This year should be very exciting,” says Dr. Arash Rafii Tabrizi, professor of genetic medicine and head of stem cell research at WCMC-Q.

Because they can multiply and give rise to cells that can become any type of tissue, stem cells hold the promise of producing replacement tissue for a variety of ailments and injuries. What makes stem cells an even more dynamic resource, however, is their ability to provide specific cell types, on demand, for use in experiments.

WE ANTICIPATE GOOD PROGRESS IN GAINING INSIGHT INTO THESE CELLS.... THEN WE BELIEVE WE CAN GET CLOSER TO POTENTIAL THERAPEUTIC APPLICATIONS OR PRE-CLINICAL STAGES OF APPLICATION.”

ARASH RAFII TABRIZI, MD, PhD
Collaborations with US and France

In collaboration with Dr. Shahin Rafii, director of The Ansary Center for Stem Cell Therapeutics at the Weill Cornell Medical College in the US, the WCMC-Q team is working on a project that involves hematopoietic stem cells (HSC). These are precursors to all types of blood and lymphatic cells, and show great potential for enhancing bone grafts and cancer therapy.

So far, scientists around the world have produced HSCs from bone marrow or embryonic cell lines, but they have proven problematic. Cells that line the vascular system, however, have shown promise for producing more useful HSC lines. Dr. Rafii Tabrizi’s lab specializes in the detailed study of HSCs and their interaction with the vascular lining.

“We anticipate good progress in gaining insight into these cells, using specific tools in Dr. Rafii’s lab,” explains Dr. Rafii Tabrizi. “Then we believe we can get closer to potential therapeutic applications or pre-clinical stages of application.”

Working with the renowned French National Institute for Health and Medical Research, INSERM, the WCMC-Q team has also been advancing a project to understand the precise interaction between connective tissue cells, called stromal cells, and cancer cells in the case of ovarian cancer – a lethal form of the disease that often eludes early detection.

The WCMC-Q team has been studying the interaction between stem cell lines from Europe and tumor samples from Hamad Medical Corporation, the state’s medical provider, to collaborate on this study. Dr. Rafii Tabrizi has co-authored papers on significant discoveries: that stromal cells protect tumor cells from the immune response, and that they encourage vascular growth around tumors. The teams have also found that stromal cells protect tumors from excessive heat, a method doctors use to kill tumor cells in the abdomen. With insights into these cellular relationships, doctors will be better equipped to detect and treat ovarian cancer into the future.

The stem cell facility at WCMC-Q is equipped with advanced machinery requiring expertise of its research team. The lab’s six-laser flow cytometer (FACS) machine is rare around the world, and relatively few researchers are able to interpret its messages. The machine passes light through individual cells at a speed of up to 70,000 cells per second. The cell and the light interact, giving off a light wave that hits a detector that records its brightness, which can be interpreted. The machine also sorts the cells according to their properties. “Our team relies on this machine daily to analyze cells,” says Dr. Rafii Tabrizi.

Looking Ahead

With equipment in place and research underway, there’s one more resource that will take the lab to the next level: “During the first phase of the laboratory’s establishment, we obtained our stem cells from depositories and collaborators. Having trained people in stem cell biology, we can now move forward to produce local stem cell lines and gain more independence,” Dr. Rafii Tabrizi explains. “This will make a big difference because the cells will be from the local population, and it will be much easier to collaborate with labs throughout the Middle East.”

Embryonic stem cell lines of Qatari origin do not exist, and WCMC-Q leadership is working carefully with local authorities to explore their development. With approvals from the country’s religious leaders and health authorities, Dr. Rafii Tabrizi says they would like to build this resource.

“If you want to study the brain of patients with autism, you can’t ethically biopsy their brains, so you can take a cell from the patient’s skin, modify it to an iPS line, and promote its development into neurons. This is tissue we can study.”

ARASH RAFII TABRIZI, MD, PhD

Another type of stem cell that has gained much attention over the past three years is called induced pluripotent stem cells (iPS cells). These cells eliminate two major roadblocks to stem cell research, and present opportunities for more research. “Because iPS cells are produced from the patient’s own cells, no transplantation is involved. That removes the immunity and ethical issues,” explains Dr. Rafii Tabrizi. “If you want to study the brain of patients with autism, you can’t ethically biopsy their brain, so you can take a cell from the patient’s skin, modify it to an iPS line, and promote its development into neurons. This is tissue we can study.”

Research centers at many prestigious universities including Rockefeller, Harvard and Stanford have invested in these types of stem cells. And Dr. Rafii Tabrizi sees it as a useful tool that will open the laboratory to a wider field of future study. “We hope a local stem cell capability supporting the latest advances in research will allow WCMC-Q to become a premier research center in the Middle East.”
Training provides tools and strategies to enhance cultural competence.
On any given day, patients at Hamad Hospital might be speaking one of dozens of languages. Women could be wearing abayas, saris or jeans. Men might be wearing thobes, kurtas or suits and ties. The patient population is among the most diverse in the world.

WCMC-Q medical students, too, hail from many corners of the globe. As they learn to take a medical history, diagnose an ailment, or recommend a treatment, their words and actions may pass through a cultural filter with unintended results.

To help them traverse the diverse landscape, WCMC-Q is introducing its students to cultural competence training. “Our goal is to encourage awareness of the ways variations in culture and background can affect health care delivery and outcomes,” says Maha Elnashar, who is in charge of the Center for Cultural Competence in Health Care. She also is sharing the training program with health care professionals at Hamad Medical Corporation and other medical facilities throughout Qatar.

“Failure to understand patients and families because of cultural differences and misunderstanding of cultural cues and connections can lead to missing key elements necessary to a patient’s recovery,” says Marcelina Mian, MD, who supported development of the program for WCMC-Q in her role as associate dean for clinical education. “There has been growing appreciation for the importance of cultural competence in recent years and medical education has begun to incorporate it at different levels. This training is particularly crucial at WCMC-Q, given that it delivers a North American medical education in the middle of an Arabic country that includes many other nationalities and ethnicities. We believe the program shows great promise in giving WCMC-Q students some tools to bridge the cultural gaps they will face.”

Through the training, medical students will examine their biases and their possible effect on medical decisions. They also will learn about different healing traditions and other cultural factors that might cause health disparities. Negotiating skills and cultural interviewing techniques also will be provided.

Examining Biases and Stereotypes
One exercise in the cultural competence training program asks students to guess individuals’ cultural backgrounds by looking at photos of their faces. Faced with the task of figuring out someone’s cultural identity from a photo – whether they’re from the Philippines, the United States, Egypt, or India – students realize it’s virtually impossible. “It is important for our students and for all health care providers to understand that they
should not make assumptions about a patient simply based on appearances,” says Elnashar.

Because of the importance of alternative and complementary health therapies in different cultures, the program emphasizes the need for medical practitioners to become familiar with them. For example, in some cultures, a coin is rubbed over a sick person, producing bruises. If this coin rubbing therapy is used on a child, it may trigger worries about possible abuse unless the health care provider is aware of the tradition.

An elderly Middle Eastern man might be reluctant to sign a consent form for a medical procedure. After some role playing and discussion, students will realize some Arabs may believe that the doctor, as the person with the knowledge and training, should make the treatment decisions. For these patients, discussions about consent may reduce their confidence in the doctor’s capabilities. “We want our students to understand that they may need to explain a consent form; that not all their patients will understand it and go along with it,” adds Elnashar.

In some cultures, a recommendation for an operation needs to be discussed not only with the patient but also with the patient’s family. A female patient might refuse the services of a male physician. “Through cultural competence training, we hope to help students and other health care professionals realize these are cultural issues. They don’t mean the patient doesn’t agree with the physician or doesn’t trust the physician’s judgment,” adds Elnashar.

“The motto of Hamad Hospital is ‘Health Care for All,’” says Elnashar. “The leaders of Qatar are committed to making quality health care accessible to everyone living here. Cultural awareness is absolutely essential in Qatar because of its diversity and because the country is aligning its health care system with international standards that promote cultural competence.”

**Aligning with International Standards**

In 2000, the accrediting authority for medical education programs in the United States and Canada, the Liaison Committee on Medical Education, introduced the standards for culturally competent training. The Association of American Medical Colleges then created the Tool for Assessing Cultural Competence Training (TACCT) to help medical schools assess and improve their cultural competence training and integrate it into their curriculum.

“Our faculty reviewed the TACCT and decided to rely on it in developing our program,” says Elnashar, who two years ago helped launch a medical interpretation program for WCMC-Q and Hamad Medical Corporation to provide students with interpretation services during their clinical training. The program was introduced by Elnashar and Huda Abdelrahim, medical interpreter and co-trainer, after their participation in an intensive training program provided by Cross Cultural Health Care Program, a leading non-profit organization originally developed in 1992 at the request of and with funding from the US Public Health Service to improve access to quality health care by ethnic communities.

They expanded the program beyond medical interpretation to cultural competence training and introduced it to fourth year medical students last year in a pilot program. “We wanted to help our students understand that it is ok to feel uncomfortable or to be unfamiliar with cultural differences; but it isn’t ok to simply ignore them or to think that what is effective for one culture can be applied to another,” says Elnashar.
To date, most sleep research has involved people wired to bulky equipment, resting on an unfamiliar bed in a lab as researchers observe through two-way mirrors. But this is changing, and WCMC-Q premed students are participating in a new age of sleep research conducted by Cornell psychology professor and best-selling author James Maas, PhD. Using novel technology that allows individuals to monitor their own sleep, the students are able to track their sleep patterns.

WCMC-Q STUDENTS JOIN THE QUEST FOR A PERFECT NIGHT’S SLEEP

The sleep study is an integral part of the sleep unit of Psychology 101, a course taught by Maas that draws as many as 1,300 students, making it the largest live lecture in the United States. Sixty WCMC-Q premedical students are taking the course this year. Maas considers his sleep research especially pertinent to doctors.

“Until recently, sleep disorders were not mentioned in medical school,” he says. “It’s a fairly new field, yet studies show that sleep deprivation is related to hypertension, risk of heart attack, stroke, type 2 diabetes and cancer.” His book, *Power Sleep*, which topped the US best selling book charts when it was released, shares important discoveries from sleep laboratories throughout the world. “Sleep deprivation makes you stupid and shortens your life,” says Maas.

While working on his latest book reviewing sleep monitoring systems, Maas found a new product that impressed him – the Zeo Personal Sleep Coach – and decided to use it in his study.

Zeo is a kit containing a soft headband with dry fabric sensors that monitor brain
waves and a small, clock-like bedside display. The display picks up signals from the headband, interprets the user's phase of sleep, and shows the user's sleep statistics.

**Scoring the Quality of Sleep**

In fact, each morning, users receive a “sleep score,” called ZQ, indicating the quality of sleep achieved the night before. Using a memory stick from the device, they can plug data into a computer and analyze their sleep patterns using the product's accompanying website.

Maas oversaw 450 students, from Cornell University in Ithaca and Qatar, as they researched their sleep patterns. He sees the study as a groundbreaking opportunity for a number of reasons.

“This is a huge study and it’s got a nice cross-cultural element,” says Maas, who was in Doha in October for lectures for his Psychology 101 course. “One of the reasons I’m so excited to do this in Qatar as well as in New York is that I think students in Doha could benefit from prioritizing sleep more. So many students in Doha practice a very nice custom of spending time with their parents and grandparents, yet it’s a custom that could take away from study time and sleep time.”

In general, people tend to overestimate the amount of sleep they are getting, explains Maas. People need different amounts of sleep based on their activities. For instance, students need more than nine hours of sleep per night, he says, while adults need an average of eight — and this includes doctors.

“More than a few doctors aren’t getting enough sleep, and this affects everything, including their energy level, stamina, how patient they are with their patients, how quickly they can diagnose uncommon disorders and how quickly they can pick up and parse out treatments,” says Maas. The study may help the students reconsider the importance of sleep in their lives, he adds.

For some students, it’s already working out that way.

“I have always been conscious about my sleep, because I simply couldn’t function otherwise,” says Nour Barakat, a WCMC-Q student participating in the study. “But with this device, I notice little things that I didn’t pay attention to before, like what I eat before I go to bed and how that affects my sleep. And I monitor my sleep score. So it’s been a really good experience.”

Besides gaining valuable insights about their own sleep patterns from the study, WCMC-Q students gained experience with research as a day-to-day process of monitoring and analyzing data. The Zeo system includes software that details how long it takes to fall asleep; what level of sleep is achieved and for how long; and other important factors that sum up the quality of rest each night. It also contains tools that encourage the user to change their daily habits in order to achieve better sleep.

**“SLEEP IS A NECESSITY, NOT A LUXURY – FOR DOCTORS, FOR THEIR PATIENTS, FOR EVERYONE. WE’VE BECOME A 24-7 SOCIETY AND THE NEED FOR SLEEP IS MORE POIGNANT THAN EVER.”**

JAMES MAAS, PhD

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**Maas’ Golden Rules of Sleep – from his book Power Sleep**

- **GET ADEQUATE SLEEP EVERY NIGHT** Identify the amount of sleep you need to be fully alert all day long, and get that amount every night.

- **GET CONTINUOUS SLEEP** For sleep to be rejuvenating, you should get your required amount of sleep in one continuous block.

- **ESTABLISH A REGULAR SLEEP SCHEDULE** Go to bed at the same time every night, and wake up without an alarm clock at the same time every morning, including weekends.

- **MAKE UP FOR LOST SLEEP** Reducing sleep by just one hour for seven nights has the same effect as staying awake for 24 consecutive hours once a week, so pay back your sleep debt in a timely fashion.
A medical student, you learn about the circulatory system with its 60,000 miles of pressurized tubing. You learn that calcium affects electrical nerve signals traveling about 250 miles an hour. You study these and countless other functions of the human body and you learn how to treat it when something goes wrong. But do you know how to cope if you lose a patient or if you have to tell someone’s spouse that the cancer you just found is terminal?

By combining writing lessons with complex social themes in first-year writing courses at WCMC-Q, professors challenge premed students to analyze their own thinking around the day-to-day realities of being a doctor.

“In the humanities,” says Mary Ann Rishel, MFA, writing professor at WCMC-Q, “we raise questions about social, ethical and moral issues that a doctor has to think about in addition to all of the scientific and empirical knowledge.”

Along with colleagues Alan Weber, PhD, and Rodney Sharkey, PhD, Rishel teaches English 185, a first-year writing seminar that parallels English seminars at the John...
S. Knight Writing Institute on the main campus in Ithaca, New York. During their first year of premedical studies, WCME-Q students are required to take two such seminars. Because students arrive from many different countries and from both traditional and non-traditional high school experiences, this course offers an international perspective in critically evaluating social and cultural ideas.

The students are highly talented and intelligent, and Rishel says she is delighted to watch them build their writing and critical thinking skills—a process that is measured every term.

“We have hard evidence that their skills improve—we give students a diagnostic essay as they enter and a diagnostic essay as they exit to assess their progress. Most importantly, we assess our students’ writing for the level of sophistication in their analyses.”

Each term, Rishel selects essays, stories and articles about topics ranging from psychological conditions such as grieving, to social responsibilities such as combating poverty.

In her unit on medical ethics, for example, she has students analyze ethical standards from different historical periods and medical schools before they compose their own, a lesson originated by her colleague Alan Weber. The class debates the values underlying these principles and Shakespeare or famous works, it’s that for the first time they’re asked to think about creating instead of memorizing. And once you can do that in writing, it may positively affect how you think as a practicing physician.”

Rishel believes that, through analyzing text and experiencing literature in the writing seminars, the students can arrive at a better understanding of, and more enthusiasm for, the science and ethics taught in their other courses.

“I’d like to think that after they take our seminars, our students see that the practice of medicine encompasses all disciplines, and that the best science is practiced in partnership with the humanities,” she says.
Happenings at WCMC-Q

1 Premedical students have fun at the bowling alley as part of the first week’s orientation activities.

2 Dr. Fathy Saoud, president of Qatar Foundation, joins Dr. Javaid Sheikh, dean of WCMC-Q, at a conference in October to celebrate the accomplishments of the WCMC-Q biomedical research program.

3 Marina Dodigovic, PhD, center, and premedical students Nimra Daad, left, and Hadyah Elshakh, right, present a poster on vocabulary learning at the English Teaching Excellence in Qatar (ETE-Q 2009) Conference Nov. 14 sponsored by Carnegie Mellon University in Qatar and Weill Cornell Medical College in Qatar.

4 Premedical student Lina Abdul Karim states her case in a debate during university debate day in October that included 16 teams from universities around Qatar.

5 The WCMC-Q men’s football team defeats Texas A & M University in Qatar and ultimately captures the Education City College championship for the second year in a row.

6 Premedical student Navid Iqbal hosts Campus Buzz, Qatar Foundation’s weekly radio show by and about students in Education City.

7 Foundation Program students use cake to celebrate Mole Day, which commemorates Avogadro’s number, a basic measuring unit in chemistry.
Members of the debate club pose with one of the inspirational sculptures dotting the campus of Education City as part of Qatar Foundation’s global awareness campaign.
www.qatar-weill.cornell.edu

Weill Cornell Medical College in Qatar was jointly established by the Qatar Foundation for Education, Science and Community Development and Cornell University.