Qatar’s Pride:
Doha hosts the Asian Games
On the cover: As the Asian Games torch passes through Education City late November, Qatari medical student Mohammed Al Hijji (Class of 2010) proudly holds the flame aloft. With him are fellow class members, from left to right, Naveed Anwar, Hassan Mohsen, Zuhair Salah and Shalini Ravishankar. The 15th Asian Games took place in Doha, December 1-15.

At right: On the wild side – plants are among the specimens in WCMC-Q’s biology laboratories.

Inside back cover: Symbol of Arabian hospitality, the dallah or coffee pot comes in all sizes.

www.qatar-med.cornell.edu
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Education City community takes off: WCMC-Q has more students resident on-campus than any other institution, and plans are now underway to change the face of campus life.
Among the messages of goodwill sent to Dr. David J. Skorton on his inauguration as the twelfth president of Cornell University, September 7, was one from WCMC-Q, posted on the dedicated Website, www.inauguration.cornell.edu.

The youngest member of the Cornell family, the Medical College in Qatar was represented at the ceremony by the Dean, Dr. Daniel Alonso, and by the Vice Dean for Administration, Havva Idriss.

A versatile and gifted leader

Cardiologist, computer scientist, national leader in research ethics, and accomplished musician, Dr. Skorton came to Cornell from the University of Iowa (UI), where he was president from 2003 to 2006. During 26 years as a faculty member at UI, he rose to become professor in the departments of internal medicine, electrical and computer engineering, and biomedical engineering. He was also co-founder and co-director of the UI Adolescent and Adult Congenital Heart Disease Clinic, and carried out research in a number of fields, including cardiac imaging and computer image processing.

In addition to his position as leader of Cornell University, Dr. Skorton holds faculty appointments in biomedical engineering at the Ithaca campus, and in both medicine and pediatrics at Weill Cornell Medical College in New York City.

His wife, Robin Davisson, has appointments in the department of biomedical sciences in Cornell’s College of Veterinary Medicine and in the department of cell and developmental biology at Weill Cornell.

A community “energized with curiosity”

The open-air inauguration, held on a fine day in the setting of Cornell’s beautiful campus in upstate New York, wove together music from around the world, poetry and, in Dr. Skorton’s speech, a leitmotif of dance.

In harmony with many of the themes of the afternoon, it took place in the University’s historic Arts Quad, with guests and musicians seated around a circular dais in the form of the Cornell seal, like a theater in the round.

There were tributes to past presidents, of whom four (Dale Corson, Frank Rhodes, Hunter Rawlings III and Jeffrey Lehman) were present, for their contributions to the development of the University since the late 1960s.

There were also many tributes to Cornell as a vibrant intellectual community, “alive and energized with curiosity,” in the words of David Feldshuh, professor and director of the Schwartz Center for the Performing Arts. “Cornell is the ultimate creative community,” he observed.

Strength through integration

Dean of Weill Cornell Medical College, Dr. Antonio Gotto, noted that Dr. Skorton was only the second physician to become president of the University. “I cannot imagine an individual more qualified or well-suited to the Cornell presidency,” he said, one who would lead the University into the 21st century with “skill, expertise and grace.”

In a speech that encompassed interludes of music Dr. Skorton outlined the elements that together form the “breathtaking symmetry of a university.” He singled out optimism – the belief that the university community can make a difference – as the most important.

He identified a number of priorities for the immediate future of Cornell: strengthening the undergraduate experience; optimizing the work environment; supporting the arts, humanities and social sciences; furthering outreach; bringing Cornell’s campuses closer.

Promoting integration would support the collaborative nature of the University’s work, he suggested. “Further improvement and innovation will undoubtedly occur in part at the intersections of disciplines, curricula, colleges and campuses… Interdisciplinarity is one of the paths towards the future of critical thought in every discipline.”

Youth notwithstanding, WCMC-Q looks forward to playing its part in fostering “one community… one campus.”
Proposals invited for Qatar’s Research Fund

Surrounded by deans, faculty and students from Education City, WCMC-Q third-year medical student Subhi Al Aref raised his hand to ask if he could propose a project that would help further the country’s research culture.

“It is encouraged,” was the enthusiastic response from Dr. Imad Khadduri, special projects officer of the Qatar National Research Fund (QNRF).

The exchange took place at a meeting held at WCMC-Q in October to introduce QNRF’s Undergraduate Research Experience Program and request proposals from researchers at all levels, from students to faculty.

Established in April, QNRF is set to become “the leading institution in Qatar dedicated to funding research in the national interest,” said its director, Dr. Abdul Sattar Al Taie, in his opening remarks.

The program aims to engage students in all of Qatar’s universities under the mentorship of faculty on research projects related to the country’s needs. Science and biomedical research are among the fields in which proposals were invited.

QNRF will award grants annually, following a process of selection of proposals by peer review.

“This is the first program of its kind in the region,” Dr. Khadduri said. “It is our mission to advance knowledge and education by supporting original, competitively selected research in all fields.

“We want students to learn by doing hands-on research activities. This will enhance their problem solving abilities, help them develop their communication skills, and encourage them to network with faculty beyond the classroom.”

For more information about QNRF, visit www.qf.edu.qa/output/page1400.asp

Helping medical students to “stand out”

During a visit to WCMC-Q in September, Dr. Olaf Sparre Andersen, professor of physiology and biophysics, director of the Tri-Institutional MD/PhD Program, and Thomas H. Meickle Jr. Professor of Medical Education at Weill Cornell Medical College in New York City, took part in teaching the first year Molecules, Genes and Cells course.

Dr. Andersen delivered lectures and guided small group conferences; he also presented a research seminar to faculty and students.

He last came to Doha in fall 2004, when he taught the Inaugural Class as they began the Medical Program. At the time, he formed a very positive impression of WCMC-Q’s medical students. This most recent trip confirmed many of his views.

“The Class of 2010 is a very impressive group of young people,” he said, praising them as “bright and mature,” ready with insightful questions and possessed of “a great sense of humor.”

As director of the joint MD/PhD program, it was perhaps to be expected that he would also emphasize the importance for them of gaining research experience.

Noting that up to 75 percent of the students at Weill Cornell in New York work on research projects during the four-year Medical Program, Dr. Andersen said similar experience would give WCMC-Q’s students an advantage in competing for residencies after graduation.

“One area where they will stand out is by virtue of the research they have been doing. It is important to ensure that as many students as are qualified and interested get an opportunity to do research.”

Selected WCMC-Q students travel to Cornell and Weill Cornell in the US every summer to take part in research, and this program could be expanded, Dr. Andersen said. He described the growth of opportunities to work with investigators at WCMC-Q as a positive development.
Teaming up with HMC librarians

The staff of WCMC-Q and Hamad Medical Corporation’s Health Sciences Library (HHSL) are working together to bring a range of information resources within easy reach of Qatar’s health-care professionals.

Since May, HMC physicians and other staff have joined the WCMC-Q community in being able to explore, in one search, the catalogs of the Medical College, both in Qatar and New York, (including the collections of Memorial Sloan-Kettering Cancer Hospital and the Rockefeller University libraries), Cornell University in Ithaca, and HHSL from any computer with an internet connection anywhere in the world.

A walk through Hamad General Hospital reveals the value of this remote-access service. Physicians, residents and WCMC-Q medical students can be seen in offices and in lounges throughout the building, logging on to http://delib.qatar-med.cornell.edu to carry out research.

“Physicians and medical staff are very satisfied with the fast and accurate response to requests,” said Dr. Ismail Helmi, assistant director of medical education at HMC.

“HMC medical staff have the WCMC-Q Distributed eLibrary available to them at the click of a link, and this provides them with the latest information to answer any clinical questions raised by medical students. “It will also reflect on the quality

(Continued on page 5)
of patient care and the application of the principles of evidence-based medicine at HMC.”

Narrowing the search

To encourage use of the Distributed eLibrary, WCMC-Q has run workshops at HMC that cover various aspects of using the electronic resources. WCMC-Q librarian and workshop coordinator Karen Joc said the sessions helped HMC staff to narrow their MetaFind searches so they could obtain specific results.

“The workshops have been attended by health-care professionals who are interested in finding out about the system and who are keen to pursue evidence-based medicine,” she said.

“As well, everyone is welcome to attend workshops at the Medical College, and use the reading room in terms of hard copy and electronic resources.”

Teachers think outside the square

In a novel experiment, high school physics teachers gathered in WCMC-Q’s labs recently to explore new ways to involve pupils in work at the bench.

Thirty-six teachers and supervisors from independent and government schools participated in the first of a series of workshops on teaching physics by inquiry.

Titled New Frontiers in Learning and Teaching, they spread the message that students learn more effectively by observation, exploration and hands-on activities, said Dr. Roger Hinrichs, professor of physics at WCMC-Q.

Dr. Hinrichs and Dr. Ilham Al Qaradawi, associate professor of physics at Qatar University, are guiding the Qatar Physics Society initiative, in accordance with the Supreme Education Council (SEC) Education Institute Curriculum of Standards.

“Although the workshops highlight concepts of physics, they provide a model for teaching laboratory-based subjects at any level,” Dr. Hinrichs said.

“The idea is to provide a setting where teachers can discover new ways to involve their students in experiments, using materials they already have in the classroom.

“We know from the latest research in the methodology of science education that students are more interested in coursework and retain information better if they learn by inquiry.

“Hands-on activities can develop scientific reasoning skills, provide experiences in the manipulation of materials, and help students connect theory and underlying phenomena.

“During the workshops, teachers see demonstrations of experiments and spend hands-on time in the laboratory – just as their students will hopefully do in class.”

He noted the lab sessions were led by school teachers for school teachers, in English and Arabic.

Workshop leader Mona El Barawy El Showbaki, a teacher from Amna Bint Wahab Independent Secondary School, commented that the workshops offered valuable ways to reach students intellectually.

“Students often feel physics is a difficult subject, but experiments are one way we can help them become more interested in physics. They lead students into a new way of thinking,” she said.

Hands-on learning: The workshops are designed to demonstrate to Qatar’s high school teachers that students learn effectively through laboratory-based experiments.

Dr. Al Qaradawi, who was instrumental in founding the Qatar Physics Society, said she and Dr. Hinrichs had actively sought ways to disseminate knowledge of, and information about, physics through education in Qatar.

“We have visited several schools, the Ministry of Education and the SEC, to try and pin down the main areas where help is needed in physics teaching.

“The response was encouraging, and the result is this series of workshops.

“We have also set up a discussion group for physics teachers and educators in Qatar to encourage communication of good teaching methods and an exchange of resources.”

WCMC-Q faculty members and teaching assistants are part of this group.
Maya Hammoud, MD, who joined WCMC-Q in the fall as Associate Dean for Admissions and Student Affairs, brings a sense of excitement to the post as she returns from the US to the Middle East, the region where she grew up.

She regards Qatar’s plans for medical education and health care as both groundbreaking and fascinating. “I think it is on the way to becoming a leading center in the Middle East for high quality health care,” she said. “I wanted to be part of building that history. I have no doubt that we will be a big academic medical center that will both produce doctors and provide top-notch medical care.”

Dr. Hammoud, who is also associate professor of obstetrics and gynecology, was previously assistant professor and director of the Obstetrics and Gynecology Clerkship, and Acting Associate Dean for Student Programs, at the University of Michigan Medical School in Ann Arbor, Michigan.

She arrived in Doha as WCMC-Q entered its fifth year of operation, and has already identified key areas to focus on.

Top priority is the development of opportunities for third-year medical students – the Inaugural Class – to obtain the residency training posts they would like.

“Having the students accomplish what they want in terms of residencies and where they want to go requires thought and some work,” she commented, ahead of a series of meetings with the class to explore career preferences and options. “I need to see what they plan to do, where they would like to go, and how we can support them.”

Dr. Hammoud aims to establish a program of career development for all WCMC-Q’s medical students, starting in the first year and building in intensity through the third and fourth years, while continuing the extensive guidance program for pre-meds in the run-up to the admissions process for the Medical Program.

In addition, she is meeting with students to discuss ways to enrich the extracurricular side of life at the Medical College. Working with Qatar Foundation on further developing the health services provision in Education City is another area of interest.

Dr. Hammoud said that a combination of adaptability and determination, plus family encouragement, enabled her to succeed. One of six children, she left Lebanon for Canada aged 17, joining high school with no English and taking sciences because she thought the language barrier would be less problematic.

When her family moved to the USA, she enrolled in the University of Michigan, where she obtained both undergraduate and MD degrees.

“Determination was the key factor,” she said. “I knew this was what I wanted to do, I had my family support to do it and I went for it.”

And the key to achieving a balance between career and family life? Paying tribute to her husband, Dr. Imad Makki, for his understanding, Dr. Hammoud replied: “The right support, being organized and setting priorities.”
Dr. Nounou Taleghani appointed to key post

With the clinical phase of the Medical Program well underway, Nounou Taleghani, MD, PhD, is taking the lead in organizing this vital stage of the students’ education, with its focus on patient care.

Dr. Taleghani, who is assistant professor of medicine, was appointed Associate Dean for Clinical Curriculum in May, tasked with overseeing the Medicine, Patients and Society courses, and developing the third and fourth year Clinical Clerkships and electives.

She is working closely with clerkship directors at Weill Cornell Medical College in New York City and in Qatar; and with Weill Cornell faculty at Hamad Medical Corporation (HMC), where the clerkships take place.

In addition, she was instrumental in organizing Qatar’s first-ever training course for medical translators and interpreters. Run by the Seattle-based Cross Cultural Health Care Program, the *Bridging the Gap* course hosted by WCMC-Q in summer 2006 was successfully completed by 25 trainees.

Dr. Taleghani, who has MD and PhD degrees from Chicago Medical School, joined WCMC-Q in 2005 from Stanford University, where she was a Board certified emergency medicine specialist with clinical and teaching responsibilities.

Organizing the clerkships

There are nine major Clinical Clerkships in the curriculum. Planning across a range of specialties, from internal medicine to surgery, is a complex process.

“It involves placing the students on different services within the rotation and recruiting the Weill Cornell faculty at HMC that are going to participate,” Dr. Taleghani explained.

“We meet with faculty ahead of time to give them the teaching goals and then prepare a day-to-day schedule for the students while they are at HMC. This varies between clerkships.”

She is also responsible, along with the clerkship directors, for setting up the students’ daily afternoon classes. Many lectures are shared with the clerks at Weill Cornell in New York City by streaming video, while some are given by the clerkship directors and other Weill Cornell faculty in Qatar.

Results have been excellent. The Class of 2008 performed as well as their counterparts at the Medical College in New York in the National Board of Medical Examiners (NBME) shelf exams that followed the Pediatric and Obstetrics/Gynecology Clerkships, and in the Weill Cornell exam written at the end of the Internal Medicine Clerkship.

Dr. Taleghani is now working with the clerkship directors to prepare the students for the USMLE Step 2 Clinical Skills and Clinical Knowledge exams, to be taken in the summer.

Fourth year choices

Plans for the fourth and final year of the program are now well advanced. “This has already taken shape,” she commented. “We’ve made the schedule and the core clerkships have already been assigned in the time-frame.”

The six-week Primary Care Clerkship in Qatar will precede electives chosen from among sub-specialties of the core clerkships. Dr. Taleghani explained that the medical students would choose electives from options offered by Weill Cornell faculty at HMC; or by accredited hospitals in the US, including Weill Cornell NewYork-Presbyterian Medical Center.

Research is also part of the curriculum, including a course in advanced basic sciences and a chance to undertake or complete a research project. Alternatively, the students might work as academic assistants in first or second year basic science courses at WCMC-Q. Faculty would welcome their participation, she noted: “All the basic science faculty that are course directors here are eager to provide positions for any students who might be interested.”

Training for interpreters

Looking ahead, Dr. Taleghani is also keen to develop a medical interpreting training program at WCMC-Q, following last summer’s successful *Bridging the Gap* course.

This would provide clinicians working in the region with trained staff to support their work with multinational – and multilingual – patient populations.

Such a practice is a normal part of health care in the USA, she noted, where interpreters may be involved in the care of patients from triage to discharge.
Forging ahead with the Clinical Clerkships

With the start of the clerkships in July, the clinical phase of the Medical Program moved into top gear. For members of the Class of 2008, it meant a sharp turn away from spending most of their time in the Medical College, where the focus was on the basic sciences, to practicing the skills of patient care.

If not quite in the driving seat – everything they do as clerks in Hamad Medical Corporation (HMC) facilities is under the supervision of senior members of the team they work with – nevertheless, the third year medical students are beginning to take a significant degree of responsibility for patients assigned to their care.

“This is the real thing, real medicine,” said Ayobami Omosola (at left), interviewed early one morning at Hamad General Hospital before she went off to prepare for morning report with her team in general medicine. “It’s what makes you want to go to medical school.”

Asked what was best about the clerkships, Sharon King answered without hesitation: “working with patients.” For Omosola, there was more. “Yes, the patients,” she agreed, “but I really love the procedures that we do, especially in the MICU and CCU.* I love watching the procedures and working hands-on with my patients.”

Kunali Dalal, who had not long started the Pediatric Clerkship, said another plus was the teamwork involved: “I’ve learnt one of the essentials of medicine – how a proper team environment should be.”

The 16-member class has been divided into two groups for the first clerkships, which extend from July to December. Eight are in the Department of Medicine for a 12-week stint in which they rotate among general medicine, the MICU and the CCU. Meanwhile, the second group rotates between obstetrics and gynecology (six weeks) and pediatrics (six weeks).

The two groups swap over at the beginning of October, and by late December all 16 students will have completed three major clerkships. In the New Year, they will begin a second six-month period rotating among specialties that include surgery, neurology and psychiatry.

Setting up the clerkships

Preparations for the clerkships were set in motion well before summer 2006, with leaders of Weill Cornell Medical College in New York City and Qatar, and of HMC, devoting much time and effort to steering this phase of the curriculum smoothly forward.

Regular meetings with staff of HMC’s Department of Medical Education, chairman of departments and program directors for education, among others, kept up the momentum in the later planning stage, said assistant professor of medicine and Associate Dean for Clinical Curriculum, Dr. Nounou Taleghani.

“Core groups of HMC physicians have been very involved in, and excited by, preparations to begin the clerkships. Many were already familiar with the practice of having medical students in the clinical setting from their experience in Europe and North America,” she noted.

Chairman of the Department of Medicine and acting

*MICU: Medical Intensive Care Unit. CCU: Coronary Care Unit
director of medical education at HMC, Dr. Abdul Latif Al-Khal, outlined the ongoing commitment this has meant for the corporation.

“We’ve been working on the clerkships over the past three years or so, preparing faculty assignments, looking at candidates, talking about standards, making changes, preparing departments and putting protocols in place. Medical Education was the focal point, but all the clinical departments were involved. The planning was careful – and it was very fruitful.”

Facilities have been upgraded, with a total of five new lounges for medical students and residents inaugurated early July in the Women’s, and Hamad General Hospitals. Quiet and pleasant, with computers and Internet connectivity available, they provide a place to take a break, to study, or to do a quick search for information while researching a case.

Once the Education Center opens, the medical students and HMC staff will have access to more extensive learning support facilities, including three classrooms with videoconferencing capability, Dr. Al-Khal added.

**Hands-on experience**

An integral part of the North American system of medical education, the Clinical Clerkships are designed to provide students with hands-on experience of patient care, as well as intensive learning. The Weill Cornell curriculum encompasses outpatient care and preventive medicine, but a significant proportion of time is allocated to inpatient care.

Medicine clerks see only inpatients, Dr. Al-Khal said. They carry on average two to three patients, working closely with senior members of the team and residents. “They also take part in all the team’s daily activities, from morning report at 7:15 to rounds, noon conferences, journal clubs and any other teaching activities.”

In the Pediatric Clerkship, three out of six weeks are spent caring for patients on the wards of Hamad General Hospital. The medical students also have experience of the newborn nursery, pediatric emergency room, primary health care, and well child care, including immunization.

“Students are expected to be looking after patients, to be examining them, coming to their own conclusions about what the diagnosis is and developing a management plan,” explained Dr. Marcellina Mian, professor of pediatrics and director of the Pediatric Clerkship at WCMC-Q.

“We expect them to write in the patient’s chart, to write orders, with everything countersigned by a responsible, duly-designated person.”

In practice this generally means that a senior resident or specialist on the team assesses an incoming patient and, if the case is suitable for a medical student to work up, assigns the patient to the student, who then takes the full history, does the physical exam and

**Teaching sessions are an integral part of the clerkship experience, with students tasked to work up and present patients to the team. Here, Jehan Al Rayahi discusses her findings with colleagues.**
works out the differential diagnosis. After reporting the findings to the senior members of the team, they discuss the diagnosis and decide a plan of management.

The student may go on to order tests and X-rays, and prescribe medication, with countersignature by a senior, Dr. Mian said.

A major plus of the system is that it gives students the chance to follow patients closely from admission to discharge. “The student is ideally the patient’s most direct contact,” Dr. Taleghani explained. “Their job is to learn everything they possibly can, and to become an expert on that patient for the team.”

At the same time, they learn a great deal about the patients carried by the whole team. With up to 35 patients from a wide cross-section of countries of origin per team in the Department of Medicine, this means exposure to an impressive number and breadth of cases.

**Adjusting to a new situation**

Given the significant change of gear required for the medical students to adjust to working full-time in the hospital and clinic setting, it is a strength of the Weill Cornell medical curriculum that they receive a gradual and gentle introduction to clinical care from the first year.

“Our medical students have had contact with HMC doctors from day one in the Medicine, Patients and Society I (MPS I) course, and then even more in MPS II when they actually were in the hospital with the doctors,” Dr. Taleghani said. “This increased with the Introductory Clerkship at the end of the second year, so it has been both gradual and increasing more and more.”

HMC’s program director for education in internal medicine, Dr. Samar Al-Emadi, who taught the class during the MPS II course last year, felt they were more than proving their capabilities.

“I’m very proud, because my students are really good!” she quipped. “(Previously) I was teaching them how to take a history and do a physical exam, and now I can see it on the ground. I see them take an organized history with confidence.”

This is by no means easy to do, said King. “One of the most challenging things for me is keeping all of the information in line and straight. Sometimes, when you listen to the doctors, they have everything in their minds, and they say it in order, in an organized way. Trying to keep all the information in my head, and to be organized as well, is very difficult.”

**Intensive teaching at the bedside**

Learning is central to the clerkships, and it is woven into almost every activity in the day. Activities range from morning report and rounds, when a student may present his or her patient, to tutorials facilitated by the clerkship directors, and videoconferences with faculty of Weill Cornell in New York City. Much of the teaching takes place at the bedside.

There is significant teaching by consultants (attendings) said associate professor of medicine and director of the Medicine Clerkship, Dr. Nasir Hussain. “The students round with them, talk to them and present them the cases. Consultants meet with them on five days over a two-week period for an hour and a half or more, to conduct more focused teaching sessions. In these, the students are able to present their patients and generate discussion...With some patients they go back to the bedside and actually see what the patient is all about.”
Here again, WCMC-Q’s students have shown themselves to be both able and committed, Dr. Al-Emadi said. “What has impressed us all is that their knowledge of basic science is excellent. The physiology they have is very good.

“When they first came, they were a little hesitant, shy – they were not asking so many questions. But now, they raise their hands to ask questions, they are presenting. They are doing very good.”

Dalal considered this to be a notable feature of the clerkship. “We are encouraged to question, critique and learn. Every day, in my inpatient service experience, I could see an improvement in everyone in the team.”

Staying on track

And so we return to our starting point: At 6:30 on a bright Monday morning in September, Omosola and King were already inside the hospital, ready to hit the ground running.

King was about to go see her patients from the day before and to get ready for the day ahead. “You need to see how the patients are doing, check if they had any lab values come back or if they had any procedures done,” she explained. “You make sure you’ve read the notes by the (on-call) physician, and know what happened and what they decided. You have to be prepared to present the case later on.”

In addition to rounds and a case conference, they might have to fit in a class during the day. Then, as HMC staff who were not on call were going home at 3:00 p.m., the students would ready themselves for a 120-minute tutorial after hours. Or, if they were part of the on-call team, they would stay in the hospital until 10:00 p.m.

Add to this the required reading, part of every clerk’s educational program, and the obvious question was: How did they manage to stay on track, faced with the multiple demands of caring for the patients, completing their assignments, and studying?

Omosola laughed: “You know it’s a good question. I think we are still struggling to get a routine. There’s so much to do – and so little time!”

Even so, the clerkship experience has already brought a real sense of ground covered, she said. “We’re not completely responsible for the patient, but a few times, I’ve been the primary person the patient has been in contact with. I’ve taken the history and written the notes by myself, and then presented to the group, who decided what care the patient should get. Sometimes I’ve had to see the patient get that care. It’s not scary per se, it’s a good feeling to be responsible for a patient and to earn that trust from your team – it makes you feel you are moving forward.”

Getting a firm and organized grip on patient information is “one of the most challenging aspects” of the clerkships, said Sharon King, seen here as she discusses a patient’s notes with Dr. Elhadi Alouzi.
As the Class of 2010 crossed the threshold into the Medical Program, they were asked to be mindful of their commitment to patient care, research and lifelong learning in the modern world.

The message was delivered by H.E. Dr. Ghalia Bint Mohammed Al-Thani, Chairperson of the Board of Directors of the National Health Authority, in her inspirational keynote address at Opening Exercises and the White Coat Ceremony on September 5.

The event was part of a three-day orientation program to help students acclimatize to the Medical Program. It was attended by students, family members, faculty and staff, and included a reading of the Hippocratic Oath by Dean of WCMC-Q, Dr. Daniel R. Alonso, and the ceremonial donning of white coats by the new doctors-in-training.

Inspirational speech

Addressing the class as “colleagues,” Dr. Ghalia highlighted their responsibilities as members of “the most honorable of all professions,” and the opportunities they would have to make a difference.

“Wherever there is suffering you will waste no effort to relieve it and whenever a life is endangered you will protect it,” Dr. Ghalia said. “You will not rest as long as there are illnesses with no treatment and you will continue to seek answers to every mystery in medicine. You are the only absolute true heroes.”

Referring to medicine as “a way of life,” she noted the personal qualities students would need to become successful and respected in the field.

“You must learn how to think, analyze and apply knowledge. You must learn to interact with people regardless of their cultural and educational backgrounds. But above all, you must have the highest ethical standards that are humanly possible.”

In the last two years, students in the Class of 2010 have continuously shown their commitment to providing compassionate care for the community, from their regular charity fundraising efforts to their trip to India to help rebuild homes destroyed by the Asian tsunami.

Dr. Alonso noted that the White Coat Ceremony offered those students who were successful in gaining entry into the Medical Program a chance to celebrate and to reflect upon the values underlying the medical profession.

“The ceremony is a rite of passage for students. It is a symbol of the profession, an initiation to medical school, and a motivational event of the greatest magnitude,” he said.

Setting the “right frame”

From a student’s perspective, the highlight of the ceremony was the moment when medical faculty, including Weill Cornell faculty at Hamad Medical Corporation, assisted each of them in donning the short white coat of the medical student, complete with the WCMC-Q patch on the left sleeve.

“It was an emotional moment for me, and I found it highly rewarding after two years of hard work,” class member Sharon Mathew said. “My parents and sister think it was a great achievement because they’ve seen me struggle.”
Naveed Anwar, a graduate in immunology of the University of Toronto, and the only external student to join the Class of 2010, compared the event with his graduation ceremony in Canada.

“I came from a large university where there were 500-600 people at my graduation. I enjoyed the closeness of the WCMC-Q ceremony. It really felt like you were part of it,” he explained.

“Dr. Al-Thani’s keynote speech and Dr. Alonso’s reading of the Hippocratic Oath were inspiring. They set the right frame for us as medical students and what we should be thinking about before we start classes.”

On the accomplishment of entering medical school, Qatari student Haya Al Sulaiti said: “It makes you really feel you have achieved half your dream. And you feel more responsible – you are preparing to deal with people, not books or theoretical subjects.”

Pride and confidence: Tasnim Khalife (center) with classmates Juman Takeddin (left) and Anayah Sarkar (right).

The Class of 2010

- 26 students (up 42 percent on last year)
- 17 men, nine women
- 11 nationalities (Qatar, Bahrain, Canada, Egypt, France, India, Jordan, Mauritania, Pakistan, Syria and USA)

Dean Alonso and medical faculty welcomed the Class of 2010 to the medical profession at the White Coat Ceremony, September 5.

Dream becomes reality: a student’s view

By Tasnim Khalife, Class of 2010

Two years ago, the White Coat Ceremony was a vague dream to all of us. A seemingly endless cycle of prelims and lab reports kept us asking the question: “Will I make it to medical school?” After the grueling Pre-medical Program, and many good-byes, those of us who now comprise the Class of 2010 are thankful to God for taking us so far after so much hard work.

Last year we watched our fellow upper classmen proudly donning their white coats with beaming faces and a dignified air. Many of us wished we were in their place. Thankfully, now we are in their place. We have donned our own white coats and it is our turn to smile with a feeling of achievement at the fact that we will be doctors someday.

The first day of our Medicine, Patients and Society I course, the whole class came impeccably dressed in our new attire. As a group of “student doctors” walking through the student lounge, we read on the faces of pre-medical students expressions of awe – the same feeling I remember having two years ago when admiring the upper classmen upon their entrance into medical school.

For the Class of 2010, the White Coat Ceremony confirmed our new social and educational roles as student doctors. It made us feel like we had begun climbing a rugged mountain, but gave us confidence about reaching the top.

“You have chosen the most honorable of all professions to dedicate your life to. For that humanity will thank you,” said H.E. Dr. Ghalia Al-Thani at the ceremony. Every day, as we put on our white coats, we also take on the responsibility of selflessly serving humanity. I think all of us are proud to have taken on this role.
Scientists in action: How pre-med students learn to use the “toolbox” of science

Gaining experience of the techniques and tools of the laboratory is a fundamental part of pre-medical students’ introduction to learning at WCMC-Q, with lab courses in biology running throughout the first year.

Further labs in chemistry, physics and organic chemistry ensure that, during the two-year program, the pre-meds build a firm foundation in the intellectual, analytical and motor skills of the scientist.

Such experience is an essential part of their education, said Dr. David Robertshaw, professor of physiology and Associate Dean for Pre-medical Education.

“The Association of American Medical Colleges requires a lab component to all the science courses taken by pre-meds,” he explained. “In addition, philosophically, labs are required to demonstrate to students how knowledge in science is generated, because they do it themselves.”

In the space of just two semesters, the students cover considerable ground in the introductory biology labs (BIOG 103 and 104). They move from learning how to measure items with a microscope to preparation and dissection of specimens, ending with a PCR (polymerase chain reaction) lab where they analyze their own DNA.

They are fortunate to work in state-of-the-art facilities. Spacious, well-lit and very well-equipped, the labs at WCMC-Q provide students with an ideal environment in which to learn and hone their skills of experimental science.
Updating a renowned course

The biology labs closely adhere to the renowned course set up many years ago at Cornell University in Ithaca by Dr. William T. Keeton, professor of biology, and extensively developed by Dr. Jon Glase, and Dr. Richard Ecklund, senior lecturers in the department of neurobiology and behavior.

“They made it more than just a demo, or illustration of what was in the lecture. It became a body of knowledge in its own right,” said lecturer in biology and director of the labs at WCMC-Q, Dr. Chris Ogden, who joined the Medical College in spring 2003 after some 15 years teaching the labs in Ithaca.

However, this adherence is balanced by the need to keep up-to-date with recent advances in science. As Dr. Robertshaw said: “Each course has to be constantly reviewed, particularly in biology, where the discipline is moving so quickly.”

So the biology labs at WCMC-Q are evolving as new techniques or specimens are introduced. One, the PCR lab, is entirely new. So long as any changes to labs are approved by the supervising department at Cornell University, such innovation is welcome, said Dr. Robertshaw – indeed, it is the very essence of science.

Developing students’ skills

To some extent, the lab courses support the lecture courses (BIOG 101 and 102) that run alongside them during the first year.

Looking back to the lab on cell division, second year premed Karima Becetti said this worked well: “We looked at plant cells undergoing mitosis (division that produces two identical daughter cells) and we were able to distinguish the phases that the cells were in. At the same time, we were taking cell division in the biology lectures, and this helped us to visualize and understand the theoretical part of the biology.”

Nevertheless, labs and lectures do not always converge, and this serves to highlight perhaps the primary purpose of the labs. As Dr. Ogden explained: “They are about teaching people to do science, and to use the toolbox of science – intellectual, analytical, statistical and physical tools.”

In many labs, the students are required to formulate a hypothesis, collect and analyze data, and discuss whether the hypothesis was supported, “going through the same steps that a research scientist would in generating knowledge,” as Dr. Robertshaw put it.

In both fall and spring semesters, the students also have to work in groups on the preparation of a scientific paper. They focus on one experiment, expanding the topic over a period of several weeks.

“The lab work we did taught us how to research and how to apply what we learned during the experiment, especially with the detailed scientific paper we did in the biology lab,” Zahrae Sandouk said.

Also important are labs that develop the students’ motor skills. These are set up to be hands-on as far as possible, and they may include both preparation of the specimen and actual dissection. For example, when studying the closed circulatory system of cuttlefish, WCMC-Q’s premeds had first to inject the renal sacs with dye so that they were easier to see, and then proceed to do the dissection.

“This was new,” commented Sanabel Al Akras, “the way we dissected the organism, (learning) how and where to cut first, and how to avoid harming the organs inside the body.”

The dexterity required is pitched to fit with the students’ capabilities, allowing for the fact that the freshmen’s level of motor and related skills varies according to their high school experience of lab work.

Of the cuttlefish lab, Dr. Ogden commented: “We get
Language of science spans the world

For the first time, a section of the research labs at WCMC-Q was up and running in summer 2006 as work began on a joint project between Weill Cornell Medical College in New York City and Qatar, and Hamad Medical Corporation (HMC).

Based at all three sites, faculty, physicians, medical students and staff carried out a number of procedures – including the first-ever RNA extraction at the Medical College in Qatar.

The initial six-month study of gene expression (an analysis of which genes are ‘switched on’ and which are ‘switched off’) in patients with lung disease is ongoing. It is part of an extensive, well-established investigation into how interaction between the environment and genes may lead to the development of complex lung disorders, led by Dr. Ronald Crystal, professor and Chairman of the Department of Genetic Medicine at Weill Cornell in New York City.

“This is a collaborative project with our colleagues in Doha, with both sides contributing equally,” Dr. Crystal said. “One important goal is to help transfer technology and knowledge to Doha, so colleagues there can work independently.”

While results are preliminary, the findings of the team in Doha are consistent with those of investigators in New York. “The overall patterns of gene expression are remarkably similar: that’s very interesting,” he noted.

Professor of genetic medicine and co-principal investigator, Dr. Lotfi Chouchane, who is supervising the study at WCMC-Q, described progress as “very encouraging,” with a number of abstracts and papers already under discussion.

Pioneers of research

Throughout the summer, medical students Sara Has-san and Aalia Al Barwani (Class of 2009) worked at WCMC-Q alongside lab specialist Jenny Creed, guided by Dr. Chouchane.

“We were the first people to work in the research labs,” said Al Barwani. “We helped set up the rooms, we carried the samples to them, and we started bench work there. It was amazing!”

Harvesting the samples was a six-strong team of HMC pulmonologists, led by Dr. Hisham Abdul-Sattar. This ongoing project is their first-ever prospective study, said Dr. Abdul-Sattar, who is also a co-principal investigator. All previous research and papers by his team had focussed on retrospective studies of patients.

Meanwhile, Zeinab Ammos (Class of 2009) travelled to New York where she joined Dr. Crystal’s team, gaining extensive experience of the ‘other side’ of the research (at left) and taking part in the many activities of the lab.

There was huge interest in the work of the Doha
team. “People were very excited, congratulating me for the first RNA extraction, and showing pictures of the Doha labs in meetings,” she said.

**Identifying the causes of disease**

Dr. Crystal’s research into gene expression and disease focuses on the lung for two principal reasons. It is an important interface between the environment and our bodies, as it is constantly exposed to the environment via the air we breathe, and it is quite accessible to researchers to take samples.

The investigation identifies smoking as a key environmental influence. Both healthy and sick smokers, as well as a control group of non-smokers, are taking part on the New York side. Patients seen by the pulmonologists are suffering from conditions including chronic obstructive lung disease (e.g. emphysema, chronic bronchitis) and lung cancer.

The Doha study is significant, explained Dr. Tim O’Connor, assistant research professor of genetic medicine at Weill Cornell in New York City, and project manager for the Doha study, because it extends the scope of the research to a new population.

“In any study where the goal is to identify the genetic components of a complex disease, the standard for the field now is to be able to demonstrate that the genes you have identified as being associated with a particular phenotype, disease or category like smoking should be capable of being replicated in a different population.”

**Going through all the steps**

Dr. O’Connor has been a frequent visitor to WCMC-Q, to help prepare the ground. Physicians and staff have been trained in the techniques of sample collection and patient interviewing, the clinical and research protocols set up, and the labs prepared.

Two WCMC-Q staff members, Abeer Gohar and Amani Ma’ayah, were trained to act as research coordinators, and tasked with patient contact and consenting at HMC. They are now co-investigators for the study.

Dr. Chouchane assessed the progress as rapid. “So far, we’ve been able to set up the platform to handle tasks including clinical phenotype definition (detailed patient information), sample collection in appropriate conditions and cell type analysis.

“The students went through all the steps that we have set the team in the Medical College, from gathering clinical information to sample collection and biological processing – DNA and RNA, and cell type determination.”

Once the gene expression level analysis has been run at the core micro-array facility in New York, the information is shared with the team at WCMC-Q and the students can take part in the data analysis, he added.

As they described the excitement – and the fun – of research, the students spoke of discovering how the basic sciences they studied in the Medical Program related to work at the bench and patients in the clinic.

(Continued on page 32)
In the Spotlight: Sabrina Alam

As incoming students make the transition from high school to university, they have the opportunity for independence and self-discovery. First-year pre-medical student Sabrina Alam discovered this first-hand, as she found her feet during Orientation 2006.

Settling in to one of the chairs in the pre-medical section of the WCMC-Q building, Sabrina described the three-day event, August 8-10, as a tiring but fun-filled experience.

On the final day, surrounded by classmates balancing towers of books in their arms, she explained: “Orientation was great and I can’t wait to start classes, but it was also exhausting because we were exposed to so many new things.”

The program was packed with events, activities, information sessions and social happenings, so the freshmen could acclimatize to life at WCMC-Q. Students received the class schedule, met members of the university community, toured the building and learned how to deal with the challenges that lie ahead. The program culminated in Opening Exercises on August 10.

Sabrina said the experience prepared her with the right attitude and support network to begin the Pre-medical Program. “En shaa Allah, in six years I’ll be a doctor, and there are certain responsibilities that come with that. Orientation put me in the right mindset,” said the Bangladeshi, who spent the last 13 years living in Africa – eight years in Botswana and five in Zimbabwe.

“I have a better understanding of what’s required of me and who I can turn to if I have problems. We can approach anyone – faculty, teaching assistants, Medical Student Executive Council in Qatar (MSEC-Q) members, senior students and staff – who will help at any point.

“Everyone made us feel so welcome and comfortable. The faculty remembered us from our interviews and asked what we were doing over the summer. The second years (pre-medical students) asked if we had any problems, if they could help in any way. They were so friendly and helpful.”

Getting down to business

Woven throughout the busy Orientation schedule were introductions to academic life at WCMC-Q, from discussions of a novel that encouraged intellectual and social exchange among students and faculty.
to a description of the pre-medical courses.

Through panel discussion and workshops, students and faculty took part in this year’s Cornell University reading project, *The Great Gatsby*, which was also a required activity for 3000 freshmen in Ithaca.

They met over a brown bag lunch to consider author F. Scott Fitzgerald’s intentions in writing the story and the novel’s abundant themes. “We discussed everything from the American Dream to society’s expectations and materialism,” Sabrina explained.

She noted her international education had equipped her well with the literary and analytical skills needed for such discussions. “I got to learn English at a very young age which has been a big advantage, especially with the (WCMC-Q) admissions process. If I didn’t speak English to the level I do, there’s no way I’d be here.”

This year, for the first time, a session on academic integrity was included in the schedule. Students learned what was expected of them academically and how to assess their own progress. Some of the factors considered by the Committee on Admissions for the Medical Program, including the importance of maintaining high ethical standards, were also discussed.

The session included workshops on referencing systems, an aspect of study Sabrina was already familiar with. “I knew about referencing having done the International Baccalaureate – I learned how to reference using the Harvard system and other systems,” she said.

“We also had an introduction to the Distributed eLibrary, something I’ve never used before. I’ve always had a traditional library with hardcover books. I thought it would be difficult, but I was surprised at how easy it is to use. The library staff were really supportive and encouraging.”

**Settling into the wider community**

Orientation offered freshmen a chance to socialize with their peers, both in and outside the Medical College, Sabrina noted. “During the past few days we have come to know each other pretty well. Because we’re all new to this situation we’re really friendly with each other.”

Sabrina said she and classmate Hiba Sheikh connected
In the Spotlight
(continued from page 19)

The opportunity of a lifetime
Reflecting on her decision to come to WCMC-Q, Sabrina said: “I chose to come to Cornell (in Qatar), firstly because it’s an Ivy League school, but also because my parents and I were very impressed by the facilities and the faculty here; we liked that it was a six-year (integrated) program instead of eight years, and the fact that Qatar is very safe.

“Even though I was accepted into prestigious universities in the US with scholarships, the balance I had to pay was extreme. Financial aid was another big deciding factor – Qatar Foundation has really done so much for me. Without the financial aid, I most certainly would not be here.”

Eager to pursue a career in medicine, Sabrina recognizes the first-class opportunity that awaits her at WCMC-Q and stands ready to face the challenges, both academic and emotional.

“I feel I’ve matured much more in these last three weeks than I have in any other period in my life. Because I’m living away from my family, I have to decide what time to get up in the morning, what I’m going to eat, what to cook, when to clean my house, when to go to college.

“It’s all at once, and there’s no one there to guide you. I think, more than anything, it just makes you grow up a whole lot – but that’s all part of the learning experience.”

immediately: “We are very similar – we think alike, we operate alike, and I think the way we tackle school work will be much the same.”

Joining students from countries as diverse as the US, Qatar, Egypt and South Korea, Sabrina enjoyed a treasure hunt and movie night sponsored by the MSEC-Q. She also took part in a lunchtime session of charades in the student lounge. “They (students in upper classes) treat us like we’re peers and I really appreciate that,” Sabrina commented.

The fun continued with Qatar Foundation’s Orientation for international students on the Education City campus, with a day of bowling, ice-skating and other social activities at the City Center mall. “I’ve never been ice-skating before, I’ve never even seen an ice rink... We interacted with students from all the other institutions and had tons of fun.”

Selected students, including Sabrina, also had the chance to take part in a video produced by Aljazeera Children’s Channel. A star of the show, Sabrina spoke openly about her international background: “When I talk about home I have two homes – Bangladesh and Botswana... Most of my family are spread across the globe – I have relatives in Botswana, the US, some in India, some in Bangladesh, they’re all over. I’ve visited every single continent except Australia. So I’ve gotten to know so many cultures and it’s really wonderful—you understand people better.”
Cells hold key to brain diseases

Changes in the cells in the brain hold the key to the development of a number of neurodegenerative diseases, including Alzheimer’s, Huntington’s and Parkinson’s. As researchers unlock the secrets of how they occur, so they are developing possible treatments.

In a research seminar given at WCMC-Q September 12, Dr. M. Flint Beal, the Anne Parrish Titzell Professor and Chairman of the Department of Neurology and Neuroscience at Weill Cornell Medical College, and Director of the Neurology service at NewYork-Presbyterian Hospital, outlined the progress made so far.

He discussed current pre-clinical and clinical trials of a number of potential therapies, and considered the promise of stem cell therapy.

During this, his first visit to Qatar, Dr. Beal met with faculty and medical students, and toured the Medical College.

“The facilities are remarkable,” he commented. “The Clinical Skills Center is a fantastic teaching environment. The computers and access to medical information, the videoconferencing technology – they are all state-of-the-art.”

Dr. Beal held discussions with leaders and consultant neurologists at Hamad Medical Corporation on plans for the educational program, ahead of the start of the Neurology Clerkship for WCMC-Q’s third year medical students in January 2007.

“We had very useful discussions on how things operate clinically there, and where they could potentially recruit more neurologists to strengthen neurology, eventually setting up a training program for residents,” he said.

In his seminar, and in an interview afterwards, Dr. Beal – who is an international authority on neurodegenerative diseases – noted that dysfunction of the mitochondria contributes to the general ageing process. It has a central role in the development of diseases more commonly found in older people, such as Parkinson’s and Alzheimer’s, as well as a number of other conditions such as Huntington’s and Amyotrophic Lateral Sclerosis (ALS).

Tiny structures found within each cell, the mitochondria constitute the “powerhouse of the cell” producing about 90 percent of the energy it uses, he explained. “The mitochondria are inherited from the mother, and they are associated with a number of these diseases and with diabetes.”

Dysfunction often arises from oxidative stress, which occurs under “a large number of different circum-
stances,” including primary genetic defects, acute insult (e.g. from certain types of stroke) and inflammation.

Alzheimer’s and Parkinson’s are major problems in countries with large numbers of elderly people, such as the US; in Qatar, Dr. Beal noted, stroke is more of a concern.

“The bigger problem here is stroke, and that is related to the high incidence of diabetes. They have in the range of 500 admissions a year for stroke, which is reasonably high.”

Following years of research into the genetic basis of the diseases, new therapies are under development. Dr. Beal’s team at Weill Cornell will shortly begin a phase 3 double-blind pre-clinical trial of co-enzyme Q10 as a treatment for Parkinson’s. Building on 12 years of investigation, the trial will assess different outcomes, including quality of life. In the future, it may be extended to Alzheimer’s sufferers, he said.

Another large-scale trial, in which Dr. Beal has an advisory role, focuses on the use of creatine to increase energy production in cells, thereby slowing the degenerative process in both Huntington’s and Parkinson’s.

Asked whether stem cell therapy may provide the basis for future cures, he noted that it shows “great promise,” but cautioned that clinical applications are at least five years away. There remain many challenges he said, not least how to control the process of cell division and how to ensure that all areas of the brain affected by disease are reached.
Faculty Appointments

Elizabeth Alger, MD, FACP, appointed Associate Director, Office of Educational Development

Dr. Elizabeth Alger was appointed Associate Director, Office of Educational Development in August. In this capacity, she will contribute her expertise and experience to the planning and implementation of a faculty educational development program.

Before joining WCMC-Q in 2004, Dr. Alger’s career was at the University of Medicine and Dentistry of New Jersey-New Jersey Medical School, where she was a faculty member and Associate Dean for Education. Among her achievements was the introduction of new pedagogical techniques into the medical curriculum, including problem-based learning (PBL) and objective structured clinical examinations. She has also contributed a number of papers and presentations to the field of medical education.

Dr. Alger, who is associate professor of medicine at WCMC-Q, said that her immediate focus would be on organizing workshops on clinical teaching and on advanced skills in PBL tutoring and case development.

Appointed as lecturer in mathematics, Russell Woodroofe, PhD, (right) was previously a teaching assistant in the Pre-medical Program at the Medical College during the academic year 2005-2006.

With both Master’s and doctoral degrees from Cornell University, Dr. Woodroofe’s research areas are combinatorics and group theory, and he is the author of a number of papers in the field.

New Faces Among the Faculty

Ahmad S. Teebi, MBBCCh, DCH, DHCG, FRCPE, FRCP, FACMG, recently joined WCMC-Q as professor of pediatrics and professor of genetic medicine.

Of Palestinian origin, Dr. Teebi qualified in medicine from Cairo University, and did his residency training in pediatrics as part of a combined program between Kuwait and University College, Dublin. He trained in human and clinical genetics at London University, UK, before moving to the US, where he specialized in medical genetics at Yale University, obtaining American Board certification in 1993.

Dr. Teebi joined Toronto University in 1998 as professor of pediatrics and professor of medical genetics, and head of the section of Clinical Genetics and Dysmorphology at The Hospital for Sick Children.

An expert in the field of dysmorphology, particularly craniofacial genetics, Dr. Teebi has carried out pioneering research into genetic disorders among populations of Middle Eastern origin. He has helped set up genetic services in many countries in the region, from Egypt to Kuwait, and he recently worked on the establishment of a genetic counseling program in Saudi Arabia – the first of its kind in the area.

Dr. Teebi has published extensively in the literature, and he has served on the editorial boards of several journals, including Clinical Dysmorphology, American Journal of Medical Genetics, and Clinical Genetics. His textbook Genetic Disorders among Arab Populations was published by Oxford University Press in 1997.
Marcellina Mian MDCM, FAAP, FR-CPC, is professor of pediatrics and director of the Pediatric Clerkship.

Born in Cairo to Italian parents, Dr. Mian obtained her medical degree at McGill University, Montreal. She went on to train in pediatrics at the Montreal Children’s Hospital, and at the New England Medical Center in Boston. She obtained her American Board certification in 1975.

Over a period of 25 years spent at The Hospital for Sick Children in Toronto, Dr. Mian gained extensive experience in general and emergency pediatric medicine, and child abuse and neglect prevention. In 1998, she became director of undergraduate medical education at The Hospital for Sick Children and pediatric course director at the University of Toronto. Four years later, she was appointed professor of pediatrics with a cross-appointment in the Department of Public Health.

Dr. Mian is actively involved in organizations dedicated to the prevention of child abuse. She is a member, and past president, of the Executive Council of the International Society for Prevention of Child Abuse and Neglect, and a consultant to the World Health Organization.

Dr. Mian is the author of a number of papers in the field of child maltreatment prevention. She is currently pursuing a Master’s degree in the field of health professions education.

(See also Notes from Faculty, page 25)

Associate professor of medicine, director of the Medicine Clerkship and co-director of Medicine, Patients and Society II, Nasir Hussain, MBBS, came to WCMC-Q from the University of Texas Medical Branch (UTMB) in Galveston, Texas.

A graduate of Liaquat Medical College, Jamshoro, Pakistan, Dr. Hussain completed his residency training in internal medicine at Lutheran Medical Center, Cleveland, Ohio and was appointed as assistant program director of the residency at the same institution. He is American Board-certified in internal medicine.

In 1994, Dr. Hussain was appointed assistant professor of medicine in the Department of Internal Medicine at UTMB, rising to associate professor in 2005. He served in various academic and administrative capacities, and was active in both clinical care, and the teaching of medical students and residents.

Dr. Hussain has carried out research in the fields of medical education and continuing medical education. In addition, he is the author of a number of papers in the field of general internal medicine.

Amal Khidir, MD, FAAP, is assistant professor of pediatrics and associate program director for the Pediatric Clerkship.

A graduate in medicine of the University of Khartoum, Dr. Khidir did her pediatric residency training at Howard University Hospital, Washington DC, obtaining American Pediatric Board certification in 2001.

Following a period working in West Virginia, Dr. Khidir returned to Howard University as assistant professor of pediatrics and child health, and director of the Pediatric Clerkship. Her clinical responsibilities included newborn nursery care, general pediatrics and chronically ill patients.

Dr. Khidir’s areas of special interest are faculty development, medical education and neonatology. She participated in the revision of the American national pediatric curriculum of the Council of Medical Student Education in Pediatrics (COMSEP); she also submitted a peer reviewed standardized patient case, which is used for student evaluation in George Washington University. In addition, Dr. Khidir is a certified Neonatal Resuscitation Program instructor.
In the Pre-medical Program, three new faculty members have joined the First-Year Writing Seminars.

Visiting assistant professor, Rodney Sharkey, PhD, took his Master’s degree at University College, Dublin, followed by a doctoral degree at Trinity College, Dublin.

After teaching at universities in Ireland, he moved to Eastern Mediterranean University in Cyprus.

A specialist in Anglo-Irish literature, critical theory, performance dynamics and popular culture, Dr. Sharkey publishes regularly in journals such as Modern Culture Reviews, Journal of Beckett Studies and Reconstruction.

A producer and director of musical and theatrical events, Dr. Sharkey was the curator and director of the Inscriptions in the Sand conference and arts festival, held annually in Cyprus between 2002 and 2005.

Visiting lecturer, Alan S. Weber, PhD, received his doctorate in English from the State University of New York, Binghampton. With a background in biology as well as English, he has taught literature, writing and the history of science and medicine at The Pennsylvania State University, Elmira College, and Cornell University’s Ithaca campus.

Dr. Weber is the author and editor of several books, including a reader on the history of science and an edition of English Renaissance medical texts written by women. As a former keen amateur mountaineer, he has also edited an anthology of mountain literature, entitled Because It’s There.

Among Dr. Weber’s current research interests are Renaissance literature and the history of science and medicine, and he is working on a history of women in the medical profession.

Lauren K. Alleyne, MFA, is lecturer in the First-Year Writing Seminar and coordinator of the Writing Center, a facility that offers mentoring, resources and practice at all stages of the writing process to pre-medical students at WCMC-Q.

With a Master’s degree in English (with creative writing) from Iowa State University, and a Master of Fine Arts degree in creative writing (poetry) from Cornell University, Alleyne taught freshman writing and creative writing at Cornell’s Ithaca campus before joining WCMC-Q.

Originally from Trinidad and Tobago, Alleyne is an award-winning poet. Her work has appeared in many anthologies and journals, including The Bellevue Literary Review, Black Arts Quarterly and The Hampden-Sydney Review. She is also co-editor of an anthology of undergraduate prose, poetry and drama entitled From the Heart of Brooklyn.

**Notes from Faculty**

Monica Bishop, MD, CCFP, FCFP, has recently been awarded Fellowship in The College of Family Physicians of Canada (CFPC). Fellowship is an honor which the CFPC confers upon Certificant members who have successfully maintained their certification for ten consecutive years, through the Maintenance of Proficiency Program, thereby demonstrating an ongoing commitment to continuing professional development and lifelong learning.

Dr. Bishop, who is instructor of family practice in the Department of Medicine and director of the Clinical Skills Center, was also recently appointed co-director of the Medicine, Patients and Society II course at WCMC-Q.
Congratulations also to Wendy Terry, MD, PhD, who was awarded her doctoral degree by Newcastle University, Australia, earlier this year. Dr. Terry, who is assistant professor of medicine and course director for Medicine, Patients and Society I, researched patient preferences for palliative care through interviews with 200 mostly cancer patients in a hospice in Newcastle.

“The existing literature is substantially about the views of people who care for dying patients – palliative care physicians and nurses – because patients are clearly very unwell, and it was thought it would be unfair to ask them what they wanted,” Dr. Terry said.

Focusing on issues such as eating and drinking, she found that many patients wished to be involved in decision-making, and that using families and physicians as proxies was not what they wanted.

Dr. Terry’s research, conducted over a five-year period, has led to publication of a number of papers in both palliative care and humanities in medicine literature. It was also the subject of a poster she presented at the Research Forum of the European Association for Palliative Care in Venice last May.


The annual meeting of the American Society for Clinical Pathology provides a forum for pathologists to update their knowledge of the latest technologies and improve their diagnostic skills during several days of lectures, symposia and other academic encounters. It brings together distinguished practitioners from North America and across the world.

Powers Peterson, MD, FASCP, associate professor of pathology and laboratory medicine, took an active part in the most recent meeting, held in Las Vegas in October. She was also a member of the organizing committee for the event.

Dr. Peterson was the facilitator of roundtable discussions on peripheral blood smears and critical values; and moderator of, and faculty contributor to, a symposium on new developments in laboratory tests, in which she focussed on the bleeding time test and possible alternative approaches. In addition, she chaired a symposium on diagnostic issues in non-Hodgkin lymphoma, in which the focus was on the appropriate role of fine needle aspiration and controversial issues in B-cell lymphomas.

Professor of chemistry, Terrance Murphy, PhD, attended the 37th International Conference on Coordination Chemistry (ICCC) in Cape Town, South Africa, in August.

Topics included metals in biology and medicine, and a plenary lecture on first-generation molecular systems that may be used to perform clinical tasks, such as detecting potential renal failure by sensing excessive sodium in the blood. Dr. Murphy also participated in the ICCC planning committee for future events.

Marcellina Mian, MDCM, FAAP, FRCP, attended the 16th Congress of the International Society for Prevention of Child Abuse and Neglect (ISPCAN) in York, UK, in September. The meeting saw the advance release to delegates of Preventing child maltreatment: a guide to taking action and generating evidence, the culmination of a project Dr. Mian had spearheaded in collaboration with the World Health Organization.

The document is intended to assist governments and other agencies in undertaking programs to prevent child maltreatment. It aims to achieve the routine implementation in all countries of child maltreatment prevention programs based on sound epidemiological data and on local experimental studies of what is effective in prevention.

Dr. Mian, who is professor of pediatrics and director of the Pediatric Clerkship, now plans to work on the development of more specific practice “guidelines for guidelines” for professionals and communities to develop and implement local child abuse prevention strategies, for release at the 17th Congress in Hong Kong in 2008.

“The follow-up document will be aimed particularly at the health, legal and social sectors and will be based on the rights enshrined in the Convention on the Rights of the Child and the public health approach to disease prevention,” she said.
At a meeting held at the University of Zaragoza, Spain in September, Pablo Rodriguez del Pozo, MD, JD, PhD, made a presentation on WCMC-Q’s longitudinal medical ethics program, which gives students exposure to medical ethics from early in their studies through to the end.

The conference, ‘Teaching Bioethics in Universities and other Institutions,’ was aimed at medical ethics faculty, ethics committee members and advanced medical students.

“The goal was to share and compare teaching experiences, learning methodologies and research in the area of biomedical ethics,” said Dr. Rodriguez del Pozo, who is assistant professor in the Division of Medical Ethics, Department of Public Health. “In my presentation, I showed how WCMC-Q’s innovative approach to teaching medical ethics makes for a meaningful learning experience for our students.”

Horizontal gaze palsy and progressive scoliosis (HGPPS) is a rare genetic disorder mapping to chromosome 11. It is characterized by congenital bilateral horizontal gaze palsy with preserved vertical gaze and progressive scoliosis (a disfiguring deformity of the dorsal spine) developing in childhood.

This is the first report to specifically link uncrossed motor and sensory pathways in the brainstem to diagnosed HGPPS, and to describe the intraoperative neurophysiologic discovery of the anomalies in these patients through the routine application of sensory and motor evoked potential surgical monitoring procedures.

The poster presented important signs for clinical diagnosis of the condition, and noted that clinical neurophysiologists should be aware that such anomalies may be unsuspected and may compromise the accuracy of their studies.

Dr. Streletz is associate professor of neurology and neuroscience, and director of the Brain and Mind course at WCMC-Q.

The Horizontal Gaze Palsy and Progressive Scoliosis Syndrome: Clinical Neurophysiology of a Motor Sensory Control Disorder by Leopold J. Streletz, David B. MacDonald, Bent Stigsby, Thomas M. Bosely. Weill Cornell Medical College in Qatar, Doha, Qatar; King Faisal Specialist Hospital and Research Center and King Khalid Eye Specialist Hospital, Riyadh, Saudi Arabia. In Neuromuscular Disorders (2006) 16, S188.

At the XI International Conference on Neuromuscular Diseases, held in Istanbul, Turkey in July, Leopold Streletz, MD, and his co-authors at King Faisal Specialist Hospital in Saudi Arabia presented a poster entitled The Horizontal Gaze Palsy and Progressive Scoliosis Syndrome: Clinical Neurophysiology of a Motor Sensory Control Disorder.

Horizontal gaze palsy and progressive scoliosis is a rare genetic disorder mapping to chromosome 11. It is characterized by congenital bilateral horizontal gaze palsy with preserved vertical gaze.

At a meeting held at the University of Zaragoza, Spain in September, Pablo Rodriguez del Pozo, MD, JD, PhD, made a presentation on WCMC-Q’s longitudinal medical ethics program, which gives students exposure to medical ethics from early in their studies through to the end.

The study did not confirm an association between consanguinity and risk of CHD. Factors which were found to increase the risk of all CHD in this population of 235 cases were: multiplicity, maternal ethnicity, maternal age, presence of an extracardiac malformation, use of chemical hair dyes and pesticide use. In the first sub-analysis, where the 151 cardiac-only cases were analyzed, the risk factors identified were multiplicity, use of chemical hair dyes, pesticide use and mother’s education.

Two additional analyses were conducted: embryologically earliest and embryologically latest. These two groups were formulated from an understanding of the embryological system of CHD classification developed by the Baltimore Washington Infant Survey Group and Edward Clark. This categorizes the infant with CHD according to the defect which would have occurred earliest in gestation. Any other defects are assumed to be spurious in terms of etiology. Several different types of CHD, according to the nosological systems are grouped together such that 54 ICD-9 defects are reduced to 7 embryological groups. It has been postulated that these cardiac defects although phenotypically distinct are actually different paths arising from an insult or a series of insults occurring simultaneously.

Using this system with the embryologically earliest cases Sandridge reported that risks included a major maternal health problem in a previous pregnancy, fasting in some circumstances and pesticide use.
In an invited review in the *Journal of Applied Physiology*, David Robertshaw, PhD, professor of physiology and Associate Dean for Pre-medical Education, discussed current knowledge of the control of heat loss by evaporation from the respiratory system of mammals.

Expired air is saturated with water vapor and many mammalian species utilize the respiratory system to increase respiratory evaporative heat loss by panting in order to control body temperature. Man does not pant but utilizes sweating.

Selective brain cooling occurs as a result of panting by means of an arrangement of the blood supply to the brain, which ensures that cool blood from the nasal region reduces the temperature of blood going to the brain. As a result, the brain is cooled to a level lower than that of the body. This has also been demonstrated to occur in man: the high sweat rate from the head acts in a similar manner to the system described in panting animals.

Previously thought to be a mechanism for protecting the thermally vulnerable brain, this cooling process is now considered to be part of the control system for temperature regulation, since many of the thermal detectors of the body are located in the hypothalamic portion of the brain.


The fourth edition of *Silverberg’s Principles and Practice of Surgical Pathology and Cytopathology*, published this year, includes a chapter on parathyroid glands co-written by Gerardo Guiter, MD, assistant professor of pathology and laboratory medicine at WCMC-Q.

The chapter provides an in-depth review of normal and diseased parathyroid glands covering histology, anatomy, embryology, physiology, cytology and surgical pathology of the glands. Co-author of the chapter, Dr. Ronald DeLellis, is an international expert on endocrine pathology.

The publication is a standard text for pathologists and a useful resource for head and neck surgeons. It is also widely used in postgraduate training in the US.


Among recently published work by writing faculty at WCMC-Q are poems by Peter Fortunato, MFA, and his wife Mary Gilliland, MAT. *Come to Me and Apples* are part of an anthology printed in honor of the inauguration of Dr. David Skorton as the twelfth president of Cornell University.

The anthology, entitled *Like a Fragile Index of the World*, was selected by Alice Fulton, the Ann S. Bowers Professor of English at Cornell. The poems are complemented by a number of photographs of the campus taken in the 1920s by Margaret Bourke-White, celebrated photographer and Cornell alumna.

Also from Peter Fortunato is *Color Me Earth*, his first book for children, which appeared in July. Vibrantly illustrated, the story centers on nature and mankind’s place on earth.

Fortunato is senior lecturer in writing and coordinator of the First-Year Writing Seminars at WCMC-Q. Gilliland is senior lecturer at the Knight Institute for Writing in the Disciplines at Cornell; she taught at WCMC-Q in spring 2006.

*Like a Fragile Index of the World* can be accessed electronically at:  [www.cornell.edu/humanities/publications/fragileindex.cfm](http://www.cornell.edu/humanities/publications/fragileindex.cfm)

*Color Me Earth* is available online through  [www.ZwackArt.com](http://www.ZwackArt.com)
Cut from the same fabric and sewn in a different pattern, siblings are said to share common fibers that link their interests and approach to life. Now in its fifth year of operation, WCMC-Q can lay claim to six sets of siblings, each of whom shares a special connection – the dream of becoming a doctor. Has studying at the Medical College become a family affair?

For younger siblings, thoughts of a career in medicine may emerge from discussions at home, when older family members talk about life at WCMC-Q or as practicing physicians. Along with the family, they attend events like Opening Exercises and the White Coat Ceremony, where they see their older brother’s or sister’s efforts recognized. It is unsurprising that some decide to follow the same path.

Driven by example

“My brother was an inspiration to me because he was in the Inaugural Class,” said Amer Al Saied, a first year medical student. He explained that while there were many reasons for his decision to study medicine at WCMC-Q, the early experiences of his older brother, Osama, in both Pre-medical and Medical Programs, were encouraging.

“I chose medicine because I thought it was a way to make a difference and have an impact on people’s lives, and I chose WCMC-Q because it offers a world class education. But through Osama, I learned what to expect and what the environment was like at the Medical College. I asked him lots of questions before I came and I still ask lots of questions,” he said.

Zainab Sultan, a first-year pre-med and the younger sister of Ibrahim (Class of 2008), said she, too, had learned what it was like to be a student at WCMC-Q by watching her brother.

“When I was in high school I saw him take part in so many things, like summer research programs. I thought what he was doing was so exciting,” she explained.

Nancy Zaki (Class of 2009) was sure that her experience influenced younger brother Bassem’s decision to apply.

“My brother came to my Orientation. He loved the Medical College, particularly the small classes, the close student-professor interaction and the technology. He was determined to come here from the first day I attended the college,” she recalled. Bassem enrolled this fall.

A word from the wise

The interviewees agreed that sharing the university experience with a sibling was a great privilege, but with this came certain responsibilities, particularly for the more experienced older one.

Initially, Nancy offered Bassem advice on the admissions process and what he should learn before starting pre-med studies. “I figured out what difficulties I went through in the courses and I told him what he should learn before he came here, so he was well prepared. Our school wasn’t offering Advanced Placement courses*, but I told him he should do this, and he did.”

Ibrahim said the questions and advice continued to flow once Zainab enrolled in the

*Advanced Placement courses are college-level courses that students can take in a high school setting.
Pre-medical Program. “It’s natural to want to offer advice, but you need to strike a balance. I think it’s very important for her to make and learn from mistakes every now and again, rather than have me tell her from the first day what she should or shouldn’t be doing. College is about self-learning.”

Zainab noted: “Ibrahim always gives me a chance to discover things for myself, to look at things from my own perspective. But at the same time if I need him anytime, I can go and ask if I’m doing something the right way. I like the way he balances this.”

Stepping out from the shadow

While advice is welcome, following in the footsteps of an older sibling is not always easy, she continued. “I never want people to know me as ‘Ibrahim’s sister’. Although we are brother and sister, I am my own person and I just want to be known as Zainab.”

In the academic setting, faculty regard you as your own person, noted Bassem. “They don’t label you as being someone’s brother (or sister). They know that everyone is an individual.”

However, among the students, a younger sibling may have to live up to the reputation of one who has gone before, said Anas Saleh (Class of 2011), younger brother of Qusai. “When I first started pre-med everyone was like, ‘come on, you’re Qusai’s brother, go lead a team, go do something big’. The students look up to him and say he’s very mature.”

Nevertheless, a brother or sister can be a source of great support: a shoulder to lean on when times are tough, a voice of guidance, or a second person to assume family responsibilities.

“I tend to perform much better in my studies when I am with my brother,” said Qusai. “We study together and if one of us has a question we can talk it through.”

Sharing accommodation also lends a feeling of home to the student experience, added Anas. “In the dorms it feels more like home and it prevents us from feeling homesick.”

With the Al-Saied brothers (below), who live at home, Amer helps out with family commitments. “I don’t spend much quality time with my family anymore,” said Osama, who this year started his Clinical Clerkships at Hamad Medical Corporation. “They know I don’t have much time and they try not to overwhelm me. Having a brother eases the load a lot. He now plays the big brother role to our sisters and takes care of everything I used to take care of, like driving our sister, Faiza, to school.” Coincidentally, Faiza attends Carnegie Mellon University, also in Education City.

Crossing paths

Although their career path is the same, the siblings usually have vastly different schedules. While the majority are based at the Medical College, third year medical students spend most of their time at Hamad Medical Corporation.

“I don’t see Amer that much on an average day,” Osama explained. “I’m in the hospital from 6:00 a.m. to 5:00 p.m. I go home, eat, and study for a couple of hours; Amer is generally at the Medical College. I see him for about 30 minutes a day. We usually meet up in the study room at home and talk about what’s happening at school.”

For the Zakis, finding time to catch
W ith the academic year now in full swing, and the weather lightening up, the Education City campus has taken a livelier turn after the summer heat and holidays.

Sports fixtures, fund-raisers by volunteer groups, the third series of Doha Debates, concerts, lectures, and community classes in anything from Adobe Photoshop to taekwondo, are all going on – quite apart from many informal gatherings.

A ‘university feel’

Intrepid as ever, the Qatar Chronicle set out to explore what life is like for WCMC-Q students who live on-campus. The Medical College has the highest proportion of students living in the residence blocks of any of the five university branches in Education City: 87 out of 190, or 48 percent, of students in residence are studying at WCMC-Q.

Pre-med student Zahrae Sandouk said the campus is developing a ‘university feel’ as more students join. “It’s becoming more and more active, as new students come in… I noticed a change this year, I think because there was a well-organized international orientation for Education City.”

For med student Aalia Al Barwani, the construction of shared central facilities will be a key factor. “I think it’s getting there as the number of students and the interaction between the different university branches increase,” she commented. “Once a student center and mosque are set up, they will contribute to the ‘university feel.’”

Top quality residences

Housed in apartments that were originally designed for teachers at the nearby Qatar Academy, Education City’s students live in accommodations that many of their peers at universities elsewhere in the world can only dream about.

With men and women in separate buildings, most students share two (or, in the case of two-bedroom housing, four) to an apartment that has bedroom, living-dining room, kitchen and bathroom. Spacious, attractively furnished and equipped with everything from microwave and dishwasher to TV and wireless network, they provide a remarkable level of comfort.

First-year med student Qusai Saleh recalled his reaction on arriving in Education City: “I was really impressed with the amount of space and the quality of the facilities in the rooms. I tried several student accommodations in other countries – the UK, US and Jordan – before I came to Qatar, but the dormitories here are much better.”

Qusai, who lives with younger brother and pre-med student Anas, said shared accommodation provides a supportive environment.
Other students said they would even find it difficult to live alone. Pre-med Mohammed Warfa noted: “Sharing comes naturally to me since I come from a large family. It is very helpful to share: my flatmate helped me to adapt to the country fast.”

Sandouk admitted to some initial uncertainty about the idea of living in accommodation with someone she did not know. However, Qatar Foundation staff did their best to ensure that residents were matched, by circulating a questionnaire before they arrived.

“I saw that they chose according to the questionnaire,” she said. “I found that it worked. After sharing with my flatmate for a year, we are still friends! We have lots of things in common – the way we study, the way we like our room to be.”

Even so, divergent study habits or conflicting timetables can be a source of tension. Amila Husic, who started her third-year Clinical Clerkships in July, said problems began when she and her flatmate found themselves on different rotations.

“Our schedules are so different, we are definitely affecting each other’s sleep. Before, this just wasn’t such an issue.”

Towards “living-learning communities”

This is all set to change, however, with plans now under development for two new residence halls to be built in anticipation of a significant rise in student numbers.

The halls, one for men and one for women, and each housing about 600 students, will have a very different configuration. All students will have their own room with bathroom, while significantly more space will be allocated for community activities.

Kevin Konecny, housing and residence life coordinator at Qatar Foundation, said this model of university housing draws on the best practice guidelines adopted by the Association of College and University Housing Officers International, among other agencies.

“It is a well-established model, based on the notion that student learning takes place beyond the classroom. We are trying to create vibrant living-learning communities – so the new residence halls, now in the design phase, will have community learning centers that will be hubs of activity.”

Faculty may also have a role in the residences, with office or classroom space available in-hall. Konecny, who was previously associate director of residence education at the University of Michigan, noted: “There may be a very high level of faculty involvement in the residence halls. The research is very clear that where faculty have a role, students persist to graduation at a higher rate.”

Konecny is already implementing plans to get students more involved in “shaping their community” by putting in place a new system to select and train resident assistants in both men’s and women’s blocks, and by setting up hall governance councils. His department is also collaborating with colleagues in student affairs departments across the campus to foster the growth of a community spirit.

The bigger picture

Turning to life outside the halls, there is no doubt that this spirit is growing. One major impetus has been the refurbishment of the Recreation Center situated on the western side of the present campus. Transformed over the past year, it is well on the way to becoming a full-fledged community center serving the whole Education City population.

The excellent indoor sports facilities – Olympic-size swimming pool, multipurpose gyms, fitness rooms (including one for ladies only), squash courts, studio and activity room – are complemented by outdoor sports fields, basketball and volleyball court, and a running track.

The center also has meeting rooms, offices for student clubs, game room and a majlis (meeting place) for informal gatherings on the top floor.

(Continued on page 32)
Sense of community (continued from page 31)

“The renovation and the additions made to the center have encouraged more people to be more active,” said Al Barwani. “It’s great and considerate that there are facilities or timings that are specifically for ladies.”

Among the services and businesses now open are a bank, Qtel office, post office, travel agency and laundry.

“These are our community business partners,” said L. Kay Allen, Qatar Foundation’s supervisor of social facilities, “meaning that they are key to supporting the development of an Education City community that is one of the primary objectives of the social facilities division.”

What is missing, argued the students, is a supermarket or even just a mini-market, so that they could buy provisions without having to travel off-campus. Confirming that this is “in the plan,” Allen said a store for staple provisions would be provided in the future.

Much of her time is devoted to fostering the social activities essential to campus life.

“If you look at the research, in universities that are international or state-side, students really don’t have true success without the social component to complement the academics. We try to engage more with the programming of the facility, collaborating with the centers to bring about a sense of community for the students, Education City employees, faculty and staff.”

Social facilities also took an active part in organizing August’s orientation for international students. “We wanted to provide a welcoming environment for the students,” Allen explained, “so that when they walked in, they would feel that they were in a place that’s exciting, and they were motivated and enthusiastic to find out what Qatar Foundation has to offer – and how they could contribute to the development of Education City.”

Language of science (continued from page 17)

“Everything was going in parallel,” said Sara Hassan. “I loved it. Because it was such a new project and very few people were involved here, we actually went through all the steps, starting from the sample collection at HMC, then the lab work here, and the data analysis when we received the information from New York. It was an important chance for our future, when we may participate in research.”

Al Barwani underlined the significance of having access to biomedical research in Qatar – “focussing on the topics that are important in this part of the world” – and collaborating with health-care professionals in the country.

“The nice thing about starting research here is that it is bringing together the different medical communities,” she said. “We got to see how things work here.”

Dr. Crystal noted that experience of research is fundamental to understanding the science whether or not the young physicians-in-training choose to do research once they graduate: “You can’t read the medical literature now unless you understand science. You can’t understand science unless you have experience doing it.”

Research across the globe

The study is highly significant for its demonstration of proof of concept, said WCMC-Q’s Senior Associate Dean for Research, Dr. Gary Schneider. “This is a sophisticated clinical study, involving a great deal of coordination and collaboration. The team has clearly demonstrated that this level of medical research can be undertaken in Qatar.”

Dr. Crystal said it also demonstrates you can successfully conduct research as a collaborative enterprise across thousands of miles.

Exchange of personnel is important, but it is technology that provides the essential framework: Email communications, videoconferencing, and shared access to data are vital.

“It’s going to take a few more months to set it all up, but I think the computer technology will mean we can share the data. With videoconferencing, we can look at the data and at each other at the same time – it’s like being in the same room,” he commented.

“It’s very feasible. Basically, the language of science is the same throughout the world.”

siblings (continued from page 29)

up is not easy. “We cross paths in the student lounge sometimes, and we occasionally have lunch together, but other than that we hardly see each other,” Nancy said.

Asked if he had any qualms about following his brother’s lead, Amer Al Saied quipped: “It has always been like this. Imagine, after 20 years I’ll still be following in his footsteps!”

More seriously, he said: “We’re going in the same career path, at least for six years. After that, neither of us are sure which specialty we want to do, but we’re both interested in research so, who knows, maybe our paths will come together somewhere down the road.”
some very skilful dissections. It is within their skill level at that point. It’s fun for them, and if they mess it up, it doesn’t destroy the specimen.”

Such skills are further developed in the second semester, when the students are tasked with dissecting and studying chicken embryos at 24, 48, 72 and 96 hours post-fertilization.

Innovative approach

Run in this form for the first time in Qatar in spring 2006, the embryology lab required careful planning. “Between fall and spring semesters, we did a trial run with embryos at about 24 hours, and that worked. So we went ahead and did the lab. It was very successful,” Dr. Ogden explained.

In order to view the developing embryo at each stage, students opened the egg to get the contents out, cut around the vitelline membrane and removed the embryo from the yolk. By placing it in a dish, they could get a close look at it – much better than if they had left it inside the shell.

“By 96 hours, you could see the eyes, the heart pumping, the shape of the embryo when torsion and flexion occurred – we were following these events to see exactly when they happened,” said Becetti.

This important change to the lab was initiated by Dr. Antonie Blackler, professor emeritus of zoology at Cornell University, and course director for biology at WCMC-Q. Since he taught in the Pre-medical Program over a three-year period from 2002 to 2005, Dr. Blackler was familiar with its evolution and could recommend an adjustment that fitted well with the students’ interests.

Dr. Ogden is open to using new ways to introduce concepts and techniques, different specimens to demonstrate the structures and function that are being studied, and even new topics that may be more pertinent to the interests of students who intend to study medicine.

As a result, the labs at WCMC-Q have diverged in some significant respects from those at Cornell in Ithaca, and this is particularly true of the final labs in the spring semester. Dr. Ogden explained: “They don’t do a PCR lab, and that means that our population genetics lab is different because I use our PCR results to drive that lab.”

Introduced in 2005, following consultations with faculty in Ithaca and purchase of the necessary equipment, the PCR lab allows students to amplify a small section (locus) of their DNA and analyze their genetic makeup at that locus by electrophoresis.

Since the locus they select has a small enough number of possible forms (alleles), the class may then translate the data obtained into a population genetics lab. Using the Hardy-Weinberg model, they compare the data collected on the frequency of alleles with the ideal, to discover if they are in equilibrium with it.

They may also compare the data for their class with those collected by preceding classes. “Each year, we’ll have a bigger database, and so we can do a hypothesis test,” said Dr. Ogden. “By teaching the students to do this analysis, we can have them find out if their class is in equilibrium with previous classes.”

Moving closer to medicine

Further changes are under consideration to bring the courses closer to the students’ interest in medicine. For example, Dr. Ogden is considering re-allocating some of the time currently spent studying plant systems to the development of a new lab on blood proteins.

To judge from interviews with students, this would be broadly welcome. Mohammad Akif had previously questioned the benefit of labs that focused on plants, and he now understood the thinking behind it.

“The point of the biology lab is not to do things that you are going to need in medical school, but to use your hands in working, to learn to be accurate,” he said.

Nevertheless, the pre-meds agreed that the second semester was particularly interesting because it was closer to their future area of study. As Al Akras said: “It was mostly about genetics, and it was so beneficial for us as future doctors.”

In addition, the pre-med lab experience was firing their interest in participating in research at Cornell and Weill Cornell in the US. Many were keen to apply for summer research fellowships in 2007; Sandouk had already discussed the research experience with members of the Class of 2010, who returned from Ithaca in August.

“They all really liked it. I talked to most of them when they came back and they said it was both fun and really interesting.

“In a way, we know what to expect, having done these labs, so it’s more motivating.”

For others, the Annual Medical Student Research Forum is a reference point: It has a lot to offer pre-medical students they noted, both for the interest of the investigations that WCMC-Q students had worked on and for its relevance to medicine.
The WCMC-Q community gathered for the annual Employee Appreciation Event at the InterContinental Hotel, April 20. On a fine evening for an open-air buffet dinner, the occasion included an introduction to traditional Qatari activities such as falconry, entertainment for the children, and music and dance (1-5).

1 Staff members Raya Al Irani (left) and Dina Bamieh (right) enjoying the evening with their families.

2 Dean of WCMC-Q, Dr. Daniel R. Alonso, with Dr. Powers Peterson (right) and director of human resources, Sharon Hynes (left).

Dinner to the sounds of the Doha Jazz Trio was a highlight of the Welcome Event for faculty and staff at the Four Seasons Hotel, September 14 (6-8).
7 Staff members get together: Cheryl Critchell and Joyce Alvares (standing) are seen with Nashira Abdulhameed and Diana Hoteit (seated).

9-12 Sunset gatherings organized by the Office of Student Affairs (9-11) and MSEC-Q (12) marked the month of Ramadan at WCMC-Q. Open air meals, a traditional tent setting and entertainment for all ages were part of the Medical College community’s way of breaking the fast.

13 As the Asian Games torch was carried across Doha, November 30, WCMC-Q med student Manisha Deb Roy (Class of 2009) is seen lighting her torch from the flame carried by her father before taking part in the relay.
WCMC-Q Happenings
(from page 35)

14-17 Among visitors to the Medical College were:

14 Sheikh Ali Al-Khalifa of Bahrain, with his son Sheikh Mubarak, seen here touring the Clinical Skills Center accompanied by director of public affairs, Michael Vertigans.

15 H.E. Sulejman Tihic, president of Bosnia, and Ambassador of Bosnia to Qatar, Mr. Hussein Banjata, greeted on their arrival at WCMC-Q by Vice Dean for Administration, Ms. Havva Idriss, and Bosnian medical student, Muhamed Baljevic.

16 H.E. Maumoun Abdul Gayoom, president of the Republic of Maldives, seen signing Qatar Foundation’s Guest Book after touring the Medical College.

17 Young participants in the Abdulla Bin Turki Girls’ Summer Camp, who visited the Medical College to discover what it’s like to be a student at WCMC-Q...

18 ...While an even younger visitor to the Discover Education City exhibition at Doha’s Ritz-Carlton Hotel, September 20, demonstrated that it’s never too soon to plan for the future.

19 Also at the exhibition, young people from schools across Doha pitched their questions to senior officials from the Offices of Admissions and Public Affairs.
A warm welcome to the following new members of staff: Ahmed Sousa, senior support technician; Lorraine Thompson, relocation/mobilization coordinator; Eric Fry, basic science curriculum coordinator; Najma Abdul-Khaliq, staff secretary; Carolina Ferrer, accounts payable assistant; Noura Al-Okkah and Hind Bouzraa, receptionists.
Weill Cornell Medical College in Qatar was jointly established by the Qatar Foundation for Education, Science and Community Development and Cornell University

www.qatar-med.cornell.edu