Standardized patients: Helping shape tomorrow’s doctors
At right: Turning up the heat – Dr. Suresh Tate, professor of biochemistry, faces fast bowler and pre-med student, Syed Mohsin Wasti, during an afternoon’s cricket in front of the ovoid lecture halls.

Inside back cover: As the sun goes down, WCMC-Q students take time out for a game of soccer outside the west end.
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Making a difference: In Qatar and overseas, WCMC-Q students are devoting their time and efforts to helping the community.
The Hamad Bin Khalifa Lecture, delivered for the first time in December 2005 by a top physician and researcher from Weill Cornell Medical College in New York City, is named for His Highness Sheikh Hamad Bin Khalifa Al-Thani, the Emir of the State of Qatar.

In his introductory remarks, Dean of WCMC-Q, Dr. Daniel R. Alonso said: “This special Lecture has been established in honor of His Highness the Emir and in grateful recognition of his contribution to the programs of Weill Cornell Medical College in Qatar.

“The Lecture will be delivered every year here in Doha by an outstanding physician or scientist who has made significant accomplishments in the field of biomedical research.”

Presenting the 2005 Lecture in the presence of the Emir’s consort and Chairperson of Qatar Foundation, Her Highness Sheikha Mozah Bint Nasser Al-Missned, was professor and Chairman of the Department of Genetic Medicine at Weill Cornell, Dr. Ronald G. Crystal.

In Genetic Medicines: Therapies for the Twenty-first Century, Dr. Crystal focused on his research into the power of genes to prevent and treat human diseases. He explained the basic concepts of stem cell research and gene therapy; the strategies used in clinical trials; the possibilities and limitations of using somatic, as against embryonic, stem cells; different methods of gene therapy; and some of the challenges encountered by investigators.

Dr. Crystal drew extensively on his experience as a researcher and he went on to examine some of the ethical issues in the field.

Looking ahead to the future, he discussed the potential for stem cell therapy and gene therapy to offer new treatments for hereditary and acquired diseases such as obesity, diabetes, heart disease, lung disease – and even for the regeneration of diseased organs.

“We are constantly trying to change the equation by using genetic medicines to modify in an individual their genomes to prevent or treat a human disease,” Dr. Crystal said.

Among the audience were guests from Qatar Foundation, including Board member and Higher Education Advisor, Dr. Mohammad Fathy Saoud, and Vice Presidents Rashid Al-Nuaimi and Dr. Abdullah Al-Thani; Chairperson of the National Health Authority, Dr. Ghalia Bint Mohammed Al-Thani and Vice Chairperson, Dr. Khalid Bin Jabor Al-Thani; Hamad Medical Corporation physicians; and WCMC-Q faculty, staff and students.
WCMC-Q makes debut presentation at AAMC meeting

The six-year program of education of WCMC-Q was introduced to the 2005 Annual Meeting of the Association of American Medical Colleges (AAMC) last fall, with the first poster presentation in this forum by leaders of the Medical College.

Titled Weill Cornell Medical College in Qatar: A New Model for International Medical Education, the poster was part of the Innovations in Medical Education exhibit. WCMC-Q is the first American medical school to offer its MD program overseas. Its approach is unique among international medical education programs since there are separate admissions processes for pre-medical and medical components.

Presenting the poster at the meeting, which took place in Washington, D.C., November 4-9, were Senior Associate Dean for Education, Dr. Elizabeth Alger, Associate Dean for Pre-medical Education, Dr. David Robertshaw and Dean of the Medical College, Dr. Daniel R. Alonso.

Medical schools participating in the exhibit usually focus on a specific aspect of their curriculum. However, WCMC-Q’s poster, an eye-catching triple-panel display, was distinctive for its overview of the complete integrated program of education.

“We prepared our poster in the context of being a new model for international medical education,” said Dr. Alger. “The theme of the conference was ‘Beyond Boundaries,’ addressing various approaches to globalization in medical education.”

The poster showed the variety of ways — many of them innovative — in which the curriculum is delivered and the setting in which WCMC-Q is operating in the Gulf State of Qatar.

Visitors to the WCMC-Q booth also learned about the international community of faculty and students at the Medical College.

In a separate session during November’s meeting, Dr. Alger teamed up with director of admissions, Lee Askin, to present the WCMC-Q program of education to the AAMC Group on Baccalaureate-MD Programs.

“The presentation generated a lot of interest,” Dr. Alger noted. “There was curiosity about how we are able to deliver the curriculum, and respect for the quality of students admitted to the Pre-medical and Medical Programs.”

*Comprising a two-year Pre-medical Program, followed by the four-year Medical Program of Weill Cornell Medical College in New York City.

Roadshow takes the “cream of the crop” around the Gulf

Faculty and staff from WCMC-Q and our four sister branch campuses in Education City recently took the message about the world-class higher education available in Doha on the road, with visits to several countries in the region during the winter. Through presentations in schools, and exhibitions open to the general public, the Discover Education City Roadshow reached thousands of young people and their families.

Organized under the umbrella of Qatar Foundation, the tour was off to a flying start with upwards of 600 people attending an exhibition at the Four Seasons Hotel in Doha. The WCMC-Q booth attracted considerable attention.
NEWS FROM WCMC-Q

Roadshow (continued from page 3)

November’s event.

“We had wonderful support from WCMC-Q faculty, and medical and pre-medical students who joined us at the table,” said director of admissions, Lee Askin. “Everyone was busy for the whole event.”

From there, the Roadshow moved on to Bahrain, Kuwait, Oman and Abu Dhabi.

In Oman, they visited six local and international high schools, and attracted an attendance of some 200 at the exhibition, with wide coverage in the media. Assistant Dean for Pre-medical Education, Dr. Marco Ameduri is pictured discussing the program of the Medical College with a visitor to the event.

A key message of the campaign was the unique opportunity presented by Education City, said Qatar Foundation’s communications advisor, Robert Baxter.

“You can have a world-class education here in the Gulf region without traveling to Europe or the US. We’ve got the cream of the crop together in one place.”

Medical students thank their preceptors

Medical students gathered to thank their Hamad Medical Corporation (HMC) preceptors during an evening celebration held April 11, which featured presentation of certificates followed by a gala dinner.

The preceptors – HMC physicians who hold faculty appointments at Weill Cornell Medical College – guide the students as they begin to acquire the skills of the physician during the first and second year introductory clinical courses, and the clinical part of the second year Brain and Mind course.

Dean Alonso welcomed the preceptors and paid tribute to them “for what they have taught our students, the way they have mentored them, and the role model they have been.”

The number of preceptors increased from 18 in 2004-2005 to 32 this academic year, with the promise of further increase as the Medical Program moves into the clinical stage in July, Dr. Alonso noted.

In her address to the assembled students, faculty, guests and staff, Senior Associate Dean for Education, Dr. Elizabeth Alger described the benefits for medical students of introducing “meaningful patient contact” from an early stage.

She went on to note that WCMC-Q’s students displayed professionalism, focus and a capacity for clinical reasoning during multi-station objective structured clinical examinations using standardized patients, held earlier in the month – a clear demonstration of these benefits.

Interviewed after the presentation, Dr. Khaled Al Bader, a specialist in HMC’s department of primary health care and family medicine, explained the importance of the preceptorships.

“It is crucial for the students to get experience outside the classroom and in the clinics and hospitals from an early stage of their education. This way, they will like medicine, and be able to integrate the information they are learning with practice,” he said.

For Manisha Deb Roy (Class of 2009), the preceptorship gave important insight into “what it’s like to be a doctor.” Her colleague, Noor Suleiman noted that this went beyond the doctor-patient relationship: “The preceptorship gives you hands-on experience; you get engaged in the actual situation in the hospital, including the administrative side.”

It is also excellent preparation for the clinical clerkships in the third year, said Rana Biary (Class of 2008). “I’ve had two preceptors this year. They were wonderful – I’ve learned so much from them… I can’t wait until the third year! I feel that, as a class, we are very well prepared.”
In a crowded lecture hall, Dr. Frank Smith, professor of chemistry at WCMC-Q, donned a pair of safety goggles and took to the stage. Watched by an intrigued audience, he performed a basic laboratory experiment testing the reaction time of different iodine solutions. His goal? To demonstrate the importance of laboratory teaching during the First Symposium on Teaching and Learning in the Sciences, held at the Medical College on February 11.

However, this was an audience with a difference: More than 80 faculty and support staff from the biology, physics and chemistry departments of WCMC-Q and Qatar University (QU) were present, their attention focussed on the importance of laboratory exercises in teaching the basic sciences.

In another presentation, WCMC-Q lecturer in biology, Dr. Christopher Ogden, explained some of the thinking behind the symposium: “The hands-on experience of students in the lab engages their intuition, gives them opportunities to practice creating scientific knowledge, and reinforces theory from the lecture.”

The one-day event included presentations from WCMC-Q and QU faculty, followed by laboratory demonstrations and group discussions on issues such as the generation and development of experiments, lab safety, data collection, and preparation of reports.

Welcoming participants, Dean of WCMC-Q, Dr. Daniel R. Alonso, said: “This event indicates the beginning of a partnership and will further strengthen existing collaboration between our two institutions.”

Dr. Alonso went on to emphasize the need for Qatar’s higher education institutions to mature and develop together for the benefit of the country and the region. He paid tribute to Her Highness Sheikha Mozah Bint Nasser Al-Missned and Qatar Foundation for promoting this vision of collaboration.

Reading an address on behalf of QU president Dr. Sheikha Abdullah Al-Misnad, vice president of the University, Dr. Sheikha Jabor Al-Thani said the establishment of institutions at Education City, including WCMC-Q, had created opportunities for QU faculty to exchange ideas and network with like-minded individuals.

“I hope this symposium will be a platform for establishing a wider constructive dialogue and sustainable cooperation between the faculty of QU and their counterparts at WCMC-Q.”

— Dr. Sheikha Abdullah Al-Misnad, President, Qatar University

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In addition to Dr. Frank Smith and Dr. Ogden, WCMC-Q faculty who gave presentations were professor of physics, Dr. Roger Hinrichs, and associate professor of chemistry, Dr. Kevin Smith, while QU faculty presenters included Dr. Hamda Al-Naemi, Dr. Nessreen Al-Hashimi, Dr. Ibrahim Al-Naimi and Dr. Mariam Al-Ali Al Maadeed.
There’s a buzz of excitement inside WCMC-Q’s Clinical Skills Center. Medical students are talking and laughing among themselves, comparing notes: “That was fun,” says one. “My hands were so cold!” exclaims another. “I forgot two sections,” groans a third.

As they emerge from their first full practice OSCE* – a ninety-minute, ungraded session in which they were tasked with taking a complete patient history, carrying out a full physical examination and completing post-counter tasks – the Class of 2008 have plenty of notes to exchange.

Meanwhile, the ‘patients’ are off to change out of hospital gowns and back into normal attire, their tasks for the day completed.

They are not patients in the usual sense of the word. WCMC-Q has brought a new dimension to medical education in the region by introducing students to the practice of clinical care using standardized patients (SPs). Expatriate men and women with no background in medicine, the SPs are trained to simulate a variety of clinical situations and to give patient-centered feedback to the students.

They are already making an important contribution to the education of the next generation of physicians in the Gulf, says Senior Associate Dean for Education, Dr. Elizabeth Alger.

“The SPs are an invaluable part of the medical education program at WCMC-Q. I’m very gratified with the way the SP program has gone so far. We’ve used them in several OSCEs for first and second year students, and also in training for the physical exam with the second years. I think they have worked out exceptionally well.”

Michelle Al Khulaifi, Class of 2008, recognizes the significance of their contribution. “I think that most of us feel we are becoming masters of our craft after only two years of practicing it, and we have the SPs to thank for that.”

From the perspective of an SP, it is gratifying to help educate the doctors of the future. Though they remain anonymous to the students, and to the reader, the SPs are comfortable with their role and with talking about it to the Qatar Chronicle.

“It’s fascinating to be part of this kind of environment,” comments one. “To have the opportunity to

* Objective Structured Clinical Examination
Standardized patients give medical students essential practice in getting the components of the physical exam right, before they begin working with real patients.

“I think that most of us feel we are becoming masters of our craft after only two years of practicing it, and we have the SPs to thank for that.”
— Michelle Al Khulaifi, Class of 2008 (above)

help shape the one-to-one communication that a doctor has with a patient is a great experience.”

Standardizing the patient encounter

SPs were introduced into clinical skills testing in North American medical licensure exams for foreign medical graduates in the late 1980s. Since 2004, they have been used to assess the communication and interpersonal skills of all medical graduates intending to practice in the US, as part of the United States Medical Licensing Examination (USMLE) Step 2.

By presenting the candidates with a spectrum of clinical situations, and standardizing each encounter, the examining Boards ensure that the assessment is fair and consistent.

Medical schools have adopted, and adapted, the approach, bringing standardized patients into both teaching and testing students. SPs are involved in a range of activities, from simple patient interviews in the first year to multi-station graduation OSCEs where students see several cases, each one requiring a focused interview and physical exam.

The work of an SP is often compared to that of an actor, taking on a succession of parts and becoming immersed in different characters – yet there is no requirement to have acting experience.

The scripts, based on actual patient cases and written by faculty, may even require the SP to assume the personality, emotions and behavior of the anxious or difficult, depressed or manic, patient.

“A trained SP can usually do at least two, often three, scenarios at any one time, like an actor in repertory,” Dr. Alger says. “They are trained not just to present a symptom complex, but a complete personality – usually two or three at a time. And they can be trained again very quickly for a new role.”

Students learn in a “safe environment”

In a teaching situation, the SP’s role is to assist the student with learning to take the history and do the physical exam systematically; and to give immediate patient-centered feedback on what the physical exam actually feels like, and how well the physician-in-training is communicating.

“This is the students’ first opportunity to role-play the doctor,” says Dr. Nounou Taleghani, assistant professor of medicine and director of the second year Medicine, Patients and Society II course. “The SP program gives them a chance to learn how to ask questions about a medical, surgical and social history in a systematic way, in a safe environment. They don’t have the fear of asking the wrong question, or potentially missing something on a real patient by not asking the appropriate questions.”
For Al Khulaifi, the sessions have brought great benefits. “They have helped in putting us in an incredibly true situation, where we need to not only know what to ask, but what to ask next, how to keep track of details and their association with previously mentioned information, and how to stay pleasant and professional, all at the same time.”

Second year medical students at WCMC-Q practice the components of the physical exam – listening to heart and lung sounds, feeling the abdomen and so on – in sessions with SPs before they begin working with real patients in their preceptorships at Hamad General Hospital.

“Physical diagnosis teaching sessions for the students generally take place in small groups, along with a faculty clinician and an SP. The SPs are able to provide immediate feedback to the students,” explains Dr. Monica Bishop, instructor of family practice and director of the Clinical Skills Center (CSC).

“For instance, they may say ‘that was a little too hard when you tapped my knee with the hammer’ or, more likely, ‘no, go ahead, tap it harder’ because the students are so afraid of hurting the patient.”

Osama Al Saied describes this first experience of doing the physical exam as “really helpful.” Taken as a whole, the feedback from faculty on clinical technique, and from the SP on how the encounter works from the patient’s point of view, fits together very well, he notes.

Playing their part

WCMC-Q’s SPs are expected to take a disciplined approach to their work, and to maintain confidentiality. In recognition of the commitment, they are paid the same hourly rate as their counterparts at Weill Cornell Medical College in New York City.

The Medical College trains them with thoroughness, beginning with an introductory session and discussion of expectations, through rehearsals of the script and the physical exam, to practice filling out the electronic checklist and giving feedback.

For February’s lengthy mock-OSCE, Dr. Bishop and SP trainer, Mary-Ann Spiteri, put the SP group through their paces with regular readings and role-playing over a four-week period until they knew the case inside out.

Consistency is essential. “We work very hard to ‘clone’ the SPs,” Dr. Bishop explains. “The reason we call them standardized is that, from one SP to the next, they must be able to portray the particular patient reliably and consistently.”

The SPs take their work seriously. They practice inside the CSC – and outside. Reading through the script at home, going over it again and again with a family member listening, or meeting up and practicing as they walk along Doha’s Corniche: whatever it takes, they memorize the details.

There is humor, too, during rehearsals at the Medical College, as they help each other out over occasional lapses of memory and discuss the case they are working on. Getting to grips with the mindset of the person they are portraying, they run up against a few issues, throw some questions on the table – and then move on.

“It’s a learning experience of not imposing your thoughts on the person, but just learning the script,” comments one.

Paradoxically, since they should play the part of the patient faithfully, they may have to hold back and avoid offering up too much information during the actual encounter – or even pretend not to understand. This way, the doctors-in-training must remember to ask the right questions, learn to clarify their meaning and be systematic.

“After a while, the comment was made that we knew the case almost too well,” says one SP, “and we had to be careful to portray how a real patient doesn’t remember details so easily. So the second portion of the training was making sure we sounded realistic.”

They should also be equipped to cope with the unexpected. Dr. Bishop explains: “Of course, you’ll get students asking questions you wouldn’t expect, and we train the SPs to be flexible and to give the answer that is in keeping with the patient.”

Mind that body language!

While they note that the checklist can be a tough test of memory, depending on the number of questions they must answer, the SPs identify the post-encounter feedback session as their biggest challenge.

Not only must they analyze the student-doctor’s communication skills, both verbal and non-verbal, from the patient’s perspective; they should also deliver their comments in a way that will help each student to improve – “providing the positive and constructive feedback that the student needs in going forward and dealing with other patients,” as Dr. Alger puts it.
Anyone with a genuine interest in contributing to the education of the doctors of the future could make a good standardized patient, particularly if they have favorable past experiences as a patient on which they can draw. We asked SPs and faculty to pinpoint some of the qualities they should have. Here’s their list:

- Attentive to detail
- Disciplined
- Motivated
- Good memory
- Good observational skills
- Effective communicator
- Team player
- Confident
- Open-minded
- Good sense of humor
- Flexible

And finally: as all testing, and many teaching, situations are videotaped for assessment and study purposes, they should be comfortable with being filmed.

“What makes a good SP?”

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“I felt like I was where I belonged”

The students generally agree that encounters with SPs are reassuring. However nervous they feel beforehand, stepping inside the doctor’s office in the CSC can be transformational.

“It really helps to get over the nervousness,” says Yousuf. “I’ve done a few sessions, and I take the approach that it’s like dealing with a real patient. You have to go in and ask specific questions. You get focused and it goes well.”

Al Khulaifi summarizes: “When I walked through the door into the room for the mock-OSCE, I felt like I was where I belonged. Unlike before, my hands didn’t go ice-cold and I didn’t tremble when I reached out to take my SP’s pulse. I thought to myself: ‘This is it, I’m doing what I know I’ll be doing for the rest of my life.’”

SPs prepare for this by watching recordings of particularly good exemplars, by practicing, and by analyzing their own body language. “It is difficult for me personally, that’s just how I am,” comments one, “but I’m learning and I’m doing it better each time.”

Yet this is perhaps their most important contribution, Dr. Taleghani believes. “It is tremendously helpful. When the student talks to the standardized patient at the end of the encounter and the SP tells them: ‘If you had said it this way, it would have been easier for me to understand,’ that’s a huge part.”

The medical students welcome the feedback sessions, particularly since they take place immediately after the encounter and provide an opportunity to ask questions.

“I should review the session with the SP and know my mistakes directly,” Aisha Yousuf says. “I think the SP will tell me the truth, and I prefer to know my weak points before I go to examine real patients. I always ask the SP to tell me my weaknesses.”

Thanks to our ‘model SPs’ who volunteered for the photo shoot to preserve the anonymity of the real SPs.
Making sense of the highly complex network of nuclei in the brain and neural pathways that together form the nervous system – and relating this knowledge to the signs and symptoms presented by patients – puts medical students on their mettle right from the start of the second year.

This is where a pioneering computer program comes in. Custom-built for students at Weill Cornell Medical College in New York City, its vast bank of images, annotated in detail and color coded for ease of reference, is supported by thousands of links for cross-reference, putting you in the picture at the click of a mouse.

Named the Pixelated Brain, the program was developed from the mid-1980s by Dr. Dana Brooks, professor of anatomy in neurology and neuroscience at Weill Cornell, and perfected over the years as the computer technology improved and end users gave feedback.

It provides a cohesive and accessible introduction to the complexities of the three-month long Brain and Mind course. This integrated, multi-disciplinary course in functional neuroanatomy, psycho- and neuropathology, neuropharmacology, brain imaging and clinical practice, among other areas, challenges the students on many levels.

At this early stage of their medical education, they must learn to visualize normal structure and understand function; but they must also develop the capacity to relate these to the patients they see, and the standardized patients on whom they practice their skills in the neurological examination.

Shared by medical students at Weill Cornell in New York and in Qatar, the Pixelated Brain guides them through the basic neuroanatomy in 14 modules, from the structure of the skull to the motor and sensory systems, and much more.

Mapping the system

When Dr. Brooks visited WCMC-Q in November, it came as quite a surprise that he had brought the Pixelated Brain along in his pocket. At 200 MB the program fits easily onto a flash drive, and even this may not be necessary. As a web-based resource, it is accessible just by using a browser such as Safari.

While the whole program is password protected, you can view a demo module at http:/ /www.pixelatedbrain.com. The very obvious pixelations used in the cover image have immediate visual impact – a neat illustration of the idea behind the program.

Organized for the most part by system rather than region of the brain, the modules comprise illustrations (up to 60 per module), and text written by Dr. Brooks. They
are complemented by an atlas for ease of orientation, a glossary – which is a work-in-progress – and flash cards and quizzes for self-checking.

While there are some photos of dissections, most of the images, which total approximately 6,000, are drawings by Dr. Brooks of sections through the brain. Each drawing is done to scale, so that the student forms an accurate picture of what sections through the brain really look like; he attributes this “obsession” with accuracy to a background in electrical engineering, and to dissatisfaction with illustrations in the textbooks.

In addition, insets show the exact position of the section, and, where appropriate, there are pop-ups that relate the section to a function, such as the visual sense.

The sections are comprehensively annotated and color-coded. The colors simplify the process of tracing each neural pathway through the spinal cord and into the brain, and distinguishing it from nearby structures. In addition, areas of the brain are differentiated by the use of colored pixelations, throwing immediate light on the complexities of the organ.

The supporting text gives clear and concise explanations, with frequent references to books for further reading.

Perhaps the greatest strength of the program lies in its internal links, which provide immediate prompts to users who are unsure of a feature.

Dr. Brooks explains: “Books are linear – you simply go through the material, looking at the pictures. One of the great assets of the computer is that, with links, you can jump all around. So if students are puzzled by a picture, and don’t know the meaning of it, they can click on a link and go somewhere that will explain it.”

Or, as Amila Husic (Class of 2008) puts it: “It’s easy to get lost in the brain. But with the Pixelated Brain, essentially a whole book, or even several books, is a click away. You can click to wherever you wish to go.”

Empowering the student...

One important reason for developing the program was to give medical students just this kind of autonomy in learning, Dr. Brooks says. Previously, they were the audience in lectures, passive recipients of information.

“It was my feeling that you really learn things of this sort if you can do it on your own – instead of just sitting there and listening to somebody, you can go back and forth, checking things and looking for relationships.”

As she pulls up a succession of sections in the descending motor pathways module, Husic identifies with ease the corticospinal tract as it enters the internal capsule of the brain. She rapidly traces the descending pathways by reference to the colors, the images cumulatively enabling her to build up a three-dimensional picture of the system in her mind.

Motor commands are initiated in a part of the cerebral hemisphere called the motor cortex and travel down the corticospinal tract to the brainstem and spinal cord to activate motor nerves. The commands evoking movement in different parts of the body travel in different parts of the pathway: tracing them is quite a challenge.

Husic explains: “You have to look at 30 or 40 slides to completely trace the pathway and in each one you have to remember where the face, arm and leg fibers are. It’s a big job, but something we have to know. If a patient has a stroke, the nature of the weakness that may result depends on the part of the pathway that has been damaged. The

(Continued on page 32)
Training seminar prepares way for launch of clinical research program in Qatar

In advance of the launch of a program of clinical and biomedical research, WCMC-Q’s Office of Research and Sponsored Programs brought together personnel from Hamad Medical Corporation (HMC) and the Medical College for the region’s first Human Research Protection Training Seminar, February 1 and 2.

The seminar, held at Doha’s Intercontinental Hotel, included lectures by experts from the US and from WCMC-Q, case studies and discussions.

At a press conference held on the opening day, Dean of WCMC-Q, Dr. Daniel R. Alonso said that the seminar marked a “new phase” in the development of WCMC-Q’s triple mission.

“Our partnership with Hamad Medical Corporation is continuously developing in education, in patient care and in research for the benefit of the people of Qatar and the region. A milestone has been achieved: We are about to start a series of research programs. We are preparing for these in a responsible way, because part of the research will be clinical – meaning that human subjects will be incorporated into the studies. That brings an extraordinary responsibility.

“This is a very important activity for the country, for the College and for the health-care system of Qatar.”

Some 70 people attended the two-day event, which was organized by Nonie Pegoraro, director of research compliance at WCMC-Q. They included physicians, nurses, educators and administrators from HMC; and faculty members, library, information technology and administrative staff from the Medical College.

Interviewed afterwards, Senior Associate Dean for Research, Dr. Gary Schneider explained the importance of inviting professionals of diverse backgrounds to the seminar, the first step in a planned program of training for those who work in the field of clinical research.

“In terms of compliance, a number of people who are not directly related to research, but are going to be involved in research in some capacity, should have an appreciation for the subject matter and the type of training that is involved.”

On the first day, presentations were made by Board members of Public Responsibility in Medicine and Research (PRIM&R), a non-governmental organization dedicated to advancing the highest ethical standards in the field. Dr. Robert J. Levine of Yale University and Helen McGough of the University of Washington gave detailed accounts of the ethical principles and federal regulations governing clinical research in the US.

Speaking to the press, Dr. Levine said that he was very pleased to be part of the seminar.

“It is a great honor for me to be invited to Qatar when you are preparing to launch the program of biomedical research involving human subjects.

“In my presentation, I attempted to provide the historical overview of the field: Why we have regulations, why they take the particular form that they do, and how to deal with uncertainty about what to do ethically.”

The focus on day two shifted to the policy and procedures of Weill Cornell Medical College in New York City, with lectures by Dr. David A. Behrman, Chairman of the NewYork-Presbyterian Weill Cornell Medical Center’s Committee on Human Rights in Research; Sheila Cohen Zimmet, Associate Dean of Research Compliance; and Dorothy Hilpmann, director of research subject protection.

Among the highlights of the seminar was the presentation of the first Arabic translation of The Belmont Report, the landmark 1979 document that established the ethical
In a first for WCMC-Q, medical students discuss their research posters with faculty and visitors during November’s Research Forum.

The training seminar covered the area of human subject protection from both the PRIM&R and the Weill Cornell Medical College perspective, said Dr. Gary Schneider (right) at the press conference. Also seen are Dean Alonso and Dr. Levine.

Students’ posters create a buzz

In recent weeks, countless visitors have stopped to remark on a series of research posters displayed in the halls of WCMC-Q.

The posters present research carried out by students from the Medical College alongside Cornell University and Weill Cornell faculty, graduate and other students, during summer research fellowships in Ithaca, New York City and Doha last year. They were a new component of the Annual Medical Student Research Forum held at WCMC-Q in the fall.

In addition, posters examining the process of aging and the biodiversity of coral in the Red Sea were presented by two graduates of the American University in Cairo who joined the Medical Program last September.

A total of 20 medical students took part in the Forum, sharing their research by way of oral and poster presentations, and explaining how their studies could lead to a better understanding of medical conditions and the discovery of new treatments.

Representatives of Hamad Medical Corporation and the National Health Authority, and WCMC-Q faculty, staff and students attended the event.

The fellowships provided students with opportunities to work in diverse areas, from research into the effects of mast cells on the lungs and heart and the possible consequences of mast cell degranulation in asthma and the cardiovascular system, to a study of alternative techniques of sentinel lymph node assessment in breast cancer patients.

to provide ongoing training for personnel involved in clinical research.

He went on to identify the discussion with colleagues from HMC of cases raised by the speakers as a particularly valuable part of the seminar. The central message to emerge was the need to conduct a program of public education if the purpose and benefits of research were to be understood by the community.

Dr. Schneider concluded: “The seminar was a first, and I am highly encouraged by the level of interest and participation, the dialogue that the meeting created and the very positive feedback I have received.”

All those who registered and attended the full two-day event received certificates from both Weill Cornell and PRIM&R.
Pre-medical students have opted for widely differing writing seminars this semester, selecting their choices from a menu offered for the first time at WCMC-Q. On the table are themes and questions that have exercised minds since Ancient Greek times, from the nature of knowledge to issues of environmental pollution and public health.

The courses are offered as part of the First-Year Writing Seminars, a series that this semester includes mixed groups of both first and second year pre-meds but that will, in future, be for first years only.

In addition, the Writing Center now offers appointments and a drop-in service, with a tutor available to give guidance on the structure and logic of students’ work as they tackle the written tasks that form a key part of each seminar.

Courses listed in the spring 2006 schedule range from the intriguing, with *Ecosystems and Ego Systems*, and *Socratic Puzzles*; through two seminars that bring aspects of the human body and mind into focus, with explorations of the limitations of the physical body versus the “freedoms of the infinite human spirit”, and of the “mysterious juncture of mind and body”; to others in which students investigate a character or an incident that “can define a world” through a collection of stories that are linked in some way.

Core reading materials for the seminars include works by Plato, William Blake, Edith Wharton, James Joyce, Emily Dickinson, Albert Camus, Jhumpa Lahiri and Alice Munro, among many others. Poets, novelists, short story writers, journalists, farmers and scientists, their works have been chosen as essential ingredients in the topic-oriented courses.

It’s a tempting feast: Even so, the variety of experiences in the seminars at WCMC-Q is a microcosm of that offered by the John S. Knight Institute for Writing in the Disciplines at Cornell University in Ithaca. Cornell has a highly developed program of writing, with as many as 120 courses for freshmen alone taught by faculty across the disciplines.

The experience gives students a welcome opportunity to take a break from their main subjects of study and “to examine human life from fresh vantage points and with different tools,” while also developing skills of critical thinking and writing, says Dr. Katherine Gottschalk, Walter C. Teagle Director of First-Year Writing Seminars at Cornell University, and course director for the seminars at WCMC-Q.

“There are many ways to do good thinking, to be critical and to be analytical,” she points out. “For example, there is a strong interest in philosophy – it’s one of the popular subjects among young people both in Ithaca and here. They very much want to think about philosophical issues.”

Instructor in the Philosophy 100 Seminar at WCMC-Q, Professor Linda Finlay, says that all of her group selected the course as their first choice; yet the process of adopting a rigorously rational approach to the issues has proved challenging.

“At first they were puzzled by the Socratic Dialogues – they would say: ‘Why doesn’t someone tell him the answer?’ And I would say: ‘Because it’s not here, unless we think it out.’ It’s become like a puzzle for them, and they are struggling to get all the pieces together. They are doing exactly what good philosophy students would do, and they are pretty smart.”

The connections between both subject matter and
methodology in the seminars and the students’ interest in medicine have also provided food for thought.

“The group is fascinated with the fact that, with the Dialogues, they have to gather up lots of different ideas and experiences that are being talked about, and then come to some sort of synthesis,” Finlay explains. “They sense that this is what they’ll often have to do when they make a diagnosis.”

Mary Gilliland, who teaches Biology and Society 104, titled *Ecosystems and Ego Systems* – the first interdisciplinary First-Year Writing Seminar to be introduced at Cornell, back in 1984 – has tailored part of her seminar to her group’s interests. After exploring issues such as deforestation and pollution, they opted to investigate the links between environmental degradation and health.

“The students are very concerned with the effect these problems are having right now and for their future,” Gilliland notes. “They are young, yet they have seen major changes in the countries they come from. They have asked that we concentrate on some readings about the link between toxins in the environment and the impact on human health.”

Clearly, the writing seminars bring fresh perspectives to a program of study that is otherwise heavily weighted

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**Writing Faculty**

Faculty members who are new to WCMC-Q’s First-Year Writing Seminars this semester meet to exchange notes with course director, Dr. Katherine Gottschalk (*at right.*) “We have a distinguished faculty,” says Dr. Gottschalk, “one of the good things about having people teaching in the writing program in a variety of types of courses… is that they bring various strengths, ideas and perspectives.”

*From left to right:*

**Mary Gilliland, MAT**, is a senior lecturer in, and director of the Writing Walk-In Service for, the John S. Knight Institute for Writing in the Disciplines at Cornell’s Ithaca campus. Gilliland has taught writing seminars at the University since receiving her Masters of Teaching degree from the University in 1980. Widely published, her poetry has won awards in the Ann Stanford (University of Southern California), Judith Siegel Pearson (Wayne State University), and Pablo Neruda (*Nimrod* / Hardman) contests. She has also been awarded a number of poetry Fellowships and a Cornell Council on the Arts Faculty Grant.

**Emelie Peine** is coordinator of the WCMC-Q Writing Center. A doctoral candidate in the Department of Development Sociology at Cornell, Peine’s research focuses on the role of multinational corporations in influencing agricultural policy and international trade policy in the World Trade Organization. Her recent publications include *Globalization and Global Governance* (with Philip McMichael, 2005) in *Agricultural Regulation: globalisation and the new politics of regulation* (Vaughn Higgins and Geoffrey Lawrence, eds.)

**Linda Finlay** taught philosophy for twenty-five years at Ithaca College in Ithaca, NY, where she chaired the department for seven years. She has also been a visiting professor at Cornell University. Her areas of expertise are epistemology and ancient Greek philosophy, and she is the author of articles in the area of the “new epistemologies”, with a particular interest in the work of Paulo Freire. Professor Finlay has considerable expertise as a professional mediator, specializing in disputes in which many parties are involved and in the environmental field.

**Autumn Watts, MFA**, received her BA in Cultural Anthropology at Portland State University. She interned at the Smithsonian National Museum of Natural History, before changing fields to earn her MFA in creative writing at Cornell, where she currently teaches. A recipient of the Tom and Phyllis Burnam Fiction, and the Academy of American Poets, awards, her short fiction and poetry have appeared in *AGNI* magazine, *Indiana Review*, *Mode*, and *Portland Review*. She is working to complete her first novel.

**Katherine K. Gottschalk, PhD**, is a senior lecturer in the department of English and the Walter C. Teagle Director of First-Year Writing Seminars at Cornell. She has taught at Cornell University since 1977 and is a recipient of the Clark Award for Distinguished Teaching. Dr. Gottschalk took her BA, MA and PhD degrees at the University of Chicago. Her most recent publications include *The Elements of Teaching Writing: A Resource for Instructors in All Disciplines* (Bedford, 2004), co-authored with her colleague, Keith Hjortshoj, director of Cornell’s Writing in the Majors program.
A question of balance: The role of interviews in pre-med admissions

A glance through the pages of this magazine will confirm what all of us at WCMC-Q know well: students at the Medical College are an incredibly bright and sparky bunch.

Turning the spotlight on the pre-medical students, Associate Dean for Pre-medical Education, Dr. David Robertshaw, has no doubt that they are as able as their colleagues at Cornell University in Ithaca.

“The students at WCMC-Q are certainly at the level of the Cornell undergraduates. And they are taking a very intensive (two-year) course,” he says.

WCMC-Q, like Cornell, selects its students with great care. The pre-med admissions process is composed of many parts, each one adding more detail to the picture of the whole person that the Committee on Admissions aims to build.

Not only is there a form to fill out with details of personal and family background, academic achievements, extra-curricular activities and accomplishments, and other colleges applied to; there is also a requirement to write a personal statement and essay, identify a list of favorites – from a book to a trait in other people – and supply letters of reference.

This is not the end of the process: interviews are mandatory. All applicants who have been selected for interview will have at least two, sometimes four, interviews with faculty and, in most cases, the director of admissions.

This is totally different from the usual way of applying to medical school, or university, in the Middle East. As second year pre-med Zuhair Salah says, his experience was that other medical colleges in the region required only transcripts of academic grades.

Karima Becetti, who enrolled last fall, was astonished by the level of detail required: “When I first looked at the application form, I wondered what they wanted – did they want to adopt me or something?” she laughs.

Another first year, Grigori Ostrovski, comments: “I did not expect the applications process to any university to be so complicated. The questions asked about your motivation, and what you think about a certain subject, are very deep. So it required a lot of thinking and soul-searching.”

All-round abilities

Asked why this breadth and depth of approach is necessary, director of admissions, Lee Askin, explains that WCMC-Q’s Pre-medical Program is intended to prepare students for medical school, with all that this implies in terms of academic ability and personal qualities. While it is not
admitting medical students at this stage, the purpose is to identify those applicants who have the potential ultimately to become physicians.

Dr. Robertshaw elaborates: “We try to match as closely as we can the admissions into undergraduate programs at Cornell. First and foremost, we are looking for academic excellence, particularly in the sciences. We also look at written and verbal communication skills. These are assessed by the essays they write and by the interviews.”

Proficiency in English is important, he explains, because the students will have a heavy workload of instruction and reading in the language. “The students have to read extensively, and if they are not comfortable with this, they are going to have difficulty in keeping up with the volume of work.”

However, it is in the interviews that faculty really explore the applicants’ personal qualities, drawing on the documentation to formulate their questions. They also seek to establish the candidates’ understanding of the demands of a career in medicine, as well as their motivation for deciding on med school.

“The Pre-medical Program involves group learning, collaborating with other students and being at ease with the professor in what is as much a partnership as a mentoring process,” explains Askin. “The interviews delve into these aspects in a face-to-face discussion.”

Interviewees need to show that they are balanced individuals, with the capacity to get on with others, Dr. Robertshaw says. “They have to be ‘personable’ because the doctor-patient relationship is important, and the patient must feel comfortable with the doctor. We can make some judgments about this in the interview.”

Exploring the profession

He emphasizes that he always probes the applicants’ understanding of the profession. “We would hope that they had discussed their choice of career with professionals in medicine. I certainly focus on that because this is a big decision to make – they are committing themselves to a vocation which is going to be very demanding on them, but very fulfilling.

“They should talk to doctors, ask them questions. One of the most pointed questions that they should ask is: ‘If you had the chance to repeat your career choice, would you do medicine?’”

Most students who spoke to the Qatar Chronicle had talked to relatives or family friends in the profession. Becetti turned for advice to a close friend who is now a medical student at WCMC-Q – but she believes a more organized mentoring system, in which physicians participate, would benefit young people before they make the decision to apply.

Ostrovski agrees that more should be done to inform them about the career. “Schools, universities, and possibly governments need to do more to educate people about what medicine is really about.”

Second year Juman Takeddin recalls that she was asked in her interviews about high school and academic experiences, and much more: “They searched for common things in the studies, like my motivation, why I was interested in medicine, and why I picked this Medical College.”

Looking back, she considers the experience to have been positive. “I wasn’t very anxious about answering the questions. They seemed to want to know more about me and to help me, rather than to trip me up.”

Need for sincerity

Alone among the interviewees, Takeddin had volunteered in a medical environment, helping out with pediatric oncology patients, thanks to a community service scheme organized by her school in Jordan.

The emphasis on community and extracurricular experience in the application form took Ostrovski by surprise. “No matter how much people told me before that extracurricular activities were important, it still came as a major shock,” he says.

Yet this points to a dilemma for young people in the region: the lack of opportunities for volunteer work. As Salah comments, “it’s a different type of environment from the US.”

Dr. Robertshaw understands this. While community service is important, it should come from the heart, he says. “Sometimes, I think they feel that we would like to see that, and therefore they do it – in other words, it doesn’t come from within them.”

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New Faces Among the Faculty

**Nady E. Nady-Mohamed, MD, FACOG,** is assistant professor of obstetrics and gynecology, and director of the Obstetrics and Gynecology Student Clerkship Program.

Dr. Nady-Mohamed obtained his MD degree from the University of Alexandria, Egypt in 1982, followed by a Masters degree in obstetrics and gynecology in 1989. He then moved to the US, where he completed his residency in obstetrics and gynecology at the State University of New York (SUNY)-Buffalo in 1996 and where he also did his fellowship in post-reproductive gynecology and osteoporosis. Dr. Nady-Mohamed obtained American Board certification in obstetrics and gynecology in 1998.

Before joining Weill Cornell Medical College, Dr. Nady-Mohamed was assistant professor of obstetrics and gynecology, and chief of gynecological surgery, at the University of Medicine & Dentistry of New Jersey Robert Wood Johnson Medical School. He was also medical director of the Minimally Invasive Gynecological Surgery Center in New Brunswick, NJ.

With a special interest in minimally invasive surgery, Dr. Nady-Mohamed has carried out research on a number of new techniques in the field and he has patents pending on instruments for use in laparoscopic and other procedures. He has also received an award from the American Association of Gynecological Laparoscopists for his work in the field of endoscopy.

**Gerardo Guiter, MD,** is assistant professor of pathology and laboratory medicine. He received his MD degree from the University of Buenos Aires School of Medicine in Argentina. He then completed an anatomic and clinical pathology residency at the New England Medical Center-Tufts University in Boston, Massachusetts. This was followed by fellowships in oncologic pathology and cytopathology at Memorial Sloan-Kettering Cancer Center in New York City.

Upon completing his training Dr. Guiter went back to his home country, Argentina, where he practiced pathology for two years.

In 2000, Dr. Guiter returned to the US, where he took up appointments at New York-Presbyterian Hospital and Weill Cornell Medical College in New York City. Three years later, he moved to Rhode Island Hospital-Brown University School of Medicine in Providence, Rhode Island, where he practiced cytopathology and surgical pathology.

Dr. Guiter’s clinical and research interests include the areas of endocrine pathology and cytopathology.

**Mai Mahmoud, MD,** joins the medical faculty this spring as instructor in medicine. She teaches first and second year medical students in the Basis of Disease, and Medicine, Patients and Society I, courses. In addition, she will participate in delivery of the Introductory Clerkship course prior to the start of clinical clerkships in the third year.

Born and raised in Sudan, Dr. Mahmoud received her MD degree from the University of Khartoum. Upon graduation, she moved to North America and took her licensing exams in both Canada and the US.

Dr. Mahmoud went on to do a residency in internal medicine at State University of New York, followed (Continued on page 22)
In a paper published in Anatomical Science International in 2005, Nurru Lameck Mligiliche, MD, PhD, and her co-authors from Kyoto University Graduate School of Medicine in Japan, describe a study which showed that subventricular zone (SVZ) cells from the lateral ventricle of the brain of adult rats survive, migrate and differentiate into astrocytes after transplantation into the spinal cords of adult rats of the same strain.

The research built on a previous study by the same team that demonstrated the ability of neurospheres obtained by culturing an adult rat brain to survive following transplantation into the spinal cord of the adult rat. In the present study the investigators for the first time show that fresh neural progenitor cells (NPC) derived from the SVZ of living adult rats can both survive and integrate into host tissue after transplantation into lesions of the adult rat spinal cord.

NPC have the ability to reproduce and differentiate into neurons, astrocytes and oligodendrocytes; and therefore may function as a source of cells for brain and spinal cord repair.

The researchers comment that further study of the microenvironment of the injured adult spinal cord in terms of the survival and differentiation of grafted NPC may be an interesting subject for basic science and clinical investigators.

Dr. Lameck is assistant professor of anatomy at Weill Cornell Medical College.

Survival of neural progenitor cells from the subventricular zone of the adult rat after transplantation into the host spinal cord of the same strain of rat by Nurru Lameck Mligiliche, Yi Xu, Naoya Matsumoto and Chizuka Ide in Anatomical Science International (2005), 80, 229-234.
Research methodology highlighted in presentations

Amy Sandridge, MSc, was an invited speaker at the 17th annual meeting of the Saudi Heart Association in Dammam, Saudi Arabia, January 31-February 2. She gave two talks and co-chaired the session on evidence-based medicine.

In her first talk in the session “Evidence-Based Practice in Cardiology and Cardiac Surgery,” titled *Importance and Impact of Databases and Registries on Medical Practice*, Sandridge made the distinction between databases used for searching the literature for evidence and databases used in the collection of evidence.

Sandridge argued that while much evidence is already available, individual retrieval techniques must be honed and the gaps in our knowledge filled by additional, structured, clinical research. Clinical databases may not be the best source for answers to many crucial questions. Even registries – while appealing – can lead to wasted effort if data are not routinely analyzed and discussed. The best approach to finding new medical evidence remains a properly designed and conducted research study rather than the opportunistic collection of patient data from administrative or even clinical sources that are often orientated towards patient management.

In a second session, “Epidemiology of Congenital Heart Disease,” Sandridge presented the results from her most recent epidemiologic study. In *A Case Control Study of Risk Factors for Congenital Heart Defects in Saudi Arabian Infants*, she describes the findings of research conducted in Riyadh during 2002-2004 on infants with structural congenital heart defects.

Sandridge has previously demonstrated that the phylogram chart effectively captures all existing relationships. One relationship often missed is that between full first cousins and half first cousins. She hypothesizes that contradictory results in the literature on consanguinity may be explained by categories which are non-exclusive. While results of the case control study are not complete, unadjusted analyses show expected associations. Adjusted logistic regression results will be presented at the Society of Epidemiological Research in Seattle, June 2006.

Sandridge is lecturer in the department of public health and participates in the Medicine, Patients and Society I course.

Focus on the art and craft of writing

Among recent poetry publications by writer and lecturer Mary Gilliland, MAT, are *Lyre at AGNI Online*, an electronic publication that complements the print magazine *AGNI* published at Boston University; “to ashes...to dust”/ *The Cattle of the Sun* in *The Seneca Review* (Geneva, NY); Scale in *Smartish Pace* (Baltimore) and *Vertical Before Dawn Strips the East* in *Stand* (Leeds). The first can be viewed at: http://www.bu.edu/agni/poetry/online/2005/gilliland.html; the second was written to commemorate the 2001 foot-and-mouth epidemic in Britain.

Conferences attended in 2005 included the European Writing Centres Association (EWCA) in Thessaloniki; and the European Association for the Teaching of Academic Writing (EATAW) in Athens, where Gilliland presented a paper titled *Responding to Student Papers: Instructors Consult with Tutors*.

In her presentation, Gilliland outlined Cornell University’s innovative Essay Response Consultation Program, designed to give teachers of First-Year Writing Seminars free, private consultation about responding to student essays. Tutors on the staff of the Cornell Writing Walk-In Service, of which Gilliland is director, draw on their experience of different kinds of writing assignments, and how instructors respond to them, to discuss questions and insights regarding response to student work.

A senior lecturer in Cornell’s John S. Knight Institute for Writing in the Disciplines, Gilliland is teaching the First-Year Writing Seminar *Ecosystems and Ego Systems* in the Pre-medical Program at WCMC-Q this semester. (See article: New menu gives pre-med students food for thought, page 14.)
The other side of the classroom: Teaching assistants “inspire and encourage”

P roviding inspiration, encouragement and guidance to students, teaching assistants (TAs) are an important aspect of the pre-medical education at WCMC-Q.

All TAs have achieved academic excellence and possess a spirit of adventure, while many discover a talent for teaching, professor of physiology and Associate Dean for Pre-medical Education at WCMC-Q, Dr. David Robertshaw, explained. “They are regarded by faculty as colleagues because of their significant teaching role.”

All in a day’s work

“TAs at WCMC-Q are full-time employees who tutor students, run laboratory sessions and grade exams, but apart from this TAs inspire, encourage and give informal advice to students,” he said. “They are regarded by faculty as colleagues because of their significant teaching role.”

“There are TAs for every pre-medical subject. In lab-based subjects, like chemistry and physics, they essentially run the labs under the supervision of a faculty member, in addition to teaching students. In other subjects, like math and biology, the TAs are purely teachers.”

“The TAs we have recruited are, for the most part, taking a year off after finishing their undergraduate degree before going to medical school or graduate school. They are generally recent Cornell graduates who have previously taken the courses they are assisting in.”

Student and teacher relations

Students relate differently to teaching assistants and faculty, Dr. Robertshaw explained. “They come and speak to the professors and ask questions, but they tend to interact more with the TAs – the age difference is much less and they tend to feel more comfortable talking to a young person who has just graduated.”

First year medical student Nancy Zaki agreed, saying these young members of faculty were important for several reasons.

“They are easy to approach, especially because they are our age,” she said. “It is okay to ask them the same question several times. For some reason it differs with professors – it is embarrassing to ask the professor to explain something more than twice if you don’t get it.”

“TAs were a blessing to have in pre-med. They were always ready to answer any questions at any time. One of them even went over all lectures before a final exam and stayed with us for almost four hours until 11 at night! Sometimes, they even came on weekends to help us. “They also guide you to what you should focus on
throughout the course, for example if you should read the book or concentrate more on the professor’s notes.”

Another first year medical student, Muneera Al Muhanadi, said teaching assistants gave valuable advice, based on their recent experience as students. She noted that this was a result of their excellent grasp of the subjects.

“They helped me a lot by explaining and answering my questions, and they taught me skills like how to take notes and skim a book. They also helped me understand the style of each course,” she said.

“I think that TAs are important to the learning process and without them, some courses would be more difficult to pass.”

The importance of teacher training
Assistant professor of chemistry, Dr. Michael Pungente, emphasized the importance of young teachers receiving some guidance to develop their teaching skills and prepare them for the job. With this in mind, he facilitates short Instructional Skills Workshops prior to the fall semester each year.

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Multi-tasking in Doha

Teaching assistants Oriel Feldmanhall and Magdalena Lopez said they cherished their time at WCMC-Q and the challenge of acting as intermediaries between the students and professors.

Each took on a slightly different role, according to the nature of the course they were teaching.

Feldmanhall assisted students learning psychology, taught in Ithaca by Dr. James B. Maas, Weiss Presidential Fellow and professor of psychology at Cornell University, and delivered to students in Qatar via video streaming and interactive videoconferencing.

Based on-site in Qatar, it was her job to make sure students understood all the course materials and to facilitate the broadcast lectures.

Interviewed during her stay, Feldmanhall, who graduated from Cornell in 2005 with majors in English literature and psychology, explained: “Being the only person representing psychology at WCMC-Q, it is important students get the assistance they need. I’m here on campus all day – I give weekly quizzes, answer questions from students, give homework assignments and grade them, mark exam papers, and lead seminars once a week to discuss with students subjects from the lecture.”

Lopez, who graduated from Cornell in 2005 with an engineering physics major, said she taught a laboratory-based subject with the physics faculty based in Qatar. “I run lab sessions and problem-based learning sessions where students work on challenging problems in groups,” she said.

Lopez specializes in one discipline, rather than having a pre-medical background like most TAs. “I think it helps the students see there are other types of disciplines apart from medicine,” she said.

“To familiarize myself with medical concepts, I attend biology classes. It’s useful to have a background so I can come up with examples that are relevant to the students.”

Among the pluses that Feldmanhall identified about working at WCMC-Q were students’ enthusiasm and capacity for working together. “I love teaching my students because they want to learn. They’re so curious and interested in the course material and they’re always asking questions,” she said.

“T’m learning as much from my students as they learn from me… about their different cultures, religions, lives and perspectives. They are incredibly warm, open and accepting.”

On the lighter side, Lopez, a Latin dance enthusiast, ran informal dance classes for interested students outside study time.

Turning to the future, both TAs plan to go on to graduate school, Feldmanhall to further explore psychology and Lopez to study either nanotechnology and nanoscience or biomedical engineering.
Celebrating its tenth anniversary this year, Qatar Foundation is at the forefront of the drive to make Qatar an emblem for excellence in education and international cooperation.

Established by a 1995 decree issued by His Highness the Emir, Sheikh Hamad Bin Khalifa Al-Thani, the organization aims to address the “entire citizen” says communications advisor to the Board, Robert Baxter. Powered by the visionary leadership of His Highness the Emir and of Her Highness Sheikha Mozah Bint Nasser Al-Missned, the Chairperson, Qatar Foundation has pursued a wide-ranging strategy of development. Many of its activities are focussed in Education City, an eight million square meter campus on the outskirts of Doha.

“We start from early years education, through primary and secondary,” Baxter explains. “The Academic Bridge Program prepares selected school leavers intensively for entry to English-language university education. Then we have undergraduate education, and we will be moving on to Masters degrees in the postgraduate phase.

“We will soon have research being spun out into the economy through Qatar Science and Technology Park. In addition, RAND-Qatar Policy Institute is working with the Foundation to plan the development of education and health services that will serve the needs of Qatar’s people for the future.

“Among outreach programs, the Social Development Center and Qatar Diabetes Association are having a more general impact on the community. So we are attempting to reach out to society in all directions.”

Activities organized to mark the anniversary include conferences, beginning with an academic symposium last September and going on to Technology, Empowerment and Education in the “Innovations in Education” series in April, in which Cornell’s Associate University Librarian for Information Technology, H. Thomas Hickerson, took part.

There are also Doha Debates specials and a series of celebrity recitals by leading musicians from overseas, among other events.
Creating a global center of excellence

Cornell was only the second university to open a branch on the Education City campus: When WCMC-Q opened to students in 2002, it joined Virginia Commonwealth School of the Arts in Qatar, established in 1998. Since then, the expansion in the higher education sector has been “quite phenomenal” Baxter says, with Texas A&M, Carnegie Mellon and Georgetown opening branches in Qatar.

As part of an American-style academic medical center, the STH will also have a clinical and translational research program focusing on areas that impact Qatar’s population, including diabetes, cardiovascular disease and obesity.

The STH represents a major step forward for Qatar Foundation in core areas of its commitment: education, research and health care. With the promise of enhancing the quality of health care, it is set to benefit the wider community; its research program will also further the effort to transform Qatar into a knowledge-based society.

Faculty members and clinicians from Weill Cornell and NYPH worked alongside colleagues from HMC and other institutions to complete the clinical program for the STH by fall, 2005. This followed recommendations from consultants to the project, PricewaterhouseCoopers. The clinical program sets the plan for medical services to be offered, number of patient rooms and equipment required, among other issues.

By December, the STH moved into the design phase, with the appointment by Qatar Foundation of Ellerbe Becket as Executive Architect, a US firm “widely recognized for creating life-enhancing environments which promote design as a healing tool,” says public relations manager for the STH, Patricia L. Davis. Chosen as the signature architect to work with the firm is Cesar Pelli, who designed the World Financial Center in New York City, among other iconic buildings.

The architectural team is working on the plan for the entire medical zone in Education City. Situated to the north of the building of WCMC-Q, it will include the groundbreaking hospital and accommodations for nursing staff. Blueprints are expected in 2007, with construction to begin the following year.

Creating new thinking

Another measure of the Foundation’s reputation is the ever-increasing flow of visiting luminaries: Kofi Annan, Bill Clinton, Madeleine Albright have all visited. They come not only to see the campus, but also to meet and address the students, reaching an audience of young people (Continued on page 31)
Reaching out to communities within and outside Qatar, WCMC-Q students have shown their compassion for humanity over recent months, notably by traveling to India to help rebuild homes in a village devastated by the 2004 Asian tsunami, and by participating in Qatar’s national polio immunization campaign.

Director of student affairs Charles Paragg said the students had demonstrated their strong commitment to engaging as active members of society over recent months.

“The level of dedication our students have, firstly to their studies in the Pre-medical and Medical Programs, and secondly to community-based extracurricular activities is in keeping with the moral, social and ethical standards that society expects of its physicians,” he commented.

Rebuilding shattered lives

Twenty-two pre-medical students and two parent chaperones joined Habitat for Humanity’s (H4H) Global Village Volunteer Program during the January break. They gave assistance to the people of Koonimedu Kuppam, a small village near Pondicherry on India’s east coast, by helping them build simple, strong and affordable homes to replace those lost in the tsunami.

An entirely student-organized activity, the one-week trip was sponsored in part by Qatar Foundation’s Reach Out to Asia charity, which extends a hand of friendship and help to countries in Asia that are experiencing serious problems of poverty, homelessness and natural disasters. Additional funding was received from the American Women’s Association, private donations and student participants; while H4H, a nonprofit organization which aims to alleviate deprivation in housing worldwide, coordinated the trip.

Organizer Tasnim Khalife explained that the students joined teams of homeowners and local volunteers to work on the construction of nine houses for people with disabilities.

Joining in: Second year pre-med students opened their hearts to Indian villagers affected by the 2004 Asian tsunami, whether by getting down to the task of rebuilding shattered homes, or helping out with the kids.

“All in a day’s work

“The homes we helped build were much more stable than those destroyed by the tsunami,” Khalife added, referring to the previous fragile structures. “We dug foundations, poured concrete, laid bricks and helped plaster the walls. I think everyone valued hard labor by the end of the trip!

“The program was balanced, with plenty of work, rest and free time. Each day before starting work we had an orientation and reflection led by the team leader. Some days we also did some touring of local sites and visited the village school.”

H4H volunteer coordinator Patrick Ettampola said the
WCMC-Q students were the first group from the Middle East to work at an H4H disaster relief site in India. “They were the largest, youngest and most vibrant group we’ve hosted so far,” he commented.

“They did remarkably well in contributing their physical labor... They also taught the village school children some English songs and gave them gifts of stationery during their free time.”

**Leaving a lasting impression**

Ettampola said the students had restored hope and enthusiasm among the villagers. “They built bridges between cultures and set an example for the children, young adults and women of the village. The group was extremely good at winning the hearts of the villagers and they worked with a passion for the cause that H4H is committed to.”

“The villagers, particularly the children, were really friendly and hospitable,” Khalife explained. “On the first day, a little girl, the cutest little thing, handed me a bunch of seashells as a welcome gift while we were on the beach. I didn’t expect the amount of gratitude we got from the people. Their smiles and their tears of appreciation are one thing I’ll keep with me forever.”

Qatari student Sakenah Al Saiqal agreed: “Before we left one woman got really emotional and sat there crying. She said her daughter, who we helped build a house for, was the only thing she had in this world. She really broke my heart.”

**Confronting a shocking reality**

The group was deeply affected by the experience, said student group leader Midhun Mukundan: “Confronting the devastation caused by the tsunami had a great impact on us. We had seen the destruction on TV, but seeing it for real a year later was shocking. In the village we worked in, 12 people lost their lives and 60 were injured; 250 homes were destroyed and 100 were severely damaged. Remnants of the destroyed houses remain a constant reminder of the trauma.”

Apart from an appreciation for the simple things, Bahraini student Yusuf Kemeshki said the students also learned to communicate on a different level: “Even though we didn’t speak their language, by helping others from a different culture we got to form friendships and learn from each other.”

Khalife noted that the trip was beneficial as a team-building activity as well. “When we came back you could see the effects: We worked on the organic chemistry problems as we worked on a house in India. The experience will definitely help us in our careers as doctors.”

Sadaf Nasir, who helped organize the expedition, said it required very careful planning, from deciding on a program to join and country to visit, through writing a sponsorship proposal and approaching potential sponsors, to organizing passports, visas and tickets.

“When we started planning the project we had no idea how difficult it would be. At the last minute everything pulled through,” she said.

**Helping protect Qatar’s children**

Focusing on protecting children from the risk of infection with poliomyelitis, Qatar’s National Health Authority (NHA) organized a national campaign of immunization late last year, and drew on support from local volunteers – including WCMC-Q students – to ensure that the optimum number of youngsters was reached.

Forty pre-medical and medical students slipped on white coats and joined teams of doctors, nurses, health inspectors and volunteers in administering (Continued on page 30)
First-Year Writing Seminars encourage pre-med students “to examine human life from fresh vantage points,” says Dr. Katherine Gottschalk, seen here with Nihan Mirajkar.

First-Year Writing Seminars (continued from page 15)

oral polio drops to children aged between two months and five years during two national immunization rounds.

The NHA reported in February that the program, carried out at schools, kindergartens, primary health clinics and private clinics, immunized 39,288 (64.8 percent) children in round one, with 33,662 (55.5 percent) children receiving a second dose in round two.

WCMC-Q first-year medical student and immunization campaign volunteer, Aalia Al Barwani, said she joined the program because it aimed to benefit the health of people in Qatar.

“It is very important to give back to society at any opportunity possible,” she said. “Polio is a terrible disease and the fact that it can be prevented by simple measures is a great encouragement.”

Brightening young lives

Taking their community action into the hospital, eight WCMC-Q students visited the pediatrics ward of Hamad Hospital to give presents to young patients on the third day of the feast of Eid Al-Adha.

A Community Services Club initiative, students came involved in exploring its meaning and implications. Everybody from across the disciplines comes together to talk about the book, while of course approaching it from different perspectives.”

Last summer’s panel discussion and debates at WCMC-Q stimulated considerable interest among students and faculty (See Qatar Chronicle, Fall 2005 issue.) And the book we are tasked with digesting for this summer’s Orientation? F. Scott Fitzgerald’s The Great Gatsby, a classic 1925 novel set in the America of the Jazz Age.

First-Year Writing Seminars (continued from page 15)

towards the basic sciences. Dr. Gottschalk has found that they also open avenues to discover links among the pre-med courses, a form of cross-referencing that may be particularly illuminating.

Noting that students have drawn on the Psychology 101 course for insight into the readings in her seminar, she says that this demonstrates a high level of intellectual curiosity: “The best minds that I have read about always seem to be cross-fertilizing their ideas from many fields.”

It is also the case that the humanities have a role in drawing WCMC-Q closer to the main campus of Cornell University in Ithaca. Not only were selected essays by pre-med students at the Medical College submitted to the First-Year Writing Seminars essay contest held last semester on the Ithaca campus, but the Medical College also takes part in the annual New Student Reading Project organized by Cornell as part of Orientation activities.

The Reading Project is an invaluable way to bring people together, Dr. Gottschalk says. “The book project is a program that Provost Carolyn (Biddy) Martin takes very seriously. She wants students to come together not just in a party atmosphere – their first experience of Cornell should be an intellectual one.

“Faculty and students share a text to become mutually
who previously would only have encountered them via satellite TV.

Education City’s students are as interested in contemporary issues as their peers in universities across the world. Nothing illustrates this better than their continuing participation in the Doha Debates, and their willingness to take the idea and try it out on a smaller scale, as WCMC-Q’s pre-med students have done this semester.

The essence of the monthly Doha Debates, which are broadcast by BBC World, is to engage young people in what Baxter describes as “the healthy exchange of opinions.” He believes that this is hugely beneficial: “It is essential in moving forward and creating new thinking and innovative ideas.”

Researching the future

Allied to the strategy of bringing in world-class educational programs and promoting creative thinking is the drive to establish Qatar as a center of research on a global level.

“The university partners we’ve chosen have been selected at least in part because of their very strong research records,” says Baxter. “We want Education City to be not just a purveyor of knowledge, but a creator of knowledge.”

He envisages a growth of collaborative projects both among the institutions on-campus, and between them and commercial enterprises that will have a presence in Qatar Science and Technology Park (QSTP).

Located to the north of the educational zone, QSTP is set to become the focal point for research activities. The backbone of the Park will be a cluster of major companies operating in fields that are central to the diversification of the economy: gas and petrochemicals, healthcare, information and communication technologies, water technologies, the environment and aircraft operations.

Companies committed to the Park, which is currently under construction, are European Aeronautic Defence and Space Company, ExxonMobil, Canadian environmental consultancy Gartner Lee, General Electric, Microsoft, Rolls Royce, Shell and Total.

QSTP will also act as a business incubator, supporting individuals or small groups that present viable plans to set up their own businesses. Assistance may include providing premises, venture capital, and technical, marketing and financial advice, says Baxter.

“We’d like to see a cluster grow up around the big corporations and the universities, with small and medium-sized knowledge-based enterprises servicing the big developments in the economy.”

The creation of an entrepreneurial business culture is a priority, Baxter notes: “The age of hydrocarbons will end at some point. That’s why the economies in this area are so keen to diversify. And it comes back to the mission of Qatar Foundation, to invest in the capabilities of the people so that they can adapt and ‘reinvent themselves’ according to the circumstances that prevail. Knowledge is the only really sustainable resource.”

Admissions (continued from page 17)

Making an informed decision

The interviews are just one part of a whole day spent at the Medical College; also on the schedule are a tour of the facilities, and opportunities to meet with other faculty members and students.

“Meeting the students is very helpful,” says Salah. “You need to talk to them, to ask questions about what they are doing, their life habits, and how much work and pressure there is, so that when you decide to come here, you are committed to it.”

The importance of making an informed decision is reiterated by his colleagues. “I talked to students and heard their honest opinions,” Takeddin says. “I saw the facilities, the Internet access, the eLibrary – everything – and the students told me about their professors and TAs (teaching assistants.)

“It was very important in helping me to see what kind of people are here and how similar I am to them. After coming here and seeing the College, meeting the students and professors, I was very encouraged to join.”
Computer program (continued from page 11)

position of the face, arm and leg fibers is color coded in each section and that makes learning the details a lot easier.”

In addition, some images of dissections are color coded and annotated on one side only. This is an important feature, she adds, because it allows the student to form a sense of what the brain looks like in the flesh – in other words, to get used to the ‘real thing’.

...creating a dialogue

In a functional neuroanatomy lab, the instructor takes control, selecting sections and using the cursor to draw students’ attention to different features. However, control can be passed to the students, so they may point to a feature and request clarification.

A fairly recent refinement of the program, this encourages a truly interactive learning experience, Dr. Brooks says. “It allows a kind of two-way conversation, in which control normally stays with the tutor, but the students can ask questions.”

These sessions are invaluable, says associate professor of neurology and neuroscience, and co-director of Brain and Mind at WCMC-Q, Dr. Leo Streletz, “There’s no substitute for an instructor who points out the things that make the anatomy of the brain, spinal cord or peripheral nervous system a little different than other parts of the anatomy.”

Applying the science

In the second part of these sessions, the group moves on to a series of clinical cases; Dr. Streletz observes that WCMC-Q students are well prepared for this by the Pixelated Brain, which he praises as a “marvellous educational tool.”

“The anatomical and structural aspects of the entire central and peripheral nervous systems are covered by the program,” he explains. “What Dr. Brooks has done is to integrate structure with function very well. I think it helps the students a great deal in understanding the workings of this complicated part of the human body.”

For Dr. Brooks, it is fun trying to deduce what is wrong in each case. “It’s kind of a puzzle. Some pathways cross in the brain at one point, some cross at another point. So you may have a clinical syndrome that involves one side of the body, but also involves the other side. It all has to do with where this complex anatomy of crossing and not crossing fits together, and they can follow this on-screen.”

Husic considers the program to be an essential guide: “Frequently, when we are doing problem-based learning (PBL), someone ends up drawing a part of the brain stem or the spinal cord on the whiteboard. That happened in most of our PBLs. You need to have a clear idea of where everything is and the only way to get this is the Pixelated Brain.”

From seminar room to doctor’s office

The program’s library of digitized sections through the brain provides an excellent grounding for the interpretation of materials such as radiographic images, which also forms part of the Brain and Mind course.

“There is a real need to be able to picture things in terms of sections through the brain,” Dr. Brooks says. “The radiologists can ‘cut’ the brain any way they want in terms of images, so the skill of being able to picture the brain just by looking at a section through it is now a practical skill that you need.”

While the slide-mounted stained sections traditionally used in medical school were accurate specimens, they were also fragile, presented in a less systematized form than the digital program, and – in some cases – in short supply, says Dr. Streletz. By contrast, the Pixelated Brain provides all this, and more, in a cohesive and accessible way: “It really facilitates the learning process; it is more efficient and time-saving.”

Looking ahead, Dr. Brooks predicts that technology will take computer-based learning much further in the near future, with the promise of 3-D imaging. “Over the next ten years, there will be much more sophisticated ways of visualizing the anatomy. It’s bound to happen.”

Trying to figure out what is wrong in each neurology case is fun, says Dr. Brooks: “It’s kind of a puzzle.”
In the lab: Teaching assistants give valuable advice based on their recent experience as students. Here, Magdalena Lopez works with pre-med students in the physics lab.

In the workshops TAs give 10-minute mini-lessons to their peers, which are videotaped and played back to them, and they receive oral feedback from their colleagues. They discuss learning objectives, question techniques, learning styles, methodologies, marking, student/teacher relationships, cultural differences, professionalism, Bloom’s taxonomy (the six levels of learning, from the recognition of facts to the more complex analysis, synthesis and evaluation of concepts), and more.

“The workshop really helps them to have a framework to think about teaching and learning. I think it answers a lot of questions they may have had in their minds,” Dr. Pungente said.

Varying appointments

Most teaching assistants are appointed for one year; however, some decide to stay on for a second year. “I think they enjoy the interaction with students and those that are natural teachers get a lot out of it,” Dr. Robertshaw said.

Erin King said she deferred entry to Weill Cornell Medical College in New York City for two years to stay on at WCMC-Q.

“I love it here – being a TA and being on the other side of the classroom is a nice change and it’s a bit of a challenge to get a good grasp on the subject material in order to teach it back to the students,” she said.

King, who assists 56 students in general chemistry alongside her colleague, Jennifer Chang, said: “I’ve had great experiences with the faculty I work with... and the students are just amazing. This has been a good break from being a student and also an opportunity to travel around the world.”

Dr. Robertshaw explained that the role of these young faculty members also varied, depending on the subject taught. Last semester the Psychology course was taught by the professor in Ithaca, while other courses were taught by professors resident in Qatar. Teaching assistant Oriel Feldmanhall acted as the Qatar coordinator for psychology. (See: Multi-tasking in Doha, page 25.)

Futhermore, the qualifications of TAs can vary, and not all have a pre-medical background. Russ Woodroofe, the TA for mathematics last semester, holds a PhD in mathematics from Cornell, while the TA for physics, Magdalena Lopez, holds an engineering physics major.

“It is important to have a broad range of TAs with specialized skills in different areas. Students have exposure to all TAs, so it’s important they have different personalities and a variety of strengths,” Dr. Robertshaw said.

Success of the TA program

Introduced when WCMC-Q opened to students in 2002, the TA program has worked beyond expectations, Dr. Robertshaw said.

“The program has been so successful that we have expanded on it – as the number of students has gone up, the number of TAs has gone up. Leading professors in Ithaca, who work with us and liaise with us about what we teach here, give us guidance and are very supportive. The TA program has been fully endorsed by them,” he said.

“We’ve been highly successful in attracting TAs with consistency in their academic credentials and those with a spirit of adventure. Some of the TAs we’ve had have been natural teachers, good at helping students identify and focus on their weaknesses, and interested in moving towards teaching and academia in their careers. Many come just to experience a different culture and broaden their view of the world.”

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Numerous eminent figures from public life and academia visited WCMC-Q through the winter; meanwhile, never short of enthusiasm or energy, the students staged a satirical play, organized fun activities and even dressed up – or down – every day for a wacky week in March.

Clockwise from above:

1. US Energy Secretary, and Cornellian, Samuel W. Bodman, was accompanied on a tour of the Medical College by Dean of WCMC-Q, Dr. Daniel R. Alonso and by Vice Chairperson of Qatar Foundation, Dr. Saif Al-Hajari.

2. Dr. Marco Ameduri, senior lecturer in physics and Assistant Dean for Pre-medical Education, showed visiting science faculty from Qatar University around the physics lab in November.

3. Inside the Clinical Skills Center, director of public affairs, Michael Vertigans, explained WCMC-Q’s innovative approach to medical education to H.E. James Michael, president of the Republic of Seychelles, and Dr. Saif Al-Hajari.

4, 5. Chilling out: Pre-med students took time off for an MSEC-Q picnic, and a barbecue to raise funds for the trip to India.
6. In East Side Story, written and directed by Rana Biary (Class of 2008), medical students took a satirical stab at their faculty – and themselves – and had the audience in stitches.

7. Community spirit: Students, faculty and staff got together for a social outside the Medical College in January.

8. Expatriate Arab scientists visited the Medical College in December at the invitation of Her Highness Sheikha Mozah, in an initiative to build closer links among Arab scientists. Their tour was captured on film.

9. Inspired by the Doha Debates, pre-medical students set up their own debating society, opening the season’s activities with consideration of the Terry Schiavo case in the US.

10. At the invitation of Georgetown University School of Foreign Service in Qatar, Secretary of State in the Clinton administration, Madeleine Albright, addressed a gathering in Lecture Hall 4 of WCMC-Q.
WCMC-Q Happenings
(from page 35)

11. Graduate and undergraduate students, and senior faculty from the Institute of Technology of the University of Burgundy in Dijon, France, discovered the Medical College in February.


13, 14. Students were all smiles during Wacky Week, celebrated March 5-9, when they dressed for culture day, nerd day, black day, mismatch day and formal day.

15. Visiting media magnate Rupert Murdoch toured the Medical College and exchanged notes with students in March …

16. … while internationally renowned intellectual Muhammad Hasanain Haykal clearly enjoyed his encounter with pre-med students.
A warm welcome to the following new members of staff: Meredith Mullane, manager, faculty affairs; Bejoy Nambiar, research coordinator; Mary-Ann Spiteri, standardized patient trainer; Khozem Zakvi, Unix administrator; Idriss Ben Daoud, senior support technician; Farzana Khan, administrative manager; Jenny Creed, lab specialist; Mariam Sabbah, research data specialist; Samar Al-Amadi, administration aide; Marisol Rayner, administrative secretary; Manal Taiym and Valerie Mew, staff secretaries; Dina Bamieh and Diana Hoteit, receptionists; and Silvana Nader, procurement clerk.

Congratulations also to Ola El Zaharna and Sarah El Nashar for their recent promotions.
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