

# CIME

CENTRE FOR INNOVATION IN MEDICAL EDUCATION



آغا خان یونیورسٹی

THE AGA KHAN UNIVERSITY

Newsletter | January 2018



## His Highness the Aga Khan inaugurates CIME

The visit of His Highness the Aga Khan on December 15, 2017 was a special moment for the whole of AKU, but particularly for the donor families whose generosity was marked on this occasion. Three new plaques, one for each of the donor families, now adorn the CIME courtyard as permanent reminders of this special day.

It was important to demonstrate to His Highness how the centre was being used, and how it added value to the programmes of learning throughout the university. To this end, students were recruited to demonstrate small scale simulation, problem based learning, High Fidelity Surgical Skills simulation and simulation of an organizational unit. 56 individuals in all contributed to the 'live' simulation events.

His Highness seems genuinely impressed by what he witnessed, and was interested to meet as many students, faculty and staff as time allowed. The students were very well disciplined in performing their assigned simulation tasks: the uniforms and fidelity of the clinical environments lent an air of professionalism to the performances of students and faculty. From start to finish, everything went smoothly and many were heartened by a fleeting smile or word of encouragement from His Highness.

In a flash it was over. However, there are many photos and video images of the event on our social media (see links to the event on last page).

## Reflecting on 2017

At this time of the year it is traditional to think of the year that just ended before embarking on another one. For CIME, this past year has seen its activities grow, intensify and diversify, and we are now beginning to see patterns develop, we can more fully appreciate how best we can serve our three main 'customers': AKU College of Medicine, School of Nursing and Midwifery, and AKUH. Our vision to serve the greater community of professionals and the public of Pakistan is also becoming a reality: hardly a week goes by without CIME hosting a National event or workshop. To cap it all, CIME was honoured by the presence of His Highness the Aga Khan for the official inauguration in December.

For me, personally, this has been a tremendous year as I came to grips with a new organization with new systems and structures. However it has been very satisfying working with faculty, staff and students, and building a bespoke team at CIME to effectively operationalize our strategy.

Here's to another successful year ahead. So to our readers, 'Slangevar' (Scottish Gaelic meaning 'to your good health') What now follows are some of the 'best bits' of 2017 in case you missed them...

Charles Docherty  
Director, CIME

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## MagnifiScience Exhibition 2017

The Dawood School for Girls hosted a 'Science Exhibition' event called 'MagnifiScience', attracting over 50,000 participants from the general public around Sindh. CIME represented AKU within the 'Health Sciences' section. 56 of our students from the SPIE group (Society for the Promotion of Innovation in Education) volunteered their time to cover the full three days of the event and provided hands-on activities for participants explaining the science behind many common phenomena such as blood pressure measurement, ECG, hearing, eyesight, and giving an insight into some of the more advanced information technology and computing science embedded within high-fidelity simulation. As Albert Einstein once said 'if you can't explain it simply, you don't understand it well enough'. A chance and a challenge for our students; nursing and medicine, under- and post-graduate, to interact with the public and develop their communication and teaching skills.

The organiser, Ms. Sabrina Dawood (the grand-daughter of Mariam Bashir Dawood, one of our CIME Donors) commented

"Thank you so much for participating... your team has been amazing! So enthusiastic."

Pakistani media also appreciated our efforts with extensive newspaper and television coverage.



## The team at CIME successfully launch first clinical simulation workshop



On August 24 2017, an action-packed three-hour workshop attracted 36 applicants (from whom the first 20 were selected) to pilot a showcase of everything that CIME has to offer. The workshop's educational framework employed elements from the Flipped Classroom approach, team-based learning methods, group work and features of simulation-based education such as scenario writing, role play and simulated practice with debriefing. All these activities were facilitated using audiovisual, IT, and biomedical engineering expertise: all home grown and honed in CIME. Participants were from different specialties including Obstetrics and Gynecology, Pediatrics, Nursing Education Services (NES), Biological and Biomedical Sciences, Ophthalmology and Clinical Microbiology.

The overall aim was to demonstrate, through active participation and 'just-in-time' learning, how accessible simulation based and technology-enhanced education can be. The workshop enabled us to guide a group of clinical experts, who were novices in simulation based education, to produce one technology-enhanced simulation from concept to enactment. Three more simulations are at the early stages of development and the very positive evaluations we received demonstrate that we achieved our objective. Credit goes to the participants many of whom gave as much as they got during this highly interactive afternoon.

It can be a risky strategy putting learning into the hands of learners but these risks are readily managed using the latest educational and communications technologies at CIME. No-one was injured or damaged: even the mannequin recovered from septic shock in double-quick time. We are now confident that we need only make minor adjustments before offering this workshop every month, starting in September, with more intensive workshops to follow. Tailored workshops can also be offered to individual departments and to external groups. Please refer to the flyer at the end of this newsletter for more information.



## Global Encounters

CIME was pleased to host 40 Global Encounters participants and their facilitators this July. This is an initiative of the Jamati Institutions of the Ismaili Muslim community organised in collaboration with agencies of the Aga Khan Development Network like the Aga Khan Academies. Global Encounters is a month-long programme focused on service, culture, and leadership. While based in CIME, participants had busy schedules volunteering and leading community service projects, learning from reputable professionals, and building friendships with fellow participants from around the world. Witnessing AKDN in action, students gained new cultural competencies and explored what it means to be a global citizen.

The staff at CIME contributed their particular type of expertise and designed hands-on workshops to show participants the importance of simulation based education in health care, while giving an indication of the exciting potential of technology in universities of the future.

Participants expressed their amazement at the quality of the learning environment and many admitted they didn't expect to find this in Karachi.



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## Heart attack on a plate

Lipids and Arterial Disease were the subject of a scientific session supported by Getz Pharma at CIME on August 8, 2017. The session was very well-attended with hardly a spare seat in CIME's multipurpose hall.

Professor Peter Lansberg, lipidologist and senior staff member of the Academic Medical Centre in Amsterdam, Netherlands, presented an informative, interactive lecture entitled 'Primary Prevention and Its Role in Managing Dyslipidemia, and the evidence based role of Statins'. It was captivating, and a good example of how to seamlessly use audience participation technology in a lecture.

The accompanying breakfast of fried paratha, fried chicken sausage and fried omelette with milky tea, although traditional, seemed less appealing in light of his talk. The speaker's prediction of a "tsunami of cardiac disease poised to break over Pakistan" gave us all food for thought about providing healthy options at events. Even though this type of food is delicious and satisfying, we should be able to cater events without giving people a 'Heart Attack on a Plate' (a Scottish saying – only we have a worse problem - deep-fried Mars bars!)



Mr Khalid Mahmood, chief executive officer at Getz Pharma, and Professor Lansberg went on a tour of the CIME after the event.

## Clinical Simulation Workshop for Yusra University Islamabad

### It's a small world!

The invitation to provide a workshop in Yusra University, Islamabad, came from an unusual source. Professor Barbara Parfitt, CBE, is currently doing voluntary work in Pakistan under the umbrella of a UK based charity, PRIME. Professor Parfitt had worked for AKDN in Tajikistan in the 1980's (and this is where it gets interesting), shortly after that she became the Dean of the School of Nursing in Glasgow where the now Director of CIME, Professor Docherty, was cutting his teeth on projects related to clinical simulation. So naturally when Professor Parfitt knew Professor Docherty was in AKU she immediately made contact and sought his help in her latest venture: preparing a new nursing faculty to deliver an innovative, problem based skills focused nursing programme in Yusra University.



Yusra University President and Professor Parfitt acknowledged Mr Burhan's tremendous contribution to the event.

So on Monday 6 November a small team of Professor Docherty, Dr Jacqueline Dias, and Mr Burhanuddin Ali Akbar worked from 9am to 5pm delivering a full range of interactive teaching sessions, ranging from using technology in the classroom, to organising systems of clinical assessment for student placement. Dr Dias shone as she demonstrated how to run simulations 'live' with volunteers from the participants.

This workshop was very well received. One indicator of the high regard with which we were held by Yusra University that their President and Executives stayed beyond the opening speeches, participated for the full day, and thanked us profusely over dinner before we departed to the airport.

Having successfully completed this request with efficiency and effectiveness, the team at CIME would consider further requests from institutions throughout Pakistan as we aim to raise the bar in healthcare education and achieve one of our strategic goals: to become a resource for the whole nation.

## SPIE again in Action

On the 6th of October 2017, the Society for Promotion of Innovation in Education (SPIE) organized an Objective Structured Clinical Examination (OSCE) review session for MBBS year 2 students. The staff at CIME and Teaching Assistant (TA's) from BBS Department were involved. It had a great turn out and overall the event was a fantastic success owing to the efforts of everyone involved. It was met with positive reviews from the participants who were able to practice and sharpen their skills using the equipment provided aided by the guidance of the TA's. The success of this event paves the way for future endeavors by SPIE organized in cooperation with CIME.

M. Ibrahim Habib

AKU Class of 2020



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## Future Leaders @ CIME

Life is never boring in CIME.

An ordinary day became memorable when we received a request to 'show a group of young children around for an hour'. Beautiful as the architecture and design are in CIME, this would not impress children. So we decided to see how much we could teach them, in an interactive way of course.

Leading the group, with the parents in-tow, reminiscent of Willy Wonka in his Chocolate Factory, Professor Charles came across a maintenance worker (a mannequin) who was collapsed and needed some help. Team resources were utilized – and basic principles of first aid – like getting help, making sure you are safe yourself, then basic assessment of the environment and the 'patient' began.

Within the 'team' we worked out that we should look for a pulse and see if he is breathing, and check if he is awake. Having rescued this patient, and building on what we learned, our next stop was a mannequin where the children were able to hear breath sounds, and listen to the heartbeat. Later, the children saw an x-ray image of the beating heart and looked at how a doctor can 'fix' problems such as narrowed coronary arteries. Into the dental lab next and the kids had fun counting the teeth on the phantom heads.

Some incisive questions arose during the hour... Where do wisdom teeth get their name? Why does that man in the picture have 4 arms and 4 legs? (Da Vinci's Vitruvian Man'), Is Dino-DNA the same as human DNA? Next time we'll be better prepared with answers.

Happily none of the children (or their parents) were lost along the way, and hopefully we have recruited some very bright talent for the future.

Mr. Faisal Notta (Assistant Director, QA Network) gave some feedback:

"It was interesting to see the advanced simulated patients where surgeons can practice prior to performing an operation. The simulation-based learning and practices available to students and faculty members at the Aga Khan University and Hospital are amazing."



## Innovation Day

Innovation Day was organized with CCIT- a one-day mini symposium and workshops on April 20, 2017 as the first step towards generating an ecosystem conducive to medically-relevant entrepreneurship and innovation. This activity could be a forerunner to a more comprehensive course in healthcare entrepreneurship and medical innovation. It was a fast-paced, streamlined, yet dynamic introduction to creativity, innovation and entrepreneurship in biomedicine and healthcare.



## In Case You Missed!

### Inauguration Video of CIME



### Inauguration of Dental Sim Lab



### Take a 360° tour of CIME



### Mannequin Challenge Video



## Publications

- 1) Mimicking Rashes: Use of Moulage Technique in Undergraduate Assessment at the Aga Khan University by Dr Azam Afzal, CIME Champion.
- 2) An Island of Tranquility in an Ocean of Chaos by Sofia Babool, Global Encounter Student.