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I *Programme*

Programme

Registration and Reception

Nov. 1st Saturday

9:00 - 17:00 Registration for participants attending the PBL Session or /and Lecture Session
Venue: No. 1000 Quyang Road, Lobby of Radisson Hotel or
No. 180 Yixian Road, Lobby of Baolong Hotel or
No. 1805 Siping Road, Lobby of Tianyi Hotel

Nov. 2nd Sunday

9:00 - 17:00 Registration for participants attending Lecture Session only
Venue: No. 1000 Quyang Road, Lobby of Radisson Hotel or
No. 180 Yixian Road, Lobby of Baolong Hotel or
No. 1805 Siping Road, Lobby of Tianyi Hotel

18:00 - 20:00 **Reception** (all participants)
Venue: **Pu Jing Restaurant**（浦景饭店）

PBL Session
Venue: Yifu Building of Science and Technlogy, Fudan Unviersity Campus

Nov. 2nd Sunday (whole day)

8:30 - 9:30 whole group orientation and introduction to problem-based learning

9:30 - 12:00 small-group analysis of PBL case #1 (3 groups)

12:00 - 12:30 whole group review of case #1 with clinical perspective from guest faculty

12:30 - 13:45 Lunch (Baolong Hotel)

14:00 - 16:30 small-group analysis of PBL case #2 (3 groups)

16:30 - 17:00 whole group review of case #2 with clinical perspective from guest faculty

18:00 - 20:00 **Reception** (all participants)
Venue: **Pu Jing Restaurant**（浦景饭店）

Lecture Session
Venue: Yifu Building of Science and Technlogy, Fudan Unviersity Campus

Nov. 3rd Monday

9:00 - 10:00 Opening Ceremony (photos)
Chair by Professor Weiping Wang
10:00 - 10:50 Chair by Professor Grace Tang
Plenary Lecture: Global Minimum Essential Requirements for Medical Education
By Professor Andrzej Wojtczak, Institute for International Medical Education, USA

10:50 - 11:10 Coffee Break

11:10 - 12:00 Chair by Professor Seo Jung-Don
Plenary Lecture: Globalization of Medical Education
By Dr. Gerald D. Fischbach, Faculty of Medicine, Columbia University, USA

12:00 - 1:15 Lunch (Radisson Hotel)

13:30 - 14:20 Chair by Professor Pao Chia C
Plenary Lecture: Continuous Medical Education and Continuous Professional Development Relevant to Curriculum Reform
By Professor Grace Tang, The University of Hong Kong, China

14:20 - 14:40
New Curriculum in China Medical University basing on the Comparative Study of Medical Curricula in China and the USA
By Dr. Baozhi Sun, Research Center for Medical Education, China Medical University, P.R. China

14:40 - 15:00 Coffee Break

15:00 - 15:50 Chair by Professor Mary Ip
Plenary Lecture: Learning from the Patient: Lessons from Cross-culture Medical Education
By Dr. Gordon M. Greene, School of Medicine, University of Hawaii, USA

15:50 - 16:10
Exploring the Need For Retraining Physicians In Cardiac Auscultation
By Dr., Lam Zhi Chao Michael, Faculty of Medicine, National University of Singapore, Singapore

16:10 - 16:30

Analysis of Culture Factors in Curricular System of Higher Medical College
By Professor Junguo Chen, Third Military Medical University, P.R. China

16:30 - 16:50

Simulation: A New Education Tool for Health Care Providers
By Professor Harry Owen, Flinders University School of Medicine, Adelaide, South Australia

18:00 - 19:00 Dinner (Radisson Hotel)

18:00 - 20:30 AMEA Board Member Meeting (including dinner)
Venue: Radisson Hotel

19:30 - 22:00 **Medical Simulation Workshop**
Organized by Laerdal China Ltd
Venue: Radisson Hotel

Nov 4th Tuesday

9:00 - 9:50 **Chair by Professor Aurora F Bauzon**

Plenary Lecture: Student Learning in the Digital Age: Pedagogical Perspectives Challenges and Imperatives For Medical Education in Asia
By Professor Matthew C.E. Gwee, Faculty of Medicine, National University of Singapore, Singapore

9:50 - 10:10

Review of Medical Humanities in Korean Medical School Curriculum
By Dr. SW Kim, Department of Biochemistry and Molecular Biology,
University of Ulsan, College of Medicine, Korea

10:10 - 10:30

The Pressing Need for Setting a Course on Research Ethics in Medical Schools
By Professor Yuan-Fang Chen
Peking Union Medical College, Tsinghua University, P.R. China

10:30 - 10:50 Coffee Break

10:50 - 11:40 **Chair by Professor Yuanfang Chen**

Plenary Lecture: SARS and Medical Education
By Professor Mary Ip, The University of Hong Kong, China

11:40 - 12:00

Rethinking Auscultation Teaching to Medical Students during the 2003 Severe Acute Respiratory Syndrome (SARS) Outbreak
By Dr. Lee Jun Theodric, Faculty of Medicine, National University of Singapore, Singapore

12:00 - 13:15 Lunch (Baolong Hotel)

13:30 - 14:20 **Chair by Professor Matthew Gwee**

Plenary Lecture: Clinical Thinking and its Training

By Professor Yingyun Cai, Shanghai Medical College, Fudan University, P.R. China

14:20 - 14:40

Developing China's Health Informaitcs Program through Integrating the Developed Country's Experience

By Dr. Ping Yu, School of IT & Computer Science, Faculty of Informatics, The University of Wollongong, Australia

14:40 - 15:00

Medical Education in China Mainland and Hong Kong

By Dr. Jia He, Third Military Medical University, P.R. China

15:00 - 15:20 Coffee break

15:20 - 15:40

Development of a Question Bank System at the International Medical University

By Professor Gregory J S Tan, International Medical University, Kuala Lumpur, Malaysia

15:40 - 16:00

What makes a good clinical teacher? A focus group study on student perception

By Dr Josephine G.W.S. Wong, The University of Hong Kong, China

16:00 - 17:00 **Closing Ceremony**

Chair by Professor Weiping Wang

18:00 - 20:00 **Banquet** (all participants)

Venue: **Green Wave Hall Restaurant（上海绿波廊酒楼）**

Student Social Activity Schedule

Saturday, November 1st, 2003

Hong Kong and Shanghai students, 13 persons in total

6:30 p.m. **Depart Hotel**

7:00 p.m. **Visit Yu Yuan Garden**

9:30 p.m. **Arrive at Hotel**

Monday, November 3rd, 2003

Hawaii, Hong Kong and Shanghai students, 25 persons in total

9:00 a.m. **Opening Ceremony of Second Symposium of the AMEA (photos)**
Venue: Yifu Building of Science and Technology, Fudan University Campus

10:45a.m. **Tour the Huangpu River on the sightseeing boat "Shanghai Scenery"** **(Voyage course:** Yangzijiang Dock – the Bund – Nanpu Bridge – Yangzijiang Dock)

12:00a.m. **Lunch**

1:30 p.m. **Arrive at Hotel**

Tuesday, November 4th, 2003

Hawaii and Shanghai students, 15 persons in total

9:00 a.m. **Depart Hotel**

9:30 a.m. **Visit Jin Mao Tower**

12:00a.m. **Lunch**

1:15 p.m. **Visit Shanghai Museum**

6:00 p.m. **Dinner at My Jujube Restaurant**—a vegetarian life style restaurant

8:15 p.m. **Visit Xin Tian Di** —a restoration that turned the old stone buildings into boutiques, clubs and restaurants

9:30 p.m. **Arrive at Hotel**

Ⅱ *Abstract*

Plenary Presentations

Global Minimum Essential Requirements for Medical Education

Professor Andrzej Wojtczak
Director, Institute for International Medical Education, White Plains, New York, USA

The recent epidemic of Severe Acute Respiratory Syndrome (SARS) is the latest reminder that physicians and medical scientists of every nationality are increasingly part of a global virtual network expected to serve local communities as well as the global public in accordance with certain universal knowledge and practices. Although superficially it would appear that the duration of the undergraduate medical curricula varies widely from country to country, the appearances are deceiving. If instruction in the premedical sciences, which in some countries takes place in the colleges, and the year or more of supervised clinical experience usually required for licensure, are both included, the undergraduate medical studies require six to eight years of post-secondary education practically everywhere.

Although curricula may appear similar at all medical schools, details vary considerably. In seeking improvements, curricula are constantly bloated with the addition of new subjects, and too often various proposals represent only repackaging and renaming of the same ideas and information to be delivered with the use of new audio-visual technology. However, the real change of curriculum must be based on a clear concept of desired outcomes upon the completion of medical school. From this description, one can specify levels of competency and hence behavioral objectives that become the foundation of the curriculum, and the responsibility of medical educators, for the sake of public safety, is to assure that graduates have acquired a level of competence to enable them to appropriately discharge professional responsibilities. In this regard, institutions frequently measure the inputs into and the processes of the educational system, usually ignoring the quality of the outcomes by measuring acquired competencies.

Quite recently, an urgent issue has become the need to define global essential competencies that all physicians must possess. Such an effort focusing on individual student outcomes has been mounted by the Institute for International Medical Education (IIME), an offshoot of the China Medical Board of New York. The aim of the IIME was to define and promulgate a set of "global essential requirements and standards" or learning objectives deemed "core" for all medical students, regardless of what country or school they graduate from, if they wish to be called a physician. The task of defining and formulating the "Global Minimum Essential Requirements" ("GMER") was given to the *IIME Core Committee* consisting of 17 senior educational and health policy experts from different regions throughout the world. The consensus process employed by the IIME resulted in the definition of 60 global learning objectives that were grouped into seven (7) broad domains: (1) Professional Values, Attitudes, Behavior and Ethics, (2) Scientific Foundation of Medicine, (3) Clinical Skills, (4) Communication Skills, (5) Population Health and Health Systems, (6) Management of Information, and (7) Critical Thinking and

Research. They are considered to be 'essential', i.e., every physician must have them to be certified as able to practice medicine or undertake the graduate (specialty) training.

It was clear from beginning that the "Essentials" alone are not likely to change the educational process and graduates' competencies unless they are linked to the process of evaluation. Therefore, to select a set of tools to evaluate the envisaged competences, the IIME also convened a Task Force of international experts on assessment that reviewed presently used assessment tools. They focused on three that could be used most effectively namely: a multiple-choice examination (MCQ), an Objective Structured Clinical Examination (OSCE) and a Faculty Observation Form. The IIME, with the aid of international consultants and in cooperation with eight leading medical schools in China, prepared the examination to be given to all 7-year students in October, 2003. Although the project assumes the evaluation of students' competencies, the exam results will be used to evaluate the strengths and weaknesses of the educational experiences provided by eight participating medical schools. Prior to a repeat evaluation, schools would be expected to improve areas of identified weaknesses. This is intended to be an iterative process of continuous improvement based upon the experiences gained through the evaluation itself. As this pilot examination is also going to include other medical schools in different countries, further research on reliability and international standard-setting is being developed.

It was understood that a focus on competencies as outcomes of the medical education would have significant implications for medical school curricula and educational process. In the opinion expressed by leading medical educators the IIME project provides considerable promise not only for improving the quality of medical education, but also for advancing the movement toward a truly global physician workforce.

Globalization of Medical Education

Professor Gerald D. Fischbach
Executive Vice President of Health and Biomedical Sciences
Columbia University, USA

What are the aspects of medical education that are common to all populations around the globe? In this talk, I will discuss both how students and physicians learn and what the minimal requirements are in a good medical education. The globalization of medical education, the practice of medicine, and continuous medical education, will all be discussed in the context of medicine as a science requiring the life-long habit of learning.

Among the essential competencies are: a clear understanding of the science underlying medicine, the skills needed to make clinical diagnoses, the ability to obtain and then to clearly transmit complex medical and scientific information, the ability to capitalize on novel technologies, and a deep understanding of the values and ethics that influence life-and-death choices.

The need to understand the science of medicine—and the mechanisms for inculcating diagnostic skill—will be illustrated through a discussion of neurodegenerative disorders. The ability to capitalize on new technologies will be illustrated through the discussion of advances in robotic surgery that are revolutionizing our approaches to cardiac repair. The ability to obtain and transmit information will be illustrated through a discussion of the progress in telemedicine. And the importance of conveying to students the values and ethics of our profession will be illustrated through a discussion of stem cells.

To raise the level of global medical education, exchanges among students and faculty—complemented by advanced technologies—are indispensable. Such exchanges are increasing and are creating a common knowledge base. Today, more than 30 % of graduating medical students at Columbia complete an international clinical elective.

Among the challenges for global education is the need to disseminate new technologies, to evaluate them on a global scale, and to develop realistic plans to pay for them. We need to expand the availability of modern teaching and assessment tools such as simulators, robotics, mannequins, and virtual settings. We have to create environments that integrate education and research efforts across disciplines.

Relative to the dissemination of new knowledge, the Worldwide Web is playing an increasingly important role. It is providing access to the latest scientific information, and it offers a way to raise the quality of medical education throughout the world.

Objectivity in research, the sharing of information, a strong sense of altruism and fairness: these are the values needed in science and medicine to solve the difficult problems confronting us all in terms of the world's health.

Continuous Medical Education and Continuous Professional Development: relevance to Curriculum Reform

Professor Grace W.K. TANG
The University of Hong Kong, China

Continuous Medical Education (CME) and Continuous Professional Development (CPD) are educational and related activities that are demanded of from all medical professionals by the profession itself, and by the Community at large. CME and CPD are regarded as the keys steps in maintaining the Standard of Practice in the medical profession.

CME denotes passive learning usually in the format of delivery of lectures, whereas CPD involves aspects of learning such as development of skills, quality assurance and in particular, the activities are chosen by the doctor himself who thinks that such activities are most conducive to his life long learning and delivery of quality health-care. CPD is a program of active learning that evolves with time and need.

In order to maintain the Standard of Practice in medicine, many regulatory bodies now require CME or CPD for revalidation, recertification or renewal of the practising certificates. Each cycle of CME/CPD for such purposes ranges from 3 to 5 years. The requirement is needed at 2 levels in some places: the general practice and the specialist practice. All such measures have the aim of safe guarding the Community in receiving the quality health-care that they deserve. In order to maintain the practice, doctors now have to subscribe to and be conversant with CME/CPD.

The spirit of medical curriculum reform can be summarized as the aim to produce generic doctors who have the knowledge, skills and attitudes to undergo postgraduate education and training, and to be life-long learners. Their role can be more diversified than just being clinical doctors. They have the potential for research and are able to work in any other area pertinent to developments in the medical field. The concepts of problem-based learning, continuous assessment, skills enhancement, and life-long learning inculcated in the undergraduate years will go a long way to enable the New Doctors to further their postgraduate education, specialist training and fulfill the CME/CPD requirements in their career.

Taking the situation of Hong Kong as an example, when the Hong Kong Academy of Medicine was founded in 1993 and CME was required for all Fellows of the Academy, there was an outcry of protest. The concept of CME and life long learning was strange to many doctors. Later in 1998, the Specialist Registration of the Hong Kong Medical Council came into effect. Although it is an indicative and not a restrictive register, the CME compliance rate of the Specialists, most of whom are also Fellows of the Academy, has been over 95%. There has been indeed a learning curve for doctors to accept CME, and for CME to mature into CPD.

Out of the 10,000 doctors in Hong Kong, some 65% are not having specialist status because they lack the training, or the opportunities for training. Their Standard of Practice has been concern to the Hong Kong Medical Council. Like other professions in the Community, there is the move towards linking the issue of practising certificate to compliance with CME. The enforcement of mandatory CME meets with resistance and protest from the profession, mostly those of the senior years. They are lost as to how to achieve the required CME when without the compliance, they will lose their legal medical practice. An estimate of some 200,000 CME hours will have to be provided to these 6500 doctors a year to assist them to achieve the CME goal. A daunting task it may seem to the Hong Kong Medical Council, yet it is a task that must be done because these are the doctors who need CME/CPD most. They lack the culture and the skill to be life long learners, and their knowledge base may be years out-of-date.

Medical science is advancing in leaps and bounds. No amount of education at any one time is good enough for a life time career. Curriculum reform has enhanced not the knowledge base, but the means to find knowledge, to explore, to question and to learn continuously. Curriculum reform has provided the foundation and track for CME/CPD that maintains the Standard of Practice in Medicine.

Learning from the Patient: Lessons from Cross-cultural Medical Education

Dr. Gordon M. GREENE
Director, Program for Medical Education in East Asia
Dr. John A. BURNS
School of Medicine, University of Hawaii, USA

A useful concept in developing medical school curricula is "learning from the patient." This refers to the educational approach of focusing student attention on the problems that patients experience in a variety of formats that graduate to higher and higher degrees of reality. Examples include problem-based learning, use of standardized patients, virtual reality, and the supervised learning that students encounter when they begin the clinical training with actual patients. All of these techniques are alike in that they stimulate the student to anchor their learning within the context of particular patients, whether real or imaginary.

This concept of "learning from the patient" is also useful in developing cross-cultural medical education and has formed the basis of our workshop experience here in Hawaii over the last six years. Since beginning our Program for Medical Education in East Asia in 1997, faculty within our Office of Medical Education have worked with more than 300 medical students from Japan, Korea and Taiwan in 1-week workshops.

One way in which we look at "learning from the patient" is in the educational format called "problem-based learning." In this context, a written description of the evolution of an illness experience for a patient stimulates small groups of students to recognize both what they know and what they don't know. When faculty visiting Hawaii first view this format, they often report that, despite the effective student-directed discussion they have just witnessed, they fear that their own students would not be able to do as well, most likely for cultural differences. Our experience over the last 6 years suggests otherwise, that students from Japan, Korea, and Taiwan are fully capable of engaging in this type of learning.

A second way of looking at "learning from the patient" is to consider the focus generated by the educational paradigm called "patient-centered medicine." In this paradigm, the clinician is expected to find ways to best approach the patient's own views of their illness rather than simply maintaining the more narrow biomedical perspective that is traditionally taught. While adapting a patient-centered focus may appear a more North American necessity, it can be highly useful as we increasingly recognize the ways in which the choices that patients make about their lives affect their overall well-being. Understanding the emotional context for dietary choices, for example, enables a clinician to better counsel an over-weight patient. In Hawaii, in order to best foster this patient perspective, we reinforce a view that all clinical encounters are cross-cultural.

And finally, a third way of looking at "learning from the patient" is to better help students

recognize the large array of social and economic forces that affect the health of their patients. The price of medications to combat HIV in Africa, the sources of poverty in rural America, have real impact on patients' well-being. To a practicing clinician, the forces controlling drug prices and poverty may seem too remote to consider when caring for patients. But, in an increasingly connected world, the forces that affect the lives of a student's patient may originate thousands of miles away and they need to understand those forces as the practice of health care evolves.

STUDENT LEARNING IN THE DIGITAL AGE: PEDAGOGICAL PERSPECTIVES CHALLENGES AND IMPERATIVES FOR MEDICAL EDUCATION IN ASIA

Professor Matthew C.E. GWEE
Medical Education Unit/Department of Pharmacology
Faculty of Medicine, National University of Singapore, Singapore

*"It has been widely observed that there is an **information explosion** and that the **student** is **at ground zero**; he cannot learn all there is to know or even a substantial part of the knowledge in one field. With so much to be learned, the student must depend on greater selectivity in regard to what he learns and greater control over how material to be learned is presented"* (Davis, Alexander and Yelon, 1974).

Major curriculum reforms have been implemented in medical schools in many countries around the world including Asia. Such reforms have proceeded at an unprecedented pace in the past decade or so in response to serious concerns expressed, both within and outside of the medical profession, that the medical curriculum of yesterday will not adequately prepare today's medical students to become the competent and caring doctors of tomorrow. Changing patterns of disease and healthcare delivery, exponential growth in medical knowledge and rapid advances in the medical sciences and technology, greater expectations of more educated patients better informed about health matters, greater emphasis on preventive and community healthcare have all contributed to the urgent need to shift the educational paradigm in medical education. What, then, would be the impact on medical education in Asia of these global initiatives, in view of the fact that there are more than 600 medical schools in Asia? Each Asian country needs to set its own educational priorities and strategies in medical education, since Asia represents a region with people: of diverse ethnicity and culture and large differences in socio-economic status and governance, as well as with long-held traditions and beliefs; from highly rural to highly urban communities, and with widely varying disease patterns extending from major problems of parasitic infections to diseases more typical of modern day living and lifestyles. In their approach to the implementation of curriculum reforms, medical educators in Asia will therefore have to seriously consider these issues in the context and the wider implications of student learning in this digital age of information explosion. The pedagogical perspectives and the challenges and imperatives for medical education in Asia will be discussed.

SARS and Medical Education

Professor Mary S.M. IP
The University of Hong Kong, China

In mid-March, news of a hospital outbreak of "atypical pneumonia" in Hong Kong came out. At that time, although the teaching hospital, Queen Mary Hospital, was not afflicted in a major way, we felt that it was imperative to prepare our students adequately for any possibility of contact with SARS patients in the course of their learning, and to minimize human traffic in the hospital so as to facilitate infection control. The Faculty made a quick decision to suspend clinical classes for medical, nursing and Chinese Medicine students. Two weeks later, non-patient contact teaching was also suspended in line with all tertiary institutions in Hong Kong.

Understandably, students were anxious about the loss of learning opportunities, as well as the threat of SARS. To alleviate their anxiety, we conducted talks on SARS, and subsequently posted update information and the QMH SARS daily letter onto the students web, as fear for this new disease can only be allayed and turned into a positive force if we are well informed. During the period of suspension of classes, we delivered lectures through the web, and even attempted to conduct PBL discussion in the chat-room style. While we encouraged our students to make use of the time to study and revise, we also organized the "Fight Against Atypical Pneumonia" campaign in which our students reached out to the community serving as ambassadors for educating the public on SARS at many MTR stations.

With the gradual control of SARS in the hospitals and community, both students and teachers were keen to resume patient-contact sessions, as this could hardly be replaced adequately by other modes of learning/teaching. We also firmly believe that students have to be trained to face SARS and other new diseases in their future profession. Resumption of clinical teaching required meticulous planning to allow maximum opportunities for learning, and minimum disturbance to SARS control in the hospitals. The safety of both our students and our patients are of top priority in the exercise. The successful implementation of class depended a lot on the cooperation of the hospital administration, and all medical and nursing staff, not only at our major teaching hospital, but also from other district hospitals where a lot of our clinical teaching takes place. Alumni, teachers and community individuals made generous donations for personal protective apparels for students. The QMH infection control team conducted a series of workshops for the students, our nurses acted as vigilant monitors, while teachers met students both at formal feedback sessions and over informal gatherings to address their concerns and problems. With the full cooperation from all fronts, clinical teaching was speedily resumed in early May.

As the SARS outbreak abate, we are given the breathing space to prepare ourselves better for any future hit. SARS has forced us to pay attention to many details of infection

control implementation for medical and nursing students in their daily clinical exposure. It has triggered us to strengthen our curriculum on infection control, emerging infections and public health issues. Apart from these pragmatic facets, I believe that SARS has created a more soul-searching impact on those of us who engage in healthcare service and education. SARS has posed an unprecedented crisis to the healthcare system, and indeed the whole community, of Hong Kong. Throughout the SARS outbreak, we participated in the forefront of the battle, by the bedside of patients suffering from SARS, and mourned the untimely death of many, some of whom are our own colleagues or alumni. In the face of this turmoil, we are called upon to once again reflect on our Faculty's mission of nurturing doctors for practice of the ***art and science of medicine and health***, and what better way than through serving as role-models in selfless commitment to patient care and scientific research. It is also the time when students, burning the midnight oil studying, are called to remember these noble aspirations many of them have declared when they struggled through the entrance gate of the medical school.

Clinical Thinking and its Training

Professor Yingyun CAI
Shanghai Medical College, Fudan University, P.R. China

The clinical thinking is a thinking procedure and thinking main points when dealing with clinical problems such as diagnosis and treatment. It is one of the important abilities to deal with patients. In our educational practice we have been paying great attention to the training and improving student's thinking ability in following four parts:

1. Differential diagnosis of diseases according to symptoms or physical signs.
It includes bases and main points of thinking. The former are the characters of symptoms or physical signs, accompanied symptoms and signs, relative case history and related laboratory results. The later are as follows: Is it functional or pathological? What kind lesion causes the symptom or sign? Where it is located? Are the additional examination needed? Could we make the diagnosis or differentiate from the suspected disease?

2. The interpretation of the results of laboratory examination
The bases of the thinking are (1) the normal structures and functions of human being related to the examination; (2) the changes of the results associated with physical condition such as taking food, exercise, stress, pregnancy and taking drugs et al.;(3) the changes of the results caused by diseases; (4) the principle , method and influencing factors of the examination. The main points of the thinking are as follows: how to select the examinations, how to prepare the examinations, how to collect and keep the samples of the examinations, how to measure the samples and how to interpretate the results. It must be determined: It is normal or abnormal, there is any mistakes or not, what is the cause of the abnormality, the additional examinations are needed or not, there is any influence on the diagnosis and treatment or not.

3. The diagnosis of diseases
The bases of the thinking are understanding the comprehensive informations about history, physical signs and laboratory results, the criterion of the diagnosis, the diseases possibly misdiagnosed, the rare or unusual manifestations of the disease and the response to the treatment. The main points of the thinking are etiology, location, pathology, function, the type or degree, complication and accompanied diseases. Furthermore, it is necessary to think that all the manifestations caused by the same disease of by some separative diseases, and it is the acute episode or end-stage of the chronic disease.

4. The treatment of the disease
The bases of the thinking are (1) the characters of the disease, including diagnosis, types or degrees, inducer and complications; (2) the characters of the patient, such as age, sex, height, body weight, pregnance, accompanied diseases and taking drugs concomitantly; (3) the characters of the treatment measures, e.g. indication, contraindication, adverse

reaction, interaction of drugs, pharmacodynamics and pharmacokinetics. The main points of the thinking include the proposes of the treatment, the selection and combination of variety of the measures, the treatment protocol in detail, the determination of the observation indexes showing beneficials or adverse reactions. Furthermore, we must think about the factors possibly influencing the effects of treatment and alternative measures.

The methods of training are as follows:

1. The lecture about clinical thinking

The professors have been giving the medical students, interns and postgraduate students a serials of lecture about clinical thinking.

2. The conference of clinical thinking

The conference was chaired by medical students and professors cooperatively, and the participants were discussing according to a serials of questions.

3. The papers about clinical thinking

Over 15 papers about clinical thinking were published.

4. The textbook " Clinical thinking"

Part one described the main points of clinical thinking about symptoms, signs and common diseases. Part two showed several cases for discussion in classroom.

The significance of the training of clinical thinking is to improve the student's abilities of taking case history, making physical examination, selecting and interpretating laboratory results, avoiding misdiagnosis and making the patients get better more fast and safely.

Oral Presentations

New Curriculum in China Medical University basing on the comparative study of medical curricula in China and the USA

Professor SUN BaoZhi
Research Center for Medical Education,
China Medical University, P. R. China

Background:
In investigating the difference between the content of medical curricula in China and the USA, we compared the curricula of 82 Chinese and 125 American medical colleges in March 2000. We found great disparities in the framework of medical curricula, processes of teaching/learning, types and numbers of pre-clinical courses, course hours, laboratory and practical training hours, and key disciplines of clinical practice. We also found a significant difference in the number of courses, lectures, and laboratory and clerkships hours among Chinese medical colleges.

Objectives:
To make our medical curriculum more compatible with the trend of globalization of medical education, we designed and implemented a new curriculum basing on the examination of the differences between the contents of medical curricula in China and in the US.

Material and methods:
Upon the findings of our comparative study on the medical curricula in China and the USA, we designed, implemented, and evaluated new curricula in China.

First of all, we designed a new curriculum in China Medical University in March by integrating related courses, introducing new courses and adding new contents to established courses, high lightening importance to certain subjects, and integrating related subject courses into four interrelated phases. Which was finished in May, 2001.

Then we implemented the new established curriculum in China Medical University in September 2001. We implemented the new curriculum in experimental classes and vocational curriculum in parallel classes as control. In the new curriculum classes, we revised the objectives and the contents of given courses, improved the process and method of learning /teaching, and rationalized the method of examination.

We evaluated the effect of the integrated courses by comparing the examination scores and the perceived education environments (Using DREEM Ready Measure by Dundee University of UK as a diagnostic tool) of students in the vocational and integrated courses and by collecting student's perceptions of the integrated courses in 2003.

Results:
The objectives and the contents of the courses, the processes of teaching/learning, the

ways to evaluate students' academic achievements, and students' scores improved significantly in the integration group compared to the vocational curriculum group (Total score 76.49 vs. 73.33 P=0.03). The students' perceptions for the integrated course and its education environment were also encouraging (agree rates are over 84% on all items and 90% on most items).

Conclusions: We concluded the integration of medical curriculum and its implementation with integrated approach at China Medical University were a success and our effort to improve the quality of medical education in China Medical University by minimizing the disparities in terms of medical curriculum was worthwhile.

Exploring the Need For Retraining Physicians In Cardiac Auscultation.

LAM Zhi Chao Michael[1], LEE Jun Theodric[1], BOEY Pui Yi[1], NG Wei Fern[1], HEY Hwee Weng[1], LAM Su Ping Carolyn[2], HO Khek Yu[2], CHEONG Pak Yean[3]

[1]Faculty of Medicine, National University of Singapore
[2]Department of Medicine, National University of Singapore
[3]Department of Community Occupational and Family Medicine, National University of Singapore, Singapore

Aims
We aimed to elucidate the factors influencing cardiac auscultation proficiency and, assess the identification rates of different cardiac conditions and subjective appreciation of the electronic stethoscope.

Methods
106 physicians in the Family Medicine Training Program were assessed on a standard validated set of 10 different cardiac auscultations played back with the 3M E4000 Littmann® electronic stethoscope. Analysis of variance and t tests were used to determine the effect of demographic factors on auscultation proficiency. Simple statistical reporting was otherwise used.

Results
The mean score of the study population was 4.0 out of 10.0. Physicians graduating later from 1995-2002 had a mean score of 4.47 versus 3.68 for those graduating from 1994 and earlier. Auscultation proficiency was not related to current practice, previous years of primary care, cardiology, internal or pediatric medicine postings, or total years of postings.

Systolic murmurs are more accurately identified than diastolic murmurs, while normal and prosthetic cardiac sounds are better identified than other extra cardiac sounds. Normal tachycardia had the lowest identification rate of all.

The subjective opinion generally ranged from neutral to good.

Conclusions
Auscultation skill declines with time, being significantly impaired after 8 years. Further, clinical exposure to in-patients in the course of care does not significantly affect performance. Thus, there is a need for retraining, perhaps in the form of continuing medical education, which should address not only new knowledge and skills but revisit basic skill competency.

Analysis of Culture factors in Curricular System of Higher Medical College

Professor CHEN Jun-Guo et al
Department of Medical Education, Third Military Medical University, P.R. China

New trend of curricular reformation in higher medical college was introduced in China during the new period. To advance and enrich the medical humanity spirit and improve the medical curricular construction, we discuss the existing problem of medical education and its history source, we presented the content and form which medical curricular system should be included, we expounded what should be taken notice in culture excavation of curricular construction in higher medical college.

Simulation: A New Education Tool for Health Care Providers

Professor Harry Owen
Director, Clinical Skills and Simulation Unit
Flinders University School of Medicine
Adelaide, South Australia

The objective of education is to induce a change of behaviour. In health care it is expected that education of providers will result in improved treatment. Traditionally, health care trainees have learnt on patients but this creates a tension. Adults learn best by making mistakes and then practise makes prefect so if the needs of learners are put before patient care then the patient may suffer unwanted outcomes. However, if patients are protected from trainees how can they learn? Simulation has been extensively used in other high-risk industries including aviation, nuclear power plants and the military. Simulation has not been used widely in mainstream medical education but that appears to be changing.

There are several drivers behind this, including:

- Patients increasingly unwilling to be teaching material
- Clinical environment not always the best place to learn new techniques
- Advances in technology have made high-fidelity simulation readily accessible
- Recognition that medical error is often a fault of the system
- Growing awareness that improved training can result in reduced costs

There are two types of human error recognised in clinical practice, Active error and Latent error. Active error occurs when a decision is made not to follow approved procedures and may arise from bad training or attitude. Latent error can be due to management decisions years made years earlier and, lying dormant, is not easy to detect. A common example of this is poor or inadequate training.

Strategies believed to improve crisis management include:

- Use of written checklists to help prevent crises
- Use of established procedures in responding to crises
- Training in decision making and resource co-ordination
- Systematic practise in handling crises including part-task trainers and full-mission realistic simulation

Simulation can be used to provide challenging scenarios that not only satisfy crisis management training needs but can flush out active error and may provide pointers to latent error.

Clinical skills teaching on patients is time consuming and expensive. Tying up an expert clinician to watch one novice is not as efficient as that expert teaching four students. In a

clinical skills learning unit trainees can practise several times before moving to clinical care.

The steps to becoming expert in a clinical skill or procedure are:

- Cognitive – must think about every part of every step
- Associative – becoming proficient at performing steps
- Autonomous – can see big picture and perform skill 'expertly'

Using a simulator, early learning can be very effective. In this way patients have reduced risk, the trainees have more competence and confidence and the organisation spends less on equipment and on treating complications.

The facility we have established at Flinders University is a Clinical Skills and Simulation Unit. Our training methodology is based on initial training on small (desk top) simulators, rehearsal on whole body simulators then practise in context where possible using more sophisticated patient simulators.

The simulation technologies we use include:

- Computer-based simulations (micro-worlds, micro-simulation)
- Virtual environments +/- haptics
- Part-task trainers
- Low-fidelity simulators/manikins
- Simulated or standardised patients
- Hybrid simulations
- High-fidelity (full mission) simulation

We deliberately provide students with varied challenges so that they learn to manage situations or conditions rather than the model. All simulators have limitations and it is important to first identify what it is that must be learnt and then choose the simulator that best satisfies that objective. This generally means that multiple simulators need to be acquired. One of the most powerful tools available in simulation is to be able to record the performance of the trainee and use this to facilitate feedback or debriefing. A skilled facilitator will promote active learning. There are four traps to avoid if the debriefing process is to succeed:

- Hypocrisy
- Scapegoating/blaming
- Replacing SOPs* with Personal techniques
- Nitpicking and Overloading

Remember, simulation can be used to train the trainers!

Review of Medical Humanities in Korean Medical School Curriculum

Ha Won KIM, Moo Song LEE, Seong Who KIM, Jae Dam LEE
University of Ulsan College of Medicine, Seoul, Korea

The doctor has to understand their patient's disease based on medical knowledge, including the pathophysiology, skills of the treatment, and so on. But, there is something more that needs to be done by the doctor. As well as understanding the disease itself, medicine is known to be an art thus far, which implies not only scientific complexity of the field, but also the peculiar role of physicians. There are several principles that are required of the doctor of tomorrow to prepare: understanding health and its promotion; understanding disease, its prevention and management; understanding policy procedure and systems involving medical affairs; an ability to apply the knowledge in the practice of medicine as well. Furthermore, an awareness of the moral and ethical responsibilities and leaderships are also an important virtue. In an effort to fulfill these requirements in medicine, many educational methods such as problem-based learning, self-directed learning are introduced, and subjects of medical humanities are created in medical school curriculum.

This study shows a change in the relative importance of medical humanities in medical school curriculum in Korea. We count the number of courses and credits of medical humanities in all the medical schools from 1990 to 2002 (referring to 'The Present Condition of Medical School Education' published by the Korean Council of Deans of Medical College). Items such as medical ethics, medical history, medical law, behavioral science, medical sociology, health policy and management, and others (doctor-patient relationships, economics, religion, art, music, literature in medicine) are included as categories of medical humanities.

Average numbers of courses are 0.61(1990), 1.39(1998), 1.71(2002) in premed, and 1.79(1990), 2.83(1998), 4.15(2002) in medical college. The proportions of average credits of medical humanities also increase by 1.5% to 4.2% in premed, by 1.2% to 3.1% in medical college. A remarkable rise in the rate of the increase is observed in 1998 in premed, in 1998 to 2002 in medical college. In 1990, most of the classes of medical humanities generally focused on medical history, behavioral science and medical law. Since 2002, more diverse classes have been also introduced, such as medical ethics, medical sociology, medical business administration, doctor-patient relationship and communication etc. Private schools open much more courses of medical humanities than public schools in premed, but in medical college there are no significant differences.

In conclusion, the number of courses of medical humanities has increased for the last decade and the items have been diverse. This increase is mainly attributed to the declaration of the Korean Society of Medical Education to follow the worldwide trend of medical education toward medical humanities in the late 20th century. Moreover, since

the doctors' strike against government's medical reform program in 2000, the impact of the change in recognition by doctors about the importance of medical humanities in medical education should not be underestimated.

The Pressing Need for Setting a Course on Research Ethics in Medical Schools

Professor Yuan-Fang CHEN
Peking Union Medical College, Tsinghua University, P.R. China

Owing to: (1) the ever-growing amount of medical research and clinical trials, (2) the involvement and intervention of industry in this area, and (3) an increasing tendency of international cooperation in biomedical research, research ethics has become a focus of global attention and concern in recent years.

Biomedical research is a specific area in which human subjects are involved. It thus brings forth the issues of respect to human dignity and autonomy, maximization of benefits and minimization of risks, and realization of the principle of justice (especially protection of the vulnerable population).

In the process of globalization, a number of developed countries and transnational pharmaceutical enterprises are very much interested and involved in doing research in developing countries, they have made advantages and profits by procuring some of the biological (e.g., genetic) resources and information from these countries. In the meantime, more and more developing countries are enthusiastic and striving to conduct their own biomedical research, in spite of the fact that (1) their relative inadequacy in a thorough understanding of internationally acknowledged basic ethical principles underlying these research, (2) lack of qualified and competent ethical review committees (not just in name) and a sound system and effective operating guidelines for reviewing biomedical research projects (not just a symbolic show), and (3) lack of education in research ethics for researchers, administrators, members of ethics committees, and medical students.

To my knowledge, so far no medical colleges or universities in mainland China have set a course in "Research Ethics". Peking Union Medical College (PUMC) is also just in its very initial stage. Here we would like to share with you some of our preliminary experiences and ideas. The following work is what we have accomplished or is being underway:

(1) A book entitled "Biomedical Research Ethics" has just been published, including a historical review; the basic principles or research ethics; the major ethical issues in biomedical research (the research design, informed consent, privacy and confidentiality, protection of vulnerable population, conflict of interest, etc.); ethical issues emerging with new technologies and new areas (human reproductive research, genetic research, AIDS, epidemiological studies); ethical issues in biomedical research in developing countries; and the most updated and authoritative international ethical guidelines for biomedical research and Ethics Committees (WHO, UNESCO, WMA, CIOMS, HUGO, etc.). It is our hope that this book could serve as a textbook in Research Ethics in medical schools.

(2) A course directorship group composed of prominent bioethicists, epidemiologist, and medical professor is working on planning, scheduling, and preparing the course, which is to be taught within this year, right before the medical students begin their research project.

(3) A students' clinical ethics conference program has been run for already five years, with four or five conferences for each class.

(4) A brief training course for members of Ethical Review Committee and the Principle Investigators of major research projects are under discussion.

Rethinking Auscultation Teaching to Medical Students during the 2003 Severe Acute Respiratory Syndrome (SARS) Outbreak

LEE Jun Theodric[1], LAM Zhi Chao Michael[1], BOEY Pui Yi[1], NG Wei Fern[1], HEY Hwee Weng[1], LAM Su Ping Carolyn[2], HO Khek Yu[2], CHEONG Pak Yean[3]

[1]Faculty of Medicine, National University of Singapore
[2]Department of Medicine, National University of Singapore
[3]Department of Community Occupational and Family Medicine, National University of Singapore, Singapore

Aim

The outbreak of SARS in Singapore led to severe restrictions on medical students and staff movement in hospitals. We describe an innovative way to teach bedside auscultation without patient contact, while maximally utilising the limited clinical material and teaching manpower available. We used electronic stethoscopes as our primary teaching tool and sought to determine its validity and effectiveness.

Methods

We used 3M E4000 electronic stethoscopes to record sounds of 5 cardiac and 6 respiratory conditions from 11 different patients. These sounds were used to teach 234 medical students who had no prior experience in auscultation and were scheduled to undergo basic clinical skills training over a six-week period. We taught these students in a simulated environment, using peer-to-peer teaching to increase the efficiency of the process.

Clinical tutors, blinded to diagnoses, independently diagnosed the conditions based on sounds played on the electronic stethoscope. We measured the percentage accuracy of tutors' diagnoses of these conditions. The quality of respiratory auscultations was unacceptable to tutors, thus their use was terminated prematurely.

Each student was tested twice. The first test was conducted at the end of their tutorials. We then randomized the students into two groups using cluster randomization; 123 received their second test (same auscultations in a different sequence) after additional electronic stethoscope training (teach cohort); 111 (controls) received their second test without additional teaching. Test scores were compared between the two groups.

Tutors and students also scored their subjective appreciation of the auscultations using Likert scales.

Results

The tutors achieved diagnostic accuracy of 100%, for mitral stenosis, mitral regurgitation and aortic stenosis 80% for normal heart and 40% for prosthetic valve.

The teach cohort achieved a higher mean score (3.62) for identifying auscultatory signs than controls (2.94) during the second test (p=0.001). There was no difference in this score during the first test.

Both tutors and students judged the quality of cardiac auscultations to be good.

Conclusions

We have described an alternative method of teaching cardiac auscultation without patient contact, in face of the SARS outbreak. The electronic stethoscope was a reproducible tool for teaching certain cardiac, but not respiratory, auscultations during "no patient contact" circumstances, producing an incremental learning effect among students with additional use. This teaching method may have applications in medical teaching beyond the SARS outbreak.

Developing China's Health Informaitcs Program Through Integrating the Developed Country's Experience

Professor WU M.X., YU P. and Soar J.
Initiative for e-Health, School of IT & Computer Science,
The University of Wollongong, Australia

Abstract
In the last few years, three events, which are very important to China, have happened. Firstly, the World Trade Organization (WTO) successfully concluded negotiations on China's terms of membership of the WTO on September 17, 2001. Secondly, the Games of the 29th Olympiad in 2008 were awarded to the city of Beijing. Finally, Expo officials announced in Monaco that Shanghai would host the 2010 World Expo.

The above three matters would bring many changes, challenges and pressures for China. China's entry to WTO, though only a short period of time, has brought significant changes to China. These changes also are accelerating the readjustment and reform of China's higher education including Medical education.

Health informatics, as an emerging discipline, is playing an increasingly important role in health care system. The paper introduces the health informatics program of the University of Wollongong (UOW) – the leading university in Australian health informatics education, and provides suggestions from the aspects including textbooks, program focus, teaching language, training and skilling of academic staffs, and study resources for developing China's Health Informatics programs.

This paper proposes an approach to building China's capacity in Health Informatics through learning and integrating the experience and lessons from the developed countries.

The authors believe that the Health Informatics education program built up will be more suitable for the needs of the industry, scientific and complies with educational principles.

Medical Education in China Mainland and Hong Kong

Professor HE Jia, LI Yong
Third Military Medical University, P.R. China

China mainland and Hong Kong have the same cultural background. New medical students in both are mainly higher school graduates and they all get their bachelor degrees after 5 years full time medical training. However, medical education between the mainland and Hong Kong is comparative, there being many different aspects. The differences are mainly as follows:

- Selection criteria: in HK, selection for admission is based on academic merit at the HKALE* and HKCEE* and performance at interviews. The interviews are designed to assess the applicants' suitability for medicine, including their motivation, aptitude, communication skills and general social awareness. In the mainland, selection for admission is mainly based on the student's achievement of the National College/University Entrance Examination.

- Medical Curriculum: new medical curricula emphasized on student-centered, small-group and PBL have been implemented in the faculty of medicine in HKU• and CUHK• in recent years. In the mainland, a series of reforms in the curriculum is being carried out by different mainland medical universities, including curriculum designs, contents of the education program, and the improvement in teaching facilities. For example, China Medical University has implemented the integrated courses on basic medical sciences at pre-clinical stage on the speciality of clinical medicine.

- Teaching methods: about 80% of total preclinical teaching hours in HKU are contributed to PBL, to tutor guided group discussion, to clinical skills training, and to clinical visit and clinical interpersonal skill training. In the mainland, traditional lecture is a main teaching method and only a few teaching hours are contributed to group discussion at preclinical stage.

- Optional: The medical curriculum in HKU consists of optional "special study modules" that are offered at the end of the first, second, third and fifth years, which allow students to explore specific areas either as a result of gaps they have identified in their knowledge or in response to a special interest. In mainland medical universities, selective courses are arranged parallel with elective courses.

- Assessment: comprehensive and competence-based assessment methods such as evaluations of tutorial performance, continuous clinical competency assessment, year-end knowledge based examinations and OSCE are employed to assess the students' knowledge and other qualities in HK. In some mainland medical universities, OSCE and Standardized Patients are used at clinical stage to assess the medical student clinical skills.

- Houseman training: after obtaining the degrees, all medical graduates from HK are required to undergo one year housemanship in a public hospital before they can practice as licensed doctors in the territory. A mainland medical graduate should first get one year probation training under the guide of a senior doctor in a medical unit where he/she works, and then he/she takes the Medical Licensing Examination and becomes a licensed doctors.

(I am grateful to my supervisor Professor Mary IP, Associate Dean of Faculty of Medicine, the University of Hong Kong)

※ HKALE: Hong Kong Advanced Level Examination.
HKCEE: Hong Kong Certificate of Education Examination.
HKU: Hong Kong University.
CUHK: The Chinese University of Hong Kong.

Development of a Question Bank System at the International Medical University

Gregory J S Tan, Noraidah Yusoff, Lim Kok Huat, Hla Yee Yee & Juriah Abdullah
International Medical University, Kuala Lumpur, Malaysia

The initial attempt to develop a question bank at the International Medical University led to the development of a data storage and retrieval system using the Microsoft access. Questions (eg MCQs and SAQs) are stored and retrieved according to the body organ systems (eg endocrinology, cardiovascular and respiratory systems). Information regarding student's performances (means + SD) in the summative examinations and the frequency of usage are attached to the questions where applicable. The question bank, though simple to use, requires lots of man-hours as each question is being typed into the programme manually by the Academic Affairs Department of the University. To alleviate the problem, a new question-bank programme (called the Q-bank) is developed. The outcome is a flexible system which allows the faculty to submit and modify questions as well as construct the examination papers, thereby, extending the Q-bank beyond its depository function. As an interface to the examination modules, the Q-bank is able to process statistical data related to the question, export questions and answers and change the status of the questions accordingly. Security and ownership (intellectual property rights) are provided by limited access and usage authorization according to the examination procedures. The Q-bank also serves as a management system with general administrative functions. The features and role of the Q-bank system in the examination process will be presented.

What makes a good clinical teacher? A focus group study on student perception

Dr Josephine G.W.S. WONG, Dr T.P. LAM, Professor Felice Lieh MAK
The University of Hong Kong, China

In 1997, the University of Hong Kong Faculty of Medicine has engaged in a process of curriculum reform, introducing a new medical curriculum that emphasizes student-centered, small group, problem-based and integrated approaches to learning. This requires a paradigm shift both in the students and in the teachers. The question of what makes a good clinical teacher in our new medical curriculum is of major relevance in terms of training better doctors, for teacher evaluation and for faculty development. We involved our fifth year medical students in a focus group study to examine student perception of what makes a good clinical teacher: what qualities are important and, more significantly, why they are important. Qualitative analysis was performed. Professionalism, was a consistently stated quality of a good clinical teacher. This refers to the way in which the teacher interacts with and their attitudes towards students and patients. Empathy, understanding, compassion and respect were highly valued. Good clinical teachers were described as being enthusiastic about teaching. They have good teaching skills and can stimulate students' interest, through providing guidance to students and directing them to the key learning issues. Conversely a bad clinical teacher lacks the qualities of a good clinical teacher. Students found teachers that teach by humiliation most unhelpful. Students felt that even though inappropriate scolding by teachers is uncommon, it nevertheless results in serious adverse effects on their psychological state, their learning and might affect how patients perceive doctors. This research provides valuable data on what student experience in their learning and what qualities in clinical teachers they value. This research is not only important for enhancing teaching and learning within our faculty, but is also highly relevant to other medical schools worldwide that had engaged in curriculum reform similar to ours.

Others

The Structured Independent Learning Online System

Gregory J S Tan, Anwar Kamal and Kamal Salih
International Medical University, Kuala Lumpur, Malaysia

The concept of independent study period in a course is pedagogically sound as it allows students time to digest and assimilate what has been taught. It is an essential component of the learning process. The difficulty in any curriculum planning is in finding the right balance between independent study periods and the formal teaching time. While independent study period aims to promote self-directed learning, it is often "abused" and used as free periods. One solution is to structure the independent study period and this strategy is recently introduced as a pilot study for the medical sciences program at the International Medical University (IMU). Structured Independent Learning (SIL) is introduced to medical students from semester 1 to 5. It comprises of assigned reading topics and medical museum activities identified from the course learning objectives and students undertake these assignments independently. The need for a system of monitoring and portfolio assessment lead to the development of the online Independent Learning Online System (SILOS), an application of the IMU Virtual Medical University. SILOS allows students to create reports for the SIL activities which are uploaded to the Student Portfolio. Students can utilize SILOS to track their performances and evaluate progress and thereby manage their own learning process. The system is versatile and provides an interface for blended learning through the tutor-tutee system as well as being a management tool for tracking of activities and feedbacks. It is a model which can be utilized for promotion of self-directed learning in the curriculum.

Improving the Teaching Skill for Teachers Who Working in the Hospitals

Professor LU Li, CUI Jin, YANG Ling
Kunming Medical College, P.R. China

A survey conducted in 2002 show that 98% teachers working in hospitals, especially middle-aged teachers, they take the main responsibility of the clinical education in our College, need to be trained for their clinical instruction art. In order to improve the medical education quality and the teachers' teaching skills, six measures proved to be useful are taken:

1. The requirement of standard basic clinic operation
2. Self-learning of the general higher education theories
3. Demonstration training of the teachers
4. The evaluation of the teachers' instruction and demonstration ability
5. Providing the helpful feedback information to the teachers.
6. The classification of the teachers' training as the Yunnan Medical Continuation Education Program, which enables the teachers to acquire credits for their medical education.

Result shows after the training their teaching skills have been promoted obviously.

A Novel Conception of Teaching of Histology and Embryology Experiments

ZHANG Xin-Hua, ZHOU Guo-Min, ZHONG Cui-Ping
Shanghai Medical College, Fudan University, China

Histology and Embryology are important morphological course of basic medicine. Traditional teaching mainly depended on the slides, wall maps and light microscopes, although recently the teaching immediacy was improved with the development of multimedia technology. However, the alternation between teacher and students in the morphological class was limited. In the summer of 2002 Shanghai Medical College invested in reconstruction of the morphological center and our histology experiment teaching was coming into a new digital era. The motic digital morphological lab includes the digital microscope, computer aided software system, image processing system and phonetic interlocution system. The lab has many advanced technological composing characteristics, such as the digital system of the microscope is intercalated, multiple menu could be displayed simultaneously at real time, the phonetic interlocution system is optional and multiformity and the LED pointer in the microscope ocular is conversable. In the class the teacher could exchange the menu and phonetic interlocution channels with all students and find the problems of the students in the experiments and instruct them to correct in time. The students also could ask the teacher to demonstrate the typical image of particular structure and cell through the calling key on their desks and the single channel questing system and discuss his question with the teacher without disturbing other classmates. At the same time the students in group could inter-talk with each other without influence classmates in other groups. It made the intercourse between teacher and the students become more direct and effective. There are four patterns of the phonetic systems based the microscope, computer software and image processing. These functions actualized the optional non-barrier communication with one-to-one, one-to-multi and multi-to–multi modes. The photo-taking keys on the students' ends also consider sufficiently the need of the students to reserve and save the microscopic pictures of the sections they have observed in the class. The students can take photos and save them in the independent album space in the teacher's computer with the admission of the teacher in class weekly and create characteristic histologic album of each and every one. Because of the using of the multimedia system In the teaching course, the teacher must prepare for lessons more adequately and sufficiently in order to meet the needs of the technology system and of the students. This mobilize the all kinds of histology studying abilities at maximum extend and bring vitally important innovation of the conception of modern medical education.

Ⅲ *Medical Simulation Workshop*

Medical Simulation Workshop

Medical Simulation Training Using Scenario-based Patient Simulators (Simman)

Organization: Laerdal China Ltd
Speaker: **Prof. Harry Owen, Director – Clinical Skill and Simulation Centre ,**
Flinders University School of Medicine, Adelaide , Australia

OBJECTIVES:

1. To generate awareness and interest on the use of medical simulation as new education tool in medical training and education
2. To enable Medical Educator to have hands-on experience with SimMan while being under the guidance
3. For Education Specialist to share the experience from the learning experience in Medical Simulation development

Schedule of Presentation:

- 19:30-19:35pm, Introduction by local chairperson
- 19:35-20:15pm, Powerpoint presentation by Prof. Owen
- 20:15-20:50pm Scenario No. 1 including debriefing
- 20:50-21:25pm, Scenario No. 2 including debriefing
- 21:25-22:00pm, Scenario No. 3 including debriefing

Proposed Content of Presentation to include/stress:

- Development or evolution of medical training using skill trainer manikins.
- Use of Patient Simulator - SimMan as an effective tool in medical simulation training.
- Issues in Planning a Clinical Skills Laboratory or a Simulation Centre

Proposed Participant

- Clinical Medical Educator
- Education officer
- Clinical Skill Laboratory Director

Ⅳ *Participants List*

No.	Name	Institution	Country
1	Andrzej WOJTCZAK	Institute for International Medical Education	USA
2	Aurora F BAUZON	University of Santo Tomas, Espana, Manila,	Philippines
3	Baozhi SUN	China Medical University	China
5	Dae-Yong UHM	Sungkyunkwan University	Korea
6	DIXON	University of Hawaii	USA
7	Dongyang HUANG	Medical College of Shantou University	China
8	Fang YU	Medical College of Zhejiang University	China
9	Fukang XIE	Zhongshan University	China
10	Gandi LI	Sichuan University	China
11	Gerald FISCHBACH	Columbia University	USA
12	Gordon GREENE	University of Hawaii	USA
13	Grace W.K. TANG	The University of Hong Kong	China
14	Gregory J S TAN	International Medical University, Kuala Lumpur	Malasia
15	Guoguang SHAO	Jilin University	China
16	Guozhong CHEN	Medical College of Zhejiang University	China
17	Hai YU	Medical College of Zhejiang University	China
18	Haiyan JIN	Medical College of Zhejiang University	China
19	Harry OWEN	Flinders University of Australia	Australia
20	Hong DENG	Dongnan University	China
21	Hong ZHU	Kunming Medical College	China
22	Huaijing WANG	Shandong University	China
23	Jae-Dam LEE	University of Ulsan College of Medicine Department of Medical Humamties & Social Sciences	Korea
24	Jeannie TSANG	The University of Hong Kong	China
25	Jia HE	Third Military Medical University	China

No.	Name	Institution	Country
26	Jianguo JIA	Xuanwu Hospital of Capital Medical University	China
27	Jianhui MA	Tongji Medical College, Huazhong University of Science & Technology	China
28	Jianping WANG	Zhongshan University	China
29	Jie FAN	Xuanwu Hospital of Capital Medical University	China
30	Jiexiang LU	Xiangya Medical School, Central South University	China
31	Jinhua ZENG	Tongji Medical College, Huazhong University of Science & Technology	China
32	Josephine G.W.S. WONG	The University of Hong Kong	China
33	Ju-Hui KIM	Sungkyunkwan University	Korea
34	Jun Theodric Pao LEE	National University of Singapore	Singapore
35	Jung-Don SEO	Sungkyunkwan University	Korea
36	Junguo CHEN	Third Military Medical University	China
37	Junxia XIE	Medical College of Qingdao University	China
38	Kedi YANG	Tongji Medical College, Huazhong University of Science & Technology	China
39	Kwang-Won KIM	Sungkyunkwan University	Korea
40	Kyung-Pyo HONG	Sungkyunkwan University	Korea
41	LC CHAN	The University of Hong Kong	China
42	Li JIANG	Dongnan University	China
43	Liping LI	Medical College of Shantou University	China
44	Li LU	Kunming Medical College	China
45	Liantang WANG	Shanxi Medical University	China
46	Lijian TAO	Xiangya Medical School, Central South University	China
47	Longlu ZHANG	Medical College of Ningbo University	China
48	Luxi YI	Xiangya Medical School, Central South University	China
49	Mary S.M. IP	The University of Hong Kong	China

No.	Name	Institution	Country
50	Matthew C.E. GWEE	National University of Singapore	Singapore
51	Min ZHANG	Tongji Medical College, Huazhong University of Science & Technology	China
52	Ming ZHENG	Fujian Medical University	China
53	Moo-Song LEE	Institution University of Ulsan, College of Medicine, Asian Medical Center Department of Preventive Medicine	Korea
54	Myoung-Soon LEE	Sungkyunkwan University	Korea
55	Nanqing XUE	Shandong University	China
56	Pao Chia C	Chang Gung Uiniversity	Taiwan, China
57	Jae-Heum PARK	Sungkyunkwan University	Korea
58	Pengfei ZHANG	Fujian Medical University	China
59	Ping YU	University of Wollongong	Australia
60	Qi CHEN	Nanjing Medical University	China
61	Qiang NIU	Third Military Medical University	China
62	Qin ZHANG	Peking Union Medical College of Tsinghua University	China
63	Qunying HAN	Nanjing Medical University	China
64	Ruizhi NI	Kunming Medical College	China
65	Seong-Who KIM	University of Ulsan College of Medicine	Korea
66	Shen QU	Tongji Medical College, Huazhong University of Science & Technology	China
67	Shuilin ZENG	Dongnan University	China
68	Tianzhao SU	Shanxi Medical University	China
69	Tinghuai WANG	Zhongshan University	China
70	Tongfu ZHOU	Sichuan University	China
71	Weijian ZHANG	Sichuan University	China
72	Xianben HONG	Third Military Medical University	China
73	Xiaobei GENG	Medical College of Zhejiang University	China

No.	Name	Institution	Country
74	Xiaohui JI	Nanjing Medical University	China
75	Xiaojiu YU	China Medical University	China
76	Xiaolan JIAO	Medical College of Ningbo University	China
77	Xiaosong LI	Sichuan University	China
78	Xiguang ZHU	Third Military Medical University	China
79	Xinhua ZHANG	Shanghai Medical College, Fudan University	China
80	Xuehong WAN	Sichuan University	China
81	Xueqing YU	Zhongshan University	China
82	Yafu ZHOU	Nanjing Medical University	China
83	YAMADA	University of Hawaii	USA
84	Yanjun FENG	Xinjiang Medical University	China
85	Yanqing SHUI	Kunming Medical College	China
86	Ye HU	Jinhua Medical School	China
87	Yi XIE	Third Military Medical University	China
88	Yifu WANG	Medical College of Zhejiang University	China
89	Yingwei WANG	Nanjing Medical University	China
90	Yingyun CAI	Shanghai Medical College, Fudan University	China
91	Yi-Zhun ZHU	National University of Singapore	Singapore
92	Yongsong GUO	Medical College of Zhejiang University	China
93	Yuanfang CHEN	Peking Union Medical College of Tsinghua University	China
94	Zhaoming MA	Xi'an Jiaotong University	China
95	Zheng GUO	Shanxi Medical University	China
96	Zhi Chao Michael LAM	National University of Singapore	Singapore
97	Zhimin XUE	Xiangya Medical School, Central South University	China
98	Zhiyuan GU	Medical College of Zhejiang University	China
99	Zhongdao WU	Zhongshan University	China