



# CUHK Jockey Club Minimally Invasive Surgical Skills Centre



**2007/8**  
**ANNUAL REPORT**

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# THE YEAR'S MILESTONES

## THE YEAR'S MILESTONES

- In 2007-08, the training courses provided by the CUHK Jockey Club Minimally Invasive Surgical Skills Centre (MISSC) received a number of welcome professional endorsements. Among the institutions acknowledging us were the Endoscopic and Laparoscopic Surgeons of Asia (ELSA); the Society of American Gastrointestinal Endoscopic Surgeons (SAGES); and the College of Surgeons of Hong Kong (CSHK).
- The MISSC became home to a state-of-the-art Robotic Surgery Training Centre featuring a da Vinci® robotic surgical system which was transferred from its original site in the endosurgical operating facilities of the Prince of Wales Hospital\*. This strategic relocation enabled us to successfully launch a fully comprehensive robotic surgery training programme. This is the only such programme outside Europe and the US to have won endorsement by leading equipment provider Intuitive Surgical Inc.
- We welcomed twice as many overseas trainees than in the previous year, testifying to our rapidly growing regional reputation among medical professionals.
- We leveraged our experience and expertise to enlarge the number of specialties covered by our training courses, extending our reach to orthopaedic, breast, spinal, laryngeal, bariatric and dental surgery.
- Complementing the enlargement of the MISSC's training initiatives, the Faculty of Medicine further improved care for patients by upgrading its endosurgical operating facilities with the very latest da Vinci® S robotic surgical system, donated by an anonymous benefactor. This system incorporates high definition imaging and a fourth robotic arm.

\*This system can readily be upgraded to incorporate a fourth robotic arm; such an upgrade is already under active planning and funding is being sought.

# FRESH NEW SURGICAL FRONTIERS

## FRESH NEW SURGICAL FRONTIERS

In just three short years, the CUHK Jockey Club Minimally Invasive Surgical Skills Centre (MISSC) has made a valuable contribution to the work of the Faculty of Medicine, The Chinese University of Hong Kong (CUHK), strengthening its regional profile as a force for advanced technology and training that reaches out into fresh new surgical frontiers.

Guided by distinguished international advisers, by the MISSC's Executive Board and committees, and supported by the unfailing efforts of a dedicated core staff and the skill and energies of our own surgeons, the Chairman, Executive Director and Project Director have together worked diligently, pragmatically and creatively to enable the MISSC to deliver an ever-growing array of minimally invasive surgery training courses within a superbly equipped setting that features the very latest equipment in the field.

The year under review saw the launch of the Robotic Surgical Training Centre, which offers the ultimate in operating theatre simulation, as well as the world's most advanced robotic surgical system. This shows how seriously the MISSC understands and delivers on its continuing mission to spread the acknowledged advantages of robotic surgery to benefit patients throughout the region.

Our capabilities have been recognized by gratifying endorsements from more and more local and regional surgical institutions and we are delighted that the de facto leaders in the equipment field, Intuitive Surgical Inc., have also given us their endorsement. This latter recognition is an achievement that has not been equalled by any institution outside the United States, and it puts us on a par with Europe's only such training facility, located in Strasbourg.

The Faculty of Medicine, the University and indeed Hong Kong as a whole can take pride in a centre which serves as a model for the exchange of skills and knowledge across a growing range of surgical specialties and sub-specialties.

Finally, the MISSC is pleased to acknowledge with immense gratitude the unfailing support it has received from charitable organizations and benefactors as well as the impetus given by timely donations from The Hong Kong Jockey Club and The Chinese University of Hong Kong.

# VISION AND MISSION

## VISION AND MISSION

- To overcome the acknowledged drawbacks of traditional training methods in surgery by developing an advanced training system offering MIS techniques along with virtual reality, robotic surgery and multimedia applications for training and education
- To improve the quality of patient care through quality assured MIS training and practice
- To provide a training environment that is 100 percent safe for patients
- To provide a training venue for surgical trainees in Hong Kong, Mainland China and the region for the full range of surgical skills
- To conduct leading edge research and development so as to further enhance Hong Kong's position as a world hub for medical sciences and surgical research
- To facilitate knowledge and experience exchange in the Asia Pacific region, in particular for surgeons in Mainland China



# MEMBERS OF THE EXECUTIVE BOARD



## **Professor C A VAN HASSELT**

Chairman of Executive Board, MISSC  
Chairman, Department of Surgery  
Chairman, Department of Otorhinolaryngology, Head and Neck Surgery

## **Professor Enders K W NG**

Director, MISSC  
Chairman, Education and Training Committee  
Chief of Upper Gastrointestinal Surgery, Department of Surgery

## **Professor James LAU**

Professor and Chief of Vascular Surgery, Department of Surgery

## **Professor L K HUNG**

Chairman, Department of Orthopaedics and Traumatology

## **Professor Tony CHUNG**

Chairman, Department of Obstetrics and Gynaecology

## **Professor Philip LI**

Deputy Hospital Chief Executive, Hospital Authority

## **Professor Sidney YIP**

Chief of Urology, Department of Surgery

## **Professor T F FOK**

Dean, Faculty of Medicine

# HONORARY INTERNATIONAL ADVISORS

**Professor Arthur LI**  
*Emeritus Professor of Surgery, The Chinese University of Hong Kong  
Member of the Board of Trustees, United College, CUHK*



**Professor Paolo DARIO**  
*Professor of Biomedical Robotics, IEEE Fellow  
Director, Polo Sant' Anna Valdera  
Scuola Superiore Sant' Anna, Pisa, Italy*



**Dr Frank LANGLOTZ**  
*Group Head, University of Bern, Medical Faculty MEM Research Center  
Institute for Surgical Technology and Biomechanics, Bern, Switzerland*

**Professor Sir Ara DARZI**  
*Professor of Surgery  
Head of Division Surgery, Oncology, Reproductive Biology and Anaesthetics  
Imperial College London, UK*



**Professor Jacques MARESCAUX**  
*Editor-in-Chief, WebSurg  
Chairman of the Department of Digestive and Endocrine Surgery  
University Louis Pasteur, President of IRCAD-EITS Strasbourg, France*



**Dr Mani MENON**  
*The Raj and Padma Vattikuti Distinguished Chair  
Director of Vattikuti Urology Institute, Detroit, USA*

**Dr Craig PETERS**  
*John E. Cole Professor of Urology  
Division of Paediatric Urology,  
University of Virginia, USA*



**Professor Richard SATAVA**  
*Professor, Department of Surgery  
University of Washington, Seattle, USA*

## EDUCATION AND TRAINING COMMITTEE

### Chairman

Professor Enders KW NG  
(Chief of Division of Gastrointestinal Surgery, Department of Surgery)

### Members

Professor Paul LAI  
(Chief of Division of Hepato-biliary and Pancreatic Surgery, Department of Surgery )

Dr Janet LEE  
(Chief of Division of Colorectal Surgery, Department of Surgery)

Professor James LAU  
(Chief of Division of Vascular Surgery, Department of Surgery)

Professor Andrew BURD  
(Chief of Division of Plastic & Reconstructive Surgery, Department of Surgery)

Professor WS POON  
(Chief of Division of Neurosurgery, Department of Surgery)

Dr KH LEE  
(Chief of Division of Paediatric Surgery and Paediatric Urology, Department of Surgery)

Professor Sidney YIP  
(Chief of Division of Urology, Department of Surgery)

Professor Malcolm J UNDERWOOD  
(Chief of Division of Cardiothoracic Surgery, Department of Surgery)

Professor Michael TONG  
(Professor, Department of Otorhinolaryngology, Head and Neck Surgery)

Professor Tim RAINER  
(Director, Accident & Emergency Medicine Academic Unit)

Professor Matthew CHAN  
(Professor, Department of Anaesthesia and Intensive Care)

Professor LK HUNG  
(Chairman, Department of Orthopaedics and Traumatology)

Ms Karen TSE  
(Acting Department Operation Manager, Prince of Wales Hospital)

## RESEARCH AND DEVELOPMENT COMMITTEE

### Chairman

Professor James LAU  
(Professor and Chief of Vascular Surgery, Department of Surgery)

### Members

Dr Yan BAILLY (Research Assistant Professor and Research Manager)

Dr Mike SUN (Postdoctoral Fellow and Project Engineer)

Dr Alex ZHANG (Postdoctoral Fellow and Project Engineer)



# SUPPORT TEAM

## LASEC - Research Unit



Dr Dewi ROWLANDS  
(Scientific Officer)

Dr Theodore LO  
(Research Associate)

Mr Kenny SIN  
(Technician)

Ms Kathy KAN  
(Veterinary Attendant)

Mr Tommy CHAN  
(Veterinary Attendant)

All of the MISSC's hands-on workshops involving live animals are fully supported by staff of the Research Unit of the Laboratory Animal Services Centre (LASEC) of The Chinese University of Hong Kong. Their professional services ensure the highest standards of animal welfare and care.

# ROBOTIC SURGICAL TRAINING CENTRE ESTABLISHED

## ROBOTIC SURGICAL TRAINING CENTRE ESTABLISHED

The generosity of a donor who wishes to remain anonymous first enabled the Faculty of Medicine, CUHK to purchase and install the latest version of the world acclaimed da Vinci® S robotic surgical system for use in the Prince of Wales Hospital's endosurgery operating theatre. This new version incorporates high definition endoscopic video technology and a fourth robotic arm for improved patient care.

This upgrade then allowed the previously installed da Vinci® robotic surgical system, a donation from the Hong Kong Jockey Club, to be transferred from the hospital's operating theatre to the MISSC in order to serve as the hub of a new Robotic Surgical Training Centre. This outstanding facility has already made a mark internationally as only the second centre outside the US to have been approved by Intuitive Surgical Inc. for training in robotic surgery procedures.

We are most appreciative of the wide ranging support provided by Intuitive Surgical Inc. and Chindex Hong Kong Ltd, which has contributed greatly to the rapid early success of the new centre and its training programme. Since the first training session in February 2008, the new centre has hosted robotic surgical training for disciplines ranging from urology, gynaecology, paediatric surgery, and otorhinolaryngology, head and neck surgery to dental surgery. The more than 40 surgeons and nurses we have thus far trained are already bringing the extraordinary benefits of robotic surgery to their patients.

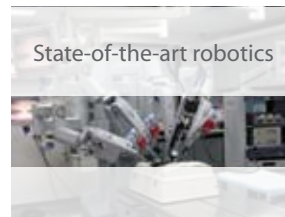
### Accredited Trainers



**Professor Sidney Yip**  
*Professor and Chief  
Division of Urology (CUHK)  
Honorary Consultant  
New Territories East Hospital Cluster  
Hong Kong*



**Ms Michelle Leong**  
*Clinical Application Specialist  
Chindex Hong Kong Limited*



# ROBOTIC SURGICAL TRAINING CENTRE



The surgeon-trainer operates the robotic surgical system from a detached console. 3-D video technology provides unmatched visualization of operating fields. The planned addition of a fourth robotic arm will provide training in the system's capacity to retract tissue to expose the operating field. The fourth arm also allows free interchange of instruments among the three working arms as each particular operation may demand.



Four-arm robotic surgical system



Surgeon at the console

# OTHER MISSC TRAINING FACILITIES

## Surgical Skills Laboratory



The laparoscopic camera and LCD monitor systems of the eight operating tables have been upgraded to HD standards. Each table now has a dedicated surgical stack housing diathermy and ultrasonic dissection units, a vessel sealing unit, a ventilator, a laparoscopic xenon light source and a laparoscopic carbon dioxide insufflation unit. Compressed air vacuum and oxygen services are provided through pendants. Other standard facilities include an LCD Projector, flush mounted ceiling speakers, ceiling mounted camera and an operating light.



# OTHER MISSC TRAINING FACILITIES

## Simulated Operating Theatre



The Simulated Operating Theatre allows demonstration of many different surgical scenarios and is particularly useful for courses on disaster management. The room replicates the hospital's endosurgery operating theatre and is equipped with surgical pendant, surgical light, HDTV flat screen, surgical pendant housing diathermy unit, laparoscopic camera, HDTV camera head, laparoscopic light source, laparoscopic carbon dioxide insufflation, touch screen monitors, boom mounted microphone system, nurse station and audio-visual interconnection.

## Microsurgical and Endoscopic Skills Laboratory



The Microsurgical and Endoscopic Skills Laboratory allows hands on workshops for up to six participants. Six workstations and a demonstration desk offer standard facilities including a 42" LCD display, individual monitors, a DVD recorder, audio-video recorders and ceiling speakers. Each workstation includes a microscope, operating telescope, xenon light source system, micro-drill micro-debrider system, digital one-chip video camera system and LCD display.

# OTHER MISSC TRAINING FACILITIES

## Virtual Reality Laboratory



The Virtual Reality Laboratory houses simulators for general surgery, urology, and laparoscopic surgery. It also has a 3-D virtual reality workstation which allows surgeons to train with multi-imaging data for a full understanding of anatomy, improved treatment and preoperative planning. The laboratory also offers a video library of operations and Internet access.

## Seminar Room



The Seminar Room has been expanded to seat 62 persons in classroom style. Standard facilities include a white board, X-ray viewing boxes, a high quality sound system with ceiling speakers, a high quality projector, a remote polling system and teleconferencing equipment supported by ISDN and an Internet superhighway (reserved cable 40 megabits/sec).

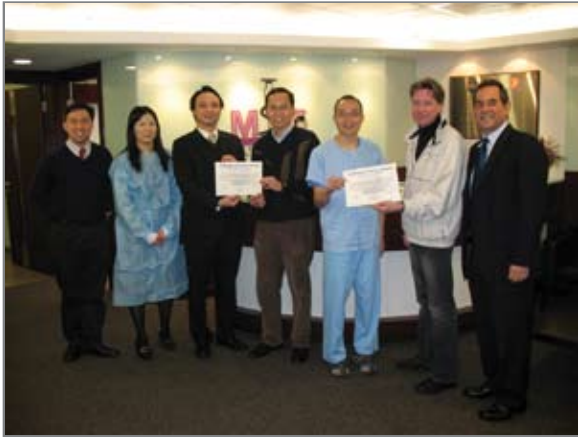
## Total Activities in 2007/08: 72

DATE	COURSE NAME
2007.01.16-17	Laparoscopic Bariatric Surgery Workshop
2007.01.27-28	Commissioned Training on Minimally Invasive Neuroendoscopic Surgery of Central Skull Base and Pituitary Fossa
2007.02.07-08	Intensive Workshop on Laparoscopic Suturing
2006.09.14-2007.03.15	Certificate Programme in Minimally Invasive Surgery
2007.03.16	Baxter Commissioned Programme: Innovations in Surgical Techniques - The use of Fibrin Sealants in Hernia Repair
2007.03.22	Baxter Commissioned Programme on International New Hirer Training
2007.03.25	Synthes Commissioned Training - Prodisc Clinical Trial
2007.03.29-30	4th Training Course on Endoscopic Diagnosis and Treatment of Early GI Cancer
2007.04.19-20	15th Anniversary of the First Laparoscopic Colorectal Surgery in Hong Kong, China: "A New Beginning" Symposium and Animal Workshop
2007.05.04-05	A Cochlear Implant System for China: Expert Meeting 2007
2007.06.20	Workshop on Laryngeal Preservation Surgery
2007.06.23	Ultrasound Guided Regional Anaesthesia Workshop
2007.07.05-07	Asia Pacific Rhinology Forum on Advanced FESS and Endoscopic Skull Base Surgery - State-of-the-Art Surgical Techniques and Approaches
2007.07.16-20	Advanced Hands-on Otology and Neurotology Dissection Course
2007.08.27	Baxter Commissioned Training: Innovations in Surgical Techniques - The Use of Fibrin Sealants in Hepato-biliary Pancreas Procedures
2007.08.31	Baxter Commissioned Training: Innovations in Surgical Techniques - The Use of Fibrin Sealants in Aesthetic, Reconstruction and Burn Procedures
2007.09.10-20	5th Temporal Bone Dissection Course
2007.09.29	Synthes Commissioned Training - Synfix Anterior Lumbar Surgical Approach Course
2007.10.13	Ultrasound Guided Regional Anaesthesia and Vasular Access Workshop
2007.11.06-07	Master-class in Hernia Surgery
2007.11.08	Pre-ENT Conference 2007 - Lectures and Hands-on Workshop on Laryngology
2007.11.12	Post Congress - FESS Cadaver Dissection Workshop



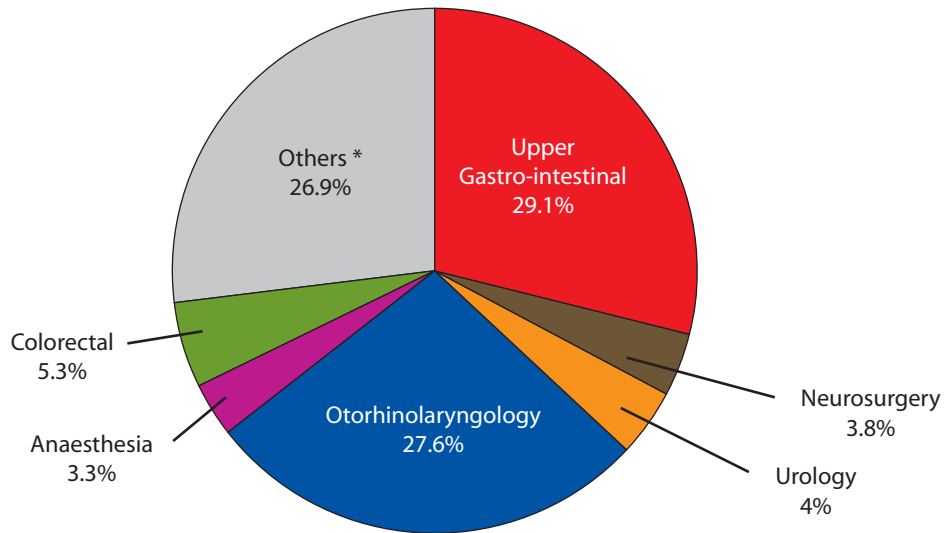


# ACTIVITIES



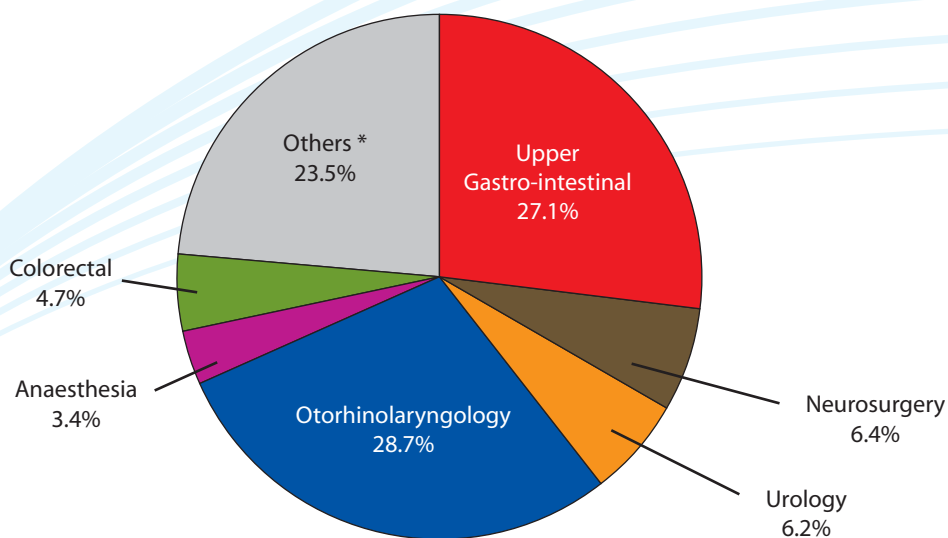
DATE	COURSE NAME
2007.12.03	Asian Intensive Care Problem and Solutions Ventilation workshop
2007.12.14-15	Train-the-trainers Workshop on Robotic Surgical System - daVinci®
2008.01.10	CUHK Surgery - Colorectal Week - Total Mesorectal Excision (TME) Workshop
2008.01.18	Allergan Asian BIB Workshop
2008.02.12-13	2008 Hong Kong International Wrist Arthroscopy Workshop and Seminar - "From Basic to the Cutting Edge"
2008.02.25 -26	Otologics Training Workshop
2008.02.25 -29	Robotic Surgical System Training Programme
2008.03.01.02	Microsurgical Anatomy and Technique for Posterior Circulation Aneurysm
2008.03.03	Training Workshop for University of Guam
2008.03.03 -07	Robotic Surgical System Training Programme
2008.03.13 -14	Royal College of Surgeons (England) Course 2008 - Dissection Exercise
2008.03.19-21	Master Workshop on Novel Endoscopic Technology and ESD
2008.03.28	Ultrasound in Anaesthesia Workshop
2008.04.07 - 9	Advanced Hands-on Otolaryngology and Neurotology Dissection Course
2008.04.18	Laparoscopic Colorectal Surgery: Hands-on Animal Workshop for Beginners
2008.05.13	Baxter Biosurgery Peer-2-Peer Workshop
2008.05.26 - 06.02	Robotic Surgical System Training Programme
2008.06.13	Current Advances in Breast Biopsy Techniques: a Surgical Perspective
2008.06.27-28	Ultrasound in Anaesthesia Workshop
2008.07.7-8	4th Advanced Laparoscopic Surgery Course for HST
2008.07.10	Minimally Invasive Surgery Technique in Lumbar Disc Disease
2008.07.23	Advanced Laparoscopic Hernia Workshop
2008.07.25-26	The CUHK Cochlear BAHA In-house Training Course
2008.07.25-31	Robotic Surgical System Training Programme

## Specialties of **Faculty** taking part in MISSC workshops (up to 31 July 2008)



Total number of faculty: **395**

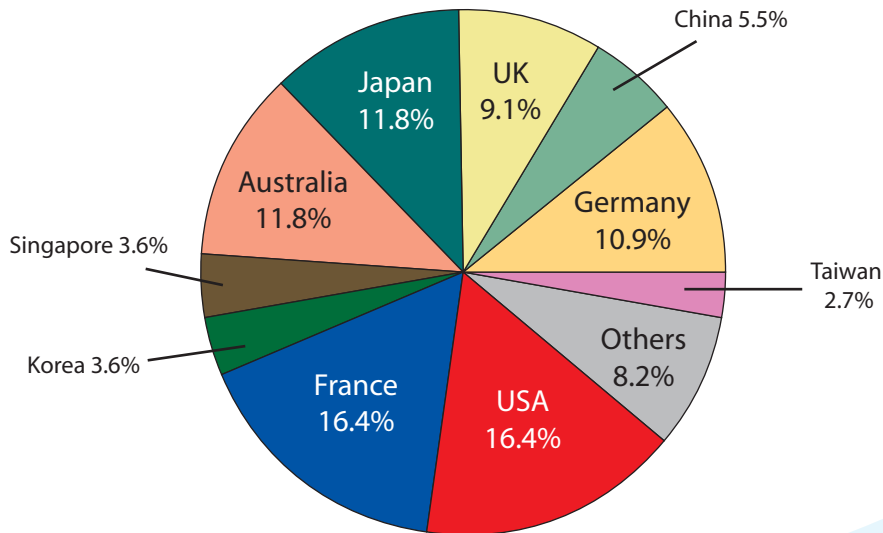
## Specialties of **Delegates** taking part in MISSC workshops (up to 31 July 2008)



Total number of delegates: **3143**

\*"Others" includes Accident and Emergency Medicine Academic Unit, Orthopaedics and Traumatology, and Obstetrics and Gynaecology

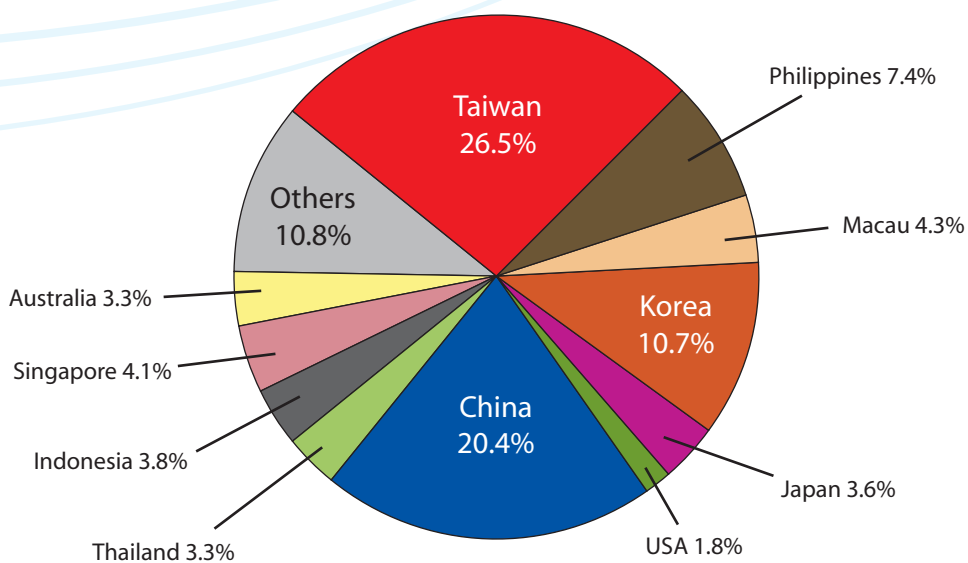
## Countries of **Overseas Faculty** taking part in MISSC workshops (up to 31 July 2008)



Total number of overseas faculty: **110**

\*"Others" includes Austria, Belgium, Finland, India, Italy, and Malaysia.

## Countries of **Overseas Delegates** participating in MISSC workshops (up to 31 July 2008)

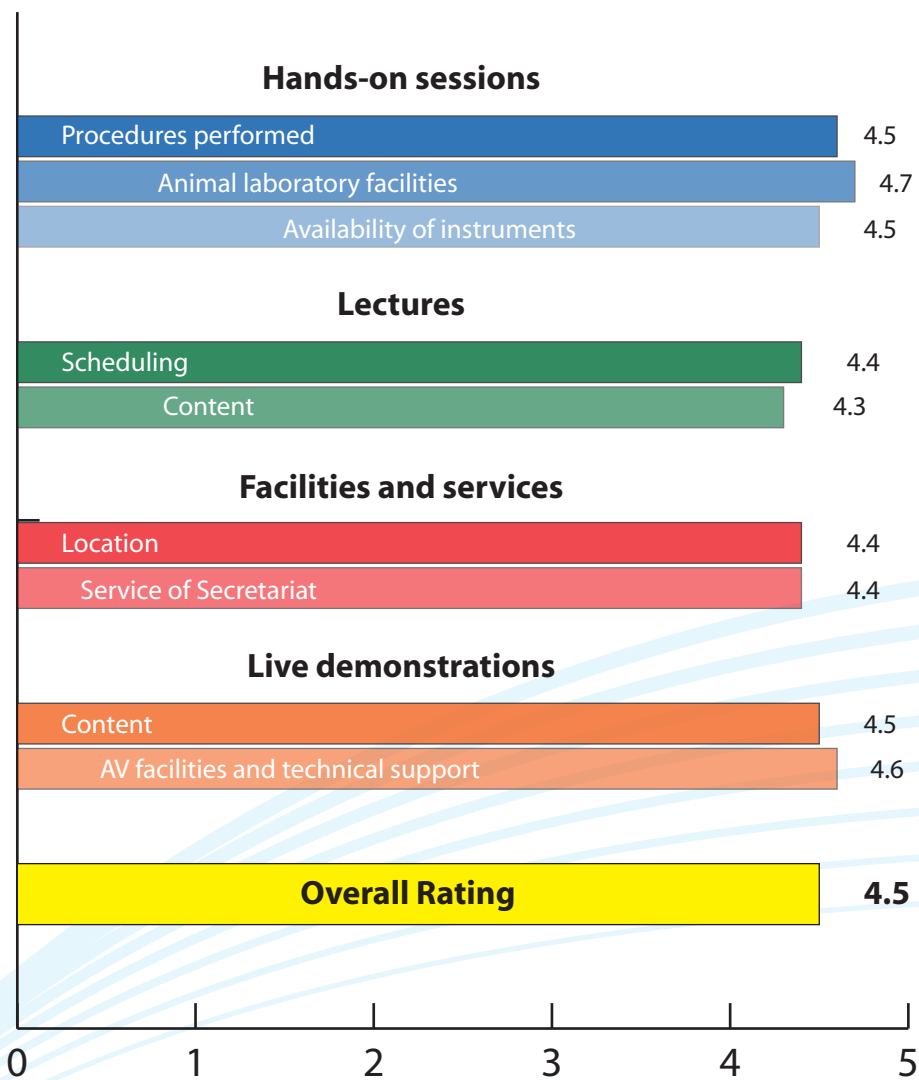


Total number of overseas delegates: **392**

\*"Others" includes Austria, Bahrain, Belgium, Brazil, Brunei, Czech Republic, France, Germany, India, Italy, Kuwait, Malaysia, The Netherlands, New Zealand, Pakistan, Saudi Arabia, Sweden, United Arab Emirates, United Kingdom, and Vietnam.

# COURSE EVALUATIONS

## Satisfaction with workshops and activities



Ratings on a scale from 1 (= Very Dissatisfied) to 5 (= Very Satisfied)

# DISTINGUISHED VISITORS



Professor Irvin M. Modlin  
Professor of Surgery  
Department of Surgery  
Yale School of Medicine

Royal College of Surgeons of England



Miss Sandrine Trouillard  
Project Manager  
Laval Mayenne Technopole  
Dr. Claude Detrez and  
Miss Sonia Caravaca  
Consulate General of France in Hong Kong

Professor Zheng Minhua  
Chief of MIS Center  
Shanghai Ruijin Hospital, China



# DISTINGUISHED VISITORS



Professor Sir Bruce E Keogh  
Medical Director of National Health Service  
England  
President of Cardiothoracic Section  
Royal Society of Medicine



Professor Chii-Ruey Tzeng  
Dean, College of Medicine  
and Professor Chih-Hsing Wu  
Superintendent  
Taipei Medical University



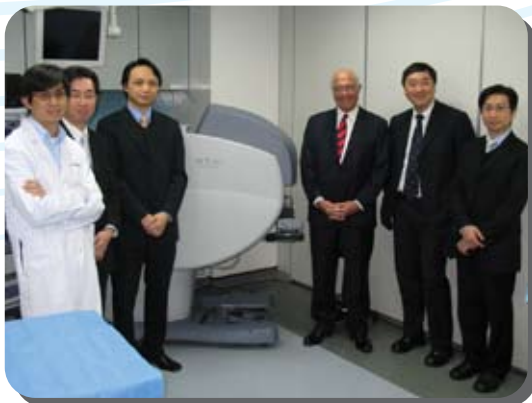
Professor Richard J Heald  
Surgical Director  
Pelican Cancer Centre  
Basingstoke  
United Kingdom

# DISTINGUISHED VISITORS



Professor Andrew C Novick  
Chairman  
Glickman Urological and Kidney Institute  
Cleveland Clinic, USA

Dr Ted Tewfik  
Professor and Director of Continuing  
Medical Education of Otolaryngology  
Montreal Children's Hospital, Canada



Professor Tony Axon  
President of the World Organization  
of Digestive Endoscopy (OMED)

## Reaching out to students

Diocesan Girls' School  
Shanghai Jiao Tong University and Sun Yat-Sen University  
CUHK Orientation Day  
St Paul's Co-educational College  
Diocesan Boys' School  
University of Heilongjiang  
University of Hunan





# ACKNOWLEDGEMENTS / ACCREDITATION

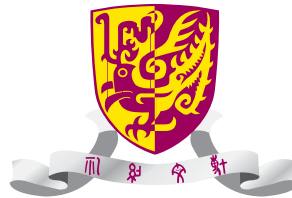
## Acknowledgements

The Director and staff of the MISSC gratefully acknowledge the generous support of the following:



**Kai Chong Tong**

香港賽馬會慈善信託基金  
The Hong Kong Jockey Club Charities Trust



The Chinese University of Hong Kong

## Accreditation



This course meets the guidelines as established in the "Framework for Post-Residency Surgical Education and Training" and is endorsed by the Society of American Gastrointestinal Endoscopic Surgeons (SAGES)

INTUITIVE  
SURGICAL®

If you require more information on the CUHK Jockey Club Minimally Invasive Surgical Skills Centre (MISSC), please complete and return the following enquiry slip by fax (+852 2632 4708). The enquiry slip can also be downloaded from <http://www.hkmisc.org.hk>. For telephone enquiries, please call Miss Joanne Hui on +852 2632 2644 or email <[info@hkmisc.org.hk](mailto:info@hkmisc.org.hk)>



Name : \_\_\_\_\_

Institute/Organization : \_\_\_\_\_

Correspondence address : \_\_\_\_\_

Country : \_\_\_\_\_

Phone number : \_\_\_\_\_

E-mail : \_\_\_\_\_

Fax : \_\_\_\_\_

Please insert a ✓ in the appropriate box(es)

I am interested in:

### Events

- Meetings
- Seminars
- Workshops
- Courses
- Other (please specify) \_\_\_\_\_

### Discipline

- Breast Surgery
- Cardiothoracic Surgery
- Colorectal Surgery
- Endocrine Surgery
- General Surgery
- Hepato-biliary and Pancreatic Surgery
- Neurosurgery
- Obstetrics and Gynaecological Surgery
- Orthopaedic Surgery
- Otorhinolaryngology
- Paediatric Surgery and Paediatric Urology
- Plastic and Reconstructive Surgery
- Trauma
- Upper Gastrointestinal Surgery
- Urology
- Vascular Surgery

### Collaboration sought

- Co-organizer
- Sponsor
- Participant
- Other (please specify) \_\_\_\_\_

We very much welcome donations in support of the operations and continuing development of the MISSC, and will be pleased to update you on progress from time to time.



If you wish to support the MISSC, please complete and return the form below by fax (+852 2632 4708) or by mail (CUHK Jockey Club Minimally Invasive Surgical Skills Centre, 3/F Li Ka Shing Specialist Clinic (North Wing), Prince of Wales Hospital, Sha Tin, Hong Kong)

## PERSONAL DETAILS

Name

English: \_\_\_\_\_

Chinese: \_\_\_\_\_

Phone number: \_\_\_\_\_

Email: \_\_\_\_\_

Receipt required?: Yes  No

(Donations of HK\$100 or above are tax deductible in Hong Kong against a receipt)

Name to be printed on receipt (individual or company):

\_\_\_\_\_

Mailing address for future correspondence:

\_\_\_\_\_

\_\_\_\_\_

## DONATION DETAILS

BY CHEQUE (Please make the cheque payable to "The Chinese University of Hong Kong")

Cheque number: \_\_\_\_\_

Name of bank: \_\_\_\_\_

Donation amount : HK\$ \_\_\_\_\_

## BY CREDIT CARD

For credit card payments, please complete and return this form by fax to +852 2632 4708.

Card type : Visa  Master Card

Amount of Donation: HK\$ \_\_\_\_\_

Name of cardholder: \_\_\_\_\_

Card number: \_\_\_\_\_

Expiry date: \_\_\_\_\_

Cardholder's signature: \_\_\_\_\_