Department of Orthopaedics & Traumatology



The University of Hong Kong Medical Centre

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Message from the Editorial Board

It's our Department's 50th Anniversary this year!

The Department of Orthopaedic Surgery (currently known as the Department of Orthopaedics and Traumatology) was established in 1961. From a small unit within the Department of Surgery of HKU, the Department has successfully established itself in the international arena over the past 50 years for its clinical and research excellence. In order to

commemorate the Department's Golden Jubilee, we have arranged a series of celebratory events starting in July, 2011, under the theme "Transcending the Past, Creating the Future". For this issue, we would like to take you through some of the events that have happened, including the 8th Orthopaedic Forum, the Kick-off Ceremony and the Gala Dinner.

In addition, we are delighted to learn that Professor K Luk has been elected the President Elect for the SICOT and the Asso. Professor F Lueng has been elected the Chairperson of AOTrauma Research Commission.

We hope you will enjoy this issue of our Newsletter and share with us our happiness. We hope to see you in the coming celebratory events..

Kick-off Ceremony of the Golden Jubilee Anniversary

The Kick-off Ceremony, which marked the launch of the year-long Golden Jubilee Celebrations, took place in August 20, 2011 during the 8th International Orthopaedic Forum in the Hong Kong Academy of Medicine, with officiating guests coming from all over around the world. During the ceremony, the Head of Department, Professor Keith DK Luk highlighted to the audience the great achievements made by the Department over the past 50 years and also shared with us his vision for the future development of the Department. Professor Shoichi Kokubun from Japan then delivered the Hodgson Memorial Lecture entitled "Department of Orthopaedics"



Professor Kokubun: Hodgson Memorial Lecture



Ribbon-cutting ceremony

and Traumatology, The University of Hong Kong: A Brilliant Star in the Orient". This lecture was in memory of Professor AR Hodgson, who was the first head of the Department. In his lecture, Professor Kokubun recalled his long association with the Department, which dated back to the 1970s, when he first visited the Department to learn about spine surgery. He proudly identified himself as a member of the Department, and highlighted to the audience how the masterly surgical skills popularized by the Department as well as its many other achievements helped to light up the orthopaedic world.

Over the past 50 years -Department Timeline 1951-2011

Dr Terence Pun / Dr Michael To

Dr. AR Hodgson was recruited to head the Orthopaedic Unit of the Department of Surgery at the University of Hong Kone



The Department of Orthopaedic Surgery was formally established and Dr. AR Hodgson was appointed as its Founding Professor The first total hip replacement in Hong Kong was performed by Professor AR Hodgson



Dr. Arthur Yau succeeded Professor Hodgson as Chair Professor of the Department of Orthopaedic Surgery

Professor John CY Leong succeeded Professor Yau as head of the Department of Orthopaedic Surgery

> MacLehose Medical Rehabilitation Centre officially commenced offering postoperative support to patients

1951

1961

1975

1973

1981

1984

1989

1956

The first paper on the anterior approach to treat spinal tuberculosis as devised by Dr. AR Hodgson and Professor Francis Stock was published in the British Journal of Surgery. The surgery became informally known as "the Hong Kong surgery" and greatly helped surgeons to effectively treat the deluge of tuberculosis cases in Hong Kong

Duchess of Kent Children's Hospital (then called the Sandy Bay Convalescent Home) was established by the Society for the Relief of Disabled Children (SRDC) 1967

The Professorial Block was completed at Queen Mary Hospital

1970

The department's audiovisual laboratory was established to aid patient care and the department's research efforts

1977

The first successful microsurgical thumb replant in Hong Kong was performed by Dr. SP Chow at Queen Mary Hospital

The first transpedicular decancellation osteotomy for ankylosing spondylitis was carried out in Hong Kong



The Motion Analysis Laboratory was established at Duchess of Kent Children's Hospital to aid research efforts

1986





Dr. Arthur Yau and Dr. John O'Brien developed a novel halo-pelvic apparatus for the correction of tuberculosis kyphosis





Dr. Keith Dk Luk introduced pedicle screw fixation for PLIF to Hong Kong

The discovery

of differences

in upper

femoral

to the

stem'

shapes of

Asians and

Caucasians led

development

"Asian femoral

of the first

A collaborative Spine Centre was established with Sun Yat Sen Hospital in Guangzhou

A centre for joint Replacement Surgery was founded in Shandong Province in collaboration with Yantai Shan Hospital

The first picture archiving and communication system (PACS) in Hong Kong was installed at the Duchess of Kent Children's Hospital

The department's name was officially changed to Department of Orthopaedics and Traumatology

A novel artificial finger joint was developed

The first Hong Kong International Orthopaedic Forum was organized by the department on "The Ageing Skeleton"

The department was awarded HK\$50 million by the Research Grants Council of Hong Kong as part of the Areas of Excellence (AOE) program

2005

Genetic risk factors for degenerative disc diseases in the Chinese population were discovered

The first remotely distractible growing rod system for early onset scoliosis was carried out

The first randomized controlled trial assessing a novel superelastic rod for scoliosis correction was completed

2011

2004

2003

2008 2010

1993

.

1 1 1

The Orthopaedic

Research Centre was

established at the Li

Ka Shing Faculty of

The first scoliosis

in Hong Kong for

initiated by the

schoolchildren was

department and the

Department of Health

screening programme

Medicine

1995 2000

1999

Professor Keith DK Luk was appointed Chair Professor

2001

Collaborative Center for Spinal Disorder established with Peking Union Medical College

Outpatient services were relocated from Sai Ying Pun to Block S of Queen Mary Hospital Professor Keith DK Luk succeeded Professor Leong as head of the Department of Orthopaedic Surgery



2007 2009

The Division of Orthopaedic Rehabilitation was established, increasing the total number of sub-specialty divisions

HKU Orthopaedic Foundation was established to fund future research and teaching

The world's first series of successful Intervertebral Disc Allograft Transplantations was published by Professor Keith DK Luk in the Lancet

Professor Keith DK Luk was endowed the Tam Sai Kit Professor in Spine Surgery

The department restructured from three teams into seven sub-specialty divisions



A neuromuscular centre was set up at the Duchess of Kent Children's Hospital to provide treatments for cerebral palsy patients

A center for Spinal Disorder was established at the Duchess of Kent Children's Hospital for the management of chronic back pain





Reflection of the Development of the Department - Professor Keith DK Luk

Dr J Cheung / Dr Richard Lee



Professor Keith DK Luk is an advocate of the department's subspecialisation from three general teams to eight subspecialty divisions in 2005.

Q: What motivated the instigation of a department-wide restructuring?

In recent years, orthopaedic research has developed to encompass musculoskeletal biomechanics, genetics, and biomaterials. However, one cannot expect a general orthopaedic surgeon to be equally conversant in all of those topics. For our department to progress and excel in each subspecialty, we have to reallocate resources and staff to form subspecialist divisions.

Q: What are the advantages of subspecialisation?

Having clear subspecialties has the effect of attracting new talent interested in those disciplines. Subspecialty members are also more motivated to take lead in research and innovation in their fields. Members of our department can also focus more on their professional development in a targeted manner.

Q: What are the potential disadvantages of subspecialisation, and how do you envision overcoming them?

There is a potential threat of over-specialisation. One could easily lose sight of certain orthopaedic basics when striving to be the best in one's subspecialty. One should be aware of developments and basic knowledge in other subspecialties as well as one's own. There is also risk of fragmentations within the department. The department must continue to nurture interaction between members of different divisions and research staff to facilitate innovation.

Q: How important do you value subspecialisation in the evolution of orthopaedics?

Subspecialisation is an inevitable change. Our city is an affluent one, and patients expect the very best services the department can provide. By adopting subspecialisation, the department is now held to high standards that we must maintain, and perhaps, exceed.

Reflection of the Development of the Department - Professor John CY Leong

Dr Terence Pun / Dr Richard Lee



Professor John CY Leong is an advocate of the department's basic scientific research development.

Q: Was there any basic scientific research performed in the department in the 1960s and 1970s?

One of the department's earliest basic science research efforts was the invention of the halopelvic apparatus, which incorporated electronic strain gauges to measure forces generated during correction of severe spinal deformities by distraction. This was done in collaboration with Dr. Joe Clark from the Department of Mechanical Engineering.

Q: Why was it necessary for the department to increase resource allocation on basic scientific research?

At that time, there was a lack of a core group of researchers to follow projects through to their completion, which considerably delayed research progress. On the other hand, clinicians might lack basic scientific knowledge and were not trained in research methodology to do so.

Therefore, we needed more resources and a group of basic scientists to aid basic scientific research.

Q: Who were the first people involved in this endeavor, and how did changes come about?

In 1986, I appealed to Daniel Chow, who became the first Masters of Philosophy candidate in our department. He had a project on iliolumbar ligaments and performed cadaveric studies on simulated spinal fusion.

In 1995, we recruited Dr. (later Professor) William Lu, whose presence and efforts vastly increased our basic scientific research output. I have since watched the basic science arm of the department grow in leaps and bounds. Today, dozens of doctoral and master's degree students are working in the Research Centre due to these developments.



Teenage Orthopods Scheme

Dr Margaret Fok

The Teenage Orthopod Scheme was started this year, as part of the celebration of the 50th Anniversary of the Department of Orthopaedics and Traumatology, The University of Hong Kong. It was co-organized with the Academy for the Talented, The University of Hong Kong. This was the first of its kind, a summer attachment program organized for the high school students of Hong Kong. It started with a 2-week attachment program, providing an opportunity for the students to shadow the orthopaedic surgeons in order to obtain first hand information of the lives of orthopaedic surgeons e.g. ward round, outpatient clinics, operations and conferences. Moreover, they were taught on the techniques of scrubbing up like a surgeon in preparation for an operation. They were allowed to work on the operation instruments and practise their fine surgical

skills e.g. suturing techniques outside the operation theatre. A workshop was organized for the students to practise fracture fixation using sawbones. After the 2 weeks of attachment, the students completed a mini project - "How to manage fragility fracture". They will utilize these materials to teach their fellow students in their school as well as residents in old age homes on how to prevent fragility fractures in the coming year. The old age home visit is scheduled in November 2011. This program helps the teenagers to understand what orthopaedic surgery is. They can make use of the knowledge they have learnt to educate the general public. All students have found the program very useful as it helped them to appreciate their own lives and had re-enforced their ambitions of becoming a doctor in order to help other people. They have enjoyed the program very much.



Students (front) & Professor K Luk and mentors (back)



Students: scrubbing up

The 8th Hong Kong International Orthopaedic Forum Dr Terence Pun

Coinciding with the 50th anniversary of the department, the 8th International Orthopaedic Forum titled "Transcending the Past – Creating the Future" featured a long four-day programme of comprehensive subspecialty lectures. The forum took place at the Hong Kong Academy of Medicine on August 18-21, 2011. Fifteen international experts and forty local speakers were invited to share their experiences throughout different fields in orthopaedics. Apart from the core programme, a number of satellite programmes such

as workshops, guest speaker lectures and live surgical demonstrations were conducted.

Prof In Ho Choi of South Korea shared his experiences in managing developmental dysplasia of hip in SNUCH

Dr Peter Devane of New Zealand shared with us on how to measure wear and migration in total joint arthroplasty

Prof Freddie Fu of USA delivered the MB Lee Visiting Professor Lecture on double bundle anterior cruciate ligament reconstruction

Prof A. Seth Greenwald of USA taught us the contact stress and kinematics in total knee arthroplasty

Dr James Hui of Singapore had a friendly debate with Dr Wang Chow on the timing of operation for non-reducible developmental hip dysplasia

Prof Shinichi Kikuchi of Japan delivered the Arthur Yau Visiting Professor Lecture, elaborating on his new concept of low back pain as a biopsychosocial pain syndrome

Prof Seung Ho Kim of Korea enlightened us on his arthroscopic techniques in the treatments of knee and shoulder instabilities

Professor Shoichi Kokubun of Japan presented the Hodgson Memorial Lecture and highlighted the celebration of the 50th Anniver-



Dr B Fung: Chairman of the Organizing Committee of the Orthopaedic Forum

sary of our department

Prof Hubert Labelle of Canada gave us the Tam Sai Kit Visiting Professor lecture in 3-D!

Dr Chuanju Liu of USA shared with us his basic science researches on rheumatoid arthritis



All Visiting Professors for the Orthopaedic Forum (front) and senior staff of the department (back)

Professor Rommens of Germany enlightened us on the challenges of managing pelvic fractures

Dr Paul Taylor of UK excited us with functional electric stimulation

Prof Fu Chan Wei of Taiwan delivered the Harry Fang Visiting Professor Lecture and took us through the evolution of free flap surgeries

Professor Michael Yaszemski of USA shard with us his experiences in resection and reconstruction of sacropelvic tumors

Gala Dinner Dr Richard Lee

Our department's 50th Anniversary Gala Dinner was held on 20 Aug 2011 at the Hong Kong Academy of Medicine. Over 250 guests attended the banquet to celebrate the Golden Jubilee.

Professor John CY Leong recapitulated

the history of our department's development. Professor SP Lee, Dean of HKU Faculty of Medicine, gave us a very touching speech and encouraged us to continue to strive hard to promote our department's further development. Professor SP Chow's speech on his reflection of his career as an orthopaedic surgeon was very inspiring to many of our young orthopaedic surgeons.



Professor K Luk



Dr Y Chow and Professor K Luk



Professor F Fu and the sports interest group



Professor J Leong

We were particularly delighted to have many old friends of the department coming from different parts of the world to join our celebrations. Even our first visiting fellow Professor Masakazu Takemitsu and his grandson attended the event.





Professor Kokubun and past staff of the department

Professor David Fang and Dr. York
Chow delivered their lovely voices
to the audience through wonderful
melodies. Professor Kenneth Cheung
and Dr. Frankie Leung hosted a
talk show filled with memories and
laughter. Many past and present senior
colleagues and staff of our department
were invited to share their wonderful
memories during their days in
the department.

Girl
Dr. M.





MC: Dr CH Yan and Dr E Kuong





Talk show by Asso. Professor F Leung and Professor K Cheung

Girl Power of the Department of O & T: Dr V Tam, Dr M Fok, Dr E Kuong and Asso. Professor WY Ip

Announcements:

SICOT 2011 XXV Triennial Word Congress

Professor Keith DK Luk has been elected as the President Elect for the SICOT at the Triennial World Congress in Prague, Czech Republic on 6-9th September 2011. He will start his year as the president of 2014

AOTrauma

Asso Professor Frankie KL Leung has been elected as the Chairperson of AOTrauma Research Commission (2011-2014)

List of successful RGC GRF's projects (2011/2012 Exercise):

Dr K.W.K. Yeung

Enhancement of the biofunctionality of polyetheretherkytone (PEEK) materials using plasma surface technology \$812,000

Dr Y. Hu

Time-frequency pattern analysis of somatosensory evoked potentials for mapping cervical myelopathy \$980,000





Asso. Professor F Leung

Professor K.D.K. Luk

Plasticity of Chronically Compressive Spinal Cord

After Surgical Decompression - A fMRI study \$850,000

Dr D. Samartzis The Role of Schmorl's Nodes in Lumbar Intervertebral Disc Degeneration \$681,000

NSFC/GRF: N_HKU 739/10

Professor William W Lu

Role of Strontium-calcium Silicate -A Novel Biomaterial in the Regeneration of Osteoporotic Bone - An in-vivo/vitro Study

\$919,000 HKD & \$330,000 RMB

Forthcoming Events:

The 2nd Anatomy and Basic Sciences Course in Orthopaedics and Traumatology for the FRCS (Orth) examination will be held on 22nd – 25th Oct, 2011 at the Faculty of Medicine, University of Hong Kong

http://www.hku.hk/ortho/basicsciencecourse.html

Basic Microsurgery Course, Please call Ms Doris Lau at 2255 4582

or e-mail Iws835a@ha.org.hk

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