



## Editor's notes

I have the pleasure to send you the first Newsletter from the Orthopaedic Learning Centre (OLC) since its establishment in 1999. As we have more and more programs organized in the Centre, we believe a more updated information concerning the activities in the Centre is helpful to you in your activities of continuous professional development. In this Newsletter, we will highlight the past events conducted in the Centre and forecast the coming events that you may find interesting. Please do not hesitate to send us your comments and suggestions, both to the programs we had organized and the future activities.

The Centre is open to you all who find it useful in helping you to learn and practice in order to serve your patients better.

Happy New Year 2002!

Prof KS Leung  
Director  
Orthopaedic Learning Centre

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## Program Highlight

### The Third Advanced Bioskill Workshop in Total Joint Replacement (30 Jun- 1 Jul, 2001)

#### Dr Kwok Hing CHIU

The third Advanced Bioskill Workshop in Total Joint Replacement organized by the Hospital Authority and the Orthopaedic Learning Centre (OLC) was held in the OLC from 30 June to 1 July 2001.

Ten local and one overseas orthopaedic surgeons were invited as members of the faculty. The invited overseas surgeon was Prof Alfred Tria. Prof Tria is the Clinical Professor of Orthopaedic Surgery, Robert Wood Johnson Medical School, New Brunswick, New Jersey, US. He is an expert in total knee replacement (TKR) surgery.

Sixteen candidates were selected to attend the Workshop. All of them were preparing for their Orthopaedic Exit Examination in December 2001. Although No. 3 typhoon signal was hoisted during the course, the attendance was still 100%.

The program comprised of lectures, demonstration and hands-on saw bone practice and anatomic dissection demonstration. The first day was focused on total hip replacement while the second day on TKR. Most of the candidates found that the Workshop was helpful to their Exit Examination and operative skill.

Prof Tria gave 3 lectures, a demonstration in TKR with saw bone and an anatomic dissection demonstration in soft tissue release in TKR. The topics of the 3 lectures were Preoperative Planning, Exposure and Techniques in TKR, Management of Angular Deformities and Flexion Contracture in TKR and Posterior Stabilizing versus Cruciate Retaining Implants. Although the last topic was most controversial, the candidates found it most interesting.

Although from previous studies, the performance and durability of posterior stabilizing and cruciate retaining implants are similar, there

are continuous arguments on the function of the posterior cruciate ligament (PCL) in replaced knees. For those who favour retaining the PCL will argue that the PCL retaining implants give more natural feeling, better balance and better stair climbing. Retaining the PCL will also maintain the femoral rollback giving a better range of knee motion. However Prof Tria pointed out that posterior stabilizing implants should be the choice for most orthopaedic surgeons. In USA, 85% of the TKRs are done by orthopaedic surgeons who perform less than 20 total joint replacements per year. We should try to make the surgery straight forward and reproducible. The PCL is difficult to balance during a TKR surgery. The cam and spine mechanism in a posterior stabilizing knee also provides a controlled femoral rollback, which is more reliable as in cruciate retaining knee. Finally, the Insall-Burstein II total knee prosthesis, the most popular posterior stabilizing implant, is still the golden standard of TKR.



Demonstration of total knee replacement in saw bone by Prof Alfred Tria

## Program Highlight

### 2001 International Bone Research Instructional Course & Hands-on Workshop (30 Oct – 2 Nov, 2001)

Prof Ling QIN

The captioned Workshop organized by the Musculoskeletal Research Laboratory (MRL) and Orthopaedic Learning Center (OLC), Department of Orthopaedics & Traumatology, Chinese University of Hong Kong (O&T, CUHK), was held in the OLC from 30 October to 2 November 2001. Co-organizers were International Chinese Hard Tissue Society (ICHTS), Chinese Speaking Orthopaedic Society (CSOS), Hong Kong Jockey Club Center for Osteoporosis Care and Control (JOCOC), Healthstar Osteoporosis and Medical Research Awarding-Fund of China (HOMA). Internet live broadcasting was arranged during the Workshop.

There were total 65 participants registered for the Workshop. Speakers included faculty members of the organizer and co-organizers, including Prof Kai Ming Chan of CUHK (General Secretary of CSOS), Prof Edmond Chao from John Hopkins University, USA (Senior advisor of CSOS), Prof Webster Jee from University of Utah, USA (Founding Chairman of ICHTS), Prof Kwok Sui Leung of CUHK (Director of OLC), Prof Ping Chung Leung of CUHK (Director of JOCOC), Prof Zhong Hou Liu from China (Chief Editor of Chin J Osteoporosis), Prof Xian Zheng Luo from China (General Secretary of Chinese Orthopaedic Society), Prof Jian Wen Ma from China (Director of HOMA) and Prof Ling Qin from CUHK (Director of MRL and Workshop Director) etc. The research staff of the organizer made substantial contribution to the technical demonstration and introduction of background knowledge related to these bone biotechnologies.

This Workshop provided opportunities to doctors, scientists, technologists, postgraduate students and related personnels to update their knowledge and technique via instructional lectures and technical demonstration with reference to

- 1) Bone biology, histomorphometry, histopathology and biomechanics;
- 2) Animal models for prevention and treatment of osteoporosis;

- 3) Evaluation of fracture healing and fixation of osteoporotic fractures;
- 4) Interface studies between bone and biomaterials;
- 5) Noninvasive bone densitometries and their evaluation strategy in research.

This Workshop also provided a forum for exploring future joint development in bone and related research, including continuous education and training, potential local, regional and international collaborations via joint research projects, sharing research funding sources and scientific information exchanges. A 200-page workshop compendium on the above mentioned basic sciences, technologies and laboratory protocols was prepared and distributed to the participants. The detailed Workshop contents are available in the homepage: [www.ort.cuhk.edu.hk/ibrw-01](http://www.ort.cuhk.edu.hk/ibrw-01)

According to feedback of our co-organizers, workshop attendees and internet live broadcasting viewers, the organizer plans to continue this workshop in October 2002 in Hong Kong, perhaps in conjunction with a regional osteoporosis conference. This kind of practical workshop shall run yearly, first in Hong Kong and then gradually move to various places in Mainland China.



Histomorphometry demonstration in the Bioskill Laboratory

### Autologous Chondrocyte Implantation Workshop (13 Nov, 2001)

Prof Shekhar Madhukar KUMTA

Autologous Chondrocyte Implantation (ACI) offers an effective treatment for clinically significant and symptomatic cartilage defects. ACI has been shown to be a promising method for treating deep defects in the articular cartilage and for filling them with hyaline cartilage. The hyaline type tissue formed by implanted autologous chondrocytes has biomechanical properties similar to those of natural articular cartilage. Instead of performing ACI by using an autologous periosteal graft to cover and seal off the defect, Verigen has developed a technique that renders the excision of a periosteal graft unnecessary. Instead of taking a graft, a highly purified reabsorbable porcine collagen I/III membrane is used to cover the defect. This not only avoids the need for a second incision for harvesting the periosteal graft, but also saves the time which would otherwise be required for its dissection.

In conjunction with several leading German, British and Scandinavian institutes, Verigen has developed the MACI®

technique - Matrix-induced Autologous Chondrocyte Implantation. The development of matrix-induced autologous chondrocyte implantation has further improved the method. Access to the lesion is gained through a mini-arthrotomy, because the membrane does not have to be sutured in place. The membrane, already coated with chondrocyte suspension, is glued into the defect with fibrin adhesive. The operation is minimally invasive and operating time is substantially shortened.

More than 2 000 patients worldwide have now been treated by the technique of Autologous Chondrocyte Implantation. The results of ACI are encouraging. The 2 to 10 years clinical success rate in osteochondritis dissecans has been reported to be as high as 84%.

The first Hong Kong workshop on ACI and MACI was held on 13 November 2001 and was attended by 40 participants. The morning half of the program consisted of introductory lectures. Prof M H Zheng from Perth discussed the basic science aspect while

Prof Tim Briggs from Stanmore and Prof David Wood from Perth showed the applications and results in their patients. The importance of the pre and postoperative rehabilitation programs was discussed along with the technical aspects of how to harvest cartilage for subsequent culture and implantation.

The highlight of the program was the demonstration and hands-on surgical training for the MACI technique. This was excellently demonstrated by Prof David Wood and Prof Tim Briggs on porcine femoral condyles. Participants were able to try out these techniques and get a feel of how easy or difficult it was to suture the matrix membrane on to the chondral defect.



Prof David Wood explaining the technique of MACI and suturing the membrane on porcine knee

## Program Summary (Jun – Dec, 2001)

| Course Name  | Date                        | Invited Speakers  | Participants   |        |
|--|-----------------------------|---|--|--------|
|  |                             |   | Target   | Number |
| <b>Advanced Bioskill Workshop in Total Joint Replacement</b>                       | 30 Jun – 1 Jul              | Prof Alfred TRIA, US<br>Local Faculty   | Local Trainees   | 16     |
| <b>CUHK-AADO Comprehensive Bioskill Course on Fracture Fixation (V)</b>            | 7-9 Jul                     | Local Faculty   | Surgeons from Asia Pacific Regions   | 17     |
| <b>Asia Shoulder Arthroscopic Workshop</b>   | 3-4 Aug                     | Dr Joe F. DE BEER, South Africa<br>Local Faculty  | Surgeons from Asia Pacific Regions   | 41     |
| <b>Certificate Course in Orthopaedics &amp; Traumatology for Nurses</b>            | 8 Aug 2001 – 6 Feb 2002     | Local Faculty   | Nurses   | 30     |
| <b>Hand Summer Course – Wrist Surgery</b>  | 23-27 Aug                   | Dr Emiko HORII, Japan<br>Dr Hideo KAWAI, Japan<br>Prof Betty KOO, US<br>Prof Beng Hai LIM, Singapore<br>Dr Jinbo TANG, China<br>Local Faculty   | International and Local Surgeons   | 70     |
| <b>2001 International Bone Research Instructional Course and Hands-on Workshop</b> | 30 Oct – 2 Nov              | Prof Edmond CHAO, US<br>Prof Webster JEE, US<br>Prof Ji LI, US<br>Prof Xian Zheng LUO, China<br>Prof Zhong Hou LIU, China<br>Prof Jian Wen MA, China<br>Local Faculty                             | International Surgeons, Clinical Scientists, Technologists and Postgraduate Students | 65     |
| <b>CSOS Advanced Shoulder Course</b>   | 8-9 Nov                     | Dr Gong Yi HUANG, China<br>Dr Daniel MOK, UK<br>Dr Yong Girl RHEE, Korea<br>Prof Kwang Jii RHEE, Korea<br>Dr Hsiao li MA, Taiwan<br>Dr Jiunn Jer WU, Taiwan<br>Local Faculty                      | Local and Overseas Chinese Surgeons  | 19     |
| <b>Autologous Chondrocyte Implantation Workshop</b>                                | 13 Nov                      | Mr Paul ANDERSON, Australia<br>Mr. Tim BRIGGS, UK<br>Dr Bruno GIANETTI, Germany<br>Mr Brett ROBERTSON, Australia<br>Prof David J WOOD, Australia<br>Prof Ming H ZHENG, Australia<br>Local Faculty | International and Local Surgeons   | 40     |
| <b>Workshop on Trauma Management with Cast Application</b>                         | 18 Nov                      | Local Faculty   | Nurses and Junior Orthopaedic Trainees   | 50     |
| <b>Cast Workshop</b>   | 25 Nov                      | Local Faculty   | Nurses   | 30     |
| <b>Adult Joint Reconstruction Nursing Course for NTE Cluster</b>                   | 12 Dec, 2001 – 31 Jan, 2002 | Local Faculty   | Operating Theatre Orthopaedic Team Nurses  | 35     |
| <b>CUHK-AADO Comprehensive Bioskill Course on Fracture Fixation (VI)</b>           | 15-17 Dec                   | Local Faculty   | Surgeons from Asia Pacific Regions   | 47     |

# Program Announcement

2002 Calendar (January – August)

| Date                   | Course Name   | Organizer                    | Program Director | Accreditation   | Target Participants                            |
|------------------------|---|------------------------------|------------------|---|--|
| Feb 18                 | Workshop on Navigation System in Total Knee Replacement                                 | Dept. of O & T               | Dr. KH Chiu      | To be confirmed                                       | Orthopaedic Surgeons                           |
| Feb 23                 | Workshop on Navigation System in Orthopaedic Trauma                                     | Dept. of O & T, CUHK<br>AADO | Prof KS Leung    | To be confirmed                                       | Orthopaedic Surgeons                           |
| Mar 10                 | Workshop on Trauma Management with Cast Application                                     | AADO (Nurse Subcom.)         | Ms E Leung       | To be confirmed                                       | Orthopaedic Nurses                             |
| Mar 16-18              | CUHK-AADO Comprehensive Bioskill Workshop in Fracture Fixation (VII)                    | Dept. of O & T, CUHK<br>AADO | Prof KS Leung    | 8 CME Points or 8 Training Points (Assigned by HKCOS) | Orthopaedic Surgeons from Asia Pacific Regions |
| Mar 22-23              | Endoscopic Lumbar Surgery   | Dept. of O & T, CUHK         | Dr KY Fung       | To be confirmed                                       | Orthopaedic Surgeons                           |
| May                    | Seminar and Workshop on Low Intensity Pulsed Ultrasound Treatment in Orthopaedic Trauma | Dept. of O & T, CUHK<br>AADO | Prof KS Leung    | To be confirmed                                       | Orthopaedic Surgeons                           |
| Jun 1                  | Musculoskeletal Oncology Course   | Dept. of O & T, CUHK         | Prof SM Kumta    | To be confirmed                                       | Orthopaedic Surgeons                           |
| Jun 13-30<br>Feb, 2003 | Certificate Course in Orthopaedics & Traumatology for Nurses (Class 8)                  | AADO (Nurse Subcom.)         | Ms E Leung       | 38.4 contact hours (Assigned by NAON)                 | Orthopaedic Nurses                             |
| Jun 29-30              | Advanced Bioskill Course in Total Joint Replacement                                     | Dept of O & T, CUHK<br>HA    | Dr KH Chiu       | 5 Training Points (Assigned by HKCOS)                 | Advanced Orthopaedic Trainees                  |
| July 20-22             | CUHK-AADO Comprehensive Bioskill Workshop in Fracture Fixation (VIII)                   | Dept. of O & T, CUHK<br>AADO | Prof KS Leung    | 8 CME Points or 8 Training Points (Assigned by HKCOS) | Orthopaedic Surgeons from Asia Pacific Regions |
| Aug                    | Shockwave Treatment in Orthopaedic Trauma   | Dept. of O & T, CUHK<br>AADO | Prof KS Leung    | To be confirmed                                       | Orthopaedic Surgeons                           |
| Aug                    | Hand Summer Course 2002   | Dept. of O & T, CUHK         | Prof LK Hung     | To be confirmed                                       | International Orthopaedic Surgeons             |

*AADO: Asian Association for Dynamic Osteosynthesis*

*CUHK: Chinese University of Hong Kong*

*Dept. of O & T: Department of Orthopaedics and Traumatology*

*HA: Hospital Authority*

*HKCOS: The Hong Kong College of Orthopaedic Surgeons*

*NAON: National Association of Orthopaedic Nurses*

I am interested in receiving the information of the following course(s)

Course Name: (1) \_\_\_\_\_  
(2) \_\_\_\_\_  
Title: \_\_\_\_\_ Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
Tel: \_\_\_\_\_ Fax: \_\_\_\_\_ E-mail: \_\_\_\_\_

Yes, I would like to receive the OLC course information by e-mail.

Please fax this form to (852) 2647 7432.

For enquires please contact Ms Margaret Lai at (852) 2632 3483 or e-mail to [olc@ort.cuhk.edu.hk](mailto:olc@ort.cuhk.edu.hk)

**For updated course information please visit our web site: [www.olc-cuhk.org](http://www.olc-cuhk.org)**