

UK Cartilage Club Meeting 3rd/4th November, 2012



ICRS Approved Course

Canterbury Christ Church University, Chatham Maritime Campus, Kent, UK

In Association with SK Research Foundation and Canterbury Christ Church University Chairmen: Professor Tim Briggs & Professor James Richardson Convenor: Professor A A Shetty

Course Programme

Basic Cartilage Biology and Physiology Aetiology and Cellular Basis of Chondral disease Classifying Chondral Disease and Scoring Mapping and Quantifying Chondral Damage with MRI Imaging Algorithms for treatment selection Matching patient profile to treatment modality Introduction to Tissue Engineering

<u>Cartilage Repair Techniques</u> Marrow Stimulation Techniques Acellular Scaffold Based Therapy Cell Based Therapy

Viscosupplementation Meniscal Repair, Meniscal Implant/Transplant Patellar Maltracking, Tibial Tubercle Transfer (TTT) High Tibal Osteotomy (HTO) PFJ Replacement Unicompartmental knee Replacement (UKR) Rehabilitation after Cartilage Repair Surgery



International Faculty

Mr. Saif Ahmed (UK) Prof. George Bentley (UK) Dr. Praveen Bilagi (UK) Prof. Tim Briggs (UK) Prof. Mats Brittberg (Sweden) Prof. Christoph Erggelet (Switzerland) Mr. John Fleetcroft (UK) Dr. Karen Hambly (UK) Prof. James Hui (Singapore) Prof. Seok-Jung Kim (South Korea)

Prof. Elizaveta Kon (Italy) Prof. James Murray (UK) Prof. Norimasa Nakamura (Japan) Prof. Stefan Nehrer (Austria) Prof. James Richardson (UK) Prof. Daniel Saris (Netherlands) Prof. A A Shetty (UK) Mr. Martyn Snow (UK) Prof. Siegfried Trattnig (Austria) Dr. Raju Vaishya (India)

Welcome

Welcome to the UK Cartilage Club Meeting 2012. Cartilage repair surgery while still in its infancy has advanced considerably over the recent years. Now we are expanding the frontiers of this technology. As the understanding and innovations continue to help us meet our patients' demands of pain free mobility and biological repair of joints, clinicians have to the keep pace with this emerging technology. Our course aims to expand the knowledge of recent developments of cartilage repair surgery necessary to obtain the best possible outcome in challenging clinical conditions.

Venue

Canterbury Christ Church University Medway Rowan Williams Court 30 Pembroke Court Chatham Maritime, Kent, ME4 4UF United Kingdom



Faculty

Mr. Saif Ahmed (UK) Prof. George Bentley (UK) Dr. Praveen Bilagi (UK) Prof. Tim Briggs (UK) Prof. Mats Brittberg (Sweden) Prof. Christoph Erggelet (Switzerland) Mr. John Fleetcroft (UK) Dr. Karen Hambly (UK) Prof. James Hui (Singapore) Prof. Seok-Jung Kim (South Korea) Prof. Elizaveta Kon (Italy) Prof. James Murray (UK) Prof. Norimasa Nakamura (Japan) Prof. Stefan Nehrer (Austria) Prof. James Richardson (UK) Prof. Daniel Saris (Netherlands) Prof. A A Shetty (UK) Mr. Martyn Snow (UK) Prof. Siegfried Trattnig (Austria) Dr. Raju Vaishya (India)

Organising Committee:

Chairmen Professor Tim Briggs, Professor James Richardson

> Convenor Professor A.A. Shetty

Academic Programme

Mr Saif Ahmad Mr James Murray Mr Ashvin Pimpalnerkar

Faculty Co-ordinators: Dr. Praveen Bilagi Dr David Stelzeneder

Canterbury Christ Church University Dr Peter Milburn

> **CME** Mr Yateen Morar

Course Co-ordinator: Mr Shaun Watkins

Course Secretary: Mrs Christine Horne Contact: Tel: +44 1474 702 512 or +44 7956 548 603 email: christine.horne@btinternet.com

Day 1 November 3

Podium Session 1: Basic Sciences

Chair: Professor Daniel Saris

Time	Title	Description	Presenter
09:00	Introduction	Welcome and Housekeeping	Anan Shetty
09:10	Structure and function	Basic Cartilage Biology and Physiology	James Murray
09:25	Chondroses	Current Concept of Cartilage Healing and Classification of Lesions	Mats Brittberg
09:40	Imaging	Imaging techniques: Logical algorithms for decision making	Praveen Bilagi
09:55		Advanced morphological and compositional (biochemical) MR of Cartilage in disease and repair	Siegfried Trattnig
10:10	History Of Management	From Hunter to present day; History of the development of surgery of articular cartilage defects	John Fleetcroft

10:25 Inauguration & Welcome: Vice-Chancellor Robin Baker

10:40 Coffee

Video Session 1

11:00-11:40 Chair: Professor James Richardson Microfracture: Daniel Saris MCIC: David Stelzeneder, A A Shetty

Podium Session 2: Chondral Stimulation, Conduction and Substitution

Time	Title	Description	Presenter
11:45	Algorithms	Matching patient profile to treatment modality	Daniel Saris
12:00	Acellular biological scaffolds	Biphasic scaffolds for osseous and chondral conduction.	Christoph Erggelet
12:15	ACIC	Autologous Collagen Induced Chondrogenesis	A A Shetty
12:30	Biomimetic constructs	Synthetic 3d Biomimetic construct; cartilage, tide-mark, sub-chondral bone in one	Elizaveta Kon

Chair: Professor Christoph Erggelet

13:00 Lunch

Time	Title	Description	Presenter
14:00	Osteochondral Allografts	Discussion of indications, techniques, safety	Elizaveta Kon
14:20	Implant arthroplasty	Unicompartmental Knee Replacement	Raju Vaisha
14:40	Meniscus	Meniscus biology and meniscus repair techniques, and the Collagen Meniscal Transplant	Stefan Nehrer
15:00	Fibrin	Platelet Rich Plasma for chondro conduction	Seok Jung Kim

Podium Session 3: Chondral and Osteochondral Transplantation Chair: Professor Tim Briggs

Video Session 2

15:15-16:00 Chair: Professor George Bentley ACIC: A A Shetty MACI: Tim Briggs

16:00 Coffee

Podium Session 4: Neochondrogenesis

Chair: Professor Mats Brittberg

Time	Title	Description	Presenter
16:30	History	The path towards Autologous Chondroctyte Implantation	Mats Brittberg
16:45	ACI	Autologous Chondrocyte Implantation: Evolution of a technique	James Richardson
17:00	Characterised ACI	5 yr follow up of cartilage cell therapy using CCI a true ATMP	Daniel Saris
17:15	Osteoblasts	Treatment using cultured autologous osteoblasts	Seok-Jung Kim
17:30	Stem Cells	Stem cells culture and potential for neochondrogenesis	Norimasa Nakamura
17:45	Viscosupple- mentation	Its role in cartilage repair	A A Shetty Seok-Jung Kim



Video Session 3

9:00-10:00 Chair: Professor Seok-Jung Kim ACI: James Richardson Gel ACI: Seok-Jung Kim

10:00 Coffee

Podium Session 5: Augmented Neochondrogenesis

Chair: Professor James Hui

Time	Title	Description	Presenter
10:30	Introduction to Tissue Engineering	Cells + Matrix = Engineered Tissue	George Bentley
10:45	Membrane augmentation	Matrix augmented chondrocyte implantation: MACI and CACI	Tim Briggs
11:00	Stem cells + HA (MCIC)	Articular Cartilage Regeneration with Stem Cells	A A Shetty
11:15	Cultured stem cells	The Singapore technique	James Hui
11:30	Stem cells	The Japanese technique	Norimasa Nakamura

11:45 Coffee

Podium Session 6: Chondroprotection and Miscellaneous

Chair: Professor Norimasa Nakamura

Time	Title	Description	Presenter
12:15	Rehabilitation	Early vs late weight bearing	Karen Hambly
12:30	HTO, TTT	High Tibial Osteotomy, Tibial Tubercle Transfer	James Hui
12:45	Biochemical protection	Viscosupplementation	Christoph Erggelet
13:00	Mathematical Modelling	Stochastic Modelling of Cartilage Repair	Saif Ahmed
13:15	Closing Talk	Gazing into the Crystal Ball for Cartilage Repair. The next 50 years.	Stefan Nehrer

13:30 Vote of Thanks and Closing Remarks

A A Shetty

14:00 END