AO Foundation
Research

European CELLS & MATERIALS

ECM VIII

BONE TISSUE ENGINEERING

June 25-28, 2007 | Convention Centre,
Davos, Switzerland

ECM WELCOMES YOU TO DAVOS

Dear colleagues

This meeting continues the ECM congress series held in Davos.

A single session permits in depth multi-disciplinary set of discussions with clinicians, biologists, chemists, engineers and material scientists on latest research and developments in the field of bone tissue engineering and fracture repair. The intention will be to start the meeting with an overview of clinical problems, move towards current research and finish with a detailed summary and the future work to be done.
Yours sincerely,

Dr R. Geoff Richards
Course Chairman

Prof Charlie W. Archer
Course Chairman

Dr Mauro Alini
Course Chairman

Conference Organisers

R. Geoff Richards- Editor-in-Chief ECM Journal.
Head of Bio Performance of Materials & Devices Program, ARI, AO Foundation, Davos, CH.

Mauro Alini - Sceintific Editor ECM Journal.
Head of Tissue Engineering & Biomaterials Program, ARI, AO Foundation, Davos, CH.

Charlie W. Archer - Sceintific Editor ECM Journal.
Connective Tissue Biology Research Group, Cardiff Institute of Tissue Engineering & Repair, Cardiff University,Wales, GB.

Dedication

ECMVIII is dedicated to honour of Prof. Dr. med. D.Sc. (h.c.) Stephan M Perren a world-renowned research trauma surgeon for his endless work on bone research, teaching, advising, fostering ideas and mentoring of scientists. Stephan's advice is given with conviction and belief, always in a friendly manner - even when disciplining rowdy students- - as I know from personal experience :-)
Stephan was directorand co-founder of the Laboratory for Experimental Surgery (now AO Research Institute (ARI)) from 1967-1995. He was also the first director of the Maurice E. Müller Institute for Biomechanics (MIB) from 1982 until 1988 (travelling back and forth from Davos to Bern). Since then he has been Senior Scientific Advisor for ARI and has been involved in teaching about bone biomechanics and the influence of soft tissue and blood supply along with his osteoporosis publicity work all over the world. Stephan is also a founding member of the European Society for Biomechanics. Stephan is first author on 150 publications and co-author in another 850 papers.

When Stephan directed ARI he took the research emphasis towards the area of bone biomechanics. Main focus was placed on the interaction of mechanical and biological influences on bone formation, remodelling, and healing. During this period major progress was made in respect to the biology of internal fracture fixation, whereby new implants (plates with limited or without contact to the underlying bone), and tissue-friendly surgical procedures were developed. He was largely responsible for demonstrating the importance of osseous vascular supply and perfusion in surgical treatment of fractures. Later his interest focused on biocompatibility of different implant materials, their immunological effect and alterations of local resistance to infection, mainly in steel and titanium implants of different design. Since the early 1960s he is an addict of titanium for internal fixation implants. In the early 90's the importance of the material surface was realised by Stephan and work was immediately initiated within this area, which is now my major focus. Stephan was a mentor for me in this area and still often discusses the area with me. I am very proud to have recently published a chapter in the AO Principles of Fracture Management (Second expanded edition) together with Stephan on Implants and materials in fracture fixation.

Stephan recently completed (at 73), a round-the-world tour from Switzerland to Australia and back with a small, single engine plane.The mission called "Spirit of Davos: A Flight for a Global Idea", he (along with his son for part of the journey) circled the earth while spreading information about osteoporosis. Scientific presentations were made to stimulate awareness of the illness, show the possibilities of prevention, diagnosis and therapy, as well as raise funds for the advancement of research in the field.

www.spirit-of-davos.ch

We thank the following Sponsors

Registration & Conference dinner tickets ECM VIII

Sunday, June 24 18:00 – 19:00 Registration and pick up of conference bags at the Convention Center

Monday, June 25 07:30 – 08:10 Registration and pick up of conference bags at the Convention Center

Conference Secretaries

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All **invited talks** are 22 minutes (Max) (20-30 slides)
to allow 8 minutes discussion per talk
All **submitted talks** are 12 minutes (10-15 slides)
to allow 3 minutes discussion per talk
Chairpersons will cut people off who try to use this time for their talks!!

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Scientific Programme

Monday, June 25th

08:30 – 09:00 Welcome

08:30 – 08:40 **Erich Schneider, Director AO Research Institute, Davos**
Research in Davos.

08:40 – 08:55 **Geoff Richards, AO Research Institute, Davos**
Dedication of conference to Stephan Perren and information for participants

Clinical Perspective
Session 1 Chair: Geoff Richards

09:00 – 09:30 **Pietro Regazzoni (University Hospital Basel, CH)**
Current problems in bone fracture treatment

09:30 – 10:00 **Paul Heini (Inselsital, Bern, CH)**
Trends of treatment of vertebral fractures

10:00 – 10:30 **Rainer Schmelzeisen (University Clinic Freiburg, D)**
Tissue Engineering in Craniomaxillofacial Surgery

10:30 – 10:45 Fracture Healing in a Model for Senile Osteoporosis (SAMP6)
M Egermann, P Heil, I Groengroeft, K Ito, W Hofstetter, P Richards

10:45 – 11:00 The role of cyclooxygenase 1 and 2 in fracture repair
CXX Guo, MG Irwin, D Chan, GL Tipoe, KMC Cheung

11:00 – 11:30 Coffee Break

General Biology
Session 2 Chair: Mauro Alini

11:30 – 12:00 **Fred Shapiro (Harvard, Boston, USA)**
Bone development and its relation to fracture repair

12:00 – 12:30 **Juerg Gasser (Novartis, Basel, CH)**
Controlling bone formation and resorption

12:30 – 13:00 **Clemens Van Blitterswijk (University of Twente, NL)**
Nutritional aspects in musculoskeletal tissue engineering

13:00 – 13:30 **Thimios Mitsiadis (Zurich University, CH)**
Tooth formation & repair with stem cells or other cells

13:30 – 17:30 Afternoon break

Stem cells
Session 3 Chair: Charlie Archer

17:30 – 18:00 **Richard Oreffo (Southampton University, GB)**
Human Fetal & Adult Osteoprogenitors - Isolation, Lineage Modulation and Potential for Skeletal Regeneration

18:00 – 18:30 **Milena Mastrogiacome / Cancedda (Genoa, IT)**
Adult stem cells in bone regeneration: advantages and present limitations

18:30 – 18:45 Reporter-Vector systems to monitor osteogenic differentiation
G Feichtinger, B Kloesch, I Kehrer, D Dopler, A Banerjee, M van Griensven, H Redl

18:45 – 19:00 Transcription factor regulation of osteoclastogenesis from embryonic stem (ES) cells
AE Grigoriadis

19:00 – 19:15 HLA - independent transplantation of mesenchymal stem cells for regeneration of bone: Preliminary Results of a critical size defect study in the sheep tibia
P Niemeyer, J Vohrer, H Klöppel, S Milz

19:15 – 20:30 Poster session (with refreshments)

Tuesday, June 26th

Biomaterials 1
Session 4 Chair: Jeff Hubbell

08:15 – 08:45 **Kevin Shakesheff (Nottingham University, GB)**
Injectable Pastes that form Porous Scaffolds

08:45 – 09:00 Time-lapsed monitoring of tissue engineered bone
H Hagenmüller, HP Merkle, L Meinel, R Müller

09:15 – 09:30 Modular Enzyme-responsive biomaterials for bone tissue engineering
M Ehrbar, MP Lütolf, SC Rizzi, JA Hubbell, FE Weber

09:30 – 09:45 In vivo evaluation of the hybrid biomaterial calcium phosphate/poly(lactide-co-glycolide) and osteoblastic cells
MM Beloti, PT de Oliveira, JE Davies, L Guan, PSP de Carvalho, AL Rosa

09:45 – 10:00 Carbon fibre renforced polymer (CFRP) cage induces better cell adhesion, spreading and proliferation than poyetheretherketone (peek) cage. Analysis by a new cellular model for in vitro study of orthopaedic biomaterials
G Barbanti Bròdano, C Morelli, A Gasbarrini, C Di Bona, M Tognon, S Boriani

10:00 – 10:15 Implant osseointegration: in vitro analysis of titanium microtopography
JS Hayes, C Archer, RG Richards

10:15 – 10:45 Coffee Break

Biomaterials 2
Session 5 Chair: Joost D. de Bruijn

10:45 – 11:15 **Joost D. de Bruijn, Queen Mary University of London, GB)**
Application of osteoconductive materials in bone surgery. (New Approaches to Bone Regeneration)

11:15 – 11:45 **Marc Bohner (RMS, Bettlach, CH)**
The gap between research & clinical applications of bone substitutes

11:45 – 12:00 CaP based in vivo delivery of osteogenic agonist in chick embryo femurs
K Gellynck, M Parkar, P Buxton

12:00 – 12:15 Unique bone substitution of TCP-granulates (Cerasorb®) during degradation in human sinus floor elevations
H Plenk Jr, L Chyplyk, J Lederer

12:15 – 12:30 Long-term release of bioactive BMP2 from CaP ceramics via cell mediated material resorption
E Wernike, W Hofstetter, Y Liu, EB Hunziker, KA Siebenrock, FM Klenke

12:30 – 17:30 Afternoon break

Bone Biomechanics
Session 6 Chair: Keita Ito

17:30 – 18:00 **Danny Kelly (Trinity College, Dublin, IRE)**
Tissue differentiation steps towards bone formation

18:00 – 18:30 **Hans Van Oosterwyck (Leuven, B)**
Adaptive bone remodelling: bone as a true smart material

18:30 – 18:45 Mathematical modelling to predict bone forming potency of human mesenchymal stem cells
C De Bari, PV Guillot, NM Fisk, EA Jones, D McGonagle, IM Khan, CW Archer, RA Mitsiadis, N Donaldson, FP Luyten, C Pitzalis, F Dell Accio

18:45 – 19:00 A mathematical model of bone regeneration including angiogenesis: relevance for tissue engineering strategies
H Van Oosterwyck, J Vander Sloten, L Geris

19:00 – 19:15 Design of a Bone Scaffold Based on Biomechanical Analysis
DP Pioletti, L Mathieu, L Blecha, PY Zambelli, LL Applegate, PE Bourban

19:15 – 20:30 Poster session (with refreshments)

Wednesday, June 27th

Cell Biology 1
Session 7 Chair: Sophie Verrier

08:30 – 09:00 **Willy Hofstetter (Bern University, CH)**
Bone remodelling- dedicated to Professor Herbert A. Fleisch, former Head of the Laboratory for Experimental Surgery, Swiss Research Institute, Davos (1963-1967) and former Head of the Department of Pathophysiology, University of Bern (1967-1997), who recently passed away.

09:00 – 09:30 **Laurence Vico (St Etienne, FR)**
VEGF-A & bone formation: New perspectives

09:30 – 09:45 Cell cooperation between osteoprogenitor and endothelial cells: its function on bone tissue engineering M Grellier, R Bareille, C Bourget, N Ferreira Tojais, P Granja, M Barbosa, J Amédée

09:45 – 10:00 Platelet released growth factors boost expansion of endothelial progenitor cells S Lippross, S Verrier, LM Benneker, M Alini

10:00 – 10:15 Intergration of sheep peripheral vein endothelial cells into polyurethane scaffolds-delivering angiogenic potential into autologous graft constructs S Verrier, S Lippross, S Hoppe, C Schlickewei, M Alini

10:15 – 10:50 Coffee Break

Cell Biology 2
Session 8 Chair: Willy Hofstetter

10:50 – 11:20 **Jan de Boer (University of Twente, Bilthoven, NL)**
Controlling osteogenesis by/of human mesenchymal cells

11:20 – 11:35 Two Single Point Mutations in rhGDF-5 enhance Ectopic Bone Formation in a SCID Mouse Model using β-Tricalciumphosphate Scaffolds as Carrier I Beyen, F Plöger, D Bormann, M Kramer, R Luginbühl, W Richter, P Kasten

11:35 – 11:50 From cartilage to bone: The growth plate as an innovative model in the targeting of signalling moclecules for tissue engineering in bone and cartilage repair. C Brochhausen, A Kopp, CJ Kirkpatrick

11:50 – 12:05 Instant mesenchymal stem cell therapy: How can we do it? Characterization and concentration of mesenchymal stem cells in vitro. P Kasten, R. Luginbühl, K Fechner, AJ Suda, M Egermann, B Gasser, I Beyen

12:05 – 12:20 Generation of osteogenic and vasculogenic implants by perfusion culture of adipose tissue-derived cells. AM Müller, R Galli, C Jaquiery, J Farhadi, I Martin, A Scherberich

12:20 – 12:35 Viability and procollagen-1 expression of cultured human cancellous bone explants using a serum free medium containing $TGF\beta_3$. K Jähn, MJ Stoddart, PI Furlong, CW Archer, RG Richards

Free Afternoon
18:00 - Conference Dinner, Ischalp

Thursday, June 28th

From basic research to clinical applications.
Session 9 Chair: Erich Schneider

09:15 – 09:45 **Simon Pearce (AO Research Institute, Davos, CH)**
Animal models for bone repair

09:45 – 10:15 **Stefan Milz (AO Research Institute, Davos, CH)**
Tissue reactions around implants: histological view

10:15 – 10:45 **R. Geoff Richards (AO Research Institute, Davos, CH)**
Implant surfaces in fracture fixation: In vitro & in vivo

10:45 – 11:15 Coffee Break

Future of Bone Repair
Session 10 Chair: Juerg Gasser

11:15 – 11:45 **Jeff Hubbell (EPFL, Lausanne, CH)**
Materials for Delivering Bioactive Factors

11:45 – 12:15 **Chris Evans (Harvard, Boston, USA)**
The Facilitated Endogenous Repair of Bone by Gene Transfer

12:15 – 12:45 **Stephan Perren (AO Research Institute, Davos, CH)**
State of the art and future of bone repair

12:45 – 13:00 Best student oral and poster prizes.

13:00 – 13:15 **Mauro Alini (AO Research Institute, Davos, CH)**
Conference Summary

13:15 Conference close

Posters

1. Jaw periosteal cells: a suitable source for mesenchymal stem cells?
   D Alexander, P Kalkreuter, A Munz, J Hoffmann, S Reinert
2. Polylactide and pseudowollastonite dense nanocomosites: New biomaterials for bone tissue engineering
   D Barone, JM Raquez, P Viville, M Anseau, A Belayew, Z Luklinska, R Lazzaroni, P Dubois
3. Osteogenic differentiation of human bone marrow stromal cells in porous scaffolds from mineralized collagen
   A Bernhardt, A Lode, C Mietrach, U Hempel, M Gelinsky
4. Cross-linked polyurethane foams and composites for bone tissue engineering
   S Bertoldi, D Farè, MC Tanzi, G Ciapetti
5. Immobilization of human mesenchymal stem cells
   SJ Bidarra, CC Barrias, MA Barbosa, R Soares, PL Granja
6. In vitro production of bone-like tissue: primary osteoblast modification of a dense collagen scaffold
   M Bitar, K Gellynck, M Parkar, R Brown, SN Nazhat, P Buxton
7. Expression of mutant RhoA in osteoblasts in transgenic mice results in altered bone formation in vitro
   G Bluteau, AE Coudert, A Danikas, AE Grigoriadis
8. Correlating cell architecture with osteogenesis: First steps towards live single cell monitoring
   AK Born, M Rottmar, K Maniura-Weber, A Bruinink
9. Surface modification of 45S5 Bioglass®-derived scaffolds for bone tissue engineering
   O Bretcanu, C Vitale Brovarone, E Verné, C Cassinelli, M Morra, C Bianchi, AR Boccaccini
10. PLGA-Microspheres as a release-system for signalling molecules in tissue engineering – first results of prostaglandin E_2 release
    C Brochhausen, R Zehbe, B Watzer, S Halstenberg, H Schubert, CJ Kirkpatrick
11. Infected nonunions of long bones treated by autologous mesenchymal stemm cell enriched bone grafting
    P Cibur, J Rosocha, V Holovska, S Gromosova, R Morochovic, H Blaskova, T Molcanyi, M Kitka
12. Dynamic mechanical property analysis of hydrogel biomaterial
    W Conrads; J Lu, S Williams
13. Animal models for fracture treatment in osteporosis: Induction of bone loss in sheep
    M Egermann, CA Lill, K Ito, E Schneider
14. Transmission electron microscopy of interfaces between hard tissue and biomaterials
    H Engqvist, A Palmqvist, F Lindberg, T Jarmar, R Branemark, L Emanuelsson, P Thomsen
15. Changes in the physical properties of calcium phosphate matrix during conversion
    M Geiger, D Boardman, M Lisowski, S Sofia
16. cAMP enhances the bone morphogenetic protein-2 (BMP-2)-dependent differentiation of osteoprogenitor cells
    C Ghayor, M Ehrbar, B San Miguel, A Sala, FE Weber
17. Cell induced response by tetracyclines on human bone marrow colonized Bonelike®
    PS Gomes, JD Santos, MH Fernandes
18. Apatite thin film can provide good cell adhesion to poly(vinyl alcohol) hydrogel as an artificial articular cartilage
    T Hayami, K Matsumura, SH Hyon, H Nishikawa, S Hontsu, M Yamamoto

19. Fabrication of nano-HA/PCL composite scaffolds by modified rapid prototyping technique
YT Hyun, SE Kim, HS Yun, SJ Heo, JW Shin
20. Surface Modification of HA and TCP immersed in simulated body fluid
A Jaroenworaluck, N Koolprrchanan, N Kosachan, R Stevens
21. Bishosphonate based coatings for hard tissue implants
AR Kautz, E Grunow, F Schlottig, M Schnabelrauch
22. X-ray microtomographic study of transport into human dentine following demineralisation
M Kawabata, MP Hector, GR Davis, CR Parkinson, GD Rees, P Anderson
23. Synthetic peptides deived from the knuckle epitope of hBMP-2 were evaluated for inducing osteogenic differentiation in vitro and in vivo
B Kloesch, B Hering, D Dopler, A Banerjee, M van Griensven, H Redl
24. Modulation of VEGF release form functionalized bone graft material
U Koenig, A Guenther, O Kreft, TH Hanke M Yamamoto, M Gelinsky
25. Distraction bone-engineering in atrophic edentulous mandibles prior to dental implant insertion
CH Krenkel, W Goriwoda, G Moser, H Plenk jr
26. Engineering of hypertrophic cartilage with and without poly(glycolic acid) scaffolds
A Kwarciak, A Crewford, I Brook, PV Hatton
27. Effects of EGCG on the differentiation ability of human dental plup cells in vitro
BH Lee, JW Park
28. Osteogenic potential of late adherent cells of human bone marrow cultures
E Leonardi, D Granchi, V Devescovi, G Ciapetti, B Baldini
29. Porous silk/hydroxyapatite scaffolds for bone tissue engineering
C Li, L Meinel, HP Merkle
30. Low doses of heparin stimulate rat osteoblast differentiation by potentiating bone morpholgenetic protein (BMP)-2 signalling
GH Malik, AW McCaskie, MA Birch
31. Developing 3D Printing of Hydroxyapatite-like Scaffold: From Precursor to Structure
N Mari-Buyé, E Garreta, C Semino, C Colominas, S Borrós
32. Mechanical behaviour under uniaxial compression of robocast calcium phosphate scaffolds
M Miranda, A Pajares, E Saiz, AP Tomsia, F Guiberteau
33. Synthesis and biocompatibility of porous collagen/chondroitin sulphate/hydroxyapatite composites for bone tissue engineering
L Moldovan, O Craciunescu, M Balan, EI Oprita, O Zarnescu
34. Porous b-TCP activation with a chitosan/rh-BMP-2 coating
C. Moreno-Vicente, A Civantos, A Abarrategi, V Ramos, JL López-Lacomba
35. Virus-like particles for gene transfer in chondrocytes and mesenchymal stem cells
K Müller-Zahm, IG Richter, W Lüke, I Wilke
36. Expansion of human bone marrow stromal cells within porous scaffolds under perfusion
A Papadimitropoulos, A Braccini, D Wendt, A Barbero, I Martin
37. Osteogenic differentiation of hMSCs in dense collagen scaffolds for bone tissue engineeringsteogenic differentiation of hMSCs in dense collagen scaffolds for bone tissue engineering
MH Parkar, K Gllynck, PG Buxton
38. Nano-hydroxyapatite microspheres for periodontitis treatment: Preparation and cytotoxicity studies
AY Pataquiva Mateus, MP Ferraz, FJ Monteiro
39. Osteoblast adhesion on biofunctionalized poly-(ε-caprolactone) surfaces
F Perut, D Granchi, I Amato, G Ciapetti, G Marletta, C Satriano, N Baldini
40. Porous calcium phosphate/chitosan/alginate scaffolds for tissue engineering
MI Popa, N Aelenei, DM Aelenei, M Frunza

41. Osteoblast behaviour on injectable biomaterials intended for augmentation of vertebral compression fractures
S Ramstedt, A Johansson, H Engqvist, P Thomsen
42. The Stand-Alone T-CUP Bioreactor System: Towards the automated manufacture of engineered bone grafts
SA Riboldi, M Jakob, JA Frueh, D Cueni, P Pereira, A Scherberich, I Martin
43. Temporal Assessment of cells on biomaterials by confocal microscopy
JC Roldán, E Chang, L Jazayeri, M Kelantan, U Deisinger, R Detsch, G Grutner
44. A novel HA/TCP Ceramic: Implant design and bone formation
JC Roldán, U Deisinger, R Detsch, E Chang, M Kelantan, L Jazayeri, G Gurtner, G Ziegler
45. A novel software-based evalutation method for objective quantification of bone regeneration in experimental bone defects
T Schönberger, J Hahn, P Kasten, NP Südkamp, K Fechner, S Pearce, P Niemeyer
46. Bone tissue engineering using PCL-scaffolds rhBMP-2 and PRP
KH Schuckert, S Jopp
47. A novel ex vivo culture system for bone repair
AJ Sloan, EL Smith, M Locke, RJ Waddington
48. Cell culture studies on hydroxyapatite and wollastonite-tricalcium phosphate based materials for tissue engineering
S Teixeira, M Magallanes, A de Aza, AY Mateus MA Rodriguez, P Pena, MP Ferraz, S de Aza, FJ Monteiro
49. Three-dimensional polymer scaffolds fabricated by surface selective laser sintering (SSLS)
CE Upton, SM Howdle, KM Shakesheff, VK Popov
50. Bacterial induction of HBD-3 in osteoblasts is dependent on toll like receptor-2 and -4 and is not a result of a de-novo synthesis
D Varoga, C Wruck, S Lippross, A Seekamp, T Pufe
51. Bone formation on dental implants in a sheep study
K Voelter, JD Langhoff, K Nuss, B von Rechenberg, T Hefti, F Schlottig
52. Measuring cell adhesion forces as a function of the cell cycle by force spectroscopy
G. Weder, M. Giazzon, J Polesel-Maris, A Meister, M Liley, H Heinzelmann
53. Endogenous patterns of endothelin-1 expression in osteoblasts are not altered by indirect co-culture with endothelial cells
B Weyand, PM Vogt, HP von Schroeder
54. A study of strain related bone remodelling of the osseointegrated patient
DH Xu, W Xu, AD Crocombe

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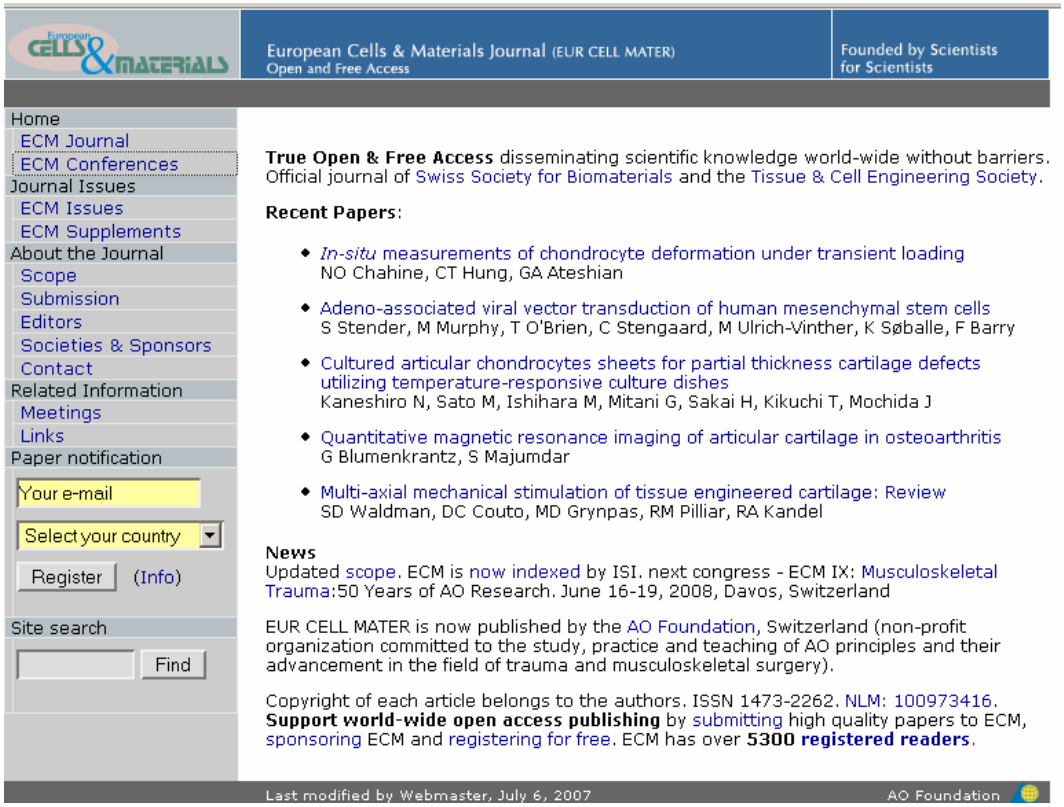

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June 16-18, 2008, Congress Centre, Davos, Switzerland. (Single session meeting, with free afternoons). Abstract deadlines Oral April 1st 2008, Poster April 15th 2008
June 19 – AO Research Institute Reunion in its 50th year. 1 day single session (Free to all ECMIX registrants- All invited talks)

2009 ECM X: Spinal Motion Segment: From Basic Science to Clinical Application
Date to be announced. Congress Centre, Davos, Switzerland
(4 day single session meeting, with free afternoons)

2010 ECM XI: Cartilage Ligaments and Tendons.
Date to be announced. Congress Centre, Davos, Switzerland
(4 day single session meeting, with free afternoons)

2009 **22nd European Conference on Biomaterials (ESB2009), Montreux (or Lausanne), Switzerland. 7th 11th, September 2009. http://www.esb2009.org**

The Swiss Society for Biomaterials is honoured to host the 22nd European Conference on Biomaterials, the annual conference of the European Society for Biomaterials. It is our pleasure to invite you to ESB2009 to be held September 7th - 11th, 2009 in the historic town of Montreux or Lausanne within the French speaking West Switzerland, on the shores of lake Geneva at the foothills of the Swiss Alps. Estimated attendance 1500 with 4 parallel sessions.

Prof. Dr. Geoff Richards
President Swiss Society for Biomaterials
ESB2009 Organisers: Christine. Wandrey, Marc Bohner, R Geoff Richards

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The need for water treatment

- 1.1 billion people are without safe water
- diarrhoea cause 2.2 million death per year
- every 15 seconds a child is dying due to diarrhoea (each day, 6000 children).

This situation can be improved with the application of adequate methods to treat drinking water. SODIS (**Solar Water Disinfection)** is a simple method to improving the microbiological quality of drinking water: contaminated water is filled into transparent PET-bottles and exposed to the sunlight for 6 hours. **During the solar exposure the UV-A radiation destroys diarrhoea causing bacteria, viruses, Giardia and Cryptosporidium.** The efficiency of the method has been tested through laboratory evaluation and field tests by the reputed Swiss water research institute EAWAG and other research institutes in Ireland, England and the USA. Various epidemiological studies conduced in Bolivia and Kenya by the Swiss Tropical Institute and the Irish Royal College of Surgeons have shown that people using SODIS treated water have significantly less diarrhoea than before.

SODIS is simple to apply by the user with very low cost as the **only resources required are PET-bottles and sunlight.** Encompassing effort and resources however are required to disseminate the information about SODIS, create awareness and train the people in need. To face the global water crisis, partnerships are established with Lions Clubs in Developing Countries and resources collected in industrialized countries to support SODIS dissemination projects.

ECMVIII congress has provided each of you with one bottle of water, for which we have paid 5 Swiss Francs to help support this cause.
This extremely simple, yet effective, use of nature (sunlight- UV-A radiation) with the PET bottle, destroys diarrhoea causing bacteria in drinking water. The Lions clubs motto is "We Serve" and ECM's motto is World-wide 'Free access to all', so ECM is proud to disseminate the information about SODIS and make a small financial contribution. ECMVIII congress has paid 5 Swiss Francs to provide each of you with one bottle of water and help support this appeal.
If you wish to contribute to this cause, please deposit any remaining Swiss Francs you may have – when leaving the conference – in the donation box at the registration desk. Thanks!

Editor-in-Chief ECM journal and ECM Congresses organiser.