

GRIBOI

GROUPE DE RECHERCHE INTERDISCIPLINAIRE SUR
LES BIOMATERIAUX OSTEO-ARTICULAIRES
INJECTABLES

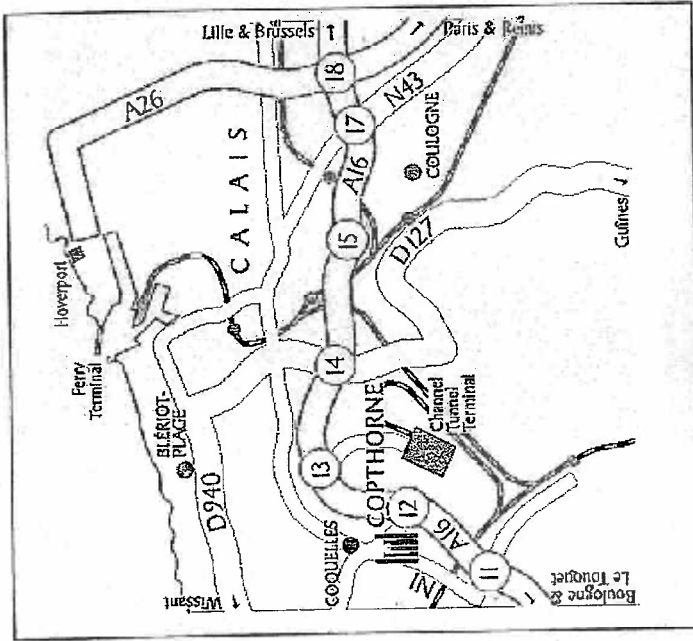
11th Interdisciplinary Research Conference on Biomaterials

Coquelles (Calais) France
8th – 9th March 2001

Final program

Conference address

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GRIBOI 2001

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Thursday, March 8th

09.00 am : Registration

09.30 am : Welcome address

Session I : Physicochemical characterization of biomaterials

10.00 am : **Invited lecture** : AP Legrand, B Bresson

Laboratoire de Physique Quantique, ESPCI, Paris, France.
Bone and Bone Substitutes NMR Characterisation

10.45 am : EF Brès¹ and JL Hutchinson²

¹ESA CNRS 8008, Université de Sciences et Technologies de Lille, France. ²Department of Materials, University of Oxford, UK

Observation of the surface structure of biological calcium phosphate apatite crystals from human tooth enamel

11.00 am : EI Suvorova¹ and PA Buffat²

¹Institute of Crystallography RAS, Moscow, Russia. ²Centre Interdépartemental de Microscopie Electronique, EPFL, Lausanne, Suisse

Model of the Ca-loss mechanism in bones under microgravity and earth conditions

11.15 am : Coffee Break

11.45 am : SM Belkoff¹, H Deramond², LE Jasper¹ and JM Mathis³

¹The University of Maryland, Baltimore, USA. ²University Hospital, Amiens, France. ³Lewis-Gale Clinic, Salem, USA

Biomechanical evaluation of a hydroxyapatite cement for use with vertebroplasty

12.00 am : F Lefebvre, JJ Fabre, D Ahite and P Campistron

Institut d'Electronique et de Microelectronique du Nord, DOAE, Université de Valenciennes et du Hainaut Cambrésis, France

Development of a new ultrasonic technique for bone and biomaterials characterization

12.15 am : E Cau, G Penel and G Leroy

LBM Miero Raman, Faculté d'Odontologie, Université de Lille 2, France

Physicochemical investigations of natural and synthetic calcium carbonate

12.30 am : Lunch

Session II : Orthopaedic tissue engineering

02.00 pm : **Invited lecture** : JT Triffitt, ROC Oreffo and AS Viridi

Bone Research Laboratory, Nuffield Department of Orthopaedic Surgery, University of Oxford, UK

In vivo transplantation of genetically-marked human bone marrow osteoprogenitors and their localisation in skeletal sites

02.45 pm : K. Anselme, O. Broux, B. Noël, AF. Dudermeil¹, F. Bianchi¹,

B. Bouxin¹, P. Hardouin and J. Jeanfils

I.R.2.B., Université du Littoral Cote d'Opale, Berck/mer, Boulogne/mer. ¹ Institut Calot, Groupe Hopale, Berck/mer, France.

In vitro control of human bone marrow stromal cells for bone tissue engineering

03.00 pm : O Broux, C Chauveau, JC Devedjian, B Noël, C Delecourt¹,

K. Anselme, MC Blary, B Flaute, D Darriet¹, P. Rigaux¹, F Danze¹,

P Hardouin and J Jeanfils

I.R.2.B., Université du Littoral Cote d'Opale, Berck/mer, Boulogne/mer. ¹Etablissement Hélio-marin, Groupe Hopale, Berck/mer, France

RT-PCR analysis of human heterotopic ossification

03.15 pm : Coffee Break

03.30 pm **Invited lecture** : JA Hubbell

Institute for Biomedical Engineering, University of Zürich, Switzerland

Biomimetic and in situ curing materials in bone regeneration and repair

04.15 pm : K Anselme, M Rouahi, B Noël, T Grand, O Gallet¹, JM Imhoff¹,

M Descamps², F Bianchi³, AF Dudermeil³, B Bouxin³,

P Hardouin and J Jeanfils

I.R.2.B., Université du Littoral Cote d'Opale, Berck/mer, Boulogne/mer. ¹ERRMEC, Université de Cergy-Pontoise. ²LAMAC, CRIT Céramiques Fines, Maubeuge. ³ Institut Calot, Groupe Hopale, Berck/mer, France

Improving of hybrid materials thanks to autologous adhesion proteins

04.30 pm : GRIBOI General Council

05.00 pm : Departure to Boulogne sur mer

05.30 pm : Social event in Boulogne

07.00 pm : Reception in Boulogne City Hall by the Lordmayor

08.30 pm : Conference Dinner

Friday, March 9th

08.45 am : **Invited lecture : JM Planeix, MW Hosseini, EF Brès¹, J Czernuska**
Université de Strasbourg, ¹ Université de Sciences et Technologies de Lille, France
**A molecular tectonics/crystals engineering approach for building
organic/inorganic composites. Potential applications to biomaterials**

Session III : Calcium phosphate cements

09.30 am : A Brouchet¹, S Gonçalves^{2,3}, JL Lacout², G Viguière¹ and B Delisle¹
¹ Service d'Anatomie et Cytologie Pathologique, CHU Rangueil, Toulouse. ² CIRIMAT
ENSC-T-INPT, Toulouse. ³ TEKNIMED, Vic en Bigorre, France
Radio-histological study of two phosphocalcium injectable

09.45 am : O Gauthier^{1,2}, R Mueller³, D Von Stechow³, JM Bouler¹, G Daculsi¹
and E Aguado^{1,2}
¹ Faculté de Chirurgie Dentaire, Nantes. ² Ecole Nationale Vétérinaire de Nantes. ³ Harvard
Medical School, Boston, MA, USA
**Bone substitution with injectable calcium phosphate biomaterial : in
vivo three-dimensional micro-tomographic study**

10.00 am : JX Lu¹, J. Dejou¹, JP Proust¹, P Hardouin², B Flautre², M Descamp³,
J Lemaître⁴ and P Van Landuyt⁴
¹ Faculté d'Odontologie, Marseille. ² IR2B, ULCO, Bercq /mer,
³ LAMAC, CRITT Céramiques Fines, Maubeuge. ⁴ Ecole Fédérale Polytechnique de
Lausanne, Switzerland
The mechanism of biodegradation of calcium phosphate biomaterials

10.15 am : B Flautre¹, P Van landuyt², C Maynou³, J Lemaître² and P Hardouin¹
¹ IR2B, ULCO, Bercq/mer. ² Ecole Fédérale Polytechnique de Lausanne, Switzerland,
³ CHU B Lille, France
 **β -TCP granules and cement matrix interaction on the biological
properties of brushite cements**

10.30 am : K Dai and X Shang
Ninth People's Hospital, Shanghai Second Medical University, Shanghai, PR China
**An experimental study of β -TCP impregnated bone cement and its
bone -augmentation effect**

10.45 am : Coffee break

11.15 am : Poster session

12.30 am : Lunch

Session IV : Miscellaneous and Clinical aspects

02.00 pm : T Franz^{1,2}, C Fankhauser², B Gasser² and PF Heini¹
¹ University of Bern, Switzerland, ² Dr HC Robert Mathys Foundation, Bettlach,
Switzerland
**PMMA bone cement augmentation - A possibility to increase the
fracture load of the osteoporotic proximal femur ?**

02.15 pm : C Wang, S Liu, S Wang, Q Zhao, J Bei, Q Cai and M Fan
Institute of Basic Medical Sciences of Beijing, China
**Transplantation of chondrocytes utilizing a polymer-cell construct to
produce tissue-engineered cartilage in the shape of a human trachea**

02.30 pm : Q Gu and Y Yan
Shanghai Qisheng Institute of Biomaterial and Technology, China
**Viscosupplementation : a new concept for treatment of osteo-arthrosis
in human with sodium hyaluronate**

02.45 pm : H El Briak, D Durand, J Nurit, S Munnier, B Pauvert and P Boudeville
Faculté de Pharmacie, Montpellier, France
**Study of a hydraulic dicalcium phosphate dihydrate/calcium oxide-
based cement for dental applications**

03.00 pm : J Lu
Presentation of next meeting in Shanghai.

03.30 pm : Concluding Remarks

03.45 pm : Coffee break and departure

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