

GRIBOI 2002

12th Interdisciplinary Research Conference on Biomaterials Final Program



Shanghai, China
March 14-17, 2002

Organized by

East China University of Science and Technology
Shanghai Second Medical University, China
Université du Littoral Cote d'Opale, France
Université de La Méditerranée, France
Université de Valenciennes, France

GROBOI 2002

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Agenda of the GRIBOI 2002 Conference

	March 13 th	Mar 14 th	Mar 15 th	Mar 16 th	Mar 17 th
8:40-9:00		Opening Ceremony (Conference Room 1)			
9:00 ~ 10:30		IL 1,2, 3 (Conference Room 1)	IL 7, 8, 9 (Conference Room 1)	Session 7 (Conference Room 1) Session 8 (Conference Room 2)	
10:30 ~11:00	Pre-registration (Reception Desk of YuanLin Hotel)	Coffee Break (Lobby)	Coffee Break (Lobby)	Coffee Break (Lobby)	
11:00 ~12:35		Session 1 (Conference Room 1) Session 2 (Conference Room 2)	Session 3 (Conference Room 1) Session 4 (Conference Room 2)	Session 9 (Conference Room 1) Session 10 (Conference Room 2)	
12:35 ~14:00		Lunch (Dinner Hall)	Lunch (Dinner Hall)	Lunch (Dinner Hall)	City Tour
14:00 ~ 15:30		IL 4, 5, 6 (Conference Room 1)	IL 10, 11, 12 (Conference Room 1)	Session 11 (Conference Room 1) Session 12 (Conference Room 2)	
15:30 ~ 16:00	Registration	Coffee Break (Lobby)	Coffee Break (Lobby)	Introduction of GRIBOI 2003 in USA Close Ceremony (Multi-Function Hall)	
16:00 ~ 17:35		SS1 (Conference Room 1) SS2 (Conference Room 2) Poster Session (Conference Room 3)	Session 5 (Conference Room 1) Session 6 (Conference Room 2)		
	Welcome Reception (19:00) (Multifunction Hall)	Banquet and Tour of Huang-Pu River (17:35)	Dinner (18:00) (Dinner Hall)	Dinner (18:00) (Dinner Hall)	

Board of GRIBOI

President: J. Lemaitre(Lausanne)
Vice-president: P.Sharrock(Toulouse)
Secretary: P. Hardouin(Berck Sur Mer)
Treasurer: J. Jeanfils(Boulogne)
Vice Treasurer: J.X.Lu(Marseille, Shanghai)

Conference Chairman

Changsheng Liu(Shanghai)

Executive committee

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Yue Huang (Shanghai)
J.X. Lu (Marseille, Shanghai)
J. Jeanfils (Boulogne)
P. Hardouin (Berck Sur Mer)

Conference scientific committee

S. M. Belkoff(Baltimore)	H. F. Hildebrand(Lille)
D. Bernache-assolant(Limoges)	P. Kaemmerlen(Lyon)
J. J. Railhac(Toulouse)	J. T. Triffitt(Oxford)
E. Bres(Lille)	A. Laurent(Paris)
C. Chaput(Montreal)	A. P. Legrand(Paris)
K. R. Dai(Shanghai)	G. Leroy(Lille)
J. P. Delagoutte(Nancy)	Changsheng Liu(Shanghai)
J. Delecrin(Nantes)	D. Mainard(Nancy)
H. Deramond(Amiens)	J. P. Proust(Marseille)
J. L. Lacout (Toulouse)	

Local organizing committee

Chairmanman: Changsheng Liu	
Co-Chairmanman: Kerong Dai	
Linghong Guo	Xianghuai Liu
Yue Huang	Qisheng Gu
Qi Chen	Wei Ga
Zhilan Yin	Feng He

Endorsements

- State Ministry of Education, China
- National Natural Science Foundation of China
- Shanghai Nanotechnology Promotion Center
- Chinese Committee for Biomaterials
- Chinese Speaking Orthopaedic Society
- Asia Pacific Arthroplasty Society
- Fédération Biomateraux Nord-Pas de Calais
- Société Française de Rhumatologie
- Groupe de Recherche en Chirurgie Orthopédique
- Association pour l'Etude des Greffes et des Substituts Tissulaires de l'Appareil Locomoteur
- Shanghai Rebone Biomaterials Co. Ltd
- Shanghai Bio-Lu Biomaterials Co. Ltd
- Shanghai Qisheng Biological Preparation Industry Co. Ltd

1. Oral presentations

The oral program will include invited lecture (25min.+5min. discussion) and key lecture (15min.+5min. discussion), as well as oral presentations (10min+5min discussion). An overhead projector and slide projector will be available as standard facilities. Other facilities, such as a beam for computer projection will be available upon request. The period of oral presentation will be strictly controlled by chairman.

2. Posters

The poster format will be portrait with a max size of 90 cm (wide) by 120 cm (high). The GRIBOI 2002 will supply the 3 min. oral presentation for each poster during the poster session and coffee break.

3. Language

The conference language will be English.

4. Proceedings and Full Texts of GRIBOI 2002

The organizing committee will print the proceeding of GRIBOI 2002, and then all abstracts will be published in Journal of Biomedical Materials Research: Applied Materials post conference. The GRIBOI will be responsible for publication of the full texts in an international journal. Scientific Committee of GRIBOI will undertake culling the excellent full texts for publication.

5. Academic Session Arrangement

March 14

Open Ceremony (Conference Room 1, 8:40-9:00)

Chairman: Prof. Changsheng Liu, Prof. P. Sharrock

Open Remark

Prof. J. Lemaitre, President of GRIBOI

Powder Technology Laboratory, EPFL-LTP, MX-Ecublens, CH-1015 Lausanne, Switzerland

Congratulation Remark (1)

Prof. Xingyu Wang, President of East China University of Science and Technology.

East China University of Science and Technology, Shanghai, China

Congratulation Remark (2)

Dr. Y. Gousty, Scientific and Education Officer.

Consulate General de France in Shanghai.

Congratulation Remark (3)

Prof. Tingfe Xi, Chairman of Chinese Society of Biomedical Engineering.

National Institute for the Control of Pharmaceutical and Biological Products, Beijing, China

Congratulation Remark (4)

Prof. Xingdong Zhang, Vice-Chairman and Secretary General, Chinese Committee for Biomaterials

Sichuan University, Chengdu, China

March 14

Invited Lectures-1 (Conference Room 1, 9:00-10:30)

Chairman: Acad. Zhongwei Chen, Prof. P. Sharrock

9:00-9:30

Working Characteristics of Injectable Calcium Phosphate Hydraulic Cement

Prof. J. Lemaitre

Powder Technology Laboratory, EPFL-LTP, MX-Ecublens, CH-1015 Lausanne, Switzerland

9:30-10:00

Future Direction of Calcium Phosphate Cements

Prof. Changsheng Liu

Institute of Biomaterials, East China University of Sci. and Tech., China

10:00-10:30

Drug Delivery and DDS Scaffold

Prof. Zhongwei Gu

Institute of Birth Control and Family Plan, Beijing, China

10:30-11:00 **Coffee Break (Lobby)**

Session 1 Characterization of Biomaterials (Conference Room 1, 11:00-12:35)

Chairman: Prof. Yilin Cao, Prof. J. Lemaitre

11:00-11:20 **Key Lecture:**

NMR Spectroscopy Contribution to the Study of Biomaterial Mineralisation

Legrand, A.P

Laboratoire de Physique Quantique. FRE CNRS 2312. ESPCI. 10, Rue Vauquelin 75005
Paris, France

11:20-11:35

Biocompatibility of Dental Alloys: Establishment of a Cytotoxicity Index

J.-C. Hornez, A. Lefevre , H. F. Hilderabd

Biomaterials Research Laboratory, Faculté de Médecine, F-59045 Lille Cedex, France

11:35-11:50

Isolation and Two-Dimensional Electrophoresis Analysis of Plasma Membrane Proteins From
Osteoblastic Cells

Rouahi M, Grard T, Tavernier E, Anselm K, Noel B, Hardouin P, Jeanfils J

Instistitut de Recherche sur les Biomateriaux et les Biotechnologies (IR2B)- ULCO Basin
Napoleon, Quai Robert Masset, BP 120 62327 Boulogne sur mer, France

11:50-12:05

Physico-Chemical Analysis of Dental Root Canal Filling Biomaterials

Aline Sinan, Olivier Moyer, Patrick Sharrock, Paul Cala

Faculté d' Odontologie, Université Paul Sabatier, Toulouse, France

12:05-12:20

Interbody Arthrodesis Using a Plasmapore Titanium Block. Mechanical and Histological
Experimental Study in Sheep

Tropiano P, Bronsard J.J., Poitout D.G.

Centre Hospitalo-Universitaire, Service D'orthopedie, Traumatologie, Chemin des Bourrelys,
Marseille, France

12:20-12:35

Rheological Characteristics of Chitin/PCL Blends with BC Additives

Kang Sun, Anle Yang and Renjie Wu

Shanghai Jiao Tong University, Huashan Road, Shanghai 200030, China

Session 2 Bone Cement (Conference Room 2, 11:00-12:35)

Chairman: Prof. Changsheng Liu, Prof. P. Hardouin

11:00-11:20 **Key Lecture:**

Improvement of the Resorbability and Release of Active Principles in Injectable Phosphocalcium
Cement; Research and Development

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J. L. Lacott

CIRIMAT Physicochimie des Phosphates ENSIACET / INP Toulouse UMR CNRS 5085 118,
Route de Narbonne 31077 Toulouse Cedex, France

11:20-11:35

Bone-Cements Based on Tricalcium Silicate

Chine-Wen Huang, Ren-Jei Chung, Pu-Chi Lin, Tuan-Jung Hsu and Tsung-Shune Chin
Department of Materials Science and Engineering, National Tsing Hua University, 101,
Sec-2, Kunag-Fu Road, Hsinchu 30043, Taiwan, China

11:35-11:50

Long-term Aging of Brushite Cements in Physiological Conditions: An in Vitro Study

S. Rousseau, J. Lemaitre, M. Bohner & C. Frei

Powder Technology Laboratory, EPFL-LTP, MX-Ecublens, CH-1015 Lausanne, Switzerland

11:50-12:05

In Vivo Evaluation of Recombinant Human Bone Morphogenetic Protein 2 (rhBMP-2) Delivered
in an Injectable Calcium Phosphate-based Matrix for Fracture Repair

Rebecca Li, Howard Seeherman, Darren D'Augusta, Cara Blake, Mary Bouxsein, Jian Li,
John Wozney

Genetics Institute/Wyeth-Ayerst Research, 200 Cambridge Park Drive, Cambridge, MA, USA

12:05-12:20

A Hardening Paste Containing Calcium Phosphates

P. Sharrock, Marina Fiallo

Chemistry Department, Paul Sabatier Institute of Technology, Castres, France

12:20-12:35

The Mechanism of Hydration Reaction in Magnesium Phosphate Bone Cement

Wei Gai, Changsheng Liu

Institute of Biomaterial, East China University of Science and Technology, Shanghai 200237,
China

12:35-14:00 **Lunch (Dinner Hall)**

Invited Lectures-2 (Conference Room 1, 14:00-15:30)

Chairman: K. de Groot, Prof. H.F. Hildebrand

14:00-14:30

The Articular Cartilage Replacement. New Perspectives in Tissular Engineering

Prof. D. Hartmann

Unité Biomatériaux et Remodelages Matriciels - EA 3090, Université Claude Bernard,
69373 Lyon Cedex, France

14:30-15:00

Advances of Tissue Engineering in China

Prof. Yilin Cao

Department of Plastic and Reconstructive Surgery, Shanghai Ninth Hospital, Tissue Engineering Research Center, Shanghai Second Medical University, Shanghai, China

15:00-15:30

The Osteoinductivity of Ca-P Biomaterials and the Potential in Clinic

Prof. Xingdong Zhang

Engineering Research Engineering Center for Biomaterials, Sichuan University, China

15:30-16:00 **Coffee Break (Lobby)**

Young Scientist and Ph D. Student Session: 1 (Conference Room 1, 16:00-17:35)

Chairman: Prof. Ling Qin, Prof. J. Jeanfiles

16:00-16:15

Clinicotherapeutical Experience with Collagen Sponge as Hemostat and Wound Dressing Material

Jimin Wu, Huilei Shi, Yongfu Zhao, Song Zhao, Xizheng Zhang, Ruixin Li

Institute of Medical Equipment, Tianjin 300161, China

16:15-16:30

Cardiac Muscle Tissue Engineering with Cardiac Myocytes Seeded on PGA Polymer

Changyong Wang, Huihua Chen, Ximin Guo, Cuimi Duan, Qiang Zhao, Yonghong Wang

Institute of Basic Medical Sciences of Beijing, 27, Taiping Road, Beijing 100850, China

16:30-16:45

The Identification and Large Culture of Human Bone Marrow Stromal Cells

Demin Wen, Wensong Tan

East China University Of Science and Technology, Box 309, No. 130, Meilong Rd., Shanghai, China

16:45-17:00

Preparation of Bioactive Oxide Films on the Surface of Titanium Alloys

X. Y. Cui, T. Y. Xiong, W. Q. Zhang, J. Wu, H. Z. Jin, Z. X. Guo

Institute of Metal Research, Chinese Academy of Science, Wenhua Road 72#, Shenyang, China

17:00-17:15

Optimization of ST-cell Microcarrier Culture Process

Jianchao Wang, Yan Zhou, Wensong Tan

East China University of Science and Technology, Box 309, No. 130 Meilong Rd., Shanghai, China

