



UMFT
Universitatea de
Medicină și Farmacie
"Victor Babeș"
din Timișoara



BIOMATERIALS AND REGENERATIVE MEDICINE



BIOREMED 2017
*Today' research for tomorrow
medicine*

5-7 October 2017
Timisoara

ABSTRACT BOOK
Vol. 1 - 2017

bioremed.umft.ro/2017



UMFT
Universitatea de
Medicină și Farmacie
„Victor Babeș”
din Timișoara



**International Seminar on Biomaterials and
Regenerative Medicine
BIOREMED 2017**

Today's research for tomorrow medicine



5-7 October 2017, Timisoara

ABSTRACT BOOK

Vol. 1 - 2017

Apărut: Octombrie 2017

ISSN 2601 - 0372

ISSN-L 2601 - 0372

Tiparul executat la:

Editura EUROBIT

Timișoara - Str. Martir Herman Sporer Bl. 38,
Sc. D, Ap. 8; Tel./Fax: 0256-290.654
e-mail: eurobit91@yahoo.com
www.edituraeurobit.ro

Conference Committees

Honorary presidents

James Kirkpatrick (D)
Adrian Gh. Podoleanu (UK)

Organizing Committee

Cristian Zaharia
Andreea-Codruta Cojocariu
Anca-Adriana Antal
Carina Sonia Neagu
Cosmin Balabuc

Scientific committee

James Kirkpatrick
Adrian Gh. Podoleanu
Florian Bodog
Marius Raica
Iulian Vasile Antoniac
Meda-Lavinia Negrutiu
Cosmin Sinescu
Angela Kamer
Yasuhiko Tabata
Guy Daculsi
José Miguel Martín Martínez
Ahmed El-Ghannam
Corrado Piconi
Ilaria Cacciotti
Kunio Ishikawa
Lia Rimondini
Sigrun Knutsdottir
Fraco Rustichelli
Fjola Jonsdottir
Hyungsuck Cho
Kiro Papakoca
Norina Consuela Forna
Radu Septimiu Campian
Veronica Mercut
Cristina Bica
Ion Pătrașcu
Catalin Cirstoiu
Ecaterina Andronescu
Alexandru Vlad Ciurea
Liliana Verestiuc
Horia Iovu
Florin Miculescu
Alexandra Enache
Cristina Maria Bortun
Mihai Rominu
Angela Codruta Podariu
Marius Pricop
Serban Talpos

Chairs

Meda-Lavinia Negrutiu
Iulian Vasile Antoniac
Cosmin Sinescu

Florin Topala
Marius Mihai Togoe
Bogdan Gligor
Cristian Giucoane
Adrian Tudor Stan

Marioara Moldovan
Diana Dudea
Stefan Ioan Stratul
Marius Traian Leretter
Alexandru Ogodescu
Anca Jivanescu
Luminita Nica
Corina Marcauteanu
Kamel Earar
Liliana Porojan
Ramona Amina Popovici
Sanda-Mihaela Popescu
Monica Scrieciuc
Horia Manolea
Melinda Szekeley
Marius Manole
Lucian Toma Ciocan
Marius Niculescu
Adrian Barbilian
Olivera Lupescu
Răzvan Ene
Jenel-Marian Patrascu
Vicentiu Seceleanu
Aurel Mohan
Elvira Bratila
Sebastian Grădinaru
Monica Cirstoiu
Augustin Semenescu
Simona Cavalu
Virgil Florin Duma
Gheorghe Dan
Istrate Bogdan
Cosmin Cotruț
Mirabela Georgiana Minciună
Răzvan Adam
Ioana Csaky
Corneliu Munteanu
Bogdan Simionescu

SCIENTIFIC PROGRAMME

International Seminar on Biomaterials and Regenerative Medicine - BIOREMED 2017

- Today's research for tomorrow medicine –
Timișoara, România
October 05th -07th, 2017

THURSDAY, October 05th, 2017

- 08.00 – 18.30 **Registration**
GROUND FLOOR, Victor Babeș University for Medicine and Pharmacy Timișoara
- 08.30 – 09.00 **Opening Ceremony**
AULA MAGNA, Victor Babeș University for Medicine and Pharmacy Timișoara
- 09.00-11.30 **Session Plenary Keynote Conferences 1**
Chairs: Charles James Kirkpatrick (Germany), Meda-Lavinia Negrutiu (Romania)
AULA MAGNA, Victor Babeș University for Medicine and Pharmacy Timișoara
- 09.00-09.30 Charles James Kirkpatrick (Germany) - Self-organizing systems in Regenerative Medicine
- 09.30-10.00 Adrian Gh. Podoleanu (U.K.) - Translating optical coherence tomography from
medical to non destructive testing of materials
- 10.00-10.30 Iulian Antoniac (Romania) - Metallic biomaterials and their importance to medical
applications
- 10.50-11.00 Yasuhiko Tabata (Japan) - Release technology of cell recruitment molecules to
induce in situ tissue regeneration therapy
- 11.00-11.30 **Discussions**
- 11.30-11.50 **Coffee break**
Poster Session
Chairs: Angela Kamer (USA), Melinda Szekely (Romania), Cristina-Maria Borțun (România)
IAGNOV HALL, Victor Babeș University for Medicine and Pharmacy Timișoara
- 11.50-14.00 **Session Plenary Keynote & Invited Conferences 2**
Chairs: Adrian Podoleanu (UK), Cosmin Sinescu (Romania)
AULA MAGNA, Victor Babeș University for Medicine and Pharmacy Timișoara
- 11.50-12.20 Norina Consuela Forna (Romania) - Oral rehabilitation, between classic and minim invasive
- 12.20-12.50 Marius Traian Leretter (Romania) - Immediate implant loading in periodontal affected
patients using autologous restorative material
- 12.50-13.20 Angela R. Kamer (USA) - Inflammatory dysbiotic conditions and Alzheimer's disease
- 13.20-13.40 Kinga Laczkóné Turzó (Hungary) - Surface modification and biointegration of dental implants
- 13.40-14.00 Wenche S. Borgnakke (USA) - The traveling oral microbiome - and its different
compositions related to various restorative materials
- 14.00 – 15.00 **Lunch break (Fusion Restaurant - Bastion Theresia, Timișoara, Romania)**
Poster Session
Chairs: Virgil-Florin Duma (Romania), Cosmin M. Cotrut (Romania), Ioana Csaki (Romania)
IAGNOV HALL, Victor Babeș University for Medicine and Pharmacy Timișoara

15.00 – 16.50 Session BIOMATERIALS IN ORTHOPEDICS 1: Invited Conferences & Oral Presentations

Chairs: Cătalîn Cirstoiu (Romania), Adrian Barbilian (Romania), Marius Niculescu (Romania)

AULA MAGNA, Victor Babeş University for Medicine and Pharmacy Timișoara

- 15.00 – 15.20 Olivera Lupescu (Romania) – *Failures in bone grafting*
- 15.20 – 15.40 Răzvan Ene (Romania) – *Material analysis and biomechanical concept in trauma implant failure*
- 15.40 – 15.50 Răzvan Turcu, Marius Moga, Adrian Barbilian – *Cemented hemiarthroplasty in elderly after complex fracture of the proximal humerus*
- 15.50 – 16.00 Marius Moga, Augustin Semenescu, Mihnea Cosmin Costoiu, Ileana Mariana Mateș, Cezar - Ionuț Călin, Catalin Gheorghe Amza, Mark-Edward Pogărășteanu – *An alternative femoral stem – bone implantation technique using an innovative short femoral stem endoprosthesis*
- 16.00 – 16.10 Mark-Edward Pogărășteanu, George Dinache, Marius Moga, Adrian Barbilian – *Difficulties in signal transmission across the interface between skin and surface electrodes in myoelectric forearm and hand exoprosthesis*
- 16.10 – 16.20 Oltean-Dan D., Dogaru GB, Apostu D., Toader S., Tomoaia-Cotisel M., Tomoaia Gh – *Comparative study regarding the efficacy of the treatment with short pulse waves in femoral fractures operated with titanium and collagen coated titanium intramedullary nails on murine models*
- 16.20 – 16.30 Răzvan Ene, Zsombor Panti, Mihai Nica, Mihnea Popa, Marian Pleniceanu, Monica Cirstoiu, Iulian Antoniac, Catalin Cirstoiu – *Posterior cruciate ligament reconstruction with femoral cortical suspension devices in young patients*
- 16.30 – 16.40 Răzvan Ene, Mihnea Popa, Mihai Nica, Zsombor Panti, Marian Pleniceanu, Monica Cirstoiu, Catalin Cirstoiu – *Enhancing tissue regeneration by using negative pressure therapy in infected limb injuries*
- 16.40 – 16.50 Dan Cristian Paul, Paiusan Mihai Gheorghe, L-Dan Daniel, Tomoaia Gheorghe - *Allergic reaction and reproductive toxicity caused by nickel*

15.00 – 16.50 Session DENTAL BIOMATERIALS 3: Invited Conferences & Oral Presentations

Chairs: Kiro Papakoca (FYROM), Horia Manolea (Romania), Kamel Earar (Romania)

SENAT HALL, Victor Babeş University for Medicine and Pharmacy Timișoara

- 15.00-15.20 Kiro Papakoca (FYROM)- *Current biomaterials and surgical techniques used in oral implantology*
- 15.20-15.40 Horia Manolea (Romania)- *Evaluation of two socket preservation materials osseointegration in small diameter bone cavities. An in vivo lab rats study*
- 15.40-15.50 Ondine Lucaciu, Anca Ionel, Olga Soritau, Cristi Berce,Dragos Apostu,Flaviu Tăbăran, Roxana Bordea, Radu Septimiu Câmpian - *Dental Follicle Stem Cells as a biomaterial for periodontal regeneration. A "proof-of-concept" study.*
- 15.50-16.00 Serban Talpos, Costin Timofte, Horatiu Urechescu, Felicia Streian, Mircea Ravis, Tareq Hajaj, Marius Pricop - *Clinical Advantages Of Biomaterials Used In Guided Bone Regeneration (GBR)*
- 16.00-16.10 Horatiu Urechescu, Sergiu-Valentin Galatanu, Marius Pricop, Șerban Talpos - *Experimental compression and traction tests on heat-cured PMMA and thermoplastic materials used for fabrication of maxillary obturator prostheses*
- 16.10-16.20 Alexandru Andrei Iliescu, Paula Perlea, Sorin Daniel Porojan, Liliana Porojan, Kamel Earar - *Thermographic analysis of burs and bone heating developed during osteotomy for dental implant placement: an in vitro study*
- 16.20-16.30 Daniela Tănase, Elena Amăricăi, Cristina-Maria Borțun - *Interdisciplinarity in the rehabilitation of patients with sclerodermia*
- 16.30-16.40 Roxana Bordea, Stavros Pelekanos, Simion Bran, Florin Onișor, Marius Manole, Sorana Baci, Ondine Lucaciu, Iulian Antoniac, Radu Septimiu Câmpian - *Effect of laser activation on an experimental biomaterial*
- 16.40-16.50 Roxana Bordea, Ondine Lucaciu, Radu Septimiu Câmpian, Sorana Baci, Bran Simion, Iuliu Antoniac, Marius Manole - *Assessment of colour changes and light transmission through nano-hybrid dental composite biomaterials during curing*

16.40-17.00 Coffee break

Poster Session

Chairs: Istrate Bogdan (Romania), Mirabela Georgiana Minciună (Romania)

IAGNOV HALL, Victor Babeş University for Medicine and Pharmacy Timișoara

ASSOC.PROF.DR.KIRO PAPAKOCA (MK)



Degree MD, DDS, PhD, Institution "Goce Delcev" - University of Štip, R.Macedonia, Department Faculty of Medical Sciences, Dental Medicine, Position Assoc. Professor Ph.D. – 2012 University of Medicine and Pharmacy Carol Davila Bucuresti, Faculty of Dentistry Specialization in oral surgery - 2006, University of Medicine and Pharmacy Carol Davila Bucuresti, Faculty of Dentistry, Hospital of Oral and Maxillofacial Surgery Prof. Dr. Dan Theodorescu.

B.Sc. – 2003, University of Medicine and Pharmacy Carol Davila Bucuresti, Faculty of Dentistry

Teaching Stomatology - clinical subjects.

Research interests: Oral and Maxillofacial Surgery, Pre-Prosthetic Surgery, Implant Dentistry

Abstract:

Current biomaterials and surgical techniques used in oral implantology

University "Goce Delcev" – Faculty of Medical Sciences - Dental Medicine, Štip, R.Macedonia

kiro.papakoca@ugd.edu.mk, www.ugd.edu.mk

Oral implantology is part of the modern concept of oral rehabilitation treatment, through its qualitative application, we are bound to meet both the functional needs and the physiological needs of the patients.

During the years, it has been attempted to use a variable number of biomaterials for making implants, of which only a few have survived, possessing certain binding properties required to achieve long-term success. A mandatory condition imposed on all biomaterials is to ensure the lack of local and general harm.

The complications and failures that we face daily and try to solve them in the shortest time that occur after a usual surgical treatment or the insertion of one or more dental implants, often have a vicious or a general illness at the origin or an incorrect technique applied by the operator.

In this presentation, we will try to systematize the surgical techniques we use at the moment, with which we try to minimize the appearance of a complication. All of these can not be imagined without using biomaterials - bone substitutes, membranes, etc. Here we will discuss the most suitable biomaterials with which we repair the bone defects but also reduce the subsequent costs.

The presentation will include a rich and current case in which we will try to systemize the most suitable surgical techniques for manipulating soft and hard tissues in order to obtain an esthetic and functional treatment.

Key words: biomaterials, implants, surgical techniques, complications, failures