



Summary of the 25th Anniversary Conference

Dear Participants,

We are extremely grateful for your presence at the 25th Anniversary Conference 'Biomaterials in Medicine and Veterinary Medicine'.

During the Conference, we had a pleasure to listen to 4 outstanding Plenary Lectures given by **Prof. Joëlle Amédée**, **Prof. Tomasz Drewa**, **Prof. Didier Letourner** and **Dr. Timothy Douglas** accompanied by 24 oral, 89 poster and 20 Rapid Fire presentations. We have all learned a lot and enjoyed high level of scientific discussions.

We had also a wonderful opportunity to honour two highly appreciated and esteemed scientists - **Prof. Marta Błażewicz & Prof. Stanisław Błażewicz**. They have both dedicated their scientific careers to biomaterials field and raised many excellent scientists. We were proud to have them as our Honorary Guests. We had even more to celebrate with the **20th birthday of the Polish Society for Biomaterials** and **25th anniversary of the Conference**.

We would like to congratulate once again the winners of the **Best Poster and Rapid Fire Competition** organized under the auspices of the **Young Scientist Forum** of the ESB: **Martina Trávníčková** (1st), **Aleksandra Jastrzębska** (2nd) and **Katarzyna Klimek** (3rd) – we wish you all the best in further scientific career. It is also a good place to say thank you to the Sponsor of the book vouchers for the winners of the first and the second place (250€ and 125€, respectively): **Springer**.

We were very happy to hear that the **European Society for Biomaterials**, represented by **Prof. Joëlle Amédée** and **Prof. Peter Dubruel**, surprised us by sponsoring a special prize (200€) for the **Best Poster**, that went to **Klaudia Król-Morkisz**.

One cannot forget about the unique atmosphere of the social events. Thank you for those three amazing evenings: regional dinner in the cottage bar, gala dinner and the disco, and our lovely trip to Stará Ľubovňa Castle and Nestville Park.

We were privileged to have all of you at the 25th Anniversary Conference 'Biomaterials in Medicine and Veterinary Medicine'. **Thank you!**

Best regards,
Organizing Committee



POLISH SOCIETY FOR BIOMATERIALS

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General Information

The **Conferences on Biomaterials in Medicine and Veterinary Medicine** are held every year and address both fundamentals and clinical applications of carbon, metals, polymers, ceramics and composite biomaterials. Their aim is to present the latest results of scientific research as well as to exchange ideas, knowledge and experience of scientists, researchers and clinicians in the field of biomaterials.

The topics to be covered during the Conference include, but are not limited to:

- Smart biomaterials
- Surface modification and functionalization
- Advanced manufacturing
- Antimicrobial surfaces and materials
- Biointerfaces
- Bioimaging and biosensing
- Tissue engineering / Regenerative medicine
- Drug and gene delivery
- Cell encapsulation and delivery
- Stem cells
- Cancer therapy
- Bone and cartilage
- Neural regeneration
- Cardiovascular applications
- Biomechanics and micromechanics
- Clinical trials
- Translation and commercialization



ABSTRACTS

All participants intend to contribute oral and/or poster presentations were requested to prepare one-page abstract in English, which was published in conference materials (non-reviewed special edition of the "Engineering of Biomaterials,, Journal). Each author might submit maximum two abstracts (one for oral and one for poster or two for poster presentations).

Abstract submission was only possible during registration via our online system. Only abstracts from individuals who have paid the registration fee were published.

We have accepted total number of 123 abstracts.

FULL PAPERS

We invited all participants to send full papers for publication in a regular issue of the "Engineering of Biomaterials" Journal (peer-reviewed, included in Index Copernicus Journals Master List (ICV=6,14), with the Polish Ministry of Science and Higher Education scoring - 7 points).



ORAL AND POSTER PRESENTATIONS

We had 4 plenary lectures (45 mins long), 24 oral presentations (15 mins each) and 89 poster presentations including 20 rapid fire presentations within the Best Poster Competition.



Prof. Joëlle AMÉDÉE

Plenary Lecture: **The Promise of Composite Polymers for Bone Tissue Engineering**

*Inserm U1026, Tissue Bioengineering
University of Bordeaux
33076, Bordeaux Cedex, France*



Joëlle Amedee Vilamitjana, PhD in Cell and Molecular biology, is Research Director at Inserm, in Tissue Bioengineering at the University of Bordeaux, France. From 2007 to 2015, she has managed an Inserm Unit 1026, a multidisciplinary team of researchers, engineers and clinicians focussed on bone and vascular substitution. She leads now a consortium for Regenerative Medicine and Technologies for Health at the University of Bordeaux. Her research activity is focused on bone tissue engineering from fundamental research to preclinical application. Her specific interests are in cell communication for tissue regeneration, cell and tissue interfaces with 3D matrices. Her translational research has resulted in one hundred of international publications, 4 patents and more than 100 invited conferences and oral communications. She is member of the European Society for Biomaterials Council Committee from 2011 and Vice President from 2015. She received the award of "Fellows of Biomaterials Science and Engineering" in 2012.

Prof. Tomasz DREWA, M.D.

Plenary Lecture: **Tissue engineering in reconstructive urology (dreams and reality)**

*Department of urology
EBU Certified Training Centre
Nicolaus Copernicus University
Collegium Medicum, Skłodowskiej 9, 85-090 Bydgoszcz, Poland*



Tomasz Drewa is a full professor in urology and fellow of the European Board of Urology (FEBU). He is Professor and Chairman of Urology Department in Collegium Medicum in Bydgoszcz, Nicolaus Copernicus University in Torun (Poland) and Scientific Consultant of Urology Department in Nicolaus Copernicus Hospital in Torun (Poland). He is Vice President of Polish Urological Association and Editor-in-Chief of "Central European Journal of Urology". He is a honorary member of New York section of American Urological Association. He published 177 papers covered by Medline/PubMed. His research area focused on reconstructive surgery and regenerative medicine in patients treated due to oncological disorders. Stem cells life span in culture and thier regenerative capability are of his special interest.

Prof. Didier LETOURNEUR

Plenary Lecture: **Design and Preclinical Validations of Polysaccharide-based Nano/Micro/Macrosystems for Cardiovascular Tissue Engineering and Molecular Imaging**

Cardiovascular Bio-engineering - INSERM U1148 – LVTS

X. Bichat Hospital 75018 Paris, University Paris Diderot

University Paris 13, Villetaneuse, France



Didier Letourneur, Engineer, PhD in Chemistry, is Research Director at CNRS. He is the Director of the Laboratory for Vascular Translational Science (LVTS–Inserm U1148 – University Paris Diderot – University Paris 13; <http://www.u1148.fr>; about 160 persons). D Letourneur is actively involved in several national grants, in Health Cluster Medicen, and since 2013 as European coordinator of NMP "NanoAthero" large scale project. He was also involved in several FP7 projects (Health 2007-2013 "FAD", Health 2010-2014 "Prestige" and NMP 2009-2012 "Nanoantenna"). D Letourneur is the author of 141 international publications (h-index 31), inventor of 16 patents, and won several prizes "Coup d'Elan for Research" Bettencourt Foundation 2001, CNRS-Paris Diderot Innovation Award 2009, Cardiovascular Innovation Award 2011 from Medical Research Foundation, and OSEO/BPI emergence 2012 &

Creation-Dev 2013. In 2016, he found the start-up SILTISS for the development of innovative orthopedic implants. In 2016 he obtained the G Winter Award, the highest recognition from the European Society for Biomaterials. He has more than 100 invited lectures and seminars and is the co-organizer of numerous national and international conferences (India, Tunisia, Canada) and of two Inserm training workshops for Regenerative Medicine (2009 and 2012) with J Amedee. He was vice-chairman for Regenerative Medicine at the European Technology Platform for Nanomedicine and is now General Secretaire. Since 2009, he is President of BIOMAT, French Society for Biomaterials.

Dr. Timothy E.L. DOUGLAS

Plenary Lecture: **Mineralized hydrogels for bone regeneration**

Nano & Biophotonics Group

Department Molecular Biotechnology

Ghent University, Coupure Links 653, B-9000 Gent, Belgium



Timothy E.L. Douglas performed his PhD research on titanium implant coatings based on collagen fibrils, proteoglycans and glycosaminoglycans in the Biomaterials Development group of Prof. Dieter Scharnweber at Technische Universität Dresden, Germany. He continued his career as a postdoc in the Department of Biomaterials at Radboud University Medical Center Nijmegen, the Netherlands, under the supervision of Dr. Sander Leeuwenburgh. He is currently leading his personal research fellowship from the Research Foundation Flanders (FWO) in the research group of Prof. Andre Skirtach at the Department of Molecular Biotechnology at Ghent University, Belgium. He has published over 50 A1 publications relating to biomaterials for bone contact with an extensive network of local and international collaborators, including many in Poland.

His main research interests include hydrogel-inorganic composite materials for bone regeneration, enzymatic mineralization, injectable composites, antibacterial materials and the application of multifunctional substances derived from the food industry in biomaterial development.



THE BEST POSTER and RAPID FIRE COMPETITION

Participants of the Best Poster Competition were asked to prepare 3-min Rapid Fire Presentations. Those were presented during special session and evaluated together with the posters.

Members of the Jury: Prof. Joëlle AMÉDÉE, Prof. Peter DUBRUEL and Dr. Karol GRZYŃ awarded following Young Scientists:

1

Martina Trávníčková, Elena Filova, Miroslav Jelinek, Tomas Kocourek, Lucie Bacakova
The Growth of SAOS-2 Cells on DLC Layers Doped with Titanium

2

Aleksandra Jastrzębska, Witold Jakubowski, Bogdan Walkowiak
Anodized TiO₂ Coatings Resistant to Microbial Colonization

3

Katarzyna Klimek, Agata Przekora, Grażyna Ginalska
Biological Evaluation of β -1,3-Glucan/HA Bone Scaffold Fabricated via New Method

The awards for 1st and 2nd place (250€ and 125€ book vouchers, respectively) were sponsored by Springer.

The European Society for Biomaterials generously funded an additional award for the Best Poster, which was given to:

Klaudia Król-Morkisz, Kinga Pielichowska
Polyoxymethylene Homo- and Copolymer Composites Stabilized with PEG-Grafted Hydroxyapatite



European
Society for
Biomaterials
40 years 1976-2016



Regional Dinner

Cottage bar „Nad potokiem”

Thursday, 13 October 19:00-01:00



Folk music, delicious food and drinks, exceptional atmosphere.

Gala Dinner

Friday, 14 October 19:00-01:00



We had a lot to celebrate! 20 years of the Polish Society for Biomaterials, 25th Anniversary Conference and finally the Jubilee of Prof. Marta Błażewicz and Prof. Stanisław Błażewicz.

Excursion

Cottage bar „Nad potokiem”
Saturday, 15 October 08:30-13:00



We visited the Castle in Stará Ľubovňa and Nestville Park.