

## Wednesday, September 27th

08.30 – 09.45 Registration and welcome coffee

09.45 – 10.00 **Peter Dubruel** - Ghent University  
Welcome and opening remarks

### Session 1 – Chairs: M. Maeda & D. Mantovani

10.00 – 10.35 **Opening keynote speaker**  
**C.J. Kirkpatrick** - University of Gothenburg, Sweden  
Developing cellular models for NanoMedicine

10.35 – 11.00 **Invited speaker**  
**E. Lippens** - Universitätsmedizin Berlin, Germany  
Biomaterials the toolbox with biophysical, biochemical and ionic cues to tailor cell differentiation

11.00 – 11.15 **D. Lefèvre** - Université Catholique de Louvain, Belgium  
Nanostructured ECM-like bio-interfaces for tissue engineering & regenerative medicine

11.15 – 11.30 **E. De Vlieghere** - Ghent University, Belgium  
Heterocellular 3D scaffolds as biomimetic of peritoneal metastasis

11.30 – 12.05 **Keynote speaker**  
**E. Pamula** - AGH University of Science and Technology, Kraków, Poland  
Drug delivery systems based on nano- and microparticles, hydrogels and scaffolds

12.05 – 13.15 Lunch

### Session 2 – Chairs: E. Pamula & C.J. Kirkpatrick

13.15 – 13.50 **Keynote speaker**  
**M. Maeda** - Saitama, Japan  
Nano-bio architectures from double-stranded DNA-functionalized nanoparticles

13.50 – 14.05 **Invited speaker**  
**D. Pezzoli** - Laval University, Quebec City, Canada  
Tailoring the properties of cationic polymers for non-viral gene delivery applications

- 14.05 – 14:20 **G. Wang** - RIKEN, Wako-shi, Saitama, Japan  
Non-Crosslinking aggregation of DNA-modified gold nanorods for genotyping and directed assembly
- 14.20 – 14.35 **M. Šírová** - Institute of Microbiology ASCR, Prague, Czech Republic  
Polymer drug delivery systems for targeted tumour treatment
- 14.35 – 15.10 **Keynote speaker**  
**M. Gelinsky** - TU Dresden, Germany  
Biopolymer-based blends and composites for 3D printing and bioprinting

15.10 – 15.40 Coffee break

### Session 3 – Chairs: M. Šírová & D. Letourneur

- 15.40 – 16.15 **Keynote speaker**  
**J. Amedée** - University of Bordeaux, France  
Cell to cell communication within composite polymers for both vascularization and bone tissue regeneration
- 16.15 – 16.40 **Invited speaker**  
**D. Scharnweber** - TU Dresden, Germany  
Glycosaminoglycan derivatives – promising candidates for the design of functional biomaterials
- 16.40 – 17.05 **Invited speaker**  
**J. Carlos Rodríguez-Cabello** - University of Valladolid, Spain  
Elastin-like recombinamers: advanced materials for biomedical uses
- 17.05 – 17.20 **H. Capella** - National University of Ireland Galway, Ireland  
Multifunctional extracellular matrix for musculoskeletal tissue engineering applications
- 17.20 – 17.35 **J. Hackethal** - Vienna, Austria  
Human biomaterials from placenta for tissue engineering and regenerative medicine
- 17.35 – 17.50 **F. Bray** - Université Lille, France  
What information can proteomics provide for tissue engineering?
- 17.50 – 18.25 **Keynote speaker**  
**D. Mantovani** - Laval University, Québec City, Canada  
Cellularised scaffolds for regenerative medicine: bringing life into macromolecules

20.00 – 21.30 Welcome reception

Thursday, September 28th

Session 4 – Chairs: Y. Bayon & I. Allan

- 09.00 – 09.35 **Keynote speaker**  
**D. Letourneur** - University Paris Diderot, France  
Examples of industrial and clinical transfers of research works on biomaterials
- 09.35 – 09.50 **Invited speaker**  
**R. Hoogenboom** - Ghent University, Belgium  
Poly(2-oxazoline)s: From biomedical applications towards commercialization
- 09.50 – 10.50 **Industrial pitches**  
**Tom Castermans** (Tenco Proto)  
**Otto van den Berg** (van den Berg Chemical)  
**Jelle Vlassenbroeck** (XRE)  
**Andrew Lewis** (Biocompatibles UK)  
**Fabrizio Barberis** (Uni Genova)  
**Orode Aniejurengho** (Tissue Click)  
**Nachal Subramanian** (Surface Science Measurements)

10.50 – 11.20 Coffee break

Session 5 – Chairs: R. Hoogenboom & F. Barberis

- 11.20 – 11.55 **Keynote speaker**  
**H. Thienpont** - Vrije Universiteit Brussel, Belgium  
Photonics and biopolymers: interdisciplinary paradigm-shifting research and innovation with economic and societal impact
- 11.55 – 12.20 **Invited speaker**  
**Y. Bayon** - Medtronic, Sofradim Production  
Innovation and development of advanced biomaterials – To fit value creation expectations of the medical devices industry
- 12.20 – 12.45 **Invited speaker**  
**W. Dhooge** - flanders.bio  
Life sciences in Flanders: crossing borders of technology & sectors
- 12.45 – 14.00 Lunch
- 14.00 – 14.25 **Invited speaker**  
**K. Claes** - University Hospital Ghent, Belgium  
Different wound dressings in our plastic surgery department and burn centre

14.25 – 14.50 Introduction to Interreg 2SEAS Project DERMA  
**I. Allan** - University of Brighton, Brighton, United Kingdom  
Novel materials for the management of chronic dermal wounds

15.00 – 17.30 Poster session / DERMA event

16.00 – 16.30 Coffee break

18.00 – 19.00 Boat trip

20.00 Conference dinner

## Friday September 29th

### Session 6 – Chairs: A. Karewicz & M. Dash

- 09.10 – 09.45 **Keynote speaker**  
**A. Pego** - Universidade do Porto, Portugal  
Smart design of nanoparticles to cargo nucleic acids to the nervous system
- 09.45 – 10.00 **L. Poczka** - Universidad de Valladolid, Spain  
Hydrophobic Modification of ELRs for Enhanced Cell Membrane Interaction
- 10.00 – 10.15 **O. Sedlacek** - Ghent University, Belgium  
Poly(2-ethyl-2-oxazoline) conjugates of doxorubicin bound via pH-sensitive hydrazone linker: In vitro and in vivo evaluation
- 10.15 – 10.30 **S. Dabiri** - University of Genova, Italy  
Ibuprofen release by in-situ synthesized alginate-brushite hydrogel composite
- 10.30 – 10.45 **F. Costa** - Universidade do Porto, Portugal  
N-acetyl cysteine functionalized chitosan film avoids bacteria adhesion without preventing cell adhesion and proliferation
- 10.45 – 11.00 **E. Mendes** - Delft University of Technology, The Netherlands  
Rational morphology control of frozen copolymer aggregates
- 11.00 – 11.25 Coffee break

### Session 7 – Chairs: M. Gelinsky & A. Pego

- 11.25 – 11.40 **Invited speaker**  
**M. Dash** - National Institute of Science Education and Research, Jatni, India  
Gradients in biomaterials for Interface Tissue Engineering
- 11.40 – 11.55 **M. Frost** - Athlone Institute of Technology, Ireland  
Processing of poly(N-isopropylacrylamide) using hot melt extrusion; a new means of formulating with thermosensitive polymers
- 11.55 – 12.10 **P. Fardim** - KU Leuven, Belgium / Åbo Akademi University, Turku, Finland  
Chitosan-cellulose biohydrogel beads for hard and soft tissue engineering
- 12.10 – 12.25 **A. Karewicz** - Jagiellonian University, Kraków, Poland  
Alkaline phosphatase immobilization in halloysite nanoclay
- 12.25 – 13.45 Lunch

## Session 8 – Chairs: E. Lippens & E. Mendes

- 13.45 - 14.20 **Keynote speaker**  
**C. Jérôme** - University of Liège, Belgium  
Polyphosphoesters as biomaterials
- 14.20 – 14.55 **Keynote speaker**  
**A. Ovsianikov** - TU Wien, Austria  
Engineering 3D cell culture matrices by means of multiphoton processing
- 14.55 – 15.10 **E. Zerobin** - TU Wien, Austria  
Newly developed hydrogel precursors and two-photon initiators based on hyaluronic acid
- 15.10 – 15.25 **A. Hufendiek** - Ghent University, Belgium  
Rigid polyurethanes, polyesters and polycarbonates from renewable ketal monomers
- 15.25 – 16.00 **Keynote speaker**  
**A. Pandit** - National University of Ireland Galway, Ireland  
Being a good guest: the host implant paradigm
- 16.00 Closing remarks and award session