



## FINAL PROGRAMME

### October, 15<sup>th</sup> Thursday

14:00 - 15:00	Lunch – Restaurant
15:30 - 15:45	<b>Welcome and opening remarks</b> Prof. Elżbieta Pamuła
15:45 - 16:30	<b>Plenary lecture – Prof. Håvard J. Haugen</b> <i>Novel nanocomputed tomography (nanoCT) techniques applied to dental research</i>
16:30 - 17:00	Coffee break

#### Session I

17:00 - 18:00	<b>Oral presentations</b>
19:00	Dinner

### October, 16<sup>th</sup> Friday

7:30 - 8:45	Breakfast – restaurant
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#### Session II

9:00 - 9:45	<b>Plenary lecture – Prof. Roman Major</b> <i>Material engineering in regenerative cardiac surgery: ‘yesterday and today’ &amp; the role of material engineering in the reconstruction of defects in oncological diseases</i>
9:45 - 10:30	<b>Oral presentations</b>
10:30 - 11:00	Coffee break

#### Session III

11:00 - 11:45	<b>Plenary lecture – Prof. Ólafur E. Sigurjónsson</b> <i>Current status and future prospects of genome-scale metabolic modeling to optimize the use of mesenchymal stem cells in regenerative medicine and biomaterials research</i>
11:45- 12:30	<b>Oral presentations</b>
13:00 - 14:00	Lunch – restaurant

#### Session IV

15:00 - 16:00	<b>Oral presentations</b>
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#### Session V

16:00 - 18:00	Poster session and drinks Young Scientists Session
18:00 – 18:15	<b>Closing remarks and award session</b>
19:00	Dinner

### October, 17<sup>th</sup> Saturday

7:00 - 8:00	Breakfast
8:30 - 14:00	Excursion
14:00 - 15:30	Lunch
19:00	Dinner

### October, 18<sup>th</sup> Sunday

7:30 - 9:00	Breakfast - restaurant
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## October, 15<sup>th</sup> Thursday

14:00 - 15:00	Lunch – restaurant
15:30 - 15:45	<b>Welcome and opening remarks – Prof. Elżbieta Pamuła</b>
15:45 - 16:30	<b>Plenary lecture - Prof. Håvard J. Haugen</b> <i>Novel nanocomputed tomography (nanoCT) techniques applied to dental research</i>
16:30 - 17:00	Coffee break

### Session I

17:00 - 17:15	Marcin Elgalal, Piotr Komorowski, Krzysztof Makowski, Andrzej Styczyński, Piotr Ulański, Tomasz Kubiak, Jacek Sawicki, Marcin Domżański, <b>Bogdan Walkowiak</b> <i>Design and manufacture of customized medical implants - third report</i>
17:15 - 17:30	<b>Alicja Kazek-Kęsik</b> , Małgorzata Krok-Borkowicz, Elżbieta Pamuła, Wojciech Simka <i>Bioactive ceramic coating formed on Ti bone wedge</i>
17:30 - 17:45	<b>Monika Gołda-Cępa</b> , Paulina Chytrosz, Kamila Riedlova, Waldemar Kulig, Lukasz Cwiklik, Andrzej Kotarba <i>How to stimulate polymeric surfaces biocompatibility and hydroxyapatite formation: experiments supported by MD simulations</i>
17:45 - 18:00	<b>Wojciech Pajerski</b> , Joanna Duch, Monika Gołda-Cępa, Dorota Ochońska, Iwona Szymańska, Witold Reczyński, Monika Brzychczy-Włoch, Andrzej Kotarba <i>Scientific fundamentals for antibacterial surfaces design and preparation</i>
19:00	<b>Dinner</b>

## October, 16<sup>th</sup> Friday

7:30 - 8:45 Breakfast – restaurant

### Session II

- 9:00 - 9:45 **Plenary lecture – Prof. Roman Major**  
*Material engineering in regenerative cardiac surgery: ‘yesterday and today’ & the role of material engineering in the reconstruction of defects in oncological diseases*
- 9:45 - 10:00 Joanna Duch, Wojciech Pajerski, Monika Golda-Cepa, Dorota Ochonska, Witold Piskorz, Monika Brzychczy-Wloch, Jakub Rysz, **Andrzej Kotarba**  
*Modification of carbon materials surfaces by plasma: effect of the introduced functional groups on biocompatibility and adhesion of microorganisms*
- 10:00 – 10:15 **Magdalena Wytrwał-Sarna**, Agata Pomorska, Małgorzata Sekuła-Stryjewska, Ewa Zuba-Surma, Krzysztof Szczubiałka  
*Stem cells response on photo-crosslinked heparin - bone morphogenetic proteins (BMP-2/-7) hybrid systems*
- 10:15 – 10:30 **Anna Karewicz**, Karolina Karnas, Joanna Dulińska-Litewka, Czesław Kapusta, Małgorzata Lekka  
*Surface-modified SPION systems for cancer therapy*
- 10:30 - 11:00 Coffee break

### Session III

- 11:00 - 11:45 **Plenary lecture – Prof. Ólafur E. Sigurjónsson**  
*Current status and future prospects of genome-scale metabolic modeling to optimize the use of mesenchymal stem cells in regenerative medicine and biomaterials research*
- 11:45 - 12:00 **Katarzyna Bialik-Wąs**, Paulina Sapuła, Krzysztof Pielichowski  
*Studies on the encapsulation of model active substance using thermosensitive polymeric nanocarriers*
- 12:00 – 12:15 **Paulina Chytrosz**, Monika Gołda-Cępa, Łukasz Ćwiklik, Waldermar Kulig, Andrzej Kotarba  
*Understanding of fluorouracil nanoparticles sonochemical formation for its controlled delivery from polymeric surfaces*
- 12:15 - 12:30 **Dorota Lachowicz**, A. Kaczyńska, A. Bernasik, Anna Karewicz, Katarzyna Berent, Szczepan Zapotoczny  
*Nanohydrogels Based on Self-Assembly of Cationic Curdlan and Anionic Hydroxypropylcellulose Derivatives for Piroxicam Delivery*
- 13:00 - 14:00 Lunch – restaurant

## Session IV

- 15:00 - 15:15 **Timothy E.L. Douglas**  
*Whey protein isolate hydrogel-based biomaterials*
- 15:15 - 15:30 Anna Mieszkowska, Harrison Beaumont, **Laurine Martocq**, Andrey Koptug, Maria A. Surmeneva, Roman A. Surmenev, Katarzyna A. Gurzawska, Javad Naderi And Timothy E.L Douglas  
*Titanium alloy coated with phloroglucinol-enriched collagen fibrils regulates osteogenic differentiation and inflammation*
- 15:30 - 15:45 **Antonin Sedlar**, Martina Travnickova, Kristyna Slamova, Vladimir Kren, Lucie Bacakova  
*Adsorbed growth factors as modulators of cell behaviour on biomaterial surfaces*
- 15:45 - 16:00 **Marta Szulc**, Katarzyna Lewandowska  
*Chitosan derivatives - synthesis and characterization*

## Session V

16:00- 18:00 **Poster session and drinks**

16:30 - 17:30 **Young Scientists Session**

**Marta Tuszyńska**, Joanna Skopińska-Wiśniewska

*Dual cross-linking as a method of improving mechanical properties of gelatin-alginate hydrogels*

**Paulina Chytrosz**, Monika Gołda-Cępa, Andrzej Kotarba

*Functionalization of polyurethane surfaces for improved biocompatibility*

**Wojciech Pajerski**, Monika Gołda-Cępa, Mirosława Pawlyta, Magdalena Parlińska-Wojtan, Monika Brzychczy-Włoch, Andrzej Kotarba

*Bacteria meet nanoparticles - electron microscopy insights*

**Konrad Kwiecień**, Agata Flis, Filip Koper, Wiktor Kasprzyk, Elżbieta Pamuła

*Degradation studies of poly(diols citrates) for vascular tissue engineering purposes*

**Amanda Bartkowiak**, Arkadiusz Zarzycki, Sławomir Kąc, Marcin Perzanowski, Marta Marszałek

*Mechanical properties of different nanopatterned TiO<sub>2</sub> substrates and their effect on hydrothermally synthesized bioactive hydroxyapatite coatings*

**Ewa Dzierzkowska**, Przemysław Żmuda, Anna Ścisłowska-Czarnecka, Kamil Kornaus, Ewa Stodolak-Zych

*The influence of microstructure of fibrous PLA/PVA membranes on physicochemical and biological properties*

Tomasz Gapinski, Krzysztof Lenartowicz, **Paulina Galas**, Małgorzata Gonsior, Leonardo Ricotti, Lorenzo Vannozzi, et al.

*First tests of extrusion process using arthroscopic 3d bioprinting handheld tools prototypes*

18:00 - 18:15 **Closing remarks and award session**

19:00 **Dinner**