



# **Technologies for the fabrication and characterization of 3D scaffolds for tissue engineering**

## **NoRoTech**

*University POLITEHNICA of Bucharest, Romania*

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For more information about the Program access [www.eeagrants.org](http://www.eeagrants.org).

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## CONFERENCE PROGRAM

### - Oral presentations -

08.06.2017

10:00 - 10:45	<i>Registration &amp; welcome coffee</i>	
<b>Session 1 - Chairs: Kamal Mustafa, Horia Iovu, Izabela-Cristina Stancu</b>		
10:45 - 11:00	Welcome speech and project presentation	Andrada Serafim
11:00 - 11:30	From bench to bedside in bone tissue engineering	Kamal Mustafa
11:30 - 12:00	Advanced Polymer Materials Group - towards the Bioengineering Valley at University POLITEHNICA of Bucharest	Horia Iovu
12:00 - 12:30	Making biomaterial development real to students at the Faculty of Medical Engineering	Izabela Stancu
12:30 - 12:45	Project report on 3D printing	Filis Curti
12:45 - 13:00	Project report on cell-scaffold interactions	Cristina Chircov
13:00 - 13:15	Project report on micro-CT analysis on porous scaffolds	Elena Olăreț
13:15 - 14:30	<i>Lunch</i>	
<b>Session 2 - Chairs: Mohammad Yassin, Diana Maria Drăgușin, Ștefan Voicu</b>		
14:30 - 14:50	Rheology of complex fluids in the vicinity of patterned and porous surfaces	Corneliu Bălan
14:50 - 15:10	Novel methods for investigating mechanical properties of menisci in swelling conditions	Fabrizio Barberis
15:10 - 15:30	Biomedical applications of graphene based materials	Mariana Ioniță
15:30 - 15:50	Effect of graphene oxide on the mechanical performance and bioactivity of 3D scaffolds hydrogels for tissue engineering	Alberto Lagazzo
15:50 - 16:10	<i>Coffee break</i>	
<b>Session 3 - Chairs: Ahmad Rashad, Mariana Ioniță, Corneliu Balan</b>		
16:10 - 16:30	Biocompatibility of bioactive copolymer scaffolds for bone regeneration	Salwa Suliman
16:30 - 16:50	Controlled drug-delivery systems using mesoporous silica carriers: a theoretical kinetics approach for personalized medicine applications	Raul Mitran
16:50 - 17:10	Biomedical applications of polymeric membranes	Ștefan Voicu
17:10 - 17:30	Dendritic biomaterials for drug-delivery applications	Adi Ghebaur



**09.06.2017**

**Session 4 - Chairs: Salwa Suliman, Fabrizio Barberis, Florin Miculescu**

10:00 - 10:20	Surface modification of polymeric scaffolds for bone regeneration	Mohammad Yassin
10:20 - 10:40	Graphene-based biosensors for health care	Teddy Martial Tite
10:40 - 11:00	Novel polymer matrix incorporated with composite nanofillers for enhanced osteoconduction	George Vlăsceanu
11:00 - 11:20	Magnetite-based polymeric scaffolds for tissue engineering applications	Cătălin Zaharia
11:20 - 12:00	<i>Coffee break &amp; poster session</i>	

**Session 5 - Chairs: Alberto Lagazzo, Catalin Zaharia, Andrada Serafim**

12:00 - 12:20	Bio-inspired hydrogels for tissue engineering applications	Ahmad Rashad
12:20 - 12:40	Hydrogels loaded with biogenous cuttlefish bone for hard tissue regeneration	Diana Drăgușin
12:40 - 13:00	Design of cellulose - alginate scaffolds using PEG/NaOH solvent system	Alexandra Cernencu
13:00 - 14:00	<i>Lunch</i>	
14:00	Visit @ APMG	



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## Poster Session

P1	Vegetable Oil-based Elastomeric Matrices for Drug Release	<u>Brîndușa Bălănuță</u> , Raluca Stan, Raluca Runceanu, Cristina Ott
P2	New Collagen-based Materials for Lenses	<u>Alexandra-Cristina Burdușel</u> , Izabela Stancu, Ion Bogdan Mihai, Ștefania Marin, Andrada Serafim, Diana Drăgușin, Mădălina Georgiana Albu Kaya
P3	Enhanced amine functionalization of graphene oxide using two types of reaction mechanism	<u>Celina Maria Damian</u> , Alexandru Gongea, Bogdan Paladi, Iulia Neblea, Horia Iovu
P4	Inovative Thiol-Epoxy dental materials reinforced with POSS	<u>Jana Ghițman</u> , Alexandra Cernencu, Adriana Lungu, Horia Iovu
P5	Indomethacin Release from Collagen-Hydroxyapatite Composites for Bone Reconstruction	<u>Bogdan Mihai Ion</u> , Maria Minodora Marin, Mihaela Violeta Ghica, Mădălina Albu-Kaya, Diana Drăgușin
P6	New porous clay heterostructures used for 5-Fluorouracil encapsulation	<u>Anda-Ionelia Mihai (Voicu)</u> , Alexandra-Sorina Gârea, Adi Ghebaur, Andreea-Mădălina Pandelescu, Horia Iovu
P7	3D porous scaffolds based on Chitosan-Poly(vinyl alcohol) and Graphene oxide	<u>Andreea Mădălina Pandelescu</u> , Mariana Ioniță, Horia Iovu
P8	Recent advances in 3D printing of hybrid nanomaterials	<u>Laura Mădălina Popescu</u> , Roxana Mioara Piticescu, Nastase-Dan Ciobota, Paul Stanciu, Sînziana Istrate, Liliana-Mary Voinea
P9	Theoretical base of PRP vs. PRF coated polypropylene meshes	<u>Valentin Popescu</u> , Marius Septimiu Petruțescu, Bogdan Mastalier
P10	Bio-activation of inert pHEMA matrices with phosphate loaded cellulose fibers in order to induce mineralization	<u>I.F. Țîrdea</u> , <u>M.O. Constantinescu</u> , A. Serafim, E. Vasile, A. Lungu, I.C. Stancu