**3rd International Conference on Bioengineering and Polymer Science**

**7-10 June 2023, Bucharest, Romania**

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| **Wednesday, 7.06.2023** |
| 19:00 – 21:00 | Welcome cocktail |
| **Thursday, 8.06.2023** |
| 09:00 – 09:30 | Welcome coffee & registration |
| 09:30 – 10:00 | Welcome ceremony |
| ***Plenary session 1, Chair: Stefan Voicu, APMG, UPB*** |
| 10:00 - 10:30 | ***Advancing Health through Technological Innovation*****Chwee Teck Lim**, National University of Singapore, Singapore |
| 10:30 - 11:00 | ***A perspective on Artificial Intelligence in Biomedical Imaging*****Adina Magda Florea**, University Politehnica of Bucharest, Romania |
| 11:00 – 11:30 | Coffee break  |
| ***Plenary session 2, Chair: Mariana Ionita, APMG, UPB*** |
| 11:30 – 12:00 | ***Clinically Effective Scar Treatment via a Gene Silencing siRNA-Polymer Nanoplex Platform: From Bench to Bed******Timothy Tan***, Nanyang Technological University, Singapore |
| 12:00 – 12:30 | ***Packing pentagons: from Albrecht Dürer to molecular detection*****Doru Constantin**, Institute Charles Sadron, CNRS and Université de Strasbourg, France |
| 12:30 – 13:00 | ***Viruses as bioinspired nanocapsules*****Guillaume Tresset**, Université Paris-Saclay, CNRS, France |
| 13:00 - 14:00 | Lunch & poster session |
| ***Sponsor session, Chair: Iuliana Biru, APMG, UPB*** |
| 14:00 - 14:15 | ***State-of-the-art innovations in organic synthesis and more*****Diego Minelli**, Senior Director Sales & Marketing at LabTech and Elena Piperea, Sales Manager at HYPO Tech&Consulting |
| ***Regular session 1, Chairs: Adriana Lungu, APMG, UPB & Iuliana Biru, APMG, UPB*** |
| 14:15 - 14:30 | ***Chronic wounds treatment and regeneration via controlled release of antimicrobial peptides from chitosan-based multilayer patches*****Sara Bernardoni**, Institute of Science, Technology and Sustainability for Ceramics, Italy |
| 14:30 - 14:45 | ***Collagen-based materials with wild bilberry extract for wound healing*****Mihaela Deaconu**, University Politehnica of Bucharest,CAMPUS Research Institute |
| 14:45 - 15:00 | ***Bringing microenvironmental complexity into in vitro cell cultures: 3D hydrogel-based systems for patient-specific B-cell lymphomas*****Tabea Fleischhammer**, Institute of Technical Chemistry, Hanover University, Germany |
| 15:00 - 15:15 | ***Eco-sustainable bio-polymeric biomedical HME filters: nature inspires the design of “artificial noses”*****Elisabetta Campodoni**, Institute of Science, Technology and Sustainability for Ceramics, Italy |
| 15:15 – 15:45 | Coffee break  |
| ***Young Researchers’ session, Chair: Jana Ghitman, APMG, UPB*** |
| 15:45 - 15:55 | ***Chemical modification of chitosan towards a wider purpose spectrum in osteochondral tissue engineering applications*****George Vlasceanu**, University Politehnica of Bucharest |
| 15:55 - 16:05 | ***Evaluation of mucin – carboxylated nanodiamonds interactions: a QCM-D study*****Elena Olaret**, University Politehnica of Bucharest |
| 16:05 - 16:15 | ***Designing Novel High-performance Asymmetrical Benzoxazine Monomers through Green Chemistry*****Madalina Ioana Necolau**, University Politehnica of Bucharest |
| 16:15 - 16:25 | ***Development of bioinspired 3D-printable nanostructured formulations for bone tissue regeneration*****Carmen Nicolae**, University Politehnica of Bucharest |
| 16:25 - 16:35 | ***Polysaccharides based drug delivery system for the encapsulation of ketoprofen*****Cristina Stavarache**, University Politehnica of Bucharest |
| 16:35 - 16:45 | ***3D printabile inks based on GelMA, Alginate and inorganic fillers*****Rebeca Alexa**, University Politehnica of Bucharest |
| 16:45 - 16:55 | ***Surface functionalized cellulose acetate membranes with enhanced biomineralization ability*****Madalina Oprea**, University Politehnica of Bucharest |
| 17:05 – 18:00 | **Round table *Trends in Bioengineering Education* (Endorsed by eBio-Hub)** |
| 19:00 - 22:00 | Chairmen's banquet (invitation only) |
| **Friday, 9.06.2023** |
| 09:00 – 09:30 | Welcome coffee & registration |
| ***Plenary session 3, Chair: Izabela Stancu, APMG, UPB*** |
| 09:30-10:00 | ***Bio-printing technology for Bone Tissue Engineering: Biomimetic Hydroxyapatites as Osteoinductive Ingredient for Nanocomposite Bioinks Design*****Monica Sandri**, Institute of Science, Technology and Sustainability for Ceramics, Italy |
| 10:00-10:30 | ***Engineering Multi-Scale Cellular Interactions for Disease Modeling and Drug Testing*****Yi-Chin Toh**, Queensland University of Technology, Australia |
| 10:30-11:00 | ***Biodegradable amphiphilic copolymers with enhanced drug loading capacity and their toxicity evaluation through microfluidics*****Mihaela C. Stefan**, University of Texas at Dallas, Dallas, USA |
| 11:00 – 11:30 | Coffee break  |
| ***Plenary session 4, Chair: Catalin Zaharia, APMG, UPB*** |
| 11:30 - 12:00 | ***Engineering peptide-based biomaterials as candidates for nanomedicine*****Ming Ni**, GenScript, Singapore |
| 12:00– 12:30 | ***Bacterial NanoCellulose: applications and market landscape*****Miguel Gama**, University of Minho, Portugal |
| 12:30 - 13:45 | Lunch & poster session |
| 13:45 – 14:15 | Visit@APMG research laboratories | 14:00 – 16:00Meeting of the *Scientific Advisory Board*eBio-hub project |
| ***Sponsors session, Chair: Andrada Serafim, APMG, UPB*** |
| 14:15 - 14:30 | ***Polymers: Editorial Process*****Anamaria Vartolomei,** MDPI, Open Access Publishing |
| 14:30 – 14:45 | ***Modern aspects regarding characterization of polymeric materials by thermal analysis and rheology techniques,*****Paul Lazar,** Laboratorium |
| 14:45 – 15:15 | Coffee break  |
| ***Regular session 2, Chair: Andrada Serafim, APMG, UPB*** |
| 15:15 - 15:30 | ***Composite PLA/HA/GNP filaments developed for 3D printing*** **Aura-Cătălina Mocanu**, University Politehnica of Bucharest, Romania |
| 15:30-15:45 | ***Atmospheric pressure plasma effects on 3D printing of model polymers*****A. V. Nastuta**, Faculty of Medical Bioengineering, `Gr. T. Popa' University of Medicine and Pharmacy Iasi, Romania |
| 15:45-16:00 | ***Introduction in Clinical Research*****Anca Brasoveanu**, EastHORN Clinical Services – a Novotech company, Romania |
| 16:00-16:15 | ***Multifunctional Polymeric Nanocarriers of ‘Difficult-to-Deliver’ Active Substances for the Central Nervous System Disorders*** **Marta Szczęch**, Jerzy Haber Institute of Catalysis and Surface Chemistry, Polish Academy of Sciences |
| 16:15-16:30 | ***3D Bioprinted Scaffolds Based on Functionalised Gelatin and Sodium Alginate for Soft Tissue Engineering*****Isabella Nacu**, Petru Poni Institute of Macromolecular Chemistry |
| 16:30-16:45 | ***Plasma-Synthesized Pyrrole-Derived Polymer Evolution Implanted in Rhesus Monkey Spinal Cord Transection Model******Axayacatl Morales-Guadarrama,*** Universidad Autónoma Metropolitana Iztapalapa, CDMX, Mexico |
| 16:45 – 17:00 | Closing ceremony |
| 19:00 - 22:00 | Gala Dinner |