

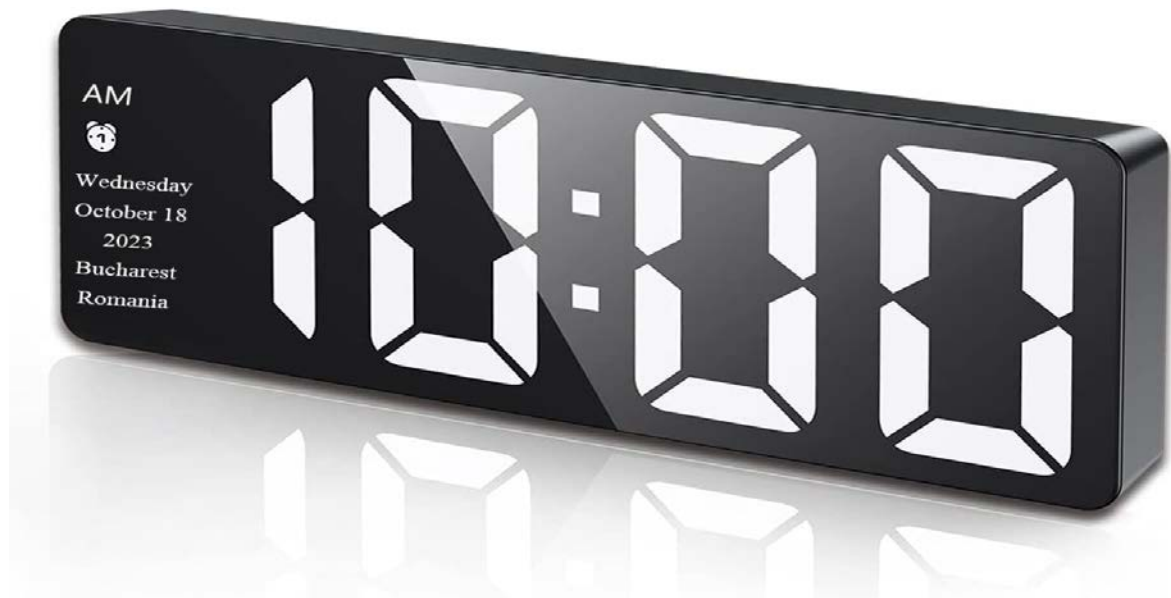
PROGRAM TIMETABLE

1st REALME

**Transnational Multiplier event of REALME project - A Mixed Reality E-Learning
Platform Dedicated for Medical Engineering.**

OCTOBER 18 – 19, 2023

**Library Room 3.2. UPB, Splaiul Independenței 312,
Bucharest, Romania**



**NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY POLITECHNICA
BUCHAREST**

FACULTY OF MEDICAL ENGINEERING

**ORGANIZING COMMITTEE
MARIANA IONITA AND ALIN GEORGIAN TOADER**

| Program WEDNESDAY, OCTOBER 18, 2023 | |
|--|--|
| 9:30-10:00 | REGISTRATION COFFEE BREAK |
| 10:00-10:15 | Chairperson: Mariana Ionita OPENING CEREMONY |
| Plenary session 10:15-10:45 | Stefan Ioan Voicu Department of Analytical Chemistry and Environmental Engineering, Faculty of Chemical Engineering and Biotechnologies, University Politehnica of Bucharest, Gheorghe Polizu 1-7, 011061 Bucharest, Romania “Functional polymeric membranes for hemodialysis and osseointegration” |
| Plenary session 10:45-11:15 | Alexandra Palla-Papavlu National Institute for Lasers, Plasma and Radiation Physics, Atomistilor str. 409, Magurele 077125, Romania „Application of laser-based methods for the development of new coatings” |

| | |
|--|--|
| <p style="text-align: center;">Plenary session 11:15-11:45</p> | <p style="text-align: center;">Stefan G. Stanciu</p> <p style="text-align: center;">Center for Microscopy-Microanalysis and Information Processing, National University for Science and Technology Politehnica Bucharest, 060042 Bucharest, Romania</p> <p style="text-align: center;">„Super-Resolved Non-linear Optical Microscopy: Architectures and Perspectives”</p> |
| <p style="text-align: center;">11:45-12:30</p> | <p style="text-align: center;">COFFEE BREAK POSTER PRESENTATION</p> |
| <p style="text-align: center;">Invited speaker 12:30-12:50</p> | <p>Chairperson: Stefan Ioan Voicu</p> <p style="text-align: center;">Madalina A. Pandeale</p> <p style="text-align: center;">University Politehnica of Bucharest, Faculty of Applied Chemistry and Materials Science, Department of Analytical Chemistry and Environmental Engineering, Str. Gheorghe Polizu 1-7, Bucharest, Romania,</p> <p style="text-align: center;">“Polysulfone/crown ethers immobilized onto graphene oxide composite membranes for hemodialysis”</p> |
| <p style="text-align: center;">Invited speaker 12:50-13:10</p> | <p style="text-align: center;">Alexandru Salceanu</p> <p style="text-align: center;">IMT-National Institute for Research and Development in Microtechnologies</p> <p style="text-align: center;">“Transfection technologies and the rise of LNP mRNA technology after COVID vaccine.”</p> |

| | |
|--|--|
| <p style="text-align: center;">Invited speaker 13:10-13:40</p> | <p style="text-align: center;">Moara M. Castro</p> <p style="text-align: center;">Centre of Excellence for Advanced Materials Application, Slovak Academy of Sciences, Dubravska cesta 9, 84511 Bratislava, Slovakia</p> <p style="text-align: center;">„Exploring bioabsorbable Zn-ZnO composites consolidated by room-temperature-extrusion”</p> |
| <p style="text-align: center;">Invited speaker 13:40-14:00</p> | <p style="text-align: center;">Madalina Oprea</p> <p style="text-align: center;">University Politehnica of Bucharest, Faculty of Chemical Engineering and Biotechnologies, Department of Analytical Chemistry and Environmental Engineering, 1-7 Gh. Polizu Street, 011061 Bucharest, Romania</p> <p style="text-align: center;">“Surface-functionalized cellulose acetate membranes with enhanced biomineralization ability”</p> |
| <p style="text-align: center;">14:00-15:00</p> | <p style="text-align: center;">LUNCH</p> <p style="text-align: center;">POSTER PRESENTATION</p> |
| <p style="text-align: center;">Invited speaker 15:00-15:20</p> | <p>Chairperson: Madalina Oprea</p> <p style="text-align: center;">Florentin R. Nitu</p> <p style="text-align: center;">Genetic Lab, Str. Milcov, nr. 5, Sector 1, 012273 Bucuresti, Romania</p> <p style="text-align: center;">“Graphene oxide/Nitrocellulose non-covalent hybrid as solid phase for oligoDNA/miRNA extraction from complex medium.”</p> |

| | |
|--|--|
| <p style="text-align: center;">Invited speaker 15:20-15:40</p> | <p style="text-align: center;">Roxana Cristina Popescu</p> <p>National University for Science and Technology Politehnica Bucharest, Splaiul Independentei 313, Bucharest, Romania</p> <p style="text-align: center;">“Targeted Intracellular Treatment for Anti-cancer Therapy using Nanoparticles”</p> |
| <p style="text-align: center;">Invited speaker 15:40-15:50</p> | <p style="text-align: center;">Anne-Marie Heredea</p> <p>Research Center in Dental Medicine Using Conventional and Alternative Technologies, Department of Prostheses Technology and Dental Materials, Faculty of Dental Medicine, “Victor Babeş” University of Medicine and Pharmacy of Timișoara, 9 Revoluției 1989 Ave., 300070 Timișoara, Romania</p> <p style="text-align: center;">„Polymeric fixed partial prostheses evaluation related to bacterial load</p> |
| <p style="text-align: center;">Invited speaker 15:50-16:00</p> | <p style="text-align: center;">Vanessa- Maria Dinis</p> <p>Department of Prosthetic Tehnology and Dental Materials,”Victor Babes University of Medicine and Pharmacy, Faculty of Dentistry</p> <p style="text-align: center;">“Materials and Technologies approach for provisional restauration”</p> |

| Program THURSDAY, OCTOBER 19, 2023 | |
|---|---|
| Invited speaker 10:00-10:20 | <p>Chairperson: Stefan Ioan Voicu</p> <p style="text-align: center;">Anca Hermenean</p> <p style="text-align: center;">“Aurel Ardelean” Institute of Life Sciences, Vasile Goldiș Western University of Arad</p> <p style="text-align: center;">“Assessment of Chrysin's Protective Potential in Nanoformulations Containing Calixarene 0118 (OTX008) and Sulfobutylether-β-cyclodextrin (SBEβCD) against Cardiac Fibrosis in Diabetes: Insights from In Vitro and In Vivo Investigation”</p> |
| Invited speaker 10:20-10:40 | <p style="text-align: center;">Joseph Lovecchio</p> <p style="text-align: center;">Institute of Biomedical and Neural Engineering, Reykjavik University, 102 Reykjavík, Iceland</p> <p style="text-align: center;">“Quantitative virtual profiles for an advanced monitoring of 3D in vitro bone extracellular matrix mineralization”</p> |
| Invited speaker 10:40-11:00 | <p style="text-align: center;">Andra Onas</p> <p style="text-align: center;">Advanced Polymer Materials Group, National University of Science and Technology Politehnica Bucharest, 1-7 Gheorghe Polizu, Sector 1, Bucharest, Romania</p> <p style="text-align: center;">“Rational design of peptoid molecules with antibiotic complexation properties”</p> |

| | |
|--|---|
| <p style="text-align: center;">Invited speaker 11:00-11:20</p> | <p style="text-align: center;">Alina Tirdea Palm Beach, Florida (FL), United States “ Bridging the Gap: The Evolution of a Biomedical Engineer through Computer-Aided Design”</p> |
| <p style="text-align: center;">11:20-11:50</p> | <p style="text-align: center;">COFFEE BREAK POSTER PRESENTATION</p> |
| <p style="text-align: center;">Workshop 11:50-12:20</p> | <p>Chairperson: Mariana Ionita Ciprian Iliescu e-Bio-hub Research Center, National University of Science and Technology POLITEHNICA Bucharest - CAMPUS, 6 Iuliu Maniu Boulevard, 061344, Bucharest, Romania “EBio-hub from. Mechanical engineering to medicine”</p> |
| <p style="text-align: center;">Invited speaker 12:20-12:40</p> | <p style="text-align: center;">Stamin Daniel eBio-hub Research Center, National University of Science and Technology POLITEHNICA Bucharest - CAMPUS, 6 Iuliu Maniu Boulevard, 061344, Bucharest, Romania “Innovation is a business & every business needs innovation”</p> |
| <p style="text-align: center;">Invited speaker 12:40-13:00</p> | <p style="text-align: center;">Cornel Cobianu e-Bio-hub Research Center, National University of Science and Technology POLITEHNICA Bucharest - CAMPUS, 6 Iuliu Maniu Boulevard, 061344, Bucharest, Romania NANOM MEMS, Str. George Cosbuc 9 C, Brasov, Romania “Basics of IP FOR Research institutions”</p> |
| <p style="text-align: center;">13:00-13:15</p> | <p style="text-align: center;">CLOSING CEREMONY</p> |
| <p style="text-align: center;">13:15-14:00</p> | <p style="text-align: center;">LUNCH POSTER PRESENTATION</p> |

POSTER SESSION

WEDNESDAY-THURSDAY, OCTOBER 18-19

Digital poster session

| | |
|-----------------------|--|
| Elena Cojocaru | <p>Advanced Polymer Materials Group, National University of Science and Technology POLITEHNICA Bucharest, 1-7 Gh. Polizu Street, 011061 Bucharest, Romania</p> <p>“Design of Electrospun and 3D-printed Scaffold co-loaded with Therapeutic Agents for Antibacterial Wound Dressings”</p> |
| Alin Toader | <p>Faculty of Medical Engineering, University Politehnica of Bucharest, Gh Polizu 1-7, 011061 Bucharest, Romania</p> <p>“Solid Phase Oligo-DNA Extraction from Complex Medium Using an Aminated Graphene/Nitrocellulose Membrane Hybrid”</p> |
| Marian Verziu | <p>Department of Organic Chemistry, Biochemistry and Catalysis, Faculty of Chemistry, University of Bucharest, Bdul Regina Elisabeta, 4-12, Bucharest 030016, Romania</p> <p>“The synergistic effect between Brønsted and Lewis acid sites of Re-TiO₂ catalyst in one-pot synthesis of levulinic acid from glucose”</p> |
| Marius Manole | <p>Associate Professor of Propedeutic and Esthetic Dentistry, Department of Prosthetics and Dental Materials, Faculty of Dentistry, University of Medicine and Pharmacy „Iuliu Hatieganu” Cluj-Napoca</p> <p>„Biomaterials used in prosthetic structures on dental implants”</p> |
| | |

| | |
|---|--|
| <p>Liana Diaconu</p> | <p>Victor Babes University of Medicine and Pharmacy from Timisoara, Romania</p> <p>“Aspects regarding the characterization of the profile of the finished of somme non -metallic materials used in direct dental restoration”</p> |
| <p>Ionela Alice Podaru</p> | <p>Military Technical Academy „Ferdinand I”, 39-49 G. Cosbuc Blvd., Bucharest, 050141, Romania</p> <p>“Nanocomposite Hydrogel Films Based on Sequential Interpenetrating Polymeric Networks as Drug Delivery Platforms”</p> |
| <p>Adriana Zainea</p> | <p>Advanced Polymer Materials Group, National University of Science and Technology Politehnica Bucharest, Street Gheorghe Polizu No. 1-7, Bucharest, Romania</p> <p>“Prostate on a chip as a new predictive model”</p> |
| <p>Mădălina-Cristina Nicolae</p> | <p>Advanced Polymer Materials Group, National University of Science and Technology Politehnica Bucharest, Street Gheorghe Polizu No. 1-7, Bucharest, Romania</p> <p>Gelatin Methacryloyl-polysaccharide based bioink with potential in 3D bioprinting applications</p> |
| <p>Adriana-Elena Bratu</p> | <p>Research and Innovation Center for CBRN Defense and Ecology, Bucharest, Romania</p> <p>Nanocomposite Coatings for Military Textiles</p> |
| <p>Mădălina Ioana Necolau</p> | <p>Advanced Polymer Materials Group, University “Politehnica” of Bucharest, Gh. Polizu street, 1-7, Bucharest, Romania</p> |

| | |
|--|---|
| | <p>“Hyaluronic Acid-Based Hydrogels as Potential Scaffolds for Tissue Engineering Applications”</p> |
| <p>Petcov Teodora-Eliana</p> | <p>Faculty of medical engineering, University Politehnica of Bucharest, gh polizu 1-7, 011061 Bucharest, Romania</p> <p>“DNA Nanostructure: An Efficient Drug Delivery Platform”</p> |
| <p>Gabriela Toader</p> | <p>Military Technical Academy ‘Ferdinand I’, Bucharest 050141, Romania</p> <p>“Photocrosslinkable Hydrogel Films for Chemical Warfare Agents Decontamination Applications”</p> |
| <p>Damaris-Cristina Gheorghe</p> | <p>Laboratory of Electrochemistry and Patlab, National Institute of Research for Electrochemistry and Condensed Matter, 202 Splaiul Independentei street, 060021, Bucharest-6, Romania</p> <p>“Simultaneous determination of vitamins b5, b7 and b9 using stochastic sensors as tools”</p> |
| <p>Ruxandra-Maria Ilie-Mihai1</p> | <p>Laboratory of Electrochemistry and Patlab, National Institute of Research for Electrochemistry and Condensed Matter, 202 Splaiul Independentei street, 060021, Bucharest-6, Romania</p> <p>“Stochastic sensors as new tools for the assay of ca72-4, ca19-9, ca12-5 and cea in biological samples”</p> |
| <p>Catalina Cioates Negut</p> | <p>Laboratory of Electrochemistry and Patlab, National Institute of Research for Electrochemistry and Condensed Matter, 202 Splaiul Independentei street, 060021, Bucharest-6, Romania</p> <p>“ 3D Stochastic microsensor based on graphene for simultaneous determination of p53, her-3, and her-4 “</p> |

| | |
|---------------------------------------|--|
| <p>Andreea-Roxana Niculae</p> | <p>Laboratory of Electrochemistry and Patlab, National Institute of Research for Electrochemistry and Condensed Matter, 202 Splaiul Independentei street, 060021, Bucharest-6, Romania</p> <p>“Fast screening of biological and food samples using miniplatforms based on 3D stochastic microsensors”</p> |
| <p>Andreea-Roxana Niculae</p> | <p>Laboratory of Electrochemistry and Patlab, National Institute of Research for Electrochemistry and Condensed Matter, 202 Splaiul Independentei street, 060021, Bucharest-6, Romania</p> <p>“Ultrasensitive assay of atrazine in food and water samples”</p> |
| <p>Maria Minodora Marin</p> | <p>Advanced Polymer Materials Group, Politehnica University of Bucharest, 1-7 Polizu Street, 011061 Bucharest, Romania</p> <p>Collagen Department, Leather and Footwear Research Institute, 93 Ion Minulescu Street, 031215 Bucharest, Romania; maria_minodora.marin@upb.ro (M.M.M.)</p> <p>“Alginate-Salecan-Nanoclay hydrogel composites as ink formulations for additive manufacturing processes”</p> |
| <p>Mihaela Raluca Dobrișan</p> | <p>Advanced Polymer Materials Group, University of Science and Technology Politehnica Bucharest</p> <p>“Innovative bio-hybrid structures for hard tissue engineering”</p> |
| <p>Ruxandra Larion</p> | <p>Advanced Polymer Materials Group, University of Science and Technology Politehnica Bucharest</p> <p>“Development of gelatin/gelan scaffolds for tissue substitutes”</p> |

| | |
|--|--|
| <p>Carmen-Valentina Nicolae</p> | <p>Advanced Polymer Materials Group, Faculty of Chemical Engineering and Biotechnologies, University Politehnica of Bucharest, 011061 Bucharest, Romania</p> <p>“Nanodiamond-driven potential modulation of cellular response through local (nano)mechanical reinforcement of 3D printed gellan gum scaffolds”</p> |
| <p>Eliza I. Vulpe</p> | <p>Faculty of Medical Engineering, National University of Science and Technology POLITEHNICA of Bucharest, 011061, Romania</p> <p>“Complex architecture encapsulation systems for therapeutic principle release control”</p> |
| <p>Elena Alina Chiticaru</p> | <p>Faculty of Medical Engineering, University Politehnica of Bucharest, Gh Polizu 1-7, 011061 Bucharest, Romania; elena.chiticaru@yahoo.com (E.A.C)</p> <p>“Electrochemical label-free biosensor based on reduced graphene oxide and gold nanoparticles for DNA hybridization detection”</p> |
| <p>Bogdan C. Păsat</p> | <p>Faculty of Medical Engineering, National University of Science and Technology POLITEHNICA of Bucharest, 011061, Romania</p> <p>“Designing self-assembling systems for targeted release of bioactive factors”</p> |
| <p>Raluca-Florina Sîrbu</p> | <p>Faculty of Medical Engineering, National University of Science and Technology POLITEHNICA of Bucharest, 011061, Romania</p> <p>„Isolation of natural extracellular matrices and optimization of morphostructural characteristics for targeted applications”</p> |

