

## G. BIOCOMPATIBLE MATERIALS AND BIOMEDICAL APPLICATIONS

Saturday, March 2, 2024, Congress Hall Palas, Vivaldi Hall

09<sup>00</sup>-11<sup>20</sup> – Presentations

11<sup>20</sup>-11<sup>30</sup>- Discussions

### Board:

**President:** Marcel Popa

**Members:** Marieta Fundueanu-Constantin  
Lăcrămioara Ochiuz

**Secretary:** Delia Mihaela Rață

### 1. Amphiphilic cationic pullulan derivative as curcumin nanoparticulate carrier

Marieta Fundueanu-Constantin<sup>1</sup>, Sanda Bucătariu<sup>1</sup>, Gabriela Ailiesei<sup>1</sup>, Gheorghe Fundueanu<sup>1</sup>

<sup>1</sup>“Petru Poni” Institute of Macromolecular Chemistry, Iași, Romania



### 2. News and perspectives on the importance of biocompatible materials in osteoarthritis therapy

Lăcrămioara Ochiuz<sup>1</sup>, Cristina Mihaela Ghiciuc<sup>1</sup>

<sup>1</sup>“Grigore T. Popa” University of Medicine and Pharmacy, Iași, Romania



### 3. Study on entrapment of metformin in silica matrices as modify drug delivery systems

Mousa Sha'at<sup>1</sup>, Maria Ignat<sup>2,3</sup>, Adrian Florin Șpac<sup>1</sup>, Alexandra Bujor<sup>1</sup>, Monica-Iliuța Stamate Crețan<sup>1</sup>, Lăcrămioara Ochiuz<sup>1</sup>

<sup>1</sup>“Grigore T. Popa” University of Medicine and Pharmacy, Iași, Romania

<sup>2</sup>“Alexandru Ioan Cuza” University of Iași, Romania

<sup>3</sup>“Petru Poni” Institute of Macromolecular Chemistry, Iași, Romania



#### **4. Formulation, preparation and pharmacotechnical evaluation of bistratified ketoprofen tablets**

*Monica Iliuța Crețan Stamate<sup>1</sup>, Lacramioara Ochiuz<sup>1</sup>, Carmen Anatolia Gașițanu<sup>1</sup>, Alexandra Bujor<sup>1</sup>, Mousa Sha'at<sup>1</sup>, Ciprian Stamate<sup>2</sup>*

*<sup>1</sup>“Grigore T. Popa” University of Medicine and Pharmacy, Iași, Romania*

*<sup>2</sup>“Gheorghe Asachi” Technical University of Iași, Romania*



#### **5. Eco-friendly cross-linking thermosensitive hydrogel as smart drug delivery system activated by specific compounds**

*Sanda-Maria Bucătariu<sup>1</sup>, Bogdan Coșman<sup>1</sup>, Marieta Constantin<sup>1</sup>, Gheorghe Fundueanu<sup>1</sup>*

*<sup>1</sup>“Petru Poni” Institute of Macromolecular Chemistry, Iași, Romania*



#### **6. Biocomposite hydrogels with antimicrobial activity for wound healing**

*Delia M. Rață<sup>1</sup>, Anca N. Cadinoiu<sup>1</sup>, Gabriela Vochita<sup>2</sup>, Daniela Luminița Ichim<sup>1</sup>, Leonard I. Atanase<sup>1,3</sup>*

*<sup>1</sup>“Apollonia” University of Iași, Romania*

*<sup>2</sup>NIRDBS - Institute of Biological Research Iasi, Department of Experimental and Applied Biology, Iași, Romania*

*<sup>3</sup>Academy of Romanian Scientists, Bucharest, Romania*



#### **7. Micro/nanospheres functionalized with peptides: Physico-chemical characterization and anti-inflammatory activity**

*Anca N. Cadinoiu<sup>1</sup>, Delia M. Rață<sup>1</sup>, Leonard I. Atanase<sup>1,2</sup>, Daniela Gherghel<sup>3</sup>, Gabriela Vochița<sup>3</sup>, Marcel Popa<sup>1,2</sup>*

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*<sup>2</sup>Academy of Romanian Scientists, Bucharest, Romania*

*<sup>3</sup>Institute of Biological Research, Iași, Romania*



## 8. New chitosan-coated liposomes as drug delivery systems for the inner ear

*Iftode Loredana<sup>1,2</sup>, Anca N. Cadinoiu<sup>3</sup>, Delia M. Rață<sup>3</sup>, Leonard I. Atanase<sup>3,5</sup>, Daniela Gherghel<sup>4</sup>, Marcel Popa<sup>2,3,5</sup>, Luminița Radulescu<sup>1</sup>*

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*<sup>2</sup>„Gheorghe Asachi” Technical University of Iași, Romania*

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*<sup>4</sup>NIRDBS—Institute of Biological Research, Iași, Romania*

*<sup>5</sup>Academy of Romanian Scientists, Bucharest, Romania*



## 9. PH influence on the biodegradation of chitosan based hydrogels

*Ramona Lungu<sup>1</sup>, Daniela Ailincăi<sup>1</sup>, Luminița Marin<sup>1</sup>*

*<sup>1</sup>“Petru Poni” Institute of Macromolecular Chemistry, Iași, Romania*



*11<sup>30</sup>-13<sup>50</sup> – Presentations*

*13<sup>50</sup>-14<sup>00</sup> - Discussions*

### **Board:**

**President:** *Liliana Sachelarie*

**Members:** *Gheorghe Fundueanu  
Marcel Popa*

**Secretary:** *Anca Niculina Cadinoiu*

## 1. Hydrogels with temperature-, double ph-, and biomolecule-sensitivity for biomedical applications

*Gheorghe Fundueanu<sup>1</sup>, Marieta Constantin<sup>1</sup>, Sanda Bucătariu<sup>1</sup>*

*<sup>1</sup>“Petru Poni” Institute of Macromolecular Chemistry, Iași, Romania*



## **2. New quaternary ammonium derivatives based on citrus pectin**

*Magdalena Cristina Stanciu<sup>1</sup>*

*<sup>1</sup>“Petru Poni” Institute of Macromolecular Chemistry, Iași, Romania*



## **3. Hydrogel systems based on polysaccharide derivatives with dynamic bonds for minimally invasive administration**

*Ioana A. Duceac<sup>1</sup>, Gabriela Biliuță<sup>1</sup>, Sergiu Coșeri<sup>1</sup>*

*<sup>1</sup>“Petru Poni” Institute of Macromolecular Chemistry, Iași, Romania*



## **4. Chitosan/oxidized pullulan hydrogels with embedded essential clove oil**

*Irina Popescu<sup>1</sup>, Dana Mihaela Suflet<sup>1</sup>, Marieta Constantin<sup>1</sup>, Cristina M. Rambu<sup>2</sup>, Cristina Horhogeă<sup>2</sup>*

*<sup>1</sup>“Petru Poni” Institute of Macromolecular Chemistry, Iași, Romania*

*<sup>2</sup>“Ion Ionescu de la Brad” University of Life Sciences, Iași, Romania*



## **5. Synergistic Efficacy of Zinc and Calcium in Dermatological Treatment: Unraveling Novel Therapeutic Paradigms for Skin Health**

*Onofrei Ilinca<sup>1</sup>, Ionuț Iulian Lungu<sup>1</sup>, Gabriela Călin<sup>2</sup>, Alina Ștefanache<sup>1</sup>*

*<sup>1</sup>“Grigore T. Popa” University of Medicine and Pharmacy, Iași, Romania*

*<sup>2</sup>“Apollonia” University of Iași, Romania*

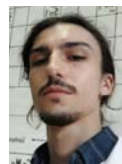


**6. Chelator Design- the antidote for heavy and noble metals toxicity**

*George-Alexandru Marin<sup>1</sup>, Ionuț Iulian Lungu<sup>1</sup>, Gabriela Călin<sup>2</sup>, Alina Ștefanache<sup>1</sup>*

*<sup>1</sup>“Grigore T. Popa” University of Medicine and Pharmacy, Iași, Romania*

*<sup>2</sup>“Apollonia” University of Iași, Romania*



**7. Antimicrobial effect of some polymeric microparticles functionalized with peptides**

*Daniela Luminița Ichim<sup>1</sup>, Delia Mihaela Rață<sup>1</sup>, Leonard Ionuț Atanase<sup>1</sup>, Anca Niculina Cadinoiu<sup>1</sup>*

*<sup>1</sup>“Apollonia” University of Iași, Romania*



**8. Biomass characterization and classification for conversion to added-value products**

*Elena Butnaru<sup>1</sup>, Elena Marlica<sup>1</sup>, Elena Stoleru<sup>1</sup>, Mihai Brebu<sup>1</sup>*

*<sup>1</sup>“Petru Poni” Institute of Macromolecular Chemistry, Iași, Romania*



**9. Application of caseinate for encapsulation of bioactive compounds through electrospinning**

*Raluca Petronela Dumitriu<sup>1</sup>, Elena Stoleru<sup>1</sup>, Mihai Brebu<sup>1</sup>*

*<sup>1</sup>“Petru Poni” Institute of Macromolecular Chemistry, Iași, Romania*



**10. Erythromycin loading into biodegradable chitosan/ quaternized chitosan nanofibers imino-linked with 2-hydroxy-5-methoxy-benzaldehyde for a combined antioxidant and antibacterial activity**

*Vera-Maria Platon<sup>1</sup>, Liliana Mititelu Tarțău<sup>1</sup>, Bianca-Iustina Andreica<sup>1</sup>, Luminița Marin<sup>1</sup>*

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