

Titlul proiectului: "REȚEAUA ACADEMICĂ DE CERCETARE DE EXCELENȚĂ STAR-UBB – STAR-UBB-N"

Programul 1- Dezvoltarea sistemului național de cercetare-dezvoltare, Subprogramul 1.2 – Performanță instituțională – Proiecte de dezvoltare instituțională – Proiecte de finanțare a excelenței în CDI, PNCDI III, ID proiect: PFE-550-UBB, Nr. contract: 21PFE/30.12.2021

Sesiunea științifică

"Targeted therapies, bionanotechnologies, translational medicine"

Moderator: Prof. dr. Manuela Banciu

- *Prof. dr. Vasile Robert Gradinaru- Tailored physical association in peptide/polyurethane hydrogels and their capacity to release enzyme cofactors*
- *Prof. dr. Manuela Banciu- "Natural" and synthetic liposomes for future melanoma therapies*
- *Asist.univ. dr. Laura Patras- Characterization of adaptive immune responses during exosome-mediated tumor regression*
- *Lect. dr. Alina Sesarman- Surface modification of prednisolone phosphate-loaded liposomes using IL-13 enhances their cellular uptake and antitumor activity in melanoma*
- *CS. dr.Madalina Andreea Badea- In vitro biocompatibility investigation of zinc-doped hydroxyapatite nanoparticles for dental applications*
- *Lect. dr. Emilia Licarete- Doxorubicin and siRNA targeting HIF-1 α - a novel combination therapy for melanoma.*
- *Lect. dr. Pruteanu Lavinia-Lorena- Biological activity of compounds from marine algae on tumor cell lines*
- *Lect. dr. Petre Brindusa Alina- Peptide-based substrates for enzymes activity evaluation using mass spectrometry and fluorimetry*
- *CS.dr. Moisa Cristian- Green synthesis mediated by secondary metabolites extracted from stressed plants*
- *Drd. Geanina Voicu- Design of dual-targeted lipid nanoemulsions for vascular delivery of specialized pro-resolving lipid mediators in atherosclerosis*

organizată în cadrul "Conferinței Internaționale și a- XXXIX Sesiune Științifică anuală a Societății Române de Biologie Celulară"

[\(https://biogeo.ubbcluj.ro/rscb2022/\)](https://biogeo.ubbcluj.ro/rscb2022/)

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Organizatori: Universitatea Babeș-Bolyai, Facultatea de Biologie și Geologie, Scoala Doctorala de Biologie Integrativă, Societatea Română de Biologie Celulară, Centrul de Biologie Sistemică, Biodiversitate și Bioresurse (3B), Organizația Studenților pentru Natură (OSpN), Institutul de Studii avansate în știință și tehnologie (STAR-UBB), Centrul Virtual & Practical Engineering

Participanți: Cadre didactice și cercetători din Universitatea Babeș-Bolyai și din alte universități și centre de cercetare din țară și străinătate

Organizator sesiune științifică: Prof.dr. Manuela Banciu

Coordonator științific Centrul Virtual & Practical Engineering: Prof. dr. Lucian Baia

SATURDAY 22.10.2022

Amphitheater of Zoology "E. Racoviță"

Scientific session: Targeted therapies, bionanotechnologies, translational medicine

Chairpersons:

Prof. dr. Manuela Banciu & Dr. Manuela Călin (online)

- 16¹⁵-16³⁰** **Tailored physical association in peptide/polyurethane hydrogels and their capacity to release enzyme cofactors**
Vasile Robert Grădinaru¹, Brîndușa Alina Petre¹, Laura Darie-Ion¹, Luiza Mădălina Grădinaru², Stefania-Claudia Jitaru¹, Alexandra Lupu¹
¹Alexandru Ioan Cuza University, Faculty of Chemistry, 11 Carol I Bd., RO-700506, Iasi, Romania, ²Petru Poni Institute of Macromolecular Chemistry, 41-A Grigore Ghica Voda Alley, 700487 Iasi, Romania
- 16³⁰-16⁴⁵** **"Natural" and synthetic liposomes for future melanoma therapies**
Laura Patras¹, Valentin Florian Rauca¹, Giorgiana Negrea², Marta Szilvia Meszaros¹, Emilia Licarete¹, Alina Porfire³, Lucian Barbu⁴, Lavinia Luput¹, Alina Sesarman¹, Vlad-Alexandru Toma¹, Manuela Banciu¹
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- 16⁴⁵-17⁰⁰** **Characterization of adaptive immune responses during exosome-mediated tumor regression**
Patras Laura^{1,2}, Kayleen Bailey², Miho Hatano², Angela Di Giannatale², Ayuko Hoshino³, Daniela Freitas⁴, Henrik Molina⁵, Celso Reis⁴, Jack Bui⁶, Doru Paul⁷, Irina Matei², David Lyden²
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- 17⁰⁰-17¹⁵** **Surface modification of prednisolone phosphate-loaded liposomes using IL-13 enhances their cellular uptake and antitumor activity in melanoma**
Alina Sesarman^{1,*}, Lavinia Luput¹, Valentin-Florian Rauca¹, Laura Patras¹, Emilia Licarete^{1,2}, Bogdan Razvan Dume¹, Giorgiana Negrea¹, Vlad-Alexandru Toma^{1,3}, Dana Muntean⁴, Alina Porfire⁴, Manuela Banciu¹
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Bio-Nano-Sciences of Babes-Bolyai University, Cluj-Napoca, Romania; ³Department of Experimental Biology and Biochemistry, Institute of Biological Research, branch of NIRDBS Bucharest, Cluj-Napoca, Romania; ⁴Department of Pharmaceutical Technology and Biopharmaceutics, Faculty of Pharmacy, University of Medicine and Pharmacy "Iuliu Hatieganu", Cluj-Napoca, Romania

17¹⁵-17²⁰

e-Poster: *In vitro* biocompatibility investigation of zinc-doped hydroxyapatite nanoparticles for dental applications

Madalina Andreea Badea¹, Mihaela Balas¹, Steluta-Carmen Ciobanu², Simona-Liliana Iconaru², Daniela Predoi², Anca Dinischiotu¹

¹Department of Biochemistry and Molecular Biology, Faculty of Biology, University of Bucharest, 91-95 Splaiul Independentei, 050095 Bucharest, Romania; ²National Institute of Materials Physics, 405A Atomistilor Street, 077125 Magurele, Romania

17²⁰-17³⁵

Biological activity of compounds from marine algae on tumor cell lines

Lavinia-Lorena Pruteanu¹, Monica Liliana Marian¹, David Stanley Bailey²

¹Technical University of Cluj-Napoca, Faculty of Sciences, Department of Chemistry and Biology, Baia Mare, Romania, City; ²IOTA Pharmaceuticals Ltd, St Johns Innovation Centre, Cambridge, United Kingdom

17³⁵-17⁵⁰

Doxorubicin and siRNA targeting HIF-1 α - a novel combination therapy for melanoma.

Bogdan Dume¹, **Alina Sesărman**², **Manuela Banciu**², **Emilia Licărete**²

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17⁵⁰-18⁰⁵

Peptide-based substrates for enzymes activity evaluation using mass spectrometry and fluorimetry

Brîndușa Alina Petre¹, Laura Darie-Ion¹, Robert Grădinaru¹

¹Faculty of Chemistry, "Alexandru Ioan Cuza" University of Iași, Romania

18⁰⁵-18²⁰

Green synthesis mediated by secondary metabolites extracted from stressed plants

Moisa Cristian¹, Andreea Lupitu¹, Lucian Copolovici¹, Dana Copolovici¹

¹Faculty of Food Engineering, Tourism and Environmental Protection and Institute of Technical and Natural Sciences Research-Development-Innovation of "Aurel Vlaicu" University, 2 Elena Drăgoi St, 310330 Arad, Romania

18²⁰-18²⁵

e-Poster: Design of dual-targeted lipid nanoemulsions for vascular delivery of specialized pro-resolving lipid mediators in atherosclerosis

Geanina Voicu¹, Maria Anghelache¹, Mariana Deleanu¹, Mihaela Turtoi¹, Florentina Safciuc¹, Ileana Manduteanu¹, Maya Simionescu¹, Manuela Calin¹

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