

Papers in journals indexed by Clarivate database

1. Limban C, **Chifiriuc CM** Căproiu MT, Dumitrașcu Florea, Ferbințeanu M, Pintilie L, Ștefăniu A, Vlad IM, Bleotu C, Măruțescu LG, Nuță DC. New Substituted Benzoylthiourea Derivatives: From Design to Antimicrobial Applications. *Molecules*. **2020**, 25(7):1478. (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7180980/>) **Q1 (IF- 4.15)**
2. Gheorghe I, Barbu IC, Surleac M, Sârbu I, Popa LI, Paraschiv S, Feng Y, Lazăr V, **Chifiriuc MC**, Oțelea D, Zhiyong Z. Subtypes, resistance and virulence platforms in extended-drug resistant *Acinetobacter baumannii* Romanian isolates. *Sci Rep*. **2021** 24;11(1):13288. doi: 10.1038/s41598-021-92590-5. **Q1 (IF- 4.54)**
3. Popa LI, Gheorghe I, Barbu IC, Surleac M, Paraschiv S, Măruțescu L, Popa M, Pîrcălăbioru GG, Talapan D, Niță M, Streinu-Cercel A, Streinu-Cercel A, Oțelea D, **Chifiriuc MC**. Multidrug Resistant *Klebsiella pneumoniae* ST101 Clone Survival Chain From Inpatients to Hospital Effluent After Chlorine Treatment. *Front Microbiol*. **2021**;11:610296. doi: 10.3389/fmicb.2020.610296. **Q1 (IF- 5.59)**
4. Preda M, Mihai MM, Popa LI, Dițu LM, Holban AM, Manolescu LSC, Popa GL, Muntean AA, Gheorghe I, **Chifiriuc CM**, Popa MI. Phenotypic and genotypic virulence features of staphylococcal strains isolated from difficult-to-treat skin and soft tissue infections. *PLoS One*. **2021**;16(2):e0246478. doi: 10.1371/journal.pone.0246478. **Q1 (IF- 3.24)**
5. Grădișteanu Pîrcălăbioru G, Popa LI, Măruțescu L, Gheorghe I, Popa M, Czobor Barbu I, Cristescu R, **Chifiriuc MC**. Bacteriocins in the Era of Antibiotic Resistance: Rising to the Challenge. *Pharmaceutics*. **2021**, 13(2):196. doi: 10.3390/pharmaceutics13020196. **Q1 (IF-6.072)**
6. Predoi SA, Ciobanu CS, Motelica-Heino M, **Chifiriuc MC**, Badea ML, Iconaru SL. Preparation of Porous Hydroxyapatite Using Cetyl Trimethyl Ammonium Bromide as Surfactant for the Removal of Lead Ions from Aquatic Solutions. *Polymers*. **2021**, 13(10):1617. <https://doi.org/10.3390/polym13101617> **Q1(IF- 4.067)**
7. Vrâncianu CO, Gheorghe I, Dobre EG, Barbu IC, Cristian RE, Popa M, Lee SH, Limban C, Vlad IM, **Chifiriuc MC**. Emerging Strategies to Combat β -Lactamase Producing ESKAPE Pathogens. *Int J Mol Sci*. **2020**, 21(22):8527. doi: 10.3390/ijms21228527. **Q1 (IF- 5.54)**
8. Popa LI, Gheorghe I, Barbu IC, Surleac M, Paraschiv S, Măruțescu L, Popa M, Pîrcălăbioru GG, Talapan D, Niță M, Streinu-Cercel A, Streinu-Cercel A, Oțelea D and **Chifiriuc MC**. Multidrug Resistant *Klebsiella pneumoniae* ST101 Clone Survival Chain From Inpatients to Hospital Effluent After Chlorine Treatment. *Front. Microbiol*. **2021**, 11:610296. doi: 10.3389/fmicb.2020.610296. **Q1 (IF- 5.59)**
9. Vrâncianu CO, Popa LI, Bleotu C, **Chifiriuc CM**. Targeting Plasmids to Limit Acquisition and Transmission of Antimicrobial Resistance. *Frontiers in Microbiology*, **2020**, 11(761) <https://www.frontiersin.org/articles/10.3389/fmicb.2020.00761/full> **Q1 (IF- 5.59)**
10. Surleac M, Czobor Barbu I, Paraschiv S, Popa IL, Gheoghe I, Măruțescu L, Popa M, Sârbu I, Talapan D, Niță M, Iancu AV, Arbucre M, Manole A, Nicolescu Ș, Săndulescu O, Streinu-Cercel A, Oțelea A, **Chifiriuc MC**. Whole genome sequencing snapshot of multidrug resistant *Klebsiella pneumoniae* strains from hospitals and receiving wastewater treatment plants in Southern Romania. *PLoS One* **2020**, 15(1):e0228079. <https://pubmed.ncbi.nlm.nih.gov/31999747/> **Q1 (IF- 2.78)**

11. Alistar CF, Nica IC, Nita-Lazar M, Vasile GG, Gheorghe S, Croitoru AM, Dolete G, Mihaiescu DE, Ficai A, Craciun N, Gradisteanu Pircalabioru G, **Chifiriuc MC**, Stan MS, Dinischiotu A. Antioxidative defense and gut microbial changes under pollution stress in *Carassius gibelio* from bucharest lakes. *Int. J. Environ. Res. Public Health* **2022**; 19(12):7510. **Q1 (IF- 4.614)**
12. Gheorghe S, Stan MS, Mitroi DN, Staicu AC, Cicirma M, Lucaciu IE, Nita-Lazar M, Dinischiotu A. Oxidative stress and histopathological changes in gills and kidneys of *Cyprinus carpio* following exposure to benzethonium chloride, a cationic surfactant. *Toxics*. **2022**; 10(5):227. **Q1 (IF- 4.472)**
13. Cristea VC, Gheorghe I, Barbu I, Popa LI, Ispas B, Grigore AG, Bucatariu I, Popa GL, Angelescu MC, Velican A, Marutescu L, Popa M, **Chifiriuc MC**, Popa M. Snapshot of Phylogenetic Groups, Virulence, and Resistance Markers in *Escherichia coli* Uropathogenic Strains Isolated from Outpatients with Urinary Tract Infections in Bucharest, Romania. *BioMed Research International*, **2019**, Article ID 5712371. <https://doi.org/10.1155/2019/5712371>. **Q2 (IF- 2.276)**
14. Pricop GR, Gheorghe I, Grădișteanu Pircalabioru G, Cristea V, Popa M, Măruțescu L, **Chifiriuc MC**, Mihăescu G, Bezirtzoglou E. Resistance and Virulence Features of *Bacteroides* spp. isolated from Abdominal Infections in Romanian Patients. *Pathogens* **2020**, 9, 940. <https://www.mdpi.com/2076-0817/9/11/940>. **Q2 (IF-3.079)**
15. Vrâncianu CO, Gheorghe I, Barbu Czobor I, Chifiriuc MC. Antibiotic Resistance Profiles, Molecular Mechanisms and Innovative Treatment Strategies of *Acinetobacter baumannii*. *Microorganisms*, **2020**, 8(6), 935. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7355832/>. **Q2 (IF- 3.864)**
16. Velican AM, Măruțescu L, Kamerzan C, Cristea VC, Banu O, Borcan E, **Chifiriuc MC**. Rapid detection and antibiotic susceptibility of uropathogenic *Escherichia coli* by flow cytometry. *Microorganisms* **2020**, 8, 1233. <https://www.mdpi.com/2076-2607/8/8/1233/htm>. **Q2 (IF- 3.864)**
17. Vrâncianu CO, Dobre EG, Gheorghe I, Barbu I, Cristian RE, **Chifiriuc MC**. Present and Future Perspectives on Therapeutic Options for Carbapenemase-Producing *Enterobacterales* Infections. *Microorganisms*. **2021**; 9(4):730. <https://doi.org/10.3390/microorganisms9040730> **Q2 (IF- 4.78)**
18. Onita (Mladin) B., Albu P, Herman H, Balta C, Lazar V, Fulop A, Baranyai E, Harangi S, Keki S, Nagy L, Nagy T, Józsa V, Gál D, Györe K, Stan M, Hermenean A, Dinischiotu A. Correlation between Heavy Metal-Induced Histopathological Changes and Trophic Interactions between Different Fish Species. *Appl. Sci.* **2021**, 11, 3760. <https://doi.org/10.3390/app11093760>, **Q2 (IF- 2.838)**
19. Chiriac FL, Stoica C, Scutariu RE, Pirvu F, Paun I, Iancu V, Galaon T, Nita-Lazar M. Occurrence and fate of Adsorbable Organic Halogens (AOX) in two WWTPs from Romania. *Arch Environ Contam Toxicol.* **2022** May;82(4):592-601. doi: 10.1007/s00244-022-00923-w. **Q2 (IF- 2.804)**
20. Thamer O, Pricop R, Sadik O, Najee H, Gradisteanu G, Marutescu L, Barbu I, Cristea V, Grigore R, Gheorghe I, Mihaescu G. Description of vancomycin resistance genes in *Enterococcus* sp. clinical strains isolated from Bucharest, Romania. *Romanian Biotechnological Letters*, **2019**, 24(3):359-399. DOI:10.25083/rbl/24.3/395.399. **(IF-0.765)**
21. Nawfal HA, **Chifiriuc MC**, Mihaescu G, Alshwaikh R, Mohsin S, Mohammed H, Pircalabioru GG, Gheorghe I. Antibiotic resistance determinants of *Acinetobacter*

baumannii strains isolated from nosocomial infections. *Rom Biotechnol Lett.* **2020**, 25(3): 1658-1665. DOI: 10.25083/rbl/25.3/1658.1665, **(IF-0.765)**
Total IF-76.74

Papers in ISI journals -in evaluation

1. Gheorghe I, Czobor Barbu I, Popa LI, Gradisteanu Pircalabioru G, Popa M, Marutescu L, Nita-Lazar M, Banciu A, Stoica C, Gheorghe S, Lucaciu I, Sandulescu O., Paraschiv S., Surleac M, Talapan D, Muntean AA, Preda M, Muntean M, Dragomirescu C, Popa MI, Otelea D, **Chifiriuc MC**. Temporo-spatial variations in resistance determinants and clonality of *Acinetobacter baumannii* and *Pseudomonas aeruginosa* strains from Romanian hospitals and wastewaters – *Antimicrobial Resistance and Infection Control*

Papers indexed in other international databases

1. Popa LI, Czobor I, **Chifiriuc MC**. Mobile genetic elements involved in the horizontal transfer of antibiotic resistance genes, *Romanian Archives of Microbiology and Immunology*, **2018**, 77(4):274-287.
2. Cucu IA, **Chifiriuc C**. Etiology and incidence of infectious diseases of the heart. An update. *Romanian Archives of Microbiology and Immunology*, **2019**, 78(1):45-61.
3. Ducu R, Gheorghe I, **Chifiriuc MC**, Mihăescu G, Sârbu I. Prevalence of vancomycin resistance phenotypes among *Enterococcus* species isolated from clinical samples in a Romanian hospital. *Biointerface Research in Applied Chemistry*, **2019**, 9(6):4699-4704, **Q3**
4. Podgoreanu P, Negrea SM, Buia R, Delcaru C, Truşcă SB, Lazar V, **Chifiriuc MC** Alternative strategies for fighting multidrug resistant bacterial infections. *Biointerface Research in Applied Chemistry*, **2019**, 9(1):3834-3841, **Q3**
5. Pănuş E, Chifiriuc MC, Bleotu C, Vrâncianu CO, Grădişteanu G, Roşoiu N. Impact of Different Parameters upon the Production of Virulence Factors in *Escherichia coli* Strains Isolated from Marine Water. *Biointerface Research in Applied Chemistry*, **2020**, 10(6):7049-7060, **Q3**

National Patent

1. Fikai D, Dolete G, Croitoru AM, Popa M, Boanţă LF, Mihăiescu DE, Fikai A, Andronescu E, **Chifiriuc C**. Tehnologie de tratare a apelor uzate de la nivelul stațiilor de epurare cu potential ridicat de antibiotice, pesticide sau alte substanțe biologice active; A/00707/24.11.2021 OSIM

International Conferences

1. Surleac M, Paraschiv S, Czobor I, Popa L, Măruțescu L, Popa M, Gheorghe I, Sârbu I, Streinu-cercel A, Niță Lazăr M, Talapan D, **Chifiriuc C**, Oțelea D. Next generation sequencing (NGS) for the analysis of antibiotic resistance genes in hospital wastewaters: a multicenter survey in Romania, *20th Symposium of the IWA-Health Related Water Microbiology*, Vienna Austria, 15-20 September **2019**.
2. Banciu AR, Stoica C, Niță Lazăr M. Interdependence between bacterial resistance to antibiotics and pollutants. *9th International Symposium on Toxicity Assessment (ISTA19)*, Thesaloniki, Greece, 25-30 August **2019**.
3. Gheorghe I, Czobor I, Avram I, Alshaiqli N, Popa LI, Popa M, Pîrcălabioru-Grădişteanu G, Neagu AC, Măruțescu L, Lazăr V, Chifiriuc MC. Genetic

background of antibiotic resistance in multidrug-resistant *Acinetobacter baumannii* strains recovered from a wastewater treatment plant near Bucharest, *29th European Congress of Clinical Microbiology and Infectious Diseases*, Amsterdam, Netherlands, 13 - 16 April **2019**.

4. Czobor I, Popa LI, Gheorghe I, Avram I, Neagu AC, Czobor I, Pîrcălabioru-Grădişteanu G, Lazăr V, **Chifiriuc MC**. Molecular characterisation of multidrug-resistant *Klebsiella pneumoniae* strains isolated from wastewater treatment plant in Romania, *29th European Congress of Clinical Microbiology and Infectious Diseases*, Amsterdam, Netherlands, 13 - 16 April **2019**.
5. Czobor I, Avram I, Gheoghe I, Popa LI, Măruţescu L, Popa M, Pîrcălabioru-Grădişteanu G, Lazăr V, **Chifiriuc MC**. Detection of the epidemic IncP-6 plasmid carrying blaKPC-2 in a multidrugresistant *Enterobacter kobei* isolate from activated sludge of a wastewater treatment plant in Valcea County, Romania, *29th European Congress of Clinical Microbiology and Infectious Diseases*, Amsterdam, Netherlands, 13 - 16 April **2019**.
6. Cristea VC, Angelescu MC, Gheoghe I, Popa LI, Czobor I, Ispas B, Grigore GA, Bucătariu I, Măruţescu L, Popa M, Lazăr V, Popa IM, **Chifiriuc MC**. Snapshot of virulence and resistance markers in *Escherichia coli* uropathogenic strains isolated from ambulatory patients, *29th European Congress of Clinical Microbiology & Infectious Diseases*, Amsterdam, Netherlands, 13 - 16 April **2019**.
7. Gheoghe I, Avram I, Cristea VC, Borcan E, Murariu C, Czobor I, Măruţescu L, Feng Y, **Chifiriuc MC**, Zhiyong Z. Draft genome sequences of four clinical isolates of multidrug-resistant *Acinetobacter baumannii* from Romanian hospitals, *29th European Congress of Clinical Microbiology & Infectious Diseases*, Amsterdam, Netherlands, 13 - 16 April **2019**.
8. Diaconescu V, **Chifiriuc MC**, Popa M, Olar R, Badea M, New cobalt (II) complexes with benzimidazole derivatives as ligands, *9th International Conference of the Chemical Societies of the South-Eastern European Countries*, Târgovişte, România, poster S2_P_03. 8-11 May **2019**.
9. Popa M, Măruţescu L, Niţă-Lazăr M, Banciu A, **Chifiriuc MC**, Ivan BC, Olar R, Badea M, Badea IA. Monitoring of beta-lactam antibiotics in different wastewater samples, *9th International Conference of the Chemical Societies of the South-Eastern European Countries*, Târgovişte, România, poster S1_P_30. 8-11 May **2019**.
10. Olar R, Badea M, Korošin NC, Korošec RC, Rostras AM, Maxim C, Luca M, **Chifiriuc C**. Physico-chemical and biological properties survey for Cu (II) complexes with nitrogen-donor heterocyclic ligands, *CEEC-TAC5 & Medicta 2019*, Rome, Italy, 27-30 August **2019**.
11. Olar R, Badea M, Maxim C, Ţugui C, **Chifiriuc MC**, Popa M. Investigation of physico-chemical and antimicrobial properties of Ni(II), Co(II), Cu(II) and Zn(II) complexes with 3-amino-1,2,4-triazolium ion, *CEEC-TAC5 & Medicta 2019*, Rome, Italy, 27-30 August **2019**.
12. Badea M, Uivaroşi V, Olar R, **Chifiriuc MC**, Munteanu AC, Măciucă AM. Physical chemical characterization, thermal behaviour investigation and antimicrobial activity studies of some oxovanadium (IV) complexes with quinolone antibiotics, *CEEC-TAC5 & Medicta 2019*, Rome, Italy, 27-30 August **2019**.

13. Măruțescu LG, Popa M, Gheorghe I, Czobor I, Crețu A, Curuțiu C, Păceșilă I, **Chifiriuc MC**. Co-occurrence of heavy metals and extended-spectrum beta-lactamase resistances genes in *Enterobacteriaceae* strains isolated along the whole course of a river in Romania. *8th Congress of European Microbiologists*, Glasgow, Scotland, 07-11 July **2019**.
14. Pătru-Stupariu I, **Chifiriuc MC**, Măruțescu L, Stupariu MS. Linking the urban health to the quality of the blue infrastructure: a proof of concept for understanding the environmental dimension of antibiotic resistance. *IALE Congress*, Milano, Italy, 1-5 July, **2019**.
15. Popa LI, Neguț AC, Czobor I, Gheorghe I, Mphsin S, Mitache MM, Popa M, Măruțescu L, **Chifiriuc MC**. Detection of blaKPC-2 in a conjugative IncP-6 plasmid in *Escherichia coli* isolated from wastewater in Romania, *30th European Congress of Clinical Microbiology and Infectious Diseases* 21-24 April **2020**.
16. Czobor I, Gheorghe I, Popa LI, Surleac M, Paraschiv S, Oțelea D, Măruțescu L, Popa M, Mohsin S, **Chifiriuc MC**. KPC-producing and colistin-resistant *Klebsiella pneumoniae* ST258 persistence during wastewater treatment plant processes. *30th European Congress of Clinical Microbiology and Infectious Diseases*, 21-24 April **2020**.
17. Gheoghe I, Czobor I, Popa LI, Avram I, Haitham ASN, Mohsin S, Paraschiv S, Surleac M, Cristea VC, Popa M, Măruțescu L, Oțelea D, Lazăr V, **Chifiriuc MC**. Insights in the resistome of multidrug-resistant *Pseudomonas aeruginosa* strains isolated in Romania from nosocomial infections and wastewater, *30th European Congress of Clinical Microbiology and Infectious Diseases* 21-24 April **2020**.
18. Vrâncianu CO, Gheorghe I, Măruțescu L, Popa M, Barbu I, Niță M, Muntean A, Dragomirescu C, Săndulescu O, Talapan D, Popa MI, **Chifiriuc MC**, Genetic characterization of multidrug-resistant *Acinetobacter baumannii* strains isolated in the same temporal sequence from hospital infections and the wastewater network in South Romania, *FEMS Online Conference on Microbiology* 28 – 31 October **2020**.
19. Gheorghe I, Barbu I, Surleac M, Popa L, Paraschiv S, Popa M, Grădișteanu G, Măruțescu L, Talapan D, Banciu A, Stoica C, Gheorghe S, Irina L, Niță Lazăr M, Muntean A, Oțelea D, Popa MI, Chifiriuc MC. Tracking down multidrug-resistant *Acinetobacter baumannii* isolates from hospital to the aquatic environment via the wastewater network, *31st European Congress of Clinical Microbiology & Infectious Diseases*, 9 – 12 July **2021**.
20. Pelcaru FC, Nica IC, Stan MS, Dinischiotu A, Risk assessment study on *Carassius gibelio* fish collected from water bodies from Bucharest”, *The 9th World Sustainability Forum*, 13–15 September **2021**.
21. Banciu AR, Gheorghe Ș, Stoica C, Lucaciu IE, Niță-Lazăr M. Post-pandemic effects on faecal pollution of aquatic systems, *24th International Symposium “The Environment And The Industry”* Bucharest 24.09.**2021**.

International conference *Applications of Chemistry in Nanosciences and Biomaterials Engineering. NanoBioMat 2022 – Summer Edition*, 22.06.2022-24.06– Special session dedicated to RADAR project - **Fate of ESKAPE Bacteria from Hospital to Water Bodies – Lessons from RADAR Project** during *A.2022* - **52 participants, 177 registered persons**

1. Vaideanu M, Banciu A, Stoica C, Gheorghe S, Lucaciu I, Nita-Lazar M. Fate of the bacterial load from hospitals to WWTP and natural aquatic bodies. *Applications of Chemistry in Nanosciences and Biomaterials Engineering. NanoBioMat 2022 – Summer Edition*, 22.06.2022-24.06.2022, oral presentation.
2. Ficai D, Dolete G, Croitoru A, Popa M, Boanță L, Mihaescu DE, Ficai A, Andronescu E, **Chifiriuc MC**. Emerging antimicrobial nanotechnologies. *Applications of Chemistry in Nanosciences and Biomaterials Engineering. NanoBioMat 2022 – Summer Edition*, 22.06.2022-24.06.2022, oral presentation
3. Alistar CF, Nica IC, Voicu SN, Craciun N, Stan MS, Dinischiotu A. Evaluation of antioxidative status in *Carassius gibelio* collected from Bucharest lakes. *Applications of Chemistry in Nanosciences and Biomaterials Engineering. NanoBioMat 2022 – Summer Edition*, 22.06.2022-24.06.2022, oral presentation
4. Popa M, Nita-Lazar M, Marutescu L, Gheorghe I, Czobor I, Popa L, **Chifiriuc MC**. Abundance of ESKAPE bacteria in municipal wastewaters and receiving water bodies. *Applications of Chemistry in Nanosciences and Biomaterials Engineering. NanoBioMat 2022 – Summer Edition*, 22.06.2022-24.06.2022, oral presentation
5. Codiță I, Cristea D, Dinu S, Dragomirescu CC, Drăgulescu , Lixandru B, Militaru C, Muntean AA, Muntean MM, Oprea M, Preda M, Usein C, Mircea IP. Phenotypic evaluation of the *Enterobacteriales* antibiogram - Lessons for practice through the RADAR Project. *Applications of Chemistry in Nanosciences and Biomaterials Engineering. NanoBioMat 2022 – Summer Edition*, 22.06.2022-24.06.2022, oral presentation
6. Surleac M, Czobor Barbu I, Gheorghe I, Paraschiv S, Chifiriuc MC, Oțelea D. Extended genotypic analysis of ESKAPE resistome in clinical and environmental samples, *Applications of Chemistry in Nanosciences and Biomaterials Engineering. NanoBioMat 2022 – Summer Edition*, 22.06.2022-24.06.2022, oral presentation

National Conferences

1. **Chifiriuc MC**. RADAR - " Selection and dissemination of antibiotic resistance genes from wastewater treatment plants in the aquatic environment and the clinical sector" *Annual Conference of the National Institute for Medical-Military Research and Development "Cantacuzino"*, Bucharest, 20.11.2018.
2. Măruțescu L. Methods for detecting and quantifying antibiotic resistance in wastewater, Annual Conference of the National Institute for Medical-Military Research and Development "Cantacuzino" Bucharest, 20.11.2018.
3. Surleac M, Paraschiv S, Czobor I, Popa L, Gheorghe I, Talapan D, **Chifiriuc C**, Oțelea D. NGS analysis workflows to generate ARGs profiles between clinical and waste water *K pneumoniae* strains in Romania. *The scientific days of the National Institute of Infectious Diseases "Prof. Dr. Matei Bals"*, 15th edition, 30 Oct-01 Nov, Bucharest, 2019, **the award for the best oral presentation**
4. Barbu I. Gheorghe I. Molecular epidemiology of antibiotic resistance in ESKAPE pathogens, *8th @RoBioinfo Seminar: Study of antimicrobial resistance using genomics*, 4 November 2020.
5. Surleac M, Paraschiv S, Czobor Barbu I, **Chifiriuc MC**, Oțelea D. Whole genome sequencing of bacterial pathogens. Strategies for data generation and analysis.

16th edition of Scientific Days of the National Institute for Infectious Diseases “Prof. Dr. Matei Balș”, 26-30 Octombrie 2020.

6. Gheoghe I, Czobor I, Popa L, Niță-Lazăr M, Săndulescu O, Paraschiv S, Surleac M, Oțelea D, Talapan D, Muntean A, Popa M, Popa M, Măruțescu L, **Chifiriuc MC**. Dissemination of antibiotic resistance genes in non-fermentative Gram-negative bacillus from intra-hospital and wastewater network strains, *The Autumn Scientific Conference of the Romanian Academy of Scientists*, 26-28 nov. **2020**.
7. Czobor Barbu I, Gheorghe I, Surleac M, Paraschiv S, Măruțescu L, Popa M, Pîrcălăbioru G, Oțelea D, **Chifiriuc MC**. Study of the resistance genes transmission from the clinic to the natural environment through wastewater, *The Autumn Scientific Conference of the Romanian Academy of Scientists*, 26-28 nov. **2020**.
8. Popa LI, Gheoghe I, Czobor Barbu I, Surleac M, Paraschiv S, Măruțescu L, Popa M, Pîrcălăbioru G, Talapan D, Niță M, Streinu-Cercel A, Streinu-Cercel A, Oțelea D, Preda M, Muntean A, Dragomirescu C, Cristea D, Ciontea SA, Popa MI, **Chifiriuc MC**. Transmission of a multi-resistant *Klebsiella pneumoniae* ST101 clone from clinic into the hospital influent and effluent after chlorination. *Annual Scientific Session of the National Institute for Medical-Military Research and Development “Cantacuzino”*, 25 nov. **2020**.
9. Surleac M, Paraschiv S, Czobor Barbu I, **Chifiriuc MC**, Oțelea D. Bacterial WGS and 16S Metagenomics sequencing studies in Romania *8th @RoBioinfo Seminar: Study of Antimicrobial Resistance using Genomics*, 4 November **2020**.
10. Popa LI, Gheorghe I, Barbu Czobor I, Surleac M, Paraschiv S, Măruțescu L, Popa M, Pîrcălăbioru G, Talapan D, Niță M, Streinu-Cercel A, Streinu-Cercel A, Oțelea D, Muntean A, Popa MI, Dragomirescu C, **Chifiriuc MC**. Persistence of a *Klebsiella pneumoniae* ST101 multi-resistant clone from clinical environment to the aquatic bodies, *AOSR Spring Scientific Conference, 2021, Bucharest, “Romanian Academy of Scientists - personalities, achievements, objectives”* May 13-14, **2021**.
11. Surleac M, **Chifiriuc MC**. NGS for microbial AR and virulence surveillance of hospital wastewaters”, 17th edition of Scientific Days of the National Institute for Infectious Diseases “Prof. Dr. Matei Balș”, 18-21 Octombrie **2021**, *oral presentation*.
12. Popa L, Surleac M, Muntean A, Dragomirescu C, Popa MI, **Chifiriuc C**. Aspects regarding the molecular epidemiology of the resistance to the latest generation of beta-lactam antibiotics in the clinical and aquatic environment, “Cantacuzino” Institute, 100 years in the service of health, November 25-27, **2021**, *oral presentation*.

Book chapters

1. Moroșan A, Croitoru AM, Dolete G, Spoială A, Fikai D, Fikai A, **Chifiriuc MC**. Nanotechnologies - A Modern Approach against the Development of Bacterial Resistance in *Importance & Applications of Nanotechnology*, Austin Publishing Group. Vol. 1, Chapter 3, pp. 39-48, **2021**.
2. Spoială A, Ilie CI, Fikai D, Fikai A. A review of soil phytoremediation technologies, Nova Science Publishers – *under evaluation*
3. Croitoru AM, Vasile DA, Fikai D, Fikai A. Advanced treatment techniques for removing emerging pollutants from wastewater, Austin Publisher (In- Importance & Applications of Nanotechnology)- *under evaluation*
4. Ilie CI, Fikai A. Pollutants and their environmental’s effects; Nova Science Publishers-*under evaluation*

Other results

PhD theses

1. Popa LI. Contributions to the molecular epidemiology of resistance to the latest generation of beta-lactam antibiotics in the clinical and aquatic environment, Coordinator Chifiriuc MC, **2021**.
2. Preda M. Characterization of bacterial strains involved in persistent infections and the importance of personalized medicine, Coordinator Popa MI, **2022**.
3. Muntean MM. Development and evaluation of a new phenotypic test for the detection of carbapenemase production, Coordinator Popa MI, **2021**
4. Marin NM. Conventional and unconventional ion exchangers with applications in environmental quality control, Coordinator Badea IA, **2019**
5. Podgoreanu P. Virulence and resistance profiles of bacterial strains involved in hospital-associated infections and evaluation of new antimicrobial strategies. Coordinator **Chifiriuc MC, 2021**

Master theses

1. Badea M. Study of phenotypic and molecular markers of antibiotic resistance in Enterobacteriaceae strains isolated from an urban treatment plant. Coordinator Gheorghe I, (june **2020**).
2. Nazaru F. Resistance antibiotypes in Gram-negative bacilli strains isolated from the wastewater network. Coordinator Gheorghe I, (june **2020**).
3. Bugeanu MI. Evaluation of oxidative stress in the gills of fish from different lakes in Bucharest, Coordinator Stan MS (june **2021**).
4. Roșu L. Oxidative and epigenetic effects induced by exposure to pollutants in poikilothermic animals. Coordinator Dinischiotu A (june **2022**).
5. Albu M. Phenotypic and genotypic characterization of antibiotic resistance markers of fermentative Gram negative bacterial strains isolated from in-hospital infections, the wastewater and surface water network in Romania. Coordinator Gheorghe I (june **2022**).

Bachelor theses

1. Ionetic E. Study of antibiotic resistance phenotypic and molecular markers in strains belonging to epidemic clones of *Pseudomonas* and *Acinetobacter* from wastewaters, student Coordinator Gheoghe I, (June **2020**).
2. Florea M. Antibiotic resistance markers in non-fermentative Gram-negative bacilli strains isolated in the same time from in-hospital infections and urban wastewaters treatment plants. Coordinator Gheorghe I, (June **2020**).
3. Rotaru A. Antibiotic resistance profiles in *Acinetobacter baumannii* and *Pseudomonas aeruginosa* strains isolated from clinical specimens and urban wastewater treatment plants. Coordinator Gheorghe I, (June **2020**).
4. Panaete A. Antibiotic resistance markers in *Acinetobacter baumannii* strains isolated in the same temporary sequence from the sewage system and from hospital infections. Coordinator Gheorghe I, (June **2020**).
5. Dulubei GD. Study of antibiotic resistance phenotypic and genotypic markers in multidrug-resistant nosocomial opportunistic non-fermentative Gram-negative bacilli strains. Coordinator Gheorghe I, (June **2020**).

6. Balaşa RM. Resistance to β -lactams in *Enterobacteria* strains isolated from wastewater and surface water. Coordinator Chifiriuc MC, (June **2020**).
7. Stan M-R. Toxicity of wastewater pollutants in *Carassius auratus gibelio* populations, Coordinator Stan MS (June 2020)
8. Proca MT. Analysis of biochemical changes in fish harvested from recreational lakes in Bucharest, Coordinator Stan MS (June **2021**).
9. Radu OD. Assessment of oxidative stress induced by surface water pollutants in exposed fish gills, Coordinator Dinischiotu A (June **2021**)
10. Voicu AM. Antibiotic resistance profiles of some strains of *Acinetobacter baumannii* isolated from clinics and urban treatment plants in the south of the country, Coordinator Gheorghe I (June **2021**).
11. Putinică LM. Study of antibiotic resistance phenotypic and molecular markers in *Enterobacteriaceae* strains isolated from an urban wastewater treatment plant. Coordinator Gheorghe I (June **2021**).
12. Stana TM. Antibiotypes in Gram-negative fermentative bacilli strains isolated from urban wastewater treatment plants. Coordinator Gheorghe I (June **2021**).
13. Țup MF. Antibiotic resistance profiles of some *Acinetobacter baumannii* strains isolated from clinics and urban treatment plants from the north part of the country. Coordinator Gheorghe I (June **2021**)
14. Timofte C. Quantitative determination of antibiotic-resistant bacteria in wastewater samples. Coordinator Măruțescu L (June **2021**).
15. Pîndaru AM. *In vitro* assessment of the pathogenicity and virulence characteristics of *Escherichia coli* beta-lactamase-producing strains isolated from wastewater and surface water samples. Coordinator Măruțescu L (June **2021**)
16. Boboacă F. Study of antibiotic resistance markers in Gram-negative bacilli strains. Coordinator Gheorghe I. (June **2022**).
17. Boierescu MM. Dissemination of antibiotic resistance markers of *Acinetobacter baumannii* strains isolated from in-hospital infections, wastewater and surface samples. Coordinator Gheorghe I (June **2022**)

Awards received at invention salons

1. “Gold medal” awarded by the Jury of Idea-Expo **2022**
2. “Julianna Dij Award” awarded by the Jury of Idea-Expo **2022**
3. “Gold medal” awarded by the Jury of EuroInvent **2022**
4. “Diploma of Excellence” awarded by the INFLPR, **2022**
5. “Gold Trophy & Diploma of Excellence” awarded by the University of Craiova, **2022**
6. “Gold Medal and Certificate of Excellence” awarded by the Romanian Institute for Advanced Studies and Research – GIFTED, **2022**
7. “NIRD URBAN-INCERC DIPLOMA”,2022
8. “Gold medal” awarded by the Jury of INTARG **2022**
9. “Special Award” awarded by the Industrial Property Office of the Czech Republic, **2022**

One Certified Laboratory at P3 (University Politehnica Bucharest) (SR EN ISO 17025:2018” (accreditation certificate no. LI 1243/19.07.2021) for the following methods:

ICP-MS method for the determination of mineral elements (Ag, Al, As, Ba, Be, Ca, Cd, Co, Cr, Cs, Cu, Fe, Ga, K, Li, Mg, Mn, Na, Ni, Pb, Rb, Se, Sr, Tl, U, V, Zn) in different matrices: food (Milk; Dairy products; Meat; Honey; Fruits; Vegetables), drinking water, surface water, wastewater;

FT-IR for the qualitative determination of the sample matrix. Matrices: Food (honey, fish, flour, peanuts, cheese; wine), water;

FT-IR for the determination of fats. Matrices: food (peanuts, fish, cheese);

TG / DSC method for the determination of mass loss upon heating. Matrices: Wheat flour

GC-MS method for the determination of pesticides (organophosphorus - Azinfos methyl, Chlorpyrifos, Chlorpyrifos methyl, EPN, Fenitrothion, Isazofos, Fosalone, Fosmet, Primifos-ethyl, Primifos-methyl, Pyridafention, and organochlorinated: Aldrin, β -BHC, δ -BHC, γ -BHC, chlorobenside, cis-chlordane, trans-chlordane, 2,4'-DDD, 2,4'-DDE, 4,4'-DDE, 2,4'-DDT, Dieldrin, Endosulfan I, Endosulfan II, Endrin, chlorfenson, chloroneb, 4,4'-dichlorobenzophenone, Endosulfan ether, Endosulfan sulfate, Endrin ketone, Ethylan, Heptachlor, Heptachlor epoxide, Hexachlorobenzene, Isodrin, 4,4'-Methylox Mirex, cis-Nonachlor, trans-Nonachlor, Pentachloroanisole, Pentachlorobenzene, Pentachlorothioanisole). Matrices: drinking water, surface water, wastewater;

LC-MS method for drug determination (imipenem, clindamycin hydrochloride, erythromycin, colistin sulfate, meropenem, vancomycin hydrochloride). Matrices: drinking water, surface water, wastewater.