CURRICULUM VITAE

Informații cu caracter personal

Nume, prenume: Comarița Ioana-Karla
Data de naștere: 19 ianuarie 1996, Suceava, România
Adresă: Bd. Iuliu Maniu, nr.244E
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Educație și formare

- 2011-2015 – Bacalaureat – Colegiul Național "Petru Rareș", Suceava, România
- 2015-2018 – Biolog licențiat, Facultatea de Biologie, Universitatea din București, România
  - specializarea Biologie experimentală
- 2015-2018 – Modul psihopedagogic nivel I, domeniul de studiu: Știința Educației, Facultatea de Psihologie și Științele Educației, Universitatea din București, România
  - 40 ore de asistare la clasă
  - 20 ore de predare la clasă
- 2018-2020 – Master în Biologie, Facultatea de Biologie, Universitatea din București, România
  - specializarea Biologie Medicală
- 2018-2020 - Modul psihopedagogic nivel II, domeniul de studiu: Pregătirea cadrelor didactice cu specializarea disciplinei, Facultatea de Psihologie și Științele Educației, Universitatea din București, România
- 2020- în prezent -Doctorat în Biologie Celulară și Moleculară la Academia Română
  - Bursă de doctorat: Academia Română (SCOSAAR): 2020-2023

Experiență profesională

2018- 2025 – Asistent de cercetare științifică, Institutul de Biologie și Patologie Celulară (ICBP) 'Nicolae Simionescu'.

- Studiile mele se concentrează pe mecanismele celulare și moleculare care stau la baza proceselor fiziologice și fiziopatologice din sistemul cardiovascular, pentru a defini noi abordări terapeutice pentru regresia aterosclerozei și prevenirea evenimentelor BCV.

Interesele actuale de cercetare implică: veziculele extracelulare (microvezicule/exozomi) ca strategii de eliberare intracelulară pentru microARN-uri și potențiale terapii genice bazate pe siRNA pentru boala aterosclerotică vasculară/cardiopulmonară (hipertensiune arterială pulmonară - HTAP).

- 2025-prezent: Profesor Biologie la ICHB București

Membru al Societății Științifice:

- Societatea Română de Biologie Celulară
- EAS (European Atherosclerosis Society)

Competențe lingvistice

Limba maternă - limba română
Limbi străine – limba engleză, utilizator independent

- **Comprehensiune orală – B2**
- **Citit – B2**
- **Conversație/ discurs oral – B2**
- **Exprimare în scris – B2**
- **Scris - B2**

Aptitudini și competențe de comunicare:

- Comunicare eficientă
- Spirit de echipă
- Organizare și planificare

Competențe digitale

- Utilizare bună a programelor de comunicare (mail, messenger, skype, zoom, google meet)
- O bună cunoaștere a instrumentelor Microsoft office (Word, PowerPoint, Excel)
- Diplomă ECDL
- Operarea curentă în Mendeley, EndNote, TotalLab TL 120, GraphPad Prism 5, ImageJ, Photoshop

Permis de conducere - B

Profil profesional

Experiență de 6 ani în pregătire pentru examenul de Bacalaureat (clasele IX-XII)

Experiență de 6 ani în cercetare fundamentală cardiovasculară

- 7 lucrări publicate în reviste indexate ISI: 3 ca prim-autor și 4 în calitate de co-autor
- 6 rezumate publicate în reviste indexate ISI
- 15 participări în cadrul conferințelor internaționale sub forma unei prezentări orale și a 14 postere
- 4 premii acordate de UEFISCDI și 1 premiu acordat de SRBC
- datele au fost incluse într-o aplicație de brevet la OSIM
- 3 colaborări în proiecte naționale

Expertiza mea de lucru se bazează pe aplicații *in vivo* și *in vitro*:

· Tehnica Western-Blott,

· Tehnica PCR/ RT-PCR,

· Tehnica Miograf,

· Microscopie de Fluorescență,

· Analize biochimice,

· Spectrofotometrie,

· Tehnica ELISA,

· Citometrie în flux,

· Imunohistochimie,

· Culturi celulare,

· Tehnica de includere a probelor în OCT/parafină și tăierea la criotom/microtom,

· Lucrul pe model animal experimental (hamster sirian auriu): recoltare probe biologice (sânge periferic din plexul retroorbital venos, aortă toracică, artere carotide, inimă, ficat, plămân, arteră pulmonară, măduvă osoasă, țesut adipos subcutan), injectare retroorbitală/intraperitoneală, gavaj, lavaj bronhoalveolar,

· Lucrul pe model animal experimental (șoareci C57/BL): recoltare probe biologice (sânge prin punctie venoasă, aortă toracică, splină, țesut adipos subcutan), injectare intraperitoneală.

Cursuri și seminarii:

- Școala de Vară "Nanoparticule inteligente pentru livrarea directionată de compuși bioactivi: preparare, caracterizare si aplicații" 23-24 mai 2019, ICBP "Nicolae Simionescu", Bucuresti.

- ZEISS Symposium & Workshop in Bucharest, October, 2019, ICBP "Nicolae Simionescu", București.
- Workshop "Cell day" 17 aprilie 2019, IBPC "Nicolae Simionescu", Bucharest, Romania.
- Workshop online DIABETER "Un nou instrument terapeutic în diabetul autoimun: Celula Stromală Mezenchimală" ("A novel therapeutic tool in autoimmune diabetes: Mesenchymal Stromal Cell"), 20 noiembrie 2020, IBPC "Nicolae Simionescu", Bucharest, Romania.
- Workshop online THERAVALDIS: "Diabetul în bolile cardiovasculare; mecanisme patogenice și terapii țintite", 27 noiembrie, IBPC "Nicolae Simionescu", Bucharest, Romania.
- Workshop online INTERA: "Progrese recente în domeniul obținerii de nanovectori pentru transfecția genică", 22 aprilie 2021, IBPC "Nicolae Simionescu", Bucharest, Romania.
- Școala de Vară INTERA-1 "Încapsularea celulelor si a medicamentelor: materiale, procedee si aplicații", 13-14 mai 2021, IBPC "Nicolae Simionescu", Bucharest, Romania.

LUCRĂRI PUBLICATE ÎN REVISTE INTERNAȚIONALE COTATE ISI

1. Nicoleta Alexandru , Alina Constantin, Miruna Nemecz, **Ioana Karla Comariţa**, Alexandra Vîlcu , Anastasia Procopciuc, Gabriela Tanko, Adriana Georgescu. **Hypertension Associated With Hyperlipidemia Induced Different MicroRNA Expression Profiles in Plasma, Platelets, and Platelet-Derived Microvesicles; Effects of Endothelial Progenitor Cell Therapy**, *Frontiers in Medicine*, 2019, doi: 10.3389/fmed.2019.00280 - impact factor 3.8

2. Nicoleta Alexandru, Anastasia Procopciuc, Alexandra Vîlcu, **Ioana Karla Comariţa**, Elisabeta Bădilă, Adriana Georgescu. **Extracellular vesicles—incorporated microRNA signature as biomarker and diagnosis of prediabetes state and its complications.** *Rev Endocr Metab Disord* (2021), doi.org/10.1007/s11154-021-09664-y - impact factor 6.19

3. **Comariţa Ioana-Karla**, Vîlcu Alexandra, Constantin Alina, Procopciuc Anastasia, Safciuc Florentina, Alexandru Nicoleta, Dragan Emanuel, Nemecz Miruna, Filippi Alexandu, Chițoiu Leona, Gherghiceanu Mihaela, Georgescu Adriana. **Therapeutic Potential of Stem Cell-Derived Extracellular Vesicles on Atherosclerosis-Induced Vascular Dysfunction and Its Key Molecular Players.** *Front Cell Dev Biol.*, 2022, 10:817180. doi: 10.3389/fcell.2022.817180 - impact factor 6.68

4. Constantin A, **Comarița IK**, Alexandru N, Filippi A, Bojin F, Gherghiceanu M, Vîlcu A, Nemecz M, Niculescu LS, Păunescu V, Georgescu A. **Stem cell-derived extracellular vesicles reduce the expression of molecules involved in cardiac hypertrophy-In a model of human-induced pluripotent stem cell-derived cardiomyocytes.** *Front Pharmacol*, 2022, doi: 10.3389/fphar.2022.1003684 - impact factor 5.98

5. **Comarița IK**, Tanko G, Anghelache IL, Georgescu A. **The siRNA-mediated knockdown of AP-1 restores the function of the pulmonary artery and the right ventricle by reducing perivascular and interstitial fibrosis and key molecular players in cardiopulmonary disease**. J Transl Med., 2024, doi: 10.1186/s12967-024-04933-1- impact factor 8.44

6. Nemecz, M., Stefan, D.S., **Comarița, I.K**. et al. **Microvesicle-associated and circulating microRNAs in diabetic dyslipidemia: miR-218, miR-132, miR-143, and miR-21, miR-122, miR-155 have biomarker potential**. Cardiovasc Diabetol 22, 260 (2023). https://doi.org/10.1186/s12933-023-01988-0 - impact factor 9.3

7. În curs de publicare: Alexandra Vîlcu, Ioana Karla Comarița, Alina Constantin, Nicoleta Alexandru, Miruna Nemecz, Florentina Safciuc, Florina Maria Bojin,Virgil Păunescu, Adriana Georgescu. **Innovative therapy with stem cell-derived extracellular vesicles on cardiac hypertrophy in an animal model of atherosclerosis; elucidation of the molecular mechanisms involved in the repair process.** *Biomolecules*, 2025, impact factor 4,8.

REZUMATE PUBLICATE ÎN REVISTE INTERNAȚIONALE COTATE ISI

1. N. Alexandru, A. Constantin, M. Nemecz, **I. K. Comarița**, A. Vîlcu, A. Procopciuc, G. Tanko, A. Georgescu. **Effects of endothelial progenitor cell therapy on microRNA expression profiles in plasma, platelets and platelet-derived microvesicles in atherosclerosis**. Poster 401 /#1275 at the '88th European Atherosclerosis Society Virtual Congress' (EAS 2020), October 4th-7th, 2020, Geneva, Switzerland, Abstract in Atherosclerosis, Volume 315, Page e136, Publication date: 2020/12/1, DOI: https://doi.org/10.1016/j.atherosclerosis.2020.10.420

2. **I.K. Comarița**, A. Vîlcu, A. Procopciuc, F. Safciuc, A. Constantin, M. Nemecz, G. Tanko, N. Alexandru**,** A. Georgescu. **The hypertensive-hyperlipidemic hamster, an experimental animal model of atherosclerosis to investigate the vascular dysfunction and cardiac hypertrophy**. Poster 347 / #1345 at the '88th European Atherosclerosis Society Virtual Congress' (EAS 2020), October 4th-7th, 2020, Geneva, Switzerland. Abstract in Atherosclerosis, Volume 315, Page e120, Publication date: 2020/12/1, DOI: https://doi.org/10.1016/j.atherosclerosis.2020.10.367

3. **Ioana Karla Comarița**, Alina Constantin, Alexandra Vîlcu, Anastasia Procopciuc, Florentina Safciuc, Nicoleta Alexandru, Emanuel Dragan, Miruna Nemecz, Alexandru Filippi, Adriana Georgescu. **Inflammation-induced arterial dysfunction in atherosclerosis; the modulating action of mesenchymal stem cell-derived extracellular vesicles.** 'Frontiers in CardioVascular Biomedicine,' 29th April – 1st May 2022, Budapest – Hungary. Abstract No. 70108 in Cardiovascular Research 118 (Supplement_1), cvac066. 187, 2022.

4. Miruna Nemecz, Diana Simona Stefan, Alina Constantin, Anastasia Procopciuc, **Ioana Karla Comarița**, Gabriela Tanko, Adriana Georgescu. **MicroRNAs in circulating microvesicles and plasma as biomarkers that complement the clinical diagnosis of diabetic dyslipidemia and its complications.** 'Frontiers in CardioVascular Biomedicine', 29 April - 1 May 2022, Budapest – Hungary. Abstract No. 70246 in Cardiovascular Research 118 (Supplement_1), cvac066. 224, 2022.

5. **Comarița, K.I** et al. **Vascular wall damage in atherosclerotic cardiovascular disease; Positive effect of extracellular vesicle-based nanotherapeutics on endothelial dysfunction and its key molecular players**. Poster 042/#1044 at the '90th European Atherosclerosis Society Hybrid Congress' (EAS 2022), May 22th -25th, 2022, Milano, Italy, Abstract in *Atherosclerosis*, Volume 355, pg. 29, Publication date: August 2022, DOI: https://doi.org/10.1016/j.atherosclerosis.2022.06.315

6. **I K Comarita**, I L Anghelache, G Tanko, A Georgescu, **The effects of siRNA-mediated knockdown of AP-1 on pulmonary arterial and right ventricular dysfunction associated with cardiac and pulmonary fibrosis in cardiopulmonary disease**, *Cardiovascular Research*, Volume 120, Issue Supplement_1, May 2024, cvae088.205, https://doi.org/10.1093/cvr/cvae088.205

LUCRĂRI PREZENTATE LA MANIFESTĂRI ȘTIINȚIFICE INTERNAȚIONALE (POSTERE):

1. **Ioana Karla Comarița**, Alina Constantin, Nicoleta Alexandru, Alexandru Filippi, Miruna Nemecz, Alexandra Vilcu, Anastasia Procopciuc, Gabriela Tanko, Maya Simionescu, Adriana Georgescu. **Development and characterization of an in vitro experimental model of hypertrophic cardiomyocytes of pathological type.** The 40th Anniversary of the Institute of Cellular Biology and Pathology „Nicolae Simionescu", September 19th-20th, 2019, Bucharest, Romania

2. Anastasia Procopciuc, **Ioana Karla Comarița**, Alexandra Vilcu, Alexandru Filippi, Nicoleta Alexandru, Miruna Nemcz, Gabriela Tanko, Alina Constantin, Adriana Georgescu. **Isolation and characterization of mesenchymal stem cells from subcutaneous adipose tissue and bone marrow from the hamster.** The 40th Anniversary of the Institute of Cellular Biology and Pathology „Nicolae Simionescu", September 19th-20th, 2019, Bucharest, Romania

3. Alexandra Vilcu, **Ioana Karla Comarița**, Anastasia Procopciuc, Florentina Safciuc, Nicoleta Alexandru, Alexandru Filippi, Alina Constantin, Miruna Nemcz, Gabriela Tanko, Maya Simionescu, Adriana Georgescu. **Study of vascular dysfunction and cardiac hypertrophy in an experimental animal model of atherosclerosis,** The 40th Anniversary of the Institute of Cellular Biology and Pathology „Nicolae Simionescu", September 19th-20th, 2019, Bucharest, Romania

4. Alina Constantin, Nicoleta Alexandru, Florentina Safciuc, **Ioana Karla Comarița**, Alexandra Vilcu, Anastasia Procopciuc, Gabriela Tanko, Adriana Georgescu. **Microvesicles collected from healthy hamsters and administered to hypertensive-hyperlipidemic hamsters mitigate the effects of diet keeping the levels of circulating EPCS and inflammatory biomarkers close to normal values**, The 37th Annual Scientific Session of the Romanian Society of Cell Biology, June 20th-23th, 2019 , Book of Abstracts, page 39

5. Miruna Nemecz, Alina Constantin, Madalina Dumitrescu, Anastasia Procopciuc, **Ioana Karla Comarița**, Alexandra Vilcu, Gabriela Tanko, Adriana Georgescu. **Oleic acid protects human pancreatic beta cells against palmitic acid-induced lipotoxicity,** The 37th Annual Scientific Session of the Romanian Society of Cell Biology, June 20th-23th, 2019, Book of Abstracts, page 125

6. **Ioana Karla Comarita**, Alexandra Vilcu, Anastasia Procopciuc, Nicoleta Alexandru, Alina Constantin, Florentina Safciuc, Alexandru Filippi, Miruna Nemecz, Gabriela Tanko, Adriana Georgescu**. Exploration of Vascular Dysfunction in an Animal Model of Atherosclerotic Cardiovascular Disease**, National Online Conference of Biophysics, 14th-16th June 2020, Brașov, România, Book of Abstracts, pg. 99.

7. **Ioana Karla Comarița**, Alina Constantin, Alexandra Vîlcu, Anastasia Procopciuc, Florentina Safciuc, Nicoleta Alexandru, Emanuel Dragan, Miruna Nemecz, Alexandru Filippi, Adriana Georgescu. **Inflammation-induced arterial dysfunction in atherosclerosis; the modulating action of mesenchymal stem cell-derived extracellular vesicles**. *'Frontiers in CardioVascular Biomedicine,'* 29th April – 1st May 2022, Budapest – Hungary.

8. Miruna Nemecz, Diana Simona Stefan, Alina Constantin, Anastasia Procopciuc, **Ioana Karla Comarița**, Gabriela Tanko, Adriana Georgescu. **MicroRNAs in circulating microvesicles and plasma as biomarkers that complement the clinical diagnosis of diabetic dyslipidemia and its complications**. *'Frontiers in CardioVascular Biomedicine'*, 29 April - 1 May 2022, Budapest – Hungary.

9. Miruna Nemecz, Diana Simona Stefan, Gabriela Tanko, Alina Constantin, **Ioana Karla Comarița**, Adriana Georgescu. **Microvesicle-related and circulating microRNAs as potential biomarkers of diabetic dyslipidemia,** The anniversary symposium of the Institute of Cellular Biology and Pathology "Nicolae Simionescu" "43 years of sustaining an excellence-promoting environment for cardiovascular research in Romania", December 8th-9th, 2022, Bucharest, Romania

10. **Ioana Karla Comarița,** Alina Constantin, Alexandra Vîlcu, Anastasia Procopciuc, Florentina Safciuc, Nicoleta Alexandru, Emanuel Dragan, Miruna Nemecz, Alexandru

Filippi, Adriana Georgescu**. Vascular wall damage in atherosclerotic cardiovascular disease; Positive effect of extracellular vesicle-based nanotherapeutics on endothelial dysfunction and its key molecular players.** Poster 042/#1044 at the '90th European Atherosclerosis Society Hybrid Congress' (EAS 2022), May 22th -25th, 2022, Milano, Italy

11. **Ioana Karla Comarița**, Alexandra Vîlcu, Alina Constantin, Florentina Safciuc, Nicoleta Alexandru, Miruna Nemecz, Alexandru Filippi, Adriana Georgescu**. Therapeutic potential of stem cell-derived extracellular vesicles on atherosclerosis-induced vascular dysfunction and its key molecular players,** The anniversary symposium of the Institute of Cellular Biology and Pathology "Nicolae Simionescu" "43 years of sustaining an excellence-promoting environment for cardiovascular research in Romania", December 8th-9th, 2022, Bucharest, Romania

12. Alina Constantin, **Ioana Karla Comarița**, Nicoleta Alexandru, Alexandru Filippi, Alexandra Vîlcu, Miruna Nemecz, Adriana Georgescu. **Stem cell - derived extracellular vesicles reduce the expression of molecules involved in cardiac hypertrophy - in a model of human-induced pluripotent stem cell-derived cardiomyocytes,** The anniversary symposium of the Institute of Cellular Biology and Pathology "Nicolae Simionescu" "43 years of sustaining an excellence-promoting environment for cardiovascular research in Romania", December 8th-9th, 2022, Bucharest, Romania

13. **Ioana Karla Comarița**, Alina Constantin, Alexandra Vîlcu, Anastasia Procopciuc, Florentina Safciuc, Nicoleta Alexandru, Miruna Nemecz, Adriana Georgescu. **Arterial dysfunction in an animal model of atherosclerosis; the beneficial effect of mesenchymal stem cell-derived extracellular vesicles in reducing inflammation.** 1st Meeting of the AtheroNET COST Action CA21153, 22th-24th March 2023, Bucharest, Romania.

14. I K Comarița, I L Anghelache, G Tanko, A Georgescu, **The effects of siRNA-mediated knockdown of AP-1 on pulmonary arterial and right ventricular dysfunction associated with cardiac and pulmonary fibrosis in cardiopulmonary disease**, Frontiers in CardioVascular Biomedicine (FCVB), 12-14 april, 2024, Amsterdam, The Netherlands

15. **Ioana Karla Comarița**, Gabriela Tanko, Laurențiu Anghelache, Alina Constantin, Miruna Nemecz, Nicoleta Alexandru-Moise, Adriana Georgescu. **Tracking The Effect Of siRNA AP-1 As A Potential Therapeutic Strategy In Reversing The Pulmonary Arterial And Right Ventricular Dysfunction Associated With Cardiac And Pulmonary Fibrosis In A Model Of Cardiopulmonary Disease**. The 44th Annual Scientific Symposium Of The Institute Of Cellular Biology And Pathology "Nicolae Simionescu" - ICBP-NS - Held Jointly With 40th Annual Scientific Session Of The Romanian Society For Cell Biology - RSCB , 16-17 November 2023, Bucharest, Romania.

LUCRĂRI PREZENTATE LA MANIFESTĂRI ȘTIINȚIFICE INTERNAȚIONALE

Prezentări orale:

Al 42-lea Simpozion Aniversar al Institutului de Biologie și Patologie Celulară „Nicolae Simionescu" și a 38-a Sesiune Științifică Anuală a Societății Române de Biologie Celulară cu participare internațională, 4-6 Noiembrie, București, 2021. Therapeutic Potential Of Stem Cell-Derived Extracellular Vesicles On Atherosclerotic-Induced Vascular Dysfunction.

COLABORATOR LA URMĂTOARELE PROIECTE NAȚIONALE

1. **2018-2020: Grant of the Romanian National Authority for Scientific Research and Innovation**, **CNCS-UEFISCDI, - Complex Projects Completed in CDI Consortia (PCCDI)** / under Program 1. Developing national CD, Subprogram 1.2. Institutional performance - "Institutional Development Project". Project no: PN-III-P1-1.2-PCCDI-2017-0527/ Contract no: 83PCCDI/2018, Project Title: Development of BIOnanotechnologies based on Extracellular Vesicles, applicable in the early diagnosis, prognosis and therapy of atherosclerotic disease. Acronym BIOVEA. Complex project director: Dr. CSI Adriana Georgescu.

2. **2020-2022: Grant of the Romanian National Authority for Scientific Research and Innovation, CNCS –UEFISCDI, Program Human Resources/ Project number PN-III-P1-1.1-TE-2019-0811:** Immune modulation of T-cells by platelets and platelet-derived microvesicles in experimental induced atherosclerosis; the role of microRNA-142-3p / Modularea imuna a celulelor T de catre plachete si microvezicule plachetare in ateroscleroza indusa experimental; rolul microRNA-142-3p) Acronym IMPLEXIA; Grant no: 97 /04.09.2020; Project leader: Dr. CSII Alexandru-Moise Nicoleta.

3. **2023-2026: Grant of the Ministry of Research, Innovation and Digitization of Romania - Romania's National Recovery and Resilience Plan.** Component C9. SUPPORT FOR THE PRIVATE SECTOR, RESEARCH, DEVELOPMENT AND INNOVATION - "I8. Development of a program to attract highly specialised human resources from abroad in research, development and innovation activities" (PNRR /2022/C9/MCID/I8)- Project Code 93. Project title: New nanotherapeutic strategies for cardiac fibrosis targeting the mechanisms underlying the fibroblast to myofibroblast transition; Project Acronym: HeartCure; Project Manager: Dr. ROSTYSLAV BILYY

Articole/lucrări premiate

1. Scientific Achievements – Original Article' Award offered by Ministry for Education and Research and Uefiscdi, Subprogram 1.1 - Human Resources - Awarding research results - Articles, Competition 2020, Evaluation results List 1_partial 2- Award applications submitted for articles published in 2019_09.11.2020, – November 2020, for the paper 'Hypertension associated with hyperlipidemia induced different microRNA expression profiles in plasma, platelets, and platelet-derived microvesicles; effects of endothelial progenitor cell therapy' in 'Frontiers in Medicine', 6 (Article 280):1-10, 2019. (N. Alexandru, A. Constantin, M. Nemecz, **I.K. Comariţa**, A. Vîlcu, A. Procopciuc, G. Tanko and A. Georgescu).

2. 'Scientific Achievements – Original Article' Award offered by the Ministry of Education and Research and Uefiscdi: Subprogram 1.1 - Human Resources - Research results award - Articles, Competition 2021. Evaluation results List 2- First applications submitted for articles published in the year 2021_18.11.2021, November 2021 for the article: " Extracellular vesicles—incorporated microRNA signature as biomarker and diagnosis of prediabetes state and its complications. Rev Endocr Metab Disord, 1-24, 2021 Jun 18. doi: 10.1007/s11154-021-09664-y". (Nicoleta Alexandru, Anastasia Procopciuc, Alexandra Vîlcu, **Ioana Karla Comariţa**, Elisabeta Bedilə, Adriana Georgescu).

3. 'Scientific Achievements – Original Article' Award offered by the Ministry of Education and Research and Uefiscdi: Prize for research results - Web of Science Articles - 2023, within PN IV, Program 5.2 - Human Resources, Subprogram 5.2.3 - Support, List 1 - First applications submitted for published articles in 2021 and 2022 - 13.03.2023 for the article: "Therapeutic Potential of Stem Cell-Derived Extracellular Vesicles on Atherosclerosis-Induced Vascular Dysfunction and Its Key Molecular Players" in "Frontiers in Cell Developmental Biology" (**Comariţa I.K**, Vîlcu A., Constantin A., Procopciuc A., Safciuc F., Alexandru N., Dragan E., Nemecz M., Filippi A., Chiţoiu L., Gherghiceanu M., Georgescu A).

4. 'Scientific Achievements – Original Article' Award offered by the Ministry of Education and Research and Uefiscdi: Prize for research results - Web of Science Articles - 2023, within PN IV, Program 5.2 - Human Resources, Subprogram 5.2.3 - Support, List 1 - First applications submitted for published articles in 2021 and 2022 - 13.03.2023 for the article: "Stem cell-derived extracellular vesicles reduce the expression of molecules involved in cardiac hypertrophy-In a model of human-induced pluripotent stem cell-derived cardiomyocytes" in Frontiers in Pharmacology (Constantin A , **Comariţa IK**, Alexandru N, Filippi A, Bojin F, Gherghiceanu M, Vîlcu A, Nemecz M, Niculescu LS, Păunescu V, Georgescu A.).

5. Premiul I – Pentru cel mai bun poater: Tracking the effect of siRNA AP-1 as a potential therapeutic strategy in reversing the pulmonary arterial and right ventricular dysfunction associated with cardiac and pulmonary fibrosis in a model of cardiopulmonary disease at The 44th Annual Scientific Symposium Of The Institute Of Cellular Biology And

Pathology "Nicolae Simionescu" - ICBP-NS - Held Jointly With 40th Annual Scientific Session Of The Romanian Society For Cell Biology - RSCB, 16-17 November 2023, Bucharest, Romania.

Brevet

- Procedeu de obținere a veziculelor extracelulare modificate. Cerere de Brevet de Inventie, OSIM Nr. A/00017 din 20.01.2021. Autori: Alexandru Filippi, Nicoleta Alexandru-Moise, Alina Constantin, **Karla Comarita**, Alexandra Vîlcu, Anastasia Procopciuc, Adriana Georgescu