

**Europass
Curriculum Vitae**



Personal information

First name(s) / Surname(s) **Roxana-Maria COJOCNEANU**

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Work experience

Dates September 2017 – present

Occupation or position held **Scientific Researcher**

Main activities and responsibilities Bioinformatics analyses of structural and functional genomics data; analysis, interpretation and integration of data from publicly available international databases; prediction of interactions between different types of nucleic acids; functional genomics studies; drafting of grant proposals and scientific articles.

Name and address of employer Research Center for Functional Genomics, Biomedicine and Translational Medicine, University of Medicine and Pharmacy “Iuliu Hatieganu” Cluj-Napoca

Dates March 2013 – September 2017

Occupation or position held **Biologist (PostDoc)**

Main activities and responsibilities Bioinformatics, NextGen Sequencing, Microarray, Cell cultures, Flow cytometry, Functional Genomics studies, documentation and elaboration of articles and grant proposals

Name and address of employer Research Center for Functional Genomics, Biomedicine and Translational Medicine, University of Medicine and Pharmacy “Iuliu Hatieganu” Cluj-Napoca

Name and address of employer University of Medicine and Farmacy “Iuliu Hatieganu” Cluj-Napoca

Type of business or sector	<p>Research Projects:</p> <ul style="list-style-type: none"> ▶ POSCCE 2010 nr. 709/12683 Contract 228/06.08.2010 - „Impactul clinic și economic al identificării profilelor moleculare transcriptomice și proteomice în terapia neoadjuvantă a cancerului de sân triplu negativ”-BREASTIMPACT ▶ PN II parteneriat contract 96/2012: “Analiza miARN ca posibili biomarkeri cu valoare de predicție pentru tratamentul cancerului de col uterin, în relație cu expunerea la factorii de mediu, arsen, ftalați și cotinina. (Cervicall-arsen-array)”; ▶ PN II parteneriat contract 196/2014-”Modularea efectelor pro/anticarcinogenice ale agentilor chimici de mediu in terapia multintinta in cancerul de san-CANCERTER-p53”; ▶ PN II parteneriat contract 193/2014-”Sisteme inteligente non-invazive de diagnostic si pronostic in cancerul colorectal bazate pe microarn circulant integrate in workflowul clinic-INTELCOR”; ▶ PN-II-RU-TE-2014-4-1464 ”Țintirea căii de semnalizare TGFβ – o alternative în terapia cancerului de sân” ▶ POC-A1-A1.1.4-E-2015 ID P_37_796 “Impactul clinic și economic al terapiilor personalizate țintite cu anti-microARNuri în reconvertirea rezistenței tumorilor maligne pulmonare – CANTEMIR” ▶ PN-III-P2-2.1-PED-2016-0425 Intrathoracic tumors Diagnosis System based on ultrasonography (DiSoSYS) ▶ PN-III-P4-ID-PCE-2016-0795 “Abordarea complexa a profilului expozomic in cancerele hormono-dependente de san si prostata si influenta acestuia in genomul tumoral” ▶ PN-III-P1-1.1-TE-2016-2213 Tintirea mecanismelor implicate în rezistența la terapie în cancerul de san utilizand terapia combinată cu molecule mici și siRNA, în era post genomică ▶ PN-III-P1-1.2-PCCDI-2017-0737 Titlul proiectului: Maparea genomică a populației din zonele contaminate radioactiv și cu metale grele în vederea creșterii securității naționale ▶ Proiect IOCN: “Abordări inovative avansate pentru medicină regenerativă predictivă– REGMED, PN-III-P1-1.2-PCCDI-2017-0782, Contract de finanțare nr. 65PCCDI/2018 ▶ Director Grant intern Universitatea de Medicină și Farmacie Iuliu Hatieganu Cluj-Napoca – proiect „Circulating miRNAs as biomarkers for metastatic colorectal cancer”
Dates	January 2012 – October 2012
Occupation or position held	Volunteer Intern Biologist
Main activities and responsibilities	Cell cultures, PCR, nucleic acid extraction and quantitation, Protein assays, Flow cytometry, etc.
Name and address of employer	University of Medicine and Pharmacy “Iuliu Hatieganu” Cluj-Napoca

Education and training

Dates	October 2012 – September 2015
Title of qualification awarded	Doctor in Biology (specialization – Bioinformatics)
Principal subjects/ occupational skills covered	Bioinformatics, Genomics, Next Generation Sequencing, Molecular biology and biotechnologies, Cell signaling, Cell cultures. Thesis title: „Bioinformatics analysis of nucleic acid sequences generated by structural and functional genomics investigations in evaluating the development of malignant tumors” – <i>Summa cum Laudae</i>
Name and type of organization providing education and training	Babes-Bolyai University Cluj-Napoca, Faculty of Biology and Geology, School of Integrative Biology
Dates	October 2014 – April 2015
Title of qualification awarded	PhD student internship
Principal subjects/ occupational skills covered	Bioinformatics – microarray and NGS data analysis, Genomics, Next Generation Sequencing, Molecular biology and biotechnologies
Name and type of organization providing education and training	Universita degli Studi di Ferrara, Italy, Department of Morphology, Surgery and Experimental Medicine
Dates	October 2011 – July 2013
Title of qualification awarded	Cell Biotransformations – Master’s degree
Principal subjects/ occupational skills covered	Molecular biology and biotechnologies, Cell signaling, Recombinant DNA, Cell cultures, Biochemistry
Name and type of organization providing education and training	Babes-Bolyai University Cluj-Napoca, Faculty of Biology and Geology, Experimental Biology Department
Dates	September 1998 – June 2002
Title of qualification awarded	Bachelor of Science
Principal subjects/ occupational skills covered	Biology
Name and type of organization providing education and training	Babes-Bolyai University Cluj-Napoca, Faculty of Biology and Geology, Biology Department
Dates	November 1991 – June 1994
Title of qualification awarded	High school diploma (Valedictorian with a 4,38 GPA)
Name and type of organization providing education and training	Independence High School, San Jose, CA, USA

Personal skills and competences

Other language(s)

Self-assessment

Language: English

Language: French

Language: Italian

Language: Spanish

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user
B1	Independent user	B2	Independent user	B1	Independent user	B1	Independent user	A2	Basic user
C1	Proficient user	C1	Proficient user	B2	Independent user	B2	Independent user	B1	Independent user
B1	Independent user	B1	Independent user	A2	Basic user	A2	Basic user	A2	Basic user

Social skills and competences

Good team player, adaptable to multicultural environments (due to 4 years of living, studying and working in the USA and 6 months in Italy), communication skills

Technical skills and competences

NGS and microarray data analysis, TCGA data analysis, documentation and elaboration of articles and grant proposals, Next Generation Sequencing (GS Junior, Ion Torrent) - including construction and quantification of DNA libraries, flow cytometry, cell cultures, protein assays, PCR, rtPCR, PCR array, high throughput rtPCR with ViiA7 (IVD), nucleic acid quantification using the Agilent Bioanalyzer, Nanodrop and Qubit, cell proliferation and cell migration assessment with the xCELLigence System, etc.

Computer skills and competences

Good command of most Microsoft Office tools and of various proprietary software for laboratory equipment, including statistical and bioinformatics analysis tools (GeneSpringGX, IPA, Annovar, Galaxy, etc), Linux

Driving license

Category B, since 2004

Other	Member of the European Association for Cancer Research, and European Society of Human Genetics
Patents	“Test de Diagnostic Molecular Neinvaziv al Cancerului de Vezica (Superficial)”, Floares A, Fersigan M, Neagoe I, Braicu C, Cojocneanu (Petric) Roxana-Maria . Nr. A/00984/08.12.2016
Awards	Participation Grant Award for the EACR24 24th Biennial congress of the European Association for Cancer Research, July 2016, Manchester, UK Participation Grant Award for “Precision Medicine for Cancer” 1-4 March 2015 Neumünster Abbey, Luxembourg

International conferences, training and workshops

- EACR24 24th Biennial congress of the European Association for Cancer Research, July 2016, Manchester, UK, with poster: “miRNA pattern modifications in bladder cancer” (**Cojocneanu Petric R**, Braicu C, Budisan L, Ivan C, Chira S, Petrut B, Raduly L, Jurj A, Calin G, Berindan-Neagoe I. miRNA pattern modifications in bladder cancer – abstract published in the European Journal of Cancer (**IF=6.163**))
- CID2016 – invited speaker “From Big Data to Precision Medicine – via Bioinformatics” – March 31 – April 1 2016, Cluj-Napoca, Romania
- WIN Symposium 2015, June 2015, Paris, France – poster “Optimizing the use of animal models by improving interspecies translation of gene nomenclature”
- OEI-EACR- Conference- Precision Medicine Conference, 1-4 March 2015, Numunster Abbey, Luxembourg – poster “Differential expression profile of plasma miRNAs for estrogen and progesterone receptor positive and negative breast cancer”
- European Human Genetics Conference 2014, May 31- June 3 in Milan, Italy – poster “Human bile contains microRNA-laden exosomes that can be used for cholangiocarcinoma diagnosis”
- OEI 2014- Oncology days 12 June 2014, Cluj-Napoca, Romania – poster “Next Generation Sequencing: a tool for deciphering the BRCA1/2 and TNBC relationship”.
- “National Congress of Medical Oncology and Radiotherapy”, 18-20th of October 2012, Sinaia, Romania – oral presentation “Immunomodulin effects of Oxaliplatin on a colorectal cancer experimental model”
- "Cancer Molecular Pathobiology In The Clinics: Highlights", 18-20th of April 2012, Cluj-Napoca, Romania - award nomination for the poster " Angiogenic protein expression profile subsequent to VEGF inhibition"
- "Medicalis - 13th Congress for Medical Students and Young Health Professionals", 10-13th of May 2012, Cluj-Napoca, Romania - oral presentation
- Scientific Writing Workshop organized by Iuliu Hatieganu University of Medicine and Pharmacy Cluj-Napoca and BioScience Writing, 18 June 2014 Cluj-Napoca, Romania.
- Seminary “Strategies for Using IEEE Xplore, Open Access, How to publish” Technical University Cluj-Napoca and IEEE Publishing 14 May 2014.
- “How to write a success paper in impact factor journals” – 7-9th of November 2012, Cluj-Napoca, Romania
- International Workshop „Molecular Profiling and Innovation in Cancer” – UMF „Iuliu Hatieganu” Cluj-Napoca 10-12th September 2012 –oral presentation „Apoptosis-based therapeutic effects of OXA and 5FU in a colorectal cancer model”

- "Microscopia electronica in Romania, o noua perspectiva a cercetarii in medicina si biologie", 6th of June 2012, "Victor Babes" National Pathology Institute, Bucharest, Romania - poster presentation " Preliminary studies to assess the penetration capacity of single wall carbon nanotubes using electron microscopy"
- Genetics workshop, "Medicalis - 13th Congress for Medical Students and Young Health Professionals", 11th of May 2012, Cluj-Napoca, Romania
- Training in flow cytometry - 2-4th of July 2012, Department of Radiobiology, Hradec Kralove, Czech Republic
- Certified user of 454 GS Junior Next Generation Sequencer – April 2013, Cluj-Napoca, Romania
- Training in High Throughput Data Analysis using R and Bioconductor – May 2013, EMBL – European Bioinformatics Institute EBI, Hinxton, UK

Publication list - ISI

1. Pop LA*, **Cojocneanu RM***, Pileczki V, Morar-Bolba G, Irimie A, Lazar V, Lombardo C, Paradiso A, Berindan-Neagoe I. Genetic alterations in sporadic triple negative breast cancer. *Breast*. 2018 Apr;38:30-38. doi: 10.1016/j.breast.2017.11.006.
2. Lajos Raduly*, **Roxana Cojocneanu***, Orsolya Sarpataki, Sergiu Chira, Atanas G. Atanasov, Cornelia Braicu, Ioana Berindan-Neagoe, Ioan Marcus. Canis lupus familiaris as relevant animal model for breast cancer - a comparative oncology review. *Animal Science Papers and Reports* vol. 36 (2018), no. 2, 119-148
3. **Cojocneanu R**, Braicu C, Raduly L, Zanoaga O, Dragos N, Monroig P, Dumitrascu D, Berindan-Neagoe I. Phytochemicals modulate carcinogenic signaling pathways in breast and hormone-related cancers. *Onco Targets Ther*. 2015 Aug 6;8:2053-66. doi: 10.2147/OTT.S83597
4. **Roxana Cojocneanu**, Cornelia Braicu, Cristian Bassi, Laura Pop, Ionelia Taranu, Nicolae Dragos, Dan Dumitrascu, Massimo Negrini, Ioana Berindan-Neagoe. Interspecies Gene Name Extrapolation – A New Approach. *PLoS ONE* 10(9): e0138751. doi:10.1371/journal.pone.0138751
5. Zaharie F*, **Cojocneanu R***, Muresan M, Frinc I, Dima D, Petrushev B, Tanase A, Berce C, Chitic M, Berindan-Neagoe I, Pileczki V, Irimie A, Tomuleasa C. Small molecules against B-RAF (BRAF) Val600Glu (V600E) single mutation. *Int J Nanomedicine*. 2015 Jul 31;10:4897-9. doi: 10.2147/IJN.S87405
6. Braicu C, **Cojocneanu R**, Jurj A, Gulei D, Taranu I, Gras AM, Marin DE, Berindan-Neagoe I. Microarray based gene expression analysis of Sus Scrofa duodenum exposed to zearalenone: significance to human health. *BMC Genomics*. 2016 Aug 17;17:646. doi: 10.1186/s12864-016-2984-8.
7. Braicu C, Gulei D, **Cojocneanu R**, Raduly L, Jurj A, Knutsen E, Calin GA, Berindan-Neagoe I. miR-181a/b therapy in lung cancer: reality or myth? *Mol Oncol*. 2019 Jan;13(1):9-25. doi: 10.1002/1878-0261.12420
8. Braicu C, Raduly L, Morar-Bolba G, **Cojocneanu R**, [...], Berindan-Neagoe I. Aberrant miRNAs expressed in HER-2 negative breast cancers patients. *J Exp Clin Cancer Res*. 2018 Oct 20;37(1):257. doi: 10.1186/s13046-018-0920-2.
9. Bica-Pop C, **Cojocneanu R**, Magdo L, Raduly L, Gulei D, Berindan-Neagoe I. Overview upon miR-21 in lung cancer: focus on NSCLC. *Cell Mol Life Sci*. 2018 Oct;75(19):3539-3551. doi: 10.1007/s00018-018-2877-x
10. Chira S, Raduly L, Braicu C, Jurj A, **Cojocneanu R**, Pop L, Pileczki V, Ionescu C, Berindan-Neagoe I. Premature senescence activation in DLD-1 colorectal cancer cells through adjuvant therapy to induce a miRNA profile modulating cellular death. *Exp Ther Med*. 2018 Aug;16(2):1241-1249. doi: 10.3892/etm.2018.6324
11. Irimie AI, Braicu C, **Cojocneanu R**, Magdo L, Onaciu A, Ciocan C, Mehterov N, Dudea D, Buduru S, Berindan-Neagoe I. Differential Effect of Smoking on Gene Expression in Head and Neck Cancer Patients. *Int J Environ Res Public Health*. 2018 Jul 23;15(7). pii: E1558. doi: 10.3390/ijerph15071558.
12. Lajos R, Braicu C, Jurj A, Chira S, **Cojocneanu R**, Pileczki V, Berindan-Neagoe I. A miRNAs profile evolution of triple negative breast cancer cells in the presence of a possible adjuvant therapy and senescence inducer. *J BUON*. 2018 May-Jun;23(3):692-705.
13. Gulei D, Irimie AI, **Cojocneanu R**, Schultze JL, Berindan-Neagoe I. Exosomes-Small Players, Big Sound. *Bioconj Chem*. 2018 Mar 21;29(3):635-648. doi: 10.1021/acs.bioconjchem.8b00003

14. Pop-Bica C, Pinteș S, **Cojocneanu R**, Del Sal G, Piazza S, Wu ZH, Alencar AJ, Lossos IS, Berindan-Neagoe I, Calin GA. MiR-181 family-specific behavior in different cancers: a meta-analysis view. *Cancer Metastasis Rev.* 2018 Mar;37(1):17-32. doi: 10.1007/s10555-017-9714-9.
15. Zanoaga O, Jurj A, Raduly L, **Cojocneanu R**, Fuentes-Mattei E, Wu O, Braicu C, Gherman CD, Berindan-Neagoe I. Implications of dietary ω -3 and ω -6 polyunsaturated fatty acids in breast cancer. *Exp Ther Med.* 2018 Feb;15(2):1167-1176. doi: 10.3892/etm.2017.5515
16. Gulei D, Magdo L, Jurj A, Raduly L, **Cojocneanu R**, [...], Berindan-Neagoe I. The silent healer: miR-205-5p up-regulation inhibits epithelial to mesenchymal transition in colon cancer cells by indirectly up-regulating E-cadherin expression. *Cell Death Dis.* 2018 Jan 19;9(2):66. doi: 10.1038/s41419-017-0102-8.
17. Irimie AI, Braicu C, Sonea L, Zimta AA, **Cojocneanu R**, Tonchev K, Mehterov N, Diudea D, Buduru S, Berindan-Neagoe I. A Looking-Glass of Non-coding RNAs in oral cancer. *Int J Mol Sci.* 2017 Dec 5;18(12). pii: E2620. doi: 10.3390/ijms18122620
18. Braicu C, Selicean S, **Cojocneanu R**, Lajos R, Balacescu O, Taranu I, Marin DE, Motiu M, Jurj A, Achimas-Cadariu P, Berindan-Neagoe I. Evaluation of cellular and molecular impact of zearalenone and *Escherichia coli* co-exposure on IPEC-1 cells using microarray technology. *BMC Genomics.* 2016 Aug 9;17:576. doi: 10.1186/s12864-016-2830-z.
19. Pop LA, Pileczki V, **Cojocneanu RM**, Petrut B, Braicu C, Jurj AM, Buiga R, Achimas-Cadariu P, Berindan-Neagoe I. Normalization of gene expression measurement of tissue samples obtained by transurethral resection of bladder tumors. *Onco Targets Ther.* 2016 Jun 2;9:3369-80. doi: 10.2147/OTT.S97519
20. Zaharie F, Muresan MS, Petrushev B, Berce C, Gafencu GA, Selicean S, Jurj A, **Cojocneanu R**, Lisencu CI, Pop LA, Pileczki V, Eniu D, Muresan MA, Zaharie R, Berindan-Neagoe I, Tomuleasa C, Irimie A. Exosome-Carried microRNA-375 Inhibits Cell Progression and Dissemination via Bcl-2 Blocking in Colon Cancer. *J Gastrointest Liver Dis.* 2015 Dec;24(4):435-43. doi: 10.15403/jgld.2014.1121.244.375.
21. Tudoran O, Soritau O, Balacescu L, Visan S, Barbos O, **Cojocneanu R**, Balacescu O, Berindan-Neagoe I. Regulation of stem cells-related signaling pathways in response to doxorubicin treatment in Hs578T triple-negative breast cancer cells. *Mol Cell Biochem.* 2015 Jul 18
22. Cornelia Braicu, Valentina Pileczki, Laura Pop, **Roxana Cojocneanu**, Sergiu Chira, Eve Pointiere, Patriciu Achimas-Cadariu, Ioana Berindan-Neagoe, Dual targeted therapy with p53 siRNA and epigallocatechingallate in a triple negative breast cancer cell model, *PLoS ONE* 04/2015; 10(4).
23. Cornelia Braicu, **Roxana Cojocneanu**, Sergiu Chira, Anamaria Truta, Alexandru Floares, Patriciu Achimas-Cadariu, Ioana Berindan-Neagoe. Clinical and pathological implications of miRNA in bladder cancer. *International Journal of Nanomedicine* 2015;10 1–10
24. Muresan M, Zaharie F, Bojan A, Frinc I, Dima D, Selicean S, Gafencu GA, Petrushev B, **Cojocneanu R**, Tefas C, Cioca A, Irimie A, Berce C, Berindan-Neagoe I, Tomuleasa C, Achimas-Cadariu P. MicroRNAs in liver malignancies. Basic science applied in surgery. *J BUON.* 2015 Mar-Apr;20(2):361-75
25. Claudia Gherman, Matea Cristian Tudor, Bele Constantin, Tabaran Flaviu, Razvan Stefan, Bindea Maria, Sergiu Chira, Cornelia Braicu, Laura Pop, **Roxana Cojocneanu**, and Ioana Berindan-Neagoe Pharmacokinetics Evaluation of Carbon Nanotubes Using FTIR Analysis and Histological Analysis. *J. Nanosci. Nanotechnol.* 15, 2865-2869 (2015)
26. Calin Ionescu, Cornelia Braicu, Roxana Chiorean, **Roxana Cojocneanu**, Emilian Neagoe, Laura Pop, Sergiu Chira, Ioana Berindan-Neagoe. TIMP-1 expression in human colorectal cancer is associated with SMAD3 gene expression levels: a pilot study. *J Gastrointest Liver Dis* 2014 Dec;23(4):413-8
27. Laura-Ancuța Pop, Emil Puscas, Valentina Pileczki, **Roxana Cojocneanu**, Cornelia Braicu, Patriciu Achimas-Cadariu, Ioana Berindan-Neagoe. Quality control of ion torrent sequencing library. *Cancer Biomark* 2014 ;14(2-3):93-101
28. Cornelia Braicu, Ioana Berindan-Neagoe, Valentina Pileczki, **Roxana Cojocneanu**, Laura-Ancuța Pop, Emil Puscas, Alexandru Irimie, Rares Buiga. Breast tumor bank: an important resource for developing translational cancer research in Romania. *Cancer Biomark* 2014 ;14(2-3):119-27

29. A Irimie, C Braicu, **R Cojocneanu** , I Berindan Neagoe, RS Campian , Novel technologies for oral squamous carcinoma biomarkers in diagnostics and prognostics. Acta Odontologica Scandinavica. 2014;73(3):161-8. doi: 10.3109/00016357.2014.986754
30. Berindan-Neagoe I, Braicu C, Pileczki V, **Cojocneanu R**, Miron N, Balacescu O, Iancu D, Ciuleanu T. 5-Fluorouracil potentiates the anti-cancer effect of oxaliplatin on Colo320 colorectal adenocarcinoma cells. J Gastrointest Liver Dis. 2013 Mar;22(1):37-43

Publication list - BDI

1. **Roxana Cojocneanu Petric**, Laura-Ancuta Pop, Ancuta Jurj, Lajos Raduly, Dan Dumitrascu, Nicolae Dragos, Ioana Berindan Neagoe. Next Generation Sequencing Application for Breast Cancer Research. Clujul Medical, [S.l.], v. 88, n. 3, p. 278-287, jul. 2015. ISSN 2066-8872
2. Pileczki V, **Cojocneanu-Petric R**, Maralani M, Neagoe IB, Sandulescu R. MicroRNAs as regulators of apoptosis mechanisms in cancer. Clujul Med. 2016;89(1):50-5. doi: 10.15386/cjmed-512. Epub 2016 Jan
3. C. Gherman, V. Pileczki, **R. Cojocneanu Petric**, S. Rapuntean, S. Gherman, I. Berindan Neagoe, Molecular mechanisms of action and prediction of response to oxaliplatin in colorectal cancer cells. Annals of the Romanian Society for Cell Biology 2012; 17(1):194-200.
4. Gherman C, Pileczki V, **Cojocneanu Petric R**, Braicu C, Răpuntean S, Berindan Neagoe I. In vitro studies for evaluation the antitumoral and immunomodulator effect of EGCG on Ehrlich Ascites . Archiva Zootechnica 15:2, 79-87, 2012

Book chapter

Ioana Berindan-Neagoe, Cornelia Braicu, **Roxana Cojocneanu-Petric**, Carolina Constantin, Maria Dobre, Radu-Ionut Huica, Laura Isprava, Gina Manda, Elod Nagy, Ionela Neagoe, Monica Neagu, Aurora Salageanu, Mihaela Surcel, Catalin Tucureanu, Cornel Ursaciuc, Mihaela Zlei- Ghid de Organizare a Laboratorului de Imunologie, sub redatia Prof. Dr. Victor Cristea. Editura Medicala Universitara "Iuliu Hatieganu", Cluj-Napoca, 2013 ISBN 978-973-693-550-3. Capitolul: Imunologie si Imunogenetica, Subcapitolul: Secventierea de noua generatie in relatie cu imonogenetica