

Europass Curriculum Vitae

Personal information

First name(s) / Surname(s) **Manuela Banciu**

Address(es)

E-mail

Teaching and Occupational field research

Work experience

Dates Since 2020
Dean - Faculty of Biology
and Geology (Babes-Bolyai
University, Cluj-Napoca,
Romania)

Dates Since 2020
Professor- Biochemistry
Occupation or position held and Bionanotechnology

Main activities and responsibilities Teaching and research
Babes-Bolyai University
Name and address of employer Cluj-Napoca, Romania

Dates 2013-2020
Associate Professor-
Occupation or position held Biochemistry, Enzymology
Main activities and responsibilities Teaching and research
Name and address of employer Babes-Bolyai University, Cluj-Napoca, Romania

Dates 2009 –2013
Occupation or position held Lecturer-Biochemistry
Main activities and responsibilities Teaching and research
Name and address of employer Babes-Bolyai University, Cluj-Napoca, Romania

Dates 2002 – 2008
Teaching assistant-
Occupation or position held Biochemistry, Cytology
Main activities and responsibilities Teaching and research
Name and address of employer Babes-Bolyai University, Cluj-Napoca, Romania
Type of business or sector Academic teaching and research

Dates 1997-2002
Occupation or position held Biologist
Main activities and responsibilities Quality Control of Pharmaceuticals
Name and address of employer SC Terapia SA, Cluj-Napoca, Romania

Education and training

Title of qualification awarded

2018-Habilitation in Biology,

Name and type of organisation
providing education and training

Babes-Bolyai University of Cluj-Napoca

Title of qualification awarded

2004-2007 PhD.

Name and type of organisation
providing education and training

Pharmaceutical Sciences/ Advanced Drug Delivery and Targeting (Promotor: Prof. Dr. Gert Storm,
Co-promotor: Prof. Dr. Raymond Schiffelers), Utrecht University, The Netherlands

Title of qualification awarded

2005 Euro PhD, Galenos-Marie-Curie Network Fellow,

Principal subjects/occupational skills
covered

Pharmaceutical Sciences/ Drug Delivery and Targeting

Name and type of organisation
providing education and training

Utrecht University, The Netherlands

Dates

1998

Title of qualification awarded

MSc.

Principal subjects/occupational skills
covered

Cell and molecular biology,

Name and type of organisation
providing education and training

Faculty of Biology and Geology, Babes-Bolyai University of Cluj-Napoca, Romania

Dates

1997

Title of qualification awarded

BSc.

Principal subjects/occupational skills
covered

Biology

Name and type of organisation
providing education and training

Faculty of Biology and Geology, Babes-Bolyai University of Cluj-Napoca, Romania

Personal skills and competences

Mother tongue(s)

Other language(s)

Specify mother tongue Romanian

English

Understanding		Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production	
	C1		C2		C1		C1

Self-assessment

European level (*)

English

(*) [Common European Framework of Reference for Languages](#)

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Organisational skills and competences	Related to laboratory work experience
Technical skills and competences	Cell and molecular biology techniques (protein microarray, Western Blotting), biochemistry techniques of purification and physico-chemical characterization of proteins (gel chromatography, HPLC, electrophoresis, ELISA, spectrophotometry, spectrofluorimetry), drug delivery and targeting techniques: preparation of microparticulate systems, such as liposomes, flow cytometry, immunocytochemistry, animal cell cultivation etc., practical knowledge of basic and applied microbiology (bacterial cell cultivation and identification). Theoretical and practical knowledge of Biochemistry, Biophysics, Cell and Molecular Biology, Genetics, Microbiology, Pharmacology and Pharmacodynamics, Bionanotechnologies.
Scientific Expertise	<p>Biochemistry, Drug targeting, Oncology, Pharmacology, Tumor Immunology H-index= 25 (Google Scholar), H-index (Web of Science)= 22, H-index (Scopus)=22</p> <p>https://www.webofscience.com/wos/author/rid/D-6425-2011 https://orcid.org/0000-0003-2556-4008 https://scholar.google.com/citations?user=3GfSa8oAAAAJ&hl=en</p> <p>Selected publications:</p> <p>Banciu M, Metselaar JM, Schiffelers RM, Storm G (2008) Antitumor activity of liposomal prednisolone phosphate depends on the presence of functional tumor-associated macrophages in tumor tissue. <i>Neoplasia</i>, 10 (2):108-117.</p> <p>Banciu M, Fens MHM., Storm G, Schiffelers RM (2008) Antitumor activity and tumor localization of liposomal glucocorticoids in B16 melanoma-bearing mice. <i>J. Control. Release</i>, 127 (2):131-136.</p> <p>Banciu M, Schiffelers RM, Storm G (2008) Investigation into the role of tumor-associated macrophages in the antitumor activity of Doxil, <i>Pharm Res.</i>, 25 (8):1948–1955.</p> <p>Banciu, M., Metselaar, J. M., Schiffelers, R. M., Storm, G. (2008) Liposomal glucocorticoids as tumor-targeted anti-angiogenic nanomedicine in B16 melanoma-bearing mice, <i>J. Steroid Biochem. Mol. Biol.</i> 111(1-2):101-110</p> <p>Coimbra M, Banciu M, Fens MH, de Smet L, Cabaj M, Metselaar JM, Storm G, Schiffelers RM. (2010) Liposomal pravastatin inhibits tumor growth by targeting cancer-related inflammation. <i>J Control Release</i>;148 (3):303-310.</p> <p>Alupei M.C., Licarete E., Patras L., Banciu M. (2015). Liposomal simvastatin inhibits tumor growth via targeting tumor-associated macrophages-mediated oxidative stress. <i>Cancer Lett.</i> 356(2 Pt B):946-52.</p> <p>Porfire A., Tomuta I., Muntean D., Luca L., Licarete E., Alupei M.C., Achim M., Vlase L., Banciu M. (2015). Optimizing long-circulating liposomes for delivery of simvastatin to C26 colon carcinoma cells. <i>J Liposome Res.</i> 25(4):261-9.</p> <p>Licarete E, Sesarman A, Banciu M. (2015). Exploitation of pleiotropic actions of statins by using tumour-targeted delivery systems. <i>J Microencapsul.</i> 32(7):619-31.</p> <p>Luput L, Licarete E, Sesarman A, Patras L, Alupei MC, Banciu M.(2017) Tumor-associated macrophages favor C26 murine colon carcinoma cell proliferation in an oxidative stress dependent manner. <i>Oncol Rep.</i> 37(4):2472-2480.</p> <p>Patras L, Sylvester B, Luput L, Sesarman A, Licarete E, Porfire A, Muntean D, Drotar DM, Rusu AD, Nagy AL, Catoi C, Tomuta I, Vlase L, Banciu M, Achim M (2017) Liposomal prednisolone phosphate potentiates the antitumor activity of liposomal 5-fluorouracil in C26 murine colon carcinoma in vivo <i>Cancer Biol Ther</i> 18(8): 616-626 (corresponding author)</p> <p>Luput L, Licarete E, Drotar DM, Nagy AL, Sesarman A, Patras L, Rauca VF, Porfire A, Muntean D, Achim M, Tomuta I, Vlase L, Catoi C, Dragos N, Banciu M (2018). In Vivo Double Targeting of C26 Colon Carcinoma Cells and Microenvironmental Protumor Processes Using Liposomal Simvastatin. <i>J Cancer</i> 9(2): 440-449.</p> <p>Rauca VF, Licarete E, Luput L, Sesarman A, Patras L, Bulzu P, Rakosy-Tican E, Banciu M (2018) Combination therapy of simvastatin and 5, 6-dimethylxanthene-4-acetic acid synergistically suppresses the aggressiveness of B16.F10 melanoma cells, <i>PLoS ONE</i> 13(8):e0202827.</p> <p>Sesarman A, Tefas L, Sylvester B, Licarete E, Rauca V, Luput L, Patras L, Porav S, Banciu M, Porfire A, (2019) Co-delivery of curcumin and doxorubicin in PEGylated liposomes favored the Vesicles in Tumor Milieu as Emerging Therapies for Cancer Progression (2019) <i>Curr Pharm Des.</i> 25(17):1980-2006;</p> <p>Luput L, Sesarman A, Porfire A, Achim M, Muntean D, Casian T, Patras L, Rauca VF, Drotar DM, Stejerean I, Tomuta I, Vlase L, Dragos N, Toma VA, Licarete E, Banciu M. (2020) Liposomal simvastatin sensitizes C26 murine colon carcinoma to the antitumor effects of liposomal 5-fluorouracil <i>in vivo</i>. <i>Cancer Sci.</i> 111(4):1344-1356;</p>

Patras L, Fens MHAM, Vader P, Barendrecht A, Sesarman A, **Banciu M**, Schiffelers R. (2020) Normoxic Tumour Extracellular Vesicles Modulate the Response of Hypoxic Cancer and Stromal Cells to Doxorubicin In Vitro *Int J Mol Sci.*;21(17):5951;

Licarete E, Rauca VF, Luput L, Drotar D, Stejerean I, Patras L, Dume B, Toma VA, Porfire A, Gherman C, Sesarman A, **Banciu M**. Overcoming Intrinsic Doxorubicin Resistance in Melanoma by Anti-Angiogenic and Anti-Metastatic Effects of Liposomal Prednisolone Phosphate on Tumor Microenvironment. *Int J Mol Sci.* 2020;21(8):2968.

Rauca VF, Patras L, Luput L, Licarete E, Toma VA, Porfire A, Mot AC, Rakosy-Tican E, Sesarman A, **Banciu M**. (2021) Remodeling tumor microenvironment by liposomal codelivery of DMXAA and simvastatin inhibits malignant melanoma progression. *Sci Rep.*;11(1):22102.

Negrea G, Rauca VF, Meszaros MS, Patras L, Luput L, Licarete E, Toma VA, Porfire A, Muntean D, Sesarman A, **Banciu M**. (2022) Active Tumor-Targeting Nano-formulations Containing Simvastatin and Doxorubicin Inhibit Melanoma Growth and Angiogenesis. *Front Pharmacol.*;13:870347.

Patras L, Ionescu AE, Munteanu C, Hajdu R, Kosa A, Porfire A, Licarete E, Rauca VF, Sesarman A, Luput L, Bulzu P, Chiroi P, Tranca RA, Meszaros MS, Negrea G, Barbu-Tudoran L, Potara M, Szedlacsek S, **Banciu M**. (2022) Trojan horse treatment based on PEG-coated extracellular vesicles to deliver doxorubicin to melanoma in vitro and in vivo. *Cancer Biol Ther.*; 23(1):1-16.

National projects as director :

2011-2013- grant UEFISCDI (Romanian Ministry of Education, Research and Innovation), Project code PN II – RU 387/2010, Contract number 145/2010. Title: Molecular markers –key players in the interaction tumor inflammation-oxidative stress as potential targets for anticancer drug delivery therapy. Total value: 340 000RON.

2015-2017- grant UEFISCDI (Romanian Ministry of Education, Research and Innovation), Project code PN-II-RU-TE-2014-4-1191 Contract number 235/2015. Title: Re-education strategies of tumor-associated macrophages-perspective for future combined tumor-targeted therapies. Total value:550 000 RON.

2017-2019- grant UEFISCDI (Romanian Ministry of Education, Research and Innovation), Project code PN-III-P4-ID-PCE-2016-0342, Contract number 91/2017. Title: Tumor intercellular communication tools- inspiration for future tumor-targeted therapies (IMITATE) Total value: 850 000 RON

International project as responsible for national partner:

Principal investigator of an international project: 2009-2010-Erasmus Intensive Programme within the European Lifelong Learning Programme. Title: Advanced Drug Delivery of Biotechnological Drugs ADELBIOTECH, code 09_MB_IP_00046, contract no.2009-1IT2-ERA1007877), Coordinator: University of Camerino, Director: Dr Piera di Martino. Person in charge for Babes-Bolyai University: Manuela Banciu Total value: 45 000 Euro.

Principal investigator of a national project: 2012-2016-grant UEFISCDI: Joint Applied Research Projects, Title: Development and preclinical evaluation of nanoparticulate drug delivery systems for targeted antitumor therapy of colorectal cancer, code PN-II-PT-PCCA-2011-3- 2-1060, contract no.95/2010 Director. Dr Laurian Vlase, University of Medicine and Pharmacy "Iuliu Hatieganu", ClujNapoca, person in charge for partner 1 Babes-Bolyai University: Manuela Banciu Total value for partner 1:750000RON

International prize: 2008 - Euro-PhD in Advanced Drug Delivery awarded by Galenos Network in the Pharmaceutical Sciences, within „7th Conference and Workshop on Biological Barriers and Nanomedicine - Advanced Drug Delivery and Predictive non vivo Testing Technologies, Saarbrücken, Germany.

Reviewer for ISI journals:

Journal of Controlled Release, International Journal of Cancer, Advanced Drug Delivery Reviews, Pharmaceutical Research, Journal of Liposome Research, European Journal of Pharmaceutical Sciences, European Journal of Clinical Investigation, Tumor Biology, Current Cancer Drug Targets, Oncology Reports, Plos One, International Journal of Nanomedicine.

Editorial board: Oncology letters, Molecular Medicine Reports, Frontiers in Pharmacology (Topic Editor - Women in Nanomedicine)

International and national collaborations: Raymond Schiffelers (Utrecht Medical Center, The Netherlands); Piera diMartino (University of Camerino, Italy); Ana Melero (University of Valencia, Spain); Mircea Ivan (Indiana University, USA); Adriana Filip, Ioan Tomuta, Alina Porfire, Marcela Achim (Iuliu Hatieganu University of Medicine and Pharmacy, Romania), Stefan Szedlacsek, Cristian Munteanu (Institute of Biochemistry of the Romanian Academy (IBAR), Romania); Simion Astilean, (Institute of Interdisciplinary Research on Bio-Nano-Sciences (ICIBNS), UBB, Romania).

<p>Oral presentations/ conferences/ courses (selection):</p>	<p>invited abroad</p> <p>2007- Pharmaceutical Sciences World Congress, 22.04-25.04.2007, Amsterdam, The Netherlands; 34th Annual Meeting of Controlled Release Society, 07.07-11.07.2007, Long Beach, California, USA; 3rd Annual Session of International Liposome Society. Liposome Advances. Progress in Drug and Vaccine Delivery, 8.12-11.12.2007, London, UK; 2008- 7th Conference and Workshop on Biological Barriers and Nanomedicine - Advanced Drug Delivery and Predictive non vivo Testing Technologies, 20.02.29.02.2008, Saarbrücken, Germany. 2010- Summer school on Advanced Drug Delivery of Biotechnological Drugs, University of Camerino, 21-30.06.2010, Camerino, Italy. 2012- 52nd Annual Scientific Conference "A New Approach of the Academic Research in Biology", 11.12-12.12. 2012, Bucharest, Romania; 2009, 2017, 2018- Annual International Conference of the Romanian Society of Biochemistry and Molecular Biology, 2017 (Timisoara), 2018 (Bucharest), Romania; 2018- Biobarriers 2018 12th International Conference and Workshop on Biological Barriers, 27-29 August 2018, Saarbrücken, Germany; 2019- University of Valencia, 21.05-25.05.2019, Valencia, Spain; 2019- 24th World Congress on Advances in Oncology, and 24th International Symposium on Molecular Medicine, 10.10-12.10. 2019, Mystras, Sparta, Greece (Co-chair: Workshop on inflammation: the cornerstone of chronic disease.Alteration of Cellular Microenvironment). 2021-MyCRS Drug Delivery Virtual Seminar-Controlled Release Society, Malaysia Local Chapter. 2022-8th Galenus International Workshop Valencia "The shape of things to come - Drug delivery systems from head to toe", Valencia, Spain. 2022-2nd Edition of the OncoHub Conference, Poiana Brasov, Romania 2023-3rd Edition of the OncoHub Conference "Connecting Scientists & Phycians for next generation cancer management", 20-22 Septembrie 2023, București, România.</p>
<p>Mentoring activities:</p>	<p>2008-2022-more than 90 Bachelor and Master degree theses; 7 Doctoral and 2 Postdoctoral research projects.</p>
<p>Other relevant professional experiences</p>	<p>2020-2024-Member of CNATDCU (National Council for the Accreditation of Theses, Diplomas and University Titles)-Biology and Biochemistry Board 2024-2028-Vicepresident of CNATDCU-Biology and Biochemistry Board Since 2008-Nanomedicine Group leader (https://centru3b.centre.ubbcluj.ro/en/nanomedicine-group/)</p>

Date:14.03. 2025

Prof. habil. dr. Manuela Banciu