



Alexandra Maranciuc

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WORK EXPERIENCE

Institute for Interdisciplinary Studies and Research (ISCI), Lucian Blaga University of Sibiu – Sibiu, Romania

Research Assistant - Postdoctoral researcher

[07/2022 – Current]

Research indicatives: Alexandra Nicolae-Maranciuc ORCID: 0000-0003-0742-241X ; Researcher ID: ABE-2653-2020 ; BrainMap: U-1900-062C-1846

Scientific research in nanomaterials and biomaterials for medical and environmental applications: metallic nanoparticles/nanocomposites synthesis, green synthesis, plasmonic nanoparticles, functionalization and characterization, polymeric materials: thin films/ hydrogels/ membranes, antibacterial and toxicological aspects, biosensors, industrial and environmental applications.

Visibility of the Scientific Activity

Publications:

- 10 WoS articles: 6 WoS articles as first/main author and 3 WoS article as co-author in Open Access journals with high Impact Factors, generating a cumulated Impact Factor of 41.8
- 2 articles indexed in other databases
- 2 international chapter books as first author (WoS and Scopus, Elsevier)
- 2 international chapter books as first author in international publishers (LAMBERT)
- 4 conference proceedings from International Conferences, 1 indexed in WoS

Hirsch Index: 5 (WoS)\ 6 (Scopus)\ 6 (Scholar);

Citations: 111 (WoS without self-citations)\ 175 (Scopus)\ 229 (Scholar);

International conferences: 13 conferences: 7 oral presentations.

Special Issue Editor: Guest editor assistant at NANOMATERIALS, MDPI for Plasmonic Nanoparticle-Based Platforms for Efficient (Bio)Sensing Special Issue

Member of the Romanian Society of Pure and Applied Biophysics (SRBPA)

Major Research Projects:

Director of Research Open Access Project (2024-1-RD-NanoBiotech) awarded by competition by European Commission Joint Research Centre: "Hybrid composite membrane as potential antibacterial eco-friendly food packaging"

Key member in 4 international and national research projects: 1 national PCDDI Research Grant, 1 international ERA-NET Horizon Research Grant, 1 Institutional Excellence Hasso Plattner and 1 national AOSR-Teams III-2024-2025 Research Grant (awarded by the Academy of the Romanian Scientists).

Biology and Ecology Research Center, Faculty of Sciences, Lucian Blaga University of Sibiu – Sibiu, Romania

Associate Member

[12/2025 – Current]


Scientific research in molecular biology and toxicology.

 **Faculty of Sciences, Lucian Blaga University of Sibiu** – Sibiu, Romania

Associate Teaching Staff

[10/2023 – Current]

Subjects: **Techniques in Molecular Biology, Enzymology, Biotechnology, Toxicology, Applied Microbiology, Ecotoxicology** (Faculty of Sciences, LBUS) and **Nanotechnologies in dental technology** (Faculty of Medicine, LBUS).

 **Research Center for Complex Physical Systems, Faculty of Sciences, Lucian Blaga University of Sibiu** – Sibiu, Romania

Member

[11/2021 – Current]

Material science for medical applications: nanoparticles/nanocomposites synthesis, functionalization and characterization, polymeric materials, biophysics, tissue engineering applications, antibacterial applications, biosensors.

 **Universite Grenoble Alpes** – Grenoble, Rhône-Alpes, France

Viziting PhD student in European School On Nanosciences & Nanotechnologies, Grenoble France

[28/08/2023 – 09/09/2023]

Participation in lectures and practical laboratories regarding nanotechnology and nanomaterials. Establishment of relationships with institute's members for further collaborations.

 **Institute of Human Genetics PAS** – Poznan, Poland

Viziting PhD student in an international exchange programme

[28/03/2022 – 01/04/2022]

Completed in-depth research in genetics and medicine impact on nanomaterials, especially on metallic and composite nanoparticles.

Participated at the seminars and laboratories in the genetics and tissue engineering applications of stem cells.

 **Horia Hulubei National Institute for R&D in Physics and Nuclear Engineering (IFIN-HH)** – Magurele, Ilfov, Romania

Research Assistant

[07/2018 – 11/2020]

Scientific research in molecular biology (PCR, cell cultures, microbiology) and single-particle analysis investigation (*Tethered Particle Motion (TPM)*) for antitumoral and medical applications.

 **Leather and Footwear National Institute – Collagen Department** – Bucharest, Romania

Internship

[07/2017 – 09/2017]

Research in biomaterials development: chemical fabrication and characterization (electron microscopy, micro-CT, optic microscopy, FT-IR, X-ray analysis) of a wound dressing based on natural polymers and plants, as a final product for burns/wounds.

 **The National R&D Institute for Optoelectronics - INOE 2000** – Magurele, Ilfov, Romania

Volunteering

[09/2016 – 11/2016]

Synthesis and characterization of ceramic oxide-materials based on zinc oxide through microwave technique.

EDUCATION AND TRAINING

PhD degree - Industrial Engineering

Lucian Blaga University of Sibiu [01/10/2020 – 09/10/2023]

City: Sibiu | Country: Romania | Website: <https://www.ulbsibiu.ro/ro/> | Field(s) of study: Industrial Engineering - PhD Coordinator: Prof. univ. dr. Dan CHICEA | Thesis: The design and the synthesis of a hydrogel based on functionalized nano and micro-particles

Master - Diploma in Chemical engineering

University POLITEHNICA of Bucharest, Faculty of Engineering in Foreign Languages [01/10/2018 – 30/06/2020]

City: Bucharest | Country: Romania | Website: <https://upb.ro/> | Field(s) of study: Chemical Engineering - Biomaterials for Tissue Engineering (English courses) | Final grade: 10 | Thesis: HIV integrase inhibitory pharmacological compounds tested on RAG complex in the V(D)J Recombination by TPM single-molecule technique

Diploma in Medical Engineer

University POLITEHNICA of Bucharest, Faculty of Medical Engineering [01/10/2014 – 07/07/2018]

City: Bucharest | Country: Romania | Website: <https://upb.ro/> | Field(s) of study: Applied Engineering Sciences Domain (Material Science) – Biomaterials and Medical Devices | Thesis: Design of wound dressings based on natural compounds which favor skin regeneration for burns therapy

University POLITEHNICA of Bucharest, Scientific Communications:

“Wound dressings based on natural compounds for burn therapy” – May 2018

“Bio-glasses in SiO₂-CaO-P₂O₅-CaF₂ system for biomedical applications” – May 2017

“Composite biomaterials based on PVA/HAp for folic acid release” – May 2016

Psycho-Pedagogical Study Programme, Level I

University POLITEHNICA of Bucharest, Department of training for teaching careers [10/2014 – 06/2017]

City: Bucharest | Country: Romania | Website: <https://upb.ro/>

Psycho-Pedagogical Study Programme, Level II

University POLITEHNICA of Bucharest, Department of training for teaching careers [10/2018 – 06/2020]

City: Bucharest | Country: Romania

High School Baccalaureate

Școala Centrală National College [09/2010 – 06/2014]

Field(s) of study: Mathematics and Informatics intensive French

High-school Romanian Baccalaureate

Francophone Baccalaureate

LANGUAGE SKILLS

Mother tongue(s): Romanian

Other language(s):

English

LISTENING B2 READING B2 WRITING B2

SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2

French

LISTENING B2 READING B2 WRITING B2

SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

SKILLS

Digital skills

MATLAB / Microsoft Office

PUBLICATIONS

APPENDIX 1

COMMUNICATION AND INTERPERSONAL SKILLS

Job-related skills

Good communication in a work team ; Time management ; Creative skills ; Design skills ; Attention to details ; Empathy

A.M.

December, 2025