



Alexandra Maranciuc

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WORK EXPERIENCE

Research Assistant

Institute for Interdisciplinary Studies and Research (ISCI), Lucian Blaga University of Sibiu [1 Jul 2022 – Current]

City: Sibiu

Country: Romania

- Scientific research in nanomaterials and nanoparticles: nanoparticles synthesis, functionalization and characterization in the Research Center for Complex Physical Systems from Lucian Blaga University of Sibiu.
- Dimensional and structural analysis of nano and micro suspensions through particle tracking analysis techniques and microscopic techniques.
- Development of biomaterials for medical applications purposes including hydrogels or wounds for tissue reconstruction.

Visiting PhD student in European School on Nanosciences & Nanotechnologies (ESONN 2023)

Universite Grenoble Alpes [27 Aug 2023 – 9 Sep 2023]

City: Grenoble, Rhône-Alpes

Country: France

- Participation to lectures from international scientists.
- Practical works in research laboratories regarding nanotechnology and microscopy techniques.
- Participation to seminars.
- Built relationships with other international PhD students and with practical scientists for further collaborations.

Visiting PhD student in an international exchange programme

Institute of Human Genetics PAS [28 Mar 2022 – 1 Apr 2022]

City: Poznan

Country: Poland

- Attended the international workshops and presentations to expand my horizons and knowledge.
- Completed in-depth research in the genetics and medicine impact on nanomaterials, especially on metallic and composite nanoparticles.
- Participated at the seminars and laboratories' presentations in the genetics and tissue engineering applications of stem cells.
- Built relationships with other PhD students and with the institute's members for further collaborations.

Research Assistant

Lucian Blaga University of Sibiu [26 Nov 2021 – 31 Dec 2022]

City: Sibiu

Country: Romania

- Participation in an Excellence "Hasso Plattner" Grant as team member.

Research Assistant

Horia Hulubei National Institute for R&D in Physics and Nuclear Engineering (IFIN-HH) [15 Jul 2018 – 16 Nov 2020]

City: Magurele, Ilfov

Country: Romania

- Scientific research in molecular biology and single-particle analysis investigation: experimental laboratory research in medical applications through the biophysical technique Tethered Particle Motion (TPM) improved in the laboratory. Individual analysis of particles at nanoscale level for ADN alterations.
- Experiments regarding PCR, cell cultures and microbiology.
- Examination through TPM technique and microscopy of modifications appeared in the systems studied by varying drugs with specific applications for the immune system and cancer.

Internship

Leather and Footwear National Institute – Collagen Department [1 Jul 2017 – 1 Sep 2017]

City: Bucharest

Country: Romania

- Research in biomaterials development. Fabrication of a final product through chemical synthesis methods.
- Synthesis of polymeric wound based on collagen and Aloe Vera for mild burns.
- Characterization of the biomaterial using chemical-physical techniques for dimensional and structural properties such as FT-IR, X-ray analysis, electronic microscopy (SEM), optic microscopy, micro-CT analysis.

Volunteering

The National R&D Institute for Optoelectronics - INOE 2000 [Sep 2016 – Nov 2016]

City: Magurele, Ilfov

Country: Romania

- Synthesis of ceramic oxide-materials based on zinc oxide through microwave technique.
- Characterization of ceramic materials through XRD, SEM microscopy. Tests regarding structural characteristics and integrity details.

EDUCATION AND TRAINING

PhD student

Lucian Blaga University of Sibiu [Oct 2020 – Oct 2023]

City: Sibiu

Country: Romania

Website: <https://www.ulbsibiu.ro/ro/>

Field(s) of study: Industrial Engineering - PhD Supervisor: 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 [1 Oct 2018 – 30 Jun 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 [1 Oct 2014 – 7 Jul 2018]

City: Bucharest

Country: Romania

Website: <https://upb.ro/>

Field(s) of study: Applied Engineering Sciences Domain (Material Science) – Biomaterials and Medical Devices

Final grade: 10

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

All the studies were realized in collaboration with laboratories in ceramics/polymeric materials from POLITEHNICA University of Bucharest.

Psycho-Pedagogical Study Programme

University POLITEHNICA of Bucharest, Department of training for teaching careers [

Oct 2014 – Jun 2017]

City: Bucharest

Country: Romania

Website: <https://upb.ro/>

High School Bacalaureate

Școala Centrală National College [Sep 2010 – Jun 2014]

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

High-school Romanian Bacalaureate

Francophone Bacalaureate

LANGUAGE SKILLS

Mother tongue(s): **Romanian**

Other language(s):

English

French

LISTENING B2 READING B2 WRITING B2

LISTENING B2 READING B2 WRITING B2

SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2 SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2

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

DIGITAL SKILLS

Digital skills

MATLAB / Microsoft Office

COMMUNICATION AND INTERPERSONAL SKILLS

Job-related skills

Good communication in a work team

Time management

Creative skills

Design skills

PUBLICATIONS

APPENDIX 1