

Raluca TUTUIANU

Personal information:

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Education

PhD in Biology- School of Advanced Studies of the Romanian Academy, Bucharest, Romania
October 2014- November 2021

Supervisor: Maya SIMIONESCU, **Thesis: Exploring the Capacity of Mesenchymal Stromal Cells Derived Secretome Combined with Nano-Biomaterials for Developing Innovative Therapies in Regenerative Medicine**

Master of Science in Material Engineering- Politehnica University of Bucharest, Romania
October 2010- June 2012

Specialization: Biocompatible Substances, Materials and Systems

Thesis: Biochemical Analysis of Blood Based on the Study of the Evaporation of a Drop

Bachelor of Science in Bioengineering- Gr. T. Popa University of Medicine and Pharmacy, Iassy, Romania

October 2006- July 2010

Thesis: Finite Element Analysis for the Tensions of a Coronary Stent

Work Experience

Scientific Researcher- Nicolae Simionescu Institute of Cellular Biology and Pathology, Bucharest, Romania, July 2022- present

Research Assistant- Nicolae Simionescu Institute of Cellular Biology and Pathology, Bucharest, Romania, February 2014- present

Research Intern- Nicolae Simionescu Institute of Cellular Biology and Pathology, Bucharest, Romania, October 2013- January 2014

FP7 project assistant- National Authority for Scientific Research, Bucharest, Romania, August 2012- June 2013

Intern- National Authority for Scientific Research, Bucharest, Romania

Courses and specializations

1. **Researcher Connect Online** programme, November 13-23 2023, British Council
2. **“9th LAS EU FUNCTIONS Course”** (FELASA certified, functions ABCD), National and Kapodistrian University of Athens, Greece, September 11-22, 2023
3. Training School **Advancing skills in 3D skin and epidermal biology computer modelling**, July 10-12, 2023 (Cost action CA21108- European Network for Skin Engineering and Modeling)
4. **Games of Science**, University of Bucharest, Romania, March 9-10 2023

5. **Practical training stage on exosomes isolation and characterization-** UMC, Utrecht, the Netherlands, August 2018, Supervisor: Magdalena Lorenowicz, PhD.
6. **SciFi: from Scientists to Innovators for Industry**, EIT Health, September –November 2022
7. **Drug Development Product Management Specialization-** UC San Diego, USA via Coursera;
8. **Basics of Extracellular Vesicles**, University of California via Coursera;

Awards

- Second Prize at the Poster Session of the COST Training School on Advancing skills in 3D skin and epidermal biology computer modelling, July 10-12, 2023, Univ. of Surrey, UK (Cost action CA21108- European Network for Skin Engineering and Modeling)
- L’Oreal UNESCO National Fellowship for Women in Science, 13th Edition, 2022
- Second Prize at the Poster Session of the 37th Annual Scientific Session of the Romanian Society for Cell Biology, June 20-23, 2019, Constanta, Romania;
- Third Prize at the PhD Students Mini symposium of the 35th Annual Scientific Session of the Romanian Society for Cell Biology, June 7-11, 2017, Iassy, Romania.

Scientific papers

- **16 ISI papers- 4 as main author**
- **5 paper awards by UEFISCDI:** 1. PN-II-RU-PRECISI-2015-9: PMID: 25985154; 2. PN-III-P1-1.1-PRECISI2018-21777: PMID: 29023373; 3. PN-III-P1-1.1-PRECISI2018-21924: PMID: 27943613; 4. PN-III-P1-1.1-PRECISI-2019-34158: PMID: 30044046; 5. PN-III-P1-1.1-PRECISI-2020-75080: PMID: 32666712

Book chapters

- Rosca, AM., Tutuianu, R., & Titorencu, I. (2020). Advances in Skin Regeneration and Reconstruction. In Frontiers in Stem Cell and Regenerative Medicine Research: Volume 9 (pp. 143-187), Bentham Science Publishers;
- Rosca, AM., Tutuianu, R., Ghetu, D.M., Titorencu, I. (2024). Mesenchymal Stromal Cells for Wound Healing Therapy: From Expectations to Reality. In: Haider, K.H. (eds) Handbook of Stem Cell Applications (pp. 939-976), Springer, Singapore.

Patents

- Albu Kaya MG, Lascar I, Stancu I-C, Titorencu I-D., Zamfirescu D-G, Zegrea I, Marin S, Lungu A, Nitipir C, Tutuianu R, Simionescu M. Stratified porous scaffolds for the personalized treatment of difficult wounds and the process for production there of OSIM A/ 2017 00753 (2022)- Gold Medal Award at the Traian Vuia International Salon of Inventions and Innovations, Timisoara, October 8-10, 2022
- Titorencu I, Rosca AM, Iacomu MD, Tutuianu R et al. Composite polymeric hydrogels with antibacterial and healing properties and process for obtaining them, State Office for Inventions and Trademarks, A/00370/26.06.2021 (patent application).

Research projects

Collaborator in 9 national funded research grants: **1. THERAGENLIV**- Enhancing the endogenous anti-oxidant and cholesterol removal potential by gene editing in fatty liver disease; pre-clinical studies, PNRR 197/2022; **2. FibroTher**- Enhancing the paracrine properties of fibroblasts by three-dimensional aggregation for chronic wounds therapy, PN III TE-2021 149/2022, **3. BioMimCells** - Optimization of human mesenchymal stem cells interaction with innovative biomimetic structures for tissue engineering, PN III PED 621/2022, **4. PROSKIN**- Mesenchymal stromal cells contribution to the reepithelialization process of biomimetic skin cultures by differentiation and paracrine factors, PNIII TE 3/2018; **5. NANOLIFE**- Bioactive Nanostructures for Innovative Therapeutic Strategies, PN III PCCDI 45/2018; **6. Zettaskin**- Rational design and synthesis of bioactive smart scaffolds for the personalized treatment of acute and chronic wounds, PN II PCCA 201/2014 **7. Osseopromote**- Multifunctional coatings for load bearing implants made of a novel titanium-based alloy, PN II PCCA 212/2014; **8. ComTIsM**- Ischemic tissue engineering by combinatorial transplant: piecing together the puzzle to gain mutual benefits for graft survival and host tissue repair, PN II TE 83/2014; **9. THERION**- Preclinical model of cell therapy employing protein tyrosine phosphatase-microRNA interplay to optimize neovascularization, PN II PCCA 79/2012. Actively participating in the grant writing for 2 projects: NANOLIFE and PROSKIN.

Membership in Academic Professional Associations and Societies

Romanian Society for Cell Biology