Elucidation of the migratory behaviour of the corneal endothelium

Miron, A.

APPENDICES

List of Publications

Curriculum Vitae

Acknowledgements

LIST OF PUBLICATIONS

1. Vercammen H, **Miron A**, Oellerich S, Melles GRJ, Ní Dhubhghaill S, Koppen C, Van Den Bogerd B. Corneal endothelial wound healing: understanding the regenerative capacity of the innermost layer of the cornea. Transl Res. 2022 Oct;248:111-127. https://doi.org/10.1016/j.trsl.2022.05.003 PMID: 35609782

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CURRICULUL VITAE

Alina Miron was born on July 9, 1982, in Iasi, Romania. After graduating from one of the most prestigious high schools in Romania, Costache Negruzzi National College, she decided to study Computer-Programming at the Alexandru Ioan Cuza University, the oldest university of Romania, where she received her Bachelor 's degree in 2005. After one year teaching high school computer science, she decided to change her life perspectives and obtained a Master's degree in Molecular Bioengineering in 2009 at the Technical University of Dresden, Germany, under close guidance of Prof. Dr. Dieter Scharnweber. During her master studies she worked as Student Assistant in the groups of Applied Bioinformatics at Biotechnology Center of the TU Dresden (Biotec, Dresden) (Oct. 2008 – Mar. 2009) and Material Surface at Max Bergmann Center of Biomaterials Dresden (MBC, Dresden), Germany (Apr. 2009 - June 2009). Following her passion for Biomaterials Science, she continued her work as a Scientific Assistant in the group of Biomaterial Innovation for Medicine and Technology at MBC Dresden, Germany (Dec. 2009 - Jul. 2011), where she published on the influence of artificial extracellular matrices – strengthened with ligands and growth factors, on cells of osteogenic lineages. Following her dream to work in the pharmaceutical industry she continued the continental journey to The Netherlands, where she hoped to learn about business-model innovation in health. From 2012 to 2014, she followed a practical oriented professional doctorate in engineering to better suit the needs of industry – Professional Doctorate in Engineering at the Delft University of Technology, The Netherlands. She became captivated by tissue culture technologies, while designing an individual project report for a client assigned by the TU Delft, i.e., the Netherlands Institute for Innovative Ocular Surgery (NIIOS) represented at that time by Dr. Marieke Bruinsma. Her main task was to design a cell culture methodology which could be transformed into promising therapies in an attempt to reduce corneal tissue shortage. After a six-month period spent on research to find the best conditions for culture followed by the proof-of-concept validation, she proposed the cell injection therapy to be implemented as a standalone corneal therapeutic procedure. In April 2014, after completing her PDEng programme, she continued her professional career at NIIOS, first as a research scientist and later as Cell Lab Manager. At NIIOS, her research focused on regenerative strategies for the treatment of Fuchs endothelial corneal dystrophy by developing and applying in vitro cell migration assays. Also, as part of the research department, she regularly presents her results on national and international conferences with positive feedback. In 2019, she became associated with the Leiden University Medical Center (LUMC), Leiden, as a PhD student under the guidance of Prof. Dr. M.J. Jager.

Due to her strong believe in quality education, she got involved in the training of eye bankers and cell lab technicians to enrich their research perspectives, and she often inspires them to have the courage to follow their passion. During NIIOS Wetlab courses, she could often be seen next to the international ophthalmologists providing tips and tricks on how to manually prepare one of the most fragile tissues (≈15 micrometers) with minimal cell damage and maximum cell viability. With the NIIOS team, she has high hopes she will actively contribute to developing new therapeutic concepts and clinical strategies for the treatment of corneal endothelial dysfunction in a world in which natural resources will become increasingly scarce and more expensive.

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