

Marius Popescu, M.D., (40), is a Specialist Plastic and Reconstructive Surgeon at the Floreasca Clinical Hospital of Bucharest. Besides his degrees in medicine, Marius holds as well an bachelor degree in Cybernetics and Statistics from the Academy of Economic Studies in Bucharest, and starting with 2015 he enrolled in a Ph.D. programme at University Politehnica of Bucharest, where his doctoral activities revolve around biophotonics topics (Doctoral Project title: "Studies on the Human Integumentary System using Advanced Laser Scanning Microscopy Techniques"). In the frame of his current research activities he is particularly interested in exploiting in tandem complementary optical contrast mechanisms that rely on laser beam interaction with epithelilal tissues in the purpose of tissue characterization, tumour delineation and disease diagnostics. The main investigations techniques employed by Marius in his doctoral studies are Confocal Scanning Laser Microscopy, Second Harmonic Generation Microscopy and Two Photon Excitation Microscopy. He is also interested in applying super-resolution microscopy techniques for sub-cellular imaging of pathological cues that can be linked to cancers. In this regard, Marius is currently involved in a series of experiments that focus on tissue imaging with Apertureless Scanning Near Field Optical Microscopy variants, and correlating near-field information to far-field data collected using advanced laser scanning microscopy tecchniques.

Selected Research Projects in which Marius participated as a Team Member:

- PN-II-PT-PCCA-2011 "New methods and investigations protocols for the early diagnosis, efficient screening, prognostic and therapy of non-melanoma skin cancers based on existing and novel micro & nano optical tools (NANOLASCAN)" (2012-2016)
- PN-II-RU-TE-2014 "Correlation and integration of microscopy and nanoscopy data by advanced computer vision methods (MICRONANO)" (2015-2017)

Publications in Thomson-Reuters indexed Journals (ISI):

- Dragoi, I. C., Stanciu, S. G., Hristu, R., Coanda, H. G., Tranca, D. E., **Popescu, M.,** & Coltuc, D,. Embedding complementary imaging data in laser scanning microscopy micrographs by reversible watermarking. *Biomedical Optics Express*, *7*(4), 1127-1137. (2016)
- Stanciu, S.G., Costache, M., Tranca, D.E., Hristu, R., **Popescu, M.,** Stanciu, G.A., Towards Imaging Skin Cancer by Apertureless Scanning Near-Field Optical Microscopy, *UPB Scientific Bulletin: Series A – Applied Mathematics and Physics*, 78(2), 235-244 (2016)
- Zamfirescu, D., Popovicu, C., Stefanescu, A., Bularda, A., **Popescu, M.,** Zegrea, I., ... & Lascar, I., Vascularized bone marrow transplantation model in rats as an alternative to conventional cellular bone marrow transplantation: preliminary results.*Transplantation proceedings*, Vol. 43, No. 9, pp. 3549-3551, (2011).
- Zamfirescu, D. G., Owen, E., Lascar, I., Molitor, M., Zegrea, I., **Popescu, M.,** ... & Lanzetta, M. Sentinel skin allograft—a reliable marker for monitoring of composite tissue transplant rejection. *Transplantation proceedings*, Vol. 41, No. 2, pp. 503-508, (2009)