



**Department of Immunology
Medical University of Warsaw
Banacha 1a, 2-097 Warsaw, Poland
Tel. +48 22 599 21 98**



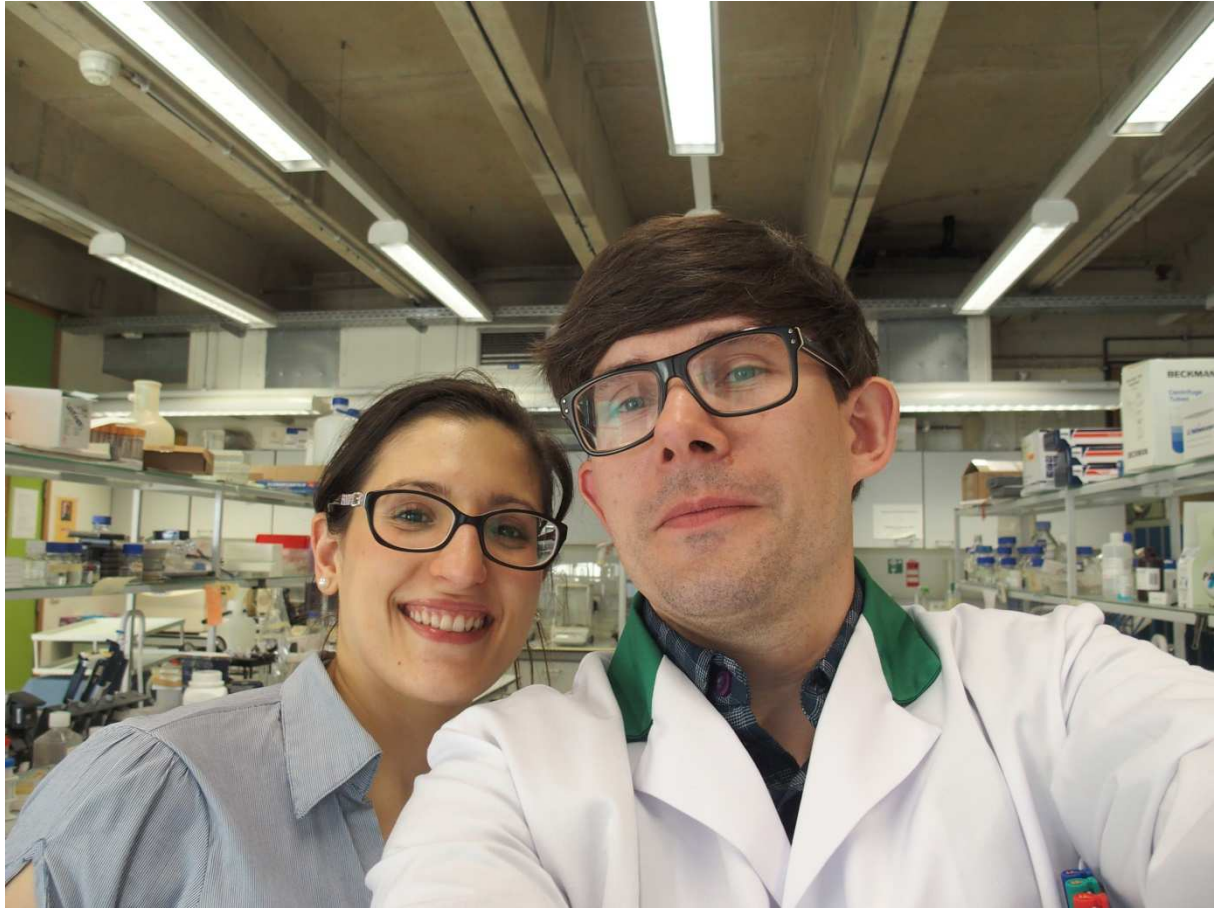
**BASTION – FROM BASIC TO
TRANSLATIONAL RESEARCH
IN ONCOLOGY**

**Report on the visit of Piotr Mrówka in the Laboratory of Cell Death
Research and Therapy, KU Leuven, Leuven, Belgium within
7PR21/BASTION/WP1 (Twinning)**

I visited the Laboratory of Cell Death Research and Therapy (CDRT), KU Leuven, Belgium from April 20th till June 14th, 2015. During my stay in Leuven I conducted research projects in the field of experimental oncology together with a research team led by prof. Patrizia Agostinis. My visit was a continuation of previous fruitful scientific exchange between Medical University of Warsaw and CDRT, KU Leuven.

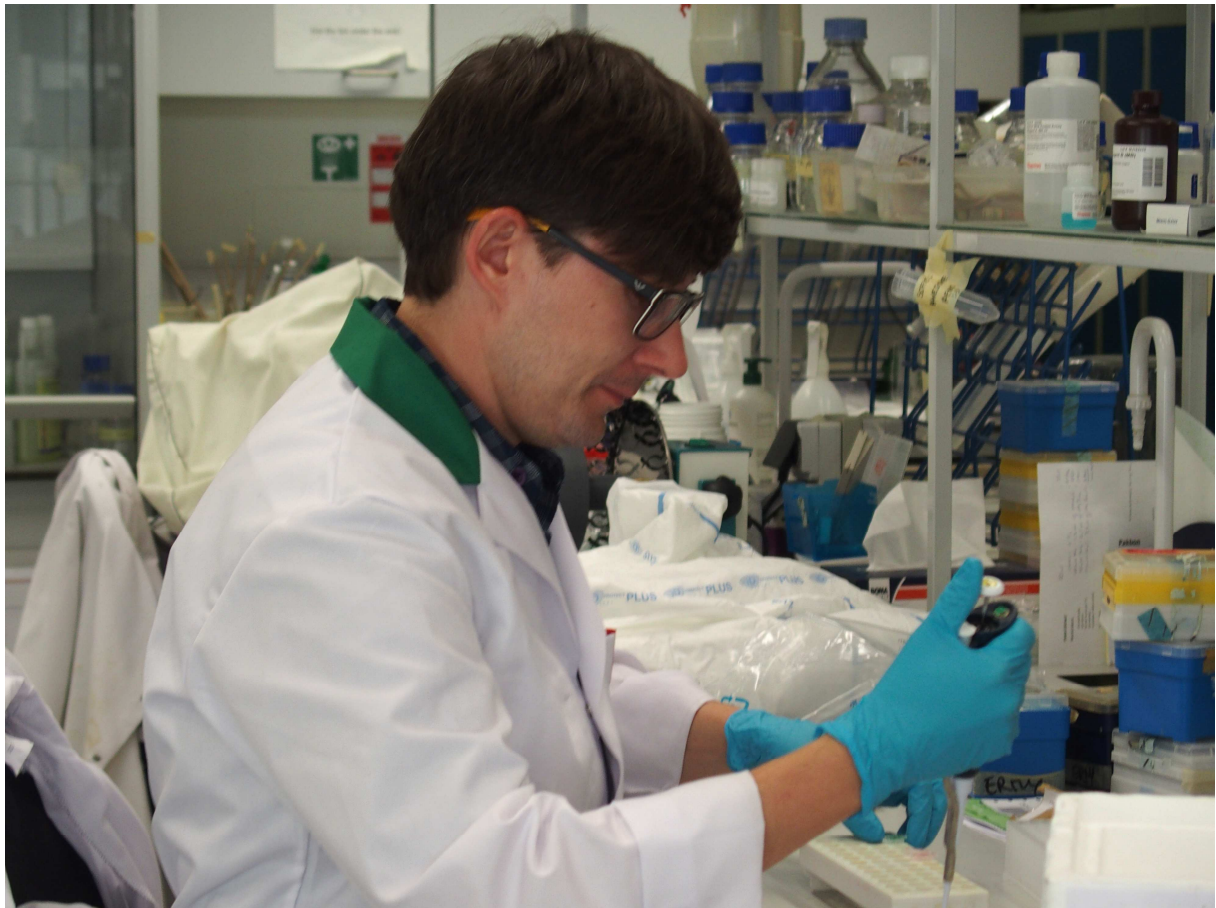
Prof. Agostinis' research interests include molecular mechanisms of resistance of cancer cell to the therapy, autophagy, cell death pathways, endoplasmic reticulum stress, immunogenic cell death and oxidative stress. During my stay in prof. Agostinis' lab I participated in the on-going project concerning the role of BNIP3 protein in melanoma cells biology and its potential to activate immune response.

Induction of effective response to cancer cells is believed to be a promising therapeutic modality especially in case of tumors with high immunosuppressive properties such as cutaneous malignant melanoma. Preliminary studies have shown that among others BNIP3 is able to induce immune system activating processes like calreticulin relocation to the cell surface. BNIP3, an atypical BH3-only member of Bcl-2 family, may potentially serve as a target for novel anti-melanoma therapies.



In the laboratory with Erminia Romano during every-day work.

During my stay in CDRT, KU Leuven I joined the team involved in a project on the role of BNIP3 in modulation of immune response. I was directly co-operating with Erminia Romano, MS, a PhD student in prof. Agostinis group, and was responsible for both planning and performing experiments elucidating the influence of BNIP3 activation and silencing on melanoma cells itself and on immune cells response in contact with melanoma cells or their secretion products.



Me performing a phagocytosis assay.

My work in CDRT Laboratory enabled me to learn and practice several laboratory techniques that were not performed in my home laboratories before, including cell migration assay, phagocytosis assay, colony forming assay, just to name a few. Thanks to the experience I gathered I will be able to introduce some of them in my home laboratories.

Apart from a valuable experience in laboratory operations I also participated in scientific meetings held by the CDRT Laboratory and other groups in Campus Gasthuisberg that were focused on discussion of the results obtained by our team and others. I also participated in Oncoforum conference at KU Leuven. What is more, I had a unique opportunity to observe organization of work in laboratories and facilities at KU Leuven. Taken together, my visit was a great opportunity to make progress in my research, learn new techniques, exchange ideas and to tighten cooperation between our teams.