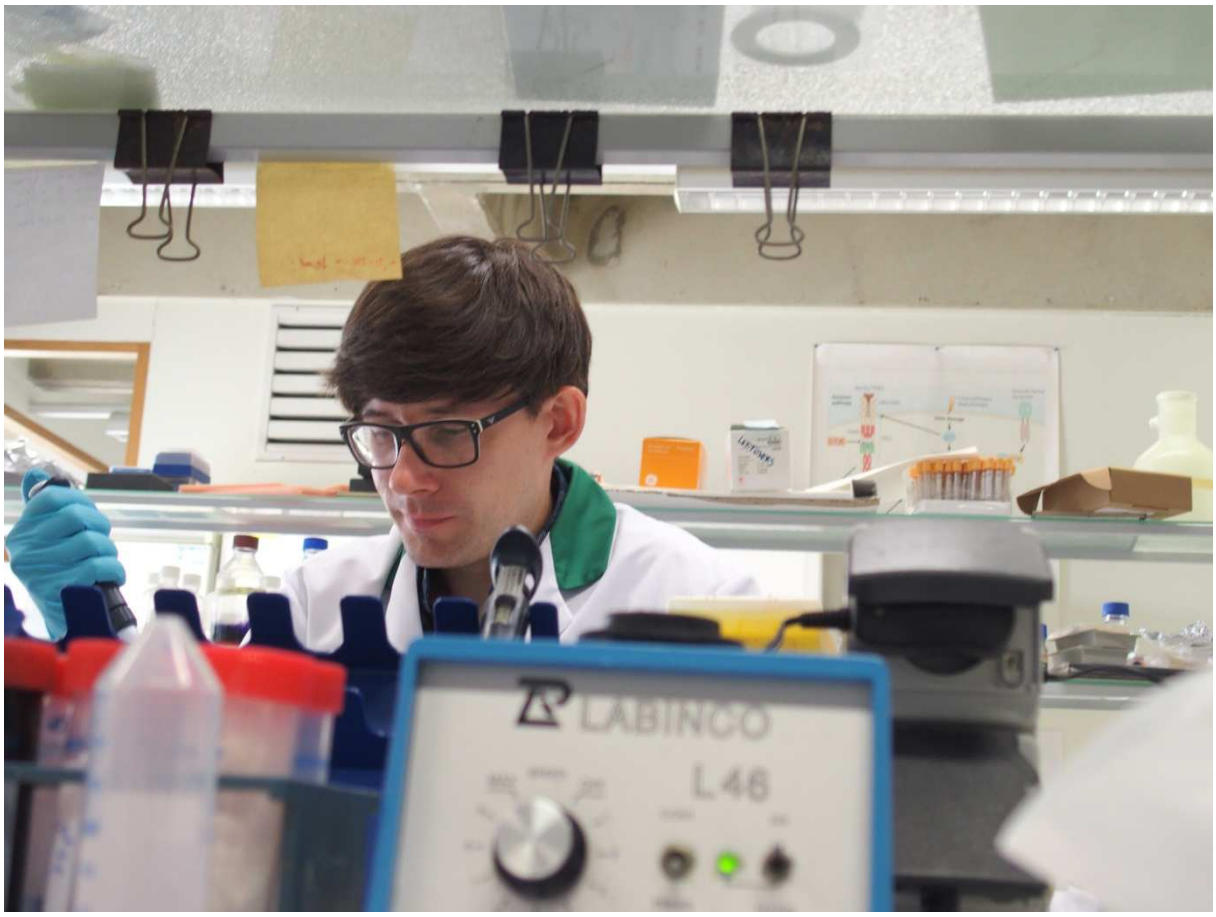
Department of Immunology
Medical University of Warsaw
Banacha 1a, 2-097 Warsaw, Poland
Tel. +48 22 599 21 98

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 July 5th till August 9th, 2015. During my stay in Leuven I conducted research projects in the field of experimental oncology together with a research team led by prof. PatriziaAgostinis. This visit was my second in prof. Agostinis' Laboratory and it was a direct continuation of my previous stay.

As during my first visit in CDRT I continued my fruitful cooperation with Erminia Romano, MS a PhD student in Prof. Agostinis' team on project concerningthe role of BNIP3 protein in melanoma cells biology and its properties to potentially modulate immune response to melanoma cells. To achieve that goal we were using BNIP3 knock-down cellsand cells with induced BNIP3 when cultured under hypoxia. We were looking for changes in immune response to these cells when compared to control cells with basic level of BNIP3. As BNIP3 is, according to previous experiments, modulate secretion profile of cells, we were also studying conditioned media produced by our cells.



Preparing melanoma cells for injection into theyolk sac of zebrafish larvae.

One of the major experiments I had a chance to participate during this short stay was immune cells migration/attractiontest in zebrafish *in vivo* model. Melanoma cells were injected into the yolk sac of transgeniczebrafish embryos3 days post fertilizationwith labeled neutrophils and macrophages emitting green and red fluorescence, respectively. Localization and eventual migration of the immune cells to the place of deposition/injection of melanoma cells were observed under the fluorescent microscope. This unique opportunity to learn zebrafish model of immune system response to cancer cells will be very rewarding in my future scientific work.

Although zebrafish experiments were the most important experience I participated in, I had also the opportunity to continue my previous work. This visit was very helpful as it allowed me to finalize some sets of experiments.

In the zebrafish laboratory.

As during the previous visit I participated in weekly meetings with members of the scientific team to discuss the progress in our studies and to plan our future research and collaboration. In summary it was a great opportunity to exchange ideas and to tighten cooperation between our teams.