



From Basic to Translational Research in Oncology

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

From September 11th till December 15th, 2013 I visited the Laboratory of Cell Death Research and Therapy (CDRT), KU Leuven, Belgium. My visit was coordinated under the twinning agreement between the Medical University of Warsaw and the KU Leuven within WP1 (Task 1.2).



Magdalena Gabrysiak and Shaun Martin at the entrance to Gasthuisberg Hospital.

Professor Patrizia Agostinis is a head of the Laboratory of Cell Death Research and Therapy. Her research group focuses on mechanisms of cell death induced by various drugs and treatment

modalities. They are experts in the field of endoplasmic reticulum stress and immunogenic cell death, especially in the model of human melanoma.

The main goal of my visit was to become familiar with techniques used to analyse different forms of cell death. I employed such techniques as flow cytometry (Annexin V staining, cell cycle analysis) and Western blotting to determine survival and cell death mechanisms in cells subjected to various treatment modalities such as irradiation, proteasome inhibitor bortezomib or photodynamic therapy (PDT). Moreover, I had the opportunity to learn exosomes purification with use of ultracentrifugation. We aimed to determine whether exosomes isolated from cells subjected to various treatments could induce cell death after incubation with untreated cells.



Magdalena Gabrysiak while preparing cells for exosome purification

Beside planning and performing experiments, I had many opportunities to participate in scientific meetings held by the CDRT Laboratory and other groups, which enabled me to further broaden my knowledge in cell death field. Moreover, I had an opportunity to present and discuss my own results with the whole team, which resulted in developing new ideas that I could further apply in Poland.