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

**Report on the visit of Dr Beata Pyrzynska at the Cancer Research Center of
Marseille (CRCM), University of Mediterranean, France, within the
7PR21/BASTION/WP1 (Twinning)**

Visitor: Beata Pyrzynska, PhD

Hosts: Daniel Olive MD, PhD and Cyril Fauriat, PhD

Laboratoire d'Immunologie des Tumeurs et Centre de Recherche en

Cancerologie de Marseille, INSERM, Institut Paoli Calmettes, Marseille, FRANCE

Dr Beata Pyrzynska, experienced post-doctoral researcher at the Department of Immunology, Medical University of Warsaw, participated in the Twinning Programme of the BASTION project between June 25th and July 24th, 2015. The visit took place at the Cancer Research Center of Marseille (CRCM), affiliated to Inserm and located in the campus of Institut Paoli-Calmettes (IPC). During her stay at CRCM she collaborated with Dr Cyril Fauriat from the research group of Prof. Daniel Olive.



Dr B. Pyrzynska and Dr C. Fauriat at CRCM, Marseille, France

Two main research goals were achieved during the visit of DrPyrzynska'sinCRCM:

- 1) Estimation of the effect of FoxO1 and FoxO3 transcription factors on the expression of ligands for both the activating and inhibitory receptors of Natural Killer cells (NK cells). The experiments were performed with Raji and SU-DHL-4 cells lines modified by knockdown of FoxO1 or FoxO3 using CRISPR/Cas9 technology. Level of ligands on the surface of tumor cells was analyzed using BD FACSCanto II Flow Cytometer.
- 2) Optimization of transduction protocol for NK cells in order to modify them with CRISPR/Cas9 technology. The vector pLenti-CRISPRv2 was used to produce the lentivirus and transduce the NK cells followed by puromycin selection.



Dr B. Pyrzynska in cell culture room (left) and in FACS room (right) at CRCM, Marseille, France