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

**Report on the stay of Dr Michał Świerniak at the University of Ferrara, Italy, within the  
7PR21/BASTION/WP1 (Twinning, T1.6)**

From November 22th till December 6th, 2014 I visited the research group of Professor Stefano Volinia at the University of Ferrara, Italy.

During my two weeks stay I was working on analysis of the Next Generation Sequencing (NGS) data of patients diagnosed with the acute myeloid leukemia (AML). My analyses were focused on detect and annotation of circular RNAs (circRNAs). I have tested several approaches to optimize several steps of circRNAs detection, including aligning reads to the human genome, splitting unmapped reads to obtain anchors from both ends, filtering, annotating and normalizing obtained results.

I have analyzed over 100 AML samples and obtained potential new circRNAs that will be validated in Ferrara.

Prof. Volinia is an expert with great experience in NGS analysis so, apart of above research, I have great opportunity to discuss with him other kinds of NGS data based applications such as quality control, gene expression profiling, variant discovery, targeted resequencing and others.