



From Basic to Translational Research in Oncology



**Report on the visit of Tomasz Stokłosa in the Department of Internal  
Medicine III, University of Ulm, Germany  
within 7PR21/BASTION/WP1 (Twinning)**



**Dr. Tomasz Stokłosa at the entrance to the University Hospital, University of Ulm**

Between August 22<sup>nd</sup> and 31<sup>st</sup> 2013 I visited the Department of Internal Medicine III in University of Ulm, Germany. This short visit was coordinated under the twinning agreement between the Medical University of Warsaw and the University of Ulm in WP1 (Task 1.1) and was strictly connected to the visit of Eliza Głodkowska-Mrówka from my team (see separate report).

Our team is actively collaborating for last 3 years with professor Lars Bullinger, one of best known experts in the field of genetics in haematological malignancies. His publication track include papers in *New England Journal of Medicine*, *Cancer Cell*, *Journal of Clinical Oncology*, *Blood*, *Leukemia* and other top scientific journals. His research group is interested

mainly in genetics of acute myeloid leukemia but also in chronic lymphocytic leukemia and chronic myeloid leukemia. His research group is proficient in advanced genetic techniques including: gene expression profiling (RNA sequencing), DHPLC-based mutation screening (WAVE System), Matrix-CGH, LOH analysis (SNP microarrays) and miRNA expression profiling (oligo microarray, real-time PCR) and recently also next-generation sequencing (NGS).

Our project is focused on the chronic lymphocytic leukemia (CLL) pathogenesis and targeted treatment. There are several observations in the recent literature showing that tyrosine kinase inhibitors (TKI) might be effective in CLL, however detailed mechanisms of action and potential markers of sensitivity to these drugs are missing. Major aim of our project is to characterize genes involved in response to these promising novel drugs for CLL in order to define group of patients who may benefit from such treatments. Therefore, we planned to employ gene expression profiling (GEP) analysis to investigate potential pathways and targets. However, since recently Bullinger's team launched RNA sequencing on Illumina platform, thanks to their experience and potential, we were able to add our samples to the RNAseq experiment which generate much more data and learn how to work with such data.



**Prof. Lars Bullinger's and Dr. Tomasz Stoklosa in the cytogenetics lab looking at FISH (fluorescence in-situ hybridization) slides (Department of Internal Medicine III; University of Ulm).**

My short visit was a great time to discuss obtained results and to plan ahead for the future projects and collaboration.