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BASTION - FROM BASIC TO TRANSLATIONAL RESEARCH IN ONCOLOGY

Report on the stay of Dr Małgorzata Firczuk at the Department of Neurological, Neuropsychological, Morphological and Movement Sciences, Medical University of Verona, within the 7PR21/BASTION/WP1 (Twinning)



Prof Vattemi, Dr Firczuk, Dr Guglielmi at the Laboratory of Neuropathology, Verona.

Between 28th July and 10th August 2013 I had visited Laboratory of prof Gaetano Vattemi, working at the Department of Neurological, Neuropsychological, Morphological and Movement Sciences, Medical University of Verona, Italy. Prof Vattemi is working in the field of muscle disorders. Prof Vattemi has an important contribution to the characterization of a selection of muscle diseases such as dermatomyositis, polymiositis, inflammatory miopathies, myofibrillar myopathies, sporadic inclusion body myositis, and Brody Disease. He is a clinical neurologist working at the Section of Clinical Neurology of the Hospital Borgo Roma

in Verona. The group of prof Vattemi has direct access to clinical material and their research is predominantly based on patient's muscle biopsies.

The main goal of my two-weeks stay in Verona was to get acquainted with the research projects conducted by prof Vattemi's Group, get familiar with their laboratory techniques, and to discuss possibilities of common interests and future collaboration.

During my stay in prof Vattemi's Laboratory I had an opportunity to assist or perform various laboratory techniques such as immunostaing of frozen sections of muscle biopsies, mioblasts cell culture, 2-dimensional electrophoresis of lysates from muscle tissue, preparation of samples for electron microscopy analysis.

Importantly, during broad discussions on our research interests we focused on a common topic involving the role of protein folding defects in pathogenesis and diagnosis of muscle disorders. Indeed, protein aggregates are associated with a wide variety of muscle disorders. We had planned preliminary experiments to investigate markers of endoplasmic reticulum stress in muscle biopsies collected from patients with myofibrillar myopathies, a collection of which is already available at prof Vattemi's Laboratory. Further, we would like to do immunostaing for major endoplasmic reticulum chaperones to investigate their expression level and ultra-structural localization in frozen muscle sections. If we obtain promising results, we are planning to continue the collaboration and work on joint grant application.



Dr Firczuk analyzing results of 2D-electrophoresis