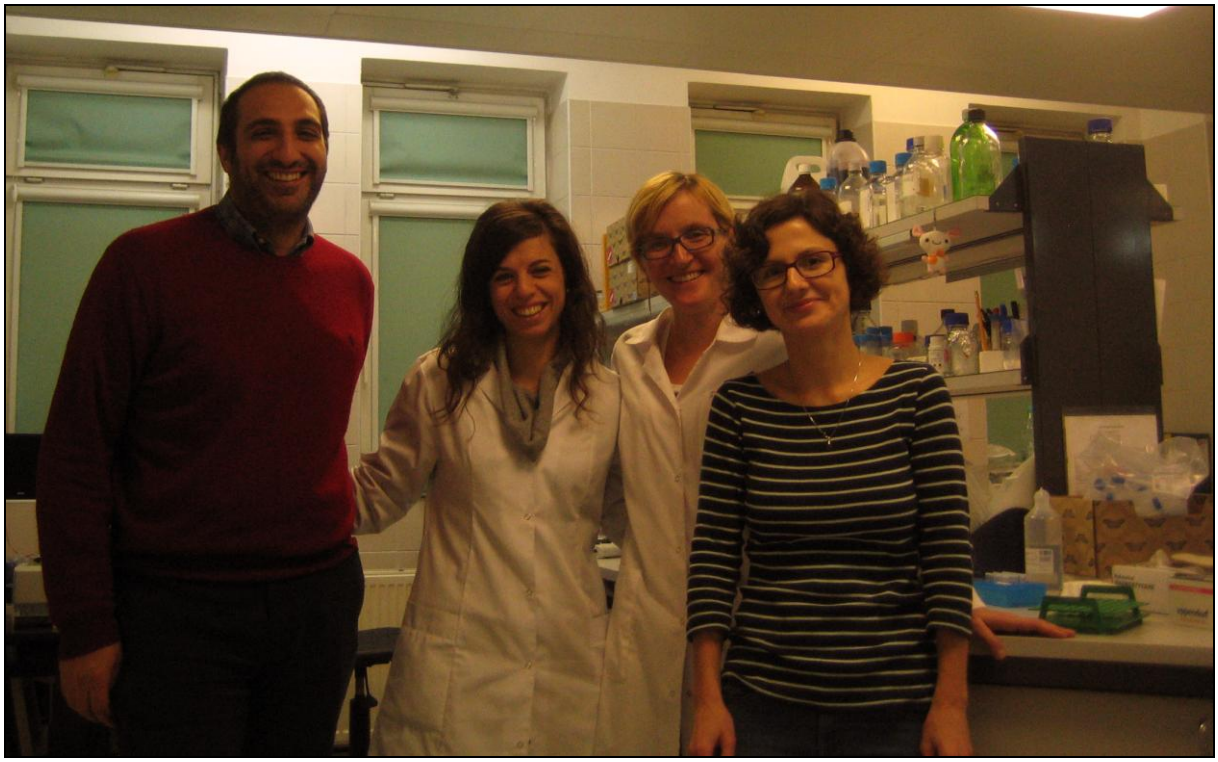
MEDICAL UNIVERSITY OF WARSAW
Department of Immunology, Warsaw, Poland

BASTION
FROM BASIC TO TRANSLATIONAL RESEARCH IN ONCOLOGY

UNIVERSITY OF VERONA
Department of Neurological and Movement Sciences, Verona, Italy

Report on the stay of Dr Valeria Guglielmi at the Department of Immunology, Medical University of Warsaw, Poland within the 7PR21/BASTION/WP1 (Twinning)



Dr Vattemi, Dr Guglielmi, Dr Nowis and Dr Firczuk at the Department of Immunology, Warsaw.

I am a post-doctoral fellow at the University of Verona, Department of Neurology and Movement Sciences and I work in the group held by Dr. Gaetano Vattemi. Our research activity is focused on the characterization of the pathogenic mechanisms of skeletal muscle diseases and in the identification of biochemical markers that could be useful in the diagnosis of these disorders.

From October 26th till November 23rd, 2013 I visited the Department of Immunology, Medical University of Warsaw (MUW), Poland and I carried out research activities together with Dr. Dominika Nowis and her group members, in particular with Dr. Firczuk. Our collaboration with Dr. Nowis arose from the common interest to study the biological effects of a proteasome inhibitor on skeletal muscle

and primary myoblasts and myotubes and thanks to our fruitful collaboration we already get some interesting results.

My four-week stay in Warsaw was a good opportunity to discuss with Dr. Nowis, Dr. Firczuk and Dr. Vattemi (the latter visited MUW in the same period) about our on-going collaborative project and to plan some final experiments to conclude our joint study. Moreover during my stay I have been involved with the research activity and laboratory techniques performed at the Department of Immunology. I get familiar with HeLa cell culture and transfection using the GeneJuice Transfection Reagent. In particular, I transfected HeLa cells with a previously prepared plasmid expressing *wild type* or mutated myotilin in order to evaluate the effect of the mutation on protein aggregation. I also had the opportunity to set up a culture of primary human myoblasts which have been previously isolated in Verona and to perform pilot transfection experiments using the Nucleofection method to study the efficiency of this technology for the transfection of primary human myoblasts. Moreover, I worked at the cloning of sarcalumenin, a muscle-specific protein that play a role in the calcium re-uptake from the cytoplasm to the lumen of the sarcoplasmic reticulum, to perform experiments to better characterize its biological functions and interactions with other muscle proteins involved in calcium homeostasis.

During my stay I took part to the weekly meeting at the Department of Immunology and, together with Dr. Vattemi, I had the opportunity to give a seminar about our on-going research projects in order to find out some common scientific interests with members of the Department of Immunology. Now, we are collaborating also with Dr. Tomasz Stokłosa to perform whole exome sequencing in some patients with skeletal muscle disorders of unknown causative gene.

Dr Firczuk and her husband, Dr Guglielmi and Dr Vattemi at the Maly Belgrad restaurant in Warsaw.