CNR NANOTEC INSTITUTE OF NANOTECHNOLOGY

Seminars @ NANOTEC

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Uncoding the mechanisms underlying skeletal muscle homeostasis

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Muscle homeostasis is the result of a delicate balance between anabolic and catabolic processes, which if altered can lead to debilitating conditions. Since my PhD studies, my research activity focuses on defining the molecular mechanism underlying skeletal muscle anabolism, during skeletal muscle regeneration, or catabolism, in pathophysiological conditions, including neuromuscular diseases or cancer cachexia. In particular, in the last 10 years, the study of the epigenetic factor Histone deacetylase 4 (HDAC4) in skeletal muscle response to stresses is the main goal of my research group. In my talk, I will briefly overview my scientific carrier and, in the last part, I will show our recent, yet unpublished, findings on HDAC4 functions in Duchenne Muscular Dystrophy.

Short Bio: Viviana Moresi is a Molecular Biologist, whose research interests concern skeletal muscle homeostasis in physio-pathological conditions. She started, as an undergraduate, by studying Arabidopsis Thaliana with molecular biology approaches, and then moved to mammals during PhD, dissecting the mechanisms underlying skeletal muscle atrophy and regeneration, mainly by means of histological and cell biology approaches. Then, she moved to the United States, enjoying Prof. Eric N Olson laboratory with a postdoc position, reconciling her background in molecular biology with acquired skills in murine skeletal muscle. There, she contributed to clarify how epigenetics, and in particular histone deacetylases and micro-RNAs, finely regulate gene expression upon different stress responses or during muscle development. Back to Italy in 2011, she built her own research group at the University of Rome La Sapienza, attracting numerous grant opportunities, mentoring undergraduate and PhD students. Recently, she was enrolled as Researcher at the National Research Council, Institute of Nanotechnology in Rome, where she continues my research projects hosted at La Sapienza.

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