

Bollettino Settimanale

Lunedì 12 febbraio 2024	Martedì 13 febbraio 2024	Mercoledì 14 febbraio 2024	Giovedì 15 febbraio 2024	Venerdì 16 febbraio 2024
<p>AULA CONVERSI ore 14.00 SEMINARIO ALTRO</p> <p>The multiple functions of Histone Deacetylase 4 in skeletal muscle homeostasis</p> <p><i>Viviana Moresi (CNR-NANOTEC, Sede di Roma Sapienza, Dip.to SAIMLAL)</i></p> <p>"The multiple functions of Histone Deacetylase 4 in skeletal muscle homeostasis" Skeletal muscle homeostasis is the ability of the tissue to maintain stability, and it is guaranteed by a dynamic turnover between net protein synthesis and degradation. Numerous external stimuli regulate such delicate balance and a class of enzyme, the histone deacetylases (HDACs), mediates many of the cellular responses to external stimuli. Among HDACs, HDAC4 is able to shuttle from the nucleus to the cytoplasm in response to external stimuli: while in the nucleus it participates to the transcriptional regulation of gene expression by deacetylating histone tails and transcription factors, its role in the cytoplasm has not fully elucidated yet. In the last decade, we identified many functions of HDAC4 in skeletal muscle, by means of genetically modified mice. HDAC4 is a stress-responsive factor that mediates different responses upon distinctive stimuli, such as muscle denervation or injury. Important roles have been identified also in the context of genetic diseases, including Amyotrophic Lateral Sclerosis and Duchenne Muscular Dystrophy. Thanks to these studies, we are now investigating a possible gene therapy approach to ameliorate skeletal muscle morphology and function in dystrophic mice."</p>				