DOWN SYNDROME: NEW PERSEPCTIVES FOR THE CARE?

Comparative studies in Down syndrome (DS) patients have shown that the expression of several genes, not just those mapping on chromosome 21, are dysregulated. Proteostasis, that is the balance between protein synthesis and degradation, is essential for cellular health. The non-specific dysregulation of this balance has been found to be crucial in neuropathological syndromes, like fragile X, Alzheimer, and Parkinson; it may also play a role in DS. This very recent Science paper shows that in mouse models for Down syndrome treatments aimed at restoring this balance results in the rescue of the synaptic plasticity and long-term memory deficits. This finding opens up new perspectives for the cure of DS.