Cardiotrophin 1 shows promising results for treatment of obesity and metabolic syndrome

14.09.2011 - Scientists from the Center for Applied Medical Research (CIMA) of the University of Navarra (Spain) have discovered that cardiotrophin 1, a protein synthesized by muscle cells and adipose tissue, has a marked effect on fat and glucose metabolism. "These new findings add to those we already know on this compound such the anti-ischemic and cytoprotective effects showed in acute liver damage and solid organ transplants gives CT-1 great possibilities to be developed in various serious conditions", commented Pablo Ortiz, CEO of Digna Biotech.

The study was published in Cell Metabolism and further details were described in SciBX, the Bio-century/Nature publication. The researchers found that the administration of cardiotrophin 1 accelerates the elimination of fat from the adipose tissue and increases the rate at which fat is burnt in muscles. Treatment of obese and diabetic mice with cardiotrophin 1 increases energy expenditure, reduces food intake and corrects obesity and diabetes. Investigators noticed that, in addition to its effects on fat metabolism, cardiotrophin 1 promotes the entrance of glucose into the cells and increases the sensitivity to insulin. The investigation has been led by M. Bustos, J. Prieto and MJ Moreno-Aliaga at CIMA.

Cardiotrophin 1 is co-developed for its use in organ transplantation and tissue regeneration by Digna Biotech and Biotecnol (The Consortium). Both of the companies signed an Exclusive License and Option Agreement with Genentech, Inc on September 2009.

Pablo Ortiz remarked: "Cardiotrophin 1 showed a very interesting effect on fat metabolism which deserves to be explored in a clinical setting. We are ready to recruit healthy volunteers in the Phase I trial before the end of the year. Phase II in liver resection is scheduled for the second quarter of 2012. We are also confident that these new applications and the progress on the clinical development will allow us to forge partnerships with other biopharmaceutical companies to reach the patients as soon as possible".