

International Conference on **Obesity and Weight Loss**

November 6-8, 2017 Barcelona, Spain

Genetics and Epigenetics Markers of Adiposity toward Precision Medicine

Amelia Marti, Morell-Azanza, Ojeda A and Azcona-San Julian

Department of Nutrition, Food Science and Physiology, University of Navarra, Spain

Advances in genetics and epigenetics have resulted in the identification of about 100 and 200 loci respectively, related to human adiposity. Fto gene variants are the most replicated and showed the highest statistical significance. However, despite these advances, the combined effect of genome identified so far account for about 5% of the inherited contribution to obesity risk (40 to 70). These statistics confirm the complex nature of obesity and the need to identify additional factors including (epi) genetic markers and also their interactions with environmental factors. The omics technologies could help to study genetic predisposition (genome), and changes in epigenetics (epigenome), gene expression (transcriptome), proteins (proteome), and metabolites (metabolome) to further improve prevention, diagnosis and treatment of obesity and related complications.

Here I will present some examples of the importance of genetic and epigenetic markers when studying the response to nutritional interventions such as: The Predimed Navarra study (based on a Mediterranean diet pattern in high cardiovascular risk subjects), and the evasion study (a weight loss program for Spanish obese adolescents).

Biography:

Amelia Marti is working as a professor in human physiology, university of Navarra, Pamplona (Spain). Marti has received the silver medal of the British society for nutrition, the Merck & Daphne award, the award of the naos Spanish strategy, the European prize for the best doctoral thesis supervised in obesity. She is an expert in the board of the Spanish society for obesity her research in the field of nutrition and obesity, with more than 229 scientific publications and h Factor=37 (web manager).15 doctoral theses supervised and participation in over 22 research projects.