



Daniela Cota is Research Director at the INSERM, Neurocentre Magendie in Bordeaux, where she leads a laboratory whose work focuses on the neurobiology of obesity.

In her talk, Dr. Cota will illustrate recent work from her lab demonstrating the existence of a hypothalamic bile acids system exerting a protective action in diet-induced obesity. This work shows that central administration of bile acids or of a specific agonist of the bile acids receptor TGR5 decreases adiposity in mice by activating the sympathetic nervous system. Conversely, genetic downregulation of hypothalamic TGR5 expression in the mediobasal hypothalamus favors the development of obesity and worsens established obesity by blunting sympathetic activity. Altogether, these findings identify hypothalamic bile acids-TGR5 signaling as a key mediator of a top-down neural mechanism that counteracts diet-induced obesity.