Neuronal SIRT1 regulates macronutrient preference

Caloric restriction promotes health in multiple organisms by shifting the priority from reproduction to self-maintenance, which causes a coordinate shift in metabolism, from carbohydrate to fat utilization. The health-promoting effects of caloric restriction are partly mediated by SIRT1, which promotes fat utilization in peripheral tissues. Here, we showed that neuronal SIRT1 shifted the diet selection from sucrose to fat, which matched the peripheral metabolic shift. I will describe the molecular mechanisms involved in the regulation of macronutrient selection by neuronal SIRT1.

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