

# Reading: a recent article

Prof.Dr.Nuray ARI, 2018

- [Mol Metab.](#) 2017 May 4;6(9):1052-1065. doi: 10.1016/j.molmet.2017.04.011. eCollection 2017 Sep.
- **The glucoregulatory actions of leptin.**
- [D'souza AM](#), [Neumann UH](#), [Glavas MM](#), [Kieffer TJ](#).

- **Abstract**

- **BACKGROUND:**

- The hormone leptin is an important regulator of metabolic homeostasis, able to inhibit food intake and increase energy expenditure. Leptin can also independently lower blood glucose levels, particularly in hyperglycemic models of leptin or insulin deficiency. Despite significant efforts and relevance to diabetes, the mechanisms by which leptin acts to regulate blood glucose levels are not fully understood.

- **SCOPE OF REVIEW:**

- Here we assess literature relevant to the glucose lowering effects of leptin. Leptin receptors are widely expressed in multiple cell types, and we describe both peripheral and central effects of leptin that may be involved in lowering blood glucose. In addition, we summarize the potential clinical application of leptin in regulating glucose homeostasis.

- **MAJOR CONCLUSIONS:**

- Leptin exerts a plethora of metabolic effects on various tissues including suppressing production of glucagon and corticosterone, increasing glucose uptake, and inhibiting hepatic glucose output. A more in-depth understanding of the mechanisms of the glucose-lowering actions of leptin may reveal new strategies to treat metabolic disorders.