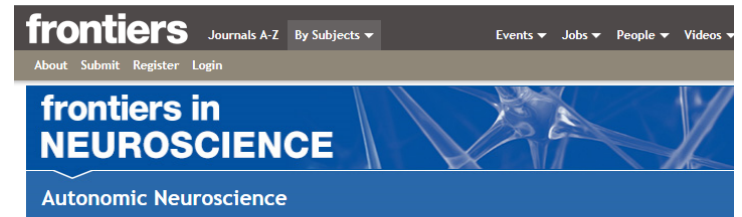


# Central Regulation of Glucose Homeostasis by SIRT1

- Sirtuins are NAD<sup>+</sup> -dependent deacetylases that links calorie restriction and prolonged lifespan following dietary restrictions. Sirtuin 1 (SIRT1) is involved in the regulation of metabolism and plays a role in adaptive responses to high energy states and hypercaloric diets.
- Resveratrol, a SIRT1 activator, reduces hyperglycemia and mediates anti-diabetic actions. Its effect on excitator neurotransmission was investigated.
- Data demonstrated that resveratrol increased spontaneous and miniature excitatory neurotransmission through modulation of ATP-sensitive K<sup>+</sup> channels (K<sub>ATP</sub>) in a PI3-kinase-dependent manner.
- Resveratrol of SIRT1 can contribute to the regulation of the parasympathetic nervous system and thereby alter autonomic function.
- Findings identified a potential cellular mechanism underlying the effect of resveratrol administration into the brain.



Archive

This article is part of the Research Central control of autonomic funct

ORIGINAL RESEARCH ARTICLE

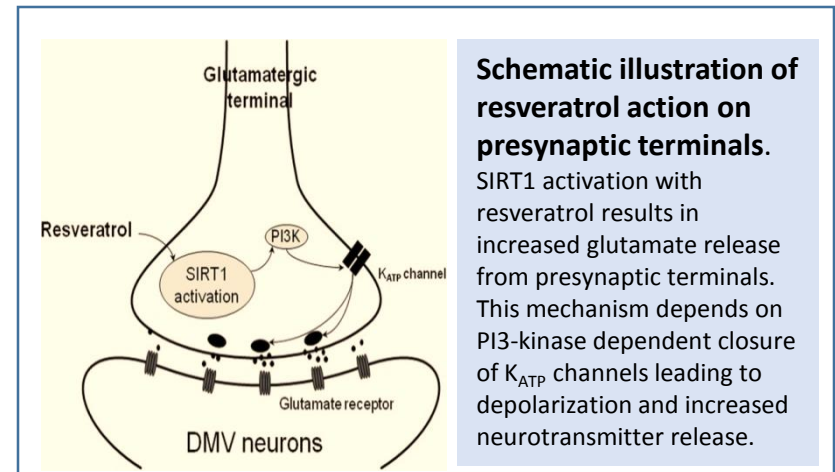
Front. Neurosci., 10 January 2014 | doi: 10.3389/fnins.2013.00270

## Regulation of neurons in the dorsal motor nucleus of the vagus by SIRT1

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