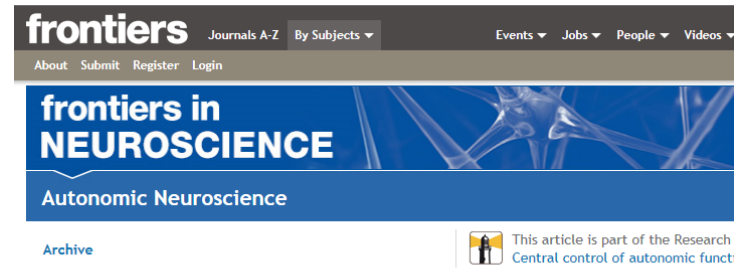


Central Regulation of Glucose Homeostasis by SIRT1

- Sirtuins are NAD^+ -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^+ channels (K_{ATP}) 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.



ORIGINAL RESEARCH ARTICLE

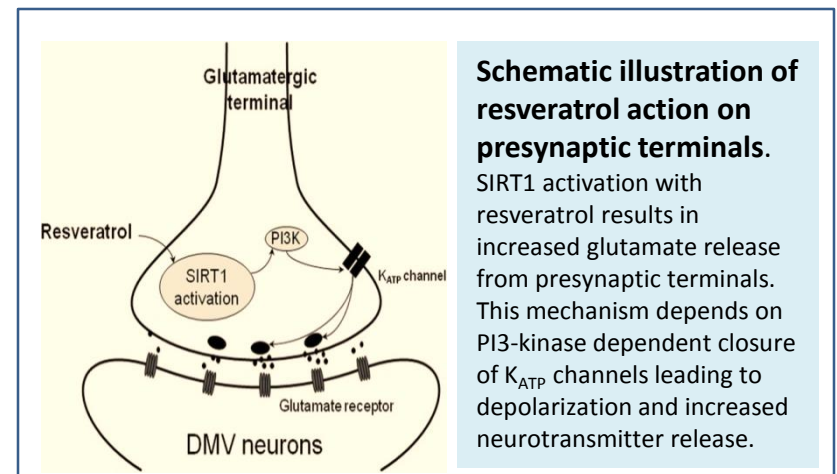
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Regulation of neurons in the dorsal motor nucleus of the vagus by SIRT1

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