GALANIN RECEPTOR/NEUROPEPTIDE Y RECEPTOR INTERACTIONS IN THE CENTRAL NERVOUS SYSTEM

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The presence of Galanin and Neuropeptide Y and/or their receptors in many relevant brain regions related to learning and memory, mood, cardiovascular control and food intake implies that Galanin, and Neuropeptide Y may balance the physiological actions of one another. We will describe the evidence for the existence of Galanin Receptor/ Neuropeptide Y Receptor interactions in several nucleus including the nucleus of the solitarii tract, hypothalamus, dorsal raphe nucleus and amygdala, probably taking place in Galanin Receptor-Neuropeptide Y Y1 Receptor heteromers.

These receptor heteromers may be one key molecular mechanism for Galanin to modulate the function of different types of glia–neuronal networks in the CNS, especially the emotional, metabolic and cardiovascular networks.