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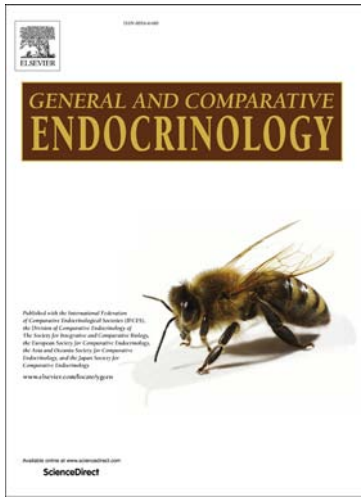

LPLRFamide exerts short-term anorexigenic effects that coincide with magnocellular division of the hypothalamic paraventricular nucleus activation

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LPLRFamide exerts short-term anorexigenic effects that coincide with magnocellular division of the hypothalamic paraventricular nucleus activation

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Abstract:

LPLRFamide is a member of the RFamide peptide family that elicits an anorexigenic effect when centrally injected in chicks although the mechanism mediating this response is poorly understood. Therefore, the purpose of this experiment was to elucidate the hypothalamic mechanism of short-term anorexia after central administration of LPLRFamide in chicks. In Experiment 1 chicks centrally injected with LPLRFamide decreased food intake at 15 min but not 30 min following administration compared to vehicle-injected chicks. For Experiment 2, c-Fos immunoreactivity was quantified in several appetite-associated hypothalamic nuclei and in LPLRF-injected chicks, compared to vehicle-injected chicks, there was an increase in the number of reactive cells in the magnocellular division of the paraventricular nucleus. Lastly in Experiment 3, real time-PCR was performed and hypothalamic proopiomelanocortin (POMC) mRNA abundance was increased in LPRLFamide-injected chicks compared to vehicle-injected chicks. Thus, following central injection of LPLRFamide there is activation of the