

Corticotropin-Releasing Hormone and Urocortin: Redundant or Distinctive Functions?

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Abstract

Neuropeptides play important roles in synaptic transmission. Among them, the peptides of the corticotropin-releasing hormone (CRH) family present interesting features. The two main mammalian peptides of this family, CRH and urocortin (UCN), signal through the same receptors, CRH-R1 and CRH-R2. The question arises as to whether these peptides have redundant or distinctive functions. The fact that CRH and UCN have high affinity for both receptors has hampered the possibility to define the functional contribution of each peptide. Recent studies conducted on mice deficient in CRH, CRH-R1, CRH-R2 and CRH-R1/CRH-R2, as well as in two different UCN-deficient mice, have added relevant information towards the understanding of the role of this peptide family in the CNS. Our new anatomical evidence of UCN expression in the septum will be discussed in this context.

Keywords: UCN-deficient mice; Anxiety; Septum