

Symposium 09

Oxytocin, vasopressin and the social nervous system: evolutionary and clinical perspectives

Chairs:

Carter S, University of Chicago, Chicago, USA

Beery A, UCSF, San Francisco, USA

Two ancient neuropeptides, oxytocin (OT) and arginine vasopressin (AVP), have been implicated in mammalian sociality. This symposium will present a broad view of the behavioral actions of these neuropeptides, drawing on examples from humans and other social mammals. The actions of these molecules are remarkably integrative, with effects on anatomy, physiology and behavior across species that may help to explain certain aspects of mammalian sociality. In general OT encourages sociality. OT also may modulate reactivity to stressors and may help to explain the health benefits of social support, but also the effects of drugs, such as MDMA, that release these peptides. AVP within the central nervous system may be of particular importance in males, possibly helping to explain sex differences in patterns of social behavior, vigilance and arousal. In addition, these peptides can developmentally program the nervous system with long-lasting consequences that may be adaptive or maladaptive, in some cases contributing to mental or physical illness.