
Symposium FA-3
Friday, July 28, 2006

Vasopressin and Individual Differences in Social Behavior

**H.E. Albers, Georgia State University, Atlanta, GA 30303
USA**



Over the last 20 years there has been increasing evidence that peptides in the arginine-vasopressin (AVP) family are involved in controlling social behavior in many species. In mammals, the effects of AVP in circuits of the central nervous system (CNS) that are involved in the regulation of social behavior and emotion appeared to be mediated by the AVP V1a receptor. For example, in hamsters injection of AVP into specific regions of the rostral hypothalamus can stimulate aggression and communicative behavior while injection of selective V1a antagonists into these same regions inhibits these behaviors. The expression of aggression and communication is heavily influenced by many social (e.g., dominance status) and environmental (e.g., photoperiod) factors. We have investigated the hypothesis that these factors influence the expression of social behavior by altering the number of V1a receptors found in CNS circuits that control these behaviors. In a series of experiments we have found that the number of V1a receptors within CNS circuits controlling social behavior differs dramatically depending on the social and environmental factors experienced by an individual. These data support the hypothesis that individual differences in social behavior may be mediated at least in part by the effects of social and environmental factors on the number of V1a receptors in key CNS sites.

Communicating author:

*H.E. Albers, Phone: (404)651-2946, Fax (404)651-3929
email: biohea@langate.gsu.edu*