

P03-267

GENETICS OF THE HYPOTHALAMIC-PITUITARY-ADRENAL (HPA) AXIS - A SYSTEMIC STRESS MODULATOR IN RELATION TO SUICIDAL BEHAVIOUR

D. Wasserman, M. Sokolowski, J. Wasserman

Karolinska Institutet, Stockholm, Sweden

Suicide, a phenomenon characterised by heterogeneous and complex causes affects about one million people each year.

Twin studies, adoption studies and family studies indicate the role of genetic factors in suicidal behaviours. Psychobiological hypotheses regarding suicidal behaviours involve neurotransmitters such as serotonin, norepinephrine, dopamine, and their correlation to psychological functions as well as the dysregulation of the hypothalamic-pituitary-adrenal (HPA) axis. Whereas the genes of e.g. the 5HT system and of the key NA-biosynthesis enzyme, tyrosine hydroxylase, have been studied extensively in this context the genes in the HPA axis have only begun to be investigated.

Our novel results on the genetic variation in the CRHR1 gene in connection to depression and stress among suicidal individuals and in the TBX 19 gene, which is regulated by CRH, suggest that genetic variation in the CRH-mediated regulation of the HPA axis is a factor of importance in suicidality, especially in males with depression.